



# **House of Commons Select Committee on the High Speed Rail (Crewe-Manchester) Bill**

Promoter's Response to the Select Committee's  
First Special Report of Session 2022-2023

Presented to Parliament by the Secretary of State for  
Transport by Command of His Majesty

September 2023

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# Introduction

1. This document constitutes the response of the Promoter of the High Speed Rail (Crewe – Manchester) Bill to the First Special Report of the 2022-23 session (hereafter referred to as ‘the report’) published on 19 July 2023 by the House of Commons Select Committee on the High Speed Rail (Crewe – Manchester) Bill (hereafter referred to as ‘the Bill’).<sup>1</sup>
2. The Bill is being promoted by the Secretary of State for Transport. Responsibility for delivering the various actions that are outlined in this response will rest with either HS2 Ltd, the Department for Transport or the relevant nominated undertaker. The terms ‘Promoter’ and ‘we’ are used at various points in this document to encompass all of these parties.
3. This response addresses the matters raised in the Select Committee’s report where an action from the Promoter was sought or where a further clarification was deemed to be beneficial. Each matter raised in the Select Committee’s report is addressed in turn in the body of this response; for ease of reference, paragraph numbers from the report are quoted.
4. Where existing assurances are referred to, the reader may wish to refer to the draft Phase 2b (Crewe to

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1 See HC 1136 at <https://committees.parliament.uk/publications/40949/documents/199469/default/>

Manchester) Register of Undertakings and Assurances for the complete text.<sup>2</sup> Where the assurance referred to has not yet been included in the draft Register, but the complete text has been published, a link to where this text can be found is provided. Where it has not, the assurance will be included in the next draft of the Register. Where an assurance is described in the response, the text of the assurance itself as included in the Register takes precedence.

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2 See <https://www.gov.uk/government/publications/hs2-phase-2b-crewe-manchester-register-of-undertakings-and-assurances> for a copy of the latest draft of the HS2 Phase 2b Register of Undertakings & Assurances.

# Promoter's Response

## Settlement with Petitioners

5. In paragraph 15 of the report the Select Committee said:

“We have encouraged the promoter on a number of occasions to seek to settle outstanding issues with petitioners without our involvement. It is of course beneficial to all parties if issues can be resolved through negotiation, and if the number of issues which have to be brought to the Committee for adjudication can be minimised. We note that the number of withdrawn petitions and the number of assurances offered suggest that the process of discussion and negotiation between petitioners and promoter is functioning well in many cases: we welcome and commend this. That being said, we would encourage both the promoter and petitioners to avoid last minute withdrawals if possible, as having to cancel a hearing as a result of a late settlement means a lost opportunity which could have been used by another petitioner. All parties should aim to begin negotiations at an early point and resolve issues as quickly, amicably and straightforwardly as possible.”

## Promoter's Response

6. The Promoter welcomes the acknowledgement from the Select Committee that the process of discussion and negotiation with petitioners is working well in many

cases. The Promoter also recognises that it is important to reduce last minute withdrawals wherever possible to enable the efficient use of the Select Committee's time. The Promoter will continue to seek early engagement with petitioners on their concerns with a view to settling wherever possible through timely sharing of information and offers of assurances to help allay concerns about the Proposed Scheme.

## Sharing Information

7. In paragraph 17 of the report the Select Committee said:

“There have been a few instances where petitioners have noted that they have only seen maps, plans or other relevant documents in the days leading up to a hearing before us. While we know that, on occasion, assurances are only offered on the day of or in the days leading up to a session, it is clearly not appropriate or acceptable for petitioners to be unaware of key information or documents relating to their petition or their property. Exhibit exchange may only take place a few days before a hearing, but there is no reason why such information or documents should not be provided to petitioners on request or when it becomes evident during discussions that they are relevant to their petitions.”

## Promoter's Response

8. The Promoter acknowledges the importance of sharing information as early as possible with petitioners

to enable them to review it in advance of hearings. Going forward, the Promoter will endeavour to issue the location plans outlining the petitioner's property, the construction and operational plans and any available environmental mitigation maps with the Promoter's Response Document (PRD), which is usually sent out much earlier in the negotiation process. Where it is available, other information that may be helpful to petitioners will be shared with them as early as possible.

## Cheshire Salts Area

9. In paragraphs 54 and 55 of the report the Select Committee said:

“We are reassured by Professor Lord Mair's statement that the amount of investigatory work conducted by the promoter to date is reasonable for this stage in such a project, by the mitigation measures which have been proposed, and by the independent checks which have been built into various stages of the design and construction process. However, it is ultimately more important that the promoter reassures local residents and communities, and it is this shortfall in trust and confidence which needs to be urgently addressed.

To that end, we do not agree with the promoter that there is no utility in further or additional independent scrutiny of the scheme's proposals or investigations. Such external oversight and commentary need not take the form of a formal check which holds up the progress of the scheme, but a visible spirit of openness and meaningful

engagement would go some way to assuaging the concerns of local residents and communities.”

## Promoter’s Response

10. The Promoter is pleased that the Select Committee was reassured by Professor Lord Mair’s statement<sup>3</sup> and by the proposed mitigation measures and the independent checks put in place. We understand, however, the importance of building trust and providing reassurance to residents and communities in the Cheshire Salts area. The Promoter has already provided on-site visits of ground investigation sites at the request of parish councils and has held webinars available to all members of the public to respond to questions relating to the ground investigations process.

11. In paragraph 56 of the report the Select Committee said:

“We welcome the promoter’s proposal to establish an engagement forum for the sharing of information on ground investigations. We acknowledge that, at the time of writing, the assurance is still under discussion and has not yet been formally accepted by the Council, and appreciate that arrangements are still at a relatively early stage, but we call on the promoter to clarify the following points, on which we make further recommendations:

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3 See p.52 of [committees.parliament.uk/oralevidence/13005/pdf/](https://committees.parliament.uk/oralevidence/13005/pdf/)

- What information will be made available to the Forum and what will be withheld. We believe that in the spirit of openness and transparency the promoter should share the maximum amount of information possible, subject to relevant statutory, legal or commercial constraints.
- Whether information made available to the Forum will be subsequently made more widely available. We believe that information provided to the Forum should, unless there are compelling reasons to the contrary agreed to by the Forum, be made publicly available either proactively (e.g. online) or upon request.
- Who will attend meetings of the Forum on behalf of the promoter and/or the nominated undertaker. We believe that each meeting must be attended by representatives who are able to speak to the detail of the promoter's investigations and proposals and answer high-level technical questions.
- Whether meetings of the Forum will take place in private or in public (either physically or virtually), what public outputs from meetings of the Forum there will be (for example, minutes, transcripts or discussion summaries), and what opportunities there will be for public engagement with the proceedings or work of the Forum (such as facilities for asking questions, making representations or proposing items for discussion). We believe that the Forum should permit and encourage public engagement and interaction.

- How often the Forum will meet. We recognise that this should be based largely on the progress of investigations and the wishes of Forum members, but the key purpose of providing reassurance to local residents and communities must be borne in mind and we are keen that the Forum should not fall into desuetude.”

## Promoter's Response

12. HS2 Ltd has also been working closely with Cheshire West and Chester Council to establish a “Cheshire West & Chester Ground Conditions Engagement Forum.” We are hopeful a final assurance will be agreed and published on the draft Phase 2b Register of Undertakings and Assurances in due course.

13. The purpose and remit of the Forum is to provide a mechanism for the nominated undertaker to share with members of the Forum factual data derived from ground assessment investigations undertaken by the nominated undertaker (“the relevant findings”) within the area. It will also provide members of the Forum with information on how the relevant findings will be used to inform the continuing development of measures to mitigate appropriately any potential risks to construction and operation of the Proposed Scheme associated with ground subsidence due to the presence of halite or the historical, current, or proposed extraction of halite or brine within the area (“the design development information”).

14. The Forum will provide an opportunity for members of the Forum to comment on the relevant findings and design development information. However, as some members have a statutory function as Local Planning Authorities, the Forum will be entirely separate and unrelated to any consenting role for those bodies.

15. Further information as recommended by the Select Committee in paragraph 56, and as agreed with the Forum, on the relevant findings and/or the design development required to support the purpose and remit of the Forum will be made available to Forum members. The nominated undertaker will seek to strike an appropriate balance between the desire to provide information as early as possible and the risks of releasing immature or incomplete data prematurely. Of course, in doing so, the nominated undertaker will also have to give due regard to any contractual obligations and any legitimate exemptions to the provision of information such as those set out in the Freedom of Information Act.

16. The Promoter's view is that it would be appropriate for the Forum members to consider how and to what extent details of Forum minutes or presentations can be shared with the wider public. The Promoter is happy to consider any proposal put forward by the Forum, for example a dedicated webpage, similar to the HS2 Phase 1 'In your Area' webpages: <https://www.hs2.org.uk/in-your-area/local-community-webpages/hs2-in-old-oak-and-north-acton/> could be created and/or local engagement events could take place.

17. The invitees to the Forum will include the following:

- Cheshire West and Chester Council;
- Cheshire East Council;
- those Parish and Town Councils that are situated within the administrative areas of Cheshire West and Chester Council and Cheshire East Council and whose areas contain works for the Proposed Scheme;
- businesses carrying out salt and brine extraction operations within the administrative area of Cheshire West and Chester Council;
- Members of Parliament for constituencies that are situated within the administrative areas of Cheshire West and Chester Council and Cheshire East Council and within which works for the Proposed Scheme are to be constructed.

18. The Promoter will ensure that the representatives of the Promoter at the Forum will be professionals in engineering, geological and hydrogeological matters as necessary. They will have the appropriate level of understanding and expertise to ensure meaningful meetings are held, with the intention that the Promoter's representatives can speak to the detail of the Promoter's investigations and proposals and that they are well-placed to be able to answer high-level technical questions. The Forum will be chaired jointly by the nominated undertaker and Cheshire West and Chester Council.

19. The current arrangements for the Forum are that the members will meet privately to ensure that discussions and information sharing can remain focused. However, additional members may be co-opted for their specific expertise to attend specific meetings of the Forum. This will be at the discretion of the Forum Chair where, in their opinion, such attendance would support the purpose and remit of the meeting. Once set up, the Forum will decide on what outputs will be available after each meeting such as: minutes, transcripts and documents.

20. Following Royal Assent, the expectation is that the Forum will meet in line with the design programme for the Proposed Scheme. Accordingly, the frequency of the Forum meetings following Royal Assent will be kept under review by the Forum members. The Forum will continue to meet until the completion of the main civil works to be constructed in the area or such later date as the Forum members may agree but that date being no later than the date of the commencement of the operation of the Proposed Scheme within the area.

21. The final assurance text will be shared with the Select Committee as soon as it is agreed.

22. In paragraph 57 of the report the Select Committee said:

“Additionally, we believe that the promoter should commit to the following:

- Publish, by the end of this year, a report providing more information and detail than was given in the March 2023 publication on the ground investigations which have already been undertaken, and publish at regular intervals (we would propose annually or biennially) reports on the details and results of technical ground investigations undertaken in the future. These reports should be in a form which allows external experts or other interested parties to consider and analyse the information contained in a meaningful way, and include details of the type of investigations undertaken, their locations and relevance to the scheme, the results, a commentary on what the results mean in relation to other investigations and the scheme as a whole, and an indication of further action, investigations or mitigations planned or required.
- Provide further information willingly, and in a timely manner, following requests from petitioners or other stakeholders for further details or information relating to the investigations detailed in the publications outlined above, unless there is a compelling reason why such information cannot be provided.

- Designate a nominated point of contact for queries relating to ground conditions and the technical investigations being undertaken.

None of these options would be difficult for the promoter to achieve or detrimental to the progress of the project, and we therefore expect the promoter to take such action to reassure local communities that their concerns have been heard, are understood, and are being appropriately and demonstrably addressed.”

## Promoter's Response

23. The Promoter notes the Committee's recommendation for an additional report to be published to provide more information and details to the “Understanding the Ground Risk across the Cheshire Plain” March 2023 report.<sup>4</sup> HS2 Ltd plan to publish a summary of the recent Phase 2b Advance Ground Investigation (AGI) works in the area of the Cheshire Salts by the end of this year. This reporting will include a summary of the results, subject to any existing legal limitations, and a commentary on their implications for the development of the Scheme. We anticipate subsequent publication would be biennial dependent upon the progress of the ground investigation. It is important to note that ground investigation on a project the scale of

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4 See <https://www.gov.uk/government/publications/hs2-phase-2b-select-committee-crewe-to-manchester-understanding-the-ground-risk-across-the-cheshire-plain>

HS2 is a staged process and needs several phases to come to conclusion.

24. Requests for further information relating to matters detailed in the publications outlined in paragraph 23 of this response will be released as far as is reasonably practicable without impacting the progress of the scheme and any legal duties.

25. The Promoter currently provides a named community engagement point of contact for each of the community areas of the Proposed Scheme. This named point of contact will be able to assist with queries relating to ground conditions and technical investigations being undertaken, in addition to other matters.

26. In paragraph 58 of the report the Select Committee said:

“We also require the promoter to provide us with responses to the questions asked by the Inland Waterways Association in their correspondence with us and also on the following specific points raised in public hearings:

- How it intends to mitigate for the potential risks—both local and consequential— of crossing Billinge Flash, beyond the one paragraph included in the March 2023 report;
- How it plans to respond to the challenges presented by building on areas known to contain ‘running sands’ and artesian aquifers;

- What mitigations or other preventative measures have been requested by the operators of underground pipework in the area, or are planned by the promoter, to reduce the risk of damage and leaks;
- Following Professor Lord Mair’s repeated emphasis on the importance of monitoring and measurement, what form monitoring of ground movement during construction and operation will take, and what the responses to different levels of ground movement would be;
- Which academics, and which publications, have been consulted during the development of plans for crossing this area.”

## Promoter’s Response

27. The Promoter will write to the Select Committee with a response to the points raised in the correspondence sent directly to the Select Committee by the Inland Waterways Association.<sup>5</sup> The responses to the specific questions raised by the Select Committee can be found at annex A.

28. Academics and publications were consulted during the development of the proposals in the Cheshire Salts area and a list of these can be found at annex B.

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5 See <https://committees.parliament.uk/publications/40823/documents/199373/default/>

## Traffic

29. In paragraph 62 of the report the Select Committee said:

“Because traffic management plans will be drawn up in due course in collaboration with the relevant highway authorities, which will have a better knowledge and understanding of the needs and capabilities of local road networks, we will not presume to make specific recommendations or requirements of the promoter regarding traffic or road issues. However, as a general point, we believe that the following statement of Davenham Parish Council is sensible and self-evident:

we’re looking for an undertaking that any road closures, diversions, any slippage in timescales that will cause disruption, that these be well planned, well communicated, with reasonable notice, not be simultaneous, and to avoid peak times.”

## Promoter’s Response

30. Local Traffic Management Plans (LTMPs) will play a key role in the mitigation and future management of traffic impacts across the Crewe to Manchester route. In the case of Davenham Parish, a LTMP will be developed in consultation with Cheshire West and Chester Council, as the relevant highway authority, to seek to reduce traffic impacts. Where relevant, these will consider the need to avoid conflicting works, such as restrictions on parallel routes, and avoiding busy periods. In addition, local

Traffic Liaison Groups (TLGs) involving local highway authorities and key stakeholders will meet regularly to review issues and update stakeholders on upcoming works and any changes to programme. This will also facilitate consideration of how works can be planned to minimise disruption to local communities. An important part of the role of TLGs is to support the planning of works and consider how changes and restrictions can be communicated with adequate notice to road users.

31. In paragraph 63 of the report the Select Committee said:

“Further, we believe that, where possible, local residents and communities should be given opportunities to contribute meaningfully to the development of the traffic management plans which will cover their areas. The promoter must ensure that petitioners and others are informed of the opportunities they may have to contribute via the local authority, and that they are made aware of the avenues by which they can raise concerns relating to road or traffic issues during the construction or operational phases.”

## Promoter’s Response

32. The Code of Construction Practice (COCP)<sup>6</sup> requires that a Route-wide Traffic Management Plan and Local Traffic Management Plans are produced. The Local

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6 See <https://www.gov.uk/government/publications/draft-code-of-construction-practice-ct-002-00000>

Traffic Management Plans will, amongst other things, set out the arrangements for engagement on temporary traffic management. These will be consulted on through local Traffic Liaison Groups (TLGs). This will also enable liaison at an area or scheme specific level to continue on a more local basis, during construction; enabling discussion of day-to-day issues around construction traffic management as they arise. TLGs will consider appropriate engagement with local communities directly affected by site specific traffic management plans on a case-by-case basis.

33. Local highway authorities are key stakeholders on TLGs, which could provide the opportunity to capture the views of local residents and communities. Through the Highways Sub-Group of the HS2 Planning Forum, the Promoter will raise the question of how local highway authorities could best capture these inputs to the planning of traffic management plans.

34. In paragraph 64 of the report the Select Committee said:

“On modelling, it is evident that many petitioners and local communities are unclear as to the basis, robustness and legitimacy of the promoter’s traffic modelling. The promoter must ensure that all petitioners are informed on this point in advance of any appearance before us, so that they are able to understand and appropriately examine the proposals for their area. We believe that

the production of a short summary note, provided to petitioners and this Committee, would support this.”

## Promoter’s Response

35. To assist petitioners and members of the Select Committee, the Promoter will provide an easy-to-read briefing slide that summarises our approach to transport planning modelling. For any individual petitioner who raises traffic and transport concerns in their area a quick reference table that identifies the relevant exhibit plans from the ‘House of Commons Phase 2b Traffic and Transport standard pack’<sup>7</sup> will be provided. An example of the proposed briefing note template and what it would typically comprise is included at annex C.

## Design and Engagement

36. In paragraph 68 of the report the Select Committee said:

“We welcome the promoter’s commitment to engage with local communities regarding the design of certain elements of the Bill scheme. It is natural that residents are concerned about the visual impact of infrastructure in their areas, and right that they are given opportunities to contribute to design development. We would encourage local planning authorities to maximise the opportunities

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7 See [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1140992/Section\\_H\\_-\\_Traffic\\_and\\_Transport\\_Standard\\_Pack.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1140992/Section_H_-_Traffic_and_Transport_Standard_Pack.pdf)

for local residents to contribute to decision-making on these aspects, and call on the promoter to ensure that the petitioners who appeared before us and other members of relevant local communities are fully informed of the opportunities they may have to engage in these design consultations.”

## **Promoter’s Response**

37. The Promoter is committed to respecting people and the places where they live which are affected by the construction and operational activities of the HS2 railway. Public engagement is an important part of the design development process. The exact scope and nature of public engagement will depend on the element being designed.

38. Our approach to engagement for each ‘Key Design Element’ (such as viaducts, depots, vent shafts) and ‘Common Design Element’ (such as road bridges, footbridges, noise barriers) will be tailored to the particular circumstances of each community, and discussed with the local authority. We anticipate that it would include distributing a leaflet door-to-door across the area, using our local community website and email lists and paid social media adverts. We also anticipate working with existing communication networks in the community, local authorities and parish councils. This will ensure that petitioners and local communities generally will be aware of the design consultations and the opportunities they will have to participate. The

engagement opportunities themselves would have a mix of virtual (webinars, the website) and in-person events. A list of the Phase 2b Key Design Elements can be found in appendix A of the HS2 Phase 2b Western Leg Information Paper D1: Design.<sup>8</sup>

## Drainage

39. In paragraph 72 of the report the Select Committee said:

“As before, because drainage plans will be subject to consultation and agreement by the relevant expert authorities, we will not make any specific recommendations or requirements on this point. However, we would make the following general points: that petitioners who have raised drainage as a matter of concern should be kept updated by the promoter with the development of plans and proposals for their areas (and, as above, any opportunities to make representations or contribute to their development), and that it should be made clear to these petitioners – and this Committee – in plain terms what aspects of the scheme’s drainage proposals will be subject to external oversight or consent and which remain within the remit of the promoter or the nominated undertaker.”

## Promoter’s Response

40. The Promoter notes the Committee’s request and will write to petitioners who have raised drainage as a

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8 See D1 Design v4 ([publishing.service.gov.uk](https://publishing.service.gov.uk))

concern to keep them updated with the development of plans and proposals in their area. A plain terms explanation will be given about which proposals will be subject to external oversight and/or consent. The Promoter will ensure the correspondence is copied to the Select Committee.

## **Crewe North Rolling Stock Depot – Engagement**

41. In paragraph 76 of the report the Select Committee said:

“We recognise petitioners’ concerns about the siting of the Crewe North Rolling Stock Depot. However, we agree with promoter that the alternative site proposed by the petitioners is not appropriate. We encourage petitioners and other local residents to take advantage of any opportunities for input and consultation during the design processes, and further recommend that if petitioners have views as to how the Rolling Stock Depot can be made to work for local residents and communities, they should communicate them to the promoter, who should listen sympathetically and consider whether there are any mitigations which could be put in place.”

### **Promoter’s Response**

42. The Crewe North Rolling Stock Depot is a ‘Key Design Element’ and the consultation and engagement approach would include the activities outlined in paragraph 38 of this response.

## Plumley with Toft and Bexton Parish Council (HS2-096)

43. In paragraph 79 of the report the Select Committee said:

“We welcome the clarity the promoter was able to provide on many of the points raised by the petitioner. In addition to these, we believe that every effort should be made to reinstitute or mitigate for the loss of as much woodland in and around Long Wood as is possible; that clarity (perhaps in the form of local notices or signage) should be given to local residents and users of the area regarding when and to what degree the footpaths highlighted by the petitioner will be accessible; and that sound insulation should be provided for the properties of Cranage Villas, Holford Farm and Holford Cottages during the enabling works, rather than at an early stage of the construction process.”

### Promoter’s Response

44. The Promoter recognises the importance of local wildlife sites (LWS), such as Long Wood, along the route of the Proposed Scheme. An assurance has been provided to the Parish Council to seek to reduce the loss of trees within the relevant area of Long Wood in so far as is consistent with the safe, timely, economic and efficient construction of the works authorised by the Bill.<sup>9</sup>

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<sup>9</sup> See U&A Ref ID C11.5 on the Phase 2b draft register of Undertakings and Assurance

Additionally, the Promoter will require the nominated undertaker to replant as much of the relevant area of Long Wood as is reasonably practicable upon completion of the works to construct the Proposed Scheme.

45. Where a temporary or permanent realignment or diversion of a public right of way is unavoidable in the local area, the shortest practicable alternative route will be sought. Users will be given advance notice of any closures and diversions by the installation of appropriate signage and the use of other communication methods (such as letters, information on the HS2 website). As part of the detailed design process, after Royal Assent, the nominated undertaker will work with highway authorities, local access forums, user groups (e.g. the Ramblers) and communities to identify the best way of maintaining public rights of way during construction. This is set out in the HS2 Phase 2b Western Leg Information Paper E5: Roads and public rights of way.<sup>10</sup>

46. The Promoter has provided an assurance to the Parish Council offering noise insulation to Cranage Villas, Holford Farm and Holford Cottages during the enabling works.<sup>11</sup>

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10 See [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1088289/E5\\_Roads\\_and\\_public\\_rights\\_of\\_way\\_v2.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1088289/E5_Roads_and_public_rights_of_way_v2.pdf)

11 See U&A Ref ID C11.4 on the Phase 2b draft register of Undertakings and Assurance

## Councillor Hazel Faddes (HS2-111)

47. In paragraph 80 of the report the Select Committee said:

“We welcome the promoter’s openness to adjusting the site and size of the vent shaft compound to minimise land take and retain more of the green space on Middlewich Street. Should engineering considerations allow, we expect this to be done. A reduction in the overall footprint will also allow some of Councillor Faddes’ other asks to be accommodated; while we recognise that this will be subject to the final siting and design of the vent shaft site, we believe that the promoter should provide a hard-standing pathway across Yellow Park and commit to retaining and enhancing as much of the tree growth and hedging along the boundary of the Bentley Manor Care Home as possible. We welcome the promoter’s assurances regarding the provision of 24-hour security facilities (CCTV and personnel) around the vent shaft site and the lighting of pathways around the area.”

### Promoter’s Response

48. The Yellow Park Enhancement assurance provided to Cheshire East Council,<sup>12</sup> includes scope for the design requests made by Councillor Faddes. This includes providing a hard-standing pathway, if desired, and retaining and enhancing as much of the hedging along

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12 See U&A Ref ID C6.45 on the Phase 2b draft register of Undertakings and Assurance

the boundary of the park as possible. Middlewich Vent Shaft has been made a ‘Key Design Element’, in line with the HS2 Phase 2b Western Leg Information Paper D1: Design.<sup>13</sup> This means that local residents will be engaged on the design development of the site.

49. In paragraph 81 of the report the Select Committee said:

“Regardless of whether the final footprint of the vent shaft site is amended, the residents of this area will be losing a significant amount of a much-used green space. We understand that an enhanced assurance has been given—following this Committee’s encouragement—to Cheshire East Council after Councillor Faddes’ appearance before us, regarding enhancements to the Yellow Park play area and the Sherbourne Estate subject to terms being agreed between the Council and the Promoter, we believe this is to be welcomed. We hope that the needs and preferences of local residents are taken into account when decisions are taken as to what form such enhancements may take, and believe that they should be given the opportunity to make suggestions.”

## Promoter’s Response

50. The Promoter is pleased to report that Cheshire East Council and the Promoter have reached an agreement

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13 See [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1167502/D1\\_Design\\_v4.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1167502/D1_Design_v4.pdf)

regarding Yellow Park Open Space enhancements and an assurance has been provided to the Council.<sup>14</sup>

## Wincham Parish Council (HS2-014)

51. In paragraphs 83 of the report the Select Committee said:

“On the petitioner’s concerns relating to noise, we note the Promoter’s assertion that neither adverse construction nor operational noise effects are anticipated for the community of Higher Wincham. We hope that the petitioners are also reassured by the fact that there will be ongoing monitoring of noise levels against initial predictions. The Promoter must ensure that local residents are aware of the available avenues for raising concerns or complaints regarding noise levels.”

### Promoter’s Response

52. Noise levels will be monitored in line with the approach as set out in HS2 Phase 2b Western Leg Information Papers E12: Operational noise and vibration monitoring framework<sup>15</sup> and E13: Control of construction

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14 See U&A Ref ID C6.45 on the Phase 2b draft register of Undertakings and Assurance

15 See [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1088297/E12\\_Operational\\_noise\\_and\\_vibration\\_monitoring\\_framework\\_v2.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1088297/E12_Operational_noise_and_vibration_monitoring_framework_v2.pdf)

noise and vibration.<sup>16</sup> The Promoter will ensure that local residents are made aware of the 24-hour, seven days a week HS2 Helpdesk, through which they can raise concerns if they experience any disruption from noise effects caused by the construction or operation of the Proposed Scheme.

## **Northwich Town Council (HS2-077)**

53. In paragraph 84 of the report the Select Committee said:

“We recognise the petitioner’s understandable concerns relating to the impact of construction on key road and rail routes, in particular the effect of simultaneous closures. These should be avoided unless absolutely impossible: the Promoter should make every effort to ensure that works on road and rail routes in this petitioner’s area are not carried out at the same time to minimise the disruption to local residents, businesses and road users. If works do end up coinciding, this petitioner, as well as other relevant local authorities, should be included in discussions as to how the impact of this can be effectively communicated and mitigated.”

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16 See [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1115641/E13\\_Control\\_of\\_construction\\_noise\\_and\\_vibration\\_v3.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1115641/E13_Control_of_construction_noise_and_vibration_v3.pdf)

## Promoter's Response

54. The Promoter accepts the Committee's recommendation that future construction works on the Phase 2b Crewe to Manchester route should be carefully planned and co-ordinated to reduce the risk of concurrent disruption to road and rail routes in the Northwich area as far as reasonably practicable. The Promoter will engage with the Local Authority and local community on how to communicate and mitigate any works that do coincide.

55. In paragraph 86 of the report the Select Committee said:

“We agree with the Promoter that it would not be proportionate to construct additional noise barriers which would only be to the benefit of a very small number of people. However, the residents of Springbank Farm should be provided with appropriate noise insulation for their property.”

## Promoter's Response

56. Dwellings where the noise level during the operation of the railway is predicted to exceed the Significant Observed Adverse Effect Level have been identified individually through the environmental impact assessment and qualify under the Promoter's operational noise policy for noise insulation and ventilation. Qualification for noise insulation will be finalised and noise insulation offered at the time that the Proposed Scheme becomes operational. Springbank Farm has

been identified in the Environmental Statement as qualifying for noise insulation.

## **Lostock Gralam Parish Council (HS2-010 & AP1-007)**

57. In paragraph 87 of the report the Select Committee said:

“The promoter should commit to engage with the petitioner on proposals for the landscape and woodland mitigation planting on the slopes of the Lostock Gralam north and south embankments and on the land between the railway and the A556 to mitigate the visual impact and filter views of the embankments and the Smoker Brook viaduct.”

### **Promoter’s Response**

58. The Promoter acknowledges the Select Committee’s direction and an assurance has been provided to the Parish Council giving effect to that direction.<sup>17</sup>

59. In paragraph 88 of the report the Select Committee said:

“While we stand by our position that it would not be appropriate for us to pre-judge or override the consideration of traffic and transport issues by local highways authorities during the development of traffic

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17 See U&A Ref ID C19.3 on the Phase 2b draft register of Undertakings and Assurance

management plans, we do wish to note our view that several of the minor suggestions made by the petitioner—for the traffic lights at the Hall Lane crossroads to be rephased to allow for a right turn onto the A559, for a safer crossing near the Stubbs Lane junction, and for a ‘keep clear’ sign to be painted on the Stubbs Lane junction to Manchester Road—seem sensible and easily achievable. We hope that these issues are considered during the development of the traffic management plan for this area.”

## Promoter’s Response

60. The Promoter notes the Committee’s advice and will further consider the potential improvements for junctions and crossing facilities on the A559 Manchester Road corridor within the Parish of Lostock Gralam.

## Brian and Michelle Lewis (HS2-072)

61. In paragraph 89 of the report the Select Committee said:

“We are not required to take any action on this petition, as during his appearance before us Mr Lewis agreed to make an application to the Need to Sell scheme. However, the fact that Mr Lewis was unaware that he would qualify for this scheme raises an important issue. The promoter must ensure that petitioners and others who are eligible for the Need to Sell scheme, and other compensation and property schemes, are made aware of

this and are supported in understanding the schemes and in making applications.”

## Promoter’s Response

62. The Promoter has published the “Guide to HS2 Property Schemes for Phase 2b”<sup>18</sup> to explain the discretionary schemes which may be available for property owners. The Need to Sell Scheme is explained on page 18 of that guide. The Promoter will continue to ensure that information about the discretionary property schemes and the support available is publicised at events, meetings and always available on the HS2 website. We understand that the property schemes may seem complex. The summary table that we produced for inclusion in the Committee’s First Special Report provides clear guidance. In addition, the Promoter has produced a note summarising the statutory compensation arrangements payable to farmers. This can be found at annex D.

## Davenham Parish Council (HS2-012)

63. In paragraph 92 of the report the Select Committee said:

“The promoter must endeavour to avoid the busiest times for each of the construction sites in this petitioner’s area coinciding. Should timescales slip or change the promoter must work with this petitioner and all relevant

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18 See <https://www.hs2.org.uk/about-us/our-documents/guide-hs2-property-schemes-phase-2b/>

local authorities to establish a mutually acceptable way of proceeding. The petitioner should ensure that their concerns on this point are communicated to their local highway authority, so that they can be reflected in the development of the local traffic management plan.”

## Promoter's Response

64. The Promoter recognises that works need to be planned to reduce, as far as reasonably practicable, the impacts on local communities. As outlined in paragraphs 30, 32 and 33 in this report, we will develop an approach to ensure that local residents and groups views are captured by local highway authorities and taken into account. The Promoter recognises the concerns of Davenham Parish Council and will, in any case, consider these in developing the relevant Local Traffic Management Plan.

## John Wright (HS2-013)

65. In paragraph 94 of the report the Select Committee said:

“We believe the petitioner's request for longer notice periods in advance of disruptive works taking place on and around his property is reasonable, and therefore welcome the promoter's commitment to explore extending the notice periods given to the petitioner. As a matter of principle, the promoter should endeavour to give all petitioners as much notice as possible before undertaking works which will affect their properties or

immediate area, with the currently required three month notice period treated as a minimum to be exceeded rather than a target to be met.”

## **Promoter’s Response**

66. The Promoter will endeavour to give as much notice as possible before undertaking works which affect people’s property. The Bill provides for a minimum of three months’ notice of entry to be given where land is to be acquired outright. A longer notice period will be provided where reasonably practicable.

67. In paragraph 95 of the report the Select Committee said:

“On the concern around access around his property and the extent of land take, the promoter must clarify and communicate to Mr Wright the exact location of the consolidated construction boundary and its proximity to his property. In all cases along the route, petitioners must be in no doubt where works are to take place and where land is to be taken.”

## **Promoter’s Response**

68. The Promoter wrote to Mr Wright on 22 August 2023 to clarify the powers of the Bill being sought on his landholding as directed by the Select Committee. This includes a breakdown of the land parcels identified in Mr Wright’s ownership in the Bill Scheme along with the powers in the Bill being sought over his landholding.

## Winterbottom Lane Residents (HS2-086)

69. In paragraph 96 of the report the Select Committee said:

“We note and welcome the commitments offered by the promoter, both before and during the hearing before us, to minimise the use of Winterbottom Lane by construction traffic, to prevent HGVs from passing through the residential area of Winterbottom Lane, and to put in passing bays along the area of the road which will be used by larger vehicles. From what we have seen, we do not believe that the road, particularly the residential areas, would be suitable for prolonged or extensive use by heavy construction traffic, so we believe that these measures are appropriate. The promoter should offer an assurance noting these commitments to the petitioners, and also take steps to ensure that all drivers of construction vehicles are aware of the limitations regarding their use of Winterbottom Lane. Local residents should be provided with a contact phone number or other avenue of communication by which they can report issues or raise concerns regarding the use of the road by construction vehicles.”

### Promoter’s Response

70. The Promoter provided an assurance to the petitioner on 18 April 2023<sup>19</sup> to minimise the use of

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19 See U&A Ref ID C25.1 on the Phase 2b draft register of Undertakings and Assurance

construction traffic on Winterbottom Lane between the junction of Hoo Green Lane with Winterbottom Lane and the hamlet of Winterbottom, except for specified works which require specific access from the lane.

71. The petitioner also raised concern of the narrowness of Winterbottom Lane and its suitability for use by HGVs. During the petitioner's Select Committee hearing on 25 April 2023, the promoter offered to provide an assurance to the petitioner restricting the use of HGVs between the point of utilities access on Winterbottom Lane and a point beyond the petitioner's properties in the hamlet of Winterbottom. This was subsequently provided in writing on 12 May 2023.<sup>20</sup> The petitioner has indicated that they are satisfied with this assurance.

72. In terms of the steps to be taken to ensure that all drivers of construction vehicles are aware of the limitations regarding their use of Winterbottom Lane, the nominated undertaker will require that Local Traffic Management Plans (LTMP) be produced. The production of these LTMPs will include, amongst other measures, permitted access routes for construction traffic, site boundaries and the main access/egress points for worksites and compounds and a list of roads, in the vicinity of the site, which may be used by construction traffic, including any restrictions to construction traffic on these routes. The drivers of construction vehicles in

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20 See U&A Ref ID C25.2 on the Phase 2b draft register of Undertakings and Assurance

the area will be made aware of the limitations of using Winterbottom Lane as per the assurances provided.

73. The nominated undertaker and its contractors will maintain a telephone helpline staffed 24 hours a day, seven days a week, to act as a first point of contact for information in the case of any emergency or incident, such as to report issues or raise concerns regarding the use of the road by construction vehicles. This will be provided to the petitioners.

74. We would also like to note that, as is discussed above in respect of the petitioners ‘Hoo Green Residents Group (HS2–022), Gabriella Manning and Jon O’Reilly (HS2–028), and Christopher and Elizabeth Hough (HS2–026)’, the Special Management Zone that was the subject of an assurance provided to Cheshire East Council<sup>21</sup> relates to the area that the hamlet of Winterbottom falls within. The measures that the Special Management Zones will put in place will apply to the petitioners. We will publish further details in due course.

## **Dr Derek & Mrs Karina Armstrong (HS2-125)**

75. In paragraph 100 of the report the Select Committee said:

“We hope that the petitioner is reassured by the promoter’s responses on the safety of constructing

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21 See U&A Ref ID C6.46 on the Phase 2b draft register of Undertakings and Assurance

a borrow pit on the planned land, on the ability of residents to make a claim for compensation for any damage caused by the promoter, and on the expected reduced noise levels with the bund in place. We do not believe that it is necessary to make the screening bund permanent, but do call on the promoter to provide further information to the petitioner on how it intends to address his concerns relating to his existing sewage outfall, as this was not made clear to us during the hearing.”

## Promoter’s Response

76. The Promoter wrote to the petitioners on 25 May 2023, in advance of their petition hearing to address the concerns raised by Mr and Mrs Armstrong with respect to the sewage outfall for their property. The letter explained that the Promoter does not consider there would be any interference with the usual functionality of the sewage system for their property as a result of the works for the Proposed Scheme.<sup>22</sup> Interfaces between the proposed borrow pit C on land near to the petitioners’ property and existing wastewater drainage systems would be carefully managed during the construction of HS2, such that their existing sewage system would not be affected by the temporary HS2 construction works. This was also discussed at a meeting with the petitioner on 29 November 2022.

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22 See P416 of the promoters exhibit bundle – <https://committees.parliament.uk/publications/40254/documents/196498/default/>

## Stanthorne and Wimboldsley Parish Meeting (HS2-114)

77. In paragraph 102 of the report the Select Committee said:

“We await representations from the local Council on the matter, but our initial view is that the promoter should be very sympathetic to any requests for additional mitigations for the benefit of Wimboldsley Primary School. We welcome the promoter’s commitment to explore whether the mitigation measures for borrow pits B and C could be extended to borrow pit A, and believe that they should if possible and appropriate.”

### Promoter’s Response

78. The Promoter has explored the possibility of extending the mitigation measures to borrow pit A and has provided an assurance to Stanthorne and Wimboldsley Parish Meeting<sup>23</sup> to address this.

79. In paragraph 103 of the report the Select Committee said:

“Residents in this area are clearly keen to contribute to the design process for the Rolling Stock Depot. We reiterate our view that the promoter must ensure that the petitioners and the residents they represent are made

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23 See U&A Ref ID C59.1 on the Phase 2b draft register of Undertakings and Assurance

aware of the opportunities they will have to participate in any public consultations or other design processes.”

## Promoter’s Response

80. The Crewe North Rolling Stock Depot is a ‘Key Design Element’ and the consultation and engagement approach for residents and the local community would include the activities outlined in paragraph 38 of this report.

## HS2 Cheshire Residents Group (HS2-117)

81. In paragraph 104 of the report the Select Committee said:

“The promoter should provide the petitioners with a response addressing their concerns relating to the imposition of new land drains on refilled land, the use of balancing ponds, and the promoter’s plans for the return of the topsoil layer in in-filled borrow pits to previous or agricultural usage.”

## Promoter’s Response

82. The Promoter wrote to the petitioners on 22 August 2023 addressing their concerns in relation to land drainage, balancing ponds and borrow pit restoration. This is also set out in HS2 Phase 2b Western Leg Information Paper E16: Land drainage,<sup>24</sup> HS2 2b

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24 See [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1172876/E16\\_Land\\_drainage\\_v3.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1172876/E16_Land_drainage_v3.pdf)

Western Leg Information Paper E21: Balancing ponds and replacement flood storage areas',<sup>25</sup> HS2 Phase 2b Western Leg Information Paper D12 Borrow Pits.<sup>26</sup>

## **Hoo Green Residents Group (HS2-022), Gabriella Manning and Jon O'Reilly (HS2-028) & Christopher and Elizabeth Hough (HS2-026)**

83. In paragraph 106 of the report the Select Committee said:

“We welcome the promoter’s establishment of a Special Management Zone (SMZ) for this area, which will include a bigger community engagement team, single and named points of contact, a senior manager responsible for implementation of the Code of Construction Practice, and the provision of advice on appropriate support mechanisms to be provided by the nominated undertaker. We recognise that it is difficult for the promoter to define in advance what ‘appropriate support mechanisms’ could be in practice and that it is right that decisions are taken on a case-by-case basis, but this ambiguity

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25 See [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1088306/E21\\_Balancing\\_ponds\\_and\\_replacement\\_floodplain\\_storage\\_areas\\_v2.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1088306/E21_Balancing_ponds_and_replacement_floodplain_storage_areas_v2.pdf)

26 See [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1088279/D12\\_Borrow\\_Pits\\_v2.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1088279/D12_Borrow_Pits_v2.pdf)

means that petitioners and local residents have no way of knowing whether they would qualify for support or what such support could look like. We therefore believe that the promoter should compile and publish hypothetical examples or case studies of circumstances in which support would be provided.”

## Promoter's Response

84. An assurance will be provided to Cheshire West and Chester Council and shared with the petitioners regarding the creation of a Special Management Zone (SMZ). It makes a number of provisions around functions and duties of the engagement team that would support the SMZ once it is operational.

85. An SMZ has been established and is currently operating on the Phase 1 London to West Midlands route of the HS2 project. This SMZ relates to an area within Warwickshire. The Phase 1 SMZ has established an external liaison group comprised of members from the local authority and of the relevant parish councils, as well as from relevant local groups in the area covered by the SMZ, and representatives from the Promoter. Terms of Reference have been agreed with this liaison group identifying the format, arrangements and methods of addressing the provisions of the SMZ. The SMZ is already receiving requests for support on particular subjects via its external liaison group from those within the area it covers.

86. Within the area of the Phase One SMZ, the Promoter established ‘sub-group’ style forums to work with requests for enhanced mitigation measures for certain aspects of the Scheme. Other instances of support have included providing information-sharing sessions via established working arrangements of the SMZ which looked at existing HS2 funds to allow the community to prepare an application, and to provide an ‘escalation point’ for the local community to bring certain issues or challenges to the attention of relevant parties within the project team.

87. Additional support could be provided by the Promoter through the SMZ, by providing community briefings and updates developed through the external liaison group. Close collaborative and co-ordinated working between all parties of the SMZ could be used to address community issues.

88. In paragraph 107 of the report the Select Committee said:

“We also require the promoter to explain clearly to local communities what the process for claiming or requesting support through the SMZ will be, to undertake to identify individuals—such as Mr O’Reilly—who may be specially affected and require additional support before the Bill receives Royal Assent, and to make all relevant preparations so that the SMZ is able to come into practical operation upon Royal Assent.”

## Promoter's Response

89. The Promoter notes the Committee's request in paragraph 107 and will do so.

## Pickmere Parish Council (HS2-061)

90. In paragraph 110 of the report the Select Committee said:

“Due to time constraints, the promoter was unable to respond to all of the issues raised by the petitioner in its appearance before us. We therefore ask the promoter to provide the petitioner with written responses on outstanding points, particularly: plans for, or the consideration given to, the provision of transport services for compound staff; measures proposed to mitigate, offset or prevent community severance and isolation (including the maintenance or replacement of transport links); clarity regarding the scheme's impact on previously proposed extensions to the Holford Brinefield; and advice on accessing funding opportunities such as the Community and Environment Fund.”

## Promoter's Response

91. The Promoter will provide a written response to the petitioner to address the outstanding points that were not covered during the hearing. A copy will be provided to the Committee.

## Mr David Robert Germain (HS2-005)

92. In paragraph 113 of the report the Select Committee said:

“The petitioner’s main concern related to options for the reinstatement or relocation of his nursery business. As discussed in his hearing before us, Mr Germain has two main options: to serve a blight notice requiring the Secretary of State to acquire his agricultural holding, or to seek to make use of the powers of reinstatement outlined in Clause 47 of the Bill. This is a decision for Mr Germain to make, and we will not presume to tell him which course of action to take. However, we do note that while powers under Clause 47 will not become available to the nominated undertaker until after Royal Assent and would leave Mr Germain with a maximum of twelve months to find and relocate to a new property, service of a blight notice would provide him with more time to identify and purchase a suitable new site, see him obtain full unblighted market value for the property, and enable him to benefit from assistance from the promoter in facilitating a transfer to a new site. We agree that it would not be possible for the promoter to offer an undertaking that an appropriate new site will be found, but note its offer of support in identifying potential sites, navigating the planning process, and instructing a land agent; we trust that this support, and any other assistance required by Mr Germain, will be forthcoming in a timely and collaborative manner.”

## Promoter's Response

93. The Promoter notes the comments of the Select Committee. We provided an assurance regarding the provision of site search support to the petitioner on 24 July 2023.<sup>27</sup>

## Harbour Healthcare (HS2-119) & Sherborne Court Neurological Centre (HS2-015)

94. In paragraph 114 of the report the Select Committee said:

“Ground-borne noise and vibration levels are currently predicted to cause an adverse effect on these petitioners’ properties; this is obviously a serious concern for providers of healthcare services. We therefore welcome the assurance offered by the promoter to seek to reduce and remove such adverse effects, and the commitment to provide these petitioners with an update in reasonable time before the commencement of operation of the railway so that they can decide how they wish to proceed. We call upon the promoter to give the petitioners an assurance that it will—at a ‘trigger point’ date to be mutually agreed by the parties—provide them with an update as to the latest anticipated noise and vibration levels for their properties, so that the petitioners are able to consider their options. The promoter must remain in contact with the petitioners in the years before this date,

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27 See U&A Ref ID C33.8 on the Phase 2b draft register of Undertakings and Assurance

and provide them with relevant updates or developments in the interim when available.”

## Promoter’s Response

95. The Promoter has provided the petitioners with an assurance relating to a ‘trigger point’ as outlined in the Select Committee hearing on 27 June 2023.<sup>28</sup> The Promoter also notes the Select Committee’s direction on engagement and has provided an assurance to the petitioners in accordance with the previous assurances offered to the petitioners on 16 May 2023.<sup>29</sup>

96. In paragraph 115 of the report the Select Committee said:

“In preparation for an eventuality where predicted levels remain at such a level of adverse effect that the petitioners do not consider it viable for them to remain in their current location, we require the promoter to provide them with information on the assistance which will be provided in this scenario. In addition to financial compensation, we believe that this should include support in identifying and purchasing appropriate new locations for the establishments and navigating planning, construction and fitout processes.”

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28 See U&A C46.1 on the Phase 2b draft register of Undertakings and Assurance

29 See U&A Ref ID C46.4 on the Phase 2b draft register of Undertakings and Assurance

## Promoter's Response

97. Based on their current arrangements, both the freehold owner occupier of Sherborne Court Neurological Centre (Select Healthcare Ltd) and the leaseholder of Bentley Manor Care Home (Harbour Healthcare Ltd) will each be entitled to make a claim for compensation under s.7 of the Land Compensation Act 1973. This relates to the diminution in the value of their respective interests resulting from the construction and operation of the Proposed Scheme, following the acquisition of their subsoil for the Crewe Tunnel. As explained in the Select Committee hearing on 27 June (paragraph 272 of the transcript),<sup>30</sup> the Promoter considers it appropriate given the particular circumstances of this case, to offer an extension of that statutory right to compensation to the owner-occupier of Sherborne Court in recognition of their freehold ownership of that property. The Promoter has provided them with an assurance to commit to underwrite the reasonable moving costs and support with the planning process at the appropriate time should, at the 'trigger point date' referred to above, it become evident that the ground borne noise and vibration cannot be mitigated and the predicated noise levels from operation are likely to remain above the lowest observed adverse

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30 See <https://committees.parliament.uk/oralevidence/13387/pdf/>

effect noise level.<sup>31</sup> The Promoter does not consider it appropriate to offer the leaseholder of Bentley Manor Care Home a similar extension to their statutory right to compensation, as a leaseholder enjoys greater flexibility to manage their leasehold interest or secure a new lease in the open market, if necessary.

98. The Promoter notes the Committee's recommendation to provide both petitioners with information and support over and above financial compensation, should it not be possible to satisfactorily mitigate the ground-borne noise and vibration effects of operation of the Crewe Tunnel beneath their premises. The Promoter will make specific commitments about the provision of information to the petitioners as the design for the tunnel develops. In addition, the Promoter will write to the petitioners explaining its' policies on the assistance available to occupiers in finding suitable alternative premises (HS2 Phase 2b Western Leg Information Paper C7: Business relocation)<sup>32</sup> and on the statement of impact and timing that can be provided to support any planning application the petitioners may need to make for the replacement of their facilities (HS2

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31 See U&A Ref ID C46.3 on the Phase 2b draft register of Undertakings and Assurance

32 See [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1088256/C7\\_Business\\_relocation\\_v2.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1088256/C7_Business_relocation_v2.pdf)

## Phase 2b Western Leg Information Paper C2: Rural landowners and occupiers guide).<sup>33</sup>

99. The policies are intended to help occupiers who need to move as a result of having land acquired for the scheme, assist with identifying suitable alternative premises and in securing planning consent to maintain their operations.

### **Patricia Mather and John Keleher (HS2-002)**

100. In paragraph 117 of the report the Select Committee said:

“We recognise that Ms Mather and Mr Keleher are in an invidious position; however, whether they choose to remain at their current property or serve a blight notice and seek to leave, they should receive appropriate compensation. The promoter outlined the available arrangements for compensation in the hearing before us; should the petitioners require any further guidance, this should be provided (in clear terms) by the promoter.”

### **Promoter’s Response**

101. Irrespective of whether Ms Mather and Mr Keleher remain at their current property or serve a blight notice and seek to leave, they will be compensated in

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33 See [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1172875/C2\\_Rural\\_landowners\\_and\\_occupiers\\_guide\\_v6.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1172875/C2_Rural_landowners_and_occupiers_guide_v6.pdf)

accordance with the Compensation Code as they are affected by the exercise of the compulsory powers of acquisition. The Compensation Code generally provides for compensation to be paid at the market value of the land acquired in a no-scheme world. The Compensation Code also provides compensation for reasonable disturbance losses suffered as a result of the Proposed Scheme, statutory loss payments and payments for reasonable professional fees. The Promoter has produced a note summarising the statutory compensation arrangements payable to farmers. This can be found at annex D.

102. The Promoter will continue to work with Ms Mather and Mr Keleher and can offer an in-person meeting with a property advisor to provide further guidance whether they remain at their current property or serve a blight notice and seek to leave.

# Annex A: Response to Questions Raised in Paragraph 58 of the Report

## Consideration of Billinge Flash

A.1 HS2 Ltd continues to recognise Billinge Flash as a risk area from a salt dissolution and ground condition aspect, and this is identified as such in the “Understanding the Ground Risk across the Cheshire Plan” March 2023 report in section 3.2.18 and section 4.4.12 to 4.4.18. The risk has been established by a review of literature, from community engagement suggesting subsidence and from historical records.

A.2 The following evidence has been noted:

- Billinge Flash is recognised within literature and historical mapping as commencing subsiding in the 1870’s, continuing through to the 1950’s.
- Potential connectivity between Billinge Flash and Northwich is probable and discussed within published literature stating that the Northwich Great Subsidence of 1880 resulted in change in water level at Billinge Flash.
- The maintenance records of Whatcroft Hall Lane Network Rail Bridge (adjacent to the Flash) show

no evidence of ground movement impacting on this bridge since 1983.

A.3 The potential connectivity hypothesis is that the areas are linked by a deep buried glacial valley which facilitated connectivity between the salt rockhead at Billinge Green and industrial brine extraction processes within Northwich. Since the cessation of Northwich brine extraction circa 1960, dissolution at Billinge Green and hence surface subsidence has stabilised back towards natural rates of subsidence.

A.4 HS2 Ltd plan to carry out further investigations (in-ground and remote sensing) to further understand any ongoing rates of subsidence, which are expected to be low from the evidence gathered to date. This will enable the detailed design necessary to manage any ongoing movement in the area, developing the solutions which are provided more generally in the Understanding the Ground Risk across the Cheshire Plan March 2023 report section 4.3 and 4.6, and on a site-specific basis in section 4.4.12 to 4.4.18.

## **Consideration of Artesian Aquifer and Running Sands**

A.5 The Promoter understands the construction risks of artesian groundwater conditions (where the hydrostatic head is above ground level) and potentially running sands (where high-water flows destabilise sand deposits). These are well known engineering considerations which

are routinely managed by competent designers and contractors.

A.6 In the area of interest, the HS2 alignment has been deliberately kept above ground level to limit impacts on the groundwater regime. This has the benefit where artesian conditions are present that the number of activities undertaken in the ground is limited. Where excavations are necessary (for example for piling, or foundation works) and artesian conditions are present, the water pressures will either be balanced or will be relieved by drainage during construction. Where the conditions are present which could result in running sands, a number of techniques are available to manage excavations safely including depressurisation wells, grouting or cut-off walls. The final choice of solution will be subject to detailed design, including detailed consideration of all site-specific constraints, including environmental ones.

A.7 HS2 Ltd's advanced ground investigation identified local artesian aquifers, typically at shallow depth (2 m to 12 m below ground). Deep artesian aquifers have not been encountered in the area of interest. Further ground investigation is planned which will enable a full understanding of the groundwater pressures and potential for high flows across the whole route. The desktop study has not identified any known literature linking artesian aquifers and salt dissolution.

## Working Around Existing Underground Pipework and Private Utility Network

A.8 The Promoter understands the concerns of the local community and continues to consult with the operators of the Salt Industry infrastructure and discussions are ongoing with the business owners/operators to ensure public safety and their safe continued business operations during the construction and operation of the Proposed Scheme. The risk associated to interfacing with public or private utilities is managed by enabling diversions ahead of the main construction works, where practicable.

### Monitoring

A.9 Monitoring will be used to support the design, construction, and operation of the proposed railway. Any subsidence in the area of interest is anticipated to be gradual as noted in the March 2023 report, paragraph 3.2.52.

A.10 Monitoring will comprise a combination of terrestrial instrumentation and remote sensing and the details of what is necessary will be determined on a site-by-site basis following completion of the full ground investigation. Examples of terrestrial instruments are precise survey points, extensometers, distributed fibre-optic systems and inclinometers. Examples of remote sensing include LiDAR and INSAR as described in the March 2023

report and further in “A Note on Ground Risk across the Cheshire Plain” dated 5th April 2023.<sup>34</sup>

A.11 The monitoring protocols will include threshold values for movements, or rates of movement, which will determine engineering responses appropriate to the design. In most situations, because the infrastructure will be designed to accommodate anticipated ground movements, except for planned maintenance works, no further response will be appropriate. Each asset will have bespoke movement thresholds which, if exceeded, will trigger engineering interventions to ensure the continued safe operation of the railway.

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34 See Promoter’s evidence P180 [committees.parliament.uk/publications/39146/documents/192563/default/](https://committees.parliament.uk/publications/39146/documents/192563/default/)

# Annex B: List of Publications/ Academics that were Consulted During the Development of HS2 Phase 2b Through the Cheshire Plain

B.1 The following is a selection of some of the Academic and Professional Engineers and Geologists consulted as part of the development of the HS2 Scheme through the Cheshire Plain.

## Academics

- British Geological Survey Personnel, including:
  - Helen Reeves (BGS Science Director)
  - David Entwistle (BGS Engineering Geologist and Formation Expert)
  - Jon Ford (BGS Chief Geologist, England)
  - Holger Kessler – (BGS Quaternary Geologist)
  - Alesandro Novellino (BGS Earth Sensing/ Monitoring)
  - Ed Hough (BGS Field Geologist)

- Spanish High-Speed Rail – Personnel experienced in development of Spanish High-Speed Rail across similar Salt Geology, including:
  - Violete Gonzalez (ADIF) Area Technical Lead
  - Enrique Aragon (ADIF)
  - Mario Garcia (ADIF)
  - Jesus Pena (ADIF)
  - Alvaro Mascaraque (ADIF)
  - Carles Viader (ACI/INECO)
  - Manuel Lombardero Barcelo (ACI/INECO) – Senior Expert Geologist
- University of Southampton – Specialists in Rail Infrastructure Design and Geotechnical Engineering, including:
  - Prof. William Powrie and others
- Imperial College London – Specialists in Remote Sensing
  - Dr. James Lawrence and others

## **Technical Papers, Reports, Technical Standards and Technical Publications**

B.2 The following is a selection of Technical Papers, Reports, Technical Standards and Technical Publications

reviewed and used in development of the HS2 Route for Phase 2b.

## Technical Papers and Reports

Title	Reference
A.A.Wilson (1993) The Mercia Mudstone Group (Trias) of the Cheshire Basin	Proc of the Yorkshire Geological Society Vol 49, Part 3, pp 171-188
Aggregates supply in England, Issues for Planning	British Geological Survey Open Report OR/08/025 (2008)
Al-Shaikh-Ali, A.A. (1978) The behaviour of Cheshire Basin lodgement till in motorway construction	Clay fill. Institution of Civil Engineers, London, 15-23
Ambrose, K., Hough, E., Smith, N.J.P. and Warrington, G. (2014) Lithostratigraphy of the Sherwood Sandstone Group of England, Wales and south-west Scotland.	British Geological Survey Research Report RR/14/01
Allen, D.J. et al. (1997) – The physical properties of major aquifers in England and Wales.	British Geological Survey Technical Report WD/97/34.
Arrick, A, and others. (1995). A user's guide to Wigan's ground conditions. Vol 2 of A geological background for planning and development in Wigan. Forster, A, Arrick, A, Culshaw, MG, and Johnston, M (editors).	British Geological Survey Technical Report, No. WN/95/3
Ashworth G (1987) The Lost Rivers of Manchester	
Atkinson J.H., Fookes P.G., Miglio B.F. & Pettifer G.S. (2003) Deconstructing and disaggregation of Mercia Mudstone during full-face tunnelling	Quarterly Journal of Engineering Geology and Hydrogeology, Vol 36, pp 293-303

Title	Reference
Ball et al. (2006) Sixfields, Harvey Reeves Road and Ransome Road landfill sites redevelopment	The Geological Society of London Paper 405
Barnes G. E. (1995) Soil Mechanics Principles and Practice, Macmillan	Palgrave Macmillan
Bell, F.G. (1975) Salt and Subsidence in Cheshire, England	Engineering Geology, 1975, Volume 9
Bell, F.G. (1992) Salt mining and associated subsidence in Mid-Cheshire, England, and its influence on Planning	Bulletin of the Association of Engineering Geologists Vol. XXIX, No4, 1992, pp 371-386
Bell, F.G and Culshaw, M.G.(1998) Petrographic and engineering properties of sandstones from the Sneinton Formation, Nottinghamshire, England	Quarterly Journal of Engineering Geology and Hydrogeology, Vol 31, pp 5-19
Beutel, T, Black, S (2004) Salt Deposits and Gas Cavern Storage in the UK with a case study of salt exploration from Cheshire	SMRI: Fall 2004 Technical Meeting, Berlin.
Blower, T. and Jarvis, L.H. (2012) Some aspects of embankment dams constructed on the Mercia Mudstone.	Institute of Civil Engineers publication: Dams: Engineering in a Social and Environmental Context (pp. 71 – 84)
Branston, M.W. and Style,P (2003) The application of Time-Lapse Microgravity for the Investigation and Monitoring of subsidence at Northwich, Cheshire.	Quarterly Journal of Engineering Geology and Hydrogeology 2003 Vol 36, 3

Title	Reference
Bridge DM, Butcher A, Hough E, Kessler H, Lelliot M, Price SJ, Reeves HJ, Tye AM, Wildman G, and Brown S. (2010). Ground conditions in central Manchester and Salford: the use of 3D geoscientific model as a basis for decision support in the built environment.	British Geological Survey Research Report RR/10/06. 74pp
BritPave, 2011. BP/51 Stabilisation of Sulfate-bearing Soils: Guidelines for Best Practice.	
Brock, E. & Franklin, J. A (1972), The point load strength test	International Journal of Rock mechanics and Mining Science Vol 9, pp 669-697
Brooke, R. & Dodge, M. (2012). Infra-MANC Post-War Infrastructures of Manchester.	Bauprint.
Booth, E.D., Bryan Skipp, Peter Watt “Establishing the need for seismic design in UK”, Institution Of Civil Engineers, Research Enabling Fund, 2008	Booth et al. 2008
Brookes, T.G. et al. (2006) Stabilisation of Abandoned Salt Mines in North West England. IAEG2006 Paper no. 781.	IAEG2006 Paper no. 781
BS 6031:2009 Code of practice for earthworks	BS 6021 (2009)
BS EN 16907-2:2018 Earthworks. Classification of materials	BS EN 16907-2 (2018)
BS EN 16907-3:2018 Earthworks. Construction procedures	BS EN 16907-3 (2018)
Building Research Establishment, 2005. BRE: Special Digest 1 Concrete in Aggressive Ground.	
Calvert, A.F (1915), Salt in Cheshire	

Title	Reference
California Geological Survey, Special publication SPF117A	CGS, 2002
Chandler & Forster (2001). Engineering in Mercia Mudstone	CIRIA Report C570
Chandler, R. J. (1969). The effect of weathering on the shear strength properties of Keuper Marl.	Geotechnique, Vol. 19, 321-334.
Charlesworth, G. (1984). A history of British motorways.	London: Thomas Telford Limited.
Cooper, A,H (2002). Halite karst geohazards (natural and man-made) in the United Kingdom.	Environmental Geology, Vol 42, pp 505-512
Cooper, A.H (2020). Geological Hazards from Salt Mining, brine extraction and natural salt dissolution in the UK	Geological Society, London, Engineering Geology Special Publications, Vol 29
Cooper, A.H., Gutierrez, F (2013). Dealing with gypsum karst problems: hazards, environmental issues and planning	Treatise on Geomorphology – Academic Press, San Diego, CA, Vol 6 Karst Geomorphology pp 451-462
Cripps, J.C. and Taylor, R.K. (1981). The Engineering properties of Mudrocks	Quarterly Journal of Engineering Geology and Hydrogeology. Vol. 14, pp 325-346
Culshaw M G and Crummy J A (1988) The Engineering Geology of the Deeside Area	British Geological Survey Technical Report WN/8817
Dobie, M.J.D (1988) The use of cone penetration testing in Glacial Till.	Penetration testing in the UK. Thomas Telford, London

Title	Reference
Domenico, P.A. and Schwartz, F.W. (1997) Physical and Chemical Hydrogeology (2nd Edition)	
Early K.R. & Skempton A.W. (1972) Investigations of the landslide at Walton's Wood, Staffordshire	Quarterly Journal of Engineering Geology and Hydrogeology. Vol. 5, pp 19-41
Eccles, C and Ferley, S (2018) Geology and HS2	GeoScientist, February 2018
Edgar Morton & Partners – Review from the University of Manchester Main University Library Archives & Records Collection – Edgar Morton & Partners Special Collection	
English Nature/Environment Agency (Feb 2001) Meres and Mosses Conservation Plan: Rostherne Mere	
Entwisle, D.C. (1989). The swelling characteristics of weathered Coal Measures mudrocks from Sydalit near Wrexham, Clywd, Wales	BGS Report WN/89/8
Habitats Directive Review of Consents Stage 1 and 2: Manchester Mosslands SAC (Astley and Bedford Moss, Holcroft Moss and Risley Moss)	Environment Agency (Jan 2001)
Evans D J & Hough E (2008) Review of Canatxx work relating to mining in the Preesall Saltfield and comments on wet rockhead conditions	British Geological Survey CR/08/114 Keyworth, Nottingham
Evans D J & Hough E (2009a) Faulting at Preesall and other saltfields: information relevant to gas storage in the Preesall Halite	British Geological Survey CR/09/038 Keyworth, Nottingham

Title	Reference
Evans D J & Hough E (2009b) Rockhead conditions, salt extraction, subsidence and stability of the Preesall Saltfield with comparison to other saltfields: information relevant to gas storage in halite in the Preesall Saltfield	British Geological Survey CR/09/037 Keyworth, Nottingham
Fleming, K., Weltman, A., Randolph, M. and Elson, K. (2009). Piling Engineering, Third Edition	
Forster A, Lawrence DJD, Highley DE, Cheney CS and Arrick A. (2004). Applied geological mapping for planning and development: an example from Wigan UK.	Quarterly Journal of Engineering Geology and Hydrogeology Vol 37, 301-315
Forster, A, and others. (1995). A geological foundation for planning. Vol 1 of A geological background for planning and development in Wigan. Forster, A, Arrick, A, Culshaw, MG, and Johnston, M (editors).	British Geological Survey Technical Report, No. WN/95/3
Galve, J.P. et al. (2009). Sinkholes in the salt-bearing evaporite karst of the Ebro River valley upstream of Zaragoza city (N.E. Spain): Geomorphological mapping and analysis as a basis for risk management.	Geomorphology Vol 108, pp145-158
Gannon, J.A., Masterton, G.G.T., Wallace, W.A. and Muir Wood, D. (1999). CIRIA Report 181 Piled foundations in weak rocks	CIRIA 181
Guerrero, J, Gutierrez, F, Bonachea, J, Lucha, P (2008) A sinkhole susceptibility zonation based on paleokarst analysis along a stretch of the Madrid-Barcelona high speed railway built over gypsum and salt bearing evaporites (NE Spain)	Engineering Geology Vol 102 62-73

Title	Reference
Guerrero, J, Gutierrez,F, Lucha, P (2004) Paleosubsidence and active subsidence due to evaporite dissolution in the Zaragoza area (Huerva River valley, N.E. Spain): processes, spatial distribution and protection measures for transport routes	Engineering Geology Vol 72, 309-329
Hawkins, A.B. (1979). Case histories of some effects of solution/dissolution in the Keuper rocks of the Severn Estuary region.	Quarterly Journal of Engineering Geology and Hydrogeology, Vol 12, pp 31-40
Highways England, Manual of Contract Documents For Highway Works, Volume 1 Specification For Highway Works, Series 600 Earthworks.	HE SHW 600
Hobbs, PRN et al. (2002). Engineering Geology of British Rocks and Soils – Mudstones of the Mercia Mudstone Group.	British Geological Survey Research Report RR/01/02.
Howard, A.S., Warrington, G., Ambrose, K. and Rees, J.G. (2008) A formational framework for the Mercia Mudstone Group (Triassic) of England and Wales.	British Geological Survey Research Report RR/08/04
Howell, F.T. and Jenkins, P.L (1976). Some aspects of the subsidences in the rocksalt districts of Cheshire, England.	Publication 121; International Association of Hydrological Sciences, Proc Anaheim Symposium 1976
Infrastructure Cuttings	CIRIA C591
Infrastructure Embankments	CIRIA C592
Jones NS, Holloway S, Creedy DP, Garner K, Smith NJP, Browne MAE and Durucan S. (2004). UK Coal Resources for New Exploitation Technologies Final Report	British Geological Survey Commissioned Report CR/04/015N

Title	Reference
Jones, NS. (2006). Coal Resource Appraisal Maps: methodology and datasets used.	British Geological Survey Commissioned Report CR/06/159N. 19pp.
Jones, H.K et al. (2000) – The physical properties of minor aquifers in England and Wales.	British Geological Survey Technical Report WD/00/4.
Knights, M.C. (1973) Site investigations for the proposed rail tunnel, Manchester.	The Institution of Civil Engineers British Geotechnical Society Cooling Prize Entry (unpublished)
Labadz, J. et al. (Oct 2010) Peatland Hydrology – Draft Scientific Review	IUCN UK Peatland Programme’s Commission of Inquiry on Peatlands.
Large Diameter Bored Piling – CTRL C350 Medway Viaduct	A398 Bachy Soletanche (2001)
M62 J11 – J12 Geotechnical Scheme, Geotechnical Feedback Report	M62 J11-J12, Atkins (2008)
Manchester Ship Canal. The land drainage function of the Canal between Latchford and Irlam Locks. September 1982	Hydraulics Research Station, Wallingford, Report EX 1080
Marsland, A., Butcher A.P. and Taffs F.H. (1983) The behaviour of a bridge abutment foundation on Keuper marl during and after construction.	Proceedings of the Institution of Civil Engineers, Part 1, 74, pp917-944
Mesri, G. & Ajlouni, M. 2007. Engineering properties of fibrous peats.	Journal of Geotechnical and Geoenvironmental Engineering, ASCE, 133, 850-866.
Mesri, G. & GodleWski, P.M. 1977. Time and stress compressibility interrelationship.	Journal of the Geotechnical Engineering Division, ASCE, 103, 417-430.

Title	Reference
Minchin DJ, Cameron DG, Evans DJ, Lott GK, Hobbs SF, and Highley DE. (2006). Mineral Resource Information in Support of National and Local Planning: Greater Manchester (Comprising Cities of Manchester, and Salford and Metropolitan Boroughs of Bolton, Bury, Oldham, Rochdale, Stockport, Thameside, Trafford and Wigan).	British Geological Survey Commissioned Report CR/05/182N. 20pp
Mott MacDonald, (2013) NET Phase two, Geotechnical Design Report	
Norton GE, Bloodworth A.J, Cameron, D.G, Evans, D.J, Lott G.K, Hobbs S.F., Highley D.E. (2006). Mineral Resource Information in Support of National, Regional and Local Planning: Cheshire (comprising Cheshire, Boroughs of Halton and Warrington).	British Geological Survey Commissioned Report CR/05/090N
National Groundwater and Contaminated Land Centre (2002). Piling into contaminated sites	Environment Agency
Novak P., and Gilbert P. (2015), Earthworks: A Guide 2nd Edition	Institution of Civil Engineers
Owens A & Sanders C (2014) Preston 7 UIDs collaboration, innovation and success in the face of adversity.	Wastewater Treatment & Sewerage
Parry et al. (1999) Trials for the construction of a cement solidified retaining structure in a domestic landfill site using deep soil mixing,	Geoenvironmental Engineering, Thomas Telford London p146-162
Perry, J. (1989). A Survey of Earthworks Conditions in England and Wales	TRL RR199

Title	Reference
Passaris, E and Dunn,G (2016): Fifty five years of rock mechanics investigations that are also used in the design of gas storage caverns	Solution Mining Research Institute Fall 2016 Technical Conference
Passaris,E, Allan,M and Dunn.G (2022): Geomechanical stabilisation of Winsford salt mine in Cheshire using APCr waste	Solution Mining Research Institute Fall 2022 Technical Conference
Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination: Guidance on Pollution Prevention.	NC/99/73 Environment Agency (2001)
Powell W.D, Potter J.F, Mayhew H.C and Nunn M.E,(1984) The Structural Design of Bituminous Roads. Report LR1132; TRRL	Report LR1132; TRRL
Pringle, J.K et al (2012) Long term time-lapse microgravity and geotechnical monitoring of relict salt mines, Marston, Cheshire, U.K.	Geophysics (2012) Volume 77
Reynolds L A and Tansey E M (2003) Foot and Mouth Disease: The 1967 Outbreak and its Aftermath	The transcript of a Witness Seminar held by the Wellcome Trust Centre for the History of Medicine at UCL, London, on 11 December 2001
Second Severn Crossing Group, (1996). Report on the M4 CBM3 Subbase Failures and Embankment Construction on the Avon Approach Roads	Second Severn Crossing Group, (1996)
Sherwood, D.E., Mitchell, W.G. and Corke, D.J. (1992) Foundation design and construction in coal measures	Piling: European practice and worldwide trends. Thomas Telford, London

Title	Reference
Swift, GM and Reddish, DJ (2005) Underground excavations in rock salt.	Geotechnical and Geological Engineering, 23 (1) , pp. 17-42.
Tellam, J.H. and Lloyd, J.W. (1981) A review of the hydrogeology of British onshore non-carbonate mudrocks.	Quarterly Journal of Engineering Geology. Vol.14, pp 347-355.
The Manchester Ship Canal	Engineering, dated 26 January 1894
Thompson, D. B. (1970). The Stratigraphy of the so-called Keuper Sandstone Formation in the Permo-Triassic Cheshire Basin.	Quarterly Journal of Engineering Geology and Hydrogeology. Vol. 126, pp 151-181.
Warren, J.K (2006): Springer, Berlin	Evaporites: Sediments, Resources and Hydrocarbons
Warrender, K. (2012). Underground Manchester.	Altrincham: Willow Publishing
Waters, C.N., Browne, M.A.E., Dean, M.T. & Powell, J.H. (2007) Lithostratigraphical framework for Carboniferous successions of Great Britain (onshore)	British Geological Survey Research Report RR/07/01
Waters, C.N., Waters, R.A., Barclay, W.J. and Davies, J.R. (2009) A lithostratigraphical framework for the Carboniferous successions of southern Great Britain (onshore)	British Geological Survey Research Report RR/09/01
West, G. & McLaren, D. (1981) Site Investigation and Construction of the Cardiff Cable Tunnel.	Transport and Road Research Laboratory.
Whittle, J.H. (1993) The investigation and remedial works design for a slope failure in Etruria Marl	The Engineering Geology of Weak Rock, Cripps et al. (eds) 1993, Rotterdam

Title	Reference
Whitworth, L.J. and Turner A.J. (1989). Rock socket piles in the Sherwood Sandstone of Central Birmingham	
Wilson A. A. (2003) The Mercia Mudstone Group (Triassic) of Manchester Airport, Second Runway	Proceedings of the Yorkshire Geological Society, Vol. 54, Part 3, pp. 129-145
Wong, L.S., Hashim, R. and Ali, F.H. (2009) A Review on Hydraulic Conductivity and Compressibility of Peat.	Journal of Applied Sciences, 9, 3207-3218
Worsley, P. (2008) Pleistocene and Flandrian natural rock salt subsidence at Arclid Green, Sandbach, Cheshire	Mercian Geologist, Vol 17
Yates, P.G.J. (1992) The material strength of sandstones of the Sherwood Sandstone Group of north Staffordshire with reference to microfabric	
California High-Speed Train Project Technical Memorandum, Geotechnical Analysis and Design Guidelines	TM 2.9.10, Rev 01.
Green, B.H and Pearson, M.C (1977) The Ecology of Wynbury Moss, Cheshire: II. Post Glacial History and the Formation of the Cheshire Mere and Mire Landscape	J.Ecology (1977), Vol 65
Serridge & Cooper (2023) Natural and anthropogenic halite karst subsidence in north Cheshire, UK; comparison of Rostherne Mere, Melchett Mere ,Tatton Mere and their surroundings	QJEG Volume 56.

Title	Reference
<b>Geological Maps and Memoirs</b>	
Sherlock (1921): Rock Salt and Brine	Memoirs of the Geological Survey: Special Reports on the Mineral Resources of Great Britain: Vol XVIII -
Jones, R.C.B., Tonks, L.H. and Wright, W.B. (1938) Wigan District. One-Inch Geological New Series. Memoirs of the Geological Survey of Great Britain. HMSO.	Sheet 84
Tonks, L.H., Jones, R.C.B., Lloyd, W. and Sherlock, R.L. (1931) The Geology of Manchester and the South-East Lancashire Coalfield. Memoirs of the Geological Survey, HMSO.	Sheet 85
Crofts, R.G., Hough, E., Humpage, A.J. and Reeves, H.J. (2012) Geology of the Manchester District – a brief explanation of the geological map Sheet 85 Manchester.	Sheet 85
Taylor, B.J., Price, R.H. and Trotter, F.M. (1963) Geology of the Country around Stockport and Knutsford. Geological Survey of Great Britain. HMSO.	Sheet 98
Earp, J.R. and Taylor, B.J. (1986) Geology of the Country around Chester and Winsford. British Geological Survey. HMSO.	Sheet 109
Evans, W.B., Wilson, A.A., Taylor, B.J. and Price, D. (1968) Geology of the Country around Macclesfield, Congleton, Crewe and Middlewich. Memoirs of the Geological Survey, HMSO.	Sheet 110

Title	Reference
Poole, E.G. and Whiteman, A.J. (1966) Geology of the Country around Nantwich and Whitchurch. Geological Survey of Great Britain. HMSO.	Sheet 122
Rees, J.G. and Wilson, A.A. (1998) Geology of the country around Stoke-on- Trent. HMSO.	Sheet 123
Smith, N. J. P., Kirby, G. A. and Pharaoh, T. C. (2005) Structure and evolution of the south-west Pennine Basin and adjacent area. Subsurface memoir of the British Geological Survey.	DY003

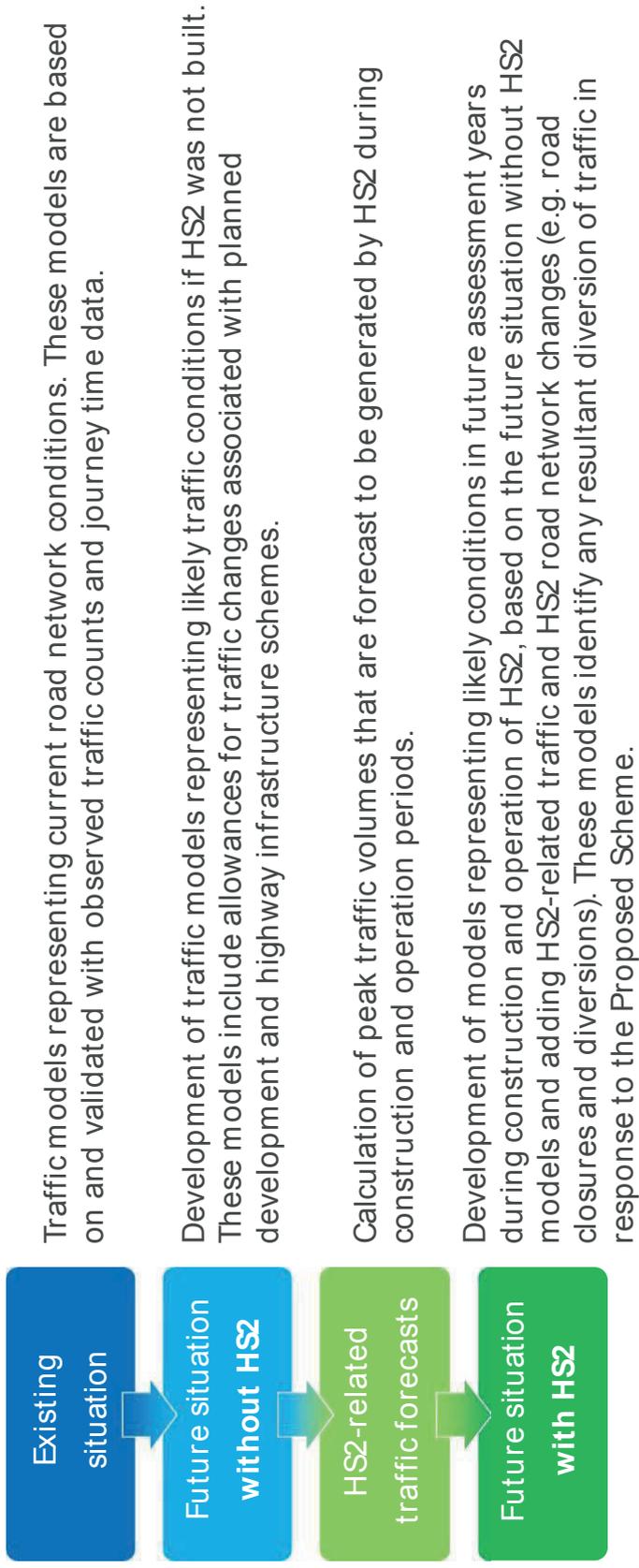
# Annex C: An Example of the Proposed Traffic and Transport Briefing Note Template

# Slide 1

## Approach to Traffic and Transport Assessment

HS2 have used a series of strategic traffic models, originally developed by highway and transport authorities, to assess the performance of the road network along the route of the Proposed Scheme.

The assessment focuses on the effects during the weekday morning (08:00 – 09:00) and weekday evening (17:00 – 18:00) network peak hours for roads, junctions and traffic flows – although consideration is also given to effects that may occur outside of these time periods.



## Slide 2

### Assessment of Traffic Impacts

#### Assessment Methodology

Traffic and transport impacts have been assessed using strategic highway models. These models:

- Include the network of roads and junctions across the local area, although not all minor roads are included in the strategic models - this does not materially affect the assessment for its intended purpose.
- Simulate the operation of traffic on this highway network, including estimating changes in traffic flows and congestion due to:
  - the introduction of HS2 HGV and light goods vehicles and worker trips;
  - road network changes arising from the HS2 scheme; and
  - the diversion of traffic due to road closures or restrictions and congestion.
- The models have been developed by the relevant highway authorities using well established principles and calibrated and validated to reflect observed traffic in line with DfT Transport Assessment Guidance (TAG). Each model has been updated as necessary to improve model performance in the HS2 area of interest. The relevant highway authorities were consulted on the forecast year model development.

## Slide 3

# Assessment of Traffic Impacts

## Assessment Methodology

The following highway models have been used:

- the A500 Crewe Model (covering community area MA01) – originally developed by Cheshire East Council
- the Winsford and Middlewich Model (covering part of MA02) – originally developed by Cheshire East Council
- the Northwich Traffic Model (covering part of MA02) – originally developed by Cheshire West & Chester Council
- the M6 J19 Model (covering MA03 and part of MA06 west) – originally developed by National Highways
- the Greater Manchester SATURN Model (covering part of MA06 plus MA07 and MA08) – originally developed by TfGM

Where there is no strategic model and where HS2 changes are not expected to lead to diversionary impacts, models of individual or small groups of junctions (local models) have been used.

## Slide 4

### Assessment of Traffic Impacts

#### Assessment Methodology

Building on the validated base year that represents the existing situation, growth factors have been applied to reflect changes in population, development and employment, together with planned road network changes to represent a future year situation, without HS2.

The HS2 scheme assessments have been based on the following without HS2 (baseline) future years:

- construction – a common 2031 baseline year provides a consistent basis on which to compare and assess construction impacts across the entire HS2 scheme.
- operation – 2039, the expected HS2 scheme opening year; and
- operation – 2051, a further operational year with HS2.

The combined construction impacts of all HS2 activities and works have been assessed using a number of model scenarios. This ensures that the assessment addresses the different interactions and impacts on traffic through the construction programme period of HGV, light-goods vehicle and workforce construction traffic movements together with activities such as utility works, temporary traffic management, road closures and diversions. The operational assessment similarly considers the impact of traffic associated with operation of HS2 together with permanent highway changes.

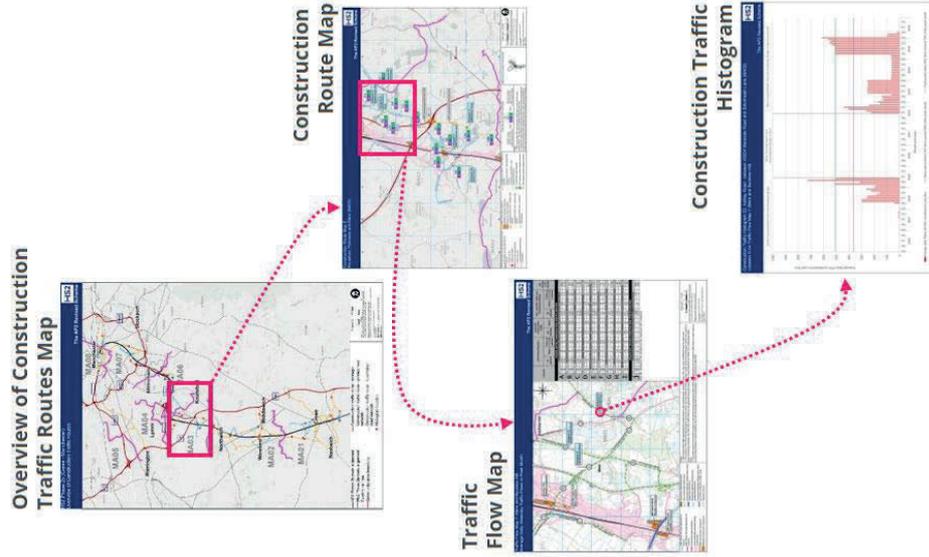
# Slide 5

## Traffic and Transport Standard Exhibits

Standard Traffic and Transport exhibits have been created to give the Select Committee and petitioners a pictorial understanding of the cumulative traffic impacts during construction and complement the information in the Environmental Statement and Transport Assessment.

These can be found here:

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/114092/Section\\_H\\_-\\_Traffic\\_and\\_Transport\\_Standard\\_Pack.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/114092/Section_H_-_Traffic_and_Transport_Standard_Pack.pdf)



# Slide 6

## Traffic and Transport Standard Exhibits

They comprise:

**Overview of Construction Traffic Routes Map** – provides an overview of all roads that will be used by HS2 construction traffic.

**Construction Route Maps** – show the peak daily two-way construction HGV traffic flows and duration of use of those construction traffic routes.

**Traffic Flow Maps** – present both background and HS2 traffic flows at key locations on the road network during construction of the Proposed Scheme on a typical weekday in the peak month in each location.

**Construction Traffic Histograms** – illustrate the average weekday volume of construction traffic using a particular stretch of road during each month in the construction period.

The relevant exhibits for your area are listed below: (example)

<b>MA03: Pickmere to Agden and Hulseheath</b>	
Overview of Construction Traffic Route Maps:	Construction Route Map E
Construction Route Map:	Traffic Flow Map 7
Traffic Flow Map(s):	Construction Traffic Histogram 22-24

# Slide 7

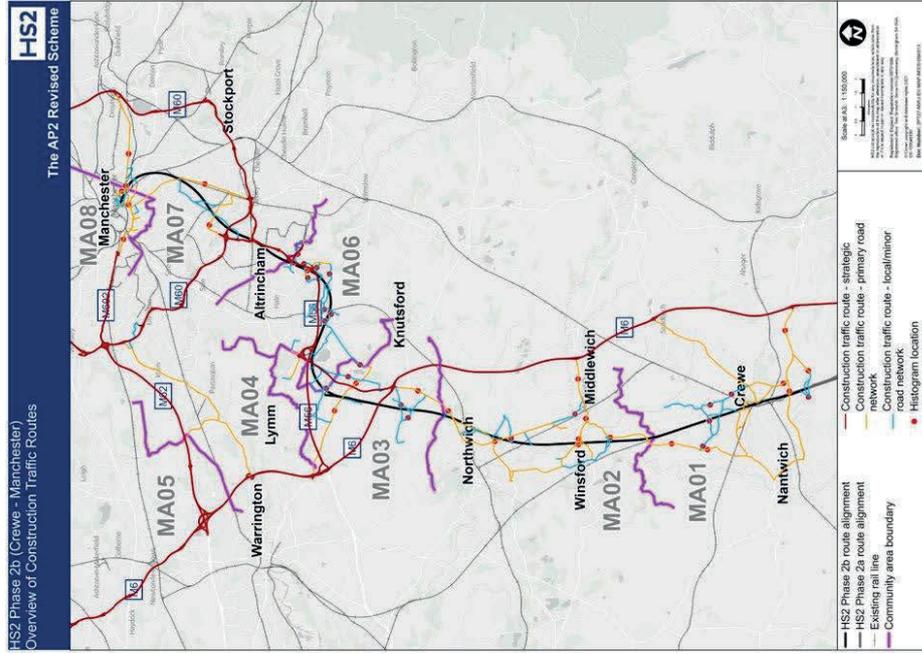
## Overview of Construction Traffic Routes

The railway alignment of the Proposed Scheme.

The main road networks.

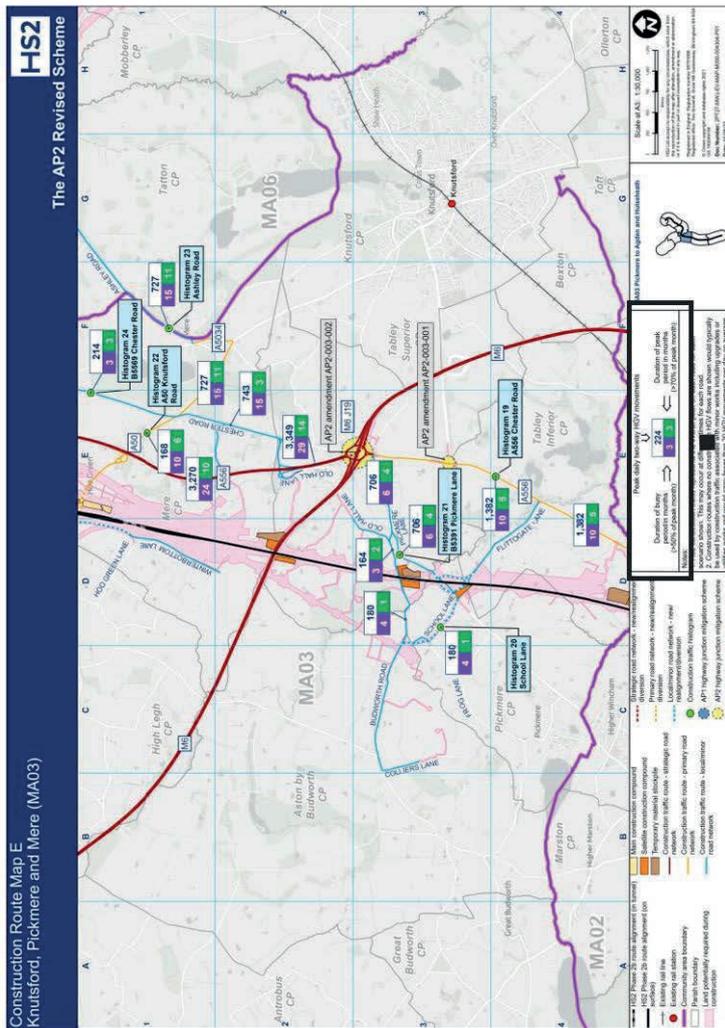
Proposed construction traffic routes on the:

- Strategic road network.
- Primary road network.
- Minor/local road network.



# Slide 8

## Construction Traffic Route Maps

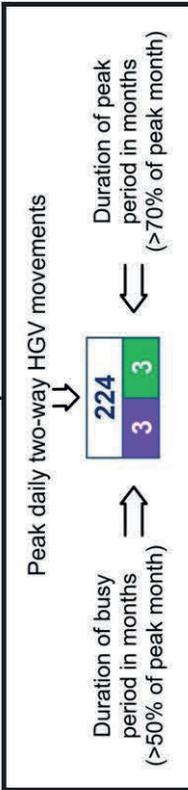


All construction routes by road type (strategic/primary/local).

Daily two-way HS2 HGV flows (both directions added together) in the peak month during the construction period.

Peak Period – The number of months during which HS2 HGV flows are greater than 70% of the flow in the peak month.

Busy Period – The number of months during which HS2 HGV flows are greater than 50% of the flow in the peak month.





# Slide 10

## Traffic Flow Maps Explained

Traffic Flow Maps present the assessed traffic flow information for key locations, as follows:

Location	2031 Future Baseline			Peak HS2 Construction Traffic		2031 with HS2 Traffic and Diversionary Effects			Net change in all vehicles	
	All vehicles	HGVs	HGVs as a % of all vehicles	All vehicles	HGVs	All vehicles	HGVs	HGVs as a % of all vehicles		
<b>ROADS ON HS2 CONSTRUCTION TRAFFIC ROUTES</b>										
<b>A</b>	B5569 Chester Road (between Old Hall Lane and A50 Warrington Road)									
	NB	2,933	78	3%	448	287	3,761	402	11%	+828
	SB	2,238	89	4%	684	456	5,363	611	11%	+3,125
<b>ROADS NOT ON HS2 CONSTRUCTION TRAFFIC ROUTES</b>										
<b>j</b>	A5034 Mereside Road (between Ashley Road and B5569 Chester Road)									
	NB	1,140	0	0%	5	0	1,826	1	<1%	+686
	SB	5,398	67	1%	5	0	5,707	67	1%	+309

Average weekday traffic flows and % HGV in the Future Baseline

Average weekday traffic flows and % HGV incl. HS2 construction traffic and diversionary effects

HS2 construction traffic

Change in total traffic flows due to HS2 construction traffic and activities

Locations on HS2 construction HGV routes (marked with capital letters)

Locations not on HS2 construction HGV routes potentially affected by traffic diversion (marked with lowercase letters)

Construction traffic flows are based on the average weekday (24hr) during the peak month on each section of road (which may vary between locations depending upon the construction programme).

'HGV as a % of all vehicles' indicates what proportion of total traffic consists of HGVs.

'Net change in all vehicles' is the absolute change in total traffic flows between the Future Baseline (i.e. without HS2) and the 'With Scheme' (i.e. with HS2) scenarios, including any associated background traffic diversionary effects.

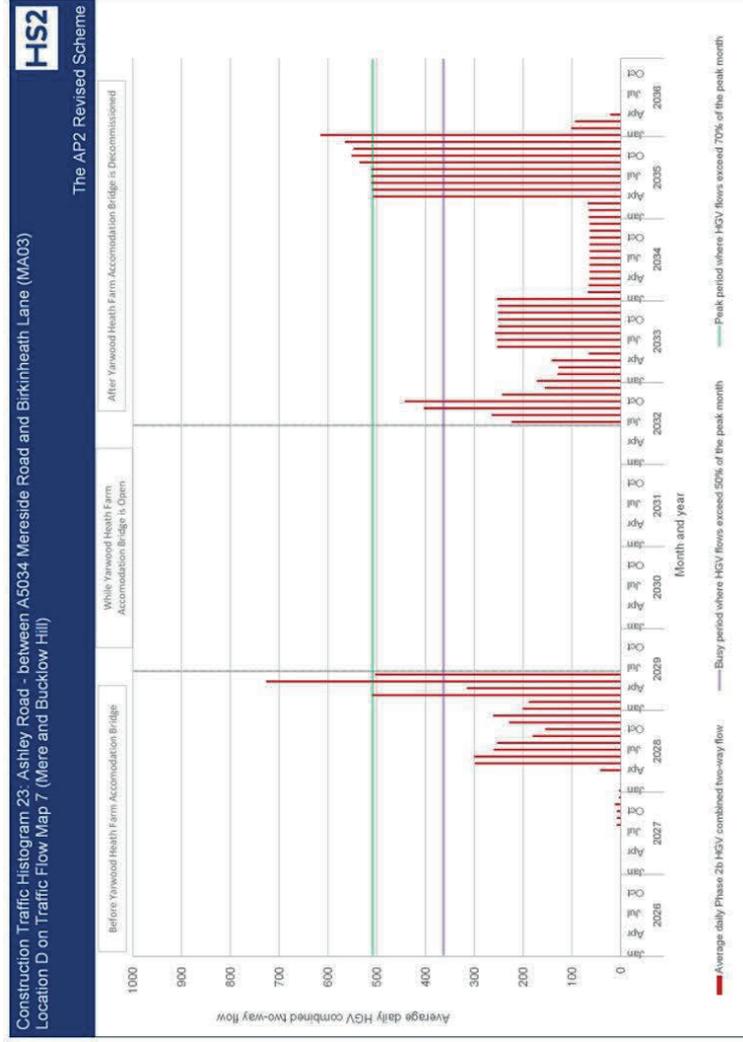
# Slide 11

## Construction Traffic Histograms

Forecast average daily two-way HS2 construction HGV traffic flows (both directions added together) for a specific location in each month through the construction period.

**Peak period** – The number of months during which HS2 HGV flows are **greater than 70%** of the peak month (i.e. bars that extend above the **green line**).

**Busy period** – The number of months during which HS2 HGV flows are **greater than 50%** of the peak month (i.e. bars that extend above the **purple line**).



# Annex D: Summary of Statutory Compensation Payable to Farmers

D.1 The Select Committee has heard petitions from a number of farmers and growers whose land is subject to compulsory purchase for Phase 2b purposes under clause 4 of the High Speed Rail (Crewe-Manchester) Bill. The purpose of this note is to provide a short summary of the compensation payable to a farmer or grower who owns and occupies an agricultural holding (sometimes referred to as an “agricultural unit”) which is severed by the line of the railway.

D.2 This note assumes that the Secretary of State has made a general vesting declaration (“GVD”) to acquire the land within the agricultural holding that is subject to compulsory purchase for Phase 2b purposes. The effect of a GVD is to vest ownership of the land in the Secretary of State at the vesting date. See section 8 of the Compulsory Purchase (Vesting Declarations) Act 1981.

D.3 The purpose of land compensation is to provide fair compensation for claimants whose lands have been compulsorily taken from them. Claimants are entitled to be compensated fairly and fully for their losses which are attributable to the taking of their lands, but not to any greater amount. This is known as the principle of equivalence.

#### D.4 The compensation payable following compulsory purchase falls under three broad “heads” of claim –

- the sum which represents the open market value of the land that vests in the Secretary of State under the GVD, on the assumptions that (i) the land was offered for sale in the open market at the vesting date; and (ii) that by that date the Phase 2b scheme had been cancelled. This is the effect of rule 2 of the statutory Land Compensation Rules (section 5 of the Land Compensation Act 1961). The determination of this head of claim is ordinarily based on relevant evidence of market sales of agricultural land at or around the vesting date.
- the further sum which represents the amount by which the value of the “retained land” within the agricultural holding (i.e. the land that lies outside the defined limits of the Phase 2b scheme) has depreciated at the vesting date through severance and any other “injurious affection” resulting from the Phase 2b works. This head of claim arises under section 7 of the Compulsory Purchase Act 1965.
- the further sum which represents the actual or reasonably foreseeable costs and losses properly incurred by the farmer as a result of being “disturbed” by compulsory purchase of land within the agricultural holding. Disturbance compensation varies from case to case, but typically includes the costs incurred in reorganising and reconfiguring farming operations on

the retained land within the holding, temporary loss of profits and losses on the forced sale of livestock and redundant plant and machinery. The right to receive compensation for disturbance has been long established by the courts in order to ensure that the principle of equivalence is applied in each case and is now preserved by rule 6 of the Land Compensation Rules.

D.5 To the principal heads of claim summarised in paragraph 4 above are added –

- legal and professional fees incurred by the farmer in managing the compulsory purchase and compensation process.
- statutory loss payments under the Land Compensation Act 1973. The farmer is entitled to a basic loss payment and an occupier's loss payment under sections 33A and 33B of the Land Compensation Act 1973 respectively. If the effect of compulsory purchase is also to displace the farmer from occupation of his or her home, then a home loss payment is payable under section 29 of the 1973 Act. The rules for calculating the amounts of these loss payments in each case are set out in the 1973 Act.

D.6 Where only part of the land comprised in an agricultural unit is subject to compulsory purchase under the Bill and the owner considers that the retained land within that unit is not reasonably capable of being farmed either by itself or in conjunction with other land that he or

she owns, he or she is entitled to require the Secretary of State to acquire the whole agricultural unit. The rules governing this procedure are set out in sections 53 to 56 of the Land Compensation Act 1973.

D.7 It is open to the Promoter to include “accommodation works” in the detailed design of the Phase 2b scheme, whose purpose is to limit the effects of severance and other disturbance of an agricultural holding and so reduce the amount of compensation which would otherwise be payable following compulsory purchase of part of that holding by the Secretary of State. Typical examples of accommodation works are overbridges and underpasses to allow livestock and farm vehicles to pass across the route of the railway, new points of access to severed land and sleeves and conduits to carry services beneath the railway line. The Promoter’s policy on the provision of accommodation works is set out in paragraphs 11.1 to 11.5 of Phase 2b Information Paper C2 “Rural Landowners and Occupiers Guide”. Further information is available in section 8 of the Phase 2b Guide for Farmers and Growers (January 2023).

D.8 The statutory compensation arrangements summarised in this note also apply to cases in which land within an agricultural holding has been safeguarded for Phase 2b purposes and a valid blight notice has been served by the farmer who owns and occupies that holding, requiring the Secretary of State to purchase the land. The Secretary of State is deemed to be authorised to acquire the land and to have served formal notice

for that purpose. The claimant is then entitled to claim compensation in accordance with paragraphs 4 and 5 above. Where the land within safeguarding extends only to part of the agricultural holding, known as the “affected area”, but the farmer considers that the retained land, known as the “unaffected area”, is not reasonably capable of being farmed either by itself or together with other land which he or she owns and occupies, the farmer may require the Secretary of State to purchase the whole holding. The rules governing this procedure are set out in sections 158 to 160 of the Town and Country Planning Act 1990.

D.9 Further information on the procedures for claiming land compensation is available in Phase 2b Information Paper C8 “Compensation Code for Compulsory Purchase” and section 15 of the Phase 2b Guide for Farmers and Growers (January 2023). Section 2.2 of that Guide gives further information about blight notice procedures. Note: Compensation in Scotland is governed by different legislation but similar principles apply.

