

Hybrid Bill Petition

House of Lords

Session 2017-19

High Speed Rail (West Midlands to Crewe) Bill June 2019

Do not include any images or graphics in your petition. There will be an opportunity to present these later if you give evidence to the committee.

Your petition does not need to be signed.

Expand the size of the text boxes as you need.

1. Petitioner information

In the box below, give the name and address of each individual, business or organisation(s) submitting the petition.

Yarnfield and Cold Meece Parish Council, Yarnfield Village Hall, Yarnfield, ST15 0NJ

Email: ycmclerk@gmail.com

Stone Town Council, 15 Station Rd, Stone, ST15 8JP

Email: clerk@stonetowncouncil.org.uk

Chebsey Parish Council, The Dove, Chebsey, Nr Stafford, ST21 6JU

Email: hckmmic@aol.com

Contact email : ycmclerk@gmail.com

In the box below, give a description of the petitioners. For example, “we are the owners/tenants of the addresses above”; “my company has offices at the address above”; “our organisation represents the interests of...”; “we are the parish council of...”.

Yarnfield and Cold Meece Parish Council

Representing the community of Yarnfield and Cold Meece, Staffordshire

Stone Town Council

Representing the community of Stone, Staffordshire.

Chebsey Parish Council

Representing the villages and surrounding communities of Chebsey, Cold Norton, Hilcote, Norton Bridge and Shallowford in the County of Staffordshire.

At meetings of the Chebsey Parish Council, Stone Town Council and Yarnfield and Cold Meece Parish Council on the 12th, 13th and 14th of August 2019 respectively each

resolved that they petition the House of Lords High Speed Rail (West Midlands – Crewe) Bill Select Committee for changes to the High Speed Rail (West Midlands – Crewe) Bill.

2. Objections to the Bill

In the box below, write your objections to the Bill and why your property or other interests are [specially and directly affected](#). Please number each paragraph.

Only objections outlined in this petition can be presented when giving evidence to the committee. You will not be entitled to be heard on new matters.

- 2.1. The parish councils of Yarnfield and Cold Meece, Stone and Chebsey object to the proposals to construct a Railhead and Infrastructure Maintenance Base – Rail (IMB-R) on land to the west of Stone, Staffordshire.
- 2.2. The proposal is objectionable on engineering, environmental and economic grounds and its construction would have seriously detrimental effects on the people of these communities, together with the wider population who travel to and through this part of North Staffordshire.
- 2.3. With respect to civil engineering, we do not consider HS2 Ltd's design, as amended by Additional Provisioning (AP) 1 (March 2018) or AP2 (February 2019), for the construction of the Stone Railhead to be a practical proposition. If this design was approved and became part of the Phase 2a Hybrid Bill, its complexity risks delaying the Phase 2a construction project by nearly two years with the associated financial consequences.
- 2.4. We also have comprehensive evidence that HS2 Ltd has severely underestimated the amount of material that will need to be excavated at the site, whilst overestimating the quantity of excavated material that can be reused as engineering fill. This combination will lead to major difficulties in bulk material handling, with large quantities of excavated material requiring off-site disposal because of its unsuitability for engineering reuse.
- 2.5. There will also be a far greater demand for the importation of suitable engineering fill to build the major earth structures, e.g. mainline railway embankments and the railhead/IMB-R structure itself, much of which are to be founded in areas where poor ground conditions prevail.
- 2.6. During the House of Commons process, HS2 Ltd has significantly increased the number of Heavy Goods Vehicles (HGVs) that it is predicting will need to serve the Yarnfield North embankment transfer node, with AP2 reporting that up to 2329 HGV movements per day (1 movement in/out every 15 seconds) would be required at peak. However, HS2 Ltd has refused to substantiate these numbers with verifiable evidence. Its HGV assumptions are also based on HS2 Ltd's over-optimistic position regarding excavated material and therefore do not take account of the engineering realities that it will face.
- 2.7. In an attempt to avoid the conflict between its HGVs and public traffic on Yarnfield Lane, HS2 Ltd has claimed that it could utilise the existing lane for its HGVs, whilst

the public would use the realigned lane that HS2 Ltd will construct as part of its scheme proposals for the Stone Railhead. However, this is not engineeringly feasible and HS2 Ltd has not provided engineering drawings to prove otherwise, despite numerous requests from the petitioners. Consequently, the public will be placed at serious safety risk, as well as an inability to continue to travel efficiently for work, school and for other purposes in Stone, Stafford and Stoke-on-Trent; a situation that will be compounded by HS2 Ltd's construction works on all alternative routes (e.g. A34, A51, B5026, A519 and A500 at Hanchurch/Hanford) in the local area.

- 2.8. In addition, HS2 Ltd appears unwilling to adhere to the House of Commons Select Committee requirement to widen the realigned Yarnfield Lane M6 overbridge to the minimum requirement of 6.8 metres, as set out in HS2 Ltd's own technical standards document. The petitioner considers that appropriate lane widening should be extended to all sections of Yarnfield Lane used by HS2 Ltd's construction HGVs.
- 2.9. HS2 Ltd's construction plans will also have a seriously detrimental impact on the operational safety of the M6 via its proposed access/egress arrangements on Yarnfield Lane. This will increase the already substantial impacts on the alternative routes (notably the A500 and A34) associated with the closure of the motorway between Junctions 14 and 15.
- 2.10. This situation threatens to be compounded by HS2 Ltd's proposed HGV traffic requirements passing through the M6 J15 Hanchurch Interchange, which will not be effectively mitigated by its AP2 proposals at this location. These changes will place the residents of Newcastle Road, Hanchurch, and potentially public road users at considerable additional safety risk.
- 2.11. From a railway engineering perspective, the construction of the Stone Railhead, and particularly the operation of the subsequent Infrastructure Maintenance Base – Rail (IMB-R), will result in seriously detrimental effects on the operation of the Norton Bridge to Stone Railway, which is currently used by six passenger services per hour.
- 2.12. The convoluted design of the Stone IMB-R is highly inefficient, which will make access/egress from the existing railway by HS2 maintenance trains difficult and slow to achieve, thereby adding unnecessary cost to the maintenance of the HS2 railway for the lifetime of its operation.
- 2.13. Given the existing usage of the Norton Bridge to Stone Railway and HS2 Ltd's commitment to add two HS2 classic compatible trains/hour to serve Macclesfield Via Stafford and Stoke-on-Trent, there will insufficient rail paths to supply the IMB-R by day, leading to a need to supply in the 5-hour night-time (midnight to 5:00 am) window. This will result in noisy night-time manoeuvring operations adjacent to housing development in Stone, Norton Bridge and Shallowford and limit the number of maintenance trains able to enter the site to three per night.
- 2.14. The Stone IMB-R will also not be able to accommodate the 800 metre long ballast trains required to maintain the ballast track proposed for the Phase 2b Crewe to Manchester section of HS2 from its planned opening date of 2033.

- 2.15. These major constraints will require HS2 Ltd, or possibly its successors, to make difficult and expensive changes to the long-term maintenance requirements of Phase 2a and Phase 2b (Crewe to Manchester) and will put at risk the already token HS2 Classic Compatible service to Stafford, Stoke on Trent and Macclesfield. In addition, HS2 Ltd now propose to build an additional IMB-R facility at Ashley in Cheshire, as part of its June 2019 Design Refinement Consultation, with the accompanying service and/or major cost implications. The petitioners very strongly believe that the solution is for HS2 Ltd to construct its Phase 2a Railhead and Phase 2a/ Phase 2b IMB-R at Aldersey's Rough (see section 3 below).
- 2.16. The petitioners will also give evidence to demonstrate that a Railhead/IMB-R located at Aldersey's Rough will not only significantly benefit the population of Staffordshire, but also HS2 Ltd and its successors. It will save £10s of millions to the public purse and dramatically reduce the environmental effects of the project, whilst creating the opportunity for additional rail capacity in the region with the potential accompanying benefits to the local economy.

3. What do you want to be done in response?

In the box below, tell us what you think should be done in response to your objections. You do not have to complete this box if you do not want to.

The committee cannot reject the Bill outright or propose amendments which conflict with the principle of the Bill. But it can require changes to the Government's plans in response to petitioners' concerns, which can take the form of amendments to the Bill or commitments by HS2 Ltd.

You can include this information in your response to section '2. Objections to the Bill' if you prefer. Please number each paragraph.

- 3.1 The only way to effectively mitigate the catastrophic environmental and economic effects on the road network in the vicinity of the Stone Railhead/IMB-R and Hanchurch interchange is to relocate the proposed Phase 2a Railhead/IMB-R to Aldersey's Rough, near M6 Keele Services in Staffordshire.
- 3.2 Such a change to the project proposals could be implemented via provision of a Transport and Works Act Order, without the need to instigate a further additional provisioning stage.
- 3.3 This proposal would also greatly mitigate the severe impacts that the Stone IMB-R will have on the Norton Bridge to Stone Railway and the classic railway network once Phase 2 of HS2 becomes operational. It would also provide a catalyst for reopening a currently disused railway line that has the potential to significantly increase rail connectivity and capacity in North Staffordshire, with the resultant social and economic benefits to the region.
- 3.4 The petitioners have submitted a considerable amount of evidence to both HS2 Ltd (from January 2017) and the House of Commons Select Committee (April 2018) and we consider that, with any detailed examination of the facts that underpin our evidence, Aldersey's Rough represents a far superior Railhead/IMB-R option than Stone and we will comprehensively demonstrate this to the House of Lords.

- 3.5 Our evidence will show why Aldersey's Rough is a much more suitable site to construct and operate a Railhead/IMB-R than Stone. The site is much less physically constrained, and it benefits from a remoteness from communities that will significantly reduce the environmental effects from its construction and operation.
- 3.6 Aldersey's Rough would also provide better and safer access to the M6 than Stone and could achieve this connection in a much shorter timeframe than the 15 months HS2 Ltd requires to establish its proposed M6 junctions at Yarnfield Lane.
- 3.7 Impacts on the local road network would also be much reduced than at Stone, with the proposals affecting only a few hundred metres of a rural road (Three Mile Lane) that is subject to significantly less existing public usage than Yarnfield Lane.
- 3.8 We will provide evidence to show that the '*offline*' location of Aldersey's Rough, with the associated ability to construct each element without conflict from other construction elements, would also make it much easier and cheaper to build than Stone, thereby saving £10s of millions to the public purse.
- 3.9 Aldersey's Rough also offers a much-reduced risk of construction delay to the remainder of Phase 2a given that, unlike Stone, it can be built with minimum interruption to existing rail and road systems.
- 3.10 Aldersey's Rough would utilise the Newcastle to Market Drayton Railway, which has been disused since 1998, to make direct access to the West Coast Mainline (WCML). The track bed and WCML overbridge are still in-situ and could be utilised following the provision of a revised track layout at Madeley Chord junction, to provide much less constrained access than at Stone for maintenance materials to the site from both directions of the WCML. The site will also be capable of handling the 800 metre long ballast trains required to maintain Phase 2b (Crewe to Manchester).
- 3.11 Aldersey's Rough's location exactly halfway between Delta Junction (on HS2 Phase 1) and Manchester Piccadilly (end of Phase 2b), both of which are located 71km away, would better enable it to maintain the entire length of Phase 2a and Phase 2b than a facility located at Stone. These benefits would also offset HS2 Ltd's recently stated (June 2019) requirement for an additional Railhead and IMB-R at Ashley on Phase 2b, resulting in further savings to the public purse of many £10s of millions.
- 3.12 With regard to road traffic, Aldersey's Rough also has the potential to provide direct access to many of HS2 Ltd's proposed construction sites and transfer nodes in the Whitmore Heath and Madeley areas, thereby substantially reducing HS2 Ltd's currently stated levels of construction HGV traffic on local roads. These include the J15/M6 interchange at Hanchurch, A519, A5182, the A53, A51 and A525. This would benefit the local communities at Whitmore, Whitmore Heath, Baldwins Gate, Woore and Madeley, together with the villages/hamlets along these routes.
- 3.13 In terms of other environmental effects, our evidence will demonstrate that Aldersey's Rough would have much less impact than Stone across the full range of environmental topics.
- 3.14 Since Aldersey's Rough would involve reinstating the connection with the WCML at Madeley Chord junction and utilising a section of the former Newcastle to Market

Drayton railway line, it would present the opportunity to extend the railway connections north and east into the Borough of Newcastle-under-Lyme. This would create an opportunity for a new railway station at the Keele University and Science Park and enable the large town of Newcastle-under-Lyme to be connected to the railway network for the first time since 1965, with all of the associated economic benefits that would result. This is in sharp contrast to HS2 Ltd's current proposals for the Stone Railhead/IMB-R, which will cause significant harm to the wellbeing and economy of North Staffordshire during the construction phase and constrain local rail connectivity once operational.

- 3.15 The petitioners also consider that, in the event that the Hybrid Bill is not amended to relocate the Railhead/IMB-R to Aldersey's Rough, significant mitigation measures will be required to protect the safety and wellbeing of residents and reduce congestion at a range of locations in the parishes of Yarnfield and Cold Meece, Stone and Chebsey.

If you have already petitioned against the High Speed Rail (West Midlands to Crewe) Bill, please give your petition number.

- | | |
|----|---------------|
| 1. | HS2-P2A-128-1 |
| 2. | HS2-AP1-022-1 |
| 3. | HS2-AP2-047-1 |

Next steps

Once you have completed your petition template please save it and [continue on our website](#).

If clicking 'continue on our website' doesn't work, copy this link and paste it into your browser: <https://beta.parliament.uk/petition-a-hybrid-bill/4?step=writing-your-petition-online#complete-petition>

September 2019

**HIGH SPEED RAIL (WEST MIDLANDS -
CREWE) BILL**

**HOUSE OF LORDS
SELECT COMMITTEE**

**Petition No. HS2-HOL-023:
Yarnfield and Cold Meece, Stone Town
and Chebsey Parish Council**

Promoter's Response Document

INTRODUCTION

This Promoter's Response Document (PRD) forms the Promoter's response to Petition No. HS2-HOL-023, from Yarnfield and Cold Meece, Stone Town and Chebsey Parish Council.

In this PRD, 'the Promoter' means the Secretary of State and HS2 Ltd acting on his behalf.

The purpose of the PRD is to advise you and the Select Committee of the Promoter's position in relation to the petitioning points raised. It is intended that the PRD will alleviate many of the concerns raised in the petition.

The Table of Contents overleaf lists the page number, petitioning points in the order they appear in the petition, and a summary statement of the issue(s) contained in the petition for quick reference. Other supporting material (e.g. reports, drawings and photographs) referred to in the response are attached where applicable.

Copies of the HS2 Phase 2A Information Papers referred to in the response can be found at
<http://www.gov.uk/government/collections/high-speed-rail-west-midlands-to-crewe-bill>.

Department for Transport
High Speed Two (HS2) Limited

BACKGROUND

Stone Town Council represents the community of Stone the county of Staffordshire. Chebsey Parish Council represents the villages and surrounding communities of Chebsey, Cold Norton, Hilcote, Norton Bridge, and Shallowford, in the county of Staffordshire. Yarnfield and Cold Meece Parish Council is a newly formed parish council, which separated from Swynnerton Parish on 1 April 2019, and represents the Yarnfield and Cold Meece wards.

In March 2018 and June 2018 respectively, Stone Town Council and Chebsey Parish Council were sent a Promoter's Response Document (PRD) for their combined petitions against the Bill in the House of Commons and Additional Provision 1 (AP1) to the Bill in the House of Commons (Petition Nos. HS2-P2A-000128 and HS2-AP1-000022), copies of which are attached at Annexes A and B respectively). In April 2019, Stone Town Council was sent a PRD for its solo petition against Additional Provision 2 (AP2) to the Bill in the House of Commons (Petition No. HS2-AP2-047, a copy of which is attached at Annex C).

Stone Town Council appeared before the House of Commons Select Committee in April 2018, July 2018 and May 2019.

In April 2019, the wards of Yarnfield and Cold Meece separated from Swynnerton Parish Council to create a new Yarnfield and Cold Meece Parish Council. They did not appear before the House of Commons Select Committee.

PETITION NO. HS2-HOL-023**YARNFIELD AND COLD MEECE, STONE TOWN AND CHEBSEY PARISH COUNCIL****TABLE OF CONTENTS**

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18	2.6, 2.7, 2.9, 2.10	Construction traffic around Yarnfield Lane
22	2.8	Yarnfield Lane and M6 overbridge

ATTACHMENTS

Title	
Annex A	Promoter's Response Document for House of Commons Petition No. HS2-P2A-0000128 - Stone Town Council and Chebsey Parish Council
Annex B	Promoter's Response Document for House of Commons Petition No. HS2-AP1-000022 - Stone Town Council and Chebsey Parish Council
Annex C	Promoter's Response Document for House of Commons Petition No. HS2-AP2-047 - Stone Town Council
Annex D	House of Commons Promoter's exhibits for Petition No. HS2 - P2A-0000128 - Stone Town Council and Chebsey Parish Council
Annex E	Minutes of Oral Evidence - High Speed Rail (West Midlands - Crewe) Bill Wednesday 25 April 2018 (Morning)

HOUSE OF LORDS SELECT COMMITTEE

HIGH SPEED RAIL (WEST MIDLANDS - CREWE) BILL

PROMOTER'S RESPONSE TO PETITION OF:	Yarnfield and Cold Meece, Stone Town and Chebsey Parish Council
PETITION NO:	HS2-HOL-023
PARAGRAPH NO:	2.1, 2.2, 2.3, 2.4, 2.5, 2.11, 2.12, 2.13, 2.14, 2.15, 2.16, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 3.10, 3.11, 3.12, 3.13, 3.14, 3.15
ISSUE RAISED:	Proposal to develop the Stone Railhead/IMB-R at Aldersey's Rough near Keele Services instead of Stone
PETITION PARAGRAPH:	2.1. The parish councils of Yarnfield and Cold Meece, Stone and Chebsey object to the proposals to construct a Railhead and Infrastructure Maintenance Base – Rail (IMB-R) on land to the west of Stone, Staffordshire. 2.2. The proposal is objectionable on engineering, environmental and economic grounds and its construction would have seriously detrimental effects on the people of these communities, together with the wider population who travel to and through this part of North Staffordshire. 2.3. With respect to civil engineering, we do not consider HS2 Ltd's design, as amended by Additional Provisioning (AP) 1 (March 2018) or AP2 (February 2019), for the construction of the Stone Railhead to be a practical proposition. If this design was approved and became part of the Phase 2a Hybrid Bill, its complexity risks delaying the Phase 2a construction project by nearly two years with the associated financial consequences. 2.4. We also have comprehensive evidence that HS2 Ltd has severely underestimated the amount of material that will need to be excavated at the site, whilst overestimating the quantity of excavated material that can be reused as engineering fill. This combination will lead to major difficulties in bulk material handling, with large quantities of excavated material requiring off-site disposal because of its unsuitability for engineering reuse.

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Ltd to construct its Phase 2a Railhead and Phase 2a/ Phase 2b IMB-R at Aldersey's Rough (see section 3 below).

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3.1 The only way to effectively mitigate the catastrophic environmental and economic effects on the road network in the vicinity of the Stone Railhead/IMB-R and Hanchurch interchange is to relocate the proposed Phase 2a Railhead/IMB-R to Aldersey's Rough, near M6 Keele Services in Staffordshire.

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HS2-HOL-023

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PROMOTER'S RESPONSE:

Stone Infrastructure Maintenance Base – Rail (IMB-R)

1. Stone Town and Chebsey Parish Council have previously raised concerns about the proposed Stone Railhead and Infrastructure Maintenance Base – Rail (IMB-R) and requested an alternative location be sought in their petitions against the Bill, Additional Provision 1 (AP1) and Additional Provision 2 (AP2) to the Bill in the House of Commons. Please refer to the Promoter’s Response Documents (PRDs) for these petitions, copies of which are attached as Annexes A, B and C.

Railhead location

2. HS2 Phase 2A Information Paper F3: Infrastructure Maintenance and Rail Systems Construction Facilities¹ and the Stone Infrastructure Maintenance Base update in December 2017² set out the Promoter’s position on the proposed temporary rail systems construction facility (the ‘railhead’) and Infrastructure Maintenance Base-Rail (IMB-R) near Stone included as part of the Proposed Scheme. The site of the railhead and IMB-R is proposed to be situated in an area of land located between the M6 motorway and the Proposed Scheme.

3. The Information Paper explains that a preliminary options appraisal for the railhead looked at a number of areas and designs where the Proposed Scheme passes near the conventional railway, including Basford (south Crewe), Madeley and near Stone. Four options were not taken forward for further consideration as they were not deemed to be reasonable alternatives. Four options were considered in more detail, looking at environmental impact, cost, and suitability. An additional option called Aldersey’s Rough (in the Whitmore Heath to Madeley area), raised as a result of stakeholder representations made following publication of the working draft Environmental Impact Assessment (EIA) report and the Design Refinement Consultation, was also appraised.

4. After careful evaluation, the proposed option near Stone was chosen as the preferred location. It is sited in an ideal strategic position, at the mid-way point along the route of the Proposed Scheme, able to support construction activities heading north and south simultaneously, which offers significant programme and construction benefits. It is able to connect directly to the existing Norton Bridge to Stone Railway and to the M6 via new slip roads provided under the Proposed Scheme, and is not bounded by ‘complex’ civil engineering elements, such as tunnels or long viaducts.

5. All of the options considered are described in more detail in the Environmental Statement (ES) published alongside the Bill in July 2017 (ES, Volume 5, Alternatives Report CT-002-000³).

¹https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/656360/f3_infrastructure_maintenance_and_rail_systems_construction_facilities.pdf

²https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/673766/stone_railhead_update_december_2017.pdf

³ <https://www.gov.uk/government/publications/hs2-phase-2a-environmental-statement-volume-5-alternatives-report>

IMB-R location

6. The Information Paper explains that when the Phase 2A route to Crewe was announced in November 2015 it included a permanent maintenance depot, in the form of a large 'Infrastructure Maintenance Depot' (IMD), at Crewe. During the subsequent design development process, consideration was given to the location and operating requirements of a permanent maintenance facility for the Proposed Scheme. In Autumn 2016, the working draft Environmental Impact Assessment (EIA) report retained the IMD at Basford as the permanent base for maintenance activities. Due to its location at the northern end of the Phase 2A route and distance from Phase 1 maintenance facilities, 'maintenance loops' (track sidings located adjacent to the main line) were proposed at Pipe Ridware. These maintenance loops would provide a daytime stabling facility for engineering trains working in locations remote from the maintenance depots ('out-stabling').

7. The Design Refinement Consultation in 2016 sought feedback on a proposal to build a temporary railhead on the site near Stone, with the potential that its use could then be changed to become a permanent maintenance facility.

8. Following the publication of the working draft EIA report and the Design Refinement Consultation, the Promoter undertook further work to consider the location of the permanent maintenance facility for the Proposed Scheme, taking account of consultation responses. Two options (Stone and Basford) were assessed on the basis of engineering and construction feasibility, cost and environmental impacts.

9. After careful consideration, the option near Stone was taken forward into the Proposed Scheme. As this option shares the same footprint and core infrastructure as the railhead, it would not introduce any additional environmental effects during construction and would remove the cost of restoring the land needed for the Stone railhead to its original use. It would enable the ongoing use of infrastructure including buildings, utilities connections, rail sidings, connections to the conventional railway and M6 and environmental mitigation.

10. The 'in principle' case for the siting of the Railhead and IMB-R at Aldersey's Rough instead of Stone was heard by the House of Commons Select Committee in April 2018. The Select Committee heard evidence from both Stone Town Council and Chebsey Parish Council and the Promoter on the alleged engineering, operational and environmental advantages of Aldersey's Rough as an alternative location to Stone for the Railhead and the IMB-R. The Select Committee also heard evidence from Stone Town Council and Chebsey Parish Council contending that locating the railhead at Aldersey's Rough would provide a superior solution to limiting and managing the traffic effects of constructing Phase 2A. On 24 May 2018 the Select Committee announced their decision. Having considered the evidence, the Select Committee set

out in its First Special Report that in principle the proposal to site the Railhead and IMB-R at Stone should not be changed⁴.

11. Furthermore, paragraph 30 of the House of Commons Select Committee's Second Special Report of Session 2017 - 2019⁵ (July 2018) states that:

"The Committee confirms its "in principle" decision that the Infrastructure Maintenance Base-Railhead should be sited as is proposed in the Bill Scheme at Stone "

12. The request to relocate the IMB-R in the manner put forward by the Petitioner would require amendments to the Bill that would necessitate an Additional Provision. The guidance on petitioning published by the Private Bill Office in the House of Lords in July 2019 in advance of the petitioning period explained:

"An additional provision is a change to the Bill that goes beyond the scope of the existing powers of the bill and which may potentially have an adverse direct and special effect on particular individuals, groups or bodies, over and above any effect on the general public.

Two additional provisions were submitted and considered by the House of Commons Select Committee. However, under the rules governing private bill procedures, it is expressly forbidden to introduce an additional provision in respect of a bill in the second House – in this case, the House of Lords. The Lords Select Committee on the High Speed Rail (London – West Midlands) Bill heard extensive procedural argument on the issue concerning its application to a hybrid bill and concluded that it would be contrary to well-established practice for an additional provision to be included. It can therefore with some confidence be expected that the same would apply to the High Speed Rail (West Midlands – Crewe) Bill."

Powers of the House of Lords Select Committee to consider a Transport and Works Act Order (TWAO) as an alternative to an Additional Provision

13. A TWAO is a statutory instrument that authorises works and other powers for specific types of projects. The power to make a TWAO derives from the Transport and Works Act 1992. The Secretary of State is the decision maker. Parliament has no role in the TWAO consenting process and applications are handled by officials within the Department for Transport. In the event of objections, a public inquiry is held, which is presided over by a Planning Inspector. In order to justify promoting a TWAO for the purpose of relocating the railhead and IMB-R to the location proposed by the Petitioner at Aldersey's Rough, the Promoter must be satisfied of the need to make that change to the Proposed Scheme. The Promoter must be able to present a

⁴https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/718567/house-of-commons-select-committee-response-to-first-special-report.pdf

⁵https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/755284/hs2-phase2a-promoters-response-select-committee-second-special-report.pdf

convincing case that the performance of a railhead and IMB-R at that alternative location would be so superior to Stone on engineering, operational and environmental grounds as to justify its substitution for the Stone facility whose delivery is authorised under the Bill. Not only does the Promoter remain of the view, in the light of the evidence, that the alternative location at Aldersey's Rough is clearly inferior to Stone on each of those grounds; it is also the case that the House of Commons Select Committee rejected the Petitioner's case that the railhead and IMB-R should be relocated to Aldersey's Rough by amendment of the Bill. For these reasons, there is simply no reasonable basis upon which the Promoter is able to justify the promotion of the TWAO for which the Petitioner now argues.

14. That being the position, and given the approach adopted by the Select Committee on the Phase One Bill, which followed well established practice, the Promoter's position is that it would not be appropriate for the Select Committee to entertain directing the Promoter to promote the TWAO sought by the Petitioner, as an alternative means of achieving changes to the Bill to extend the scope of the Phase 2A Bill.

15. In response to the Petitioner's assertion at paragraph 2.3 that the IMBR cannot be constructed with the time assumed within the ES, the Promoter maintains that its design, as amended by Additional Provision (AP) 1 (March 2018) and AP2 (February 2019), for the construction of the Stone Railhead is a practical proposition in civil engineering terms. On assuming a reasonable worst case, the Promoter is satisfied that it can be constructed and brought into use within the proposed construction programme. The indicative construction programme (Figure 2) in the Supplementary Environmental Statement 2 (SES 2) and Additional Provision 2 Environmental Statement (AP2 ES) Volume 2: Community Area report, CA3 Stone to Swynnerton ⁶ illustrates a construction programme for the Stone railhead/IMB-R earthworks and associated structures with completion in the second quarter of 2024.

Aldersey's Rough location for Railhead/IMB-R

16. To support the deposit of the Bill, the Promoter undertook assessment of the Aldersey's Rough alternative location. The assessment looked at five options. For each option the assessment criteria considered strategic fit, engineering construction feasibility, HS2 operation feasibility – trains (HS2 and Network Rail), environmental impacts, safety, risks related to structures, highways, water and drainage, geotechnics and cost. Please see response to this in the Promoter's Response Document for House of Commons Petition No. HS2-P2A-0000128, a copy of which is attached at Annex A.

17. The assessment concluded that the Aldersey's Rough alternative location is inferior as a location for the railhead and IMB-R to the location near Stone shown in the Bill for the Proposed Scheme. The reasons were presented during the House of

⁶ See page 8

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/775953/J12_HS2_Phase_2a_AP2_ES_Volume_2_CA3_Stone_and_Swynnerton.pdf

Commons Select Committee hearing on this matter and include extensive works required on West Coast Main Line with high disruption to passenger and freight services; significant works required to bring Stoke to Market Drayton line back into use; the location of Aldersey's rough between the two most complex civil engineering elements on Phase 2a (Whitmore Heath tunnel and Madeley tunnel); requirement of a new road access to/from M6 required through Keele Motorway Service Area and road access to/from M6 which requires upgrade of Three Mile Lane and construction of a new access road.

18. The Promoter's view remains that the site near Stone included in the Bill is the right location for the railhead and IMB-R on engineering, operational and environmental grounds.

Stoke to Market Drayton Railway

19. The Proposed Scheme has been designed to ensure that no permanent works are undertaken to preclude use of the Stoke/Newcastle-under-Lyme to Market Drayton Railway line in the future.

20. The Silverdale branch of the Stoke/Newcastle-under-Lyme to Market Drayton line is listed as an active railway line by Network Rail. Currently this line is disused. In order to acquire the land, the Promoter would need to seek the decommissioning of the railway from Network Rail.

21. The Promoter does not consider that using the Stoke/Newcastle-under-Lyme to Market Drayton Railway represents a viable alternative to the Proposed Scheme.

Excavated material

22. The Promoter has neither severely underestimated the amount of material that would need to be excavated at the site, nor severely overestimated the quantity of excavated material that can be reused as engineering fill. Information on the ground conditions for the AP2 design at the Stone IMB-R was based on a desk study of available geotechnical information dated December 2018. The estimated bulk earthworks volumes for the Stone IMB-R at AP2 were 0.6million m³ for excavation, 1.1million m³ for embankment fill and 0.13 million m³ for ground treatment (excavate and replace with granular fill). Train speeds within the Stone IMB-R would be much lower than train speeds on the HS2 mainline, therefore the AP2 design assumed that the IMB-R embankment would be build out of cohesive fill, about half of which could be sourced from the cutting at the north-western end of the IMB-R site. The Promoter is confident that this assessment is a reliable basis upon which to proceed with the Proposed Scheme.

23. On 27 September 2019, the Promoter requested that the Petitioner share the comprehensive evidence that they refer to in paragraph 2.5 of their petition, so the Promoter can review the evidence in advance of the Petitioner's scheduled hearing.

The Promoter would be willing to arrange a meeting with the Petitioner after reviewing the evidence.

Potential impacts of the Stone IMB-R on the Norton Bridge to Stone Railway

24. At the hearing of the petition proposing the relocation of the Stone Railhead and IMB-R to Aldersey's Rough on 25 April 2018 in the House of Commons Select Committee, the Promoter provided detailed evidence demonstrating that it had considered the impact of the Stone Railhead and IMB-R on the operation of the Norton Bridge to Stone railway. Please refer to the Promoter's House of Commons Select Committee exhibits, which are attached as Annex D.

25. There are currently five passenger services per hour in each direction passing through Stone on the Norton Bridge to Stone line, plus one freight train per hour. There is no requirement for trains serving the Stone Railhead and IMB-R to arrive at or depart from the Stone IMB-R reception sidings during the period of daytime passenger operations on the Norton Bridge to Stone line.

26. The Promoter has concluded that neither the railhead nor the IMB-R would interfere with the Norton Bridge to Stone railway passenger service. In response to the Petitioner's paragraph 2.13, the operational concept for the IMB-R envisages that trains would arrive and depart during night hours and the average number of maintenance trains would not be likely to exceed one per week.

Design of the Stone IMB-R

27. The Promoter maintains that the layout of the Stone IMB-R provides the operational flexibility required to enable it to support infrastructure maintenance of the HS2 railway, including delivery of engineering trains via the Network Rail network. At the House of Commons Select Committee hearing on 25 April 2018, the witness for the Promoter noted that both the Stone facility and the Petitioner's proposed alternative site at Aldersey's Rough would require a number of train reversals and there was nothing unusual or limiting in the proposed design, given the low frequency of arrival and departure of maintenance trains (please refer to the transcript of the session, a copy of which is attached at Annex E).

Accommodating 800m long ballast trains

28. For ballasted sections of HS2 such as parts of the Phase 2b route, it is envisaged that some fully assembled maintenance train lengths could be in the order of 800m.

29. If a 800m long ballast train needs to be accommodated at the Stone IMB-R for the maintenance of Phase 2b, the assumed method of working would be as follows :

- whilst working on HS2, engineering trains would be "top and tailed", i.e. have locomotives at either end;

- at the Stone IMB-R, the wagons (empties and those filled with spoil) would be uncoupled from the “High Output Ballast Cleaner (HOBC) machine section” and dispatched to Network Rail via the Norton Bridge to Stone railway;
- replacement wagon sets for a ballast train at the Stone IMB-R would arrive and be stabled in separate sidings;
- one locomotive would reverse from the north into the maintenance loop located alongside the HS2 mainline (at Yarlet North Cutting) and the other locomotive would reverse into the maintenance loop from the south; and
- the two sections are coupled together within the HS2 maintenance loop and the full train would then be ready to depart.

30. For these reasons, the Promoter does not consider that there would be any major constraints and therefore would not need to make difficult and expensive changes to the long-term maintenance requirements of Phase 2A and Phase 2b (Crewe to Manchester).

31. The IMB-R at Ashley proposed as part of the Promoter’s June 2019 Design Refinement Consultation for Phase 2b is intended to be an additional site to Stone. An IMB-R would be required at Ashley on the Manchester Spur irrespective of whether the Phase 2a IMB-R would be located at Stone or Aldersey’s Rough.

Additional mitigation measures for parishes

32. Yarnfield and Cold Meece Parish Council were advised at a meeting on 22 July 2019 that the Promoter has created Community and Business Funds to add benefit over and above committed mitigation and statutory compensation to communities and local economies along the HS2 route that would be demonstrably disrupted by the construction of HS2. The Promoter discussed the kinds of projects that would be eligible for such funding, such as the enhancement of sports and recreational facilities, new community facilities, and enhancements to public open space. The Promoter wrote to the Parish Council following that meeting with details of the application process and eligibility criteria.

33. The Promoter would welcome comments from the Petitioner regarding additional mitigation measures they believe could be put in place in these parishes.

Ongoing engagement

34. The Promoter was notified by Swynnerton Parish Council that two wards within the Parish of Swynnerton wished to form their own Parish Council. In April 2019, several weeks after the close of the AP2 petitioning period, the newly formed Yarnfield and Cold Meece Parish Council was established. Parish councillors were appointed following the May 2019 local elections. In response to this, the Promoter arranged to meet the new Parish Council on 22 July 2019 in order to discuss the impacts of the Proposed Scheme on the Parish.

35. Following the meeting, the Promoter also wrote to Yarnfield and Cold Meece Parish Council on 2 August 2019 which was during the House of Lords petitioning period to highlight a recently published House of Lords Petitioning Guidance document and specifically a section from the guidance on additional provisions.

HOUSE OF LORDS SELECT COMMITTEE

HIGH SPEED RAIL (WEST MIDLANDS - CREWE) BILL

PROMOTER'S RESPONSE TO PETITION OF: Yarnfield and Cold Meece, Stone Town and Chebsey Parish Council

PETITION NO: HS2-HOL-023

PARAGRAPH NO: 2.6, 2.7, 2.9, 2.10

ISSUE RAISED: Construction traffic around Yarnfield Lane

PETITION PARAGRAPH: 2.6 During the House of Commons process, HS2 Ltd has significantly increased the number of Heavy Goods Vehicles (HGVs) that it is predicting will need to serve the Yarnfield North embankment transfer node, with AP2 reporting that up to 2329 HGV movements per day (1 movement in/out every 15 seconds) would be required at peak. However, HS2 Ltd has refused to substantiate these numbers with verifiable evidence. Its HGV assumptions are also based on HS2 Ltd's overoptimistic position regarding excavated material and therefore do not take account of the engineering realities that it will face.

2.7 In an attempt to avoid the conflict between its HGVs and public traffic on Yarnfield Lane, HS2 Ltd has claimed that it could utilise the existing lane for its HGVs, whilst the public would use the realigned lane that HS2 Ltd will construct as part of its scheme proposals for the Stone Railhead. However, this is not engineeringly feasible and HS2 Ltd has not provided engineering drawings to prove otherwise, despite numerous requests from the petitioners. Consequently, the public will be placed at serious safety risk, as well as an inability to continue to travel efficiently for work, school and for other purposes in Stone, Stafford and Stoke-on-Trent; a situation that will be compounded by HS2 Ltd's construction works on all alternative routes (e.g. A34, A51, B5026, A519 and A500 at Hanchurch/Hanford) in the local area.

2.9 HS2 Ltd's construction plans will also have a seriously detrimental impact on the operational safety of the M6 via its proposed access/egress arrangements on Yarnfield Lane. This will increase the already substantial impacts on the alternative routes (notably the A500 and A34) associated with the closure of the motorway between Junctions 14 and 15.

2.10 This situation threatens to be compounded by HS2 Ltd's proposed HGV traffic requirements passing through the M6 J15 Hanchurch Interchange, which will not be effectively mitigated by its AP2 proposals at this location. These changes will place the residents of Newcastle Road, Hanchurch, and potentially public road users at considerable additional safety risk.

PROMOTER'S RESPONSE:

Construction traffic

1. In July 2017, the main Environmental Statement (ES) (Volume 2: Community Area report CA3 report Stone and Sywnnerton⁷ & Volume 5: Map book Traffic and Transport (TR-03, TR-04 and TR-08)⁸) reported that, in respect of the transfer node associated with Yarnfield North embankment satellite compound, an average daily combined two-way vehicle trips during busy period and within peak month of activity of 935-1185 Heavy Goods Vehicles (HGVs).

2. In February 2019, with reference to the above transfer node, the Supplementary Environmental Statement 2 (SES 2) and Additional Provision 2 (AP2) Environmental Statement (AP2 ES) Volume 2- CA3 report Stone to Sywnnerton⁹ report average daily combined two-way vehicle trips during the busy period and with peak month of activity of 1886- 2329 HGVs. The volume of HGV movements through the Yarnfield North Embankment Transfer Node would vary over the four years and three months that the transfer node is forecast to operate. At the peak of construction, 2329 HGVs would be required for transport of imported/exported earthworks materials through the Yarnfield North Embankment Transfer Node. The busy period represents five months out of the four years and three months. For each compound, the peak month of activity is the month within which HGV traffic is at its highest for that compound. The busy period is the period during which HGV traffic serving that compound would be greater than 50% of the HGV traffic in the peak month.

3. The increase in HGV vehicle trips is a result of an updated programme for the movement of excavated material and increased disposal of it off site, increased use of direct connection to the M6 motorway and better use of site haul roads to reduce impacts on local road network (i.e. use of existing Yarnfield Lane as a site haul road).

4. With regard to the HGV movement rate at the Yarnfield North embankment transfer node, the Promoter notes the Petitioner's calculation that "one movement

⁷https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/627565/E15_CA3_Stone_and_Swynnerton_WEB_final.pdf

⁸https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/628082/E78_VOL5_TR_WATERMARKED.pdf

⁹https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/775953/J12_HS2_Phase_2a_AP2_ES_Volume_2_CA3_Stone_and_Swynnerton.pdf

in/out every 15 seconds” would be required at peak. For the AP2 ES, the volume of HGV construction movements is assumed to be approximately 1,165 movements into the transfer node and approximately 1,165 movements out of the transfer node during the peak month of construction. This equates to a peak HGV flow of approximately two movements into the transfer node every minute and two movements out of the transfer node every minute.

5. At detailed design, the transfer node would be configured to accommodate this forecast peak in HGV movements.

AP2 earthworks design assumptions

6. Please see paragraphs 14-15 of the Promoter’s response to 2.1, 2.2, 2.3, 2.4, 2.5, 2.11, 2.12, 2.13, 2.14, 2.15, 2.16, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 3.10, 3.11, 3.12, 3.13, 3.14 and 3.15 of the petition. Information on the ground conditions for the AP2 design at the Stone IMB-R was based on a desk study of available geotechnical information dated December 2018. The Promoter does not accept that its HGV assumptions are based on an over-optimistic position regarding excavated material.

7. The main changes in the earthworks volumes between the original scheme earthworks design and the AP2 revised scheme earthworks design include changes in the cut and fill volumes and classes of materials required for the Infrastructure Maintenance Base – Rail (IMB-R) earthworks platform and Stone Headshunt as explained in the Borrow Pit Review – Final in April 2019¹⁰.

8. The preliminary ground investigation at the borrow pits and major cuttings is only the first stage of intrusive, and increasingly more complex, geotechnical investigations that would be undertaken during the development of the detailed design of the Proposed Scheme; and the borrow pits and major cuttings preliminary ground investigation (PGI) is the second of four PGI work packages which would extend through to 2020. Further detailed ground investigations would be undertaken between approximately 2020 and 2022 as the design is progressed through to final design by the Design & Build contractor(s) once they are appointed. As the design is developed and design changes are adopted, there may be changes in volumes of embankment material required and the availability of excavated material for use as borrow pit backfill.

9. The Promoter would therefore welcome the submission of any evidence with respect to this issue from the Petitioner in advance of their hearing.

10. The Promoter is able to demonstrate that use of the existing Yarnfield Lane as a site haul road segregated from the replacement Yarnfield Lane is practical from an engineering perspective and would be accommodated within the proposed construction boundary.

¹⁰https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/795410/NFU_Final_Borrow_Pit_Review_Combined_April_2019.pdf

Operational safety of the M6

11. The proposed permanent and temporary slip roads at the intersection of Yarnfield Lane with the M6 Motorway are subject to an established process of design refinement in response to road safety audits at all stages of the design process. Any works that affect the M6 motorway are subject to the consent and approval of Highways England as the highway authority, in conjunction with Staffordshire County Council as the interfacing highway authority.

12. The Design Manual for Roads and Bridges (DMRB) standard Highway Design 19 (HD 19) 'Road Safety Audits' provided a framework for road safety auditing of permanent highway works across the United Kingdom. HD 19 was replaced by DMRB document GG 119 'Road Safety Audit' in October 2018.

13. Whilst application of GG 119 (and previously HD 19) is strictly only mandatory to motorway and all-purpose trunk road works, in practice it also forms the basis for road safety audits (RSAs) carried out for works on almost all local highway authority roads.

14. It is expected that temporary traffic management or highway schemes would be subject to a combined stage 1 and 2 RSA and a later stage 3 RSA. These audits would include, as necessary, Non-Motorised User audits.

15. The Newcastle Road Residents have petitioned separately (Petition No. HS2-P2A-022). The Promoter is in separate ongoing discussions with them.

16. The Promoter issued an assurance to Swynnerton Parish Council on 5 April 2019 for the benefit of the Newcastle Road residents regarding the speed limit along the A519 Newcastle Road. It stated that:

"1.4. The Promoter will engage with the local highway authority and Highways England regarding the introduction of an appropriate speed limit and enforcement measures on the A519 Newcastle Road between the Hanchurch Interchange and the junction with the B5038 Whitmore Road during the period in which that part of the road is used by HS2 Large Goods Vehicles, as well as on the appropriate permanent speed limit and enforcement measures that would be put in place once the works are completed."

17. The Promoter would continue to engage with the relevant highway authorities on an appropriate speed limit for the A519 Newcastle Road.

HOUSE OF LORDS SELECT COMMITTEE

HIGH SPEED RAIL (WEST MIDLANDS - CREWE) BILL

PROMOTER'S RESPONSE TO PETITION OF: Yarnfield and Cold Meece, Stone Town and Chebsey Parish Council

PETITION NO: HS2-HOL-023

PARAGRAPH NO: 2.8

ISSUE RAISED: Yarnfield Lane M6 overbridge

PETITION PARAGRAPH: 2.8 In addition, HS2 Ltd appears unwilling to adhere to the House of Commons Select Committee requirement to widen the realigned Yarnfield Lane M6 overbridge to the minimum requirement of 6.8 metres, as set out in HS2 Ltd's own technical standards document. The petitioner considers that appropriate lane widening should be extended to all sections of Yarnfield Lane used by HS2 Ltd's construction HGVs.

PROMOTER'S RESPONSE:

1. As explained in paragraphs 113 and 114 of the Promoter's response to the House of Commons Select Committee's Second Special Report of Session 2017-19, Yarnfield Lane M6 overbridge would be widened:

"113. In paragraph 67 of the report the Select Committee said: "The Committee directs HS2 to widen the bridge at Yarnfield Lane to ensure better safety for all users."

114. Subject to the approval of the detailed design by the highway authority, Yarnfield Lane overbridge will be widened to ensure the safety of all users. At detailed design HS2 Ltd will work with the highway authority to determine appropriate lane widths for road users to cross the Yarnfield Lane overbridge and the Bill includes the powers required to change the width of the bridge to accommodate the required lane widths."

2. The Consolidated Plans and Sections as amended in the House of Commons Select Committee Volume 1:2 plans show Work No.69 in Replacement Sheets No 1-39 and 1-40. The limits of deviation for this work as it crosses the motorway (Work No.70) have been drawn to allow for additional widening of the Yarnfield Lane carriageway and verge, if such a widening is required to obtain consent for the work after Royal Assent from Staffordshire County Council and Highways England.

3. Please refer to paragraph 1 above. The Promoter set out its response to the Select Committee's recommendations regarding the widening of Yarnfield Lane Overbridge

in paragraph 114 of the Promoter's response to the House of Commons Select Committee's Second Special Report of Session 2017 – 2019.

4. However, there is no requirement for the Promoter to confirm the width of the carriageway prior to Royal Assent.

Extension of widening to all sections of Yarnfield Lane

5. Section 5.9.1 of the SES2 and AP2 ES Vol 2 – CA3 report Stone to Sywnnerton¹¹ reports the proposed permanent realignment of Yarnfield Lane over a distance of 1.2km, 25m north-west of its current alignment with no change in journey length. The realigned Yarnfield Lane would cross under the HS2 route via the Yarnfield Lane underbridge. The realignment would continue past the Stone Infrastructure Maintenance Base-Rail (IMB-R) via the Yarnfield Lane IMB-R underbridge, and over the M6 via the Yarnfield Lane M6 overbridge replacement. To the south-west of the M6, there would be landscape earthworks and landscape mitigation planting on both sides of the realigned Yarnfield Lane.

6. Section 5.9.3¹² reports that site access to and from the Stone IMB-R would be provided via a new southbound slip road off the M6 as well as via the realigned Yarnfield Lane. The new slip roads on and off the southbound M6 would be provided within the Stone IMB-R site. As part of the highway design for the new maintenance access junction on the M6, a roundabout junction for the M6 slip roads and the Stone IMB-R access road connecting to Yarnfield Lane would be provided within the Stone IMB-R site. A permanent motorway maintenance and emergency access to the northbound lanes of the M6 from the realigned Yarnfield Lane would also be provided. During the construction phase temporary northbound slip roads would be provided here for access to the Stone IMB-R via the Yarnfield Lane M6 overbridge replacement.

7. Since submission of the Bill, further design development has been undertaken to redesign the Yarnfield Lane M6 overbridge replacement to improve both safety and traffic management during construction, and to allow for future widening of the M6.

8. During the in principle hearing on 25 April 2018 regarding the proposed relocation of the Stone Railhead and IMB-R to Aldersey's Rough, in relation to the highest peaks of construction traffic using Yarnfield Lane, Mr Smart said (please see paragraph 769 of the transcript):

“The highest peak is when we're creating the M6 slips. And these other peaks relate to the construction activity that happened before the M6 slips are open.

¹¹ See section 5.9

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/775953/J12_HS2_Phase_2a_AP2_ES_Volume_2_CA3_Stone_and_Swynnerton.pdf

¹²https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/775953/J12_HS2_Phase_2a_AP2_ES_Volume_2_CA3_Stone_and_Swynnerton.pdf

So they're setting up sites and starting construction. But the highest peak is building the slips".

9. With reference to concern about HGV construction traffic movements on Yarnfield Lane between A34 The Fillybrooks and the HS2 route, further evidence was provided by the Promoter to Stone Town Council on 1 May 2019 in the form of exhibit P1397 (2) – Histogram 15¹³. The histogram shows that the AP2 Revised HGV traffic flows are expected to occur primarily within Phase 1: Early Works prior to construction of the M6 motorway slips and replacement Yarnfield Lane M6 overbridge. Phase 1: Early Works was assumed to commence in the summer of 2020 with assumed completion in the autumn of 2021. The total combined two-way average daily HGV traffic flow is forecast to be less than 200 in the peak month.

10. Once the M6 construction traffic slips are open (as shown in Phase 2 of Histogram 15), and the replacement Yarnfield Lane M6 overbridge is open for public use, the average daily HGV combined two-way traffic flow is expected to reduce significantly.

¹³ https://www.parliament.uk/documents/commons-committees/hs2-phase-2a/written-evidence/AP2-00047_Stone%20Town%20Council_Promoter.pdf

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John Fraser
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ST15 0SX

15 March 2018

Dear Mr Fraser

**HIGH SPEED RAIL (WEST MIDLANDS – CREWE) BILL – HOUSE OF COMMONS SELECT COMMITTEE:
PETITION P2A-000128 - STONE TOWN COUNCIL & CHEBSEY PARISH COUNCIL**

I am writing to you in my capacity as the Director of Hybrid Bill Delivery at HS2 Ltd, which is acting on behalf of the Promoter of the High Speed Rail (West Midlands-Crewe) Bill ('the Bill') currently before Parliament.

Last week the Select Committee published¹ an indicative programme explaining that they expect to start hearing petitioners' cases from 16 April, and after hearing those petitioners' whose right to be heard is being challenged by the Promoter², they expect to start with the major in principle cases on:

- (a) the Whitmore Heath to Madeley tunnel;
- (b) the proposed Aldersey's Rough alternative to the Stone Infrastructure Maintenance Base-Railhead; and
- (c) the King's Bromley viaduct lowering.

I am writing to you as I believe that you will want to appear to present the case for one or more of these major changes, namely (b).

I am writing to you in advance of your appearance to advise you and the Select Committee of the Promoter's position in relation to these issues.

¹ see <http://www.parliament.uk/business/committees/committees-a-z/commons-select/high-speed-rail-west-midlands-crewe-bill-select-committee-commons/news/-petitioner-programming-announcement-17-19/>.

² the term "the Promoter" means the Secretary of State and HS2 Ltd acting on his behalf.

Proposed Aldersey's Rough alternative to the Stone Infrastructure Maintenance Base-Railhead

HS2 Phase 2A Information Paper F3: Infrastructure Maintenance and Rail Systems Construction Facilities³ and the Stone Infrastructure Maintenance Base update in December 2017⁴ set out the Promoter's position on the proposed temporary rail systems construction facility (the 'railhead') and Infrastructure Maintenance Base-Rail (IMB-R) near Stone included as part of the Proposed Scheme. The site of the railhead and IMB-R is proposed to be situated in an area of land located between the M6 motorway and the Proposed Scheme. The Information Paper includes:

- an overview of the strategy associated with the temporary railhead;
- the reasons behind the proposed railhead location near Stone;
- an overview of the strategy associated with the IMB-R;
- the reasons behind the proposed IMB-R location near Stone and the site layout; and
- the steps that have been taken to mitigate impacts on the local community.

Railhead location

The Information Paper explains that a preliminary options appraisal for the railhead looked at a number of areas and designs where the Proposed Scheme passes near the conventional railway, including Basford (south Crewe), Madeley and near Stone. Four options were not taken forward for further consideration as they were not deemed to be reasonable alternatives. Four options were considered in more detail, looking at environmental impact, cost, and suitability. An additional option called Aldersey's Rough (in the Whitmore Heath to Madeley area), raised as a result of representations made following publication of the working draft Environmental Impact Assessment (EIA) report and the Design Refinement Consultation, was also appraised.

After careful evaluation, the proposed option near Stone was chosen as the preferred location. It is sited in an ideal strategic position, at the mid-way point along the route of the Proposed Scheme, able to support construction activities heading north and south simultaneously, which offers significant programme and construction benefits. It is able to connect directly to the existing Norton Bridge to Stone Railway and to the M6 via new slip roads provided under the Proposed Scheme, and is not bounded by 'complex' civil engineering elements, such as tunnels or long viaducts.

All of the options considered are described in more detail in the Environmental Statement published alongside the Bill in July 2017 (ES, Volume 5, Alternatives Report (CT-002-000⁵)).

³ See

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/656360/f3_infrastructure_maintenance_and_rail_systems_construction_facilities.pdf

⁴ See

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/673766/stone_railhead_update_december_2017.pdf

⁵ See <https://www.gov.uk/government/publications/hs2-phase-2a-environmental-statement-volume-5-alternatives-report>

IMB-R location

The Information Paper explains that when the Phase 2A route to Crewe was announced in November 2015 it included a permanent maintenance depot, in the form of a large 'Infrastructure Maintenance Depot' (IMD), at Crewe. During the subsequent design development process, consideration was given to the location and operating requirements of a permanent maintenance facility for the Proposed Scheme. In Autumn 2016, the working draft EIA report retained the IMD at Basford as the permanent base for maintenance activities. Due to its location at the northern end of the Phase 2A route and distance from Phase 1 maintenance facilities, 'maintenance loops' (track sidings located adjacent to the main line) were proposed at Pipe Ridware. These maintenance loops would provide a daytime stabling facility for engineering trains working in locations remote from the maintenance depots ('out-stabling').

The Design Refinement Consultation in 2016 sought feedback on a proposal to build a temporary railhead on the site near Stone, with the potential that its use could then be changed to become a permanent maintenance facility.

Following the publication of the working draft EIA report and the Design Refinement Consultation, HS2 Ltd undertook further work to consider the location of the permanent maintenance facility for the Proposed Scheme, taking account of consultation responses. Two options were assessed on the basis of engineering and construction feasibility, cost and environmental impacts:

- Stone: a permanent maintenance facility located near Stone, sharing the same footprint and core infrastructure as the proposed Stone railhead. The maintenance facility, in the form of an IMB-R, would be situated on land between the Phase 2A line and the M6, between the Norton Bridge to Stone Railway and the M6 Meaford viaduct, with reception tracks connecting into the Norton Bridge to Stone Railway; and
- Basford (the IMD as assessed in the working draft EIA report): a permanent maintenance facility located at Crewe, situated in the west Basford area, with access spurs from the West Coast Main Line (WCML) via the proposed Basford Hall sidings and connection to the Phase 2A line east of Hough. It would require land which is planned to be used for regeneration, housing and businesses development. This option would not share any infrastructure with the railhead, which would be constructed separately near Stone. This option would require maintenance loops to be provided at Pipe Ridware.

After careful consideration, the option near Stone was taken forward into the Proposed Scheme. As this option shares the same footprint and core infrastructure as the railhead, it would not introduce any additional environmental effects during construction and would remove the cost of restoring the land needed for the Stone railhead to its original use. It would enable the ongoing use of infrastructure including buildings, utilities connections, rail sidings, connections to the conventional railway and M6, and environmental mitigation.

The Stone option would position the permanent maintenance facility strategically in the middle section of the Phase 2A route, enabling access to the HS2 line in both directions, at a location that will interact effectively with facilities provided on the Phase 1 infrastructure. Locating the permanent maintenance facility near Stone would reduce travel time to undertake maintenance activities along the length of the Phase 2A route. Combined with the closer proximity to Phase 1 facilities, it removes the need for the maintenance loops at Pipe Ridware and maintenance facilities along the remainder of the Phase 2A route, or additional maintenance loops for 'out-stabling' maintenance trains or plant. This makes more efficient use of maintenance plant, as it reduces the need for non-productive shifts used to move the equipment from the maintenance facility to the maintenance loops, whilst still allowing a suitable

amount of time for maintenance work to be undertaken in the short night time periods when passenger trains are not running. As this option allowed the maintenance loops to be removed from Pipe Ridware, it removed constraints on the HS2 line alignment in the Kings Bromley, Pipe Ridware and Blithbury area allowing the alignment to be lowered in this area.

Once all phases of HS2 are complete (with the route from Crewe extended to Manchester and Golborne), the location near Stone would be well positioned between the northern ends of this western leg and the maintenance facilities proposed for Phase 1 of HS2, to fulfil the 'system wide' maintenance requirements.

All of the options considered, and the lowering of the alignment with the removal of the maintenance loops, are described in more detail in the Environmental Statement published alongside the Bill in July 2017 (ES, Volume 5, Alternatives Report (CT-002-000)).

Aldersey's Rough alternative

Following deposit of the Bill, HS2 Ltd undertook further assessment of the Aldersey's Rough alternative location. The assessment looked at 5 options:

- Option A8 - railhead and IMB-R located near Stone (the Proposed Scheme)
- Option A5 – railhead and IMB-R located at Crewe
- Option A1 – railhead located near Stone and IMB-R located at Crewe
- Option A9.5* - railhead and IMB-R located at Aldersey's Rough (without maintenance loops at Pipe Ridware)
- Option 9.5 - railhead and IMB-R located at Aldersey's Rough (with maintenance loops at Pipe Ridware)

The last option was an additional scenario to explore the sensitivity of the assessment to the Pipe Ridware maintenance loops (see above).

For each option the assessment criteria considered were:

- strategic fit;
- engineering construction feasibility;
- HS2 operation feasibility – trains (HS2 and Network Rail);
- environmental impacts;
- safety, assurances/commitments;
- risks related to structures, highways, water and drainage;
- geotechnics; and
- cost.

The assessment concluded that the Aldersey's Rough alternative location represented a worsening in comparison to the Proposed Scheme.

The results of the assessment were initially presented to and shared with the Stone Railhead Crisis Group (SRCG), the leading advocates of the alternative location, at a meeting on 8 November 2017. The results were then presented to a meeting with representatives from the relevant Town and Parish Councils on 25 January 2018, and a copy of the summary presentation and assessment report sent to the Councils afterwards. A copy of the assessment report has now been published⁶.

Our view remains that the site near Stone is the preferred option for the railhead and IMB-R. The reasons for this include that Aldersey's Rough:

- does not have ready access to the existing rail network;
- does not have ready access to the M6;
- is not as centrally located on the Phase 2A route as the Stone site; and
- is bounded by complex infrastructure (tunnels) which are technically challenging and could affect the overall construction timetable if they were delayed.

It is also worth noting that even without a railhead, work on the site near Stone would still affect local people because the new railway needs to go over the existing railway and M6 there, which would require considerable earthworks and associated HGV traffic. The Aldersey's Rough site would be unaffected if we use the site near Stone.

Programming of petitioners

The programming of petitioners is being handled by David Walker from Winckworth Sherwood, on behalf of the Select Committee, and David will be in touch to schedule your appearance.

I hope that you find this response to these aspects of your petition useful. If you require further assistance, please contact Laura Wise, Senior Petition Manager, by telephone on 020 7944 0541 or by email at laura.wise@hs2.org.uk.

Yours sincerely



Oliver Bayne

Director, Hybrid Bill Delivery
High Speed Two (HS2) Limited

⁶ See

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/688586/hs2_phase_2a_railhead_sift_report.pdf

June 2018

**HIGH SPEED RAIL (WEST MIDLANDS -
CREWE) BILL**

**HOUSE OF COMMONS
SELECT COMMITTEE**

**Petition No. HS2-AP1-000022:
Stone Town Council,
Chebsey Parish Council**

Promoter's Response Document

INTRODUCTION

This Promoter's Response Document (PRD) forms the Promoter's response to Petition No. HS2-AP1-022-1, from Stone Town Council and Chebsey Parish Council.

In this PRD, 'the Promoter' means the Secretary of State and HS2 Ltd acting on his behalf.

The purpose of the PRD is to advise you and the Select Committee of the Promoter's position in relation to the petitioning points raised. It is intended that the PRD will alleviate many of the concerns raised in the petition.

The Table of Contents overleaf lists the page number, petitioning points in the order they appear in the petition, and a summary statement of the issue(s) contained in the petition for quick reference. Other supporting material (e.g. reports, drawings and photographs) referred to in the response are attached where applicable.

Copies of the HS2 Phase 2A Information Papers referred to in the response can be found at <http://www.gov.uk/government/collections/high-speed-rail-west-midlands-to-crewe-bill>.

Department for Transport
High Speed Two (HS2) Limited

BACKGROUND

Stone Town Council represents the community of Stone, Staffordshire.

Chebsey Parish Council represents the villages and surrounding communities of Chebsey, Cold Norton, Hilcote, Norton Bridge and Shallowford in the county of Staffordshire.

PETITION NO. HS2-AP1-000022

STONE TOWN COUNCIL, CHEBSEY PARISH COUNCIL

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HOUSE OF COMMONS SELECT COMMITTEE

HIGH SPEED RAIL (WEST MIDLANDS - CREWE) BILL

PROMOTER'S RESPONSE TO PETITION OF: Stone Town Council, Chebsey Parish Council

PETITION NO: HS2-AP1-000022

PARAGRAPH NO: 2.1.1, 2.1.2, 2.1.3, 2.2.1

ISSUE RAISED: Replacement of Filly Brook viaduct and Filly Brook West underbridge

PETITION PARAGRAPH: The Town Council of Stone and the Parish Council of Chebsey object to the proposed additional provisions contained in High Speed Rail (West Midlands - Crewe) Supplementary Environmental Statement and Additional Provision Environmental Statement Volume 2: Community Area report CA3: Stone and Swynnerton.

2.1.1 The replacement of the 449m long Filly Brook viaduct with a much shorter one (80m long over the Norton Bridge to Stone Railway) resulting in the need to extend the Yarnfield North and Yarnfield South embankment by extra 300m and 85m respectively on either side of the railway.

2.1.2 The replacement of the Filly Brook west underbridge with a 30m long x 11m high embankment to connect the reception tracks from the Norton Bridge railway to the Railhead /IMB-R platform.

2.2.1 The replacement of the Filly Brook viaduct with a much shorter one and an extra 385m length of embankment on either side of the railway will have a detrimental impact on the geomorphology of the Filly Brook watercourse and the storage capacity of the flood plain.

PROMOTER'S RESPONSE:

1. Since the submission of the Bill, further consideration has been given to the design of the original scheme in the vicinity of Filly Brook. The HS2 Supplementary Environmental Statement (SES) and Additional Provision Environmental Statement (AP ES) was deposited with the Additional Provision (March 2018). In Volume 2 –

Community Area 3, Stone and Swynnerton, the amendment¹ No. AP-003-001 would avoid railway track crossovers being partially located on embankment and partially on viaduct.

2. The proposed changes would result in the shortening of the viaduct and a change in the vertical and horizontal alignment of the HS2 line to enable the relocation of the crossovers further north-west along the route.

3. A consequence of this amendment is that the embankments at the southern end of the Infrastructure Maintenance Base – Rail (IMB-R) would extend over the floodplain and a channel of Filly Brook.

4. Filly Brook would have been conveyed in an approximately 300m long culvert in this location. The AP design would remove this culvert, and introduce two shorter culverts providing a net gain in open channel and potential for hydromorphological improvement. In addition to this there are further realignments proposed that run through the wetland habitat creation adjacent to the M6 motorway. These would provide additional scope for improvements to the morphology of Filly Brook.

5. In the case of the updated proposals on Filly Brook, a revised suite of measures (AP-003-002 as shown on Map CT-06-222, B8 in the SES and AP ES, Volume 2, CA3 Map Book) have been incorporated into the AP revised scheme with the aim of both ensuring HS2 infrastructure in the vicinity of Filly Brook is safe from flooding over its lifetime and that flood risk to existing communities and infrastructure is reduced overall.

6. The measures have been designed on a precautionary basis to take account of changes in peak flow that may occur due to climate change beyond 2080. Because the consequences of the design flows being exceeded has the potential to affect essential infrastructure, including the M6, Norton Bridge to Stone Railway and HS2, the Upper End climate change allowance for the Humber Basin (+50%), has been adopted.

7. The measures comprise a combination of flood embankments, formal flood storage areas and land drainage works. More information on these is set out in the SES and AP ES Volume 5: Flood Risk Assessment.

8. Replacement flood storage areas have been proposed following detailed hydraulic modelling of the Filly Brook catchment. These storage areas would provide sufficient capacity to mitigate the impact of any lost floodplain. This would result in no increase in flood risk downstream of the IMB-R.

¹ <https://www.gov.uk/government/collections/hs2-phase-2a-supplementary-environmental-statement-and-additional-provision-environmental-statement#volume-2:-community-area-reports-and-maps>.

9. A new smaller flood storage area would replace the flood storage area west of the M6 and its associated flood mitigation bund, which were included in the original scheme. Two additional flood storage areas are proposed and two flood mitigation bunds would be required. New culverts would also be required and the culverts included in the original scheme would be amended.

10. The objective would be to protect HS2 infrastructure from flooding over the scheme's lifetime, whilst ensuring no increase in flood risk to key receptors along the Filly Brook system.

11. The replacement Norton Bridge to Stone Railway viaduct would result in a proposed reduction in the construction programme by one year and three months to that reported in the main ES due to the proposed shortening in length of the viaduct. It is proposed that the Norton Bridge to Stone Railway viaduct would take approximately one year and nine months to complete and would be constructed between 2022 and 2023.

HOUSE OF COMMONS SELECT COMMITTEE

HIGH SPEED RAIL (WEST MIDLANDS - CREWE) BILL

PROMOTER'S RESPONSE TO PETITION OF: Stone Town Council, Chebsey Parish Council

PETITION NO: HS2-AP1-000022

PARAGRAPH NO: 2.1.4, 2.2.3

ISSUE RAISED: Raising of the Yarnfield North and South embankments

PETITION PARAGRAPH: 2.1.4 The raising of the Yarnfield North and South Embankments by 0.9 and 0.6 metres respectively.

2.2.3 The visual impact of the creation of a 385m embankment and the raising of the HS2 mainline will have an adverse impact in visual terms.

2.1.6 We also note that the railway is being realigned by 15.5m to the northeast where it crosses the M6 at the northern end of the Stone Railhead site the implications of which are not yet apparent.

PROMOTER'S RESPONSE:

1. The AP revised scheme would include:

- an increase in height of Yarnfield North embankment by up to 0.9m along its full length (approximately 1km); and
- an increase in height of Yarnfield South embankment by up to 0.6m along its full length (approximately 300m).

2. Due to the extension of Yarnfield North embankment, one additional year would be required for the construction of this element compared to that set out in the main ES. The construction programme for the Yarnfield North embankment has been amended and is proposed to start one year earlier than stated in the main ES. The Yarnfield North embankment is expected to take approximately two years to complete and would commence in 2023, with the completion date proposed to remain as stated in the main ES.

3. Landscape mitigation planting on the north-east side of the HS2 main line, at the northernmost extent of Yarnfield South embankment, would be re-orientated and

would increase in size by approximately 0.1ha. The Promoter refers the Petitioner to Map CT-06-222, H5 to D6 in the SES and AP ES Volume 2, CA3 Map Book.

4. The amendment would not significantly increase the land required for construction of the original scheme and the construction works would be broadly similar in scale and Impact.

5. The increase in the scale of the earthworks near Filly Brook to construct the raised and extended embankments would be offset by a reduction in scale of the viaduct construction works, which would mean fewer tower cranes on the skyline.

6. Whilst the change in the type of construction activity, particularly around Filly Brook, would result in an alteration to the view, it would not give rise to a new or different significant effect and would not change the level of significance of the effects reported in the main ES.

7. The amendment within the Yarnfield Settled Farmlands Landscape Character Area (LCA) would result in the replacement of Filly Brook viaduct with the shorter Norton Bridge to Stone Railway viaduct, the removal of Filly Brook West underbridge and the resulting extension of the embankments associated with both features.

8. The alignment of the HS2 line would be raised which would increase the height of the Yarnfield North and Yarnfield South embankments by up to 0.9m near Filly Brook. This would slightly increase the sense of landscape severance within the open rural farmland and interrupt the views along the Filly Brook valley. Further north, the horizontal changes to the HS2 main line would be similar in nature and scale to the original scheme.

9. Overall, the amendment would not give rise to a new or different significant effect on the Yarnfield Settled Farmlands LCA and would not change the level of significance reported in the main ES.

10. In addition, the amendment would not give rise to any new or different residual significant visual effects during construction or operation.

11. Additional land and a change in the powers of the Bill are required for the horizontal realignment of the HS2 main line from the northern extent of Yarnfield North embankment to Tittensor Road Overbridge. This is in a north easterly direction by up to 15.5m.

12. The amended alignment would provide a longer straight section of track to the north of Filly Brook to enable the relocation of crossovers away from the Filly Brook viaduct.

13. The change to the horizontal alignment of the HS2 line is outside the limits of the Bill. The amendment would result in the permanent requirement for approximately

0.7ha of additional land. The amendment would also require a change to the limits of deviation as set out in the Bill.

14. The amendments required as a result of this change are set out at 5.1.29 in SES and AP ES Volume 2: Community Area 3 report.

HOUSE OF COMMONS SELECT COMMITTEE

HIGH SPEED RAIL (WEST MIDLANDS - CREWE) BILL

PROMOTER'S RESPONSE TO PETITION OF: Stone Town Council, Chebsey Parish Council

PETITION NO: HS2-AP1-000022

PARAGRAPH NO: 2.1.5, 2.2.2

ISSUE RAISED: HGV movements

PETITION PARAGRAPH: 2.1.5 The increase in HGV movements required for the amendments to the embankments referred to in 2.1.3 and 2.1.4 above.

2.2.2 The additional provisions will result in an increase in the number HGV movements, arising from the additional work to the Yarnfield South embankment and Yarnfield North embankment, and the extension of the embankment within the Stone IMB-R to support the reception track from the Stone to Norton Bridge railway. The Supplementary Environmental Statement /Additional Provisions Environmental Statement contains no details of the number of additional HGVs that will need to access/egress the site, including via Yarnfield Lane to the northbound carriageway of the M6, or alternatively via Yarnfield Lane to its junction with the A34.

2.2.4 Use of Yarnfield Lane to access/egress the M6 northbound carriageway will be further compromised by the increase HGV movements required as a result of the changes proposed by the additional provisions.

PROMOTER'S RESPONSE:

1. In the revised scheme there would be a small increase in the predicted number of HS2 Heavy Goods Vehicle (HGV) traffic movements resulting from the increased earthworks movements for the extension of Yarnfield South embankment and Yarnfield North embankment, and an extension of the embankment within the Stone IMB-R to support the reception track from the Stone railway headshunt.

2. However, the increased HS2 HGV movements would primarily be via the M6 motorway and would not lead to any new or different traffic and transport significant effects.

HOUSE OF COMMONS SELECT COMMITTEE

HIGH SPEED RAIL (WEST MIDLANDS - CREWE) BILL

PROMOTER'S RESPONSE TO PETITION OF: Stone Town Council, Chebsey Parish Council

PETITION NO: HS2-AP1-000022

PARAGRAPH NO: 3.1, 3.2

ISSUE RAISED: Proposal to develop the Stone Railhead/IMB-R at Aldersey's Rough near Keele Services

PETITION PARAGRAPH: 3.1 We consider that the proposals set out in our petition, reference HS2-P2A-128, together with our evidence before the Select Committee on 25 April 2018, provide a far superior alternative location for a Railhead and IMB-R from an engineering, environmental and economic perspective, which would avoid the problems created by the additional provisions. The publication of the additional provisions and Supplementary Environmental Statement reinforces the position of our previous petition.

3.2 The proposal to develop the Stone Railhead/IMB-R should be dropped in favour of developing a Railhead/IMB-R at Aldersey's Rough, near Keele Services.

PROMOTER'S RESPONSE:

1. The Petitioner is referred to the Promoter's response, dated 15 March 2018, to the Petitioner's petition (No. P2A-000128) against the Bill in regards to the location of the Railhead; the location of the IMB-R and the proposed Aldersey's Rough alternative to the Stone Infrastructure Maintenance Base-Railhead.

2. The in principle case for the siting of the Railhead and IMB-R at Aldersey's Rough instead of Stone was heard by the Select Committee in April, and on 24 May the Select Committee announced their decision. Having considered the evidence, the Select Committee has decided that in principle the proposal to site the Railhead and IMB-R at Stone should not be changed. A copy of the Select Committee's report can be found at <https://publications.parliament.uk/pa/cm201719/cmselect/cmhs2/1085/108502.htm>.

HOUSE OF COMMONS SELECT COMMITTEE

HIGH SPEED RAIL (WEST MIDLANDS - CREWE) BILL

PROMOTER'S RESPONSE TO PETITION OF: Stone Town Council, Chebsey Parish Council

PETITION NO: HS2-AP1-000022

PARAGRAPH NO: 3.3

ISSUE RAISED: Transport logistics profile for the Stone Railhead/IMB-R

PETITION PARAGRAPH: 3.3 HS2 Ltd should provide a fully detailed Transport Logistics Profile for the Stone Railhead/IMB-R, which should provide a month by month breakdown of the predicted HGV movements by type, e.g. construction materials (bulk materials; steelwork etc.), consumables (fuel oil etc) and material waste disposals, including unsuitable excavated soils. This should be made available in advance of the Select Committee hearings to allow full and proper scrutiny by all parties.

PROMOTER'S RESPONSE:

Route-wide construction traffic management

1. The impacts of construction traffic are likely to be a particular concern for residents who live or work near the line of route. The Promoter is committed to ensuring that the adverse effects of such impacts are minimised, as far as reasonably practicable.
2. Core working hours for the construction of the Proposed Scheme would be from 08.00 to 18.00 on weekdays (excluding bank holidays) and from 08.00 to 13.00 on Saturdays. The nominated undertaker would require that its contractors adhere to these core working hours for each site as far as reasonably practicable or unless otherwise permitted under section 61 of the Control of Pollution Act 1974. This is explained in HS2 Phase 2A Information Paper D5: Working Hours.
3. As is explained in paragraph 13.2.5 of the draft Code of Construction Practice (CoCP):

'The nominated undertaker's contractors will seek to obtain consents from the relevant local authority under Section 61 of the Control of Pollution Act 1974 for the proposed construction works, excluding non-intrusive surveys. Formal applications will normally be made to the relevant local authority for a Section 61 consent at least 28 days before the relevant work is due to start.'

4. Guidance on site-specific variations to core hours and/or additional hours likely to be required would be included within the Local Environmental Management Plans (LEMPs) produced for each relevant local authority. These plans are explained further in HS2 Phase 2A Information Paper D3: Code of Construction Practice.

5. The LEMPs would be produced with input from the relevant local authority and statutory bodies.

6. In an emergency, the relevant local authority would be informed as soon as reasonably practicable if work is required outside core hours. This is explained further in HS2 Phase 2A Information Paper D5: Working Hours.

7. A route wide approach has been taken during the development of the excavated materials strategy. Wherever practicable, excavated materials arising from the construction of the railway, such as from tunnels and cuttings, would be used to form embankments to either support the railway or realigned roads or to provide environmental mitigation earthworks, amongst other uses.

8. For distances where it is reasonably practicable excavated material would be moved along the construction corridor of the Proposed Scheme. For longer distances or when it is not reasonably practicable to use the construction corridor, excavated material would be transported by public highway along designated construction routes. Where reasonably practicable, rail has been considered for the transportation of large quantities of excavated material over long distances.

9. At some locations along the Proposed Scheme, there is anticipated to be a shortfall of high quality material necessary for construction. Options that have been considered to address this shortfall include excavating appropriate high quality material from borrow pits in areas close to the route of the Proposed Scheme.

10. Excavating borrow pits would enable high quality aggregate to be extracted and processed locally and transported largely on site haul routes within the construction area of the Proposed Scheme. This would generate fewer HGV movements on the public highway than importing the material from commercial quarries, reducing impacts on the local road network and communities.

11. This is explained further in HS2 Phase 2A Information Paper E17: Excavated Material and Waste Management and HS2 Phase 2A Information Paper D12: Borrow Pits.

12. The draft CoCP would ensure a consistent approach to the management of construction traffic. As set out above, the draft CoCP would require the nominated undertaker to prepare a Route-wide Traffic Management Plan and Local Traffic Management Plans, in consultation with local highway and traffic authorities, as well as emergency services. These plans would include, as appropriate, details of:

- clear identification for construction heavy goods vehicles under the lead contractors' control;
- means of monitoring lorry use and any routes prohibited from use;
- introduction of a GPS vehicle location and tracking system for tipper lorries within the lead contractors' control to be used for the movement of materials and waste in bulk and/or appropriate tracking solutions for the measurement of traffic flows relating to the Proposed Scheme; and
- dealing with large goods vehicles and abnormal loads.

13. The local or site-related traffic management measures would also include:

- permitted access routes for Large Goods Vehicles and site accesses for construction traffic;
- a list of roads which may be used by construction traffic in the vicinity of the site including any restrictions to construction traffic on these routes, such as the avoidance of large goods vehicles operating adjacent to schools during drop off and pick-up periods and any commitments set out in the register of Undertakings and Assurances;
- the local signing strategy for the emergency services and, as necessary, for construction vehicle wayfinding;
- timing of site operations and timing of traffic movements;
- Identify key on street facilities required to facilitate construction such as lorry holding areas, site compounds;
- lorry holding areas on- or off-highway, how they would be laid out and operated; and
- weighbridge(s) at a suitable location(s) on site to monitor compliance with vehicle weight restrictions.

14. Under the planning regime established under Schedule 17 to the Bill the nominated undertaker would be required to seek approval from the relevant qualifying authority (that is the relevant planning authority for the area, which in this case would be the County Council) for the use by large goods vehicles of any routes to and from a working or storage site, a site where material would be re-used, or a waste disposal site (this does not apply to routes where the number of movements per day is 24 or less, nor to motorways and trunk roads or any part of the route beyond a motorway or trunk road). This is explained further in HS2 Phase 2A Information Paper B2: The Main Provisions of the Planning Regime.

15. Construction Workforce Travel Plans would be required for construction sites (during construction) to assist in the management of traffic.

16. Further detail is provided in HS2 Phase 2A Information Paper E3: Management of Traffic During Construction, HS2 Phase 2A Information Paper E4: Highways and Traffic During Construction – Legislative Provisions, and HS2 Phase 2A Information Paper D3: Code of Construction Practice.

17. The Promoter has given the following assurances to Staffordshire County Council. A link to the full set of assurances is provided below.²

In these assurances:

“Maximising the use of the Stone railhead and the rail connection to the IMB-R

The Promoter recognises that the impact of construction traffic on local roads is likely to be a particular concern for the local community and has sought to reduce the use of roads for transport to and from construction sites, using the construction corridor and rail where reasonably practicable. In the case of the Stone railhead, the Promoter is willing to offer the following assurance aimed at addressing the concerns of the local community:

3. (a) The Promoter will require the nominated undertaker to explore, and subject to the conditions in sub-paragraph (c) implement, options for maximising, as far as is reasonably practicable, the volume of materials and equipment brought in, and the volume of excavated material removed, by rail via the Stone railhead once that railhead is operational. In exploring those options, the nominated undertaker must balance the wider environmental impacts to the local community with the impact on rail passenger services.
(b) The Promoter will require the nominated undertaker to respond to any reasonable request made by Staffordshire County Council for information about the progress made in exploring the options mentioned in paragraph (a).
(c) The conditions in paragraph (a) are that such options:

- i. must be deliverable within the existing powers of the Bill;
- ii. are subject to the availability of train paths; and
- iii. must not prejudice the safe, timely and economic delivery of the Proposed Scheme.

4. (a) The Promoter will require the nominated undertaker to explore, and, as far as is reasonably practicable and subject to the availability of train paths,

² <https://www.gov.uk/government/publications/hs2-phase-2a-assurances-given-during-select-committee>.

implement options for maximising the use of the Norton Bridge to Stone Railway connection to the Stone IMB-R for the movement of materials and equipment involved in maintenance works during the operation of the Proposed Scheme. In exploring those options, the nominated undertaker must balance the wider environmental impacts to the local community with the impact on rail passenger services.

(b) The Promoter will require the nominated undertaker to respond to any reasonable request made by Staffordshire County Council for information about progress made in exploring the options mentioned in paragraph (a)."

"M6 slips – put in place as early as practicable and maximise use to reduce use of Yarnfield Lane

The Promoter recognises the importance to the local community of the ability to continue to use Yarnfield Lane during construction of the Proposed Scheme. The Promoter has already taken steps to ensure that the road remains open throughout construction of the Proposed Scheme, which have been welcomed locally. The Promoter has also made provision in the Bill for the creation of slip roads onto the M6 to alleviate the need to use the stretch of the road from the A34.

While the Promoter has explained to Staffordshire County Council why it is not possible to avoid the use of any part of Yarnfield Lane during construction, and in particular during site set up, accessing the M6 slips and for more local or worker trips, the Promoter is willing to offer the following assurances aimed at addressing the concerns of the local community:

6. (a) The Promoter will (subject to any necessary consents or approvals being in place) require the nominated undertaker to use reasonable endeavours to complete the construction and commissioning of the M6 Slip Roads as soon as reasonably practicable in the main civil engineering works construction programme for the Proposed Scheme.

(b) The Promoter will (subject to any necessary consents or approvals being in place) require the nominated undertaker to ensure that, upon the opening of the completed M6 Slip Roads to HS2 construction traffic, it will use reasonable endeavours to maximise the use of the M6 Slip Roads by HS2 Large Goods Vehicle construction traffic, so far as reasonably practicable, for access to and egress from the Stone railhead main compound so as to reduce so far as reasonably practicable the use of Yarnfield Lane by HS2 Large Goods Vehicle construction traffic accessing the Stone railhead main compound."

"Haul roads

11.(a) In managing the HS2 Large Goods Vehicle construction traffic within the Petitioner's administrative boundary and in order to reduce the impact of HS2

Large Goods Vehicle construction traffic on the local road network, the Promoter shall, subject to the conditions in paragraph (b), require the nominated undertaker to use reasonable endeavours to:

- (i) commence construction of each Haul Road as soon as reasonably practicable following commencement of main civil engineering works in the construction programme for the Proposed Scheme, having regard to the purpose of each Haul Road; and

- (ii) prioritise the use of the Haul Roads by HS2 LGV construction traffic so far as reasonably practicable above the use of the local road network.

(c) The conditions referred to in paragraph (a) above are:

- (i) the securing of any necessary consents and approvals; and

- (ii) the Promoter being satisfied that doing so would not prejudice the safe, timely and economic construction of the Proposed Scheme.

In this assurance "Haul Roads" means those haul routes described in the Environmental Statement as proposed within the limits of land to be acquired or used as shown on the plans deposited with the Bill."

April 2019

**HIGH SPEED RAIL (WEST MIDLANDS -
CREWE) BILL**

**HOUSE OF COMMONS
SELECT COMMITTEE**

**Petition No. HS2-AP2-047:
Stone Town Council**

Promoter's Response Document

INTRODUCTION

This Promoter's Response Document (PRD) forms the Promoter's response to Petition No. HS2-AP2-047, from Stone Town Council.

In this PRD, 'the Promoter' means the Secretary of State and HS2 Ltd acting on his behalf.

The purpose of the PRD is to advise you and the Select Committee of the Promoter's position in relation to the petitioning points raised. It is intended that the PRD will alleviate many of the concerns raised in the petition.

The Table of Contents overleaf lists the page number, petitioning points in the order they appear in the petition, and a summary statement of the issue(s) contained in the petition for quick reference. Other supporting material (e.g. reports, drawings and photographs) referred to in the response are attached where applicable.

Copies of the HS2 Phase 2A Information Papers referred to in the response can be found at
<http://www.gov.uk/government/collections/high-speed-rail-west-midlands-to-crewe-bill>.

Department for Transport
High Speed Two (HS2) Limited

BACKGROUND

Stone Town Council represents the community of Stone, Staffordshire.

At a meeting held on 5 March 2019, Stone Town Council resolved that they would petition regarding changes arising from Additional Provision 2 (AP2) to the Bill.

In March 2018 and June 2018 respectively, the Petitioner was sent a PRD for their petitions against the Bill and Additional Provision 1 to the Bill (Petition No. HS2-P2A-0000128 and HS2-AP1-000022, attached at Annex A and B). The Petitioner appeared before the House of Commons Select Committee in April and July 2018.

PETITION NO. HS2-AP2-047

STONE TOWN COUNCIL

TABLE OF CONTENTS

Page No.	Petition Paragraph No.	Issue
4	2.1, 2.2, 2.3, 3.1	Proposed amendments to the A34/A51 Stone Business Park junction and A34/Yarnfield Lane junction
10	2.4, 3.2	AP2 indicative construction programme in the area

ATTACHMENTS

Title	
Annex A	PRD for petition against the Bill (Petition No. HS2-P2A-0000128)
Annex B	PRD for petition against Additional Provision 1 to the Bill (Petition No. HS2-AP1-000022)

HOUSE OF COMMONS SELECT COMMITTEE

HIGH SPEED RAIL (WEST MIDLANDS - CREWE) BILL

PROMOTER'S RESPONSE TO PETITION OF: Stone Town Council

PETITION NO: HS2-AP2-047

PARAGRAPH NO: 2.1, 2.2, 2.3, 3.1

ISSUE RAISED: Amendments to the A34/A51 Stone Business Park junction and A34/Yarnfield Lane junction

PETITION PARAGRAPH: 2.1 Stone Town Council objects to the impact caused by the proposals relating to the construction of a Railhead and Infrastructure Maintenance Base – Rail (IMB-R) on land to the west of Stone, Staffordshire, together with the proposals relating to the two road junctions in the vicinity of Stone, as outlined in Additional Provision 2 (AP2) ES Volume 2 relating to Community Area 3 – Stone and Swynnerton, and the related documentation referred to therein, including maps and sections.

2.2 The proposals raise serious concerns with respect to impacts on the road junctions in the Stone area for the following reasons:

- a. Insufficient detail has been provided by HS2 Ltd to demonstrate how its proposed highway works at the A34/A51 junction with the Stone Business Park will address the major delays that will ensue at the A51 approach during peak periods, with the consequential severe impacts on the economy of Stone and the surrounding area.
- b. Insufficient detail has been provided by HS2 Ltd to demonstrate how its proposals to construct new permanent traffic signals at the junction of Yarnfield Lane at the A34 - The Fillybrooks would operate effectively and safely for all road users. This is with particular reference to the impact this proposal will have on the interaction of all vehicle movements with the nearby junction of the A34/Trent Road.

- c. HS2 Ltd has substantially reduced the number of its construction HGVs using numerous junctions in the locality, with no accompanying explanation of how this could practically be achieved. Instead, it has simply implied that this could be realised by storing an unspecified quantity of spoil within the footprint of the Stone Railhead/IMB-R site, together with an assumption that it would be able to use internal haul roads built parallel to its mainline railway to reduce the numbers of HGVs needing to use the local road network.

2.3 The proposal fails to address the requirements of the House of Commons Select Committee on High Speed Rail (West Midlands – Crewe), as expressed in paragraph 67 of its Second Special Report, which requires the Yarnfield Lane overbridge over the M6 to be widened “to ensure the better safety of all road users” has not been adequately considered and does not form part of Additional Provision 2:

- a. There are no details of any change to the carriageway or footway widths or how HS2 Ltd will ensure the better safety of all types of users of Yarnfield Lane, despite HS2 Ltd.’s stated proposal to bring forward the opening of the realigned Yarnfield Lane by 18 months to the start of Q1 2022 and approximately double the number of HGVs accessing the Yarnfield Lane Transfer node during the stated busy period.
- b. This is important because HS2 Ltd.’s proposals in AP2 for segregating local traffic and its construction traffic rely on its ability to use a 1.2km section of the existing Yarnfield Lane, including the existing M6 overbridge, to be used as an internal haul road once the realigned Yarnfield Lane has been completed. However, no evidence has been produced that demonstrates whether the existing M6 overbridge is capable of carrying up to 50% of HS2 Ltd.’s proposed peak levels of 2329 HGVs/day. Nor has HS2 Ltd shown how the use of the existing Yarnfield Lane as a haul road is compatible with it being buried under several metres of fill to form the finished levels of the platform of the Stone Railhead.
- c. The segregation of HGV construction and local traffic is also dependent on HS2 Ltd being able to deliver the revised construction programme outlined in AP2, for which no evidence is provided in the supporting

documentation. The AP2 programme assumes that the new Yarnfield Lane overbridge can be constructed in 18 months, instead of over a period of 2 years commencing at the very start of Phase 2a construction operations in July 2020. This is the same start date as the site preparation and set up period, which requires 9 months to complete, and is considered to be totally unrealistic and unachievable.

3.1 The Petitioner request that HS2 Ltd provides substantive evidence to conclusively prove to the Select Committee that its proposals for amendments to the A34/A51 Stone Business Park junction and A34/Yarnfield Lane junction have been adequately modelled such that it can be proved that HS2 Ltd.'s construction traffic would not cause significant traffic delays and congestion that would result in a negative impact on Stone Town and the surrounding areas.

PROMOTER'S RESPONSE:

Stone Infrastructure Maintenance Base – Rail (IMB-R)

1. The Petitioner has previously raised concerns related to the Stone Railhead and Infrastructure Maintenance Base – Rail (IMB-R) in petitions against the Bill and Additional Provision 1 (AP1) to the Bill. Please refer to the PRDs for these petitions, attached as Annexes A and B.

Highways and Traffic: proposed highway works at A34/A51 junction and permanent traffic signals at the junction of Yarnfield Lane at the A34 - The Fillybrooks

2. The Promoter considers the traffic count data and the traffic analysis undertaken to be appropriate for the hybrid Bill stage in the development of the project. The assessment of the impact of the junction proposals in Additional Provision 2 (AP2) to the Bill is set out in Tables 281 and 290 of the Volume 5 Traffic and Transport report. This used standard traffic modelling tools developed following discussions with the highway authority, Staffordshire County Council. It is sufficient for the purposes of developing outline highway proposals and mitigations in sufficient detail to determine the necessary limits of the Bill powers and for assessing the environmental effects of the proposals. The designs would be further refined following Royal Assent in advance of seeking consents from Staffordshire County Council.

3. Further development of the assessment of traffic impacts including new traffic surveys (where appropriate) will not be undertaken until after Royal Assent, as part of the detailed design stage. The Promoter's approach for Bill deposit and subsequent

Additional Provisions has been to make reasonable worst case assumptions on likely peak traffic generation and highway requirements, so as not to risk underestimating adverse environmental effects and undertake the transport assessment that, though at a high level, is sufficiently robust to draw conclusions to identify potential for significant environmental effects.

4. In relation to assessment of off-peak traffic flows, the time periods against which the construction has been assessed (08:00-09:00 and 17:00-18:00) were selected as they represent the time when the road network is likely to be at its most busy and HS2 construction traffic at its highest. Checks were conducted to ensure that the selected AM/PM peaks periods were the busiest for baseline traffic. Assumptions for HS2 construction traffic flows are consistent throughout the day; the number of vehicles per hour, over a ten hour period. Construction transport assessments assume 10 percent of construction traffic arrivals at each worksite with 50 percent of the workforce travelling in both peak hours; the workforce assumption is a reasonable worst case assumption since the site start time would be 08:00 and closure would be 18:00, and consequently employees are more likely to arrive in the hour prior to the AM peak and leave an hour following the PM peak. This is set out in paragraph 3.9.7 of the Environmental Statement Volume 5, Transport Assessment Part 1.

5. During construction works for the Proposed Scheme, the nominated undertaker would require that the impacts on the local community from construction traffic are reduced by its contractors and that public access is maintained where reasonably practicable. Impacts on local traffic would be managed in accordance with Local Traffic Management Plans, which would be developed with the relevant highway authority and other key stakeholders.

6. This and other measures to control traffic impacts are set out in the draft Code of Construction Practice (CoCP) and would be developed further during the detailed design stage.

7. The Environmental Minimum Requirements (EMRs) provide effective safeguards to ensure that detailed design and implementation of the Proposed Scheme would have no greater effects than the adverse effects reported in the Environmental Statements.

8. Engagement with Staffordshire County Council has been undertaken to mitigate the impact of the additional construction traffic movements using these junctions and the Promoter is in an ongoing dialogue with Staffordshire County Council on these issues.

Reduction in number of construction HGVs in the locality (CA3 Stone and Swynnerton)

9. Excavating borrow pits would enable aggregate to be extracted and processed locally, and then transported largely on site haul routes within the construction area of the Proposed Scheme. This would generate fewer HGV movements on the public highway than importing the material from commercial quarries, thereby reducing impacts on the local road network and communities.

10. A refinement of the earthworks strategy to inform the deposit of AP2 in February 2019 identified an opportunity to introduce local placement sites at locations previously identified in the Bill for temporary material stockpiles. The introduction of local placement sites, as Supplementary Environmental Statement 2 (SES2) changes has further reduced the estimated volume of excavated materials that would require off-site disposal.

11. As part of the transport assessment, typical vehicle trip generation for each of the construction site compounds has been assessed. This includes the average daily combined two-way vehicle trips (HGVs and cars/LGVs) during the peak month of activity and the assessed busy period of activity (greater than 50percent of the HGV traffic in the peak month). The details of the planned activity are explained further in Transport Assessment (TR-001-000) Part 2 of the ES.

Widening of Yarnfield Lane overbridge over the M6

12. As explained in paragraphs 113 and 114 of the Promoter's response to the Select Committee's Second Special Report of Session 2017-19:

"113 In paragraph 67 of the report the Select Committee said:

"The Committee directs HS2 to widen the bridge at Yarnfield Lane to ensure better safety for all users."

114 Subject to the approval of the detailed design by the highway authority, Yarnfield Lane overbridge will be widened to ensure the safety of all users. At detailed design HS2 Ltd will work with the highway authority to determine appropriate lane widths for road users to cross the Yarnfield Lane overbridge and the Bill includes the powers required to change the width of the bridge to accommodate the required lane widths."

Managing the traffic impacts during construction

13. Construction-related HGV traffic would primarily access the site from the M6 motorway using new dedicated slip roads, significantly reducing the impact on local roads. Works to construct the M6 slip roads are assumed to commence in 2020 with a forecast opening date for construction traffic before the end of 2021. The peak daily construction traffic flow on Yarnfield Lane between the A34 The Fillybrooks and the AP2 revised scheme is 198 HGVs (comprising 99 westbound and 99 eastbound). This represents a significant reduction from the peak that was assessed for the original Bill scheme. The Promoter is continuing to work closely with both the local highway authority (Staffordshire County Council) and Highways England to make sure the proposals for managing construction traffic are appropriate.

Managing impacts during operation of the Stone IMB-R

14. A number of measures would be in place to reduce the impacts of the IMB-R when it is in operational use. The design of the lighting would be sympathetic to the local area. The height of lighting installations would be kept as low as reasonably practicable to reduce and control light emission. Automatic lighting control systems and time clocks would be used to operate all external lighting. The external lighting at the IMB-R would be designed to preserve the current levels of darkness in the area and reduce obtrusive light as much as possible.

15. Operational noise from the IMB-R would be controlled through measures to reduce, so far as is reasonably practicable, any adverse noise effects. The control measures may include the use of low noise machinery, the design and insulation of site buildings, and any on site mitigation considered necessary, including barriers or landscape earthworks.

16. HS2 Phase 2A Information Paper F3: Infrastructure Maintenance and Rail System Construction Facilities¹ sets out how the Promoter would manage other impacts, such as dust, landscape and visual, and ecological impacts.

¹ See www.gov.uk/government/publications/operations-hs2-phase-2a-information-papers

HOUSE OF COMMONS SELECT COMMITTEE

HIGH SPEED RAIL (WEST MIDLANDS - CREWE) BILL

PROMOTER'S RESPONSE TO PETITION OF: Stone Town Council

PETITION NO: HS2-AP2-047

PARAGRAPH NO: 2.4, 3.2

ISSUE RAISED: AP2 indicative construction programme in the area

PETITION PARAGRAPH: 2.4 The revised AP2 indicative construction programme is also considered completely unrealistic because several major construction activities relating to the use of Yarnfield Lane have been brought forward by 12 months to the very start of site operations in July 2020 and shortened in duration. This includes the Yarnfield Lane underbridge and Yarnfield Lane IMB-R underbridge, both of which will rely on the advance establishment of the Yarnfield North Embankment satellite compound and the Yarnfield Lane Transfer Node, together with the completion of the signalised A34/Yarnfield Lane junction, all of which will commence construction at the same time.

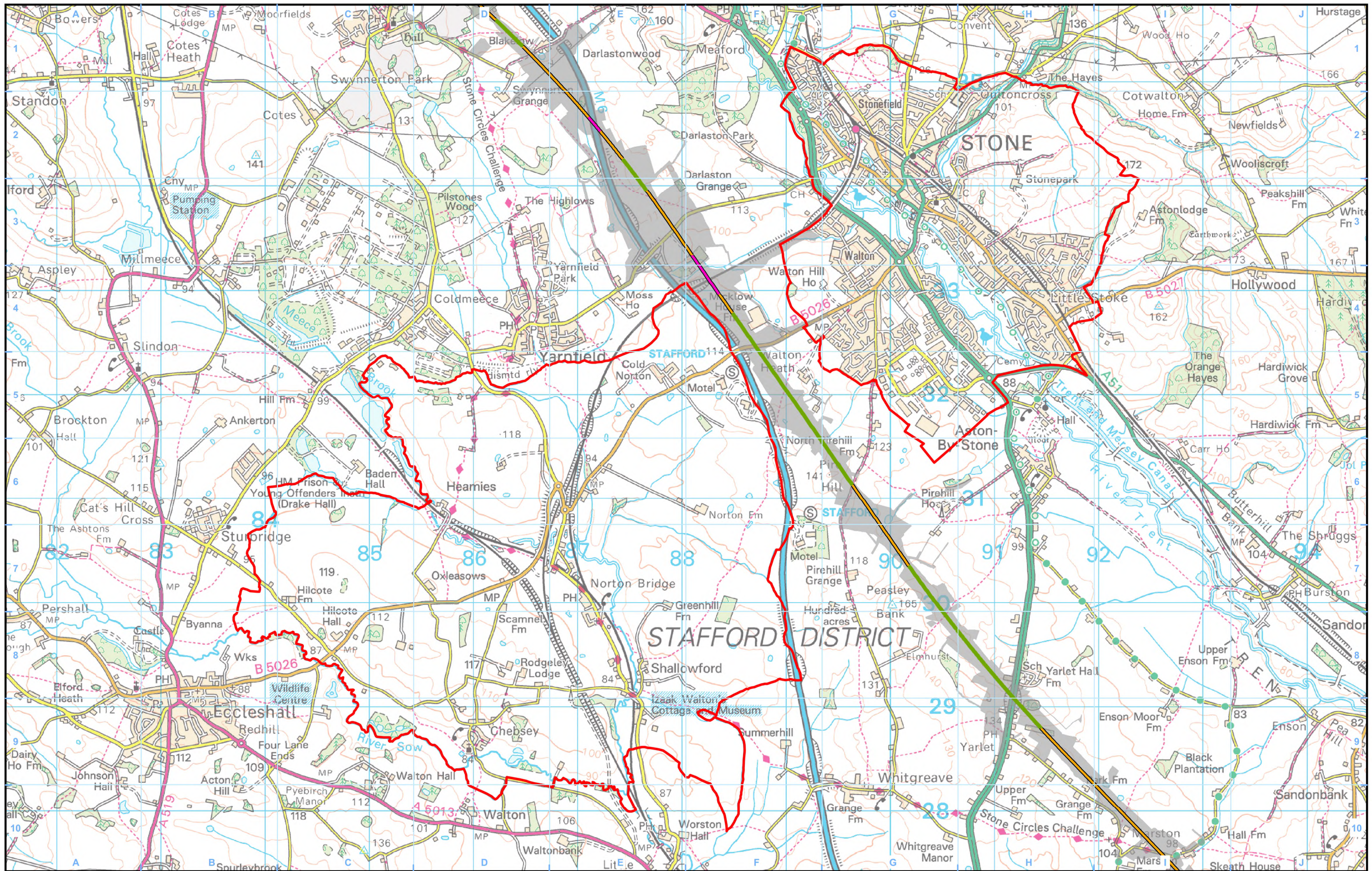
3.2 Stone Town Council also requests that HS2 Ltd provides substantive evidence that the indicative construction programme for the CA3 Community Area – Stone and Swynnerton is realistic and deliverable. Alternatively HS2 Ltd should provide a programme that is achievable to ensure that HS2 Ltd construction traffic and local traffic is adequately segregated on Yarnfield Lane to ensure the safety of all public road users.

PROMOTER'S RESPONSE:

Indicative construction programme

1. An indicative construction programme for the Stone and Swynnerton area is provided in figure 2 within Part 1 of the Volume 2 Community Area 3 report.
2. Further information on the construction programme is also provided in HS2 Phase 2A Information Paper D7: HS2 Phase 2A Construction Timetable.
3. The Promoter is keen to work with the Petitioner to explain the assumptions that have informed the changes to construction sequencing reported in Additional Provision 2 (AP2) to the Bill. A meeting has been arranged for 23 April 2019 to explain the programme changes reported in the AP2 Environmental Statement, and further engagement meetings will be offered by the Promoter to provide regular updates on any future revisions to the construction programme for the Proposed Scheme.

HS2

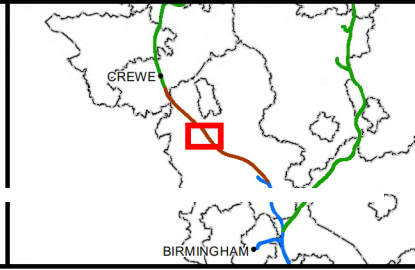


Legend

Phase 2a hybrid Bill alignment July 2017

- Cutting
- Embankment
- Viaduct

- Stone Town Council and Chebsey Parish Boundary
- Hybrid Bill Limits



High Speed Two
Petitioner Location Plan
Reference Drawing

Petitioner
Stone Town Council and Chebsey Parish Council

Petition number
P2A-000128

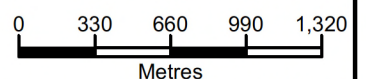
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**Chebsey
Parish
Council**



Yarnfield

Cold Norton

Stone

Norton Bridge to
Stone Railway

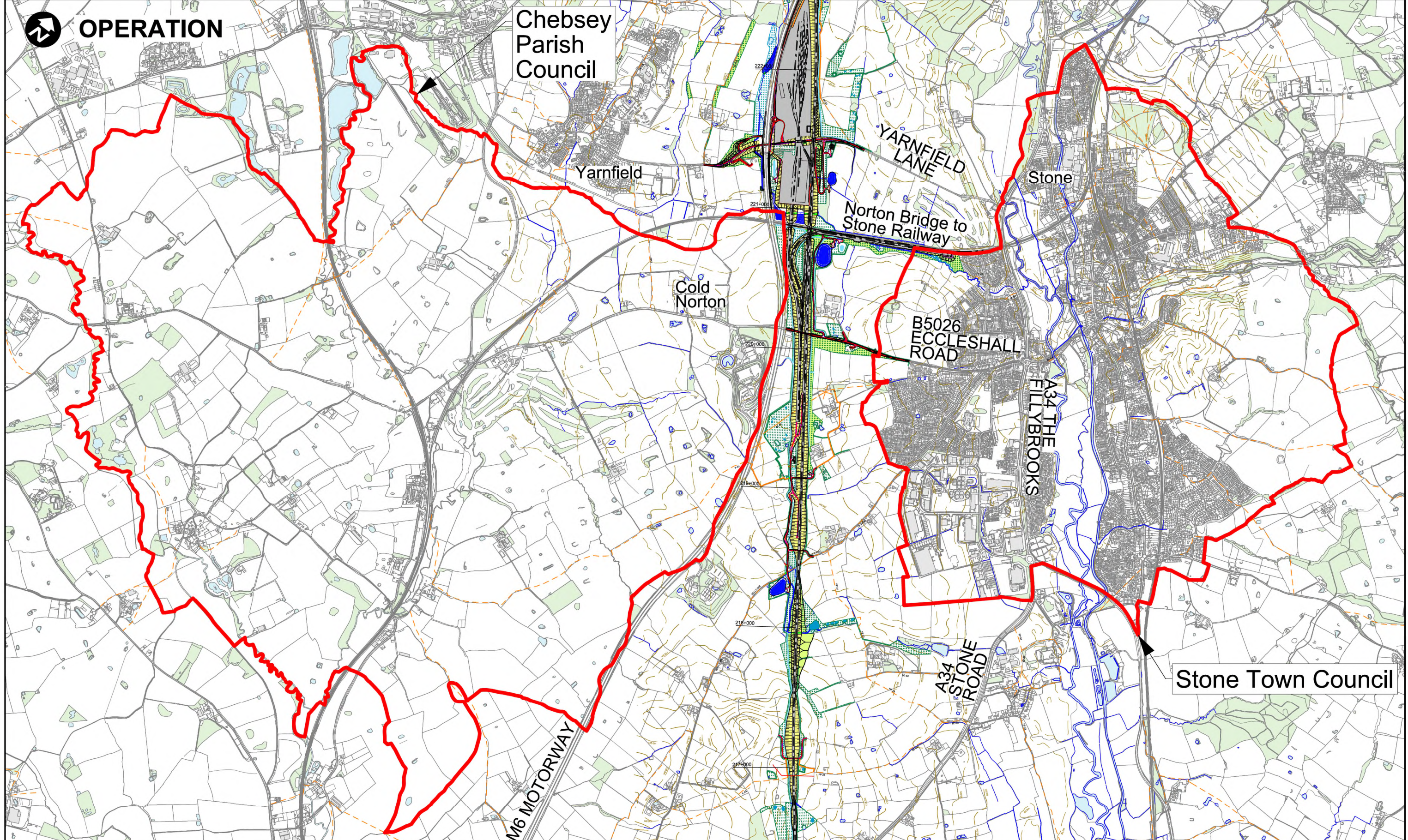
B5026
ECCLESHALL
ROAD

HILLYBROOKS

A34 Stone Road

Stone Town Council

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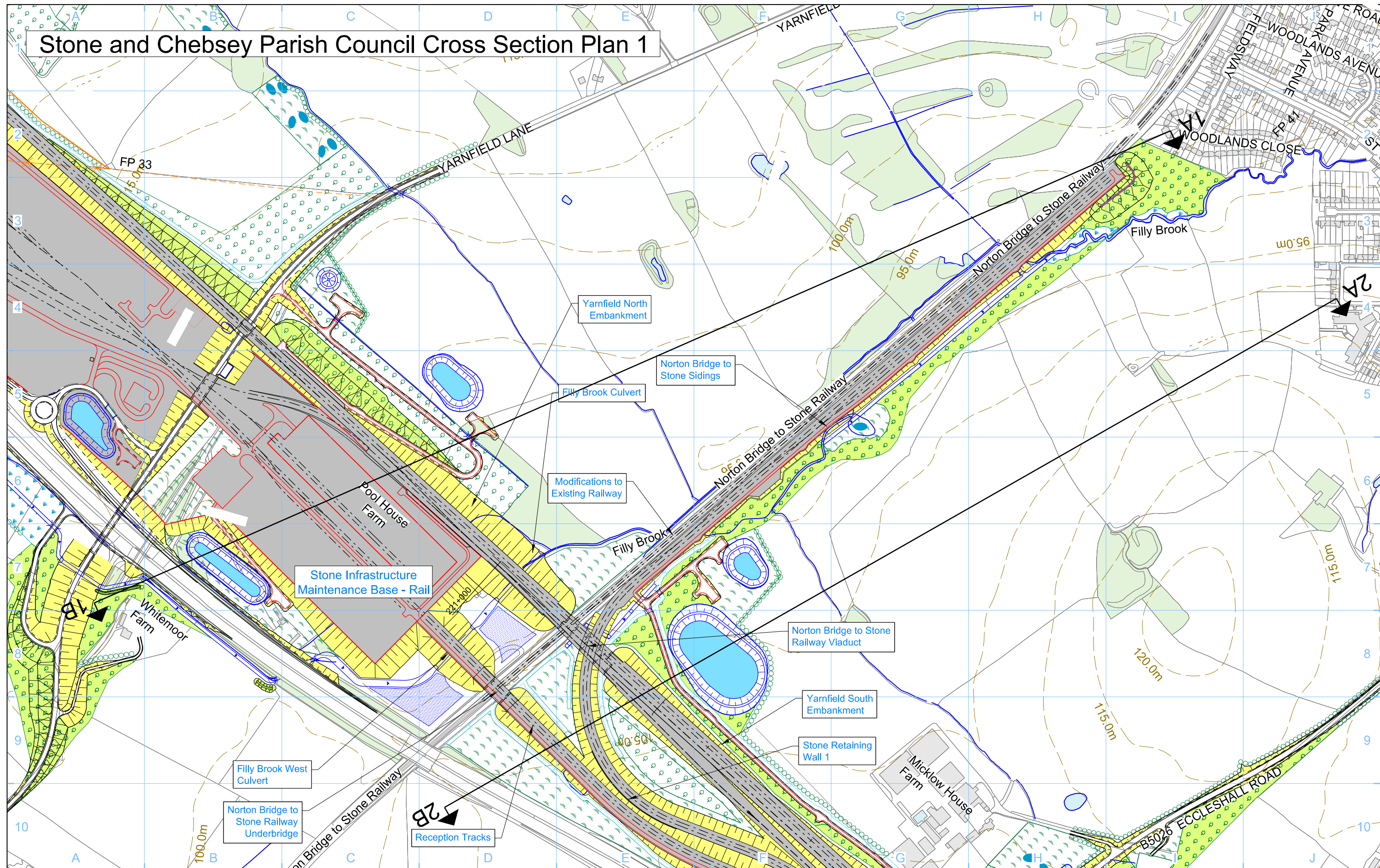


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							Engineering earthworks		Drawing Title		Drawn	
							Landscape earthworks		Stone Town Council and Chebsey Parish Council		DS	
							Rail alignment		Petition AP1-000022		Date	
							Rail alignment formation		Operation		05/07/2018	
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Stone and Chebsey Parish Council Cross Section Plan 1



Legend

Depot, station, headhouse or portal building	Replacement floodplain storage	Public realm/Replacement community facility	Community Area boundary	Existing woodland
Tunnel portal	Woodland habitat creation	Engineering earthworks	Watercourse diversion	Existing buildings
Electricity substation	Wetland habitat creation	Landscape earthworks	or Existing watercourse	Existing inland water
Land drainage area	Grassland habitat creation	Rail alignment formation	Ditches - new	Existing contours
Ecological mitigation pond	Landscape mitigation planting (scrub / woodland)	Returned to suitable development use	Main utility works	HS2 access road
Balancing pond	Grassed areas	County boundary	Existing Public Right of Way (PRoW)	Noise fence barrier
	Sustainable placement	Stopped-up PRoW	Tunnels external extent	Rail alignment
		Borough / District boundary		Chainage (e.g. 10+000)

Map Number: CT-06-222

Map Name: Hybrid Bill Support
Stone and Chebsey Parish Council
Cross Section Plan 1

Community Area: CA3 Stone and Swynnerton

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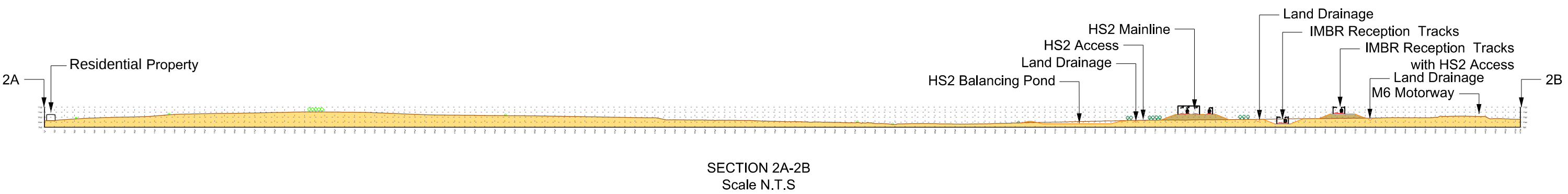
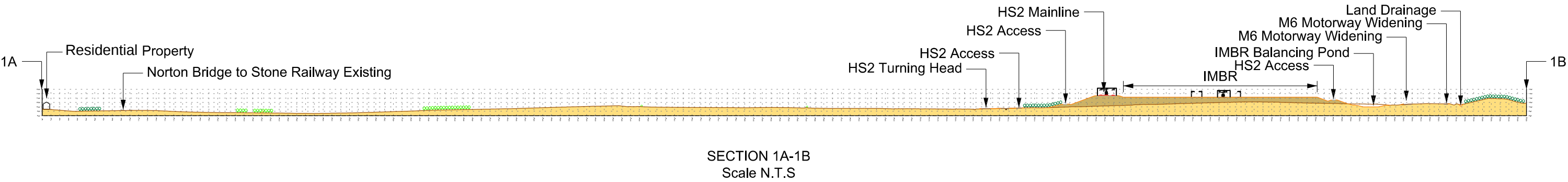
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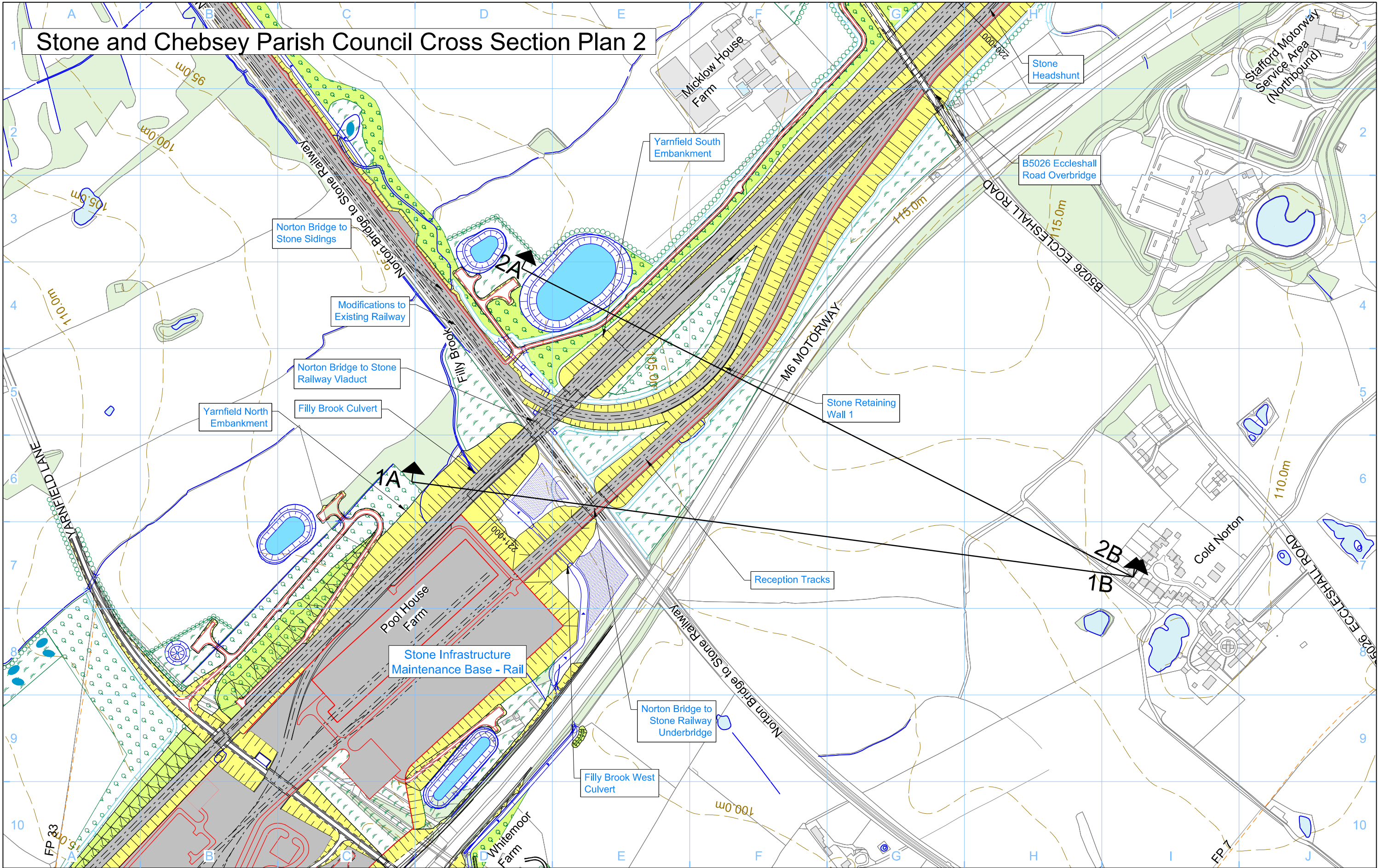
Stone and Chebsey Parish Council Cross Sections 1



For location of Sections refer to Drawing No. C861-ARP-PT-SKE-000-100211

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3 (69)	Description	Drawn	Checked	Con App	HS2 App	Scale with caution as distortion can occur.						

Stone and Chebsey Parish Council Cross Section Plan 2



Legend

Depot, station, headhouse or portal building	Replacement floodplain storage	Public realm/Replacement community facility	Community Area boundary
Tunnel portal	Woodland habitat creation	Engineering earthworks	Watercourse diversion
Electricity substation	Wetland habitat creation	Landscape earthworks	Existing watercourse
Land drainage area	Grassland habitat creation	Rail alignment formation	Ditches - new
Ecological mitigation pond	Landscape mitigation planting (scrub / woodland)	Returned to suitable development use	Hedgerow habitat creation
Balancing pond	Grassed areas	County boundary	Main utility works
	Sustainable placement	Stopped-up PRoW	Existing Public Right of Way (PRoW)
		Borough / District boundary	New, diverted or realigned PRoW
			Tunnels external extent

Existing woodland	Existing inland water
Existing buildings	Existing contours
Existing watercourse	HS2 access road
Existing contours	Noise fence barrier
HS2 access road	Rail alignment
Noise fence barrier	Chainage (e.g. 10+000)
Rail alignment	
Chainage (e.g. 10+000)	

Map Number
CT-06-222

Map Name
**Hybrid Bill Support
Stone and Chebsey Parish Council
Cross Sections Plan 2**

Community Area
CA3 Stone and Swynnerton

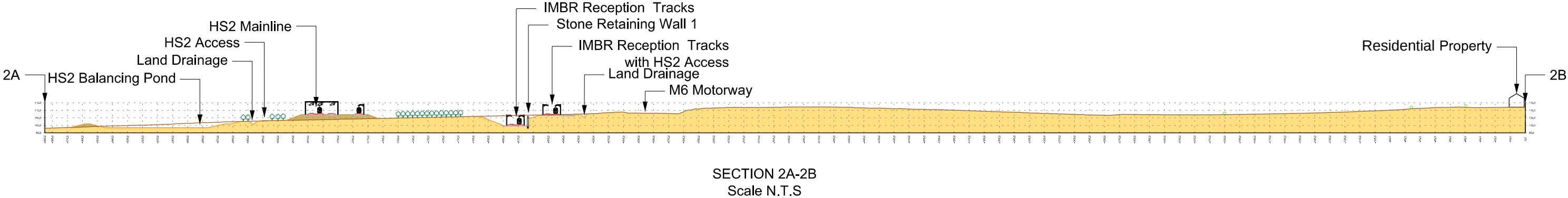
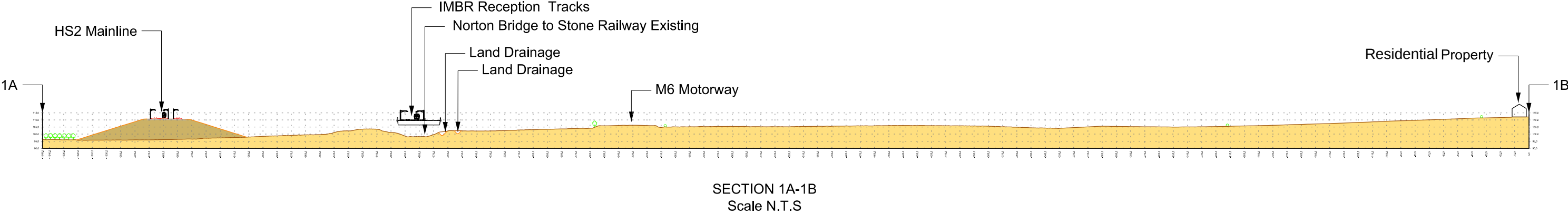
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Stone and Chebsey Parish Council Cross Sections 2



For location of Sections refer to Drawing No. C861-ARP-PT-SKE-000-100213

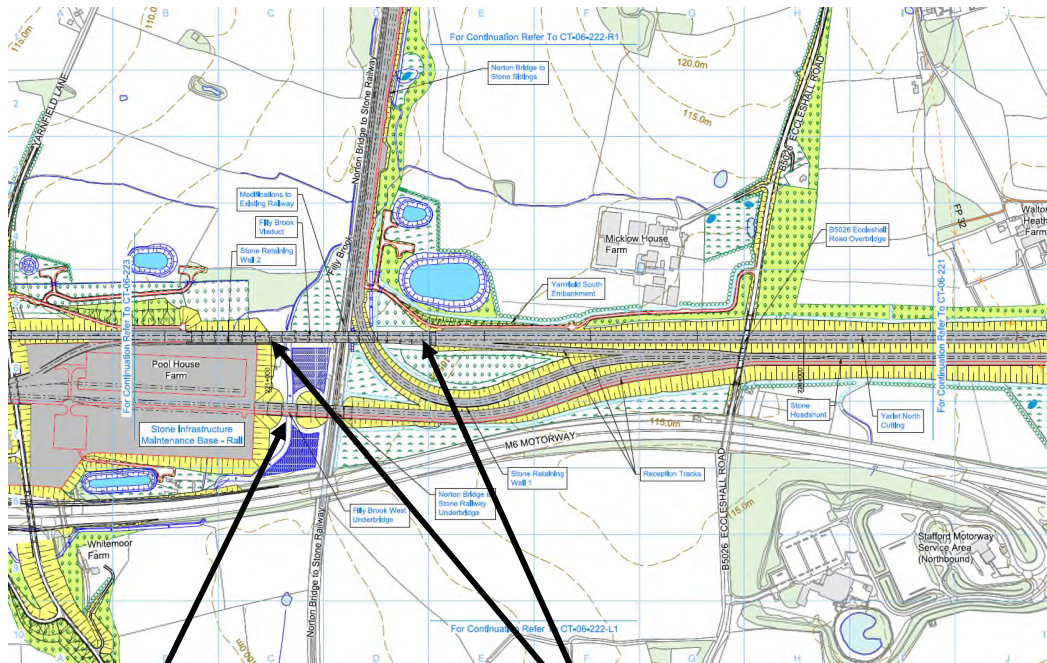
P00.1						HS2 accepts no responsibility for any circumstances which arise from the reproduction of this document after alteration, amendment or abbreviation or if it is issued in part or issued incompletely in any way.	Legends/Notes: Proposed mitigation tree planting Existing trees Proposed hedgerow planting Existing hedgerow Existing ground Designed earthworks Bottom of Borrow Pit / Designed Surface Level Existing Surface
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AP1 changes

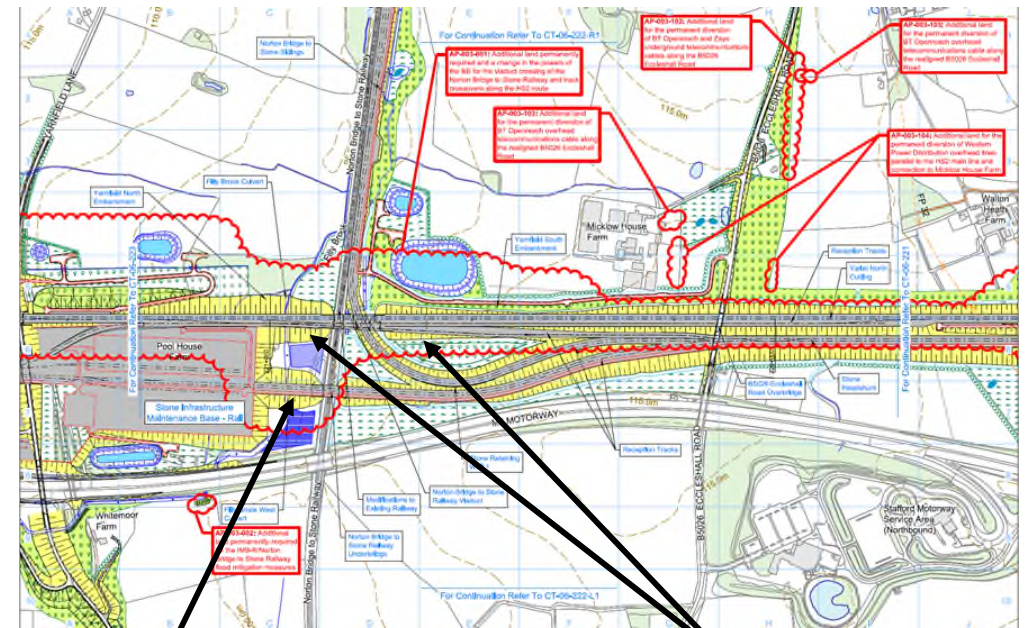
The Proposed Scheme



Filly Brook West underbridge

Filly Brook viaduct

The March 2018 Additional Provision (AP1)

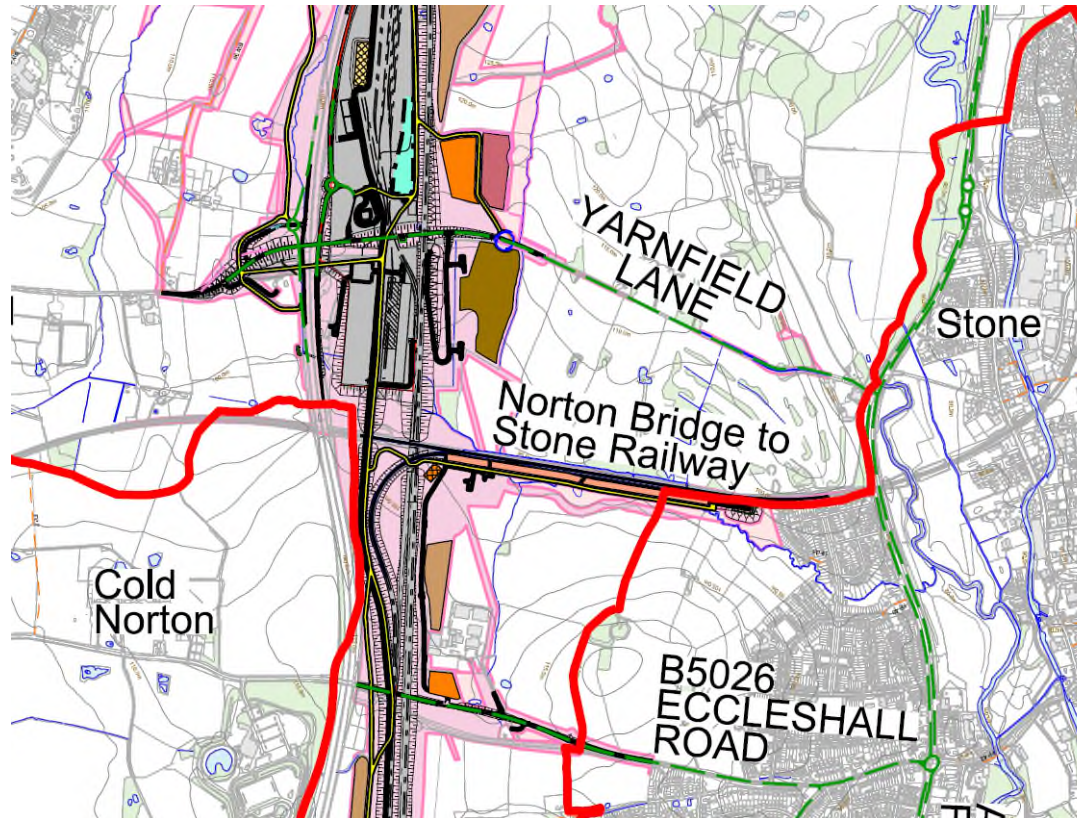


Filly Brook West culvert

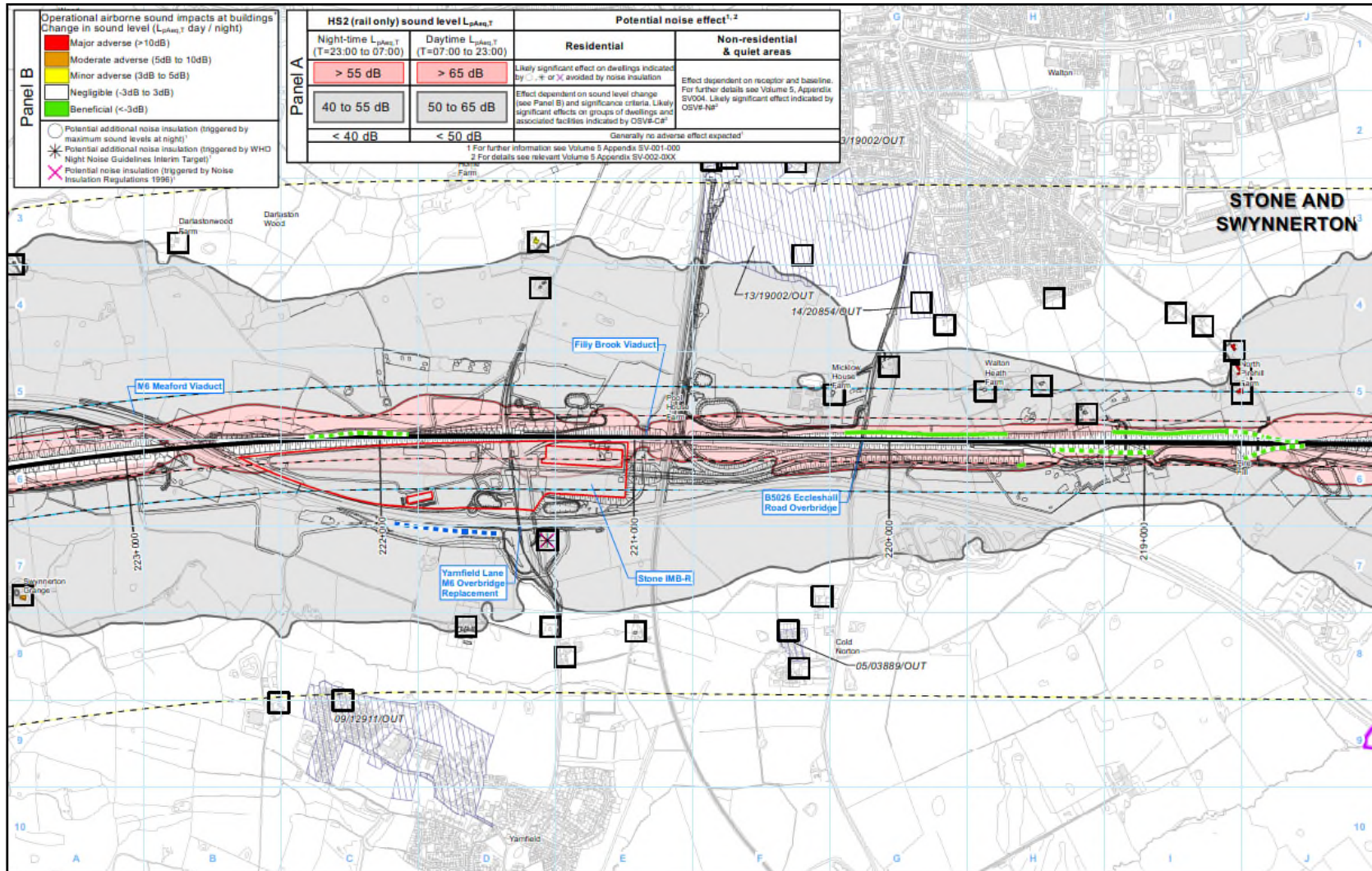
Increase in length of Yarnfield North and Yarnfield South Embankments

AP1 changes

The March 2018 Additional Provision (AP1)



AP Noise map



Changes between the Proposed Scheme and AP1

- A review of the alignment of HS2 has provided an opportunity to move the location of the switches and crossings
- A review of the flood mitigation design in the area has allowed a review of Filly Brook crossing design.
- The change in horizontal alignment has allowed the switches and crossings to be relocated
- This has permitted changes to the viaduct and embankments
- Filly Brook viaduct has been shortened in length to become Norton Bridge to Stone Railway viaduct.
- As a result Yarnfield South and Yarnfield North embankments have increased in length and height
- Filly Brook is crossed in a culvert, rather than a span of the Filly Brook viaduct

Rail switches and crossings on viaducts

- Switches and crossings are a mechanical installation that enable trains to be guided from one track to another. They are sometimes known as turnouts, or points.
- Switches and crossings should not be positioned on viaducts as switches and crossings provide an additional risk to derailment which, when combined with additional risk of derailing on structures, should be avoided (note the overall risk is still very low).
- Switches and crossings are sensitive to the movement (deflections and thermal expansion) which bridges experience, which introduces a greater maintenance and inspection regime than a length on embankment.
- Access to a viaduct would be more challenging than an embankment/cutting.
- To reduce movement impacts, a viaduct would need to be stiffened which typically means no joints along the length of switches and crossings, including the adjacent stress anchor (80m) .
- This results in a longer viaduct which would require a structure movement joint and rail expansion joint at one end.
- Switches and crossings are more difficult to install on a viaduct due to the reduced space.

Changes between the Proposed Scheme and AP1

The change has following impacts for the rail viaduct:

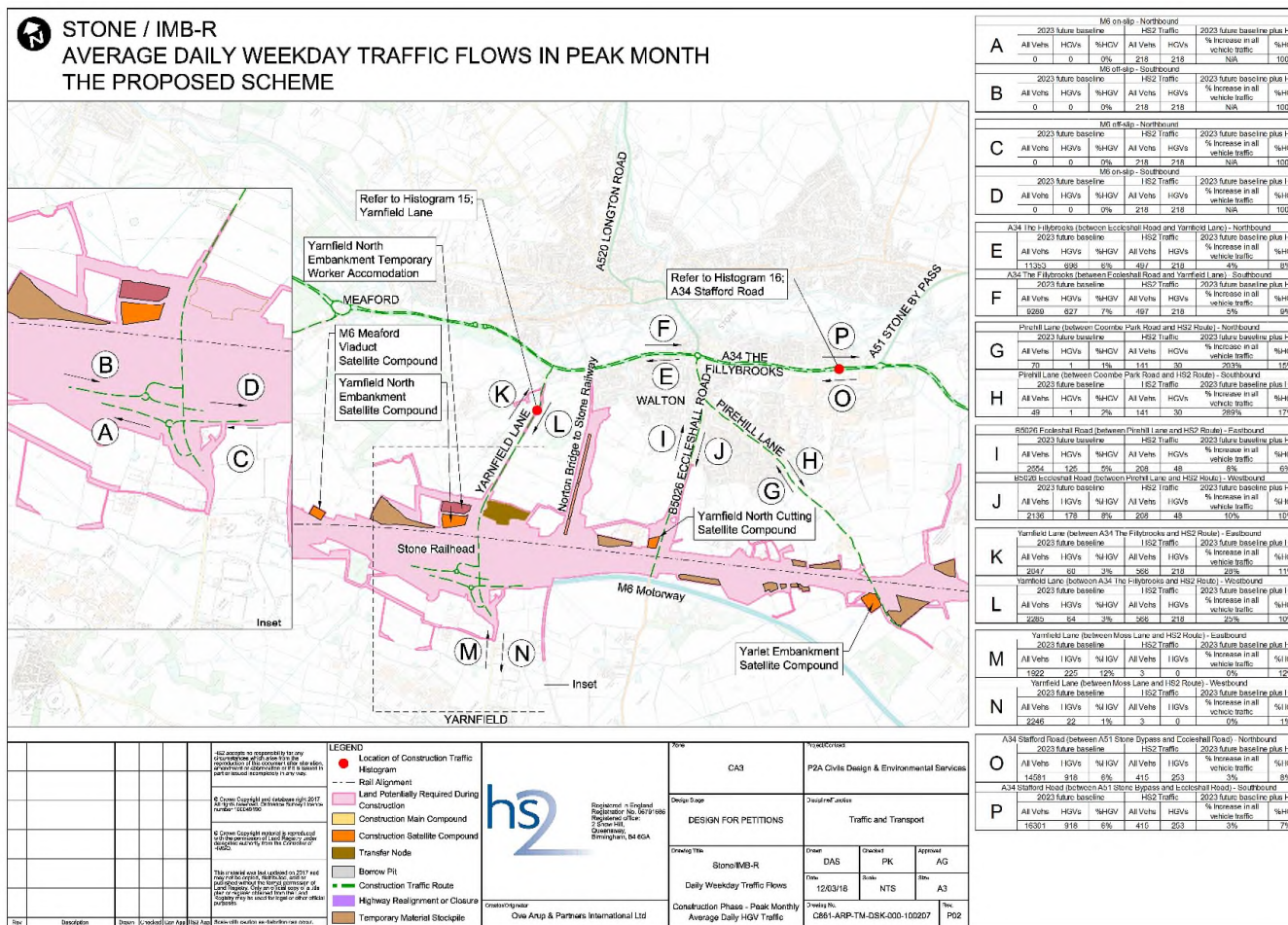
- Avoids railway crossovers being partially on embankment and partially on viaduct
- Crossovers relocated further along the route
- Visual impact of raising Yarnfield South and Yarnfield North embankments would be offset by a reduction in scale of the viaduct works
- The viaduct in the Proposed Scheme was required to be around 300m in length to cross the required features, but was extended to around 450m length to avoid movement joints at the location of the switches and crossings ((in accordance with standards)
- This also made a cost saving and improved health and safety

Changes between the Proposed Scheme and AP1

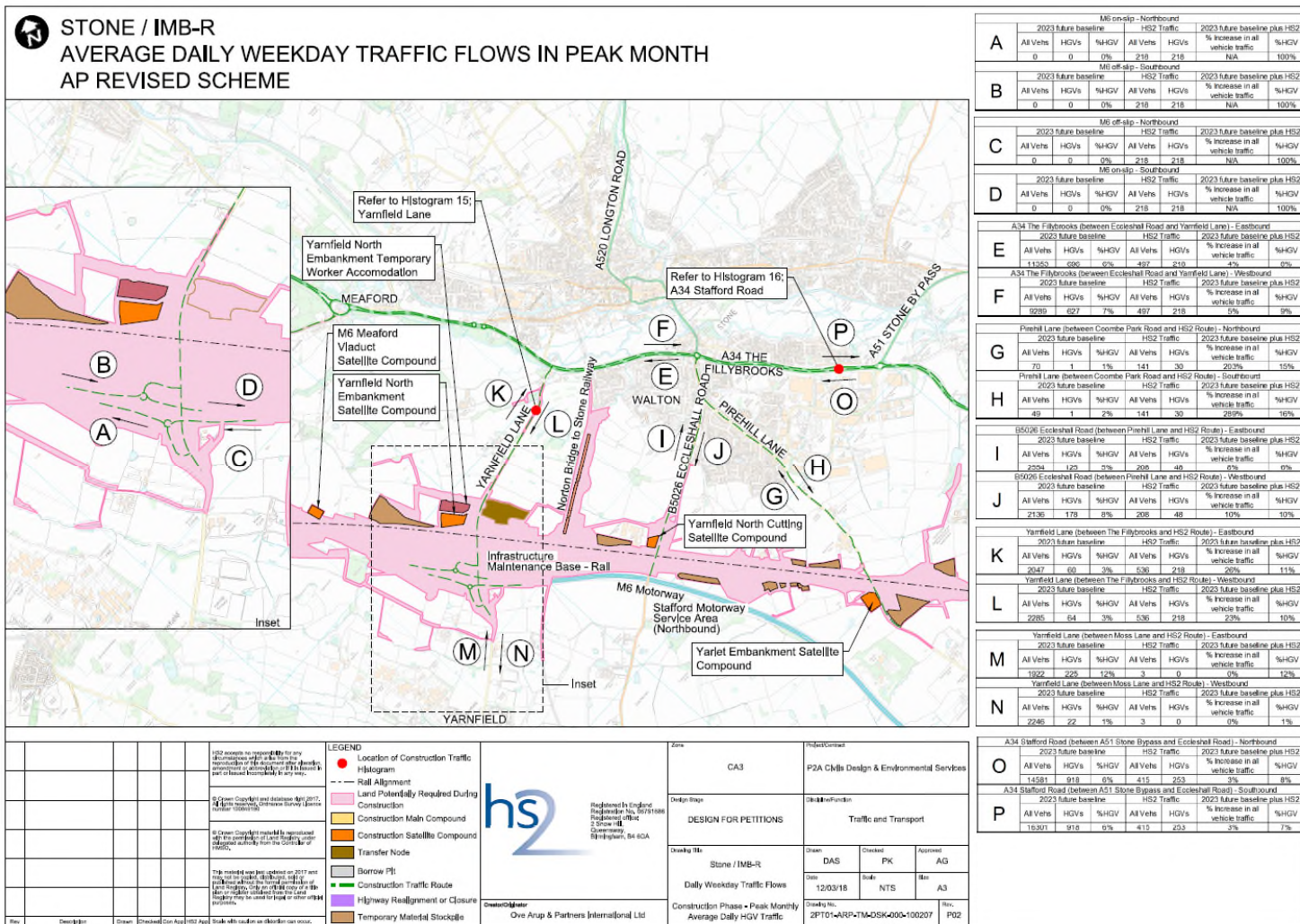
Change has following impacts for Filly Brook crossing:

- The raising of embankments would slightly increase the sense of landscape severance within the open rural farmland and interrupt the views along Filly Brook.
- Overall the amendment would not give rise to a new or difference significant effect on the Yarnfield Settled Farmlands LCA and would not change the level of significance reported in the ES
- In addition, the amendment would not give rise to any new or different residual significant visual effects during construction or operation.
- Yarnfield North Embankment would extend over Filly Brook Flood Plain
- The Filly Brook culvert is two shorter culverts, rather than the existing 300m long culvert, providing a net gain in open channel and potential hydromorphological improvement as compared with the existing situation.
- Precautionary measures have been included in the design to ensure infrastructure in the vicinity of Filly Brook is safe from flooding and that flood risk to existing infrastructure is reduced overall.

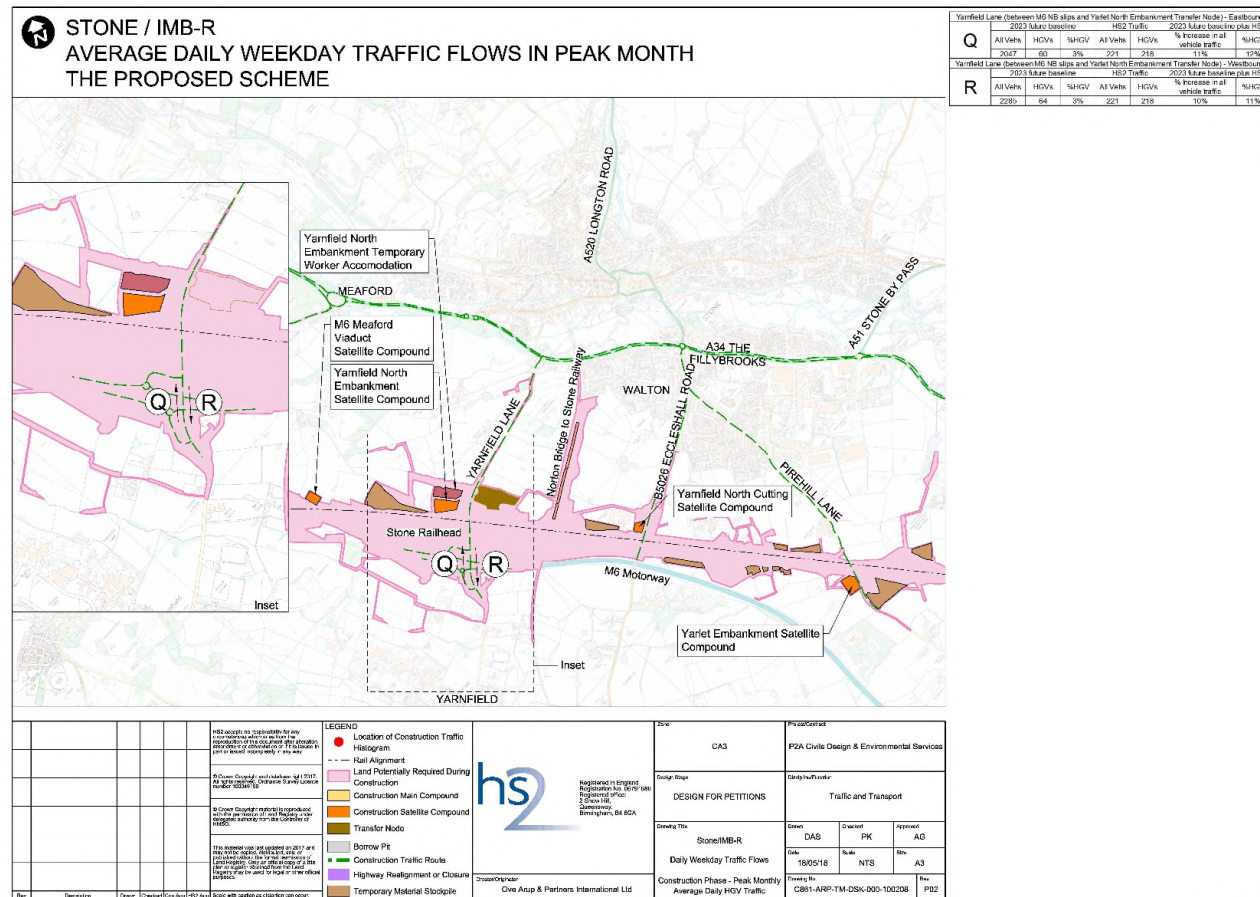
Stone Alphabet map (The Proposed Scheme)



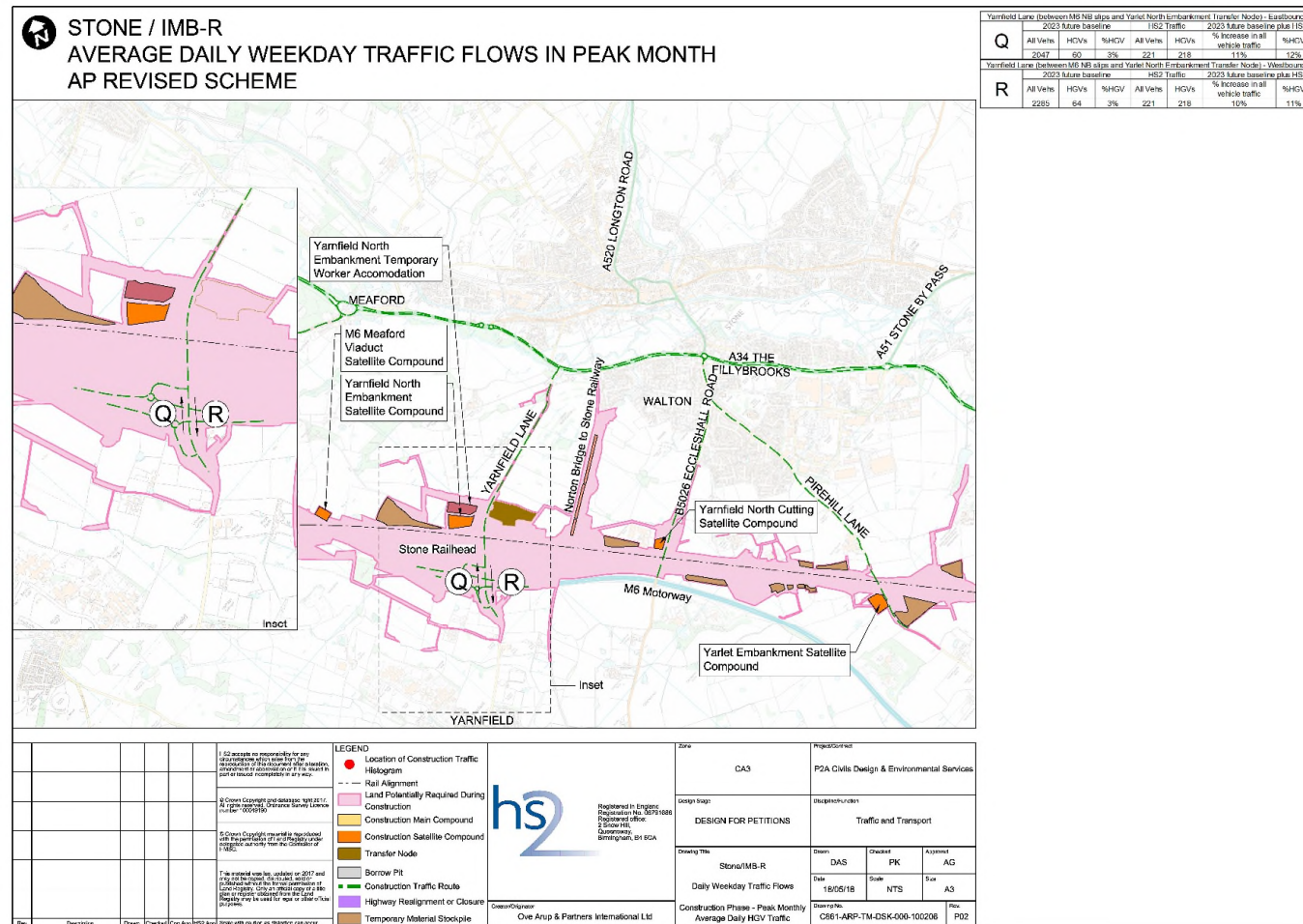
Stone Alphabet map (AP1)



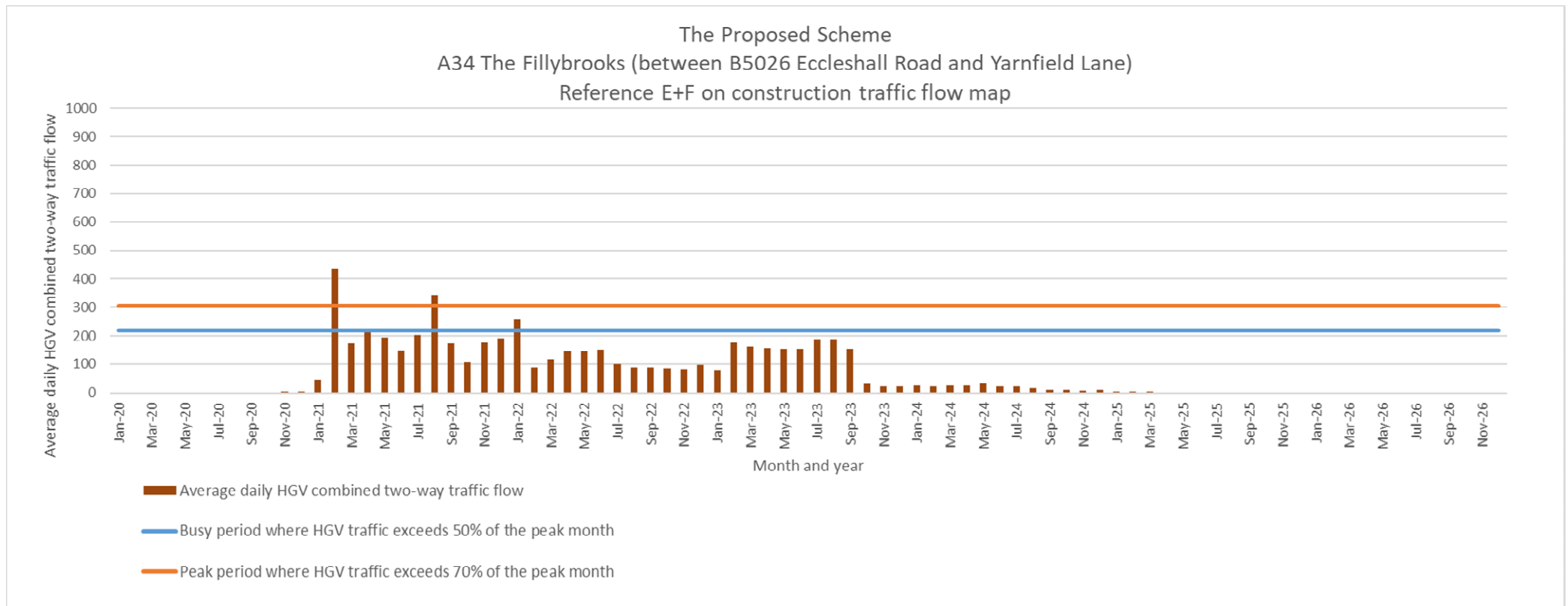
Stone Alphabet map (The Proposed Scheme) Yarnfield Lane M6 overbridge



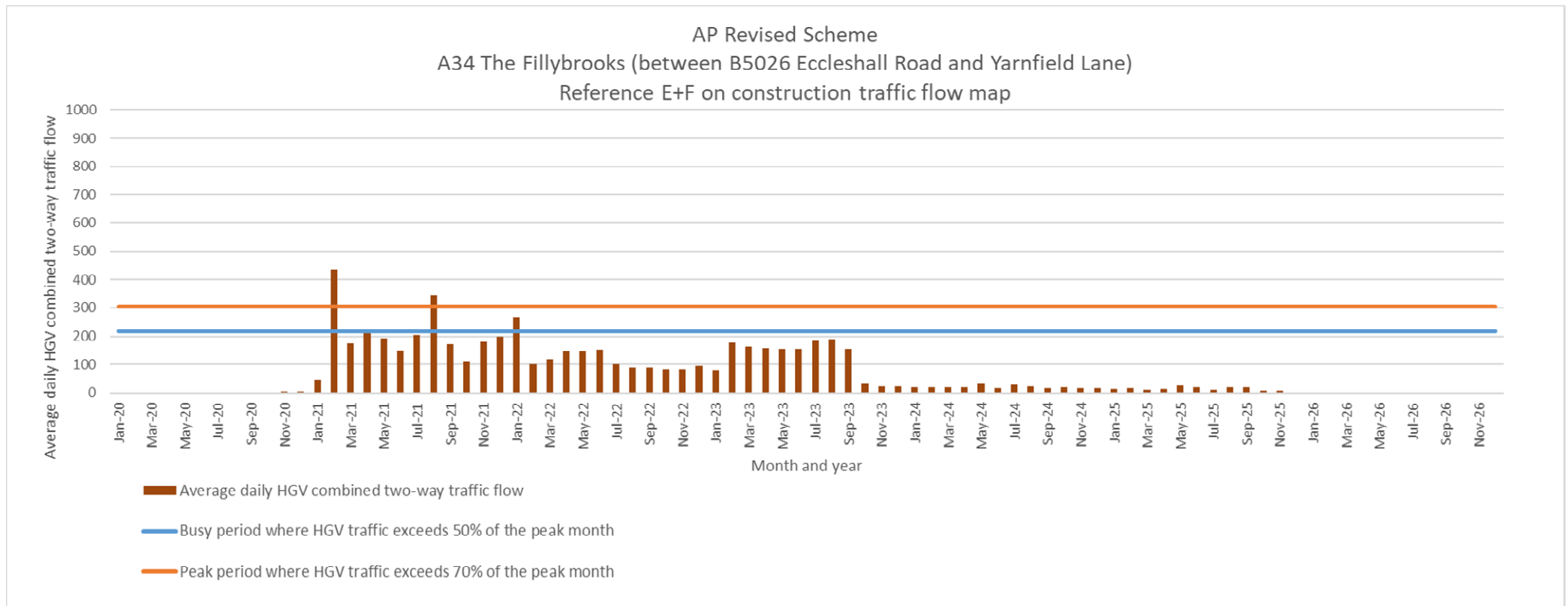
Stone Alphabet map (AP1) Yarnfield Lane M6 overbridge



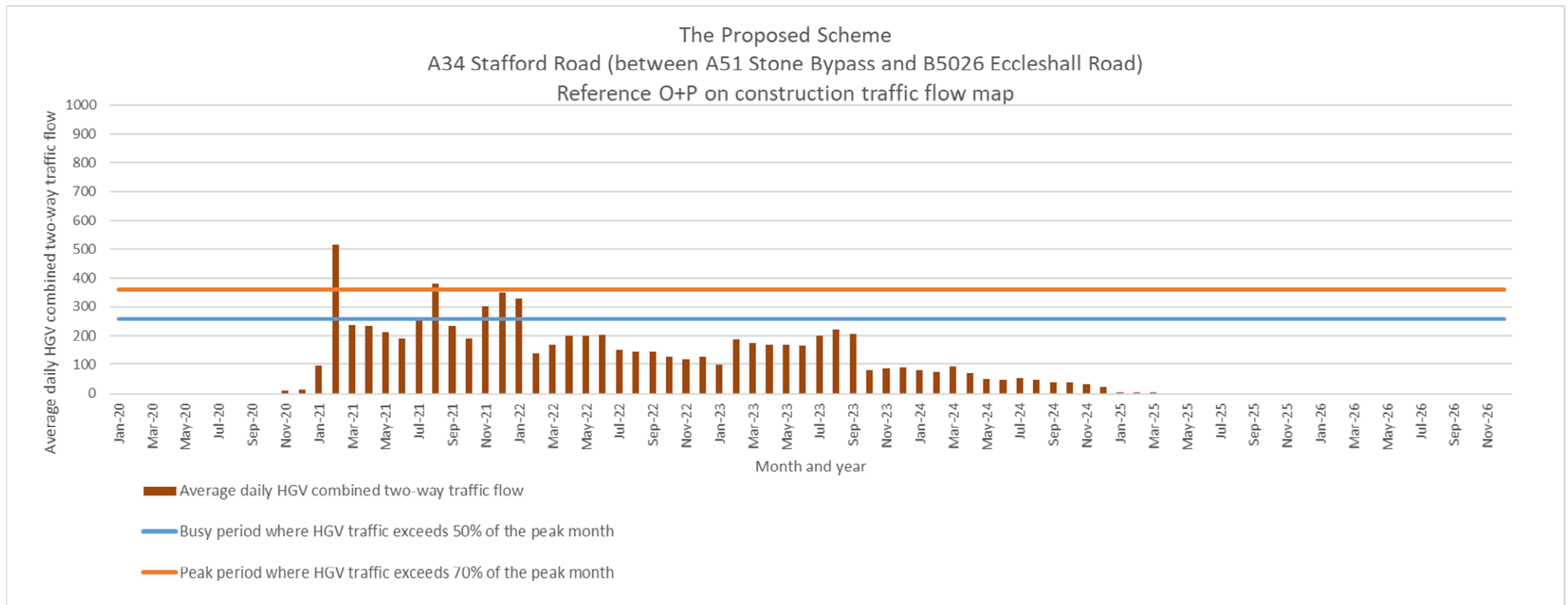
A34 Stafford Road Histogram (The Proposed Scheme) (E and F)



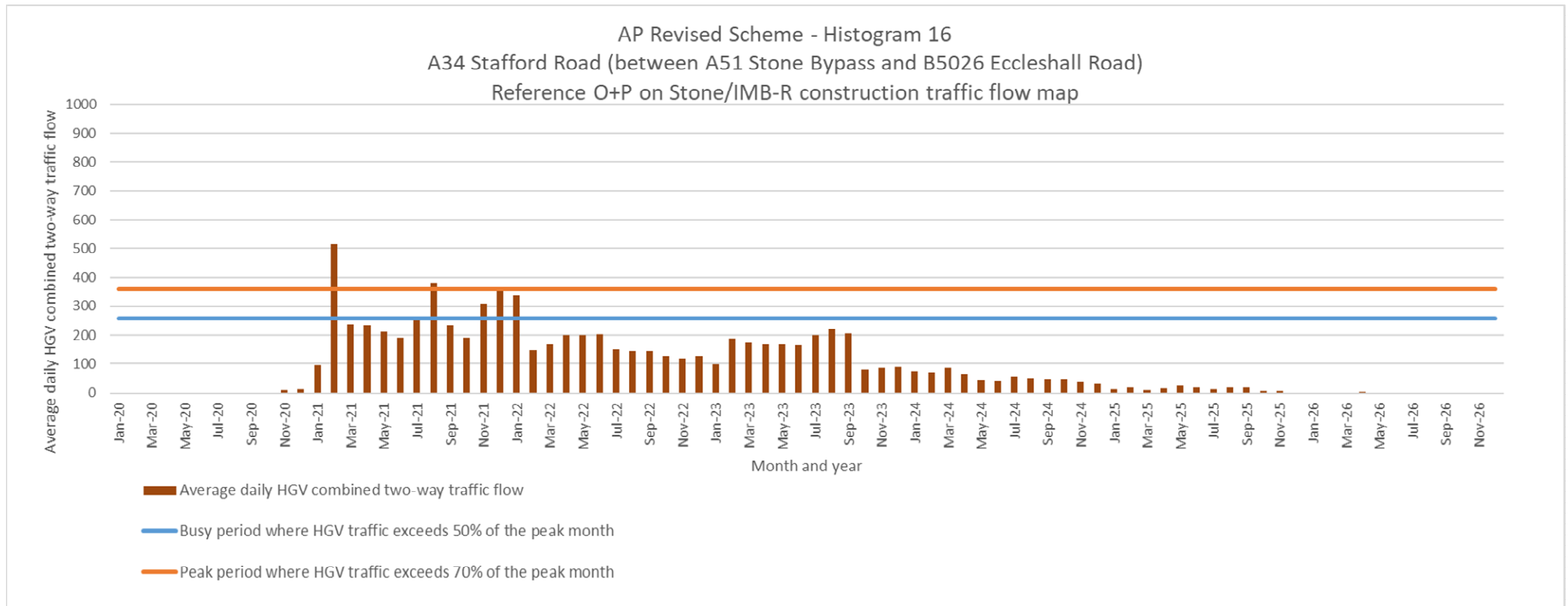
A34 Stafford Road Histogram (AP1) (E and F)



A34 Stafford Road Histogram (The Proposed Scheme) (O and P)

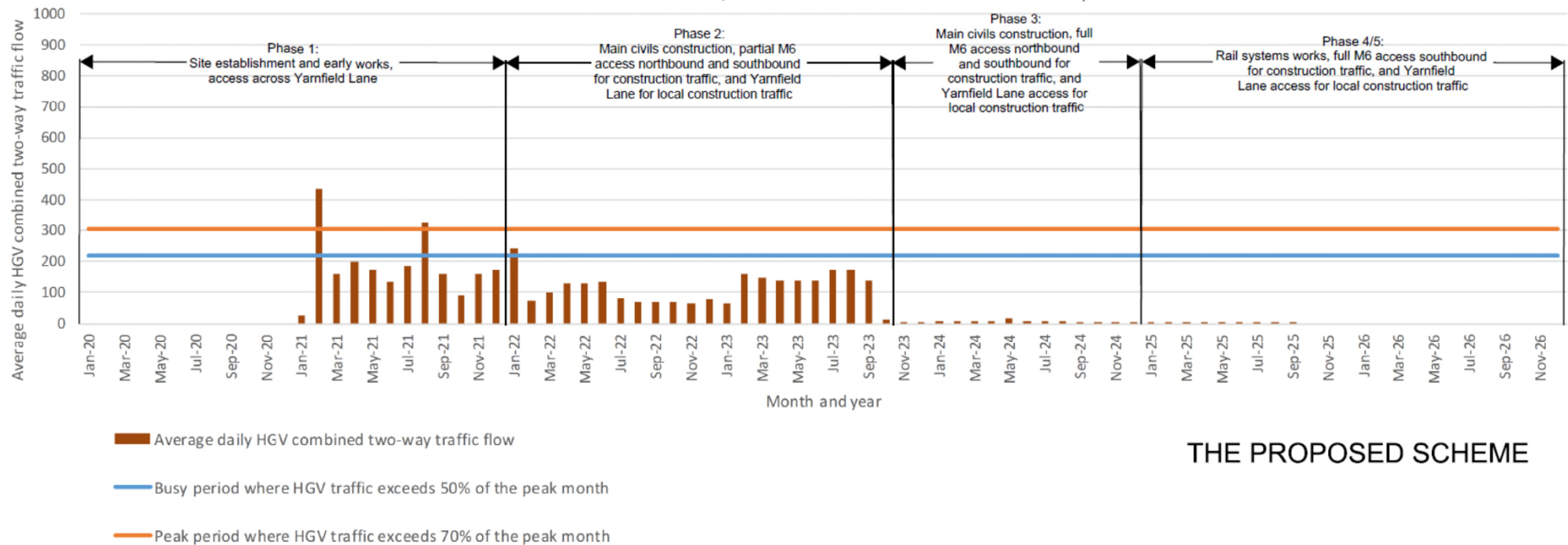


A34 Stafford Road Histogram (AP1) (O and P)



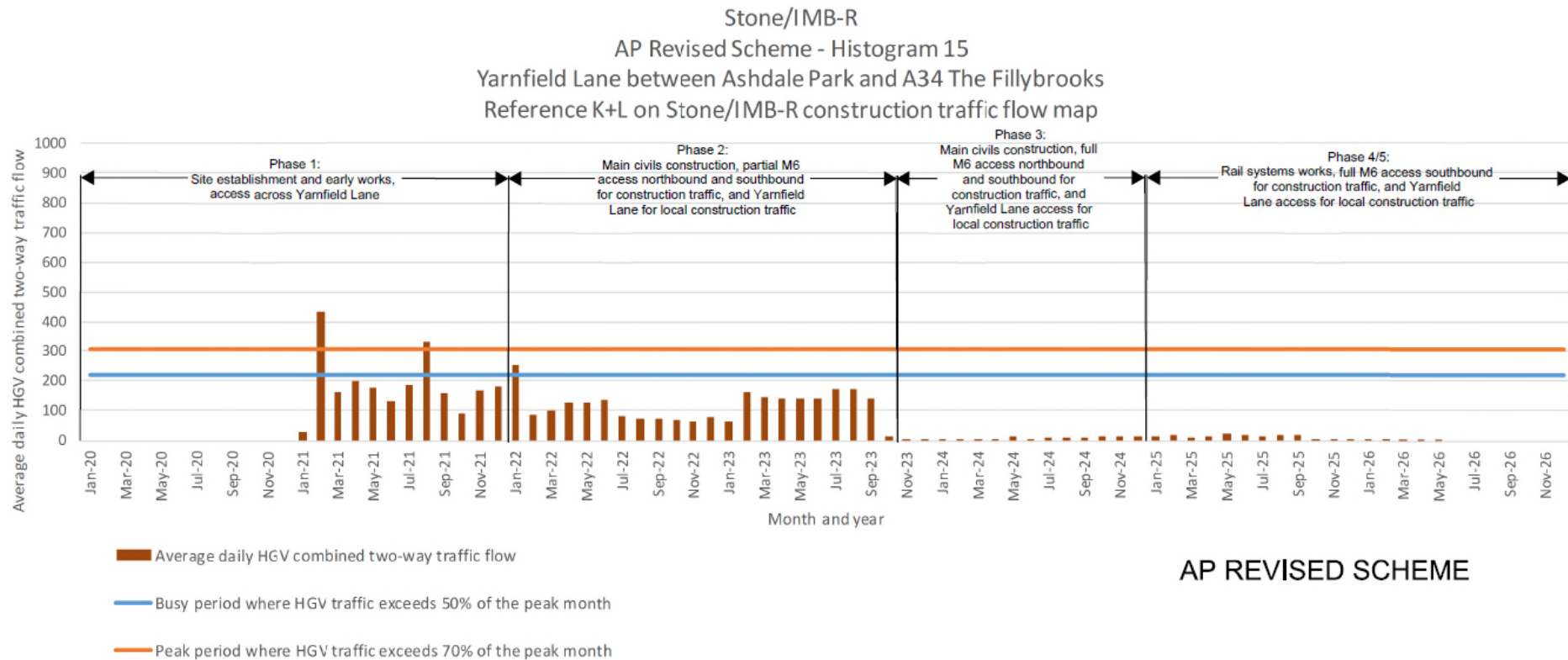
Yarnfield Lane Histogram (The Proposed Scheme) (K and L)

Stone/IMB-R
The Proposed Scheme - Histogram 15
Yarnfield Lane between Ashdale Park and A34 The Fillybrooks
Reference K+L on Stone/IMB-R construction traffic flow map

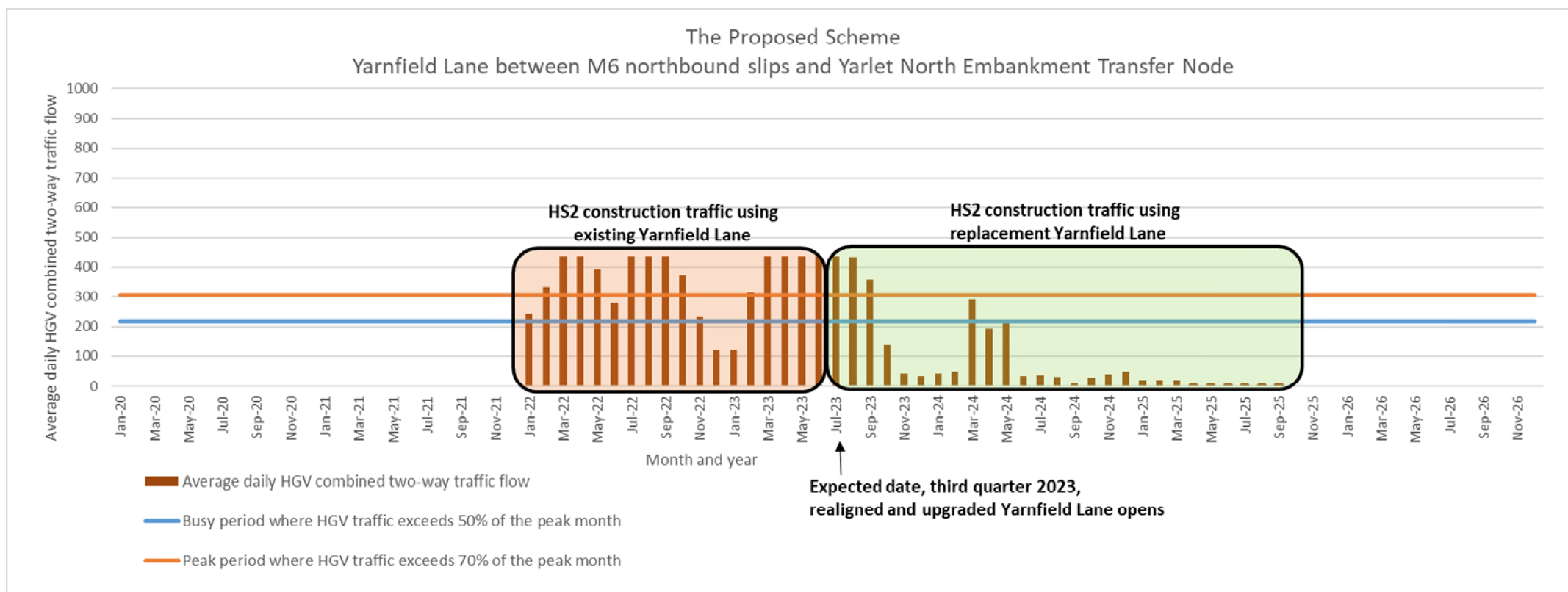


THE PROPOSED SCHEME

Yarnfield Lane Histogram (AP1) (K and L)



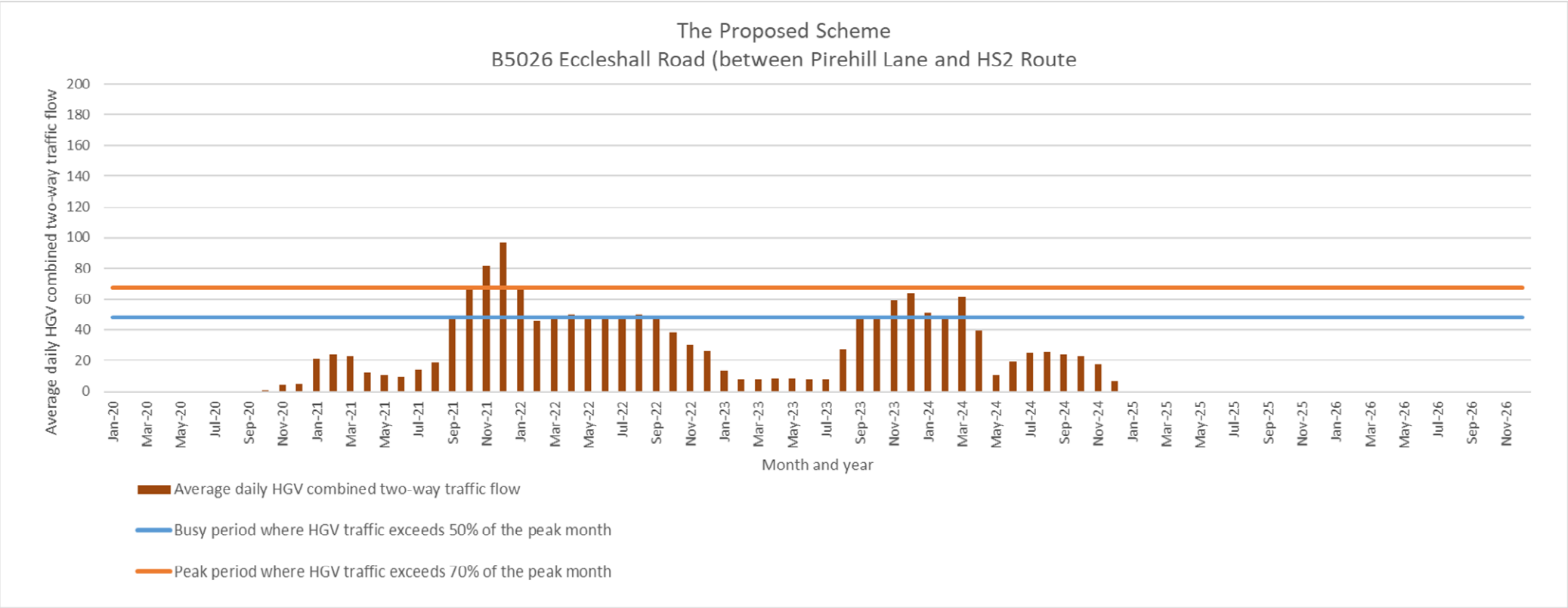
Yarnfield Lane Histogram (The Proposed Scheme) M6 Northbound slips - Yarlet North Embankment Transfer Node (Q and R)



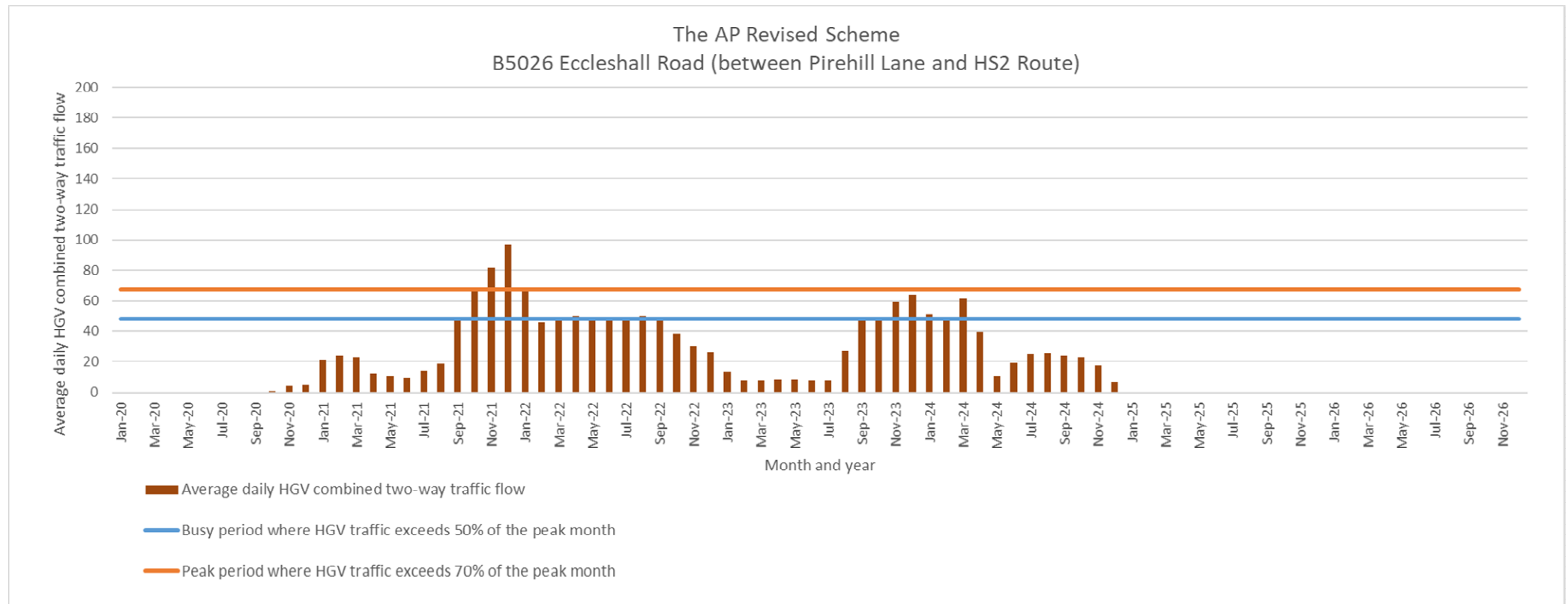
Additional Traffic on the Yarnfield Lane M6 overbridge (Q and R) - AP1

- Additional fill material for the extension of Yarnfield North and South embankments would increase lorry movements associated with the increase in length of the embankments.
- Civils works in extending the Yarnfield North and South embankments are scheduled for the period Quarter 1 2023 – Quarter 4 2024.
- It is estimated that an additional 6250 cubic metres (approximately) of earth would need to be transported by road which equates to an additional 1470 lorry movements in total.
- Additional daily lorry movements are assumed to be three per day on average over a two year period.
- The vast majority of traffic would use the M6 motorway as opposed to the local road network.
- This would increase traffic slightly on the Yarnfield Lane M6 overbridge, expected to be up to two HGV vehicles per day, to access the northbound slips.

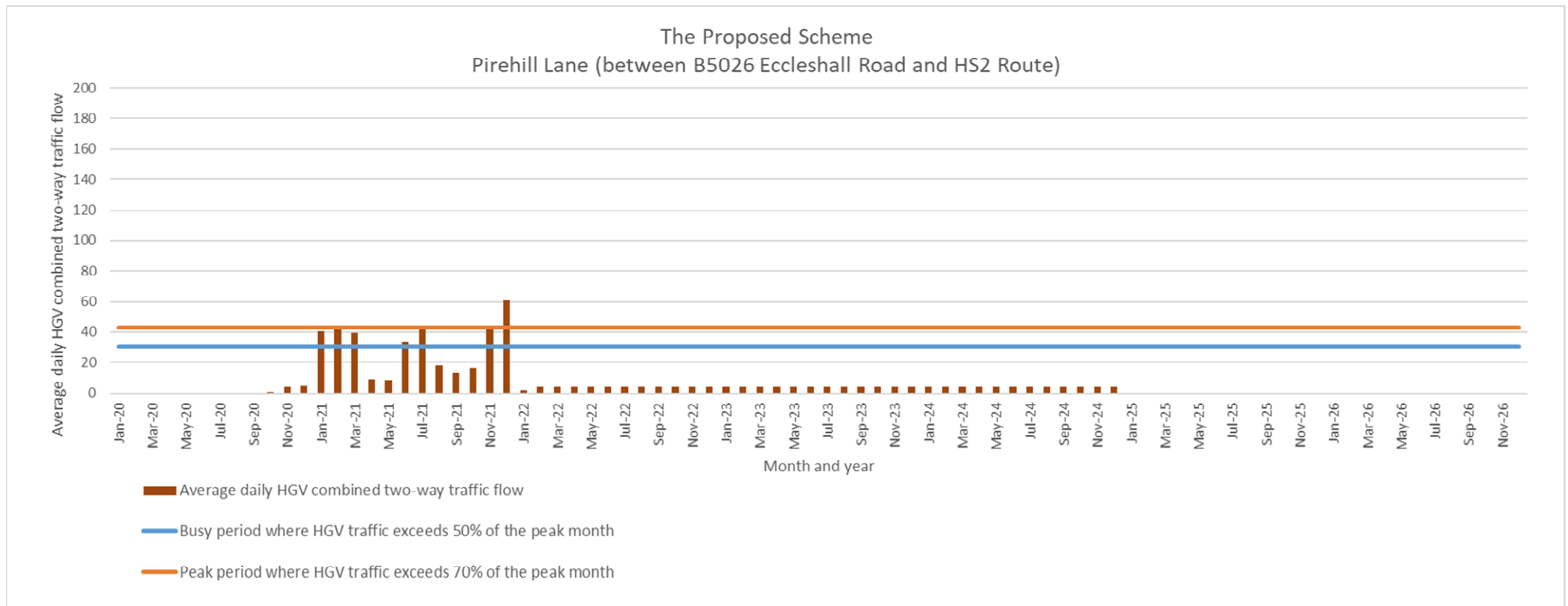
B5026 Eccleshall Road Histogram (The Proposed Scheme) (I and J)



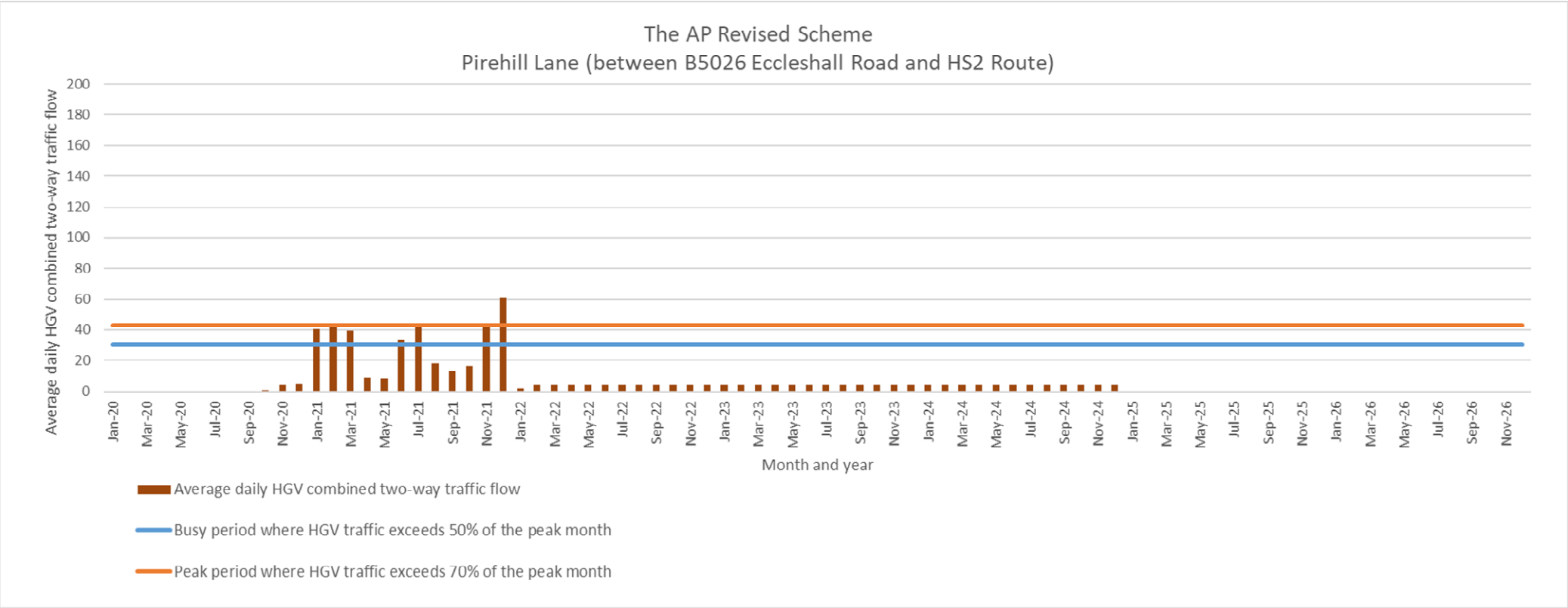
B5026 Eccleshall Road Histogram (AP1) (I and J)



Pirehill Lane Histogram (The Proposed Scheme) (G and H)



Pirehill Lane Histogram (AP1) (G and H)



Traffic changes between The proposed Scheme and AP1 in the Stone / IMB-R area

- The changes at AP1 result in very small changes to the proposed cut and fill requirements in the formation of the IMB-R and HS2 mainline, and therefore have a very limited impact on predicted traffic flows during the major civil engineering phase of construction.
- Changes to the construction methodology relating to the installation of a slab track formation will result in some changes in construction traffic flow numbers or duration of traffic in AP1.
- The changes to HS2 construction traffic flows occur later in the construction programme during the Rail Systems Phase of Construction.
- Any increase in traffic due to these changes will generally be relatively small in comparison to the peak level of traffic generated by the Civil Engineering Works.
- The largest increases in traffic in the Stone / IMB-R area occur on the M6 motorway and slip roads that access to Stone Railhead.
- On Yarnfield Lane, between the A34 The Fillybrooks and the HS2 route, there is a maximum increase of 20 HGVs two way movements a day during the peak month of construction (Rail Systems Phase).

Traffic changes between The Proposed Scheme and AP1

- The greatest traffic change impacts the M6 and the southbound M6 Slips that provide access to the Stone Railhead are as follows (numbers given are changes in flows):
 - M6 southbound on slip
 - Proposed Scheme - average daily weekday HGV traffic flow during the peak month (rail systems phase) – 19 HGVs
 - AP1 Revised Scheme - average daily weekday HGV traffic flow during the peak month (rail systems phase) – 110 HGVs
 - M6 southbound off slip
 - Proposed Scheme - average daily weekday HGV traffic flow during the peak month (rail systems phase) – 19 HGVs
 - AP1 Revised Scheme - average daily weekday HGV traffic flow during the peak month (rail systems phase) – 110 HGVs
- On the A34 and Yarnfield Lane HGV traffic flows will increase slightly during the rail systems phase:
 - A34 (between A51 Stone Bypass and Yarnfield Lane) and Yarnfield Lane
 - Proposed Scheme - two way average daily weekday HGV traffic flow during the peak month (rail systems phase) – 4 HGVs
 - AP1 Revised Scheme – two way average daily weekday HGV traffic flow during the peak month (rail systems phase) – 24 HGVs
- On the B5026 Eccleshall Road and Pirehill Lane there will be no change in HGV construction traffic flows.

Staffordshire County Council Assurance

Maximising the use of the Stone railhead and the rail connection to the IMB-R

The Promoter recognises that the impact of construction traffic on local roads is likely to be a particular concern for the local community and has sought to reduce the use of roads for transport to and from construction sites, using the construction corridor and rail where reasonably practicable. In the case of the Stone railhead, the Promoter is willing to offer the following assurance aimed at addressing the concerns of the local community:

3. (a) The Promoter will require the nominated undertaker to explore, and subject to the conditions in sub-paragraph (c) implement, options for maximising, as far as is reasonably practicable, the volume of materials and equipment brought in, and the volume of excavated material removed, by rail via the Stone railhead once that railhead is operational. In exploring those options, the nominated undertaker must balance the wider environmental impacts to the local community with the impact on rail passenger services.

(b) The Promoter will require the nominated undertaker to respond to any reasonable request made by Staffordshire County Council for information about the progress made in exploring the options mentioned in paragraph (a).

(c) The conditions in paragraph (a) are that such options:

- (i) must be deliverable within the existing powers of the Bill;
- (ii) are subject to the availability of train paths; and
- (iii) must not prejudice the safe, timely and economic delivery of the Proposed Scheme.

Staffordshire County Council Assurance

Maximising the use of the Stone railhead and the rail connection to the IMB-R

The Promoter recognises that the impact of construction traffic on local roads is likely to be a particular concern for the local community and has sought to reduce the use of roads for transport to and from construction sites, using the construction corridor and rail where reasonably practicable. In the case of the Stone railhead, the Promoter is willing to offer the following assurance aimed at addressing the concerns of the local community:

4. (a) The Promoter will require the nominated undertaker to explore, and, as far as is reasonably practicable and subject to the availability of train paths, implement options for maximising the use of the Norton Bridge to Stone Railway connection to the Stone IMBR for the movement of materials and equipment involved in maintenance works during the operation of the Proposed Scheme. In exploring those options, the nominated undertaker must balance the wider environmental impacts to the local community with the impact on rail passenger services.

(b) The Promoter will require the nominated undertaker to respond to any reasonable request made by Staffordshire County Council for information about progress made in exploring the options mentioned in paragraph (a).

Staffordshire County Council Assurance

M6 slips – put in place as early as practicable and maximise the use to reduce use of Yarnfield Lane

The Promoter recognises the importance to the local community of the ability to continue to use Yarnfield Lane during construction of the Proposed Scheme. The Promoter has already taken steps to ensure that the road remains open throughout construction of the Proposed Scheme, which have been welcomed locally. The Promoter has also made provision in the Bill for the creation of slip roads onto the M6 to alleviate the need to use the stretch of the road from the A34.

While the Promoter has explained to Staffordshire County Council why it is not possible to avoid the use of any part of Yarnfield Lane during construction, and in particular during site set up, accessing the M6 slips and for more local or worker trips, the Promoter is willing to offer the following assurances aimed at addressing the concerns of the local community:

6. (a) The Promoter will (subject to any necessary consents or approvals being in place) require the nominated undertaker to use reasonable endeavours to complete the construction and commissioning of the M6 Slip Roads as soon as reasonably practicable in the main civil engineering works construction programme for the Proposed Scheme.

(b) The Promoter will (subject to any necessary consents or approvals being in place) require the nominated undertaker to ensure that, upon the opening of the completed M6 Slip Roads to HS2 construction traffic, it will use reasonable endeavours to maximise the use of the M6 Slip Roads by HS2 Large Goods Vehicle construction traffic, so far as reasonably practicable, for access to and egress from the Stone railhead main compound so as to reduce so far as reasonably practicable the use of Yarnfield Lane by HS2 Large Goods Vehicle construction traffic accessing the Stone railhead main compound.

Staffordshire County Council Assurance

Haul roads

11. (a) In managing the HS2 Large Goods Vehicle construction traffic within the Petitioner's administrative boundary and in order to reduce the impact of HS2 Large Goods Vehicle construction traffic on the local road network, the Promoter shall, subject to the conditions in paragraph (b), require the nominated undertaker to use reasonable endeavours to:

- (i) commence construction of each Haul Road as soon as reasonably practicable following commencement of main civil engineering works in the construction programme for the Proposed Scheme, having regard to the purpose of each Haul Road; and
 - (ii) prioritise the use of the Haul Roads by HS2 LGV construction traffic so far as reasonably practicable above the use of the local road network.
- (c) The conditions referred to in paragraph (a) above are: (i) the securing of any necessary consents and approvals; and (ii) the Promoter being satisfied that doing so would not prejudice the safe, timely and economic construction of the Proposed Scheme.

In this assurance "Haul Roads" means those haul routes described in the Environmental Statement as proposed within the limits of land to be acquired or used as shown on the plans deposited with the Bill.

Norton Bridge to Stone Railway amendment (AP-003-001): **Filly Brook Hydromorphology**

- The Additional Provision is predicted to have an enhanced effect on water flow and sediment distribution along Filly Brook compared to its existing condition.
- The Additional Provision includes an estimated net reduction in culverted channel along the watercourse of approximately 55m, relative to the existing condition.
- The Additional Provision is predicted to enhance approximately 1.1 km of the Filly Brook where aquatic habitat conditions are currently in a poor condition.
- During detailed design, opportunities will be sought by the Promoter to create and/or enhance the existing aquatic conditions affected by the introduction of the Additional Provision.

Additional Provision: Horizontal realignment of the Proposed Scheme

- It is proposed to amend the horizontal alignment of the Proposed Scheme by up to 15.5m in a north-easterly direction between the northern extent of Yarnfield North embankment and Tittensor Road overbridge.
- The environmental impacts of this amendment have been assessed as part of the Supplementary Environmental Statement and Additional Provision Environmental Statement, as reported in the Volume 2: Community Area report for CA3: Stone and Swynnerton.

Topics included in the assessment

Air Quality

- None of the identified developments affect the assessment of the AP revised scheme's likely construction and operation impacts on air quality.
- The changes in traffic flows are not considered to give rise to any new significant effects at any receptor in relation to annual mean NO₂, PM₁₀ and PM_{2.5} concentrations, in comparison to the main Environmental Statement.

Ecology

- The amendment will not give rise to new or different significant effects on designated sites and will not change the level of significance of the effects reported in the main Environmental Statement.
- There are no changes to the likely residual significant construction and operation ecology and biodiversity effects identified in the main Environmental Statement as a result of the amendment.

Topics included in the assessment

Landscape and Visual Changes

- The construction activities will be broadly similar to those for the original scheme and the amendment will not, therefore, give rise to any new or different significant effects than those reported in the main Environmental Statement.
- There are no changes to the likely residual significant operational landscape and visual effects identified in the main Environmental Statement as a result of the amendment.

Noise and Vibration

- No new or different significant operational noise or vibration effects have been identified as a result of the amendment.

Topics included in the assessment

Flood Risk Changes

- Following implementation of the mitigation measures described in the amendment there are no changes to the residual likely significant construction water resources and flood risk effects identified in the main Environmental Statement as a result of the amendment.
- There are no changes to the likely residual significant operational water resources and flood risk effects identified in the main Environmental Statement as a result of the amendment.

MINUTES OF ORAL EVIDENCE

taken before the

HIGH SPEED RAIL BILL COMMITTEE

on the

HIGH SPEED RAIL (WEST MIDLANDS – CREWE) BILL

Wednesday 25 April 2018 (Morning)

In Committee Room 5

PRESENT:

James Duddridge (Chair)
Sandy Martin
Mrs Sheryll Murray
Martin Whitfield
Bill Wiggin

IN ATTENDANCE:

Timothy Mould QC, Lead Counsel, Department for Transport
Timothy Corner, Counsel, Stone Town Council and Chebsey Parish Council

WITNESSES:

Trevor Gould and Gordon Wilkinson (Stone and Chebsey Councils)

IN PUBLIC SESSION

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(At 9.30 a.m.)

1. THE CHAIR: Welcome. Today we are hearing petitioners from Stone Town Council and Chebsey Parish Council. I am sure I will be corrected if I have pronounced Chebsey incorrectly. Mr Corner, I invite you to start proceedings and just so that the Committee knows, we may very well take a short break in the middle of both the morning and afternoon sessions for 10 minutes. Mr Corner?

Stone Town Council and Chebsey Parish Council

Submissions by Mr Corner

2. MR CORNER: Good morning, sir, and good morning to your Committee. Thank you very much indeed for agreeing to see us and to hear us this morning. We will present our case in a way that I hope helps you because that is the objective of the exercise. Can I just ask you whether you have had the chance to review, however briefly, the list of exhibits that we have?

3. THE CHAIR: This is your opportunity to present and for us to ask you questions, not the other way round.

4. MR CORNER: Right, I am sorry about that. In that case the first document that we have produced is a summary of our case for the petitioners and I was going to ask you whether you have had the chance to read that, because if you have, I won't read it out but if you have not, that will be my opening remarks, which I would just want briefly to read, if that is okay.

5. THE CHAIR: For guidance, you don't need to re-present any evidence that you have already put forward. If you want to do it in summation, what everybody else has done is if there is anything, the lady here will bring it up on the screen.

6. MR CORNER: Thank you very much.

7. THE CHAIR: Hopefully you were given notice to provide some references, and that works rather well because literally beneath the desk are several feet of paperwork, so I don't want you to say again, 'Have you read this? Have you got it easily accessible?' That is what the system is there for.

8. MR CORNER: Very well. I am happy with that. Can I just then summarise, before we go into the evidence, our case, and if you don't find it helpful I hope you will stop me, but I intend to be brief in doing so.

9. THE CHAIR: You can summarise.

10. MR CORNER: As you know, we are Stone Town Council and Chebsey Parish Council. We object to the proposed railhead and IMB-R at Stone. Instead, we propose that it be constructed at Aldersey's Rough. Our objections to Stone can be summarised as follows. To begin with, the facility at Stone would restrict Staffordshire's ability to connect into the national rail network, as Mr Trevor Gould will say in a few minutes. The facility, the railhead IMB-R, is located on the Norton Bridge to Stone railway line and additional services will use that line once HS2 is commissioned including the promised HS2 service to Stoke via Stafford. Maintenance trains accessing the Stone IMB-R would have to use the line during the day and not just at night. This is likely to require diversion of the HS2 service to Stoke on to the Stone to Colwich line, which would in turn cut out Stafford from the HS2 service and that, itself, is likely to have knock-on consequences for the viability of the service to Stoke. So, Trevor Gould will deal with that in just a few minutes.

11. Our second objection is that construction of the facility at Stone will cause unacceptable traffic problems during construction, and Gordon Wilkinson, my second witness, will lead on those issues. Those problems are worsened by the narrow site and the fact that the site is crossed by Yarnfield Lane, the B526 Eccleshall Road and the Norton Bridge to Stone line. Now, we are particularly concerned about the impact of construction HGVs on Yarnfield Lane and on four junctions, which I will briefly list: the A34's junction with Yarnfield Lane; the A34's junction with the A520 and the B526; the A34 junction with the A51 and Brooms Road and finally and fourthly the B5026 Eccleshall Road junction with Pirehill Lane.

12. Yarnfield Lane is the primary means of access for the village of Yarnfield to and from Stone. The carriageway is now open for much of its length. There are no formal footways. It's unsuitable for HGV traffic as is the junction of Yarnfield Lane with the A34. Also, there is already considerable congestion at those four junctions, which will be substantially worsened by the HS2 construction traffic. We say the promoters have

underestimated the impact of HS2 because they've underestimated base flows, in other words flows in the absence of HS2 traffic and because they've considered the various junctions in isolation without taking account of the cumulative impact of traffic flows that will be displaced from junctions operating over capacity. We also have serious safety concerns about the alterations to Yarnfield Lane that will be needed in order to accommodate access for construction vehicles. If the railhead IMB-R is not provided at Stone, then of course there will be activity at that location in order to build the line but construction will be simpler and won't lead to the problems I just talked about.

13. Now, those are our objections to Stone. Fortunately, there is an alternative location, namely Aldersey's Rough. As well as avoiding the dis-benefits of Stone, Aldersey's Rough will, we say, have the following important advantages. To begin with, once Phase 2B is in operation, an IMB-R in this location will have to provide maintenance services in relation to the line for both Phases 2A and 2B, and Aldersey's Rough will be more centrally located than at Stone. Secondly, provision of the Aldersey's Rough railhead and IMB-R will involve reactivating part of the Newcastle to Market Drayton railway line. Now, that work could be the catalyst for reopening the line into Newcastle itself, which is the most populous town in the country not currently linked to the national rail network. Reinstating train services to Newcastle will not only benefit that town but would also enable Stoke and North Staffordshire to take advantage of additional services to, in effect, the North West, Manchester Airport, Liverpool and North Wales but can be provided once, as is planned, new platforms are provided at Crewe Station. Furthermore, construction at Aldersey's Rough will be simpler and will cause less disruption to communities than Stone. It's a more isolated location.

14. Now, just two more points. The promoters have compared Aldersey's Rough with Stone in their document, Phase 2A CA62, Strategic Evaluation. Mr Parkin, my third witness, will present a review of that evaluation and contend that its conclusions are erroneous. We say Aldersey's Rough is preferable for Stone in both engineering and environmental terms. We also dispute the promoter's assertion that a railhead and IMB-R would cost more to build at Aldersey's Rough. That is what they say. We dispute that. Their cost estimates cannot be fully assessed because they've refused to provide details of them but, given that the engineering aspects of construction at Aldersey's Rough are simpler, it's likely to be cheaper or at least no more expensive, and

additionally the promoters are wrong to add cost to Aldersey's Rough on the ground that maintenance loops at Pipe Ridware would be required in association with it, with Aldersey's Rough. Such loops aren't needed – they wouldn't be needed – if we provided the railhead and IMB-R at Aldersey's Rough, so that shouldn't be added as a cost.

15. That is all I wish to say in opening, thank you very much. I was going to call my first witness, if I might.

16. THE CHAIR: Can I just ask one question? It was suggested that the base was going to be Crewe and then it moved to the proposed location. When and who created this option? Was it your campaign group or was it an original option from HS2 that was discounted?

17. MR CORNER: Sir, thank you for the question. My understanding is that it was the people I am calling, the people I represent, who came up with the option of Aldersey's Rough and, as you know, Stone was proposed by the promoters in, I think, 2016 and then we suggested Aldersey's Rough. There were some discussions about it in early 2017 and then in the SIFT analysis, this document, HS2 considered Aldersey's Rough but we say that they didn't consider it properly. Does that help?

18. THE CHAIR: Thank you very much.

19. MR CORNER: If you are content, I will introduce my first witness. He is Trevor Gould. Mr Gould is already sworn in but I shall ask him to introduce himself in just a moment.

Evidence of Mr Gould

20. MR CORNER: Do you have the papers that you need available to you, Mr Gould?

21. MR GOULD: I believe so.

22. MR CORNER: Can you tell us your name, please?

23. MR GOULD: Yes, good morning, everyone. My name is Trevor Gould. I spent most of my working career in the manufacturing industry. For 11 years prior to 2000 I

was operations manager at a large multinational manufacturing organisation and since 2000 I have been working as a self-employed management consultant on behalf of a London-based importer and distributor.

24. MR CORNER: Thank you very much. Over what period have you been interested in the railway industry?

25. MR GOULD: Longer than I can care to remember, probably round about 55 years in common with a lot of small boys at that time, and I have maintained my interest ever since very closely with the industry.

26. MR CORNER: Have you had any involvement concerning HS2 with the Newcastle Borough Council?

27. MR GOULD: Yes, indeed. In fact, ever since the introduction of the project it has interested me. I submitted a detailed report to the working party of Newcastle-under-Lyme Borough Council, the working party that was set up by them in order to try and determine whether or not the borough could gain any benefit from HS2 even though the line was going through the borough and wasn't stopping there. I submitted that report following which I was asked by the then chairman of the group, the leader of the council, Gareth Snell, who is now an MP, to continue my investigations into whether or not there could be any benefits for the borough.

28. MR CORNER: Do you live in the vicinity of the Stone proposal?

29. MR GOULD: No, not at all. In fact, strangely, I live in the vicinity of the area where we are proposing to relocate the railhead, near to Aldersey's Rough.

30. MR CORNER: All right, thank you very much. Now, I want to ask you about four things, basically: first, the current rail network; secondly, the network with HS2 in place, thirdly the logistical and operational impacts of the Stone proposal and fourthly, Aldersey's Rough. Yes?

31. MR GOULD: Yes.

32. MR CORNER: So, can we start with the current rail network, please?

33. MR GOULD: Yes, if we could see the first slide, please.

34. MR CORNER: There is a computer mouse here which I will pass to you, if you don't mind.

35. MR GOULD: Right, thank you.

36. MR CORNER: So, there we are. Let's go to your first slide. It is A37(1). What I want you to do, please, is to place the western leg of HS2 Phase 2A and 2B in terms of the local authorities. So, you are going to tell us what slide 1 shows us.

37. MR GOULD: Yes, the slide is showing all the proposed high-speed lines at the moment. Under the large letter C, which you can see in the circle to the left, are all the local authorities. That lies in the area known as the Constellation Partnership, which is between the Northern Powerhouse and the Midlands hub and it's an area of seven local authorities plus two local enterprise partnerships.

38. MR CORNER: Now, in brief, what is Crewe's place within the railway network?

39. MR GOULD: As to Crewe's place, if we look at slide 3 we can see that Crewe there is recognised as a gateway to the north and the railway capital of the world, in fact, and we can see that it has passenger services and freight services radiating to all points north but unfortunately none of those local passenger services that go into Crewe penetrate south of Crewe and as a result of that there are no Manchester Airport services or through services, from the south through Crewe, for the benefit of Staffordshire.

40. MR CORNER: So, no services through Crewe for the benefit of Staffordshire. I have one or two other questions about the current railway network. Is there a stopping service at the moment between Stafford and Stoke?

41. MR GOULD: There isn't. There was a stopping service, which was the Manchester Piccadilly to Stafford service. That was curtailed and now stops at Stoke. It doesn't go any further than that. The reason for that is because of capacity on the line between Stoke and Stone. That ended in 2004 when the Pendolino services started operating between Manchester and Euston, which was down that line from Stone to College Junction and on to London Euston.

42. MR MARTIN: Mr Gould, this is a crucial part of your evidence. Can you say that again more slowly and slightly louder so that I can actually hear what you are

saying? In particular, when you use the words, 'Stoke' and 'Stone', I need to be able to tell the difference between them because I can't at the moment hear what you are saying.

43. MR GOULD: My apologies. Yes, the service was curtailed between Stoke and Stafford as a stopping service down to the fact that the Virgin Pendolino services increased operational frequency to three an hour between Manchester Piccadilly and London using that direct line through Stoke, Stone and College Junction to London. So, there was no capacity to serve the local stations between Stoke and Stone on to Stafford. That service was withdrawn.

44. MR MARTIN: So, it's the section between Stoke and Stone which is the one where there is a capacity gap?

45. MR GOULD: That is the main capacity gap at the moment, yes, and the difference then between Stone and Norton Bridge is the remainder of what was that service at the time when it has been withdrawn.

46. MR CORNER: Is there a rail connection at all to Newcastle-under Lyme?

47. MR GOULD: No, there isn't. Newcastle-under-Lyme, as Mr Corner has said, is the biggest or most populous town in the country without a rail service at the moment. It's not shown on the map because obviously there isn't a railway line going there. It lies between Crewe and Stoke, effectively in terms of the schematic diagram that we have there.

48. MR CORNER: You've just talked about some restrictions on the present railway service. How important are they in your opinion?

49. MR GOULD: They are extremely important, these restrictions, because at the moment the fact that there is no through service from anywhere in Staffordshire to Manchester Airport is a major disincentive for businesses. It is a transport artery which we need to get access to, and it's a transport artery which, even after the coming of HS2 we still don't have any access to in Staffordshire. Even the West Coast Main Line from Stafford through Crewe up to Manchester, any trains that take that route that come from London don't travel to Manchester Airport. So, there isn't anywhere in Staffordshire

that has access to Manchester Airport at all. In fact, Stoke has had a long-held ambition to have through services to Liverpool but that can't happen, and the reason is that there are conflicts at Crewe whereby local services have to cross the path of express passenger trains and effectively Crewe becomes a dead end because once the local services have to cross the path of express passenger trains, that has a knock-on effect on the timetable and the capacity at Crewe.

50. THE CHAIR: Can I ask that we are more forensically focused on Aldersey's Rough directly and also to some degree the additional benefits of Aldersey's Rough and look at the primary functional benefits to HS2?

51. MR CORNER: Yes.

52. THE CHAIR: I appreciate that your case is that there is other stuff that this enables, but that really is secondary to what we are looking at today.

53. MR CORNER: Very well. The network with HS2 in place, what changes will occur?

54. MR GOULD: Could we look at slide 4? The red line there on the same schematic diagram is HS2. It goes all the way through Staffordshire, as you can see. It doesn't stop anywhere in Staffordshire. It stops at Crewe, goes on to Manchester Airport and to Manchester Piccadilly, but what has been promised for Staffordshire is that there will be a service coming off HS2 and using the Handsacre link down there at the bottom, the dotted line, going to Stafford along the Norton Bridge to Stone line, stopping at Stoke and terminating at Macclesfield. Once HS2 comes along and releases capacity on the main line between Manchester and Stoke and Colwich, that will then free up capacity because there won't be as many express passenger services on that line. It will free up capacity to reinstate the local services between Stoke and Stafford.

55. MR CORNER: What does this have to do with Stone, the proposal that we are objecting to? What's the connection?

56. MR GOULD: The effect of that is that those HS2 classic compatible trains that are calling at Stafford and Stoke and on to Macclesfield will then go along that Norton Bridge to Stone line, and the Norton Bridge to Stone line is where HS2 Ltd are

proposing to locate the access sidings for the railhead and IMB-R, and therefore the freight trains accessing that railhead will conflict with passenger services on HS2 and the local passenger services between Stoke and Stafford and any other passenger services that are introduced. For instance, it is known that CrossCountry Trains have aspirations to increase the number of trains on the Manchester to Stafford to Birmingham corridor.

57. MR CORNER: I want to now ask you, please, if I may, about logistical and operational impacts of the Stone proposal. What do you say are the implications of the railway layout at Stone?

58. MR GOULD: There are a lot of operational constraints at Stone. They have been described by HS2 Ltd themselves.

59. MR MARTIN: Would it be helpful if we had CT06 222 up during this discussion so that we can actually see the layout of the proposed Stone infrastructure base and the rail lines coming into it while you are talking about it? I think that would be very helpful.

60. THE CHAIR: That is very sensible. That will pop up magically in a few seconds.

61. MR MOULD QC (DfT): This the same plan as P41 or indeed, Mr Martin, if you wanted a closer view, P42 might better serve your requirement.

62. MR WIGGIN: Keep focusing.

63. MR MOULD QC (DfT): That is what you wanted?

64. MR MARTIN: Fantastic, yes.

65. MR CORNER: If I dare suggest, I think perhaps even more helpful, given the question, is the slide A43(1) because it shows the various embankments and so forth, I hope helpfully. I hope that helps, sir.

66. MR MOULD QC (DfT): There is only one point I would make about that.

67. THE CHAIR: Mr Mould, shall we leave it to them? If they want to make their evidence in a way that you disagree with, we will come back to it, or go for it.

68. MR MOULD QC (DfT): Can I just make one point?
69. THE CHAIR: Yes.
70. MR MOULD QC (DfT): I am sorry, it is important that we are clear on what we are looking at. In case it matters, this is the construction phase, so effectively in terms of the operation of the railhead, this is up to 2026.
71. THE CHAIR: You have made your point. Let's go back to them because they are on the floor. Thank you for that.
72. MR CORNER: The next one is A43(2).
73. THE CHAIR: I think that is the very next matter. It's helpful but Mr Corner is in charge. He can put up now anything he wants, whether it's an inadequate construction one or something else.
74. MR CORNER: Are you happy with A43(2) in front of you?
75. MR GOULD: I would prefer A37(5), please, if we could do that.
76. MR CORNER: I am sorry.
77. MR GOULD: That relates more directly to what I am talking about.
78. MR CORNER: All right, okay. I want to ask you about the maintenance trains accessing the IMB-R at Stone and how that is going to work. So, what is the maintenance window, to begin with, at Stone for maintenance trains?
79. MR GOULD: First of all, there are a lot of implications with the track layout here at Stone because there are up to four reversals, which is what are indicated by the arrows on our screen there, for trains actually accessing the railhead, which has been described by HS2 Ltd themselves as being 'sub-optimal', amongst other things. There is also shared use of the head shunt, which is indicated with two arrows on the right-hand side, shared use between supply trains from Network Rail and trains accessing HS2 northbound maintenance trains. There is also an extensive track layout there, a much more extensive track layout than would be required at Aldersey's Rough.
80. Now, the maintenance window that HS2 Ltd are working with in order to get the

supply trains in and the maintenance trains out and all the maintenance done, is a five-hour window between 12.00 and midnight and 5.00 am in the morning.

81. MR CORNER: So, it is five hours?

82. MR GOULD: It is, that's correct.

83. MR CORNER: And what's the capacity of that? In other words, how many supply trains can be accommodated during that time?

84. MR GOULD: I calculated that a maximum number of three supply trains would be able to enter during that maintenance window without interfering with any classic compatible trains on the line between Norton Bridge and Stone, so three trains in and three trains out during that window.

85. MR CORNER: All right, fine. Is that enough?

86. MR GOULD: No, it won't be sufficient, certainly, eventually. Obviously, for the future maintenance demands of HS2, as the line gets older, maintenance demands will become higher.

87. MRS MURRAY: Can I ask what evidence you have for your assumption that it won't be enough?

88. MR GOULD: Yes, we have a number of things. First of all, the facts are that the timings that we've got on here are showing the length of time it will take for a maintenance train to actually get into the sidings.

89. MRS MURRAY: So, you've got that evidence?

90. MR GOULD: Yes, we've worked it out as how long it takes for each operation.

91. MRS MURRAY: You have worked it out so it's not independent evidence that would be available?

92. THE CHAIR: It's your calculation?

93. MR GOULD: It's my calculation.

94. MRS MURRAY: It's your calculation. Thank you. That's all I needed to know.

95. MR CORNER: So, capacity for three on your evidence?

96. MR GOULD: Yes.

97. MR CORNER: My next question is: is that going to be enough?

98. MR GOULD: No, it won't be enough eventually. Obviously HS2 Ltd have said, 'Well, there's only going to be one train a night because the line is new. Of course, the line isn't always going to be new and it isn't always going to be Phase 2A. Phase 2B is going to be built on ballast track, and ballast track is a completely different entity altogether. It requires much more maintenance and the facility has to be projected to be able to maintain the line into the future. There's no point in building the facility just for now.

99. MR WIGGIN: Can we just check that that is right, that it is going to be on ballast track?

100. MR MOULD QC (DfT): On ballast track?

101. MR CORNER: Phase 2B, yes.

102. MR MOULD QC (DfT): Yes, that is the one thing that has been said so far that is correct.

103. THE CHAIR: Thank you. Just picking up on that, Mr Gould, can we go back to the first page of your introduction? You clearly have a strong professional career, but am I right in saying you have no professional qualifications whatsoever in the rail industry or any technical engineering qualifications?

104. MR GOULD: I have never worked within the rail industry, no, so I don't have any railway technical qualifications at all, no.

105. THE CHAIR: I would say that these are quite technical arguments that, being candid, neither you nor I are qualified to speak on.

106. MR GOULD: I would say that these calculations were verified by an expert who has had knowledge of signalling and operations and has owned and driven his own

steam locomotive.

107. THE CHAIR: I think if we are looking at expert points – I will come to you in a second, Sandy – it would be better to have expert witnesses. That is not to say it's not legitimate to have people with interests presenting information but I am struggling a little around the credibility of some of this evidence. Sandy?

108. MR MARTIN: Yes, I wouldn't want to make a comment about the credibility of evidence except that what I don't understand is that you are talking about the window of opportunity before the operations of the IMB-R interfere with the working on the Norton Bridge to Stone railway, and I can't see how any workings at the IMB-R, any operation of the IMB-R, interferes with the Norton Bride to Stone railway. That's probably because I have failed to notice something but can you point out to me where the operation of the IMB-R actually would interfere in any way with the operation of the Norton Bridge to Stone railway?

109. MR GOULD: That's because the supply trains to the IMB-R that supply the materials that are required from maintenance will come from Network Rail tracks, so those will approach from either the Stoke direction off the top of the picture or the Stafford direction from the bottom of the picture.

110. MR MARTIN: So, it's not the actual HS2 trains coming in for maintenance themselves which is a problem?

111. MR GOULD: No.

112. MR MARTIN: It's the trains coming in bringing materials for maintenance?

113. MR GOULD: It is. What we are saying is that we don't have any issues with how many maintenance trains will need to access HS2 from within the IMB-R at this point. What we have issues with is how many supply trains are going to need to be provided to the IMB-R in order to maintain the maintenance of the railway. So, those trains will come up the Norton Bridge to Stone line into the sidings at Walton and they have to be away again before the classic compatible trains come along that route, or whatever is the first train along that route in the morning.

114. MR CORNER: I think that Mr Mould wants to intervene.

115. THE CHAIR: I think I should let you intervene, Mr Mould.

116. MR MOULD QC (DfT): I am very conscious of the need not to seek unfairly to curtail the presentation of the petitioner's case, but I am also conscious of assisting the Committee so that we don't spend too much time on a false premise. Our position is very clear on this and Mr Smart can explain this later, if necessary. This part of the case is simply founded on a false factual premise. The false factual premise is this, and Mr Martin is, if I may say, absolutely on the point. The focus of this part of the case is on the operation of the IMB-R, the maintenance depot, in other words following completion and coming into operation of the Phase 2 railway. From the moment at which the Phase 2 railway comes into operation and ever after, the maximum number of trains that will need to run to and from the West Coast Main Line via the Norton Bridge to Stone railway into the maintenance depot is one train in every 24-hour period. So, one train per day. That computes to two train paths required. That is the maximum. What Mr Gould has done is to confuse the substantially larger number of supply trains that need to access the railhead, the construction facility at Stone, between 2021 and 2026, in order to serve the construction of HS2 with the number of trains that are required to run off the existing railway line into the maintenance depot once HS2 Phase 2A becomes operational, and you see that clearly in paragraph 4.4.7 of his proof. A35(7) is the reference. The activities that he refers to there as supporting his assumption that a minimum of three trains per night would need to run are activities that are associated only with the construction facility. They are not activities that are associated with the maintenance base once the railway has come into operation. So, what we are dealing with here is not a question as to whether three, four or eight trains per day, per 24-hour period would conflict with the assumed passenger services on the Norton Bridge to Stone railway from 2026, 2027 onwards but whether one train per 24-hour period would conflict with those services. It is a completely different question. That is the factual position which we, as the promoters of this scheme, are convinced of.

117. THE CHAIR: Thank you very much Mr Mould. Apologies for not allowing you to say that earlier. I wanted to give the petitioner a fair wind but it became very clear, through Sandy's questioning, that you will have a different case.

118. MR MOULD QC (DfT): Absolutely.

119. THE CHAIR: Mr Corner, would you like to have a five-minute recess and review and then come back, given what I've said and what Mr Mould has said, or are you happy to speak now?

120. MR CORNER: Sir, that's very kind of you, thank you very much, but I'm not sure that we need a five-minute recess. If I may say, Mr Mould's intervention as always is very helpful because it enables us to understand HS2's case. Our case is about the number of trains that will need to access the IMB-R, not during construction of the railhead but once it is being maintained and if the full extent of Mr Gould's proof of evidence is read, that becomes clear and I can ask him to explain that so that we are under no misapprehension.

121. THE CHAIR: Sheryll Murray.

122. MRS MURRAY: I thought I heard Mr Mould just confirm that once the railhead was constructed and the railway was constructed, we would only need one train per night.

123. MR MOULD QC (DfT): Per day, per 24-hour period.

124. MRS MURRAY: Yes, per day. Mr Mould, clearly, this is actual fact with your scheme.

125. MR MOULD QC (DfT): That is our position, yes.

126. MRS MURRAY: Mr Corner, why do you say that is incorrect when we have just heard Mr Mould confirm it?

127. MR CORNER: Thank you for the question. I will ask Mr Gould to deal with that, if I may, please.

128. THE CHAIR: Why are you asking Mr Gould? Mr Gould doesn't have any technical expertise. It strikes me you may be right, Mr Mould might be wrong but it's a technical analysis, is it not?

129. MR CORNER: If I may say, sir, it's a matter with which I would hope we are entitled to deal. The reality is, as Mr Gould says in his proof, HS2 have said that when the line is new there will be one maintenance journey, one supply train per night. That

is true and Mr Gould acknowledges that in his proof, but he goes on to give reasons which I would hope the Committee will hear, as to why he disagrees with that, and he was beginning to go into those reasons when Mr Mould made his intervention.

130. THE CHAIR: Shall we do that then, briefly, and with caution?

131. MR MOULD: I would find that helpful.

132. THE CHAIR: I am trying to be helpful; I am not trying to be disruptive. It may be that 30 seconds with Mr Gould will give clarity, I don't know, so let's carry on.

133. MR CORNER: Well, let's ask him.

134. MR GOULD: Yes, if I may carry on, yes, of course. Yes, I can understand why Mr Mould is getting confused. It does read slightly ambiguously, that paragraph 447, but we are referring to the IMB-R, not the railhead. As Mr Corner says, we are talking about supply trains once the line is up and running. Before the line is up and running there can't be any conflicts with HS2 trains because there won't be any, so it must be after the line is up and running.

135. MR CORNER: Can you deal with the point that was raised? Mr Mould says that after the line is up and running there will only be one supply train per night, so tell us your view about that.

136. MR GOULD: Yes, the fact is that as I was saying, ballast trains or ballasted track takes a lot more maintenance than the side track, and the Stone railhead can't handle the length of train in which ballast is delivered. They are 800-metre long trains. That is acknowledged in the SIFT analysis of the Stone and Aldersey's Rough railhead, so every ballast train that comes in is actually two paths into the railhead. So, even though there might only be one train per night for Phase 2A, once you get to Phase 2B, every ballast train is two paths per night, so we can assume, therefore, that there must be a greater number than Mr Mould is claiming there is. We can look at the technical information. If you want some technical background on this, certainly we can look to that.

137. THE CHAIR: You can ask the question, 'If you want', but we do want.

138. MR GOULD: Rather than, 'If you want', then, I shouldn't put it that way. This is a quote from the *Rail Engineer* magazine on 15 December 2016 from a conference organised by the Permanent Way Institution of European Railway Engineers, which is the pre-eminent body for dealing with high-speed track forums and any kind of railway building. What that says is that a key risk associated with ballasted track is the ongoing settlement of the ballast under loading, and the cumulative tonnage that will be applied to HS2 Phase 2 is 62 million gross tonnes per annum. Now, if we compare that with anywhere else in the world, there isn't anywhere. Nobody has any idea of what the loadings' effects are going to be on the maintenance requirements. If you compare that to HS1, that is only 14 million gross tonnes per annum, so you are talking of well over four times the stress being put on HS2 that has been put on HS1. The man that gave that speech to the organisation was Niall Fagan, HS2 Ltd's head of track engineering so they are already aware of that.

139. THE CHAIR: Perhaps we can move on. Sorry, Sandy?

140. MR MARTIN: I am sorry, Chair, but I do have some questions about this.

141. THE CHAIR: Okay.

142. MR MARTIN: I am struggling to understand here. First of all, can I ask Mr Mould whether you agree with 4.5.5 in the petitioner's evidence that HS2 will be splitting the ballast supply trains into two sections?

143. MR MOULD QC (DfT): Yes, the ballast train is 800 metres long and you would decouple that train in order to service it within the maintenance depot, but the assumption that I have put to you as to the number of trains per 24-hour period, or per night, as it has been put, once the full Phase 2 railway is in operation, is precisely on the basis that we would need to be able to accommodate the maintenance of ballasted track. The figure for Phase 2A alone – that is to say the six years or so between 2027 and 2033 – is a maximum of one train a week. We think we could get by with one train a month but we are saying one train a week to be robust. The principal reason why it's one train a week during Phase 2A but it goes up to one train a night during Phase 2B is because Phase 2A is a slab track railway and Phase 2B is a ballast railway.

144. MR MARTIN: The point being that you have fully taken into consideration the

fact that Phase 2B is a ballast railway in making your calculations for Stone?

145. MR MOULD QC (DfT): The promoters of this project, with the benefit of the advice of Mr Smart as our chief engineer, who amongst other things was responsible for the production of the Northern Section of the Channel Tunnel Rail Link with the advice of railway engineers WSP, have been working on this for us for, I think, years, certainly for many months. We have considered carefully the case that is being put forward by this witness speaking as a lifelong, amateur railway enthusiast and we have satisfied ourselves that the numbers that I have put to you are robust. The reason I intervened was because, whilst wishing not to be unfair to the petitioners, I did not see it would be to the Committee's advantage to proceed too far down the road, or should I say the railway line, on a false premise. Thank you.

146. MR WIGGIN: I just want to know why they are not building slab tracks for the next phase.

147. MR MOULD QC (DfT): The Manchester section of that railway presents challenges with using slab track. That, of course, is a matter that is under review as well, but in order to be robust in our assumptions as to the frequency of trains that would need to use this depot, in fairness to the petitioners, so we do not present too optimistic a case in response to theirs, we have made the assumption that Phase 2B will be a ballasted railway.

148. MR CORNER: Thank you.

149. MR GOULD: These calculations, I might say, are theoretical calculations made by HS2 Ltd. As I have said, no one knows what the effects of the loadings are going to be on ballasted track. In fact, there is another article from *Rail Technology* magazine.

150. THE CHAIR: Can we move on? I don't want more articles read out on this issue. Mr Corner?

151. MR CORNER: Mr Gould, if I can just ask another question connected to that, our attention was drawn by Mr Martin to your proof of evidence at page A35(7). Can we go back, please, to page A35(6)? I am looking at 4.3.1 of your proof where you say: 'HS2 Ltd has told us that the capacity constraints at Stone aren't a problem because for the

first few years the line will be new and won't require more than one supply train per night.' That is how you have set it out. Have you been told by HS2 that it will be one supply train per night throughout the life of the line or is what you have understood them to tell you that it is for the first few years when the line is new?

152. MR GOULD: No, that was taken from the minutes of our meeting with HS2 Ltd on 20 September last year.

153. MR CORNER: So, can we assume from the position for the first few years when the line is new that the position in terms of the number of supply trains will stay the same throughout the life of the line?

154. MR GOULD: No, we certainly can't. Obviously, as the line gets older, the line will deteriorate and for the first few years that could mean anything.

155. MRS MURRAY: Do you have that in writing from HS2 and if you haven't, Mr Gould, could we ask Mr Mould to define the period of time meant by 'first few years', because 'few' could mean five; 'few' could mean 50 depending on the context in which it is used.

156. THE CHAIR: I am trying to catch Mr Mould's eye to see if he wants to come in, in trying to help.

157. MR MOULD QC (DfT): If I may, I will seek to deal with that point. I have never seen this minute. It is not a minute that we have viewed. I am not saying whether that was said or not. What I am telling you is the position that I have been instructed. I will call Mr Tim Smart later who will speak to you on oath and will explain the position, otherwise this exercise is self-defeating. We're taking more time to explain matters.

158. MRS MURRAY: Absolutely, and was that an official parish council minute?

159. MR GOULD: It was a minute of the Stone Railhead Crisis Group from the meeting with HS2 Ltd and, as I understand it, Mr Mould is correct that HS2 Ltd did not respond to the minutes. In fact, I don't know that we have had any response to any minutes that we have submitted to them.

160. MR WIGGIN: Okay, let's keep going.

161. MR CORNER: All right, thank you very much.

162. MR GOULD: With regard to the question of whether or not it's five years or 10 years, I don't think Mr Mould gave a satisfactory answer.

163. MR MOULD QC (DfT): I said that I would deal with that later.

164. THE CHAIR: You have said you will deal with it later and that's absolutely fine. It makes sense. I gave you the opportunity to come in and you didn't need to take it. I think it makes sense, if possible, to hear from the petitioners but it was helpful, the earlier interventions. I think we want to give you a fair wind, but I am getting a little frustrated at the slow progress that is being made and also the technical detail and evidence being given by a non-technical specialist. I am personally finding it a little frustrating but please do carry on with the evidence here and it may be that it joins up with later people giving evidence. I am sharing my frustration, which is not helping, I think, your case or your client's case.

165. MR CORNER: Thank you, Chair.

166. MR GOULD: Is it more beneficial to the Chair for Mr Mould to come back on?

167. THE CHAIR: He has made it clear what he is going to do. We will hear from the petitioner and the witness and then go back to HS2 unless Mr Mould indicates he wants to come in otherwise with my permission, in which case that is what will happen.

168. MR CORNER: Thank you. Mr Gould, you were going to say something. I am not sure whether you remember what it was, but in any event, just before we leave this topic, just in conclusion, are you aware of any line elsewhere that is subject to the kind of stresses and loadings that this line will be subject to?

169. MR GOULD: No.

170. MR CORNER: No. In those circumstances, in your opinion, is it possible to predict with certainty how many maintenance supply trains there would be to Stone?

171. MR GOULD: It isn't possible to predict with certainty, and the reason for that is because nobody has any experience of this and all of this is empirical measurements that are based on experience.

172. MR CORNER: All right, okay, thank you. Can I move on, please? What happens if there are more supply trains that need to access Stone that can be accommodated at night? What follows?

173. MR GOULD: The upshot of that is that the only option that HS2 Ltd will have in supplying Stone IMB-R, as it would be then, would be to return to supplying the IMB-R during the day, but once HS2 Ltd is up and running, as we've already seen there will be more passenger trains during the day including HS2 trains running along the Norton Bridge to Stone line and it's quite possible there will be up to seven trains per hour running along that route given the aspirations of the operators that are running along there at the moment. In that seven train per hour window, it would not be possible to run supply trains because of how long it would take for those supply trains to cross the tracks into the IMB-R. We're looking at probably an eight-minute window, possibly even longer than that for them to get across the tracks, off the Network Rail tracks into the IMB-R. That wouldn't be possible without disrupting passenger services or having them withdrawn.

174. MR CORNER: So, in short if supply trains need to access the IMB-R during the day, what do you say will be the result?

175. MR GOULD: The likely result would be that the main casualty will be the classic compatible HS2 service that runs from Handsacre Junction through Stafford to Stoke and Macclesfield, and the reason for that, of course, is that that is the one that has the biggest political threat associated with HS2 freight trains interfering with the HS2 timetable and it's also the one that has the most impact further down the line on HS2 if those trains should get disrupted. And, of course, at the moment we know that HS2 Ltd will be forming part of the West Coast Partnership, who will be running those services. So, that will be the service over which they have most control, so that's the one that is likely to be taken off, which means then that our county town of Stafford will lose its HS2 service. Perhaps we can go to the next slide, slide 6?

176. MR CORNER: That is A37(6). So, this is what happens if, as you suggest, the night-time capacity of the maintenance depot at Stone is exceeded and maintenance trains have to run during the day?

177. MR GOULD: That's right.

178. MR CORNER: Tell us with regard to slide 6.

179. MR GOULD: You will see that we have now diverted the dotted line away from Stafford running up the College line, which is the same route as the current Manchester to London, Euston, Pendolino services take, stopping at Stoke and Macclesfield and that would cut Stafford out of the equation altogether. Stafford is a key element in the Constellation Partnership. There is a projected £507 million development around the Stafford Gateway masterplan on the premise of HS2 trains stopping at Stafford, but a secondary consideration is then that without any passenger revenue from Stafford, it's highly likely that the Stoke and Macclesfield service would become unviable and it's quite possible that the entire service could be withdrawn to the severe detriment of Staffordshire altogether.

180. MR CORNER: So, you say HS2 service to Stoke and Macclesfield would have to be rerouted, it would cut out Stafford and you say that that might, indeed, threaten the viability of the HS2 service itself?

181. MR GOULD: Correct.

182. MR CORNER: All right. And how serious a consequence is that in your view?

183. MR GOULD: Well, it's extremely serious because, I mean, Stoke on Trent, you may not be familiar but it's a – it's already a deprived area, it comes regularly top of many lists for things like child poverty, educational achievement, all sorts of things. In fact, earlier this month, on 6 April, it came top of the list for pensioner poverty, would you believe, where pensioners in the area are living on less than anywhere else in the country and we need HS2 coming to places like Stafford and Stoke on Trent in order to give a much higher aspiration for people in order to bring business and investment into the communities. Without HS2, what we're going to be suffering is what the Chamber of Commerce have referred to as business drift from Stoke on Trent and Staffordshire generally into Crewe because of Crewe's much better connectivity.

184. MR CORNER: All right, thank you. Now can we just turn please finally to Aldersey's Rough? What do you see as its advantages over Stone as a location for the IMB-R?

185. MR GOULD: Well, first of all, there are many reasons but I'll just list the major ones. First of all, because of its location as you can see on the dotted line there from Madeley chord junction, because of its location, it can be supplied 24 hours a day, seven days a week without any interference at all with any current passenger trains or certainly without any interference with any HS2 classic compatible trains at all. It has capacity to handle the 800 metre ballast trains without them needing to be split, which HS2 Ltd has reported in its SIFT report. There is no need for reversals using our diagrams rather than the HS2 layout and I hope to approach the layout.

186. MR CORNER: To which we will come to later.

187. MR GOULD: Yes. So, therefore it is a much more robust proposal in terms of operation and cost effectiveness. It will be, as Mr Corner has already said, half way, genuinely half way along the line, not this half way along the line that HS2 claim for Phase 2A for Stone. Aldersey's Rough is actually half way along the line between the beginning of Phase 2A and the end of Phase 2B so it's much more centrally located than Stone.

188. MR CORNER: Right. Mr Parkin will deal with that in more detail. Can I just ask you, would there be the same concern that you have in relation to Stone about supply trains to the IMB-R prejudicing passenger services, would that concern exist in relation to Aldersey's Rough?

189. MR GOULD: No, it wouldn't. There would not be any conflicts with the HS2 services because they are not going to be running up the West Coast Main Line.

190. MR CORNER: All right, okay. Now, next in the opening, when we in the introduction –

191. MR MARTIN: Sorry, can I just interject there? Mr Gould, would there be any interruption, would there not be any interruption of the current West Coast Main Line services? I mean, we actually on our fact-finding trip witnessed the West Coast Main Line and the trains on that line are pretty relentless. I mean, there's virtually no gap between them.

192. MR GOULD: Correct. The premise of HS2 is that those express passenger trains

are going to be almost exclusively withdrawn in favour of trains running along the HS2 Main Line. So, instead of running down from Stafford to Crewe along the West Coast Main Line, all those Pendolinos that are now running would be running from Crewe down to Birmingham and London. So, that would create a lot of capacity. That's the whole premise of HS2 as they decrease the capacity so we are then filling the capacity with our proposals and improving the connectivity which we'll come on to.

193. MR MARTIN: But would there not be fairly substantial disruption of the operation of the West Coast Main Line during the five years construction period?

194. MR GOULD: No. There are four tracks on the West Coast Main Line so we have two what are known as slow lines, which are actually 100 mph running and there are two fast lines and the slow lines, there would be the connection from the slow line from the southbound direction so that would enable trains to run into Aldersey's Rough via a bridge over Madeley chord which would then run into Aldersey's Rough without touching the West Coast Main Line fast lines at all and on our plans we have the opportunity to run from the fast lines certainly during construction but we would suggest that that was done during the slacker periods at night when the fast lines are hardly used.

195. MR CORNER: Thank you. Newcastle please. We mentioned this in introduction. You've said that to provide an IMB-R railhead and IMB-R at Aldersey's Rough would involve reactivating part of the Newcastle – Market Drayton line. How does that relate to reconnecting Newcastle?

196. MR GOULD: Well, the route beyond Aldersey's Rough on the map there, all the way to Stoke in fact, is still available as far as Newcastle because effectively it's a mothballed railway so far as Silverdale Colliery, which is beyond Aldersey's Rough, and beyond Silverdale Colliery, into the former Newcastle station site is owned as a walkway and cycleway by the local authority. So, it would be possible to re-lay that line and by re-opening the route to Aldersey's Rough, we create a situation where the cost benefit analysis of then continuing to Newcastle becomes that much more beneficial on account of the fact that a major element of the cost is taken out by building the line as far as Aldersey's Rough and making the connection to the West Coast Main Line. So, Aldersey's Rough could easily become the catalyst for that.

197. MR CORNER: And if Newcastle is reconnected, how does that relate to the

services, to any services, any new services that may be provided once the new platforms are provided at Crewe?

198. MR GOULD: Well, if we have a look at slide A37(8).

199. MR CORNER: A37(8), yes.

200. MR GOULD: What Mr Corner's referring to there is on the Crewe Hub Consultation there are proposals to build new platforms on what are known as the independent lines at Crewe. Now, the independent lines are on the west side of Crewe so they effectively connect into the slow lines, or they are the slow lines through Crewe and, as a result of that, they will not interfere with any HS2 classic compatible services stopping at Crewe. In fact, it's part of HS2 Ltd's Crewe Hub Consultation that the independent lines are provided with platforms in order that trains from Manchester Piccadilly can through Crewe and continue on to South Wales without having to be either be withdrawn or conflict. Now, the reason they do that is because there are tunnels at the north side of Crewe so these platforms will go under tunnels, avoiding all the rest of the lines, and come out on the Manchester or the Liverpool side tracks. Now, as a result of that, that means then that all of those routes that we've coloured in where you've got local services coming into Crewe at the moment, they could use the independent lines, continue down the slow lines of the West Coast Main Line and across the Aldersey's Rough route, through into Newcastle and ultimately to Stoke, serving all those places and increasing the connectivity which, of course, is the government's objective with building HS2 in the first place.

201. MR CORNER: Now, you're talking there about connecting through to Manchester Airport, Liverpool and North Wales. For Newcastle, you mention Stoke. Could Stoke benefit from those connections without Newcastle being connected to the rail network?

202. MR GOULD: Stoke wouldn't be able to benefit from those connections. Stoke, as we've explained before, the route from Stoke into Crewe is effectively a dead end. Because it comes in from the east side of Crewe, it would need to cross the paths of classic compatible trains at Crewe, or any other express trains at Crewe, in order to access Manchester Airport, Liverpool, wherever else, so even after HS2 is built, access from Stoke to Crewe via the Kids Grove route, it wouldn't be possible to go any further whereas accessing Crewe via the Newcastle route gives Stoke the opportunity to attract

business men and women from Manchester Airport and access for the burgeoning logistics industry to Liverpool Docks and to many other destinations, through trains, and that benefits not just Stoke of course but the whole of the Constellation Partnership.

203. MR CORNER: Right, and then just finally please if I may, finally on the benefits of reconnecting Newcastle, between the stretch of the line reactivated by the Aldersey's Rough IMB-R railhead construction and Newcastle, there are other places which used to be connected to the railway line, other local stops, aren't there?

204. MR GOULD: There are, yes. In fact, we're showing a number of stations. This is not an exclusive list of stations and destinations. The Staffordshire Moorlands benefits enormously. All those stations there are former stations that have been closed and it gives a far greater connectivity which then makes the workforce more mobile. It's a highly sedentary workforce in North Staffordshire and this gives the opportunity to raise aspirations, to raise the potential for more earnings and to raise more connectivity.

205. MR MARTIN: I have a question. A lot of this is speculation about what could happen if the line from Stoke through the Madeley junction was reopened so I need to know, before we start speculating about what could happen in the future if, to find out whether or not it's possible. Clearly, at the moment the HS2 proposal is for a viaduct over that junction and there was an alternative put forward which was a tunnel underneath. If the tunnel underneath were to be built then obviously it would not be possible to go for the Aldersey's Rough in any case. If the viaduct, the original proposal is taken, will it be possible to reconfigure the junction at Madeley once the viaduct has been built because it occurs to me that the way that the junction is set up at the moment, the only route from Crewe is towards Market Drayton, which of course goes nowhere, and it is not actually possible using the current setup of the junction to get from Newcastle to Crewe. So, how would the junction be rebuilt underneath an existing HS2 viaduct?

206. MR GOULD: We have the note from the Committee that was given to us earlier this week which is –

207. MR CORNER: You might need to keep your voice up, Mr Gould.

208. MR GOULD: I beg your pardon. With regard to the River Lee viaduct potential

lowering options, you heard evidence from a petitioner earlier this week in respect of that and with regard to the Stoke to Market Drayton railway, under the current proposals for the Lee Valley viaduct, there is plenty of headroom above the bridge over the West Coast Main Line and the underside of the Lee Valley viaduct so there's no problem. Even if the line was electrified, the Market Drayton line was electrified, effectively you have three lines on top of each other: so, the West Coast Main Line and then on top of the West Coast Main Line there is a 5.8 metre clearance to the underside of the Lee Valley viaduct. There were two options of lowering the viaduct, D1 and D2. You get 5.3 metres on D1 or 4 metres on D2 and even with D1, you've still got clearance.

209. MR MARTIN: Yes, but Mr Gould you're not hearing my question which is that if you were travelling westwards, or south westwards from Newcastle-under-Lyme and you cross over the high speed, sorry, the current West Coast Main Line on the existing bridge or on a newly built bridge, because I think the existing bridge is probably not up to it, you are then travelling south westwards. How do you get from travelling south westwards to travelling north westwards without completely rebuilding the junction?

210. MR GOULD: Well, Network Rail have said that they understand that there is a requirement to rebuild that junction then it's likely that the alignment will need to be on a different alignment if Newcastle was to be served and that junction has been taken out of use simply to save on the assets, the maintenance, keep the line speed up. If we build a north to west curve which is the opposite side, sorry, north to east curve on the north east quadrant of Madeley chord junction then trains could access from the fast lines on to the Newcastle route.

211. MR MARTIN: Yes, it would require substantial rebuilding of the junction underneath an existing viaduct which was being built for HS2.

212. MR GOULD: No, it wouldn't be going anywhere near the viaduct. On HS2 Ltd's plans there is Madeley chord which runs underneath the viaduct. Our chord – that one's coming off the slow lines heading south and heading west. In our plans, the junction would come off the fast lines heading south and heading directly east.

213. MR CORNER: Would it be helpful in the context of that question just to look at a plan?

214. MR MARTIN: I'm looking at the plan in front of me.

215. THE CHAIR: I think we'd better get it up for everyone. I think that would be helpful.

216. MR CORNER: Well, yes. I'm looking at A43(7). I don't know whether that would help and also our alternative proposal at A43(8). Is it helpful to look at that plan Mr Gould?

217. MR GOULD: Yes. You can see the Lee Valley viaduct that you're talking about going from the top left hand corner all the way down through the screen is the HS2 viaduct and, as you say, that goes over the top at Madeley chord and also over the top of the Market Drayton line whereas what we're suggesting, on our plan, is the chord on the opposite side of the West Coast Main Line which comes down from the north and sweeps up towards Newcastle eastwards, avoiding the Madeley chord area which is the floodplain and also avoiding the HS2 Main Line.

218. MR CORNER: Can we see that on the following slide on A43(8)?

219. MR GOULD: Yes.

220. MR CORNER: So, I'll be getting Mr Parker in to speak in more detail about this layout but I just thought in the context of your question it might just help to look at it.

221. MR MARTIN: Thank you, that's very helpful.

222. MR CORNER: Yes, thank you. The final point I wanted to ask you in chief please, Mr Gould, was just on Keele University. I just wanted to ask you where is that in relation to Newcastle and, were Newcastle to be reconnected to the rail network, how that would be relevant to Keele, if at all?

223. MR GOULD: Yes, Keele University is about half way between Aldersey's Rough and Newcastle. It's one of our principal seats of learning and there are thousands of students attracted every year. Hundreds of those are international students and it would give Keele a huge shot in the arm to be able to have direct connections from its station to Manchester Airport. There's also a science and technology park there which is key to the joint local plan of Newcastle-under-Lyme and Stoke on Trent for bringing

investment into the area. It's a highly successful science and technology park and it's expected to double between now and 2040 in accordance with that plan and this would be extremely beneficial in being able to bring people in. In fact, it's also recognised that most of the academic staff actually commute into Keele from Cheshire and Shropshire so that would, again, be beneficial for them. But the line also continues on between Keele and Newcastle through an area known as the western urban villages which Newcastle Borough Council has been trying to regenerate since the last pit closed in 1998, largely unsuccessfully but, again, the reopening of two or three stations within those villages which have been closed would again be a major shot in the arm for that regeneration proposal which is also part of the joint local plan.

224. MR CORNER: Okay, thank you very much. So, just in conclusion, how do you see construction of a railhead and IMB-R at Aldersey's Rough in relation to the reconnection potential for Newcastle?

225. MR GOULD: Well, it's going to be a game changer for all of Staffordshire this, for Staffordshire's future economic prosperity being linked into the major HS2 hub at Crewe with lots of different services, the connectivity for the workforce, the access to Manchester Airport and Liverpool Docks and lots of other places and, particularly, that kind of connectivity would eliminate, almost certainly eliminate, the danger of the potential business drift away from Staffordshire into Cheshire which is what Staffordshire's Chamber of Commerce are particularly concerned about and, by removing the obstacle of Stone, the Norbury to Stone line, it also gives our HS2 service that serves Stafford and Stoke on Trent to Macclesfield, a fighting chance of survival.

226. MR CORNER: All right good, thank you very much.

227. THE CHAIR: So, you're now going to call your next witness and, Mr Mould, you're going to come in at the end? Is that your expectation as well?

228. MR MOULD QC (DfT): I was going to ask Mr Smart to respond to the suggestions this witness has made, yes.

229. THE CHAIR: Yes, but we'll do that all at the end, is that your expectation?

230. MR MOULD QC (DfT): Yes, the end is convenient to me.

231. THE CHAIR: Yes, I just wanted to check your expectations were the same as mine.

232. MR CORNER: I was just wondering if there was any cross-examination? If there isn't, I can go straight to my next witness.

233. MR MOULD QC (DfT): No, as I say, I'm inclined to rely on Mr Smart's expert response rather than cross-examine.

234. THE CHAIR: Thank you very much. Mr Corner, if you call your next witness. Thank you very much Mr Gould.

Evidence of Mr Wilkinson

235. MR CORNER: Shall we go to Mr Wilkinson next. Now, for the benefit of the person helping us with the slides, Mr Wilkinson's slides are in the A40 series. They're in the A40 series. Thank you. So, can you give your full name please?

236. MR WILKINSON: Yes, good morning. My name's Gordon Wilkinson.

237. MR CORNER: And do you have professional qualifications?

238. MR WILKINSON: Yes, I do. I'm a retired chartered transportation engineer with a Master's degree in transportation engineering planning.

239. MR CORNER: Thank you. And what about your working background?

240. MR WILKINSON: Yes, my career spanned 41 years of which 35 were spent in local government, the last 15 of those was at Staffordshire County Council where I was head of urban transport projects. The final six years of my life, my career I should say, I was senior consultant a TMS Consultancy developing and delivering training courses to graduate and qualified engineers in junction design, road safety auditing and accident investigation analysis.

241. MR CORNER: All right, thank you very much. So, your evidence is about highways and transport matters. In relation to those matters, do you have, in your opinion, relevant professional expert qualifications?

242. MR WILKINSON: Yes, well as I said, I've got a master's degree in transportation

engineering and planning, I'm a member of various institutes but now retired.

243. MR CORNER: Thank you very much. General views about HS2, do you support or not?

244. MR WILKINSON: Well, yes. Being slightly young still I was one of the first people to be involved in the experimental contra-flows on the M6, blame me for the cones that are now there, and now I find myself watching them say the M6 is being widened. So, certainly I'm aware of the lack of rail capacity and I think more is crucial. I therefore embrace the concept of HS2 and hope it will be the catalyst to re-open a lot of local stations and the creation of some more.

245. MR CORNER: All right, thank you very much. Your initial reaction then please when it was first announced that a railhead and IMB-R was proposed to be at Stone?

246. MR WILKINSON: Yes, this is what got me involved I think really. We accepted that HS2 was coming along and then suddenly were told that Yarnfield Lane, the main access to the village, was going to be shut for three years. This got me rather concerned, not just as a nimbyism but the fact that whoever made that decision appeared to have no local knowledge of the implications that would have, not only the residents of Yarnfield, 2,500 of them, but the implications of that diverted traffic and the implications it would have on the existing junctions further along, and we'll look at that in a minute.

247. MR CORNER: Right, thank you very much. Now, let's come then please to your objections in relation to the provision of the facility at Stone. Just give us an overview, will you please, to begin with of the highway network around Stone.

248. MR WILKINSON: Yes, okay, well I'll deal with it in a hierarchy sort of way. So, if you look at where my cursor is at the minute on the screens, it will probably help you.

249. MR CORNER: You should be looking at slide. Which slide is it?

250. MR WILKINSON: Oh, sorry. Slide 40.

251. MR CORNER: Slide 40(1). Okay, thank you.

252. MR WILKINSON: Okay, so doing it hierarchically, down in the bottom corner here we have junction 14 of the M6 which then traverses all the way up to junction 15, a

crucial junction as regards construction traffic. You'll see the HS2 mainline severs the motorway there just around and if you can see this bow shape which is the location of the proposed railhead at Stone and we have Yarnfield Village here. So, this is the construction route to take you through there, showing Yarnfield Lane down to the A34. If we just look at the A34 actually from junction 14, it sort of parallels the M6 all the way up to the A500 and then joins it. I'll come back to that in a moment. So, if we're at Yarnfield and the A34 junction, a kilometre down we have the crucial A34 Walton Island junction which then feeds into Eccleshall Road and Pirehill Lane which is a residential street into compounds around Yarlet. Another kilometre along, you'll see where this road comes in here. It's the A51. That's a three-armed roundabout that goes into as well as the two primary roads there it goes into the Stone Industrial Estate and you can see just at the edge of the screen there, these are access points into Stone from both ends, there's a junction just about here, that is used as a rat run when there are problems on the A34 itself.

253. MR CORNER: Right, okay. Thank you very much. I want to ask you now please about Yarnfield Lane. Go on, sorry.

254. MR WILKINSON: Sorry, there's just one other thing. The A34 itself is a key corridor. It is, as you can see here quite clearly, the only feasible emergency route between 14 and 15 should there be an incident on the motorway. It is certainly also the only feasible emergency route between Stafford County Hospital and Newcastle's Royal Stoke Hospital which has – a lot of the services have moved up there so it's a vital link between that. It is also used by the emergency services and in Stone the Fire Brigade have their own headquarters there and depot that functions to access the motorway and wherever else. But a key route and one that the county council as highway authority have stipulated both in their petition and in their response that delays, unacceptable or significant delays or closures on the A34 is not acceptable because it plays such a key role in the local hierarchy.

255. MR CORNER: All right, thank you. Yarnfield Lane?

256. MR WILKINSON: Yes.

257. MR CORNER: You can see Yarnfield Lane on slide 1 but you also show it in more detail on your second slide A40(2).

258. MR WILKINSON: Yes, can we have a look at A43(1), I think might be more useful.

259. MR CORNER: A43(1)? Yes, this is one we've seen, we were looking at earlier, yes. I want to ask you, my question is going to be to what extent Yarnfield Lane will be used during construction?

260. MR WILKINSON: Does that come down any more that slide? I thought it showed a bit more of the...? No?

261. MR CORNER: I don't know, is the answer I'm afraid. Right, are you going to be able to deal with this as we see it?

262. MR WILKINSON: Yes, yes, I think so. We'll get by on that. Yes, the Yarnfield Lane, in terms of construction, is that the question, sorry?

263. MR CORNER: Yes, to what extent will it be used during construction.

264. MR WILKINSON: Sorry, yes. During the first, it was I think nine months but now during the first 15 months of construction, Yarnfield Lane will be the primary and only access really to the compounds around the railhead. This is because HS2's access to the Yarnfield Lane will be via, in the main, motorway slip roads both northbound and southbound and it will take 15 months to construct those. So, in the absence of any other way of getting into the compounds, Yarnfield Lane would be the primary route in.

265. MR CORNER: Right.

266. THE CHAIR: Can I just ask, how long is Yarnfield Lane now?

267. MR WILKINSON: How long? From about here, about two and a half kilometres.

268. THE CHAIR: Right, thank you.

269. MR CORNER: Right, so that's the first 15 months and then after that period, will Yarnfield Lane be used?

270. MR WILKINSON: Yes, well once Yarnfield Lane has got the slip roads that can be seen on this drawing, you can see that they come off to the south of the west side of the roundabout, the motorway. You've got access required to all these compounds

through to the transfer node and that's a distance of about 900 metres where there'll be high levels of construction and particularly HGV traffic to and from the northbound and southbound accesses and trying to interact between the various compounds.

271. MR CORNER: All right, thank you. So, my next question, still on Yarnfield Lane, that part of Yarnfield Lane that is going to be affected by construction traffic, I want you to tell us about it in terms of its suitability for HGVs.

272. MR WILKINSON: Well, following on from the desire to close the lane for three years, that was rescinded and HS2 in their ability to keep Yarnfield Lane open will require to divert Yarnfield Lane down at Moss Lane here at the bottom. The old road goes and overbridges about here somewhere.

273. MR CORNER: Are you wanting to go back?

274. MR WILKINSON: Yes please, go back.

275. MR CORNER: A43(1) is still the one.

276. MR WILKINSON: So, Yarnfield Lane will be diverted and then over a new motorway bridge it will then go down into a cutting under the railhead, come out again into another cutting and then under the HS2 Main Line and then finally re-emerge and blend in to merge in with the existing Yarnfield Lane. It will then, obviously this will still be operational for quite a long time with HGVs and that will require widening and you can see on this drawing here, at the top, the pink is where they start to re-align Yarnfield Lane as it drops down quite steeply to the A34. And if we go to the next slide.

277. MR CORNER: What, the next slide being A43(2) or the next slide of yours?

278. MR WILKINSON: No sorry, A40(2) I think.

279. MR CORNER: So, it's your slide, A40(2), right, okay.

280. MR WILKINSON: Yes.

281. THE CHAIR: Can I ask how many properties there are, residential properties on Yarnfield Lane?

282. MR WILKINSON: On the lane, or accessed?

283. THE CHAIR: Yes, on the lane or off. Well, perhaps divvy it up both ways. I'm just trying to get an idea what type of traffic there is.

284. MR WILKINSON: Okay, Yarnfield village itself has about, well it's nearly 2,500 residents. There's just been a brand-new housing estate of 250 houses been built there. It has a BT, what used to be called the British Telecom Training College. It's called Yarnfield Park now. That has capability of over 400 bedrooms, major conferences every day and at weekends and a football club that has 10 football pitches, 200 car parks and that's very busy on a Saturday morning and the weekend through. Does that help you?

285. THE CHAIR: Very helpful.

286. MR WILKINSON: Yes, it generates over 1,000 trips a day and around about 300 in one direction only certainly, maybe more, in the am/pm peaks.

287. MR CORNER: Thank you. So, I want to ask you to deal with please the width of the carriageway of Yarnfield Lane, the existence of footways.

288. MR WILKINSON: Looking at this drawing here, the green lines there show the dual carriageway which is the A34 and the junction with Yarnfield Lane. If we follow the green line down we can see this particular part here of Yarnfield Lane is only about 5.7 metres wide. It's a very steep curve down, about 1:8 to 1:9, not very popular with cyclists or pedestrians, very narrow, very substandard for visibility and it drops down and you can see that HS2 propose to widen the lane at that point but we don't think they're actually going to change the grade and you can see just at the end of the pink there, they don't need any land because this stretch here is highway, grass verge just before you get to the junction here. So, if we go to the next slide A40(3).

289. MR CORNER: Yes.

290. MR WILKINSON: Yes, this is that white area of highway grass verge and this is looking up Yarnfield Lane, looking to the west coming from the A34 behind us, up here now into a lazy S, a left and a right. The carriageway width here is about 5.6 metres wide.

291. MR CORNER: Is that wide enough for HGVs to pass each other?

292. MR WILKINSON: Absolutely not, no, but we'll come to more on that in a minute. Turning this camera view round to A40(4), hopefully, this is this area of grass verge that you can see. The actual width across just by that tree there is 5.7 metres. HS2 as I am told, after various emails, this will be widened to 6 metres wide which takes these trees and certainly isn't wide enough for what we require, will take a lot of trees all the way up the lane and hedgerows and shrubs as well. So, that's looking towards the A34 junction.

293. MR CORNER: Now, you've just said, 'It won't be wide enough for what we require'. What did you mean by that?

294. MR WILKINSON: Well, we'll come back to it a little bit later but 6 metres does not facilitate the movement of two HGVs. We'll go in a bit more detail on that. Sorry, just to carry on, the lane itself has no footways whatsoever from its curtilage of the village boundary. There are grass verges in parts but the last 500 metres as you can see dropping down on the previous, if we just go back to A40(3), there are no footways and this 500-metre section from round the bend is, to say the least, very perilous for pedestrians. There is a regular bus service but it curtails at about 6.00 pm and there's no service on a Sunday and, invariably, a lot of people later on in the evenings on a Saturday and in the week will walk up this lane and I can assure you it's quite a dangerous manoeuvre. And cyclists usually dismount round that bend because they can't make the 1:8 to 1:9.

295. MR WIGGIN: So, what is the legal width of an HGV?

296. MR WILKINSON: I'll talk to you on that. The legal width is 2.55 metres plus wing mirrors.

297. MR CORNER: Can I make a suggestion, as Mr Wiggin has asked about it? Why don't we deal with it now?

298. THE CHAIR: That's a very good idea.

299. MR WILKINSON: So, we want slide A40(10) to start with, yes. This is one of the vehicle operators, they have various dimensions and this is their six-wheeler,

effectively the standard 20 tonner spoil or aggregate, and you can see the various sizes but the main ones are usually around here. The average is 3.07 metres but the minimum is, or the maximum rather is, 2.55 metres is the maximum width of any vehicle, plus wing mirrors, but with the wing mirrors 3.07 metres so invariably if the vehicle was right up against the kerb, you'd have probably about 2.75 metres would be absolute maximum before they'd kiss on either end so you'd want 5.5 metres and they'd just about kiss, but it wouldn't be the kiss.

300. THE CHAIR: A lovely turn of phrase, kissing rather than crashing. Sheryll?

301. MR WILKINSON: That's just clipping the wing mirrors.

302. MRS MURRAY: Just basically to say that I know, I've seen lots on the roads where I live because they're very narrow roads, but they do bring their wing mirrors in sometimes.

303. MR WILKINSON: Yes, when we're talking about over 1,400 two-way flows on parts of Yarnfield Lane, that might be quite a lot to ask. Bus drivers won't actually be able to reach some of their mirrors on some of the coaches.

304. MR CORNER: 1,400 flows, what do you mean by that?

305. MR WILKINSON: This is the HGV projected peak flows on the Yarnfield Lane during the major embankment and rail construction that would be utilising the western end of Yarnfield Lane. Just to go back to that, if you go to slide 40(11), that's the best option you can get with wing mirrors on coaches. They can't bring them in but they don't protrude quite as far as the standard mirrors on lorries.

306. THE CHAIR: Yesterday, during some debate around traffic flows, we saw a rather nice bar chart from HS2 which took each year and the flows to give an idea of peak. Is it possible to access that for the road?

307. MR MOULD QC (DfT): P41(10).

308. THE CHAIR: I don't know whether you've seen this Mr Corner.

309. MR CORNER: Is this P41(10)?

310. MR MOULD QC (DfT): Yes.

311. MR CORNER: Yes, do you have that?

312. THE CHAIR: It's slightly different to what I was asking and expecting.

313. MR WILKINSON: Yes.

314. MR MOULD QC (DfT): Sorry, what were you expecting?

315. MR WILKINSON: Can I ask a question?

316. THE CHAIR: A much smaller chart over a longer period. It may just be that this is for a shorter period.

317. MR MOULD QC (DfT): Shall I just explain what this does?

318. THE CHAIR: Yes.

319. MR MOULD QC (DfT): This shows you our predicted flows of HGV construction traffic along Yarnfield Lane from the beginning of setup and construction of the slip roads in January 2021 all the way through to the completion of construction of the railway and testing at the end of 2026, you can see at the right-hand side. So, what it's showing you is that whilst the largest flows of traffic are associated with setup, but in particular with the construction of the new slip roads on to the M6, that's the first phase, then the slip roads begin to come into partial operation during the second phase from the beginning of 2022 onwards and you can see traffic flow is reduced markedly during that period, and then by the end of the second phase, where we've completed the works that are set out under that heading, you can see that traffic reduces from late 2023 to really an absolutely residual number. So, the peakiest period is associated with the construction of the M6 slips. Once they've been constructed, they begin to draw away a lot of the traffic off Yarnfield Lane, you get a period of medium use and then for the majority of the construction period –

320. THE CHAIR: That's really helpful. I'll hand over. Sorry for that distraction. It was so useful yesterday to get a perspective.

321. MR WILKINSON: I suspect that's totally misleading because this is Yarnfield

Lane, I presume more at the bottom end beyond the transfer node. I'm talking about the part of Yarnfield Road, the 900 metres that's serviced by the motorway where this does not show that. Am I correct in saying that, Mr Mould?

322. MR MOULD QC (DfT): Well, I'll provide the answer because it's obviously important. This is Yarnfield Lane between the junction with the A34 and the railhead.

323. THE CHAIR: Right, we're going to come back to Mr Corner and try to be a bit more orderly. I didn't draw Mr Mould up because I think a bit of fluidity sometimes helps but I'll come back to you then Mr Corner.

324. MR CORNER: Sir, I make no complaint about that at all. Of course, it's helpful. I wonder, certainly Mr Parkin, I know, considers that this does not tell the true picture and it may be that Mr Wilkinson is of the same view. Can he explain?

325. THE CHAIR: Well, Mr Mould can come back at the end to put his points.

326. MR CORNER: Indeed.

327. THE CHAIR: Thank you very much everyone.

328. MR CORNER: Since it's been raised, do you mind if Mr Wilkinson tells you why he thinks that 41(10) doesn't provide a full picture?

329. THE CHAIR: I'm going to allow that but I'm not going to allow Mr Mould to come back to go through it again until the end.

330. MR MOULD QC (DfT): I don't ask you to.

331. MR WILKINSON: Given that HS2's own figures show that for the transfer node alone there'd be, I think, forgive me if I get this slightly wrong, up to 1,125 HGVs a day for a 12 month period that are coming off the motorway and will come across from the southbound and northbound into but not beyond the transfer node, i.e. not beyond the transfer node and not on to Yarnfield Lane, this histogram is totally, and I mean totally, misleading. Unless suddenly these 1,100 two-way trips are not now occurring and then why would are they going to build the motorway slips? And, if that was the case, you would just, why build all the motorway slips, you'd just have this amount of traffic going up the Yarnfield Lane if you could so I feel that is totally misleading to the

Committee.

332. MR CORNER: Thank you very much. Right, so two concluding questions on Yarnfield Lane if I can. Is it suitable for HGVs now?

333. MR WILKINSON: No, in view of the poor, very poor substandard width, you're looking at potential accidents without a doubt. That's before we get to vulnerable road users and cyclists. Absolutely unacceptable.

334. MR CORNER: And once altered in the way that we know it will be altered, will it be suitable for HGVs then?

335. MR WILKINSON: Six metres. You've seen the actual dimensions of the actual vehicles. Six metres would be acceptable on a local distributor but with a bus route, it would be 6.75 metres, we're talking about serious levels of HGVs and some buses. 6.75 metres would be my starting point but six metres, you've only got to look at the thing to see that. We had six metres on Cheadle High Street and we had one had on and at least three pedestrian fatalities from being hit by wing mirrors. So, this is the sort of thing, we wouldn't go below 6.75 metres, so a real departure from any standard that I would accept.

336. MR CORNER: There is, I think, a tonne limit, isn't there, on Yarnfield Lane at the moment?

337. MR WILKINSON: Yes, there is. There's several reasons: the width.

338. MR CORNER: How many tonnes? I'm trying not to lead you but I'm also trying not to waste time.

339. MR WILKINSON: It's a 7.5 tonne weight limit, (a) to stop HGVs going through there because of the width, the gradient, pedestrian and vulnerable user conflict and also because the A34 junction will not accommodate, the priority junction will not accommodate it.

340. MR CORNER: Right, okay, thank you. Next, I want to move on now from Yarnfield Lane please. I want to talk about these junctions I mentioned when I started.

341. THE CHAIR: Can I just ask you one question before we move on from Yarnfield

Lane? If the Stone depot goes ahead, i.e. your main assertion from the petitioner that it should be somewhere completely different, how could you mitigate against Yarnfield Lane? Could you have a second road alongside and make it one way? Is there a proposal that's better than that if the Stone went ahead?

342. MR WILKINSON: You can mitigate anything but this is a C-class road, it's a totally rural environment, it's very popular with club cyclists, not so good for pedestrians, just to make it something that's more like a district distributor or a small primary road seems totally, well, it would cost a lot of money. Anything is possible in width but in terms of what we're trying to do here, I think it would be way, way – well, you can do anything but I would say to achieve 6.75 metres would take a lot more devastation of hedgerows and trees to achieve it.

343. THE CHAIR: Is there any other solution?

344. MR WILKINSON: There is another solution but it doesn't involve the railhead being at Stone. Did you expect another answer?

345. THE CHAIR: Just, joking apart, I was hoping for another answer because clearly, we know what you want. You don't want Stone but there is a possibility that it does go ahead in Stone and, if that does happen, we need to be aware of mitigation. There are other opportunities to mitigate, but it would be good to do it here.

346. MR WILKINSON: The only way to get to Yarnfield, except for the motorway, is via the other end of Yarnfield Lane, again another C-class road. If you were to put a wider road down to the A34 from the thing, then you're into serious junction design at the A34 as well which has a few limitations as we've seen.

347. THE CHAIR: Thank you.

348. MR CORNER: Thank you very much. Shall we go on then to the junctions please. So, I want to ask you first about the Yarnfield Lane A34 junction. So, I'm on, I think, slide 5.

349. MR WILKINSON: Yes, A40(5).

350. MR CORNER: Right. So, to begin with, I want to ask you about two things in

relation to this junction. I want to ask you first about the geometry of it and, secondly, I want to ask you about HS2 junction analysis and your views about it.

351. MR WILKINSON: Sure.

352. MR CORNER: So, deal first please with the junction and my short question is this, is the layout of that junction suitable for HGVs?

353. MR WILKINSON: No, it's not.

354. MR CORNER: Why?

355. MR WILKINSON: You can see from the junction here it's what we call a left-right minor road to primary road give way situation. You have Yarnfield Lane that meets the dual carriageway and a lot of traffic, because of the queues that you'll find along at the Walton island in the mornings will use this back to back right turn lanes to go into Trent Lane, but the key geometric decisions really are all around DMRB 4295 major/minor priority junctions.

356. MR CORNER: Well, hang on, that's a little technical. Can you just unscramble that a little, at least for me?

357. MR WILKINSON: *Design Manual for Road and Bridges*, technical design note 4295 gives all the parameters for the design of deceleration lanes, visibility splays etc. for such junctions. The first thing is that the deceleration lane and storage lane there is about half what it should be for the design speed of 85 kph so that's substandard anyway and, similarly, in this direction there is no effective diverge there. For an HGV, that should be at least, it could be over 45/50 metres long but it has to be, at the end of a 15 metre diverge, it has to be at least three metres wide so that the HGV is off the actual running lane and, similarly, there is no merge for that amount of vehicles if they were to turn left, which not many are proposed to do. So, without going into too much detail, the killer blow for HGVs in this particular one is the actual depth of the central reserve. That has to be at least capable of absorbing a right-turning vehicle that will do that in two moves, the length of that vehicle, and given that 20 tonners are just under 10 metres at 5.3 to 5.5 metres, that is totally unacceptable in safety terms. The rear end of the vehicle would be out in the running lane. This junction here has had nine injury

accidents in five years. Every one includes a right-turning vehicle out of there and we've had three this year.

358. THE CHAIR: A question from Sheryll.

359. MR WILKINSON: Yes, go on.

360. MRS MURRAY: Yes, just to say you keep saying that's not suitable for HGVs; are you saying no HGVs use that junction at the moment?

361. MR WILKINSON: The 7.5 tonne does allow for access to Yarnfield Lane for the odd delivery vehicle but it is totally unacceptable. It is used by vehicles and I have to admit that there are vehicles that will come out that are too long. Some do rat run from Cold Meece and come down there illegally and they do sit there and straddle the junction quite alarmingly.

362. MRS MURRAY: Just another supplementary if I may, Chair, through you. The A34, is that under the control of the local highways authority or is it Highways England?

363. MR WILKINSON: No, Staffordshire County Council are the highway authority who maintain it now, I think, throwing my memory back. In the late 90s, early 2000s it was drafted over to them. A lot of trunk roads were pushed back to the county highways to maintain and they have planning permission over them as well now.

364. MRS MURRAY: Thank you very much

365. MR WILKINSON: Thank you.

366. MR CORNER: So, just in terms of HGVs using this junction now, it's right, is it, that some illegally use it, despite the 7.5 tonne limit?

367. MR WILKINSON: Yes, it is almost self-enforcing. The police aren't sat there 24 hours a day. Because of the nature of the narrowness of the lane and the gradient, very few vehicles seem to do that.

368. MR CORNER: So, in conclusion on this, you've set out a lot of detail on it in your proof of evidence, is this junction suitable for adding the HGV traffic which it is

proposed to add with the construction at Stone?

369. MR WILKINSON: Purely on safety alone, regardless of capacity, it's totally unsafe and anybody visiting that site would come to that conclusion very quickly.

370. MR CORNER: All right, thank you very much. Next, I want to go to the junction analysis please. So, I wonder if I can just say I'm conscious, I gather that we were told that you would rise at 11.25 a.m., I'm changing topic. Obviously, we're in your hands.

371. THE CHAIR: I think you're indicating it might be convenient to have a break, which seems very – is that what you're suggesting?

372. MR CORNER: I was just wondering.

373. THE CHAIR: That's very convenient and thank you very much for the suggestion. We'll come back in eight minutes at 11.30.

MINUTES OF ORAL EVIDENCE

taken before the

HIGH SPEED RAIL BILL COMMITTEE

on the

HIGH SPEED RAIL (WEST MIDLANDS – CREWE) BILL

Wednesday 25 April 2018 (Afternoon)

In Committee Room 5

PRESENT:

James Duddridge (Chair)
Sandy Martin
Mrs Sheryll Murray
Martin Whitfield
Bill Wiggin

IN ATTENDANCE:

Timothy Mould QC, Lead Counsel, Department for Transport
Timothy Corner, Counsel, Stone Town Council and Chebsey Parish Council

WITNESSES:

Gordon Wilkinson and Trevor Parkin (Stone and Chebsey Councils)
Tim Smart, Chief Engineer, HS2 Ltd

IN PUBLIC SESSION

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(At 2.00 p.m.)

Stone Town Council and Chebsey Parish Council

Evidence of Mr Wilkinson

1. THE CHAIR: Mr Corner, I think we're in your hands again.
2. MR CORNER: Sir, thank you very much indeed. We're back, if we may, to Mr Wilkinson, and I just asked him some questions about the geometry of the Yarnfield Lane A34 junction.
3. THE CHAIR: Sorry did you say geometry or geology?
4. MR CORNER: I hoped I said geometry.
5. THE CHAIR: I just didn't hear.
6. MR CORNER: My fault. I hope I can generally be heard when – otherwise I'll keep my voice up.
7. THE CHAIR: Yes.
8. MR CORNER: I do realise the acoustics aren't ideal, so I'm sorry about that. I want not to turn to junction analysis please in relation to the Yarnfield Lane A34 junction, Mr Wilkinson, and in your evidence, you criticise the junction analysis to begin with, in terms of the assessment of the baseline traffic, in other words the traffic before the addition of HS2's traffic; is that right?
9. MR WILKINSON: Yes, yes, it is.
10. MR CORNER: So tell us what your point is.
11. MR WILKINSON: I don't know if Committee are aware that HS2's analysis was in three scenarios, a 2016 status quo, 2023 with growth and committed development, and 2023 plus HS2 traffic. There are three scenarios, that's the analysis. The baseline 2016 carried out by HS2, looking at the computer printout, I was very critical of that assessment, as was the Staffordshire County Council.

12. They showed very low flows for 2016 which didn't really relate to what I know happens at the end of my lane. To that end, I don't have privy information as to how they've analysed that within the computer but I took a spot count two days in a row to have a look at what I thought was coming out of Yarnfield Lane. I notice in the committed development, they hadn't allowed for the 250 houses which are now completed and are coming out of Yarnfield Lane, so I thought the flows would be low. My observations showed 30-40% difference and the Staffordshire County Council raised issue with the base count which they thought was taken while there was road works on the A34 for roundabout construction further along, which reduced it to one lane. So they were concerned and they asked for a new survey; I haven't had the results of that.

13. But certainly, it looked like there was definitely issues with that data. The County Council also, in discussions with their officers, identified that they'd used optimistic geometry; they'd assumed that three cars could align side by side, in other words, six vehicles could be stood at the stop line at any one time, which will assist egress from the Yarnfield Lane, and turned out to be wrong, it's only one vehicle. So a max of two vehicles could sit at the stop line. So they gave very optimistic analysis, to say the least.

14. MR CORNER: Are we going a little fast? I don't know. I'm aware of the time.

15. THE CHAIR: No, no. I was just frowning slightly because I'd got the points on Yarnfield Lane and I was unclear whether you were repeating yourself or about to come to a different point. That's why I was looking perplexed. Is it a different point or is it repetition? Either is fine; I'm not being desperately oppressive about shutting you down.

16. MR CORNER: I don't think it's repetition, with respect, because we started off talking about the geometry of the junction and we now come onto the assessment of base line traffic which the witness is dealing with at the moment, and then I'm going to ask him about the traffic estimated by HS2, so that's the direction of travel if you like.

17. THE CHAIR: Okay.

18. MR CORNER: I was just wondering, perhaps wrongly, if Mr Wilkinson was going a little fast.

19. THE CHAIR: No, no, you can speed up.
20. MR CORNER: That's fine; that's fine.
21. MR WILKINSON: Despite the fact that we think it shouldn't be a priority junction, they've modelled it as a priority junction and said everything's fine. The County Council disputes that and I dispute it anyway, even if it was to be priority junction.
22. MR CORNER: So, baseline traffic, you think they've got wrong?
23. MR WILKINSON: Yes, they showed the 2023 with HS2 traffic as 87 PCUs – that's passenger car units. In actual fact – shall I explain passenger car units?
24. THE CHAIR: No, no, you've explained the acronym.
25. MR WILKINSON: There were 87 vehicles, but not 87 PCUs, so that's 22 HGVs. It should have been 109 PCUs, so they're 25% under, so they are underestimating the impact on that junction.
26. MR CORNER: So you criticise their assessment of the base line traffic, and you also have just criticised their assessment of the traffic that HS2 will add?
27. MR WILKINSON: In 2023, yes.
28. MR CORNER: Okay. Anything else to say about this junction?
29. MR WILKINSON: Yes. Now we're coming onto junction analysis. All the way through the HS2 transport assessment, they've analysed individual junctions with no reference to upstream or downstream junctions. This isn't what I call a traffic impact assessment where there is impact and you look at it, this has just been, for want of better words, a desktop exercise looking at individual junctions without any reference to the implications of other junctions may have on it, and particularly for Yarnfield Lane, you'll see at the next junction why I'm concerned they haven't done this.
30. MR CORNER: So what are the, as it were, the cumulative impacts that you're concerned about? In other words, if you get overcapacity at one junction, what are you saying is the effect elsewhere that they haven't looked at?

31. MR WILKINSON: If you, as we'll see at Walton island, if you suddenly reach a 200 car queue, you're not going to sit in that very long before you think, 'Tomorrow, I'm not going to do that'. You're going to go elsewhere. It's called rat run in to find a better route. And that has a phenomenal impact and there's no reference to that at all in the HS2's assessment.

32. MR CORNER: So, the conclusion on this first junction, the Yarnfield Lane A34 junction, are you content that that junction is going to work satisfactorily with HS2's traffic?

33. MR WILKINSON: No, it certainly won't. The queuing lengths on the A34 will turn right in, observations show that at times there are nine vehicles already queuing here in the evening morning peaks, certainly in the evening peak. There's a queue of nine vehicles there without HS2 now. That realises that there's three or four cars sitting in the outside lane about to get rear ended, so it's not a safe junction now and it wouldn't be with HS2 traffic.

34. MR CORNER: All right, okay, thank you.

35. THE CHAIR: Just one question on that, so clearly, your assertion throughout this is there are problems here and HS2, in your view, have not done the right background work?

36. MR WILKINSON: No.

37. THE CHAIR: We're looking at Stone and this particular lane at the moment, but is this an exceptional error, and traffic management by HS2, in your opinion, has been good elsewhere?

38. MR WILKINSON: Yes it is, because –

39. THE CHAIR: Or whether they've been – I'm trying to avoid the words equally sloppy, because it's pre-determining something that might not be fact – but is this the same type of quality of traffic survey...?

40. MR WILKINSON: Yes. If you're doing a traffic transport analysis, you take a count, and you also take queue counts, and then you put it in the computer in basic terms

and you see what you get out at the status quo. If the queue lengths on the ground aren't what is predicted in the actual computer, you then have to recalibrate and go back, something's wrong here, 'I've either got the wrong flow data, I've got the wrong geometry, something is wrong'.

41. Once you've got it calibrated, you can then move forward to assessing future years with some form of reliability and they've not done that at all, in my opinion, there are no queue surveys that resemble anything that's on the ground.

42. THE CHAIR: And do you use the same methodology for the long term position, i.e. post construction as the process for analysing just for that shorter period, even though it might be several years, of construction is it the same level of traffic, so the same methodology, or different methodologies?

43. MR WILKINSON: It would be the same methodology, if it was a planning application, you would be looking for some hence years growth. This is clearly focusing on this junction for four to five years, whilst this construction's around; I can only comment on the figures in front of me. The analysis is only for the three scenarios. I have no details of –

44. THE CHAIR: We're now going to look at other junctions as well so I can pick up some themes as well.

45. MR CORNER: Yes.

46. THE CHAIR: We may or may not generalise to be on the area that we're currently considering.

47. MR WILKINSON: Sure. Sure, sure.

48. THE CHAIR: That's helpful.

49. MR CORNER: Certainly. So that's all on the Yarnfield Lane A34 junction. Can we go to Walton island, please? And I think we can look at a slide to show us where it is.

50. MR WILKINSON: Not just yet.

51. MR CORNER: Pardon?
52. MR WILKINSON: Not just yet.
53. MR CORNER: We can't. All right. Sorry. I'll shut up.
54. THE CHAIR: What was a better question have asked?
55. MR WILKINSON: Well no, it's just I know the way the slides go, really. But the A34 Walton island, as I showed quite early on, it's about halfway along, the A34. It's a key junction. It's the A34/A520. The A520 serves the blue area of Stowe that we saw on the first plans we had and it also takes you up towards Leek. The Eccleshall Road off the roundabout, there's direct access to the construction sites around Yarlet. It's the main access to Walton residential area and the main access via Pirehill Lane to the priory – Walton Priory Middle School. Very busy junction. The county council have already said this junction is at capacity with not a lot of mitigation available. Again, I looked at the 2016 flows. They showed queues that are probably about half what is experienced.
56. MR CORNER: Which junction are we talking about now?
57. MR WILKINSON: Walton – sorry, the Walton island.
58. MR CORNER: So we've come to Walton island.
59. MR WILKINSON: Yes, we have, yes.
60. MR WIGGIN: Right, okay. Right, good.
61. MR WILKINSON: So, I'll get to the slide in a minute.
62. MR WIGGIN: Okay.
63. THE CHAIR: Yes, it helps if we move on in slides.
64. MR WILKINSON: Yes, yes. Yes.
65. THE CHAIR: I think Mr Corner was right in retrospect.
66. MR WILKINSON: Like I say, I have no way of looking at how they've actually

analysed the data, but the queue lines are certainly way below what we've got at the moment.

67. MR CORNER: Are we talking – so this – I want to start – Walton island – we've got the slides. Which slides are we looking at?

68. MR WILKINSON: I'm about to show you a slide of a count, which makes – yes.

69. MR CORNER: All right. Slide 6, I think.

70. MR WILKINSON: Yes. We'll go to that.

71. MR CORNER: Slide 6. We start with baseline traffic.

72. MR WILKINSON: Yes. So the 2016 –

73. MR CORNER: Baseline traffic.

74. MR WILKINSON: – flows seem very low and the recent plan application for Land Rover – Jaguar Land Rover just down the road at 851 junction submitted a count to do with something slightly different in 2070 which showed a 2010 count at this junction which showed it to be way above the 2016 flows. You can't see very easily there, but on the south-bound A34 approach, that cumulative flow there is about 1,373 and the 2016 that HS2 uses, about 1,234. And to put it in context, the 2010 figures used by the consultant then equates to the 2023 figures that they're predicting for this junction. So, way below what is expected there, which would correlate to why they were getting figures that are showing at present the junction is just about in capacity when it's clearly over capacity.

75. MR CORNER: Right.

76. MR WILKINSON: Okay?

77. MR CORNER: So that's the baseline.

78. MR WILKINSON: Yes.

79. MR CORNER: Can we move then –

80. MR WILKINSON: We can.

81. MR CORNER: We're still with the Walton junction. And can we move then to the predicted situation with HS2 Stratford?

82. MR WILKINSON: Yes. Okay.

83. MR CORNER: I think that takes us to slides 7 and 8.

84. MR WILKINSON: So this shows the blue, green and red for the three different scenarios. They predict a 24-car queue in 2060 – sorry, 24-PCU queue in 2060. That would be about half what is actually expected now. Now these are mean max queues. They are not the maximum queue. They are a queue that could be, the quote the OSCADY programs that these are worked off, computer program – it could be up to twice that amount. But it's an average mean max queue. So it's 204 vehicles. It's currently 24. That's about nine times more than it is now. If that was the case, these queues would be certainly back towards Yarnfield Lane and that's when I was sort of talking about the inference.

85. THE CHAIR: Sandy's got a question.

86. MR MARTIN: Sorry.

87. MR WILKINSON: Yes.

88. MR MARTIN: Are these your estimates rather than HS2's?

89. MR WILKINSON: No, no. These are HS2's estimates.

90. MR MARTIN: These are HS2's estimates.

91. MR WILKINSON: Yes, absolutely. Everything here is HS2's – for their three scenarios that you see.

92. MR CORNER: I think what we're looking at now, if I can just help in relation to that question, Mr Wilkinson, is we're looking at HS2's predictive situation –

93. MR WILKINSON: Yes.

94. MR CORNER: – but with HS2's – on the basis of HS2's baseline traffic assessment, which you have said is wrong.
95. MR WILKINSON: Yes. Yes, that's right.
96. THE CHAIR: I think Sheryll's got a question. I may have one after her.
97. MR WILKINSON: Oh, yes. Sure.
98. MRS MURRAY: Just very quickly, would improvements to that island make a difference? I'm thinking perhaps in terms of –
99. MR WILKINSON: Yes.
100. MRS MURRAY: – traffic lights –
101. MR WILKINSON: No –
102. MRS MURRAY: – or something like that.
103. MR WILKINSON: Traffic signals could spread the delay only maybe a little bit more succinctly. The county council have already said that they can't improve that juncture, that there's no mitigation they think will work with the balance of flows. If you were to offset some of the delays elsewhere, you may be able to reduce it, but the county council fear that there's no mitigation that will work there. So the point I'm trying to make from previously is that if you now have a queue of this sort of magnitude, it would be starting – could be anything back here, people either start to run through Yarnfield Lane, which isn't advised for that junction now or Trent Road to go through the town centre of Newcastle Street into the gyratory of Stowe to try and reach the A30, the A51 or whatever.
104. THE CHAIR: So how long – so 24 cars, 139,204. I'm struggling to understand what that means driving along that road. How long would you be waiting in the queue?
105. MR WILKINSON: I haven't got the delays. I haven't got the computer delays. I would say if you're in a 204-car queue with a move-up rate – very difficult to say, really. I would say that would be a good 30-minute queue.
106. THE CHAIR: Because I'd give it a best guess – really?

107. MR WILKINSON: It could be. Yes.

108. THE CHAIR: Right. I was going to take that as an extreme position that was obviously not right.

109. MR WILKINSON: But just a guesstimate, because I do know that people sit there.

110. THE CHAIR: But certainly more than 15 minutes.

111. MR WILKINSON: I would think so, yes. Yes.

112. THE CHAIR: Okay.

113. MR WILKINSON: It's a queue that would certainly make me think about rat running. Is that a better description?

114. THE CHAIR: Yes. I think descriptions in time taken might be more helpful to the Committee just going forward. It's not a criticism. Just in terms of getting our heads around what it means.

115. MR WILKINSON: The computer programme can show the vehicle delay. Delay per vehicle and certainly the overall delay per hour going through that junction per hour. I'm not privy to that information.

116. MR CORNER: All right.

117. MR WILKINSON: Yes.

118. MR CORNER: So – thank you. So that's the morning peak. That was slide 7 and I think if we look at the PM peak, that's slide 8, isn't it?

119. MR WILKINSON: Yes. Okay. Now, again – we'll stick with this slide for quite a while. Again, the flows there seem to be quite low on the A34. This – in the Staffordshire area, like a lot of places, there aren't any rise and falls in the preceding hour. It's what we call flatline. It's just continually demand for that junction. And a queue of about 85 is probably two-thirds of what would be expected there on any given day from about quarter past 4 onwards. But the interesting thing here is – that I want to really talk about is the 109-car queue on the Pirehill Lane because, as I mentioned a bit

earlier –

120. MR CORNER: Is that actually on Pirehill Lane?

121. MR WILKINSON: Sorry, on Eccleshall Road.

122. MR CORNER: Pirehill Lane comes up into Eccleshall Road.

123. MR WILKINSON: Yes. These are both – Eccleshall Road and Pirehill Road are both construction routes and this is a priority junction and we have 109-car queue. Again, the 109-car queue would start to promote rat running that would either be via Yarnfield Lane or even further afield going north through Swynnerton to try and get to the A34, depending on their destinations. But certainly, that sort of queue would trigger definite rat running, which would have an implication on the other local part of the network.

124. MR CORNER: And that again is on the basis of what you're saying is an underestimate of baseline –

125. MR WILKINSON: Yes.

126. MR CORNER: – flows.

127. MR WILKINSON: It is, yes. Definitely.

128. MR CORNER: So you would say the queues would be larger.

129. MR WILKINSON: Yes.

130. MR CORNER: All right.

131. MR WILKINSON: So if we move on to Pirehill Lane junction with Eccleshall Road –

132. MR CORNER: Yes. There's no different slide for that because we can see it on this slide.

133. MR WILKINSON: Yes.

134. MR CORNER: So what do you want to say about that?

135. MR WILKINSON: The issue here is that in HS2's analysis of this junction, in the morning peak they estimate that the vehicle queue will go from seven on the side road to about 20, which is okay. It's still quite a delay. But in the evening, they imply there's a two-car queue in Pirehill Lane. No problem whatsoever, analysed in isolation. But if somebody had actually looked up the road and seen this 109-car queue, they would realise you're not getting out of Pirehill Lane. And this is the point I'm making. There's been no correlation between an upside and downstream junction in this analysis. It isn't an impact analysis whatsoever. It's just 20 junctions in CA3 area and look at them in total isolation without joining up the congestion problems. And you've got a serious problem.

136. So you've misled the people of Pirehill Lane. It's a residential road. It's got 240 construction vehicles a day going up and down it. A lot of vulnerable road users. This doesn't look like – that they've been painted the correct picture.

137. MR CORNER: All right. So – thank you. That's all on that junction, I think. We move on to the next junction. And the next junction that we have is the A34/A51 Stone bypass and Brooms Road junction.

138. MR WILKINSON: Yes, yes. We move down to that.

139. MR CORNER: We move down to that and I think, sir, we're looking at slide 9.

140. MR WILKINSON: Yes.

141. MR CORNER: So, beginning, have the – again, my usual question: have the baseline flows been accurately assessed?

142. MR WILKINSON: Well, no. When I referred to the traffic assessment done for the plan application in Brooms – the Brooms Business Park for Jaguar Land Rover, they refer to this count. And again, the flows that have been used by HS2 for 2023 equate to what was happening there at the other end of this junction, this count here in 2010. So –

143. MR CORNER: It might be obvious, but what does that mean? If BWB are finding flows in 2010 that HS2 are saying will be the baseline flows in 2023, what's your conclusion?

144. MR WILKINSON: Well they've – whatever flow data they've used, it's not representative of what's there now. The actual junction itself has been a problem for many years, even when I was working with the county council. We actually provided three lanes out of the business park to try and alleviate the crew – the queues in the PM peak, which they show I think a three-car queue, which is not representative at all. The county council yet again have said to, 'Go away and revise your capacity calculations. You're not showing what is there on the ground at all.' But notwithstanding that they show in the AM peak, which is the major queue that's created on the A51, it goes from eight to 116, it actually at least doubles what they think's going to be happening in 2023, without HS2 traffic. And again, you don't – it doesn't take much to realise that the Lichfield Road here that takes you into Stowe town centre is going to be primed for rat running into the town centre, morning peak, vulnerable road user conflict. Doesn't look good at all.

145. MR CORNER: Yes, I was going to ask you: does it matter if there's rat running into the town centre?

146. MR WILKINSON: It does, particularly in the morning peak.

147. MR CORNER: Why?

148. MR WILKINSON: Well, a) that is quite congested anyway. It's not analysed by HS2 at all. A lot of things going on, lots of schools in that area, a lot of traffic trying to get into and out of – or towards the A34. That would be quite congested, particularly if it's trying to compete with stuff that's coming from the north, from Walton island or beyond the Yarnfield Lane further up the A34 trying to get through this log jam.

149. MR CORNER: Okay. Good. Thank you very much. Now, that I think concludes what you want to say about these junctions that I mentioned in opening. Is that right?

150. MR WILKINSON: Yes.

151. MR MARTIN: Can I ask a question about the junctions generically?

152. MR WILKINSON: Yes, sure.

153. MR MARTIN: But this one is a good example. You've got 53 peak for 2023 without HS2 being built.

154. MR WILKINSON: Yes.

155. MR MARTIN: And on the previous one you had a 67 peak queue which would take you back behind Pirehill Lane without HS2 being built.

156. MR WILKINSON: Yes.

157. MR MARTIN: And on the previous one, you had 139 queue on the A34 and that's in 2023 without HS2 being built.

158. MR WILKINSON: I'm not – yes.

159. MR MARTIN: So that if somebody was proceeding down the A34 in a car, it would take you probably over an hour to get through these three junctions if these predictions for 2023 go ahead, even if HS2 is not going to be built. So, what I'm trying to get to is that it seems to me that the predictions for the creation of additional traffic between now, which is actually fairly modest at the moment – eight is a very modest sum –

160. MR WILKINSON: Yes.

161. MR MARTIN: – and 2023 seem to be predicated on the idea that the number of vehicles is going to expand between now and 2023 to such an extent that if it were to do so, everybody who drove would spend most of their lives sat in a car behind the wheel going nowhere.

162. MR WILKINSON: I think the point you've got to realise is that all these junctions are almost at capacity now.

163. MR MARTIN: But my point, sir, is that this is a prediction based on people continuing to do things in a way that they have done up until now and traffic continuing to expand in a way that it has done up until now without any adjustment for rational, logical choice as a result of the consequences of their actions. If a prediction had been made, for instance, for London traffic, based on the increase in London traffic between 1920 and 1950, then nobody in London would do anything other than sitting behind a

steering wheel. But people haven't done that because clearly, nobody wants to live a life which involves spending their entire lives sat behind a steering wheel. So, I mean, I can't see how actually any of these predictions are going to come true anyway because if – even if HS2 is not built, the increase in queuing at every junction in your part of the world is going to be so severe that nobody's going to drive anywhere.

164. MR WILKINSON: Well there's two issues. One is the 2023 is 1% per year increase. Now going back to Walton island, they haven't allowed for the fact that 500 houses are being built on Eccleshall Road within about 500 metres of that junction. That hasn't been plugged in. So there's at least 500 trips. It's going to happen.

165. MR MARTIN: Indeed. But I mean, your contention is that none of the – HS2's planning does not make allowances for the queuing that is going to have to take place on the roads. And the point I'm making is that nobody seems to have made allowances for the queuing that's going to have to take place on your roads, whether HS2 is built or not. The problem here is not HS2. The problem is the behaviour of the British public and the lack of good roads.

166. MR WILKINSON: I take your point, but the point here is that HS2's traffic represents 100% increase in the queue that will be there in 2023 for a small amount of – well, the traffic input – unfortunately, capacity goes linear to a point and then it goes exponentially vertically. And the point is that their queues with their traffic compounds a problem that is, I would say, tolerable, but now will become totally intolerable.

167. THE CHAIR: Sheryll's got a question, I think.

168. MRS MURRAY: Yes, I do. You've mentioned that this road was the responsibility of the local highway authority.

169. MR WILKINSON: Yes.

170. MRS MURRAY: And you mentioned 500 more houses. Is that a planning consent?

171. MR WILKINSON: Yes. They're actually constructing it as we speak.

172. MRS MURRAY: Okay. So, when that planning consent was awarded there must

have been – it must have been acceptable that that extra traffic – the impact on this junction was acceptable. I'm just going to focus, as Mr Martin did, on the increase in traffic. The local highway authority must have accepted that these junctions were able to cope with that excess pressure or they would have plans in their local highway plan to make adjustments, because councils formulate plans in order to mitigate in the future. Correct me if I'm wrong, because obviously you worked for the county council.

173. MR WILKINSON: Yes.

174. MRS MURRAY: So, correct me if I'm wrong, but if these weren't acceptable, this increase in traffic, regardless of the HS2, then it must have been in the local authority's local transport plan.

175. MR WILKINSON: Do you want to go back a slide, please?

176. MR CORNER: You might want to go back a slide.

177. MR WILKINSON: Yes, please, because that's where this –

178. MR CORNER: Can we go back then? I think that's slide 7 and 8.

179. MR WILKINSON: Yes, the Walton Hill development will be here, right alongside the new proposed marshalling/shunting yards for HS2. It'll be a good selling point. But it had been built in there as we speak. The county council, as I am aware, took a £200,000 contribution off the developer with the idea they were going to try and flair that approach. If you can see the radius there I'm talking about, trying to get I think another lane at the stop line.

180. MRS MURRAY: Okay.

181. MR WILKINSON: Unfortunately –

182. MRS MURRAY: So there are already improvements –

183. MR WILKINSON: Well, just – if I could just carry on.

184. MRS MURRAY: Okay.

185. MR WILKINSON: Unfortunately, they forgot to realise that you can't actually do

that radius improvement because it's over a subway. So, nothing's going to happen there and that is why they've taken a stance of no mitigation can be done and they took the money and departed.

186. MR CORNER: So the planning permission's been granted, is that right, but the mitigation that was in prospect, they thought, isn't going to happen? Is that right?

187. MRS MURRAY: But that wouldn't be the responsibility or wouldn't be down to HS2. That's down to the local authority's planning process.

188. MR WILKINSON: Absolutely.

189. MRS MURRAY: Yes.

190. MR WILKINSON: I must agree to that.

191. MRS MURRAY: Thank you.

192. MR WILKINSON: But I still make the point that the figures – HS2 still manages to double the queue on all of those approaches, more or less.

193. MR CORNER: Right. Right. Thank you very much. Can we move on, unless there are further questions?

194. MR WILKINSON: Yes.

195. MR CORNER: Okay. So, my next heading, but you've already dealt with some of this, is access and safety issues regarding servicing the railhead compound.

196. MR WILKINSON: Yes.

197. MR CORNER: I was going to ask you about the width of Yarnfield Lane as now and as widened and about the overbridge. You've dealt with that, I think. But I haven't asked you and I want you to deal with, please, because you deal with this in your evidence, the safety issues that you say will arise in relation to the access to the site from Yarnfield Lane.

198. MR WILKINSON: Yes, well there's various things. The – as I mentioned earlier, the widening of Yarnfield Lane will have to be at least 6.75.

199. THE CHAIR: I think we're repeating ourselves. We went through some accident numbers as well as width. So could you be more specific in your question to draw out the precise extra information that you're wanting to solicit as opposed to repeating?

200. MR CORNER: I can try. I'm asking you to deal –

201. THE CHAIR: But we went through all the detail. We did all the width.

202. MR CORNER: I know.

203. THE CHAIR: We went through the accidents, which were quite compelling evidence.

204. MR WILKINSON: Yes, that's fine. That's not the point. Yes, that's not the point.

205. THE CHAIR: And we've no need to repeat it again. So if there's something more, more forensic in your questioning, please.

206. MR WILKINSON: It's all about access and safety. The access – quickly, very quickly: to widen the road to six metres or 6.5 along the whole length would require shuttle working, there'd be delays quite a lot, so HGV access until the motorway slips will be compounded. That's what I'll say about that. When we move on to the actual vehicle access –

207. MR CORNER: That's what I wanted to ask him.

208. MR WILKINSON: Yes. Can we move to another slide?

209. MR CORNER: Are we looking at slide 12?

210. MR WILKINSON: Yes, slide 12. It may be worth just showing – I think it was 43.1 again. Just to –

211. MR WIGGIN: Right. 43.1, could we have a look at. Thank you.

212. MR WILKINSON: Yes. Just so we get a better idea. As I mentioned earlier, when this is – now, when the actual IMB-R is operational, we come along with the new realigned Yarnfield Lane, over the new bridge and then immediately we come off the

bridge, we go down a ramp into a underpass or tunnel. But about halfway down or just less than halfway down the ramp, we now have the main access egress, the motorway and into the compound of the actual railhead. Yes?

213. MR WIGGIN: Yes.

214. MR WILKINSON: There's really grave concerns. I can't think of a worse spot to put a junction for a railhead. You're going to be coming over and then looking down and that's sort of compounded by the fact that I requested a document on the departures from standard of HS2, which were received late on Thursday evening, bit late for my evidence, which shows about 60 departures from standard, and at this particular point, they're showing a substandard visibility splay to the left. I've got the document here. And certainly, I would think the safe stopping distance coming over the brow and dropping down and suddenly being met by a vehicle trying to come out of there would be not favourably looked at in a safety audit. I can't say fail a safety audit, because you don't fail them. People make recommendations.

215. More worryingly, if you're coming from the other direction, coming from the east, you go under an underpass into the open again then under again – don't know when the tunnel becomes an underpass – and soon as you hit that ramp there, you could have a stationery vehicle waiting to turn right into that junction, and that's the last thing you want at 50 to 60 mile an hour. I think it will fail. A lot of departures from standard. It just seems the wrong place at all. In addition to which, we have no details to how wide the road is going to be, but HS2 state that with this alignment, they better equal or better the geometry. Well I think if you're a pedestrian that's got to walk under there or even a cyclist, you'd be quite concerned because if there's no footways, full visibility's limited, I'd be very worried. I would think – sorry.

216. MR CORNER: So in your view, then, dealing with the specific point of the access to the site from Yarnfield Lane, acceptably safe or not? -

217. MR WILKINSON: I would say no and it couldn't be in a worse position.

218. MR CORNER: Right. Should we look at slide 13 before we depart from this point?

219. MR WILKINSON: Yes.

220. MR CORNER: Your slide 13.

221. MR WILKINSON: Oh, yes. This is a sort of equivalent position that you'd be exiting. This is the existing ramp on Yarnfield Lane about 50 metres down the same sort of thing. The forward sight visibility, just regardless of the fact that I don't think you'll be able to see it because of the embankments and the fact that you're coming up on a grade just gives you an idea of the sort of thing we're talking about. And certainly – okay.

222. MR CORNER: Good. Thank you very much. That's all I wanted to ask you about that. And I want to move on then now, new topic, please. I said I'd deal with Aldersey's Rough – the Aldersey's Rough alternative. And so I think that for this purpose we should be looking at slides 14 and 15, and in due course, 16 and onwards.

223. MR WILKINSON: Yes.

224. MR CORNER: But for the moment I think we're on slides 14 and 15. And using those slides, I want to ask you what your view is about – well, what you understand to be the access and egress solutions from the M6 that HS2 is proposing, what's your view about them and what alternative you are proposing.

225. MR WILKINSON: HS2 suggested three access/egress points. We'll just look at the north-bound ones. They show this new access road here and this – oh, sorry, egress road and a new access road there. Now the real concern for me is with this – in safety terms is its proximity to where the new or the existing egress point is. You will get confusion. You certainly could get the wrong vehicles entering there without the right signage, but it is doable. But I would – you'd have to go further back so that people had a clear understanding as to which one was which with signing whatever, but I wouldn't want to do that particularly. Even more so with the safety issues far higher here where HS2 suggests that we – the north-bound access would just be almost at the end – well, even if it was at the end of the taper, for the joining from the existing service area you get a real conflict problem there. That just wouldn't – I don't think – that definitely wouldn't pass a safety audit.

226. So, they're not the best and they're certainly the most expensive. Certainly in terms of safety and confusion, I wouldn't go for either of those. And there's similar – there's a similar instance on the south-bound carriageway, but we'll stay with this for now.

227. MR CORNER: Well, okay. So, is it necessary to do that? In other words, are you proposing an alternative?

228. MR WILKINSON: Well, on the basis of trying – the other little point about that there: if you were going to build into the – that side road there, you'd have to end up interrupting the motorway flow while you linked in and joined in, so you'd take a lane out on the M6, which is not a good idea anyway. More confusion and more delay. So I took the option that I think the safest option is to bring the vehicles in as they would normally into the lorry park and then you have various options. The best cheap and quickest option would be to just follow round the circulatory and then utilise the highway – this is the highway depot of the maintenance depot for the motorway. So you would come in. There is a barrier there, but you could certainly come in there and access out onto Three Mile Lane. We have a photograph later on to show that. And then down – a bit of localised widening I guess you'd do and then into wherever the actual suggested access was.

229. But there's various options. You could come through here. The vehicle speeds are about 10, 15 mile an hour, punch straight through – this is all level topography – just punch through there. There are no parking – vehicles do park here, but they shouldn't and then you could come along and join there and/or again – there again is another easy access point, but you would probably have to make sure that these illegally-parked vehicles don't park there.

230. MR CORNER: So, in other words, do – we're dealing with north-bound at the moment. We'll deal with south-bound in a minute.

231. MR WILKINSON: Yes.

232. MR CORNER: Do we need to construct new slip roads off the M6 –

233. MR WILKINSON: No, I don't think so.

234. MR CORNER: – in order to access an IMB-R?
235. MR WILKINSON: No. In terms of safety and reduction in flow due to lane closures, no, I wouldn't recommend that.
236. MR CORNER: Right. Right. Okay. And we go on to south-bound then, please. Sorry, yes.
237. MR MARTIN: Can I ask Mr Wilkinson a question at this point?
238. MR CORNER: Yes. Sure.
239. MR MARTIN: You say, Mr Wilkinson, that people are not meant to park there, but they do.
240. MR WILKINSON: Yes.
241. MR MARTIN: As a highways engineer, I hope you would agree with me that 99% of the time, if people can do something, they will do it, whether they're –
242. MR WILKINSON: Yes.
243. MR MARTIN: – meant to or not. What is going to stop people from using this as an unofficial junction from the M6?
244. MR WILKINSON: An unofficial – well, because –
245. MR MARTIN: If I lived in the vicinity and I was a car driver, I would use it as an unofficial junction off the M6.
246. MR WILKINSON: Well, this would be a man barrier or rise-and-fall barrier, put one in to facilitate that. There is one at the – you may disagree, but there is one there now to stop that very thing happening at the highway depot. Yes, you'd either put a banksman on it or shut it at night or have a rise and fall barrier.
247. MR CORNER: Okay? So, alternatives to a new slip road for north-bound, what about south-bound? That's a new slide, I think.
248. MR WILKINSON: Yes, new slide, please. 15, is it?

249. MR CORNER: 15, yes.

250. MR WILKINSON: Yes, again, HS2's idea is to come off before the actual egress slips for the service area. Quite a high bank there to do, but it could be brought through.

251. MR CORNER: Their idea is SE3.

252. MR WILKINSON: Sorry, SE3. Sorry, sorry. SE3.

253. MR CORNER: So a new slip.

254. MR WILKINSON: Yes, a new slip there. Again, my thoughts are that you would just bring them safely into the lorry park. You could either come through here and through there and up the rear service access and then across the bridge and into the Three Mile Lane.

255. MR CORNER: Right. So, again, here, is a new slip required as HS2, sorry, have shown or not?

256. MR WILKINSON: I wouldn't recommend that and I think that is – because of the slow movement of vehicles, that's quite capable of being done without too much impact on the lorry park.

257. MR CORNER: Right. And what – broadly, what kind of impact does the construction of new slips have on the cost? If construction of new slips were required to provide a railhead/IMB-R at Aldersey's Rough, what effect would that have on the cost? Well put it another way: if you don't have to construct slip roads to get to the Aldersey's Rough facility, does that increase the costs or make them go down?

258. MR WILKINSON: Yes, reduces the cost dramatically.

259. MR CORNER: Dramatically.

260. MR WILKINSON: Yes, which is represented in the HS2 SIFT analysis.

261. MR CORNER: Right. Okay. Thank you very much. Right. Thank you very much. Are there any other advantages from this transport, specifically vehicle transport point of view you want to talk about of using Aldersey's Rough?

262. MR WILKINSON: Yes. I think that the other certain advantage is that wherever this HS2 traffic, construction traffic comes off onto Three Mile Lane, the actual conflict with the current flows on Three Mile Lane are vastly far less than they've experienced conflicting with the Yarnfield Lane traffic. This –

263. MR CORNER: Why?

264. MR WILKINSON: Because there's only about – well, sorry, 30 to 80 vehicles. I've done two counts, two days and most of the traffic is some of the staff that utilise to try and get into the – to work at the actual service area.

265. MR CORNER: So it carries less traffic.

266. MR WILKINSON: Far less traffic, yes. Far less in – there's no villages – there's only a village at Keele, but for highly underutilised section of road.

267. MR CORNER: And is an overbridge needed if we –

268. MR WILKINSON: No overbridge required whatsoever compared to the Stone one, so –

269. MR CORNER: Right.

270. MR WILKINSON: – dramatic savings in costs.

271. MR CORNER: Okay. Thank you very much. So I'm moving now to a new topic, if I may. Construction at Stone if the railhead/IMB-R isn't built.

272. MR WILKINSON: Yes.

273. MR CORNER: In other words, you still need to build a railway along the alignment of course. So, I just want you to deal with that issue, please –

274. MR WILKINSON: Okay.

275. MR CORNER: – from the point of view of transport that you're talking about.

276. MR WILKINSON: Well if the – we can go to the next line, I think, when you're ready.

277. MR CORNER: Can we? Right. Okay.

278. MR WILKINSON: Oh, sorry. Yes. That was the rear access from the highways depot onto Three Mile Lane, which I think is suitably adequate.

279. MR CORNER: Okay.

280. MR WILKINSON: Okay. So, if we go to the scenario of Stone without the railhead –

281. MR CORNER: Yes.

282. MR WILKINSON: – we have far less compounds, far less structures, no overbridges to build and hopefully no M6 slip roads, certainly far less work to do. So the actual HGV traffic now is considerably less. So the question – HS2 have said that we will need exactly the same M6 slip roads as they're going to propose for Stone railhead.

283. MR CORNER: So the question is: do we? Are they right?

284. MR WILKINSON: The answer is: categorically, no, we don't. Because as we speak, M6 smart widening 13 to 15 is in the process of constructing – not – they don't call it emergency slip roads. They're called maintenance turn-round facilities. And I've just sort of tried to sketch the idea before we have some actual drawings, but basically, at the moment, the embankment comes down there. The inside lane – can you just see, that's where the emergency access is on the north-bound part of –

285. MR CORNER: On 17?

286. MR WILKINSON: Yes. On the – yes.

287. MR CORNER: Yes.

288. MR WILKINSON: That's where – now currently, with a three-lane running, emergency vehicles or maintenance vehicles would come along in the hard shoulder, decelerate in that, and then go in to – and use the hard shoulder to accelerate back into lane 1 of three. But clearly, when they've got four lanes running now, there is no hard shoulder. So, HS2 propose to – because we've got these embankments behind the

bridge piers, they propose to construct a running lane behind these piers, retaining wall for that embankment –

289. MR CORNER: This is Highways England, is it?

290. MR WILKINSON: Highways England, yes.

291. MR CORNER: Yes. I think we might have said something else.

292. MR WILKINSON: Highways England.

293. MRS MURRAY: You said HS2.

294. MR WILKINSON: Oh, sorry. Thank you. HS2 – yes, so this will then be the way that – let's just show another drawing – the next slide please, 18? Yes. Thank you. These are the actual drawings for the construction of the smart motorway. Here's the existing Yarnfield Lane bridge and we have deceleration lanes and acceleration lanes for both approaches. We don't have to build a new bridge. We don't have to provide new slip roads, which will demolish all this work that smart motorway is doing. We don't have to delay traffic, delay closures to create the new slip roads that HS2 will have to need, to construct theirs.

295. MR CORNER: So, you say then, in the absence of constructing the railhead/IMB-R at Stone, construction traffic for the railway line will be able to use what Highways England is now going to construct in any event. Is that right?

296. MR WILKINSON: Yes. So, coming back to HS2's SIFT analysis, they've said that the costs of providing their slip roads would be the same for us. And that's clearly not the case. We don't need those new constructions at all and no aborted work whatsoever.

297. MR CORNER: Okay, thank you.

298. MR WILKINSON: The next slide shows a bit of an attempt – before we got these drawings – show slide 19 please? That shows what's going to happen before we got the drawings.

299. MR CORNER: Diagrammatic drawing.

300. MR WILKINSON: Yes, diagrammatic.

301. MR CORNER: Alright, okay, thank you. Did you want to say anything about access to the Eccleshall Road, the B5026 compounds, in the event the railhead and IMB-R are built?

302. MR WILKINSON: The whole purpose of this – before we go to Eccleshall Road – we’ve got far less traffic now wishing to access the Stone area for the embankments and the viaduct. I see no reason therefore that we need to widen Yarnfield Lane. These are there at day 1. Not 15 months later. They’re here at day 1 of the construction thing. There is no need whatsoever to widen and decimate Yarnfield Lane and its rural environment because everything can be brought in here. I know HS2 have referred to local deliveries. Well, I don’t know of any local delivery in Stone. It will either be coming from the north, which will go via 15, or it will come from Stafford, via junction 14. There is no need to decimate Yarnfield Lane whatsoever.

303. MR CORNER: Okay. Thank you very much. The last questions I have for you are really slightly more generally about the benefits of using Aldersey’s Rough rather than Stone, as you see it from a transport view. So, you say there are benefits in your proof. What are they? Is that – I’ve lost my place. I’ve lost my speaking notes. Would you mind if we just take one moment?

304. MR WILKINSON: Yes. So, in terms of the benefit at Aldersey’s Rough, we avoid congestion and unsafe movements on Yarnfield Lane and all the A34 junctions. Far less – yes, we recognise we have a network that’s at capacity – it’s going to be certainly way over capacity creating rat running that’s not advisable to anybody.

305. MR CORNER: Sorry to interrupt. Should we have a slide in front of us while you’re saying this? I’m looking at slide 20.

306. MR WILKINSON: We can do but it’s just talking about Stone, really.

307. MR CORNER: Alright.

308. MR WILKINSON: We avoid redundant aborted smart motorway work – we have to lose –

309. MR CORNER: Just remind us what that's about? What is this point?

310. MR WILKINSON: The smart motorway is going to strengthen Yarnfield Lane bridge and provide these new maintenance slip roads. The new strengthened bridge will be demolished while we provide the new line, motorway over bridge. Some of the maintenance slip roads there will be demolished quite considerably. And not only the actual demolition work but it's all the associated lane closures to the M6, overnight closures of M6 while you demolish and provide the new bridge as well. They won't happen at the same time. So, quite a lot of considerable delays to the M6 with this that wouldn't be associated – and I don't see anywhere in the SIFT report where anybody's allowed for the economic impact of closing the motorway and/or lane closures.

311. MR CORNER: Right. Just to be clear, this smart motorway widening, what is it and who's doing it?

312. MR WILKINSON: Highways England. It's to be completed in 2022, which would overlap by a year but we know talking to Highways England, these slip roads will be in for the start of the contract for 2021.

313. MR CORNER: So, you're saying, are you, that the smart motorway works would be rendered aborted by construction of a railhead and IMB-R at Stone?

314. MR WILKINSON: Yes.

315. MR CORNER: Right.

316. MR WILKINSON: Certainly, on the northbound side – I'm sure they're aware – these drawings were trying to mitigate that as much as possible but the north – sorry – the southbound side, that's totally obliterated everything that smart motorway will be doing.

317. MR CORNER: Okay – yes, carry on.

318. MR WILKINSON: Yes. And another actual benefit of Aldersey's Rough is the possibility of assisting traffic that is going through the junction 15. If we just go to the next slide – might help – just on this one here – you can see everything of the construction routes more or less and the A53, A51, A34, the 529, the 5182, all converge

around junction 15. And whilst every effort is made, I realise, to push as much traffic on to the strategic network sometimes there's a price to be paid for that. And I think Aldersey's Rough can do that, if I show the situation created at junction 15.

319. MR CORNER: Yes – just show us the situation that would be created with the Stone proposal at 15 there. You've got some slides on that, haven't you?

320. MR WILKINSON: Well, just go to the next slide, just to–

321. MR CORNER: Alright, yes. The next slide, number 21.

322. MR WILKINSON: Thank you. Yes, this is HS2's – from one of their community plan drawings. This shows the impacts of the main flows. So, here's junction – what we call junction 15 interchange. It's a combination of three junctions. The A500 carries a massive amount of traffic – around about 6,000 PCUs a day into that interchange. That's predominantly about 2,500 lorries plus construction traffic. A massive amount of traffic will be going through that junction, as a consequence of servicing all the main compounds in CA3 and CA4 area. So, this is where I come back to this whole idea of looking at junctions in isolation. If we look at junction 15 interchange? The next slide please.

323. MR CORNER: Number 22. Yes.

324. MR WILKINSON: Yes, this is the M6 interchange at junction 15. It comprises of three junctions. One is the actual signals of the two. There's the northbound slip and the southbound slips and, as I said, a signals here. They then move forward into what we call a Hanchurch island. And then we have the third junction, which we call the Eddie Stobart junction, because it's actually a five armed. This area is Eddie Stobart's main trans-shipment depot. So, we have three junctions there. And the high majority of traffic servicing and Whitmore and Madeley comes along the A500, through Newcastle Road and then dissipates down the 5182. A major – it's a massive amount. There's about – at this junction alone – from the 519 and here there's about 1,800 HGVs a day entering this junction. And this junction is quite critical to how it performs. So, again HS2 have decided to look at three junctions in isolation. And the first one is the set of signals. Bearing in mind that Highways England have tried to get this junction as part of the smart motorways system because it's been so over capacity for 20 years that I

know. But they've failed to get the land. But anyway. Let's have a look at the next slide please.

325. MR CORNER: 23 – a closer look.

326. MR WILKINSON: HS2 – Sorry?

327. THE CHAIR: Why have they failed to get the land? What's the problem?

328. MR WILKINSON: You'd have to ask them.

329. THE CHAIR: It's not known. You're not being –

330. MR WILKINSON: No. Well –

331. THE CHAIR: Not knowing, I understand. Being inscrutable, I'm less tolerant of.

332. MR WILKINSON: Well, it's Department of Transport. I worked with them in the mid-90s looking at a new junction 15 that was further down here. They had all sorts of topographical problems. But we were looking at it as far back as 20 years ago. But it's certainly a problem. However –

333. THE CHAIR: But it's not a money problem?

334. MR WILKINSON: I think there's a lot of logistic problems with this area. The levels are pretty frightening.

335. THE CHAIR: Thank you.

336. MR WILKINSON: But anyway, HS2 assess that in 2016, there are no queues at this junction on certainly the northbound exits and only four – which is quite surprising because the county council officers have had at least two meetings that I know of complaining about the queues on the slip road. And I don't know anybody I've spoken to – emergency services, Eddie Stobart – are all concerned the fact this junction is at capacity. But not according to HS2.

337. MR CORNER: Do you think HS2's figures are – are they realistic?

338. MR WILKINSON: Well, the interesting thing – if you look at that analysis for

this junction here, they quote a 2012 figure but they are SATURN model figures. And they don't correlate – if you look at this – whatever arrives on this approach and this approach must arrive at that approach. But there are at least 500 vehicles different in one of the peaks alone.

339. MR CORNER: Does that make sense?

340. MR WILKINSON: It makes no sense whatsoever. But what it does mean is they're certainly vastly underestimating what is actually queueing on these slip roads.

341. MR CORNER: Okay.

342. MR WILKINSON: So, on this particular junction – isolation – everything's fine, everything's fine, no problems whatsoever. Let's move on to the next junction?

343. MR CORNER: It's slide 24?

344. MR WILKINSON: Thank you. Now here, despite – the flows are a lot higher here and the queues start to look a little bit more interesting. The distance between the signals here and the give way there – well, it's three lanes. It will accommodate about 48 to 50 vehicles. So, by 2023 we're getting congestion that's just about tolerable. I can say that word correctly. Queues coming down from Newcastle to – the 519 comes directly from Newcastle town centre. That has gone up – that's a bit more realistic a queue, I'd have to say – by 80, 2023. It then doubles with HS2 traffic. The flow on the A500 AM and PM goes from 1,730, gets at 22 and 85. That can be depending on what's happening in the motorway quite along. But then it just goes off the scale with HS2 traffic, and not surprising when you put in the equivalent of 6,000 PCUs – two way flow on the A500. So, then we go down to the next – oh, certainly on this approach as well, we've got coming from the Eddie Stobart junction – this goes from three, which is just totally unrepresentative of the queue there. This again will store about 50 vehicles in either direction. It goes to 94 and 114.

345. MR CORNER: On HS2's analysis?

346. MR WILKINSON: On HS2's analysis. And that would be a queue that would be – well, we'll see the implications of the queues. But in isolation, you'd certainly be worried about this in isolation at this junction by 2023, with HS2's traffic. If go to the

final junction –

347. MR CORNER: Slide 25?

348. MR WILKINSON: Yes, thank you, please.

349. MR CORNER: Please? Thank you.

350. MR WILKINSON: And again, the queues on the A5182 coming from Baldwins Gate and the Whitmore tunnels. It goes from 10 to 41, worst case scenario there. And then it more than nearly quadruples to 150. These are the important queues though. We've got 25, 31 and it goes to 93 and 242. Now, remembering that you can store 50 vehicles in there. So, you can imagine what 93 but particularly what a 242 car queue. And I am concerned that just nobody from the county council or anywhere has actually raised this junction to the attention of HS2 or complained about it because it's just off the scale. This side road here is always the poor relation because there are five junctions here, five accesses I should say. The 519, that again quadruples and more. So, just to put that into some sort of picture for you. Now, this is all in isolation. The A500 assessment appears 10 pages away from the junction 15 slip roads. I don't know if that's just coincidence. But if they'd been on the same page, you might have been able to put two and two together. But the result of this is as follows. Next slide please

351. MR CORNER: 26.

352. MR WILKINSON: And there we have the queues on the basis that two thirds arise from the south. And this is on their queue lengths, which I think are far underestimate the problem. We've got queuing back almost to the end of the slip roads. I can see why Highways England want to try and extend that at this current time. The queues just then go off the scale. At this junction here, there's 93. Well, there's only one place those vehicles are going, and just sitting in that roundabout. And just as an aside, remembering you that the A34 is sacrosanct of the county council. A 37 car queue at this signalised roundabout, which they failed to model with a set of signals there – goes to 391 car queue.

353. THE CHAIR: I think Sheryll's got a question.

354. MRS MURRAY: Yes. Is this for a specific peak time?

355. MR WILKINSON: I would think – well, I have no flow profiles except what I've seen very recently but certainly –

356. MR CORNER: This is the AM.

357. MRS MURRAY: The AM?

358. MR CORNER: Yes.

359. MRS MURRAY: And what time AM?

360. MR WILKINSON: Eight until nine. It would be modelled a quarter to eight until a quarter past nine in the computer programmes.

361. MRS MURRAY: Thank you.

362. MR WILKINSON: But this is consistently almost at capacity most mornings now. So, these are on the optimistic side. I don't ever use this term but I will here and it's gridlock. It is an emotional term. But the actual professional view of that is it's gridlocked because they're queueing back into that. And the majority that's causing the problem is this A500 through to A5182 to Whitmore and to Madeley.

363. MR CORNER: Do you want to talk about PM?

364. MR WILKINSON: Yes, PM as well.

365. MR CORNER: Which is the next slide, last slide, number 27. Just to be clear, what hours is the PM peak?

366. MR WILKINSON: Five until six but it's modelled a quarter to five to quarter past six. We now have a queue here that are trying to get out of Stoke and Newcastle and the queues, you can see for yourselves. But the queues in here just mean this is absolutely gridlocked – both directions. The emergency services, commuters, lorries, HS2 compound traffic – although it's getting towards the end of the day there – will all be just trying to avoid this junction. And the point I'm trying to make here is if we go back to – three slides back – I'm just trying to think which the slide is now – 20 please. Slide 20? Oh, sorry. I touched the mouse. Okay.

367. MR CORNER: Number 20.

368. MR WILKINSON: Yes. Okay. So, at the moment, the Whitmore tunnel traffic comes along here. That's got to go through that junction. And I think somebody mentioned earlier about a new tunnel being built there. If that was to create even more traffic on there, then I hate to think what would happen at this junction.

369. MR CORNER: Is that what people refer to as the longer, deeper tunnel?

370. MR WILKINSON: I think that's what they do but if it's going to create even more spoil that is to be going out on this route then I can't even begin to comprehend the impact that would have. But certainly, at the moment at Madeley haul vehicles come all the way through Woore, down through the A51, along there, all the way around. And this obviously again, massive traffic through that junction. If we had Aldersey's Rough, we could use haul routes that would take it up and then via the Keele services. That alone – coming from Madeley end – that would reduce that by a quarter of the haul distance if nothing else. But certainly, it would relieve some pressure on one of the junctions within the interchange and have a massive extra benefit over and above, comparing the two.

371. MR CORNER: So, the benefit for Aldersey's Rough is impact on junction 15, is that right?

372. MR WILKINSON: Absolutely, which appears to be the elephant in the room that nobody wants to talk about, certainly, the county council. But this is a serious, serious problem. Eddie Stobart are – talking to their regional manager – he was really concerned about what they were going to do if they can't get access and everything's just stuck there.

373. MR CORNER: Okay. Thank you very much indeed, Mr Wilkinson. Those are all the questions I have for you. Thank you.

374. THE CHAIR: Thank you. Is that it? Okay.

375. MR CORNER: That's it.

376. THE CHAIR: Your next witness then.

377. MR CORNER: Thank you.

378. THE CHAIR: I'm not trying to rush you before you've even started but just for our own planning, I've got no idea whether this is a 10 minute witness, a 30 minute witness, a 40 minute witness?

379. MR CORNER: Sir, it's certainly not 10 minutes. There's quite a lot to cover with Mr Parkin in fact. He's got to cover the Aldersey's Rough point and the layout that we have put forward and also, the comparison between Stone and Aldersey's Rough from an engineering and an environmental point of view. So, there is quite a bit to cover.

380. THE CHAIR: We're talking?

381. MR CORNER: I'm sorry, I shouldn't ask you a question.

382. THE CHAIR: No, how long are you going –

383. MR CORNER: I think it will be an hour possibly, yes, I do.

384. THE CHAIR: Right. Mr Mould, how long do you think your response is likely to be? I'm conscious of times.

385. MR MOULD QC (DfT): Well, I'm not planning to respond to every point

386. THE CHAIR: Yes, quite.

387. MR MOULD QC (DfT): At the moment, I anticipate asking Mr Smart to deal with a few main points. At the moment, it might take half an hour for him to do that. But obviously, there may be more points coming up from this next witness. The alternative is that we can –

388. THE CHAIR: I think that fits us within our timescale, doesn't it?

389. MR MOULD QC (DfT): Okay.

390. THE CHAIR: Okay.

Evidence of Mr Parkin

391. MR CORNER: Thank you very much. Sir, if I can just have one moment to sort out my copy of the slides? It's Mr Parkin and you've had two documents. You've put

in a proof and also a review of the SIFT analysis which I want to ask you about in due course and some slides, which have the prefix A43 – A43. So, to begin with please, if you wouldn't mind, please give me your name?

392. MR PARKIN: I'm Trevor Parkin.

393. MR CORNER: And qualifications?

394. MR PARKIN: I'm a chartered mining engineer. I have spent 14 years in the mining industry – five of which was in the deep mining industry and 10 years in the surface mining industry in the UK. I've been an environmental consultant for 22 years dealing with major planning applications and EIA.

395. MR CORNER: Right. Okay. Good. Thank you very much. Now, I want to ask you about the location of Stone and Aldersey's Rough in terms of future maintenance of the line. That's the first topic. Then I will ask you about comparison between Stone and Aldersey's Rough but with as a preliminary you taking the Committee to our layout – to the layout that you're putting forward for the Aldersey's Rough maintenance head and IMB-R. So, let's begin, please, can we with the first topic – location of Stone and Aldersey's Rough. So, tell me will you about the relative locations of Stone and Aldersey's Rough so far as future maintenance is concerned. What do you say about that?

396. MR PARKIN: If you could go to slide 3 please? Okay. This is a plan which was produced by HS2. We've adapted it slightly. This is in the F3 information paper produced by HS2. And what you can see on this plan is it shows the whole of the HS2 railway. The red line is Phase One from London to Birmingham and terminates on the border with Phase Two at a place called Fradley. These numbers that you see against the names of these locations are the distances from London. So, in the case of Fradley, it's 188 kilometres from London. Can you see that? It's not probably the clearest of plans. So, Fradley – I can use the mouse here, can't I? So, Fradley is there. And that's on the border between Phase One and Phase Two. Phase 2A is the blue line which runs from Fradley up to Basford, at Crewe. And Phase 2B, which is the Phase Two, the north-west, goes from Basford to a place called Hough Green. This is one of the changes that we made to this plan. Hough Green is the junction at 277.4 kilometres north. And at that point the HS2 Phase 2B railway splits to go to Manchester Piccadilly

or to Golborne junction. We've got the Stone IMB-R location, which is at 221 kilometres, and just to the north of that we've got the Aldersey's Rough at 234 kilometres. So, there's 13 kilometres between the two locations.

397. MR CORNER: Right, so?

398. MR WIGGIN: Quite.

399. MR PARKIN: Well, if you go to the next slide?

400. MR CORNER: Even barristers can ask short questions sometimes.

401. MR PARKIN: What I've done here is I've taken the – if you look on the left hand side of this table, you've got the various locations which I've just shown on the plan. The phase in which they are located is the next column. The third column is those changes which I've referred to and the distances from London. And then the relative distance – actually it says 'Stone/AR' there. It's actually just from Stone but you can add or subtract 13 kilometres to the numbers. So, if you take the position of Stone IMB-R, it's 13 kilometres to Aldersey's Rough. But if you go to Manchester Piccadilly, it's 84 kilometres. If you go to the Delta junction, which is on Phase One –

402. THE CHAIR: Sorry. I'm struggling. I'm taking in all this information and I still haven't got to the sense. So, where's the point?

403. MR PARKIN: The point is –

404. THE CHAIR: Perhaps give the point and then give the evidence –

405. MR PARKIN: Okay, the basic point –

406. THE CHAIR: Otherwise, it's just seeming totally irrelevant; that seems pointless. I'm sure it's not but can we get to the conclusion?

407. MR PARKIN: No, it's very important because it's about the relative distance of maintenance that you have to do from either Stone or Aldersey's Rough to the end of their maintenance sections.

408. MR CORNER: One of HS2's contentions is that Stone is more centrally located for maintaining the line, Mr Parkin. So, what I'm after is –

409. THE CHAIR: There's not much in it.

410. MR WIGGIN: There's 13 kilometres.

411. THE CHAIR: There's not much in it. That's the point. That's the simple one.

412. MR CORNER: a) That's true but it's not the whole point. And b) what do you say? Which is actually better located for maintaining this line once it's up and running?

413. MR PARKIN: The SIFT analysis went into quite a lot of detail as to what was wrong with Aldersey's Rough and what was right about Stone. And one of the issues that it said was that Aldersey's Rough would potentially need some maintenance loops at a place called Pipe Ridware in order to function. And the reason for that is because they said they needed a minimum maintenance window of three hours. You can see from the columns on the right hand side of this table that actually the time taken between Stone or Aldersey's Rough to either end of the railway means that from Aldersey's Rough you can get to the northern end, most northern extreme at Manchester Piccadilly in three hours 35 minutes and it can get to the Delta junction, which is actually on Phase One in exactly the same timescale. Whereas if you look at Stone, it has a greater maintenance window at Delta junction because it's closer but it actually only manages three hours 20 minutes at the northern end. And HS2's minimum requirement is three hours.

414. So, the first point is that actually Aldersey's Rough is more centrally located and can get to both ends of the railway in the same amount of time.

415. MR CORNER: Right. So, it's better in that regard. Next, in their SIFT analysis HS2 said that if Aldersey's Rough is to be provided we need maintenance loops at Pipe Ridware. Is that right?

416. MR PARKIN: No, it's not.

417. MR CORNER: Right. And I don't know whether you can remember this. I think I can. Can you remember what the cost was going to be? How much did that add to the cost differential?

418. MR PARKIN: Well, in the SIFT analysis they had an option 9.5 which was with

Pipe Ridware and without Pipe Ridware and there was a quite confused commentary in the SIFT analysis. But the differences took the – it was about £40 million.

419. MR CORNER: £40 million?

420. MR PARKIN: If you have Pipe Ridware.

421. MR CORNER: Right. So, if Pipe Ridware isn't required, as you say it isn't, that knocks off £40 million off the –

422. MR PARKIN: Off the headline costs.

423. MR CORNER: Alright. Okay. Right. Thank you.

424. MR PARKIN: If we go to the next one?

425. MR CORNER: Yes. So, we can move on I think. And you've got this next slide, which is slide 5 –

426. MR PARKIN: The purpose of this is to reinforce the point about the relative location of Aldersey's Rough to Stone. Aldersey's Rough is further north and because the northern section of the railway is going to be mostly ballast track, it's actually got more maintenance to the north than there is to the south. So, having a maintenance base at Aldersey's Rough is additionally advantageous over Stone because of that factor. And the percentages in the column on Aldersey's Rough on the right hand side, you can see that if we use Delta junction – which I will say again, is on Phase One – as the southern maintenance limit of both of these IMB-Rs, you can see that actually the percentage of actual railway – not just the distances – because on the northern end you've got the Golborne section as well as the Manchester Piccadilly section – but actually you've got 50% of the railway accessible from Aldersey's Rough. Whereas if you look at the equivalent figures for Stone, you've got 58.9 versus 41.1. So, it's not only inaccurate to say that Stone is better located in the middle of the railway, it's actually fundamentally wrong.

427. MR CORNER: And you say it's the other way round?

428. MR PARKIN: It is absolutely the other way around.

429. MR CORNER: Good. Thank you very much. We can move on then, please. And I want to come to my next heading, which is comparing Stone and Aldersey's Rough and your response to the SIFT analysis. And so, my first point is – and you've put up slide 6 quite rightly – is the Aldersey's Rough option that HS2 has assessed or used for the purpose of its assessment an appropriate one?

430. MR PARKIN: No, it isn't. And I start by referring to this drawing, which we produced in January 2017 when we first approached HS2 with this idea. This design is now superseded but the important thing that comes out of it is that Aldersey's Rough is well connected to both the Keele services here and both of the railways but also more importantly – and we'll come back to this – it's very well screened from the local settlements of Madeley – which is over in the west here – to Madeley Park Wood, which you can probably pick up in the south – and Keele, which is off the plan in the north – none of which will be able to see the operations at Aldersey's Rough.

431. MR CORNER: So, that was your initial proposal. And I think if we look at the next slide we see what HS2 assessed, do we not?

432. MR PARKIN: I'm not going to use this plan because it's actually just focussed in on the junction. We have a more zoomed out one. This is also not our plan. This is also, sorry, not the HS2 plan. This is our version of what potentially could be done. I think if we can turn to a plan which –

433. MR MOULD QC (DfT): Sorry. Could I just check: that's your proposition we just saw there, was it?

434. MR PARKIN: Not totally, no. I'll come back to that plan if I may? Can we go to the Aldersey's Rough drawing which is part of the HS2 pack?

435. MR CORNER: Right. I've got P43(1) in front of me. Is that the one?

436. MR CORNER: It's one of HS2's, sir.

437. MR PARKIN: So, this is HS2's design, Aldersey's Rough.

438. MR CORNER: Yes.

439. MR PARKIN: And there are a number of important things which we consider

make this a sub-optimal design compared to what could be achieved.

440. MR CORNER: So, tell us about those.

441. MR PARKIN: So, my colleague, Gordon Wilkinson has already been through the situation at Keele services and you're aware that we believe that the design we can have at Keele services is a great improvement. We also believe that the access which would be into Aldersey's Rough which – if I can find that. That's that point there on HS2's drawing. We would have it much further north. What we have asked HS2 for is the design drawings of this, when we met them. This is their fifth iteration of the design that we had in mind. Unfortunately, they've not provided those to us. But we believe on the basis of what we can see from this design that there are a number of changes which would not only make it a more optimum design, we would save some of the costs that they've built into their SIFT analysis. I don't know if I can zoom in slightly on this plan? Is that possible?

442. MR CORNER: I don't know.

443. MR PARKIN: Can we?

444. MR CORNER: Yes.

445. MR PARKIN: Thank you. That's fine. That's fine. So, at the moment, what you'll see is that they've got the – sorry – I'm fiddling with the –

446. MR CORNER: On my screen, we've zoomed in.

447. MR PARKIN: Yes, we have zoomed in.

448. MR MOULD QC (DfT): You want to go to the next slide because it's a zoom in, in event. So, P43(2) might be better for you.

449. MR PARKIN: Thank you, sir.

450. MR CORNER: P43(2).

451. MR PARKIN: Yes, that's fine. So, HS2 have arranged the railhead main area here in this, like a golf club head and they've put the railway sidings at the northern end and they've put the infrastructure at the southern end. We believe that could be

optimised by effectively flipping those over. That would lower railway sidings by several metres which do away with having such a high embankment through this zone here. And one of the points that HS2 has made about the overhead power line – and they haven't actually confirmed this – they're not sure but they're suggesting and then they've costed into their SIFT analysis that you need to spend a lot of money on an overhead power diversion. We believe that could be optimised as well. If you come further down –

452. MR CORNER: Just before we leave that, when you say 'optimised' do you believe that diversion of the overhead power line will be necessary or not?

453. MR PARKIN: We need to look at the details of the drawings and the levels but we believe that if you lowered that line by a couple of metres you can certainly avoid any need to divert that. But as I said before, they haven't confirmed that it needs diverting and yet they've included the cost for it. On the section through here, where the railway comes further south, you can see it's on an embankment. And then when it curls around on to the HS2 line, they've got a couple of crossovers which are so arranged that they need a much longer head shunt to go down to the far end of the railway. And this takes them into Whitmore Wood. And one of the issues they've made about Whitmore Wood is that it affects further ancient woodland. They've also said they need a higher retaining wall, up to 25 metres. And again, we think with an optimisation of the design – and we don't have the drawings so it's difficult for us to do so – but optimisation of the design you can value engineer these elements out of the scheme and save money.

454. On the other points of this design, at the moment HS2's design – which I think my colleague Trevor Gould touched on earlier – is to – the southern spur here connects to a head shunt on the old stub railway line of the Market Drayton line. This not only prevents you going straight into the railhead, which is what we think would be the optimum idea, but actually means that they have to affect a much greater section of old railway line. They've had to lower it by two metres. Or they're saying they have to remove and rebuild the Manor Road bridge. And we believe that the design – which I shall show you in a second – that we have for that could avoid that.

455. There's also flood protection measures because they've put the spur in the flood

plain. And when I come to talk about the environmental impacts, they have made a big point on the fact that this is going to be a major flood risk problem and they've scored it a major worsening against Stone.

456. And then finally, in terms of the connection on to the northbound West Coast Main Line here, they plan to upgrade the existing Madeley chord, which again involves using the head shunt and they need flood protection measures for that. Whereas our proposal – which my colleague, Mr Gould, went into – would come across this corner and would avoid the need for the head shunt as well.

457. So, we believe with working together with HS2 we could have come up with a version 9.6 or 9.7 which would have optimised the design of Aldersey's Rough and we'd have ended with a completely different scenario than the one we have today.

458. MR MOULD QC (DfT): I wonder if I might just point out – because it is important by way of context. This design is –

459. THE CHAIR: Sorry. Are you happy for Mr Mould to intervene now? It's my decision whether you intervene now or not.

460. MR MOULD QC (DfT): Sorry. Then, I won't. I won't

461. THE CHAIR: I was offering it for Mr Corner, which he didn't look desperately happy with your interruption. And I did say that I'd try to give him a clear pitch.

462. MR CORNER: Sir, my face is too mobile, I'm afraid. I wish I had a more poker face. No. Sir, it's entirely in your hands. You're the judge.

463. THE CHAIR: Carry on, please.

464. MR CORNER: Shall we just carry on? Yes. Okay. Thank you. So, Mr Parkin, you've told us about the things that could be better in the Aldersey's Rough railhead/IMB-R. Are you going to show us now slide 8?

465. MR PARKIN: I've probably covered those points. If we go to slide 8 we can at least see the optimal design that we have –

466. MR CORNER: Well, I think that's what we should do. So, why don't we do

that? Take us through it.

467. MR PARKIN: Our proposal here would be to take this spur line further up the contour, so out of the flood plain, and then turn it around so that we can make a direct connection into Aldersey's Rough. My colleague, as I mentioned earlier, Mr Gould has made the point about the advantages of being able to get in and out of the railhead more quickly. And this makes all of the works along this section of the old railway line redundant, which is what HS2 our proposing. We also wouldn't need to use that spur there – which I've just said – which is the existing spur. But we'd create a new spur, which would enable again direct access in and out of the railhead. I mentioned Whitmore Wood. This is Whitmore Wood here. At the moment there is about 1,200, 1,300 metres to get down to the northern end of the tunnel which goes through Whitmore Wood and we reckon that we can reduce the length of that head shunt on to HS2's line either if it stays on the northern side by changing the crossovers. But there is possibly the alternative of running the line underneath the viaduct at the River Lee – you'd have to make some adjustments to the design at the River Lee viaduct – and actually connect on to the southern side of the HS2 line, which would do away with the need for even the crossovers. And you'd have direct access on to the northbound slow lines.

468. We think that there are lots of changes that can be made to this to reduce the cost and to value engineer it. It's very difficult for us as a group to be able to do that when we don't have the design plans, which we have been refused access to.

469. MR CORNER: Alright, okay. Thank you very much. I want to come on now please to what I call engineering and construction feasibility. And I want you to deal with the comparative engineering and construction feasibility please by speaking to the table that you produce at slide 9. Slide 9.

470. MR PARKIN: This is a table that we've produced.

471. MR CORNER: Yes.

472. MR PARKIN: But it takes the information which is in the SIFT report, in the table which is the engineering matrix. The way that the matrix that HS2 produced worked – and I've tried to keep it simple because the colours can be quite confusing –

but basically the judgment HS2 has made is in relation to whether Aldersey's Rough is an improvement or a worsening against the baseline situation, which is the Stone railhead. So, you can look immediately down the left hand column and HS2 has scored Aldersey's Rough either a minor or a moderate or a major worsening. And probably the best that we manage is a neutral result according to their scoring system.

473. We have undertaken our own scoring system and we have come up with a completely opposite view to HS2. And I would like to take you through why I've come to those conclusions.

474. MR CORNER: I think you should, yes please?

475. THE CHAIR: It's not the parish council for Aldersey's Rough, is it?

476. MR PARKIN: No, it's our group.

477. THE CHAIR: I appreciate that. Have there been any discussions locally? If the Committee did find this was an alternative, it would be an additional provision, and there would be a whole new set of people with a whole new set of objections – both local, personal – the full remit. I'm wanting to get a feel for whether you've had any discussions with them – at various points we've touched on issues and advantages – and getting a feel for what –

478. MR PARKIN: We have tried.

479. THE CHAIR: – it would look like if you put in another column.

480. MR PARKIN: No. First of all, the column refers to Stone town and Chebsey parish. So, that's our judgment in this context. But to answer the question you've just asked, the group have approached both the Whitmore and Madeley groups because, as you probably have appreciated, both Aldersey's Rough and the longer, deeper tunnel – our propositions are mutually exclusive because the tunnel would go underneath Madeley chord junction and therefore you couldn't have Aldersey's Rough.

481. MR CORNER: You might need to keep your voice up a bit.

482. MR PARKIN: Sorry. Can you hear me?

483. THE CHAIR: I can, yes.

484. MR PARKIN: Sorry. I'll speak up a bit louder. But as my colleague, Gordon Wilkinson has said, because we believe that Aldersey's Rough offers really tangible benefits to the people of Whitmore and Baldwins Gate as well as Madeley because Aldersey's Rough can take some of the traffic pressures away from their construction areas, we approached them to give them a presentation of our thoughts. Unfortunately, we were refused them to speak to them because they saw us as being a threat to their longer, deeper tunnel proposition. I tried to say, 'Information is better than nothing' but they did not want to talk to us.

485. THE CHAIR: Okay.

486. MR CORNER: Right. Okay. Thank you very much. Thank you for the question.

487. THE CHAIR: Get back in.

488. MR PARKIN: Okay. So, coming back to the score here, you see that on the bisecting, existing roads – if we take the first point here – HS2 has scored that there is a neutral difference between the two sites. And as Gordon Wilkinson has already pointed out, the Stone railhead bisects both Yarnfield Lane and Eccleshall Road. It also bisects the Norton Bridge to Stone railway, whereas Aldersey's Rough doesn't bisect any road whatsoever. We can make access onto a short section of Three Mile Lane and then access straight into Keele services. How they manage to score that a neutral in that context is beyond me, to be honest.

489. MR CORNER: Just pausing there. On your plans, the length of Three Mile Lane that would be affected by traffic to get to Aldersey's Rough is what?

490. MR PARKIN: We think it will be less than 500 metres in total.

491. MR CORNER: In total? Okay. Thank you very much.

492. MR PARKIN: Between the northern side of the motorway, where would make access from the southbound connections to where we think the access should be on Three Mile Lane to gain access to Aldersey's Rough.

493. MR CORNER: And just compare that with the length of Yarnfield Lane that's affected by Stone?

494. MR PARKIN: Well, as my colleague Gordon Wilkinson said, for the first 15 months – it was nine, now 15 – you've got the full section between the railhead compounds and the A34 affected. In fact, that continues beyond that date, if you look at the histogram which was placed up earlier. But then beyond that point, 50% of all of the HGV traffic accessing HS2 from the M6 must cross the bridge of Yarnfield Lane – either the existing one or the new one – in order to access the northbound carriageway. And the distance between the Yarnfield north embankment satellite compound junction and the M6 connection on the northbound is 900 metres.

495. MR CORNER: Thank you very much. Can we go on to the next comparator, please, the next factor, disruption to highways?

496. MR PARKIN: Well it's a subset really of what I've just said. According to HS2, they say there's a minor worsening by having the railhead at Aldersey's Rough compared to Stone.

497. MR CORNER: What do you say?

498. MR PARKIN: Well, there is virtually no disruption of Three Mile Lane and yet there is total devastation of Yarnfield Lane for a period of four years. So, I say it's a major improvement by moving to Aldersey's Rough.

499. MR CORNER: Okay. I'm sorry, sir? Oh. Access to site?

500. MR PARKIN: Again, it's another point which Gordon Wilkinson made. He demonstrated that the access to the site, particularly in terms of when it was an IMB-R, was a sub-standard access in a cutting, which he considered was unsafe. Even the temporary access points involve putting new roundabouts and diverting the lane. The lane is diverted at Yarnfield for 1.2 kilometres. It has to have a new motorway overbridge. It has to go into a cutting. It won't be the same road ever again. And how that compares with actually using a short stretch of Three Mile Lane which needs a couple of new junctions to be constructed, again, I can't see how they can score that a moderate worsening for Aldersey's Rough. For me, it has to be at least a moderate

improvement.

501. MR CORNER: Alright, okay, so hence your green colour?

502. MR PARKIN: Yes.

503. MR CORNER: Yes. Right. Water and flood risk, please?

504. MR PARKIN: On water and flood risk, as I mentioned HS2 has a proposal to put a new spur of the West Coast Main Line, which they've put in the flood plain and actually goes the wrong way, up the old stub railway line. And they also plan to bring into action again the existing Madeley chord, which they say needs flood improvements. On the basis of those two, they've scored it a major worsening against Stone. Let's just think about what happens at Stone – and I'm happy to go to a plan at this point –

505. MR CORNER: Shall we do that? Which plan? I turn now to my default option is A43(1).

506. MR PARKIN: Well, I think it might be useful if you don't mind to go to a figure which has again been produced by HS2 in its evidence, which is P42(4)?

507. MR CORNER: Yes. Thank you.

508. MR PARKIN: Now, this plan has never seen by us before. And it's a very interesting plan and we're very grateful to now see it because it shows what the Stone area would look like without the railhead. And in this context in terms of flood risk, you can see – and I'll pick it up here – the Filly Brook is a meandering water course which wends its way through the site and heads down towards Stone. Now, in the plan that's shown here – which is what will happen without the railhead – you will quite clearly see that water course – they will have a viaduct – they still call it the Filly Brook viaduct – which is 210 metres long, which is between two embankments and will mean that the Filly Brook is hardly disturbed. If we can now go to the position which is the current plan of HS2 with the railhead, which I think we can either go back to the first plan in my proof? That will probably be the easiest.

509. MR CORNER: A43(1).

510. MR PARKIN: This shows the construction scenario. But effectively the Filly

Brook has to be diverted around the edge of this embankment. Perhaps if you can just enlarge the scale slightly for me? It's diverted. Now, this is the plan. I'll just point this out – this is the plan before HS2 submitted its supplementary environmental statement, Additional Provision design – at construction. And the Filly Brook is diverted around the edge of the major railhead structure, which is sitting on a 12-metre high embankment in the flood plain of the Filly Brook. This whole structure is fill in the flood plain. And in the original design they had a bridge here, which was called the Filly Brook west underbridge, and they had a 449 metre long viaduct, which was called the Filly Brook viaduct. They've subsequently replaced this design. Now that design, by the way, that includes a lot of structures inside the flood plain. If you now look at the new design – and again it would be probably best to look at one of the new HS2 drawings.

511. MR CORNER: One of the HS2 plans. What are we looking at? P42(2) perhaps? Or P42(1)?

512. MR PARKIN: This one is still the old design. We need one which shows the new design. Now, I appreciate that the SIFT analysis was put together before this new design was produced. But for the purpose of showing you the first plan, the construction plan, was that they've got massive structures inside the Filly Brook flood plain, even with the existing design. If we now – that's still the old design.

513. MR CORNER: I'm not sure that we've got a picture of –

514. MR PARKIN: We have.

515. MR CORNER: – the design produced at the end of March.

516. MR PARKIN: If we go to P44(1) please? This is the change to the design. Can I mess with the –

517. MR CORNER: P44(1).

518. MR PARKIN: You'll now see that the 449 metre long viaduct over the Filly Brook and the Norton Bridge railway has now been replaced by an 80 metre long viaduct and 385 meters more of embankment. And the small Filly Brook West bridge, which was down here, has also been replaced by an embankment. So, not only do we

have large embankments and structures before in the Filly Brook valley, which is a flood plain, we've not got even more structures of that type. And they've had to culvert the Filly Brook. You can see it appearing there. They culvert it under here. The culvert underneath that embankment alone is 95 metres long and under this embankment is 80 metres long. So, if we can go back to my table, Mr Corner?

519. MR CORNER: Yes. Let's do that.

520. MR PARKIN: So, if you look at my table, according to HS2 there's a major worsening in terms of water and flood risk for putting one additional two metre high embankment in the flood plain of the River Lee and putting some flood defences – both of which we don't think are required – whereas putting massive embankments in the flood plain of the Filly Brook is of no consequence. So, I have to conclude that instead of there being a major water or flood risk or a worsening for Aldersey's Rough, I have to say it must be a least a moderate and probably a major improvement.

521. MR CORNER: Right. Okay. Good. Thank you very much. Moving on – utilities.

522. MR PARKIN: Yes. In terms of utilities, we've touched on the 132 KV line. And as I mentioned earlier, HS2 has even admitted – and I will give you the reference if you will like – in paragraph 8.2.14 of the SIFT that they don't even know whether the 132 KV overhead line diversion is required. Yet they have costed £18.9 million into the difference to the costs for utility diversions, the majority of which, I suspect, are related this overhead line. As I've said before, if we could look at the design and we could optimise the design, we think there's a very good chance that we can actually remove any need for any diversion of that overhead line. But it's not even clear it's needed in the first place.

523. THE CHAIR: This is the second time you've mentioned documents that you'd like but you've haven't got.

524. MR PARKIN: It's the same document.

525. THE CHAIR: I appreciate that. But what – it's one document, is it? It's a named document, not a whole raft of sources?

526. MR PARKIN: No, we don't know what – HS2 has done option 9.5 design and as part of that design, I would expect to have long sections along the railway line and levels. I would expect to have full cost assessment of all of the component parts. And I would expect to have a complete cost assessment of all the component parts of the Stone railhead, which has ended up with them concluding that it's going to cost a lot more money to build Aldersey's Rough. We have never seen that detail. We asked for that detail when we had the SIFT review presented to us in November and it was refused to us. And without that information we can't validate the conclusions which are made in the SIFT analysis. I would also expect – and this is very, very important – that of a project of this scale – and if I was advising a client who was doing an environmental impact assessment for a project of this scale, that they should provide a full transport logistics profile. And what that should be is every HGV of every type. They should predict when it's going to arrive and what it's carrying and which route it needs to use. And I think if we had that document, I think we would also be in a far better place of understanding how they've calculated the number of HGV movements that they're proposing at Stone and how many HGV movements that they're apparently saying we need at Aldersey's Rough.

527. THE CHAIR: That's very helpful. Perhaps Mr Mould, when you do your concluding remarks, you can outline what documents that aren't available to the public, what shouldn't be available to the public and what, if any, can be made public that isn't currently public.

528. MR CORNER: Thank you. Sir, thank you. Do you want to say anything else about utilities or do we move on?

529. MR PARKIN: Not particularly, no.

530. MR CORNER: Right. Next, slide 9, structures, please? Again, if my defective colour vision is accurate, they are saying a major disadvantage for Aldersey's Rough. What do you say?

531. MR PARKIN: Well, again, I just can't fathom how you could possibly conclude that. I have a list of all the structures in the SIFT review. And I'll just find the paragraph reference.

532. MR CORNER: It's at –

533. MR PARKIN: 3.1.20, is it? Yes, it's 3.1.20.

534. MR CORNER: Yes, it is.

535. MR PARKIN: And I think when you looked at the – maybe if we can go back to the first slide of my proof and I'll point them out to people in graphic terms.

536. MR CORNER: Yes.

537. MR PARKIN: And again, if we can blow this slide up a little bit, it would be quite handy.

538. MR CORNER: So, bearing in mind, this is the previous design, things have moved on, but we can still use it –

539. MR PARKIN: But they've increased the embankments and – that's the main change. But I would argue that without the – if you move the railhead and the IMB-R to Aldersey's Rough, there are lots of features on this plan which are no longer required and therefore effectively are substantial costs savings because there's lots of big structures which they require here. The first one I've got on the list on 3.1.20 is the realignment of Yarnfield Lane itself, which is a 1.2 kilometre realignment from Moss Lane in the south here – Gordon showed you this – right up to this point where it merges back into Yarnfield Lane. That is a structure. Building a road and a roundabout and new overbridges over the M6 is a structure. Gordon has also referred to the fact that we don't need the M6 southbound and northbound on-slips which HS2's planning to do and effectively reverse the smart motorway works. The Yarnfield Lane IMB-R underbridge – so there is a bridge structure at this point here that allows them to carry the railhead and the IMB-R at something like eight to 10 metres above the level of the lane. You don't need that structure. The sidings that connect to the Norton Bridge railway line here – you don't need those structures. The reception tracks which go all the way along – if we can just zoom slightly out again, please? A little bit more?

540. MR CORNER: Is that right?

541. MR PARKIN: Slightly more. Slightly more. Okay. It actually goes all the way

down here to the head shunt end. There is a large amount of railway required to actually make the connection into the railhead structure itself. The railhead is – I’ve done a – it’s a bit of a quick calculation because I’m used to doing a lot of ‘muck shift’ calculations in my career –

542. MR CORNER: ‘Muck shifting’?

543. MR PARKIN: Muck shifting. This is about moving earth –

544. MR CORNER: Moving earth.

545. MR PARKIN: – earthworks from one place to another. I estimate that they’re going to have to excavate something – well, HS2 have told us – 1.6 million cubic metres of material and that – and I’ll show this on another plan in a minute – but that – there’s a cutting area up here – and all of these railways are in cutting. The HS2 railway is much wider than it will otherwise be because you’ve got a head shunt in a cutting. So, all that material – they’re claiming 90% of it’s going to be re-used – and actually filled into these areas here or made into the embankments for the railway. They’re all structures which are being produced because you have a railhead here.

546. MR CORNER: Do they know, are they able to say with any degree of certainty that they will in fact be able to re-use all that earth?

547. MR PARKIN: Well, HS2’s position at a national level is that they say that the whole assumption for the railway – this is the whole of HS2 – is that in excess of 90% of the material that they excavate will be recycled on site and used in embankments. I have to say I am concerned about that number because if I was building an embankment taking a railway which is travelling at 360 kilometres an hour, I would make sure my embankments were made of pretty good stuff. And I’m not sure that they know that at the moment. There’s no site investigation of the ground conditions at Stone that we are aware of. But if somebody tells me that’s the case, then we’d like to see the details. In fact, I understand that Phase One, which is the London to Birmingham section, there is site investigation going on at the moment. But we haven’t heard how much of that material is being able to be re-used. But I would expect HS2 to use the intelligence from that information to design its railway for Phase 2A and 2B and review its assumptions. And if I can just say, HS2 says that 128 million tonnes of material will be

excavated along the whole railway, if only 1% of that can't be re-used – 1% more – that's 1.28 million tonnes, which is another 128,000 HGV movements. And if you look at it in terms of Stone, Stone – if they're saying 1.6 million is the amount that's going to be excavated – then, you do the same calculation – it's 16,000 –

548. MR CORNER: If 1% –

549. MR PARKIN: Thank you – cubic metres, which is effectively another 1,600 trucks for every 1% you've got wrong, in each direction. So, these things are very, very important in terms of what the environmental effects will be of this railway. And it's very important on the purposes of what my colleague Gordon Wilkinson said in terms of about the HGVs that are going to be travelling on the road.

550. And I'll just say one more final point. HS2 has conceded in its supplementary environmental statement that it will have to bring more HGVs into the site in order to first of all build those new embankments which I talked about, which replaced the viaduct, and also because they're raising the level of the railway by 0.9 metres as part of that application. Now, they haven't said how many HGVs. And all they've said is, 'They're going on the M6'. Well, anything that goes on the M6, 50% of it goes on Yarnfield Lane. So, none of this is transparent. We have no idea what these numbers are. And we will be asking, as the parish councils, we will be asking for this information as part of a further petition that we'll be putting in before the end of this week.

551. THE CHAIR: Sandy?

552. MR MARTIN: Yes, I think there's a fairly fundamental lack of understanding, I think, from my point of view on this, is that you've have spoken at length – or various of your witnesses, Mr Corner, have spoken at length about Yarnfield Lane – but once the M6 access is constructed for the Stone railhead and you say 50% of it will be on Yarnfield Lane. You mean 50% of it will be on the bridge over the M6 on Yarnfield Lane?

553. MR PARKIN: Yes.

554. MR MARTIN: That's the only part of the Yarnfield Lane that will be used, isn't

it?

555. MR PARKIN: Well, it's not quite, is it? It's that point there where they merge.

556. MR MARTIN: Yes.

557. MR PARKIN: They either have to go on the existing bridge or they go on the new bridge. Whatever – they're sharing that bridge with the public –

558. MR MARTIN: But, but –

559. MR PARKIN: If I can just finish

560. MR MARTIN: Yes, sorry.

561. MR PARKIN: – and they will be travelling 900 metres either into that point there where they can access into either this compound, which is called the Yarnfield north compound, or the compound over here, which is the M6 satellite compound – viaduct compound, or they'll be going into the transfer node. Now, they might be going into the transfer node at that point. We're not sure. I think they probably will at that point, which is about 600 metres. But that is 600 or 900 metres which you have to share with everybody else who uses Yarnfield Lane.

562. MR MARTIN: Yes – but Mr Parkin, I just wanted to clear up what you meant by Yarnfield Lane. You're talking about the section of Yarnfield Lane within the Stone railhead development?

563. MR PARKIN: Yes, I am.

564. MR MARTIN: Right. So, all of that will have been rebuilt by HS2 anyway – to whichever specification is necessary?

565. MR PARKIN: It would have been rebuilt but the public – I will have to use that lane along with their HGVs, as will my colleagues –

566. MR MARTIN: Yes, no, I get that. I was just worried because I was worried about whether or not it was going to be the rest of Yarnfield Lane that we were concerned about. It isn't. It's this bit here that you're talking about.

567. MR PARKIN: Yes, but if you read what's said in the supplementary environmental statement – and I haven't got the quote here – but it says, 'Well, it's going on the M6. It's not a problem.' Well, it is a problem. It's a very big problem.

568. MR CORNER: And just to pursue that, if Mr Martin, if that's the end of the questions? That portion of Yarnfield Lane that will be rebuilt or changed, do we know that it's going to be of a specification that will accommodate the traffic that's going to go on it?

569. MR PARKIN: Well, I know that my colleague Gordon Wilkinson has exchanged several emails with HS2 over the last two weeks and he's been trying to ascertain what is going to be the width of Yarnfield Lane. And he's been eventually told it will be six metres. And I think as he gave evidence earlier on, six metres is not sufficient. And if they build a new overbridge over the M6 which is no wider than the existing overbridge over the M6, what's the point of doing it?

570. MR CORNER: So, structures we're on. You've told us –

571. MR PARKIN: Well, I haven't finished on the structures because there's the Stone Retaining Wall 1, which is a retaining wall which sits between – if I can pick it out? Maybe if you can zoom in again for me?

572. MR MARTIN: We've got to balance that against re-building the railway, though, that takes us to Aldersey's Rough.

573. MR PARKIN: Oh, yes. I'm not saying we don't. And I'll come to that in a moment. But this is a question of whether – you've got these structures at Stone. We've got these structures at Aldersey's Rough. Now, at the moment, they're saying, 'Aldersey's Rough, worse'. And I'm saying that all of these structures which have to be built to build a railhead here which you won't need when you don't build a railhead here – they're far greater than at that's proposed at Aldersey's Rough and will be a lot more expensive.

574. So, there's a retaining wall between those two railways there, which is called the Stone Retaining Wall 1. The Norton Bridge to Stone railway overbridge – well, this is a very important point here. If I can describe what the Norton Bridge railway looks like?

At this point, it's sitting on an embankment which is two to three meters high. Above it is overhead catenary which sits six metres above the tracks. So, in order to for HS2 to either cross it here – which is where the Main Line is – or here – which is their connection into the railhead – they've got to have a pretty big structure to get over it. And this bridge here is not finished until March 2023, two and a quarter years after they start operations on this site. And that is the only means whereby they can get from the southern side of the site to the northern side of the site to make access to their construction compounds. Now, in muck shifting terms, that is a massive problem. It's an expensive thing to construct. And so, if you don't have that railway there, you'd have to build that embankment just as a haul road. And for that they have possessions on the Norton Bridge railway line to actually enable them to build it. So, that is another structure. And if I can go finally to –

575. THE CHAIR: Mr Corner, in terms of timing, when I asked you whether it was 10 minutes, 20 minutes or 30 minutes, you said it would be 60 minutes.

576. MR CORNER: I know.

577. THE CHAIR: You've got nine minutes of that time left.

578. MR PARKIN: Okay.

579. MR CORNER: Thank you very much. That's very –

580. THE CHAIR: That's just to make sure. I mean, I'm not going to pull you up bang on nine minutes but I'm conscious we do want to –

581. MR CORNER: We need to keep an eye on it.

582. THE CHAIR: – consider Mr Mould and we are intending meeting in private, having got a good overview.

583. MR PARKIN: Can I just make one more point on this?

584. MR CORNER: Thank you, sir.

585. THE CHAIR: The time is in Mr Corner's hands because I don't know what else is coming.

586. MR CORNER: We're going to have to race, Mr Parkin.

587. MR PARKIN: Okay. I will move on.

588. MR CORNER: Yes.

589. MR PARKIN: I want to make one more point about this in terms of structures. The diversion of Eccleshall Road is 50 metres offset from its current position and it's got a 150 metre long bridge in order to get over not only the HS2 main line which is in a cutting but also in the head shunt, which is in a cutting. You get rid of the head shunt, you reduce the length of that bridge 40%, 60 metres. So, if you had all of those structures – if we can go back to my slide, please, which has got the table?

590. MR CORNER: Yes, number 9.

591. MR PARKIN: How it can be a major worsening for Aldersey's Rough against Stone compared to moderate to major improvement, which is my prediction, well I think I've proved the case that it's much, much improved. And that will be reflected in –

592. MR CORNER: We're going to move on, Mr Parkin.

593. MR PARKIN: Okay.

594. MR CORNER: Next one, complexity of construction – is there anything else to say about that?

595. MR PARKIN: I have a plan on this. If we quickly show it?

596. MR CORNER: Alright. Go on, show us your plan.

597. MR WIGGIN: Costs is the one I'm particularly keen on.

598. MR CORNER: Yes. I am too. And I want to preserve some time for costs. And I also, sir, need to –

599. MR PARKIN: Slide 2, please?

600. MR CORNER: I also need to ask Mr Parkin to deal with some environmental matters, as well.

601. MR PARKIN: Okay. So, I'll quickly cover this. I said to you just a minute ago, I've shown this in summary form about cut and fill. When you do an earthworks operation, cut and fill is the optimum thing you should be looking at. An ideal situation is that you should be a balance between the two. And the point I want to make here is how important that barrier is there, which is Norton Bridge railway. And the cut areas are the yellow areas and the fill areas are the green areas. And you've got this movement across the – not only Eccleshall Road and Yarnfield Lane but you've got this crossing all the time of the Norton Bridge railway. That is a very complex process. It's going to cause – if they are delayed in any of the component parts of those structures that I've just referred to, the programme will be delayed. And that will add cost.

602. MR CORNER: Okay, programme? I think probably –

603. MR PARKIN: Go back to my previous slide, can we?

604. MR CORNER: Yes, slide 9.

605. MR PARKIN: Programme – HS2 have said it's neutral. I say actually in terms of complexity of construction, Stone is so complex to construct with all of the roads they have to cross, that it's a major, major improvement for Aldersey's Rough.

606. MR CORNER: Now, deal with costs.

607. MR PARKIN: Ah ha, okay.

608. MR CORNER: We have some material from HS2 on.

609. MR PARKIN: Yes, if we go to HS2's slide on this. This is first time we've seen any comparative costs between – apart from the headline figure which HS2 gave in the SIFT.

610. MRS MURRAY: Which number?

611. MR CORNER: Here we are. It's P41(17). P41(17).

612. MR PARKIN: As I said, we'd not seen these costs before and we don't have any breakdown to substantiate them and I think we need to see that breakdown. But if we just start from the top? Civil engineering – HS2's admitting that it's actually £11.3

million less to build Aldersey's Rough in terms of civil engineering, excluding earthworks. I think that number should be greater, but we haven't got the details so we don't know. We would expect the depots and stabling to be similar although if you look in the brackets it says, 'including earthworks'. The earthwork situation is much more complex Stone than it is at Aldersey's Rough. If they've used a unit rate per cubic metre, haven't taken into the account the complexity of the transportation – which I think they will have at Stone compared to Aldersey's Rough – I would expect to see a much greater differential. Railway systems, I think they've increased the costs at our end because they've included some of these design elements which we don't think we need. The indirect cost is quite a fascinating number because if you flip on to the next slide – 18 – in the fourth bullet point it says, 'Indirect costs include HS2 corporate costs, project management, design, development and insurances and they are calculated on a percentage basis'. Percentage of what? At that point in the table – if you can go back to 17 – Aldersey's Rough is clearly cheaper. So how come we've been landed with an extra £6.8 million? They come to a sub-total and then I'm particularly concerned about what happens next. You don't get any numbers for Stone. You just get this differential and you've got no way of knowing what the differential's based on. We're told there's an extra £1.2 million worth of property costs. There are plans which HS2's produced. I don't know whether you have time to go into them, Mr Corner? They show lots of land which we don't think we'll need. So, we think that number will fall away.

613. MR CORNER: Let's leave it like that rather than take the time going to the plan.

614. MR PARKIN: Aldersey's Rough, structures and roadworks and associated possession costs – we've suddenly been landed a £33 million addition. Why are they not in the civil engineering costs or the depot costs above? And what is that £33 million? I've just explained Aldersey's Rough has got a very limited amount of structures to be built, where Stone's got a huge number of structures to be built. So, where has that £33 million come from?

615. MR CORNER: Just before you move on, have you access to the information which would enable you to find out what the answer to the question you've just posed is?

616. MR PARKIN: No.

617. MR CORNER: You don't know? Alright.

618. MR PARKING: We would need a spreadsheet which would be like a bill of quantities of all the key elements to do so.

619. MR CORNER: Okay, so carry on. Thank you.

620. MR PARKIN: The next one, utility diversions, I've mentioned before. They've got £18.9 million loaded against Aldersey's Rough which I think will be dominated by the need – according to HS2 – for a 132 KV overhead power line diversion, which I dispute, on the basis of it being needed. And if it is needed, I think the design of a single tower to raise the wire wouldn't get anywhere close to £18.9 million. But regardless of that, we need the details associated with that. And then we've got an efficiency adjustment which is £9.8 million in benefit to Aldersey's Rough. And if we go to slide 18 again? It says, 'The efficiency adjustment represents expected opportunity cost savings associated with the direct and indirect costs'. So, how come, with all of what they've loaded in against Aldersey's Rough we can suddenly save £9.8 million on Aldersey's Rough? None of this makes sense. And if I can make one final point about this? On the previous point on the diversions, there was a second point in there – was it that one? No, sorry. It was in relation to the associated possession – sorry, if you go back to slide 18? That's where it is.

621. MR CORNER: Associated possession costs. And there's a –

622. MR PARKIN: Yes, if you notice, on the third bullet point, it says, 'Civil engineering costs include bridges, viaducts and other structures, roads and utility diversions'. So, if they're in the civil engineering costs, how come we've got an extra £18.9 million loaded against us on utility diversions? None of this cost analysis stands up to scrutiny on the basis the information provided. And it is my view that if we had an ability to scrutinise this information in more detail, Aldersey's Rough would be a substantially cheaper project to build than Stone.

623. MR CORNER: Thank you very much. Lastly, if I may? Relatively concisely, I promise.

624. THE CHAIR: I mean the time is up so lastly and very concisely, that would be

great.

625. MR CORNER: Thank you.

626. THE CHAIR: Just to be clear, my interpretation of that is two minutes.

627. MR CORNER: Right. Okay. Environmental –

628. THE CHAIR: You’ve got two minutes. I’m just conscious of not –

629. MR CORNER: Of course. Quite right. Mr Parkin, environmental, slide 11, you’ve set out your case on this in your proof of evidence and in your summary. I wonder if I dare ask as to show the page in your material which deals with this? It’s A41(7). A41(7). And it’s table 3.2 and it runs for the rest of A41(7) over to page A41(8). And then you’ve got an overall rating at the end on A41(9).

630. MR PARKIN: Yes.

631. MR CORNER: You’ve set out your score in just over a page. I don’t want to take your time now –

632. MR PARKIN: I’ll just say this point – I won’t go into detail on this because I know we haven’t got time. I think you can look at the table and read it in your own time. But I would say this. I’ve been doing environmental impact assessment, managing major environmental impact assessments for 23 years at my current employer and before that at my previous employer as well. And I have therefore have a pretty good feel for all of the environmental subjects and I do not recognise the conclusions drawn by HS2 whatsoever in terms of these things. And I’ll just pick out one example: community integrity. I mean, community integrity – as we’ve seen, there is virtually no one living in the vicinity of Aldersey’s Rough. And yet, we have a population of 2,200 in Yarnfield; we have a very major conference facility at Yarnfield Park; we have a community football – regionally important community football ground. We have all of the people of Stone affected by this – the people who use Eccleshall Road. Under any measure, building a railhead in a place which Jeremy Lefroy described – and Jeremy Lefroy by the way, MP for Stafford, lives at Keele – has described it as one of the most remote places in Staffordshire, right next to the motorway and the West Coast Main Line – how that can possibly score a worsening against Stone, I just find completely

unbelievable.

633. MR CORNER: Let's leave it there. Thank you very much for your patience.

634. THE CHAIR: Thank you. Thank you for your time. Thank you, Mr Parkin. Thank you, Mr Corner. Do we need a two minute break?

635. MR MARTIN: If we're finishing at 4.30, Chair, we can't take a two minute break?

636. THE CHAIR: We're finishing at 4.55 although Mr Wiggin has to go at 4.30 for 10 minutes to do some other business at the House. Press on then?

637. MR MARTIN: Yes, press on.

638. THE CHAIR: I think we're going take – we'll be back in three minutes at two minutes past four, a wee comfort break.

639. MR CORNER: Thank you very much.

640. THE CHAIR: Yes. Order, order. We'll be back at 13 minutes past.

Sitting suspended

On resuming –

641. THE CHAIR: Order, order. Mr Mould?

Evidence of Mr Smart

642. MR MOULD QC (DfT): Mr Smart, can we please start with P41(4)? I should say, sir, there is an awful lot of detail that has been presented to you during the course of the day. There's been some extremely serious criticisms of HS2's work. Someone listening in might think that the body of men and women who sit behind me and those back at the office are to a very large degree incompetent. But I should say straight away, I entirely refute those criticisms. They are – save for one point that I will now make – they are in my submission, incorrect. If you would like us – when you've heard from Mr Smart you may feel that you don't need to hear any more about the detail. If you do want to hear more about the detail, I can undertake to produce a note –

643. THE CHAIR: Thank you very much.

644. MR MOULD QC (DfT): – which will respond – once we’ve seen the transcripts – and we can deal with the points. But I wanted to make that point clear right from the start. The one qualification that I will make is this. The cost schedule which you have just seen is not ideal in its presentation. You will have seen that it is presented in the same way as we presented the costs in relation to the long tunnel, the single-tunnel scheme the other day. We need to review it and to decide if how better to present our facts. That seems to me to be clear.

645. THE CHAIR: How quickly are you proposing to do that?

646. MR MOULD QC (DfT): Well, I’m not going to be able to do it overnight. But I will try and get on to that tomorrow and get something to you. It’s a layout point as much as anything.

647. THE CHAIR: Sheryll?

648. MRS MURRAY: Can I just ask Mr Mould, the costings, the total costings are the same, are they? It’s just the way the figures have been presented?

649. MR MOULD QC (DfT): Yes, I can show you. I’ll do this very quickly, if I may? If you turn to our 247?

650. MR CORNER: Which one is 247?

651. MR MOULD QC (DfT): It’s the SIFT report.

652. MR CORNER: Oh, yes.

653. MR MOULD QC (DfT): This is the SIFT report that was provided to the petitioners last November.

654. MR CORNER: Yes.

655. MR MOULD QC (DfT): That’s right. And you’ll see that there a figure of plus £38 million was said to be the comparative increase in costs for the civil engineering elements of the Aldersley Rough option. This is without maintenance loops. We make that point clear. We’re not asserting to you that there is a need for maintenance loops at

Pipe Ridware. So, that point can be pushed out of the account completely straight away. Plus three for the railway systems, making a total of £41 million. Now, the cost schedule that you have, if you work through it, you will find that the relevant numbers resolve down to £38.2 million. It is the same number but it is presented in a rather different way. We have also – in the cost schedule that you’ve just been shown by Mr Corner and his witness – we’ve also made an assessment, an estimate of the costs for the items that are shown at this stage – last November – uncoded at 8.7.4. But I can provide an annotated – what I can do for you and I can do this very quickly – I can do this so that you have it tomorrow – I can provide you with an annotated version of the cost schedule that has been provided to you in the exhibits just explaining how those numbers resolve – how they resolve down to the figures that are shown on the P number.

656. THE CHAIR: Okay. Yes. Move on.

657. MR MOULD QC (DfT): That’s all I want to say about costs at this stage.

658. THE CHAIR: Thank you.

659. MR MOULD QC (DfT): Can we go back please to P41(4)? Mr Smart, I have the slide in front of us. Can you please just summarise to the Committee what, in your judgment are the key advantages of the Stone railhead? Before you do that, can you just confirm for me, what is your particular experience in managing rail maintenance facilities?

660. MR SMART: For five years I was a director in charge of rail maintenance on High Speed One. The track engineer with me on High Speed One is part of my team. Before that for five years plus I was chief engineer in charge of southern region. So, I had the operational responsibility for the infrastructure and maintenance of every line that terminates at Waterloo, Victoria, London Bridge, Charing Cross and Cannon Street

661. MR MOULD QC (DfT): Speaking with the benefit of that experience, please, what in your judgment are the key advantages as a construction railhead of the Stone location?

662. MR SMART: First of all, there’s ease of connection because you’re not

connecting into the West Coast Main Line, which is the busiest intercity route in Europe, which is one of the reasons we're building High Speed 2. Secondly, there is capacity there. The petitioner correctly said that there are three passenger trains an hour. It is a freight route. Freight isn't currently operating on there and therefore between 11 at night and six in the morning, we have an open railway to feed our railway. Irrespective of the numbers of trains that we need, there's a good capacity. If I could give you a rough parallel, Beechbrook Farm railhead on High Speed One fed all of the High Speed 109 kilometres and it was connected to the Ashford and Maidstone line. It gives you a rough comparison.

663. MR MOULD QC (DfT): And we're here of course we're dealing with the construction phase between the years 2021, 2022 and 2026.

664. MR SMART: That's correct.

665. MR MOULD QC (DfT): Can you help me, what is your estimate of the likely throughput of supply trains into the construction railhead during that five year period? Per day.

666. MR SMART: Per day – in order for us to build the Phase 2A, we are talking about one to two a week – sorry – to build it, we're talking potentially for up to seven. But what I should say is seven trains a day does not occur every day because you've only got so much capacity in the railhead. So, to build it we would come in at a maximum of seven. If we do have more – if we have a slab on Phase 2A, but for Phase 2B, there's a possibility of ballast for a certain section. And that's where we would derive the seven per day from. It's unlikely we would need that number. It's the worst case, but you don't need that every day because you've only got so much capacity in the railhead. And there's easily capacity to feed that.

667. MR MARTIN: Sorry, chair, can I just ask Mr Smart to confirm the point for me? I understand what you're saying is that you're having seven trains a day using a line which is not currently used for passengers anyway in order to access the site?

668. MR SMART: When it is used as the railhead for construction, sir, yes.

669. MR MARTIN: Yes. And so, there would be no disruption to passengers on that

line at all?

670. MR SMART: No.

671. MR MARTIN: Thank you.

672. MR MOULD QC (DfT): If that line were brought into use for passenger services – and I think a figure of three per hour was mentioned earlier – would the level of use that you’ve just mentioned during construction – okay – before HS2 comes into operation in 2027 on this section of the railway – would the level of use that you’ve just mentioned – I think you gave a figure of seven –

673. MR SMART: Yes.

674. MR MOULD QC (DfT): Would that cause disruption if we assume passenger services on the Norton Bridge railway of around three per hour?

675. MR SMART: No, it wouldn’t.

676. MR MOULD QC (DfT): Why is that?

677. MR SMART: We’ve got the night window and there’s also plenty of capacity between trains. At only three an hour, you can still thread freight trains through, as they do all over the network on what’s called queue paths. And as I’ve already said, that seven per day is a maximum at the peak of construction. And it may be you can manage it by having lesser number over a slightly longer period of time. So, it’s just a maximum that we would assess at any day that we would need. But probably we would need a lot less than that because if you have seven trains per day coming in with ballast or whatever it is, you wouldn’t have physical capacity to store it all in the railhead. So, you just need to feed them as you can sort of, if you will, a just in time delivery – enough to keep a stockpile and to use it.

678. MR MOULD QC (DfT): Can you just deal with the second point on the screen, please? What is the significance of that point in so far as the Stone location is concerned?

679. MR SMART: Well, the second point is the reduced construction programme. It’s because the – the petitioners have mentioned the use of Aldersley Rough facility as a

maintenance depot once the line's open. But of course, when the depot is used as a railhead for construction it is better to have that at a midpoint because you can go south to do fit out and north to do fit out. And where it is located – Aldersley Rough is located, which is north of our first of the twin tunnels, you've got some hard spots along the route where construction could take longer and therefore the ability to travel up and down the route to fit out the railway could be impeded by significant civil engineering works.

680. MR MOULD QC (DfT): So, that's the location between the two tunnels?

681. MR SMART: Between Whitmore and Madeley, yes.

682. MR MOULD QC (DfT): I see. Yes. Okay. Can we then please turn from that slide to P45(1)? I'm so sorry. I don't mean that. Can we turn from that slide to A43(8)? This is the petitioners' variation on the Aldersley Rough proposal that was published as part of our appraisal back in November last year. Yes?

683. MR SMART: Yes. This is not our interpretation of how we would make Aldersley Rough.

684. MR MOULD QC (DfT): This is the petitioner's slides?

685. MR SMART: Yes.

686. MR MOULD QC (DfT): And we see that a key difference here is, as was explained I think by the last witness, is that the petitioners have assumed a chord connecting during the construction phase of the railhead and during the operational phase of the maintenance depot connecting the depot on to the West Coast Main Line. Do you see that chord?

687. MR SMART: Yes, I do.

688. MR MOULD QC (DfT): During the construction phase, if we work on the basis that the number of trains that would need to get in and out of the railhead during construction was comparable you gave for Stone – that is to say seven a day?

689. MR SMART: Yes.

690. MR MOULD QC (DfT): The West Coast Main Line at that point consists of four tracks, doesn't it?

691. MR SMART: It does.

692. MR MOULD QC (DfT): And a chord which is going – placed in that location – would that go on to the slow lines or the fast lines?

693. MR SMART: Those chords would go onto the fast lines.

694. MR MOULD QC (DfT): And how busy are the fast lines in the West Coast Main Line in this location?

695. MR SMART: They are very busy.

696. MR MOULD QC (DfT): Before HS2 comes into operation.

697. MR SMART: They are very busy. Network Rail wouldn't allow us to operate on their fast lines which would mean we would have to do a ladder – more work – to then cross from where we could get on to the fast lines on to the slow lines, which is even more cost, more possessions. And I would doubt Network Rail would let us connect in their fast lines, even if we were going to get across on to the slow lines.

698. MR MOULD QC (DfT): Do you consider, please, the comment on this – give the Committee your view as to whether or not a construction railhead needing to accommodate the in and out movement of up to seven supply trains a day on to the West Coast Main Line via such a chord as we see there, whether you think that is a realistic proposition?

699. MR SMART: It's not a realistic possibility because the chord would have to be longer because the turnouts – the points if you will, Chairman, have to be located on a certain gradient, a very low gradient, and the speed. So, that chord would have to be a lot longer than shown by the petitioners. And there's a seven metre fall across there. Irrespective of Network Rail being able to let us do that – which they wouldn't – there'd still have to be a much greater construction than the petitioner shows.

700. MR MOULD QC (DfT): Just help me with this, if that is right, I assume from that you can't support –

701. MR SMART: I can't support that.

702. MR MOULD QC (DfT): – this as a construction railhead? What is the inescapable consequence in terms of construction HS2 whilst taking advantage of rail based delivery in operation?

703. MR SMART: Well, without that, we would be restricted as to how we would access the depot for our fit out, which is our most critical period for being able to connect our depot to the national rail network. So, we would have to implement what is our interpretation of the scheme, which is to have a northern connection on the Madeley chord.

704. MR MOULD QC (DfT): If you're right, and the scenario is that this is not an acceptable location for a construction railhead, what's the consequence for that in terms of whether it is an acceptable location of a maintenance base?

705. MR SMART: Well, the acceptable location for a maintenance base – we have still got a lot more infrastructure to put in. I don't know how much time we've got, but there are some restrictions about how we would be able to enter that depot because we'd have to go up the old railway. And there are some limitations on the switches and crossings in this area which means that we'd have to do another head shunt to move around in the depot. We've got head shunts on our depot as well but there'd be an additional head shunt here. So, it is sub-optimal as a maintenance depot irrespective of its sub-optimality as a railhead.

706. MR MOULD QC (DfT): Can we just put up then, please, P45(1)? That's the petitioner's proposition. Let's just look at the option that we published and explained to the petitioners last November.

707. MR SMART: Yes.

708. MR MOULD QC (DfT): And we can see the key difference between the proposition we were looking at is that there's no chord joining the railhead during construction and the maintenance base during operation, taking trains to and from the depot via the West Coast Main Line fast lines?

709. MR SMART: That's correct.

710. MR MOULD QC (DfT): But there is the reinstatement of a length of the out of use railway – which is being pointed out now – and then a chord and then a reinstatement of the Madeley chord at this point – that’s being pointed out now. What’s the purpose of that part of our option please, Mr Smart?

711. MR SMART: The Madeley chord?

712. MR MOULD QC (DfT): Yes.

713. MR SMART: The Madeley chord is to allow us to bring trains from the north, which would travel down here into a head shunt and then into the depot. That head shunt also serves trains coming from the south – this is because they’re on the slow lines – the same, into that head shunt and then into the depot. Now, we wouldn’t have to do the head shunts in that way if we had a siding on what is a much more or a less busy railway, which is the railway that we’re proposing to use.

714. MR MOULD QC (DfT): Are you talking about Stone?

715. MR SMART: I’m talking about Stone – rather than of course, this is all on the West Coast Main Line.

716. MR MOULD QC (DfT): Right. That’s our – now Mr – I forget his name, the final witness –

717. MR SMART: Parkin.

718. MR MOULD QC (DfT): Parkin – I do apologise – Mr Parkin suggested, asserted, that this design was work in progress and that there should be opportunities to improve upon it. Yes? On that particular point, that is to say getting access during construction in particular but also in operation – getting access from the depot on to the West Coast Main Line – are you able to say whether you think there is any realistic improvement that is likely to come forward over what we see on this screen in front of us?

719. MR SMART: No. This would be the scheme that we would have to implement.

720. MR MOULD QC (DfT): Thank you. And why, whilst we’re here, why is it necessary to have this chord in the south eastern quadrant which as Mr Parkin rightly said cuts into Whitmore Wood and also requires a deeper retaining wall at that section

of the road? What is the need for that?

721. MR SMART: That is to access our railway when it is operating as its maintenance base. That is our way on to our railway. To go south, we can go straight via our switches and crossings across and south. But to go north, we would have to come into the head shunt here – which was referred to by Mr Gould – and then go north. And you’ve got to remember, the falls across this whole section of where we’ll be accessing the depot and coming out are about 17 metres. So, there’s quite a lot of engineering that would have to be done. I take the point the petitioners made about Stone. But, you know, there’s a lot that has to enable this to operate in its railhead and depot mode.

722. MR MOULD QC (DfT): Thank you. Now, if we can come back please –

723. MR MARTIN: Chair?

724. THE CHAIR: Sandy?

725. MR MARTIN: On this map, the two things that did occur to me – first of all, the crossing of the Stoke to Market Drayton railway over the West Coast Main Line is not actually perpendicular. So, any possible chord between West Coast Main Line and Stoke to Market Drayton on the north side in order to have a reasonable radius would have to be further out from the junction than on one of the – you see what I’m saying. Yes?

726. MR SMART: Yes.

727. MR MARTIN: You’re doing a turn of more than 90 degrees. So, it would be, in fact, it’s more than 270 degrees. And the second point is presumably the bridge, if you were going to do this, you would need to rebuild the bridge over the West Coast Main Line before you could build the depot in which the materials for re-building the bridge were going to be put.

728. MR SMART: We’d have to rebuild that bridge and two-track it, and that is if you look at our costs, we’ve included the possession cost in our costs for doing that. If you look at the note, what isn’t in our costs is the possession cost necessarily to make the connections on to the West Coast Main Line because that is a major cost in terms of the

signalling or possessions for signalling alterations and for clearly the turnouts that would be required. And furthermore, the petitioners' alternative scheme from what I can see of it – although it's not a worked up scheme – our connection does not interfere with any of the signalling, masts and gantries. From what I can see of the petitioner's slide where they – in order to get around this head shunt – do a much wider curve that comes out around and up would have more of an impact on the signalling of the West Coast Main Line and coming off in the way we've shown. So, in the round, I'm saying this is completely sub-optimal but if you have to make it work, this is the sort of scheme you would have to do.

729. MR MARTIN: Yes.

730. MR MOULD QC (DfT): Can we please put up A35(7)? This is the paragraph from Mr Gould's statement which provides the assumption that he has made which leads him to conclude that the operation of a maintenance base at Stone would create undesirable disruption of passenger services including the hourly HS2 service to Stoke and Macclesfield that is planned to run from 2027.

731. MR SMART: Yes.

732. MR MOULD QC (DfT): Yes? Now just look at 4.4.7 please? The assumption on which he bases that criticism is this. He assumes that the operational – the maintenance base from 2027 onwards, forever more, would require at least three trains per night to supply HS2's maintenance needs.

733. MR SMART: Yes.

734. MR MOULD QC (DfT): Is that correct?

735. MR SMART: No. It might be correct in Mr Gould's mind. But certainly not correct in terms of how you would maintain the railway. Once we've got the depot open we have two works trains per night going out to work on the line from our depot. After that it becomes a question of, what do you need to bring in to our depot in order to maintain our railway? Now, once you've constructed the railway there's not a lot you need to do to bring in to maintain it. Now, the things that come in are the long things like long welded rail and ballast. It is not clear whether we are going to have ballast on

Phase 2B or not.

736. MR MOULD QC (DfT): Assume that you are.

737. MR SMART: And assuming that we are, then we would have to bring in ballast trains during construction. And I've talked about the seven-train pass per day, which we can easily accommodate. Now, if you had ballast to maintain, then simply you are doing tamping – which is – the ballast gets saggy and sinks – and tampers go out and they re-settle the line back to the right level. Now, tampers on HS1, we only tamped once a year. We may well – it's not totally clear – but we may well have our own tampers bought for HS2 purposes, in which case, they don't need to be brought in for the railway. They will already be on it based at our depots. So, then we would need to bring in potentially the high ballast output train that was talked about and the petitioners said we couldn't get in – of course we can. Would we design a railway that we can't maintain? But that is not a regular occurrence. HS1 have not had to replace their ballast yet. They are planning to do so over the coming years. But once a high output ballast train comes in, you can bring it. It's in once. And then it's a matter of how you feed it and how you use it. So, there's not a high use of coming off the national rail network into a maintenance depot for the maintenance purposes.

738. THE CHAIR: Sheryll?

739. MRS MURRAY: How long has HS1 been in place? How many years, remind me?

740. MR SMART: HS1, section 1, which was the first 70 kilometres, was opened in 2003 and the full line, which is mostly the tunnel section and then through to St Pancras, was opened in 2007.

741. MRS MURRAY: So, the oldest parts you haven't need to replace the ballast – it's been in place for 25 years? No, 15.

742. MR SMART: Fifteen.

743. MR SMART: Now, there was talk about, 'Well, you don't need to do anything for the first short period of time'. That is what is meant. Once the ballast is in place – and I have to emphasise, we may not have the ballast on Phase 2B – but we allow that

option. So, again, this is not a regular occurrence. You only do tamping and ballast replacement in what's known as a campaign a couple of times a year etc. So, although we allow for the maximum number which might happen in a short period of time, this is not going to be two or three movements every night recurrence. You might have a month in the year where you have two or three trains coming; you might not have anything for six months. So, that is how that works.

744. MR MOULD QC (DfT): What I want to know Mr Smart, if you've finished on that point –

745. MR SMART: Yes.

746. MR MOULD QC (DfT): – is just before we move on to traffic – is in summary, can you say please whether or not you think that one train a night for as long as HS2 – the Y network is in operation – is one train a night a robust and conservative assumption or not?

747. MR SMART: It's a very robust and conservative assumption – even with Phase 2B on ballast, we wouldn't have one train per night every night.

748. MR MOULD QC (DfT): Right. Thank you.

749. THE CHAIR: Bill's got a quick question.

750. MR WIGGIN: Yes, I'm just curious as to why we didn't know about them been taken apart when they arrive, these trains?

751. MR SMART: I believe because the high output ballast train has a front end which it kind of takes out ballast and then the stone – and then replaces it. So, the front end has lots of machinery that has to take it out from between the sleepers and the track. And then, you have new ballast behind it, which then has to be taken along the train and placed in. So, that's why it's – it's potentially the longest piece of kit that you are going to need to use on a ballasted railway, when you do ballast replacement.

752. MR WIGGIN: Okay. But when you park it, as I understand it, that's when you have to take it to pieces, is it?

753. MR SMART: You can just split it in two, quite simply.

754. MR WIGGIN: Just?

755. MR SMART: Well –

756. MR WIGGIN: It's probably not that easy.

757. MR SMART: It decouples. Yes. So, the ballast train section – it's made up of a number of different wagons, it's not like one long, solid –

758. MR WIGGIN: No, but you then have to come to the front and move it to the back?

759. MR SMART: Yes. But you do all that at the depot before you go. Once it's out, it's operating as one train.

760. MR WIGGIN: Okay. Thank you.

761. MRS MURRAY: Just to reassure me, when I come up from Cornwall by train I pass some of the maintenance wagons at various stages and they're not always coupled together. I'm thinking of perhaps Taunton, is it, or Westbury, where you don't actually see them altogether. So, it's quite normal for them to be de-coupled.

762. MR SMART: Absolutely. Absolutely.

763. MRS MURRAY: Thank you.

764. MR MOULD QC (DfT): Thank you. Can we move on please to traffic? And can we put up the histogram, P41(10), please? Mr Smart, the first point is, this is showing our prediction of HGV construction traffic using Yarnfield Lane and passing towards the junction of Yarnfield Lane and the A34 I think?

765. MR SMART: Correct, yes.

766. MR MOULD QC (DfT): And can we just be clear, we can see that the highest peaks of construction traffic predicted on that stretch of the road, which is the stretch that Mr Wilkinson was particularly concerned with, they occur in Phase One?

767. MR SMART: Yes.

768. MR MOULD QC (DfT): Do they relate to any particular activity, please?

769. MR SMART: Yes, this highest peak is when we're creating the M6 slips. And these other peaks relate to the construction activity that happened before the M6 slips are open. So, they're setting up sites and starting construction. But the highest peak is building the slips.

770. MR MOULD QC (DfT): What is the purpose of a railhead, please, for construction? What does it do in relation to road traffic?

771. MR SMART: You mean a road head or a railhead?

772. MR MOULD QC (DfT): Railhead.

773. MR SMART: A railhead – well, at our railhead – the railhead in terms of traffic means that we can bring in material on the road to the railhead and then if we need to take it out by rail we can.

774. MR MOULD QC (DfT): So, it's designed to provide for rail based deliveries rather than road based facilities?

775. MR SMART: A railhead is, yes.

776. MR MOULD QC (DfT): Right. Now, in other words, what you told the Committee is you have to construct the slip roads?

777. MR SMART: Yes.

778. MR MOULD QC (DfT): The purpose of those slip roads is what?

779. MR SMART: The purpose of those slip roads is to take our general – at Stone, this is – you've got to remember the key thing is we're going to have traffic on those slips irrespective of where we have the depot – whether it's Stone or Aldersley Rough. We need to get a lot of earthworks up and down the trace to build the cuttings and then use that if we can in embankments. You heard the petitioners say we're trying to use as much as we can on the railway. Now, in order to do that, we need to move material around. And sometimes we might have to take it – we use the best roads possible. So, we're using the M6 slips at Stone in order to get our haul roads to Stone and then get on

to the M6 via these specially constructed slips rather than use other roads. It is a way in which we can mitigate the traffic impact.

780. MR MOULD QC (DfT): Can we just at P42(3) please? The slip roads – what you’ve just said – the slip roads whilst in operation provide a direct access for HS2 muck wagons to get on and off the motorway, is that right?

781. MR SMART: Yes, that’s right.

782. MR MOULD QC (DfT): Can we just say, you’ve said there’s going to be a haul road along the route of the railway, yes?

783. MR SMART: Correct.

784. MR MOULD QC (DfT): Just spot the slip roads. Yes?

785. MR SMART: Yes

786. MR MOULD QC (DfT): And the haul road is what, going southwards or northwards?

787. MR SMART: The haul roads are coming this way and also can cross across. But there’s a number of haul roads coming through here.

788. MR MOULD QC (DfT): Are they coming from all points of the compass or not?

789. MR SMART: Yes, they’re coming from this way – well, we heard about the earth moving in here and that goes locally to fill in there, but they’re coming most from this way and some local ones that way.

790. MR MOULD QC (DfT): Right. If we didn’t have the slip roads, where would those lorries go?

791. MR SMART: Well, they’d have to find another way onto the M6.

792. MR MOULD QC (DfT): Right. And what would that mean?

793. MR SMART: Well, that would mean we would have to be looking at junction 15 or somewhere, or we’d have to use Yarnfield Lane.

794. MR MOULD QC (DfT): Right. So, in the absence of the Stone railhead, do we need the slip roads or not? If you imagine the Stone railhead has gone up to Aldersley Rough?

795. MR SMART: Yes, we need it.

796. MR MOULD QC (DfT): Right, okay. Can we turn please to A40 (17). These are the new emergency, they're called now, but I can't remember what term he used, but these are the slips which now exist at this point and will be retained following the smart motorway and he said it was coming into operation in a couple of years' time?

797. MR SMART: Yes, yes.

798. MR MOULD QC (DfT): And he suggested that they might be used by HS2's muck wagons in the event that we shifted the railhead up to Aldersley Rough. Is that a realistic proposition?

799. MR SMART: Well, our understanding is that the Highways Agency will not let us use those.

800. MR MOULD QC (DfT): Why won't they let us use them?

801. MR SMART: I would imagine it's because of the siting and the fact that we'd have a lot of HGVs that would be coming out onto the road. It's different when you're using emergency access which is very occasional, but we'd have HGVs coming out of there more frequently. If we could use them, there is a possibility we could use these for our works and not have to build the M6 slips where they are.

802. MR MOULD QC (DfT): You anticipated my next question. Had they been available to us, would we have needed to build new slip roads?

803. MR SMART: Could we use these, we would not need to build our M6 slips that's shown on the previous slide.

804. MR MOULD QC (DfT): So just to wrap this point up, whether we have the railhead at Stone or the railhead at Aldersley Rough, will we need to bring traffic down Yarnfield Lane in order to construct slip roads?

805. MR SMART: If we can't use these, yes we would.

806. MR MOULD QC (DfT): Right. Thank you very much. Can we then turn please to –

807. THE CHAIR: Can I just check you're going to finish in the next two or three minutes to give Mr Corner two or three minutes at the end to wrap up for us to be able to finish at 4.55 because we're meeting at five o'clock in private? That's a question to Mr Mould.

808. MR MOULD QC (DfT): Well, I will stop within three minutes; I won't have finished by then but I will stop within three minutes. It's really a question for you, as to whether you feel there are matters that you need to hear from, from me, in order to enable you to discuss the merits of this petition. If there aren't, if you feel you've got a fairly clear idea of where you're doing already, then obviously, I don't need to say any more.

809. THE CHAIR: I'm pretty clear of the case of the petitioners.

810. MR MOULD QC (DfT): Are you clear about our response to it?

811. THE CHAIR: As clear as I need to be at this juncture and I don't think I'd be any clearer if I listened to another hour, let alone 10 minutes.

812. MR MARTIN: Chair, there are issues that I would actually like to know about.

813. THE CHAIR: Would you like to suspend and then we'll come back, and then rather than meeting in private, we can consider deliberations in public? It's perfectly acceptable?

814. MR MARTIN: Yes.

815. THE CHAIR: We'll do – with petitioners, Mr Corner and Mr Mould, we'll take a bit more time and continue in public. Is that acceptable?

816. MR MOULD QC (DfT): Absolutely.

817. THE CHAIR: How much time are you looking for and I will come to you and Mr Corner and ask, and I'm going to be strict with time because otherwise it just goes on

and on and on.

818. MR MOULD QC (DfT): Well yes if I try and wrap up within 10 minutes.

819. THE CHAIR: Great, so you've got until five o'clock. Mr Corner, how long will you take to wrap up? Ten minutes?

820. MR CORNER: So I'll take as long as you give me, and that's a serious answer. I recognise you've had a long day and I understand that. I was just going to ask; there are a lot of points, or a number of points being raised now in evidence, very quickly, which are about my witness's evidence, they weren't put to my witnesses, and I am just wondering, rather than take up your time now, would it be possible for the petitioners to put in a short written response to the points that have been made? Otherwise we really – they weren't put to my witnesses and my witnesses haven't had the opportunity to deal with these.

821. THE CHAIR: Originally we were going to meet in private to consider some of these issues straight away. Whilst we can meet in private and talk about them in generality, it may make sense to give you both until Monday when we next sit, to provide us with some more information so we can consider everything as issues of cost from Mr Mould, from yourself, Mr Corner, you're saying there's a number of other issues. That feels better, and giving Mr Mould now until five o'clock, which is 11 minutes, not 10, giving yourself 10 and then allowing you to write to us with any remaining points in time for our next meeting.

822. MR CORNER: Thank you.

823. THE CHAIR: I'm going to do that then. Mr Mould, over to you. You've got your 10 minutes now.

824. MR WIGGIN: Shall we ask you some questions to keep you going or do you want to go through your spiel?

825. MR MOULD QC (DfT): No I think I know where I'm going, thank you. Mr Smart, can we please just remind ourselves of one or two other points that Mr Wilkinson raised; the first was, he said that he was concerned about the suitability of Yarnfield Lane to accommodate heavy goods vehicles and construction traffic.

826. MR SMART: Yes.

827. MR MOULD QC (DfT): We know that Staffordshire is the local highway authority for that road; what is your understanding of their position, do they oppose the location of the railhead at Stone on the grounds that that particular construction route is unsatisfactory?

828. MR SMART: Not to my knowledge, and as maybe the petitioners are aware, we are looking to do widening of that Yarnfield Lane down to access our site. We are looking to widen it to six metres, and also include passing bays, and what I would say, and I understand Mr Wilkinson's raised some concerns, but anything we do on the highways has to be with the approval of the Highways Authority and that includes road safety audits, so we can't do anything that would be considered unsafe by the Highways Authority or indeed would not pass to acceptable level, any road safety order.

829. MR MOULD QC (DfT): The Committee will be aware, I'm sure, that amongst the many points that Staffordshire County Council as highway authority have raised in their petition, is the need for some improvement to the junction of the A34 in Yarnfield Lane and they suggest that signalisation would be an appropriate improvement. What's the project's position in terms of its consideration of that?

830. MR SMART: As we have always done, but working with the highways authorities, if there are schemes that can be put forward which improve the road, we implement them. Can I just say that looking at the queuing situation that's been put forward, it is not in the interests of HS2 to have any of our vehicles standing in queues because it delays our programme, it costs and we can, and we looked at AM peaks flows and things, and therefore we can, as far as possible, organise some of our key movements to not coincide with some of the busier times. It's not in our interests having our construction wagons sitting in traffic.

831. MR MOULD QC (DfT): Mr Wilkinson said that he had criticisms of the traffic impact assessment.

832. MR SMART: Yes.

833. MR MOULD QC (DfT): The surveys that had been carried out, the base flows

and so forth and so on. Do you know whether Staffordshire County Council as local highway authority have raised, in their petition, the complaint that our traffic impact assessment is not fit for purpose?

834. MR SMART: No, I don't believe they have.

835. MR MOULD QC (DfT): Thank you very much. And if we look in the environmental statement, volume 3, give the Committee the references in writing, do we find reference to the performance of the highway through Stone during the period when HS2 construction traffic will run from it?

836. MR SMART: Yes, we do.

837. MR MOULD QC (DfT): And does it identify a number of significant adverse effects, corresponding broadly to the concerns that Mr Wilkinson has raised?

838. MR SMART: Yes.

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

840. MR MARTIN: Chair, before we move on from that point, just very briefly, Mr Smart; if the Stone facility were not built, would that make a material difference to the traffic impact of the HS2 construction on the A34?

841. MR SMART: It's a very good question Mr Martin. The only real difference it would make is we would not need to have the traffic that actually builds the depot building and the depot itself, and that is a relatively insignificant amount of traffic compared to the fact that we're using that as our key way of accessing the best road available to us, which is the M6.

842. MR MARTIN: So the vast majority of the local additional traffic, as a result of HS2, would be there anyway, whether the Stone facility were built?

843. MR SMART: Absolutely right.

844. MR MARTIN: Thank you.

845. MR MOULD QC (DfT): Just to wrap that point up, I've put the histogram back up because that, Mr Smart help us, does that give us a broad overview, allowing for the

fact that we know that the peaks there are associated with constructing the slips, does that give us a broad overview of the duration and scale of the construction traffic needing to set up the railhead?

846. MR SMART: That does, and I'm sure it is not lost on the Committee that the sooner we can get the M6 slips in, the better it is for alleviating any traffic issues and we are working and talking to Staffordshire about how we can achieve that.

847. MR MOULD QC (DfT): Right. Now, my final series of points, I hope, if we can put up the SIFT report, it's R2. So you asked me some questions about what information was available. This is a report that was published in full in November of last year, Mr Smart?

848. MR SMART: Yes.

849. MR MOULD QC (DfT): And if we turn please, to R2 (5). Well see that it included a number of appendices, and so you see appendix G, Aldersley Rough railhead, IMB-R layout?

850. MR SMART: Yes.

851. MR MOULD QC (DfT): Do you see CH62 maintenance aspects of Phase 2A railhead, IMB-R SIFT?

852. MR SMART: Yes.

853. MR MOULD QC (DfT): And do you see appendix I, Aldersley Rough, Design Integration Process?

854. MR SMART: Yes.

855. MR MOULD QC (DfT): Can we please turn to R2(115)? Appendix G. How does this compare to the Aldersley Rough proposition that is shown in our exhibits before the Committee? Has it changed significantly since last time?

856. MR SMART: No it hasn't.

857. MR MOULD QC (DfT): Right, thank you. Turning to R2(117). We see the maintenance aspects document. Can we turn please to R2(121). You see 111, 'A

strategic SIFT is to be undertaken to compare three potential locations for maintenance’?

858. MR SMART: Yes.

859. MR MOULD QC (DfT): And if we turn to R2 (122), 1.3.131, can you please just identify the three potential locations that were there, sifted.

860. MR SMART: Stone, Aldersley Rough and Crewe Basford Hall.

861. MR MOULD QC (DfT): Thank you. And can you turn then please to R2 (143). A technical note on the Aldersley Rough railhead and maintenance depot proposition. If we turn to 146. You see the design requirements are set out and I haven’t got time, obviously, to go through this in detail. R2(149), option 5; is this part of a process of seeking to optimise that proposition in order to provide the petitioners with the best chance, as it were, to persuade that this is the right place –

862. MR SMART: Yes, exactly what we did, yes.

863. MR MOULD QC (DfT): And that section, has that – and no doubt other functions to it at some point?

864. MR SMART: Yes.

865. MR MOULD QC (DfT): Right okay. And then if we turn back finally to R6. You see 115, ‘These assessments were undertaken with the available design information at that point in time. As the design has been continuously progressing through this time, it’s considered pertinent to retest the optimum selection based on the latest base line design, which is the one submitted for the hybrid Bill, CP3 design’.

866. MR SMART: Correct.

867. MR MOULD QC (DfT): I won’t trouble the Committee with the detail of the report, they will have seen already that it tests a number of options, including option A95*, the railhead and the Aldersley Rough, without the maintenance loops against Stone as the base case. Mr Smart, complaint that no further work has been done in relation to this report from the witnesses, could you comment please, finally, to the Committee, given the conclusions that this report drew about the comparative

performance as a railhead during construction and a maintenance place during operation of Aldersley Rough against Stone, is it your view that any further work was required and if so, what was it?

868. MR SMART: Well there isn't any further work required on what we've done, because we have enough to understand how we can make connections and how we will operate it.

869. MR MOULD QC (DfT): Thank you

870. THE CHAIR: Thank you very much Mr Smart, thank you Mr Mould. I've taken advice from the clerk and actually, if there are further bits of information, if you could provide them by the close of business, Monday, that gives us enough time to consider them on various other timescales, if you could that in writing to the clerk. Mr Corner, you do have your 10 minutes. I will cut you off after 10 minutes, so the time is for you to balance and use and it will be your error if I end up having to cut you off, not mine, out of rudeness.

Submissions by Mr Corner

871. MR CORNER: Yes. Very well, sir, thank you very much. If I may, we will largely put any points that we have to make in relation to today's hearing and in response to the evidence that's just been given, in writing, because there plainly isn't time now. I take it that you will expect that our written material will include any response we have to what we've just heard, and that's very kind of you.

872. But if I could just, in my own brief closing, just go back to the summary I put in at the beginning and just see where we're up to. First, we said, a railhead, IMB-R at Stone will restrict Staffordshire's ability to connect into the national rail network and the basis of that is capacity constraints at Stone. The fact is, we haven't heard any satisfactory evidence to show that Stone will have sufficient night time capacity.

873. What has been said, and we may come back to this in what we say in writing on Monday, what has been said is, it'll be one vehicle, it'll be one train per night. But on the basis of what is that, we ask rhetorically, and also we know that the loading that this line will have to take is very substantial and more than has been taken before, so how

can they know.

874. So, we say, the best answer is to go for Aldersey's Rough where there nobody alleges that there is any such capacity constraint at night for the IMB-R, go for that. When you know that the consequence of the Stone IMB-R, having insufficient capacity, is very likely loss of really important services, for example to Stafford; that really matters. So that's all I want to say on that.

875. Secondly, traffic points; the unacceptable traffic problems. In my submission, Mr Wilkinson's evidence if uncontested, it's undisputed on those matters. It's plain that there will be very, very serious traffic congestion problems on the road networks surrounding the Stone facility. We don't know the extent to which Staffordshire County Council has really considered the points he was making because what he says in his evidence, and it's not been challenged, is that HS2's assessments have been simply wrong in point after point after point. That's all I say about that.

876. Then, in relation to Aldersey's Rough, we know that Aldersey's Rough is more centrally located for Phases 2A and 2B, that's a major advantage, that's not been contested in what we've just heard. We know that provision of Aldersey's Rough will involve reactivating part of the old line into Newcastle. That's got to be a good thing because it's a potential catalyst for reconnection.

877. There's obviously debate about the particular design of the railhead and IMB-R that would go at Aldersey's Rough and we'll have to respond to what's been said just now in writing. But none of that goes to the principle of whether it's feasible and reasonable and appropriate to put the facility at Aldersey's Rough. It's simply a debate about the details of exactly what is provided.

878. And finally, cost. If I may so suggest, the petitioners' evidence on cost has been wholly inadequate. We know that they said in the SIFT report, it's at paragraph 442 from memory, that the Pipe Ridware maintenance loops were required, if Aldersey's Rough were chosen. That's £40 million. Today, we know that they're no longer saying that. And in relation to the rest of their cost claims that Aldersey's Rough would cost £38 million more, we've no detail at all. There's nothing that we can assess; how can that possibly be satisfactory?

879. Thank you very much indeed. So in light of all those points, we suggest that proper consideration hasn't been given to Aldersey's Rough, but it should be the preferred alternative.

880. THE CHAIR: Thank you very much, and thank you for a really helpful summary which pulled together the number of items.

881. MR CORNER: You're welcome.

882. THE CHAIR: Thank you very much. I would ask you to leave the Committee room relatively promptly because we are going to sit in private, but thank you very much.

883. MR CORNER: Thank you all for your attention.