

MINUTES OF ORAL EVIDENCE

taken before

**HIGH SPEED RAIL COMMITTEE**

On the

HIGH SPEED RAIL (LONDON – WEST MIDLANDS) BILL

Wednesday 15 July 2015 (Afternoon)

In Committee Room 5

PRESENT:

Mr Robert Syms (Chair)  
Sir Peter Bottomley  
Mr Henry Bellingham  
Geoffrey Clifton–Brown  
Mr David Crausby  
Mr Mark Hendrick

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IN ATTENDANCE

Mr Timothy Mould QC, Lead Counsel, Department for Transport  
Mr Timothy Straker, QC, of Counsel

Witnesses:

Mr Martin Tett, Leader, Buckinghamshire County Council

Mr Peter Miller, Head of Environment and Planning, HS2 Ltd  
Mr Tim Smart, International Director for High Speed Rail, CH2M Hill

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**IN PUBLIC SESSION**

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(At 14.00)

1. CHAIR: Welcome back to the HS2 Select Committee. Mr Straker, do you have any questions of Mr Miller?

**Chiltern District Council, Buckinghamshire County Council, Aylesbury Vale District Council and The Chilterns Conservation Board (Cont'd)**

2. MR STRAKER QC: Yes, thank you very much, sir, if I may. Mr Miller, I think I'm right in saying, aren't I, that at one stage there was no tunnel proposed within the AONB at all?

3. MR MILLER: No, I don't think that's right, no.

4. MR STRAKER QC: All right, okay, but at some stage the tunnel came to be put or extended into the AONB. I think you touched upon that this morning.

5. MR MILLER: That's right, yes.

6. MR STRAKER QC: Could we put up, please, 7413(18)? We see there, and we are within the observations made by Natural England here, at 237, if we can just expand that a little, please, that the Environmental Statement had indicated that the extended bored tunnel options, and they specify those, all performed well on environmental grounds compared with option A, the proposed scheme, as they avoided a range of impacts on environmental receptors, which included the reduction of landscape and visual. Just pausing there, the author of this distinguishes landscape and visual as two matters for consideration. Is that right?

7. MR MILLER: Yes, it is the sort of thing we do.

8. MR STRAKER QC: Yes, it is the sort of thing you do. Ecological is another matter, cultural heritage is another matter, noise, community and agricultural impacts within the AONB, and so what is there being drawn attention to is that an extended tunnel, the options B to D, avoided a number of matters.

9. MR MILLER: Yes, that's right.

10. MR STRAKER QC: Those impacts are all there set out. They include a considerable range of matters which also have been raised for consideration for the

Chilterns long tunnel, that is to say the further extension of the Chilterns Tunnel promoted by the petitioners presently before the Committee.

11. MR MILLER: Yes, that's right. I am just trying to read that properly. I am not sure whether that is taking into account the more conventional mitigation that I previously described before lunch.

12. MR STRAKER QC: But we can be confident, can't we, that the extended tunnel as now promoted by the petitioners before this Committee would, just as the extended bored tunnel when it got into the AONB did, carry the same consequence, that is to say a reduction of impact in terms of landscape and visual?

13. MR MILLER: Yes, I am not doubting this. My answer to this is that we have looked at it from a mitigation point of view. I think what I said before lunch is that the issues are limited once you take into account the mitigation that we provided. But there are effects that would be overcome by a tunnel, that is right.

14. MR STRAKER QC: And those effects are of significance aren't they?

15. MR MILLER: They are, to a degree, yes.

16. MR STRAKER QC: They include all of these matters identified within this paragraph spelt out by Natural England ranging from landscape through to agricultural impacts.

17. MR MILLER: Yes, they don't particularly identify what they are talking about in that paragraph. It is quite a sweeping statement and I explained the detail, what is remaining and what is residual in the scheme, and that is what I described this morning.

18. MR STRAKER QC: But the paragraph is plain, isn't it, that there was an avoidance of a range of impacts by virtue of an extended tunnel?

19. MR MILLER: As I say, I don't disagree with that. That's an obvious consequence of putting a tunnel all the way through the Chilterns.

20. MR STRAKER QC: And so Natural England continue within 237, as we see. They say, 'It would seem, therefore, that an extended bored tunnel could provide the most effective means of mitigating the landscape and visual effects on the AONB'.

That, plainly, is an accurate statement, isn't it?

21. MR MILLER: In the way that they come at it, yes. They are not considering the nature of the railway, and our considerations are all about building the railway but yes, you are right.

22. MR STRAKER QC: If we just pause there, as far as the railway is concerned, on the tunnel proposal before this Committee produced by these petitioners the speed of the railway would be something in the order of 320 kilometres per hour, which would match the speed as proposed through the Chilterns at surface level?

23. MR MILLER: I am sorry?

24. MR STRAKER QC: The speed through the tunnel.

25. MR MILLER: In the tunnel?

26. MR STRAKER QC: Yes.

27. MR MILLER: Yes, I guess it would be that sort of thing.

28. MR STRAKER QC: Yes, because somebody has identified that there's plus or minus 10 seconds between the tunnel as proposed and the surface route railway.

29. MR MILLER: I haven't done the maths, so I will take your word for that.

30. MR STRAKER QC: Thank you. So, if we keep on focusing on 237, there is advice given by Natural England as to a need for greater clarity regarding the Environmental benefits and disbenefits of all the extended tunnel options to aid understanding and comparison between them.

31. MR MILLER: I believe we've done that, yes.

32. MR STRAKER QC: Does that belief that you have done that derive at least in part from the commissioning of Arup to explain the emerging approach to landscape on the part of HS2 Limited?

33. MR MILLER: Yes, what I said to this Committee is that this is a continuous process. The Environmental Impact Assessment does not stop just because we produce

documents. We continue to look at the merits of other people's arguments and so it continues.

34. MR STRAKER QC: If we go, please, to the Arup document, and for present purposes I will ask for 7408/402 to be put up, we see that this just records the date, I think, that Arup produced this document for HS2 and I think it is done quite recently in July of this year.

35. MR MILLER: Yes.

36. MR STRAKER QC: No doubt, obviously, they had done some work beforehand. Within this document I am right in saying, am I not, that there is no comparative exercise between a tunnel as mitigation and other forms of mitigation within the AONB?

37. MR MILLER: That's not the purpose of this document.

38. MR STRAKER QC: No, and Arup weren't invited to do any such comparison, notwithstanding the suggestion by Natural England that we have just been looking at?

39. MR MILLER: No, I think that our comparisons have been done beforehand. We've looked at the longer tunnel options and I believe we have made that plain to the petitioners that yes, there are benefits of having a longer tunnel. There are some disbenefits to that and it pushes effects outside of the area of outstanding natural beauty, but we also recognise that there are environmental benefits that accrue and, as I said earlier today, we don't deny that there are those benefits, but they come at a huge price and that is the price of the additional tunnel.

40. MR STRAKER QC: In any event the particular document by Arup did not compare one with the other.

41. MR MILLER: As I say, it is not the purpose of this document to do that. We have done that earlier on in the process and we have made that plain to the petitioners.

42. MR STRAKER QC: I see. Can we just look, if you don't mind, at an aspect of this document 74081. We can see there in circle form a number of ingredients are put into consideration of what is under the label 'landscape'. If we blow that up a little, just

the circle, we can see a variety of matters contained within that ranging from land ownership, which is under the 'cultural, social and heritage', enclosure above that. Sometimes it is difficult to read the particular words but we have 'site, natural' and then, 'aesthetic and perceptual', is it – matters that one can perceive?

43. MR MILLER: Yes.

44. MR STRAKER QC: Yes. It is right to suppose, isn't it, that it is perfectly possible to make a comparison landscape scheme with landscape vision for any given area of land?

45. MR MILLER: This is not the purpose of this document. The purpose for comparison is all to do with the Environmental Impact Assessment scope and methodology and that is part of the Environmental Impact Assessment itself. We consulted on that back in 2012 and then we considered, through the community forum events, the merits of other people's views about this particular scheme. We had looked at the effects of further tunnelling, so what this is trying to describe is what is the next step, not what is required by way of comparison; that has already been done.

46. MR STRAKER QC: Just to track back, though, to my question, if you don't mind, Mr Miller, it is simply this. When one sees a document such as that, and I am talking here about the circle and its ingredients, one can readily appreciate how it is possible, is it not, to do a comparison where one compares a landscape vision for a parcel of land with another landscape vision for a parcel of land by reference to the sort of ingredients that one sees within the circle?

47. MR MILLER: You could do that but it's not the purpose of this document.

48. MR STRAKER QC: And there is no such document produced by HS2 Limited before this Committee, is there, referable to the petitions which are presently being pursued?

49. MR MILLER: I'm not sure what you mean.

50. MR STRAKER QC: There is no such document drawing a contrast between and comparing the two landscapes, that is to say one with the tunnel and one without the tunnel, a surface level railway, before this Committee.

51. MR MILLER: Well, I believe we have addressed that before in the ES.
52. MR STRAKER QC: You say that that is in the ES?
53. MR MILLER: I believe that is correct, sir.
54. MR STRAKER QC: Let's look, if we may, please, at the same document. If we can shift it over a bit to see the text we can notice, can't we, that it has recorded by Natural England here a quotation put into the Arup report, 'The importance attached to landscapes'. We can see that in the text?
55. MR MILLER: Yes.
56. MR STRAKER QC: Yes, and we can notice how one is looking for sympathetic planning, design and management so as to offer a more harmonious link between man and the natural world for the benefit of both?
57. MR MILLER: Yes.
58. MR STRAKER QC: And what one is seeking to do, bearing in mind landscapes being attractive, looking on at the quote, it states, 'diverse and publicly valued, showing that environmental, social and economic benefits can go hand in hand'.
59. MR MILLER: I believe that's correct, yes.
60. MR STRAKER QC: That is a reference, isn't it, to the fact that, as we can come to see, landscape is recognised, the character of the landscape, what happens in the land, is recognised as contributing towards both the environmental matters and social matters and economic matters?
61. MR MILLER: Yes, I believe you can read it like that, yes.
62. MR STRAKER QC: Yes, and if we look on to the next page in the document which HS2 has produced for this Committee, we can see at 48011 on the right-hand side, 'HS2 landscape design will create a positive lasting legacy that responds to the landscape whilst acting as a catalyst to support growth by delivering wide social, environmental and economic benefits'. If we just pause there for a moment, in terms of the comparison between the social benefits gained by surface level railway, compared



with social benefits with a tunnel through the AONB, which does better?

63. MR MILLER: They can both do well. A tunnel will, as we say, overcome all of that. I say that it is overcome at a cost, and I believe that that surface route will accommodate all of those issues in many ways, but there are some residual effects, and I have described those residual effects.

64. MR STRAKER QC: We are talking here about delivering social benefits.

65. MR MILLER: Yes.

66. MR STRAKER QC: So, we have in our mind, please, the social benefits which are deriving to the AONB in consequence of a surface level railway through the AONB and my question is which is better in terms of provision of social benefits, a tunnel or a surface level railway through the AONB?

67. MR MILLER: I say that there is not a lot in it. You can get all of the benefits out of the tunnel, but I think that you can accommodate all of these issues through a surface route and we have demonstrated that through our design.

68. MR STRAKER QC: Have you identified the social benefits to the AONB through having a surface level HS2 running through it with no stops or anything of that sort, of course, within the AONB?

69. MR MILLER: I believe we have looked at the merits of each of the effects and so you might, for example, look at the footpaths. We have said that through construction there will be disruption to the footpaths so I accept that there are issues with that. Ultimately those footpaths will be put back and I believe that those footpaths will be used in the future and, as a consequence, I think that the social issues are taken up through our design.

70. MR STRAKER QC: Here, of course, it is talking about the landscape design of HS2 delivering social benefits. I didn't understand what you were identifying there as a social benefit. Can you identify one?

71. MR MILLER: Well, people use footpaths and I don't think that the scheme is detracting from the footpath network, and ultimately when that comes back into use that

footpath network will be available and that is part of the amenity of the area of outstanding natural beauty. So, I think that's an example of how the scheme is able to accommodate what happens within the AONB.

72. MR STRAKER QC: Can you look on, please, once again in this document, to 74816, please? There, on the right-hand side, we see the heading, 'Time', and we look down and see, 'The HS2 landscape design will, wherever possible, add beauty to the landscape with management in place to ensure that the design will enrich and develop to provide continual enhancement of the landscape over time'. We have seen, of course, this morning a particular viaduct which is proposed. Just help me, please, if you don't mind, as to whether that is going to be an addition of beauty to this particular landscape.

73. MR MILLER: I think that is a matter of debate, obviously. There is a possibility that a well-designed structure can contribute to the landscape. I think we have heard some examples of that and we have also heard some examples of where it doesn't work. So, the answer to that is yes it can if we pursue the design, and the attempt with this document here is to pursue that good design through the design panel approach, and that is what I have described.

74. MR STRAKER QC: Very well. Let's look on to 74097, please, within the document provided by Arup at the behest of HS2 Limited. Can we just highlight the text, 'Impact of High Speed 2 on Misbourne Valley' because Misbourne Valley is a large component part of the area of natural beauty about which we are discussing, isn't it?

75. MR MILLER: Yes.

76. MR STRAKER QC: 'The impact of High Speed 2 on the Misbourne Valley as stated to be, by Arup, will be severe and permanent. At the time of writing, the impact of the current design with a long section on the surface crossing two viaducts cannot be adequately mitigated'. Do those two viaducts include the viaduct we were looking at this morning?

77. MR MILLER: Yes, I believe they do.

78. MR STRAKER QC: So, there we see that it cannot be adequately mitigated.

Does this document provide within it some hint, some clue as to how they might be adequately mitigated?

79. MR MILLER: What I think this document is trying to do is to help stimulate a debate about these issues and that debate is being heard here about whether we can pursue a design for these sorts of schemes which are acceptable in the AONB. I believe we can.

80. MR STRAKER QC: For how long now has it been contemplated that the AONB will have the benefit of these viaducts, which are said not to be capable of being adequately mitigated, running through them?

81. MR MILLER: Our scheme has been like this for some while now.

82. MR STRAKER QC: For some while?

83. MR MILLER: Yes.

84. MR STRAKER QC: Has anybody yet come up with anything by way of a suggestion or hint as to how they might be adequately mitigated?

85. MR MILLER: What I was describing earlier on today was about how you can take into account noise issues, how we go about a design panel to look at the aesthetics of the structure, and what sort of materials you might use for these sorts of structures. So, yes, the hint is there.

86. MR STRAKER QC: I see, yes. I am being asked to make plain that this is the quotation that is being described from the management plan, drawing attention to the want of mitigation here. However, my question remains, please, as to whether we have seen anywhere any suggestion of anything by way of observation as to how it can be improved.

87. MR MILLER: I described several drawings this morning where I took you through the sort of landscape plan that would be taken up in pre-submission to the schedule 16 planning arrangements. So, what I was describing there and earlier today was the fact that we can take our clues from the existing landscape and think about how that landscape can then be brought to bear on the design. I don't think that's too far

away from what one of your witnesses said on the Chilterns Conservation Board, but the idea then is to think about this railway in its detailed design and with the grain of the landscape. I think what we have said to you is that that is partly the aesthetics of the structure, partly the landscape outcome and what that might look like, and I described this morning that within the red line boundary that we have there is plenty of room to accommodate objectives to make sure that that fits with the AONB.

88. So, there is more to come on this and we don't have all of that at the moment. As that is the quote from the Chilterns Conservation Board, what that is doing is setting up in my mind a challenge. If you think about that challenge as setting a series of objectives, then you tackle those objectives through your design and that is what Arup is trying to do here.

89. MR STRAKER QC: Yes. Arup aren't setting it out and saying, 'We quarrel with that as a proposition', are they?

90. MR MILLER: I come back to my first point. This is not the purpose of that document. The place for the scrutiny of the route through the AONB is here and against the effects which are written up in the Environmental Statement. That is the due process that we are following and that is what we should be looking at. This is the next step on. That's what we are describing here. I am describing here what we think is the next step for the detailed design and, as I say, and I repeat once again, this is part of a continuous process, so these are the next steps.

91. MR STRAKER QC: Yes, and we have seen what the continuous process has hitherto produced. Perhaps we could just remind ourselves at A199015. That takes us to, doesn't it, the visualisation of that which is proposed for one of these viaducts we have just been discussing?

92. MR MILLER: That viaduct visualisation has been around for some period of time and we have included it in the Environmental Statement. It was right to do so because we need to put information forward in a proper manner. I am not saying that that viaduct will look like that and it may well be that with excellence through design that that viaduct will look somewhat different. I think that the objectives that will come through the process that I have described will help inform that design, and I think that there will be an excellent structure across that valley. So, this is a visualisation. It's an

idea of what it might look like and it may well turn out to be something which looks a little bit different to that.

93. MR STRAKER QC: A little bit better?

94. MR MILLER: I suppose it depends on what your view is of better, but certainly the process that we've set out and the scrutiny that we're bringing to bear in terms of the design panel in the way that we will look at this in detail in pre-submission of the schedule 16 arrangements with the backstop of the local authority providing the final approval on this, I think that we've got the wherewithal to make sure that this structure comes about in a way which proves to be a good legacy in the Chilterns.

95. MR STRAKER QC: Can we just notice two points of detail, please? On the document that we are looking at, I think that one can observe the overhead equipment, which feeds the power into the train.

96. MR MILLER: Yes.

97. MR STRAKER QC: I don't think they are visible on the photomontages that we saw earlier today are they?

98. MR MILLER: People have argued with us about that before and as far as I am aware, they are included. Whether they are hidden because of the type of view, I am not sure on these photographs but to take up your point, just at the head of the train there you can see there are little white marks, and similarly all the way along here. I believe that those are accurate to the current arrangements. And you are right, they do occur along the line of the route, at about 40 to 50 metre spacings and we are not hiding from that.

99. MR STRAKER QC: The second point of detail is this, isn't it, but I just ask it of you. You have touched upon the question of approval by the local planning authorities.

100. MR MILLER: That is right.

101. MR STRAKER QC: The position is this, isn't it, that the presumption is going to be that that which is put forward by HS2 ought to be accepted?

102. MR MILLER: That's the idea of putting the plan forward.

103. MR STRAKER QC: Yes, and the position as far as the local authorities are concerned is that they can only say, 'We refuse' if something else is regarded as being reasonably practicable; that question of reasonable practicability being in the hands of the railway?

104. MR MILLER: You are right to a degree but I think what we have been describing here before this Committee is that these plans have come forward in pre-submission so that there will be time for people to have had a look at these sorts of things and I know that this Committee on making sure that the key stakeholders in this process have been given adequate opportunity to look at those. If you go to Information Paper D1, at the second bullet point, which talks about viaducts, it sets out what we are going to be doing.

105. MR CLIFTON-BROWN: Just before you go on, I want to clarify what happens in the event that the district council comes forward with a different design to that designed by HS2 and that different design happens to be more expensive.

106. MR STRAKER QC: If it is categorised as unreasonable, then it will be an exercise in vain.

107. MR CLIFTON-BROWN: But clearly in design an issue of cost is likely to arise. How will this be resolved?

108. MR MILLER: I suppose that the backstop provision ultimately will be to raise this up to the Secretary of State for his consideration. The further consideration would be whether such a design was desirable, presuming that it comes forward for good reason that this looks better, and it costs, I don't know, £10 million more or whatever it is. Then it may well be something that the Secretary of State will use the design panel to advise him on and I think the backstop provision is – Mr Mould might be able to help me on this – that the Secretary of State will then look at that, most likely with the further advice from the design panel and may or may not take up that design at that point.

109. MR STRAKER QC: There is an appeal mechanism to the Secretary of State, sir.

110. MR MILLER: Yes, I think that is the way it would work.

111. MR MOULD (DfT): It probably adopts the procedure that is applied generally to

planning appeals and transport works appeals and may involve the appointment, for example, of an inspector or an appointed person who would then report, possibly after some written representations or, in some cases, after some sort of oral hearing.

112. MR HENDRICK: Can I just ask, it's not possible to refuse a planning application on the viaduct on the basis that you want a tunnel?

113. MR MILLER: No, that would have been decided upon here.

114. MR STRAKER QC: Could we go to 740820, please, where we are again within the Arup report? I just want to draw your attention, if you don't mind, to the fourth bullet point, I think it is, which states, 'The design provides environmental, social and economic benefits'. I just want to ask you this perfectly general question, if I may. That suggests that landscape design can contribute towards environmental, social and economic benefits, doesn't it?

115. MR MILLER: It can do, yes.

116. MR STRAKER QC: I take it that the position is equally one whereby if one has poor landscape, bad landscape, bad landscape design, one can produce or contribute towards environmental, social and economic disbenefits?

117. MR MILLER: I don't really understand that because I can't think of anything which is poor landscape design. That seems a very odd thing to say. If you go out and you are a landscape designer, presumably you are not going out to design the thing to look dreadful. What is this about?

118. MR STRAKER QC: Let's take it away from an individual designer. There, what is contemplated is that landscape can contribute towards environmental, social and economic benefits. That is what is being indicated there, isn't it?

119. MR MILLER: Yes, and good landscape design will help to get you to that. You can think of that in a number of ways. I can't envisage something which is poor landscape design. It doesn't seem to me to cover that.

120. MR STRAKER QC: You can certainly envisage, I suspect, poor landscape?

121. MR MILLER: I still don't understand what that means.

122. MR STRAKER QC: You can certainly envisage, I take it, poor landscape, can't you?

123. MR MILLER: I am still not sure what you mean by that.

124. MR HENDRICK: That's a subjective judgment.

125. MR STRAKER QC: I am sure it is a subjective judgment, sir. I am simply asking the witness whether he can envisage something which, in my judgment, okay, would be viewed as poor landscape.

126. MR MILLER: Let me try and answer it like this. You can tender and a design might come forward which is poor and it detracts. I would say that as the landscape designs come forward for the route, then the process that we have, the backstop that we have with the planning regime bringing that into account with the district authorities, will ensure that good landscape design will occur. So, as that comes forward, if something is deemed to be poor, and this is what the purpose is of those provisions, the district council could turn around and say, 'Actually, we think you can do better.' It's the same points. 'You can do better. Go away, get it done better because we've put these reasons', and we would go away and get it done better, but I can't actually envisage any landscape designer ever coming forward with something which looks anything like poor design. I think it just won't happen.

127. MR STRAKER QC: My question was that a poor landscape can produce and contribute towards environmental disbenefits can't it?

128. MR MILLER: I don't think I can help you any further.

129. SIR PETER BOTTOMLEY: There is a word missing there. Poor landscape can contribute?

130. MR STRAKER QC: Yes, it can contribute towards environmental disbenefits. This is no more than the proposition as has been stated on many occasions that an area may be depressed because it is depressing.

131. MR HENDRICK: In an area of outstanding natural beauty, though, isn't it a contradiction to say that it is poor landscape?



132. MR STRAKER QC: Well, it certainly ought to be a contradiction in terms, sir, yes, that is so, but I am simply trying to elicit what one would have thought, with the greatest respect, is a statement of the obvious that the counterpoint of a design, a good design producing environmental, social and economic benefits, is that if one has something which is poor, there can be disbenefits.

133. MR MILLER: Or either.

134. SIR PETER BOTTOMLEY: I thought I ought to have heard the word, yes. Poor landscape design can contribute to make things worse, yes.

135. MR STRAKER QC: Yes.

136. SIR PETER BOTTOMLEY: I don't see how a poor landscape by itself can make things worse.

137. MR MILLER: I think if you add the word 'design' in, my answer runs properly because then what we are saying is that the planning regime provides that backstop. In a way that means that we are not going it alone and coming up with something which is just going to be imposed. That simply isn't the case. So, we're able to bring that forward through the planning regime. We've thought about this for quite some time and actually this approach has been applied on High Speed 1. It has been applied on Crossrail and it works and, as I say to you, I cannot envisage any landscape designer in this country coming forward with a poor landscape design. They will not do it. This is a premium project and their reputation will be shot if they come forward with a design which is no good. Their careers would simply be over. They are going to be looking at this job to make their mark. There's no question about that and that is no different from our structure across Wendover Dean. There's no difference between that where we have been planting for hedgerows and this sort of thing. To say otherwise I think does not do our project any justice.

138. MR STRAKER QC: If we look on, please, we can see what is said about that particular matter to P74094. If we go to the foot of the page, please, to there, 'However, the print of HS2 will still result in significant adverse effects on two landscape character areas and of a number of visual receptors after 15 years'. Do you see that?

139. MR MILLER: I see that, yes.

140. MR STRAKER QC: And that is the Ove Arup text?

141. MR MILLER: I believe that is, yes.

142. MR STRAKER QC: So, we can be sure that there will be significant effects bearing upon the landscape?

143. MR MILLER: Yes, that's what's brought these proceedings here and that's got to be taken into account with a decision taken on the route going through the Chilterns. That's right.

144. MR STRAKER QC: Now, we've seen that Arup weren't concerned to consider by way of mitigation the possibility of a tunnel. Can we switch track here, if you don't mind, for a moment or two, just to see what is actually occurring? If we go to A1179(22), we can notice, can't we, that with the scheme which you are promoting we have the route of the tunnel shown against the background of the landform with a dashed line?

145. MR MILLER: That's right, yes.

146. MR STRAKER QC: And it rises at a gradient which is equalled or unequalled anywhere else on the railway system in England?

147. MR MILLER: I'm not sure of the answer to that, to be honest with you. I think we've said that it's a fairly steep gradient.

148. MR STRAKER QC: Yes, and it emerges from a tunnel, the railway rising in that steep gradient. It emerges, rises and comes out of the tunnel at the top of a hill. Is that something which is a usual feature when one has a railway in a tunnel, that the tunnel emerges at the top of the hill?

149. MR MILLER: I don't think it's impossible because we've done it and it meets all of the railway standards and requirements, so that is our consideration. That is what we have put forward.

150. MR STRAKER QC: You have done it elsewhere or you have suggested it here?

151. MR MILLER: I am probably the wrong person to be asked that question to be honest with you. I'm not a railway engineer. I am an environment person. So, I am sure that the railways can do this sort of thing.

152. MR STRAKER QC: Very well.

153. SIR PETER BOTTOMLEY: We were told one in 40, is my recollection.

154. MR STRAKER QC: Yes, I think it's classified as 3%.

155. SIR PETER BOTTOMLEY: That is an approximation to one in 40.

156. MR STRAKER QC: Yes, I know. That's how they do it, in effect. If we could just cast our mind, whilst we are in this document, to 117967, we can notice, can't we, that in terms of earthworks there is a very significant difference between the two schemes and all those matters there identified will bear upon the landscape won't they?

157. MR MILLER: Yes, to a degree.

158. MR STRAKER QC: I am taking it from the previous answer that you are not the person to talk to about the energy savings in terms of the tunnel being at a more favourable gradient than the proposed surface railway?

159. MR MILLER: I think from a railway perspective you perhaps ought to ask someone else.

160. MR STRAKER QC: Very well. I just want to pursue this matter by way of a point of detail, if I may, because there was reference earlier today to the question of fencing. Obviously there has to be fencing along the line, save that one doesn't obviously fence the tunnel. Is that correct?

161. MR MILLER: Well, I think it depends on how the land ownership goes back. I think all of the tunnels on High Speed 1 went back without fence lines on them but if it doesn't go back to another landowner, it may well be that the railway has to put a fence on top, but I think from memory there is a tunnel at Leeds Castle where I think originally that happened and then it was eventually sold off. I am not sure entirely about a fence line.

162. SIR PETER BOTTOMLEY: I think you can say that we all understand that most tunnels don't have fencing?

163. MR MILLER: Yes, that's right for bored tunnels. I think with cut and cover tunnels there might be a little bit of difference.

164. MR STRAKER QC: Yes. You very kindly gave us the height of the fencing. The fencing also has to be kept clear at all times of any sort of overgrowth or anything of that sort otherwise it would lose its security consequence wouldn't it?

165. MR MILLER: What I was trying to illustrate is that the fencing needs to be thought about in the detailed design as to where it is positioned and the fence line takes some time to work out. It is not the thing that you do first of all. It's probably the thing that you do last of all, particularly when you are thinking about the reappointment of land that we have taken to build the scheme and what ultimately might go back to others by way of earthwork raising and that sort of thing. I think that we may need to furnish the Committee with a note about the fencing because I have said one thing but I think there may be other ways of looking at the fencing from our technical perspective.

166. MR STRAKER QC: I want to turn, if I may, to the question of cost. Could we please have put on the screen P7470(33). Just so that we align ourselves, we are here within a document produced by HS2 responding to the Chiltern long tunnel proposal.

167. MR MILLER: Yes, that's right.

168. MR STRAKER QC: We can see at 7470(33) that at 516 reference is being made to the cost of the loss of the environment.

169. MR MILLER: Yes.

170. MR STRAKER QC: It is cited as part of a comparison of construction costs and whilst it can be agreed that the authors say that loss of the environment is a negative impact for the proposed scheme, it is intangible regarding cost and should not be included in the costs comparison. Do you see that?

171. MR MILLER: I do.

172. MR STRAKER QC: Indeed, the authors are good to their own word and when

they do the cost comparison, they exclude any loss of the environment.

173. MR MILLER: I guess from that paragraph that is what they are doing.

174. MR STRAKER QC: I am right in supposing, am I not, that land within the AONB has a social value?

175. MR MILLER: Yes.

176. MR STRAKER QC: It is part of the social capital?

177. MR MILLER: Yes.

178. SIR PETER BOTTOMLEY: If we are going to have a great range could you put them in one sentence and we can deal with the lot together?

179. MR STRAKER QC: That would upset the habit of a lifetime, sir, but I will try as best I can. So, one can put it in a variety of ways in that sort of social capital. I am right in supposing, aren't I, that over the past 15 years at least, efforts have been made to secure some means of valuing what may be described as social capital?

180. MR MILLER: I think you're right, yes.

181. MR STRAKER QC: And that can run through the Treasury Green Book, Supplementary Guidance on Accounting for Environmental Impacts.

182. SIR PETER BOTTOMLEY: You are rehearsing what we have heard from the witness before, so the methodology I think is still in our minds.

183. MR STRAKER QC: Good. I think in terms of HS2 you have drawn attention to the fact that some £1 billion was assigned. This is P7501. Could we put up P7504(2)? You see there at paragraph 7 that this is HS2 drawing attention to non-market effects being intended to represent a range of impacts which may include landscape amenity benefits.

184. MR MILLER: Yes.

185. MR STRAKER QC: It follows that the petitioners, it said, engage in double accounting by both requiring a figure for non-market effects and quantifying impacts on

health and wellbeing, amenity, etc., in addition to these effects. That is said because it is indicated there that the non-market effects figure embraces a number of given ingredients.

186. MR MILLER: Yes, what the WebTAG process is doing is helping a decision at that point, an earlier point in the process. It helps people promoting projects think about the overall economic benefits of a project or otherwise.

187. MR STRAKER QC: Then if we look down to paragraph 7 you see at the foot of the paragraph that a re-estimate of these impact was conducted to inform the 2003 HS2 economic case and the value for Phase One was estimated to be approximately £1 billion.

188. MR MILLER: Yes.

189. MR STRAKER QC: That is something, is it not, in the order of 140 miles leading to £7 million or so per mile?

190. MR MILLER: I will take your calculation.

191. MR STRAKER QC: It is something in the order of. That figure was calculated on the basis of attributing to each mile of the HS2 route the same figure?

192. MR MILLER: I am not sure of that.

193. SIR PETER BOTTOMLEY: You don't need to get him to do a calculation, which is perfectly fair, an arithmetical test, but you are now saying that that is how they created it?

194. MR STRAKER QC: Yes, by reference to a figure per mile whether there were particular assignments.

195. SIR PETER BOTTOMLEY: I am sorry, I thought that you created the figure per mile; they just gave a gross figure.

196. MR STRAKER QC: Yes.

197. SIR PETER BOTTOMLEY: So, the question is how did you get to that figure?

198. MR MILLER: I don't do the calculation, by the way; I contribute information to the calculation and the department carries out the calculation. There is advice out there. I think we waggled a document around the other day and in there, there are factors that are applied to establish the monetised value of the landscape. There is a variety of factors that are applied along the line of the route. So, you can envisage a situation where you have a percentage of your land along the line of the route being of quite a degraded quality and that has value associated with it and you go to the other extreme where there is higher value attributed to land.

199. So, a calculation is made, and I suspect it is very crude, on the basis of percentages of that land that you will come across along the line of the route and then a formula is applied, a calculation is carried out and a value of roundabout £1 billion is then established and then that is looked at in terms of the overall benefit cost ratio and I think it amounts to about 0.1%.

200. SIR PETER BOTTOMLEY: If Mr Straker is leading us sensibly to think did the promoters take the land going through the AONB as better and a higher figure reached per kilometre or distance than they would have done if they had been going through ordinary agricultural land, they are not going to be disrespectful to that?

201. MR MILLER: I think that there is a high sensitivity category for high quality agricultural land. So, I think it's a combination.

202. SIR PETER BOTTOMLEY: If we are looking for a factual answer, perhaps Mr Mould can help us.

203. MR MOULD (DfT): I can, I think. There are two thoughts. If you scroll down to the next page of this document to page 3 you will see an assessment process which is set out in the tables. That is the process, or essentially the process, that was gone through in order to arrive at the figure of about £1 billion. You will see that as part of that process there is at number 5, 'Landscape impact valuation', which requires an assessment using landscape values recommended in the advice.

204. SIR PETER BOTTOMLEY: You actually do take segments in the scheme?

205. MR MOULD (DfT): We do.

206. SIR PETER BOTTOMLEY: So, I think Mr Straker has been helpful in getting this out.

207. MR MOULD (DfT): Then you have a table, a version of which you were shown the other day, I think, by Mr McCartney or at least by Mr Straker after Mr McCartney had given his evidence. You will see here the range of landscape values that are included in the adopted methodology for the purposes of assessing these impacts. You will see that amongst those are rural forested land amenity, agricultural land, extensive and natural and semi-natural land. The position is that the segmented approach to ascribing landscape impact values to land through the Chilterns was made up of those three impact values, so they were ascribed as was considered appropriate by those who carried out the assessment process, and that was fed into the method that you saw in the previous pages.

208. SIR PETER BOTTOMLEY: So, there is nothing specifically added on for being an AONB but the kind of land it is is taken into account for this kind of calculation?

209. MR MOULD (DfT): Yes. This is the approved process, which sits within the wider remit of the Green Book and the WebTAG assessment process, which is applied on a scheme-wide basis, as you heard the other day, resulting in that figure that I showed you from the promoters' decisions document in 2012.

210. SIR PETER BOTTOMLEY: If I were a junior advocate and I looked at this at 12 where they say they haven't assessed the scheme, or some of it, that is producing a minus rather than adding a plus to this. You can't counterbalance doing damage somewhere by the fact that you haven't done damage somewhere else.

211. MR MOULD (DfT): No, exactly. The whole point is that you take the scheme as it is – in this case the Phase One railway.

212. SIR PETER BOTTOMLEY: Sorry, Mr Straker.

213. MR STRAKER QC: It's a very interesting discussion.

214. SIR PETER BOTTOMLEY: We are trying to get to the point of what your lawyers say.



215. MR STRAKER QC: Yes, I trust and it would appear that the point is emerging and becoming patent. Can I just then take it, bearing in mind that that has happened in this short form way, with Mr Miller because I just want to get at, Mr Miller, the actual price that you were ascribing to the AONB land.

216. MR MILLER: To be honest with you, I'd have to check because I am not the person who does the calculation. It is the department who does the calculation, not the project. The purpose of that is to test whether the overall economic case stands up once you have taken these figures into account. So, you can rightly see that there may be a disbenefit to the wider landscape as a result and that may prove to be a tipping point in your benefit costs ratio. That is not the case here. We will have to clarify that but I think it's a proportion of the last category and a proportion of the penultimate category which has been accounted for in the AONB.

217. MR STRAKER QC: Natural and semi-natural land and agricultural and intensive?

218. MR MILLER: I believe that is the case, yes.

219. MR STRAKER QC: A proportion of both?

220. MR MILLER: I believe that is right.

221. MR STRAKER QC: I see, with the ranges there given in the middle column. Can I just then, with a confirmatory question, take you to P7470(40). It is confirmatory to show that in the exercise done with costs for the Committee there is nothing in there, if we blow it up, referable to the social capital attributed to this AONB land?

222. MR MILLER: I think that's right, yes.

223. MR STRAKER QC: Yes, and if we go back in the same document to 747037, and blow up 711, the clear statement is made that there would be a provision of overall environmental benefits compared to the scheme during both operation and construction.

224. MR MILLER: Yes, I go back to my original answer to you in this afternoon's session that the residual effects, I believe, are minimal and the way that we have come about the environmental mitigation is to look at each of those effects in turn and provide

appropriate mitigation where we can and in the conventional sense I think that the scheme has largely been successful, but you are right, an overall total.

225. CHAIR: Order, order. I shall adjourn for 15 minutes due to a Division in the House.

*Sitting was suspended*

*On resuming—*

226. CHAIR: Order, order.

227. MR STRAKER QC: Thank you very much, sir. I don't want to detain you much longer. If I may, I just want to draw that character of the discussion to a conclusion in this way. I'm right in supposing, aren't I, that in the various forms of appraisal which are set down – and we've run through certain of the documents and I did that briskly – the landscape to be assessed is considered according to its particular quality?

228. MR MILLER: Yes, that's right.

229. MR STRAKER QC: In certain instances there's a seven-point scale and AONB, naturally enough, comes out on the top.

230. MR MILLER: Sorry. Are we talking about that table?

231. MR STRAKER QC: Not that table. This is an appraisal summary table provided for by the TAG unit – A3. It's not within this.

232. MR MILLER: I see what you mean. Yes, you're right. Yes.

233. MR STRAKER QC: That's simply a function of the fact that this is nationally regarded as important land.

234. MR MILLER: Yes. I've described earlier today that it is a national asset, there's no doubt about that, and a nationally important piece of railway infrastructure in that context.

235. MR STRAKER QC: The Committee has a very difficult task because on the one hand, as we've seen, one can compare landscape assessments using landscape terms and on the other hand we have a difficulty in comparing effect upon landscape and

trying to put it into monetary value.

236. MR MILLER: Well, all of the information is there and it's been used in the right way. You've described the WebTAG process and you've shown that on the screen here. That has taken place at the right time to assist with the economic case and the decision to proceed with High Speed Rail. So the landscape issues have been accounted for at that point. Where I move on to with that is the Environmental Impact Assessment. What we're then looking at is the likely significant environmental effects and how we tackle those and moderate those and that's accounted for in the Environmental Statement, as published.

237. MR STRAKER QC: It may be that we're not going to get very much further, but I just want to draw out from you, if I may, the fact that as we can see, one tends to describe landscape using words, but one can describe the cost of construction using pounds and pence.

238. MR MILLER: Yes.

239. MR STRAKER QC: The difficulty that the Committee has is because on the one hand it can be told, approximately of course, pounds and pence for physical things happening at works, but to translate quality of landscape into a number is a difficult task.

240. MR MILLER: It is. I sometimes think that trying to translate everything into a numeric value in some ways loses the point of the debate. In a lot of ways, I think that the way that it should come forward is to think about the relevant qualities of the issues that are at stake and the response to the effects that these sorts of projects have and that's what we've done. I think that's the debate that we've had over the last couple of days.

241. MR STRAKER QC: In considering the issue at stake, you would ask the Committee, I take it, to have very much in mind the numbers of people who live within a comparatively short distance of the AONB?

242. MR MILLER: I think what I want from the Committee is for it to look at the facts as they've been brought forward. That's the purpose of this. If there is a

counterargument then that should be rightly heard. I believe that we've got it right in the Environmental Statement. We've been at this for some time now. As I explained earlier, we have set out our scope and methodology for the assessment and how we bring all of this information forward. We consulted on that back in 2012. We've given people a lot of opportunity to contribute to this process and I think that the Environmental Statement is well informed. Our decisions in terms of the mitigation and compensation, I believe, are well informed by the expert analysis that has been provided in that Environmental Statement and that is what we are presenting today. I think that the residual effects in the AONB are relatively modest in scope. I've demonstrated that I think there is further room to accommodate some further designs and that sort of thing, fitting the railway into the landscape, and that really is our case.

243. MR STRAKER QC: Just to go back to my question, you would ask the Committee to be particularly careful, wouldn't you, and to have very much in mind the numbers of people who live within and are able to enjoy the AONB?

244. MR MILLER: Yes.

245. MR STRAKER QC: Thank you. You would also ask the Committee particularly to have in mind the rarity of AONB land in England and the fact that the HS2 railway as proposed goes through but one Area of Outstanding Natural Beauty?

246. MR MILLER: I don't dispute that, no. I think that should be taken into account.

247. MR STRAKER QC: Thank you very much. Would you mind if I leave matters there, sir?

248. CHAIR: Thank you, Mr Straker. Mr Mould?

249. MR MOULD QC (DfT): Lest there be any misunderstanding, I just want to confirm one thing on P7408(1), a document which Mr Straker referred to as the Arup document. He is right; it bears Arup's name as the authors of the original draft. Mr Miller, this is a document – the landscape design approach – which has been adopted by the project, isn't it?

250. MR MILLER: It is. Arup was commissioned to assist us with producing this document. I think I've given evidence on this before, but this is part of the process. It

was part of a pilot for the design panel that I described earlier on. It's bringing forward the landscape design approach as early as we can in the process.

251. MR MOULD QC (DfT): The other thing which I thought it might be helpful just to show the Committee – it was raised and debated – is page 326 of the Bill, which is the relevant paragraph of Schedule 16. Just scroll back another three or four pages. It's just below that one. Thank you. Here we go. A question was raised during debate about the basis upon which the local authority can seek changes to, or refuse to grant, consent for the detailed design submission for building works, which would obviously include a bridge or viaduct structure. You can see at subparagraph (5) here that the statutory language is:

‘(5) ...it may only refuse to approve plans or specifications... on the ground that:

‘(a) the design or external appearance of the building works ought to be modified—

‘(i) to preserve the local environment or local amenity [I think that's the relevant one]...

‘and is reasonably capable of being so modified...’

252. I think our position is that if that issue were raised by a local authority in relation to a viaduct design that was submitted to them by the nominated undertaker then clearly the question of cost would be a relevant consideration. It wouldn't be the only consideration, but it would be a relevant consideration in judging whether something was reasonably capable of being so modified.

253. MR MILLER: That's right, yes.

254. MR MOULD QC (DfT): Thank you.

255. CHAIR: Thank you, Mr Miller.

256. MR MOULD QC (DfT): There are two matters which I would ask Mr Smart to deal with briefly and then obviously questions from Mr Straker if there are any.

257. MR SMART: Good afternoon, sir.