

MINUTES OF ORAL EVIDENCE

taken before the

HIGH SPEED RAIL (CREWE - MANCHESTER) BILL SELECT COMMITTEE

PETITIONS AGAINST THE BILL

Monday, 12 June 2023 (Afternoon)

In Committee Room 8

A video of the proceedings can be found [here](#).

PRESENT:

Andrew Percy (Chair)
Dr Lisa Cameron
Antony Higginbotham
Grahame Morris
Martin Vickers

FOR THE PROMOTER:

Tim Mould KC, Lead Counsel, Department for Transport

Exhibits referred to by the promoter during the hearing with Manchester City Council, Greater Manchester Combined Authority and Transport for Greater Manchester can be found [here](#).

FOR THE PETITIONERS:

1. Manchester City Council
2. Greater Manchester Combined Authority
3. Transport for Greater Manchester
 - Neil Cameron KC
 - Andrew Byass
 - Cllr Bev Craig
 - Martin Lax

Exhibits referred to by the petitioners during the hearing can be found [here](#) (part 1) and [here](#) (part 2).

IN PUBLIC SESSION

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(At 4.15 p.m.)

1. CHAIR: Good afternoon. Welcome to this afternoon's meeting of the High Speed Rail Hybrid Bill Committee. Before we start, I just want to say it's perfectly acceptable if anybody wants to take their jackets off. It is very warm here today so jackets off and loosened ties is absolutely fine.
2. Welcome, everyone, who has come today. We're going to be hearing representations on the issue of the location of the new high-speed rail station at Manchester Piccadilly and we'll be hearing from a number of petitioners including Manchester City Council, the Greater Manchester Combined Authority and Transport for Greater Manchester. We will be hearing from the petitioners on this issue both today and tomorrow, and will then be hearing the response from the Bill's promoter next week, next Monday and next Tuesday.
3. Some petitioners who made the case for an underground station in their petitions have decided not to appear before the Committee on this point but have asked for their support for the asks of today's petitioners to be noted. I'm happy to do that on the record and those petitioners are Jeff Smith MP, Mike Kane MP and the HS2 Cheshire Residents Group.
4. As always, whilst there are significant concerns to be raised today, I ask the petitioners to keep to time, to ensure that the promoter has sufficient time to respond next week and, of course, we had the site visit last week, which was very informative for us, so we thank both parties for accommodating us last week.
5. I'm now going to hand over as usual. The procedure is we start with a brief scene setting from the promoter, in the form of Mr Mould, and then I'll hand over to the petitioners and I think it will be to Mr Cameron, I presume, to kick off for the petitioners. So Mr Mould.

Greater Manchester Partners

6. MR MOULD KC (DfT): Thank you very much indeed, sir. In order to set the scene, I thought it might be helpful to revisit the flythrough. We're not going to view the whole thing but start just south of Ardwick sidings and, if you remember, if you look at the bottom right-hand corner on the screen, we have the railway in the twin-bored

tunnels, just approaching the north portal building, which is shown on the screenshot in front of you, and then the HS2 railway emerges to surface.

7. You will remember that, at Ardwick, provision is made for a grade-separated junction to enable lines to and from Leeds to be constructed in future, so as to serve Northern Powerhouse Rail services and you can see there the Ardwick box structure, which forms part of, not the entirety of, that proposition.

8. If we just move forward a little, the areas that are shown now shaded in the orange colour, those are areas that are anticipated to become available for development within lands within the HS2 Bill limits, following completion of construction of the railway. You can see those areas set out on the screen in front of you. We then move further in towards Piccadilly station itself, and we can see a train approaching the station and if we just stop there, we can see the station approach and the throat, and in the middle ground we can see the station roof and the six-platform station, three sets of island platforms, and you can just see the southern extent of those platforms in the image. We'll just run the flythrough to its end point and we'll just stop there.

9. Now, the hybrid Bill proposal at Manchester is for six surface platforms to accommodate both HS2 services, which will terminate and turn around at Manchester Piccadilly. This, as you know, is the northern terminus for the HS2 network on its western leg. It will also accommodate future Northern Powerhouse Rail services both originating from Liverpool via Warrington, joining the HS2 Manchester spur at Hoo Green and then passing through the airport station to Manchester station, where they will turn back and continue their journey via the grade-separated junction on new railway line through to Leeds and then on to York, and the same journey in reverse. So the Manchester Piccadilly station is intended to operate as a turnback station in relation to Northern Powerhouse Rail services.

10. For planning purposes, Northern Powerhouse Rail services are assumed to stop or, to use the industry language, 'dwell' for five minutes at Manchester Piccadilly, for passengers to alight and board, and for the train to proceed, turning back on its onward journey, whether towards Liverpool or towards Leeds and York, as the case may be. That's the planning assumption.

11. If we turn to slide P418(6), you have a cross-section, which I think you have seen

before, showing the station arrangement in the top right-hand corner and, again, something you've seen before, which is the train service specification for which the Bill surface station has been designed. That's shown in the table on the bottom right-hand corner. I won't say any more about that now because it gives rise to some controversy and therefore it would be inappropriate to deal with that any further in opening.

12. If we turn to page P418(8), again, just to set the scene, you will recall this computer-generated image of the northern façade of the station with Gateway House to the righthand side and the station approach. You can see that, on this image, the image has had superimposed on it, an assumption of the Mayfield development to the south-west of Manchester Piccadilly station. That's the development in the rear ground behind the station building itself.

13. If we turn please to P418(12), here there is a slide which just summarises, in a very simple, schematic form, the rail operations that I mentioned to you a moment ago and you can see, on this schematic, the six platforms. Platforms 1 and 2 are devoted to Northern Powerhouse Rail, Liverpool to Leeds services, over the grade-separated junction at Ardwick and going off to Leeds. The middle platform is to serve the terminating and turning round HS2 services, and then platforms 5 and 6 to serve NPR services going to Leeds, from Leeds to Liverpool, and they obviously then proceed along the Manchester spur and into the Manchester tunnel in the bottom right-hand corner of the image.

14. Three more matters briefly to touch on. Firstly, P418(32). I only want to show you the left-hand column of the numbers on this slide because the remainder will be the subject of debate but you can see that our estimate of the costs of delivery of the Bill scheme, baseline six platforms overground, is a total of £6.962 billion.

15. CHAIR: 6.9 –

16. MR MOULD KC (DfT): £6.962 billion, so it's £6,962 million.

17. CHAIR: Right, okay, for the overground?

18. MR MOULD KC (DfT): That's for the Bill scheme, yes. We'll no doubt look at the columns to the right, later. And then the next slide, P418(33), again, if we can just

zoom in a little, please, on the upper part of this chart, this gives you our estimated programme for delivery into service of the hybrid Bill station at Manchester Piccadilly and you can see if we just move the chart along to the right a little, the blue diamond shows you that our estimate is delivery into service of the Bill scheme in mid-2036.

19. The final point that I wish to draw to your attention, P418(14), is to remind you that, at the request of the Secretary of State, HS2 Ltd undertook, in consultation with Greater Manchester partners, a comparative assessment of three six-platform underground station options. They were known as B, B1 and D. That study was published in June 2022. You've heard reference to that study report. That very lengthy document is in your files at P421. The Greater Manchester partners scheme before you today is for a four-platform underground station alternative and that is my cue for handing over to Mr Cameron.

20. CHAIR: Thank you very much. I should just say, there are going to be – just on your last point, the options were at P421, did you say?

21. MR MOULD KC (DfT): P421 is the SIFT report. It's a very long exhibit, that. It runs from P421(1) to P421(250-odd). But the six platform options are dealt with extensively in that report. I don't understand it to be the petitioner's case to advance the case for any of those six platform options before you but I will defer to Mr Cameron on that point.

22. CHAIR: Okay. Thank you, Mr Mould. We are expecting Divisions in the House in the next few minutes and there will be a number of those Divisions so I will have to suspend the Committee at that point. But I think votes have to come before 4.39 so I'll hand over to Mr Cameron and Mr Byass to kick off, but I will probably have to suspend relatively shortly into your starting time.

Submissions by Mr Cameron KC

23. MR CAMERON KC: Thank you very much, sir, and thank you to you and all the Committee members for agreeing to allow what I'm going to describe as the Greater Manchester partners to appear before your Committee today, early on in the proceedings. So thank you for that. And the other thing I'd like to say right at the beginning is, although we are going to criticise HS2's proposals, the GM partners as a

whole are supportive of HS2 and the reason for being here is to try and get a better solution, to get a high-speed railway which will serve Manchester and the north better.

24. So who are the GM partners? They are a combination of local authorities. I think you probably know, but it's probably right that I record them: Manchester City Council, Trafford Borough Council, Tameside Borough Council, Wigan Borough Council and also Transport for Greater Manchester, the Greater Manchester Combined Authority, which is, of course, headed by the Mayor of Greater Manchester. And so Mr Byass and I appear today for the city council, Transport for Greater Manchester and the combined authority.

25. I'm going to start with where you might think I would end, which is the ask: what we are asking you to do, just to put it in context so that you know why we're calling evidence. The ask is set out in the petitions but what we're asking you to do is to require the promoter – so that's the Secretary of State – to instruct HS2 to work with the GM partners, to bring forward revised plans, to replace the proposal which at the moment, as Mr Mould has said, is for a six-platform surface turnback station, with an underground through station. So we are not putting forward what we say is the perfect solution; we are not asking you to endorse a specific alternative. What we're asking you to do is to use your influence and say to the promoter, 'There appears to be a better way. Go away and discuss it with representatives in the local community, the local authorities and the mayor'.

26. And those authorities, and the mayor, have a proud track record and a proven track record of facilitating and delivering development in Manchester. And that should be something which shows that they – to put it colloquially – know what they're talking about when it comes to development in Manchester. And this approach is not novel, and I'm going to give you an example. On the Crossrail Bill, petitioners sought a new station at Woolwich. The promoter was very reluctant to agree to that request but the committee used its influence to persuade, and in the end almost instruct, the promoter to bring forward that proposal. And in the end, they did. And now on the Elizabeth line, if you've been there, there is a station at Woolwich.

27. So the committee there achieved something which has brought good to that part of London, and there's an opportunity here to bring good to Manchester and the wider

north. And, in fact, what the GM partners are asking you to do involves fewer changes than a new station at Woolwich, because what we're asking you to do is to not suggest that the promoter puts forward a new station, but puts forward different arrangements – a different design – for a station in the same place. And it's the petitioner's view that that can be achieved within existing Act limits.

28. Now, it may be that, if there had to be some small change to Act limits, that could be dealt with in an additional provision. And we say that that is a perfectly possible and plausible solution to this issue. So I say all that just so that you know where we're hoping to go.

29. Now a little bit of context before calling our first witness. You kindly agreed to hear us early but you will have seen that this is only one point in long series of petitions, so we're likely to be back in the autumn, but the approach that the petitioners are going to take is this, and you'll see this format reflected in our evidence, and we hope that it's helpful. If it's not, no doubt you'll tell us and we can adjust it in the autumn. But what we plan to do is to set out something about context. We then refer to HS2's proposal, the one that we are complaining about at the time, or think could be improved upon. We then identify, thirdly, the deficiencies. We then put forward a solution to overcome those deficiencies and then we explain our ask or request to the Committee.

30. So that's the framework in which we frame our petition, and we hope that that will be helpful. And when technical evidence is necessary, what has happened is, there's been an enormous amount of behind-the-scenes work. But we appear here, this will be a relatively long appearance for this Committee, I know, but there's been an enormous amount of work in the background, carried out by many experts, many hours of work by dedicated people, and technical reports.

31. And what we've done, although we're not technically required to under the rules of your House, we have sent the expert reports to the promoter in advance. And not only have we sent them to them in advance but we have drawn up what we have called statements of common ground, points of principle, which we hope can either be agreed or disagreed. And we've done that to try and make it easier when we come before this Committee to narrow and focus the issues.

32. So in this case, we sent a report in on economics in December 2022. There's

another economics report on 14 April '23. There was a rail capacity and operations assessment on 14 April '23, and a tunnelling report on 22 May '23, and they're all in your pack. And they were accompanied by statements of common ground. And the reason I'm telling you this is because the GM partners have sought to adopt a collaborative approach, to try and agree things when they can be agreed.

33. But the GM partners are somewhat disappointed that that collaborative approach does not seem to be entirely reciprocated and the responses have been what might be described as adversarial, trying to point out defects to suggestions, whereas the partners' approach is that a better approach would be to seek to understand, if there was something that was not understood or appeared to be wrong or in error, to point it out and to discuss it, before coming before this Committee. I mention that because what we are asking the Committee to do is to request that the promoter takes a collaborative approach so that we do come to a better solution.

34. But I turn from that to context. Mr Mould's described the proposal. The first point that I would make is that the thing to remember, which I'm sure you all have in mind, is that this is a station which is not just to serve HS2. It's a station to serve HS2 and Northern Powerhouse Rail. And the original plan was for a four-platform surface station at Piccadilly to serve HS2. But in 2019, the DfT concluded that a case had been made for inclusion of additional infrastructure to serve NPR as well. And it was at that stage that the proposal changed from a four-platform surface turnback station to a six-platform station.

35. And it's the petitioner's case that at that point a wrong turn was taken because that was an opportunity, not just to add on to a turnback station, but to look at whether a through station was the appropriate solution, because the whole purpose of NPR, as you all well know, is to go across the country, not up and down it. And I put that in broad terms. And, therefore –

36. CHAIR: I'm sorry, Mr Cameron. There's Divisions in the House now, so I'll have to suspend the Committee; there's going to be a number of Divisions, so we'll be back –

37. MR CAMERON KC: I apologise, I should have been keeping my eye on it.

38. CHAIR: No, no, not at all; it's not your fault someone's caused the Division. We'll be back.

Sitting suspended for Divisions in the House.

On resuming –

39. CHAIR: So Mr Cameron?

40. MR CAMERON KC: Thank you very much. Context – next heading is 'hybrid Bill proposal', which Mr Mould has outlined. Just two things I'd like to say on that. If I could have slide A64(15). This will challenge my understanding of the numbering system. So that's in the petitioners' pack, volume 1, page 30 in the pdf. And the reason I'd like to draw your attention to that slide is because it's important to remember that we're not just dealing with the station itself but all the infrastructure that goes with it and, if you have a surface station, you need to get to it and you need viaducts to get to it from the tunnel, and that's the reddy-orange bit, and then when NPR comes along, you need additional viaducts.

41. The only other thing I would like to say about the proposal at the moment is to go to the promoter's slides. So we need to go to P418(7) and Mr Mould showed you that image of the station as you come up to it, with Gateway House on your right. The thing to remember is that, if you look down at the bottom right-hand corner of the image, you'll see Gateway House with its snake-like form and you'll see how relatively narrow the approach is, when one is considering, 'Is it the right proposal/the right entrance for Manchester?' But that's something we'll come back to when we deal with the surface later.

42. So I go from proposal to defects. What do we say is wrong with it? Two main things that are wrong. Point 1, it doesn't fully support levelling up. Those are the economic points. And, secondly, the rail function will be substandard.

43. So on levelling up and economics, the effect of building a surface station with the viaduct is to take up space on the surface, which would otherwise be available for development, and that is space that is immediately adjacent to, or very close to, a highly connected place: the railway station. So it is the space that you want to preserve for

economic and other development.

44. Now, there's a dispute about how much land will be taken up with the infrastructure. The petitioners say it is about 40 acres in old money, or 16 hectares, and that is land in the middle of Manchester. As we understand it, that figure's not agreed. The promoter has been aware of that analysis since at least December 2022, because it was in the economic report that we sent to them then, and it's only just over a week before this appearance that they have responded with their position. And I only say that, not as a general moan or whinge, but because it indicates how important it is that you indicate to the promoters that they act in collaboration with those who want to collaborate with them. And the economic point is not limited to losing that land but it's the effect that it has for the wider economy of the north and the country, because that is where you're going to get higher productivity and you're going to contribute to levelling up.

45. I turn to railway capacity and reliability, and the essence of the point the petitioners make is this: that if you're going to spend all this money on building a high-speed railway, make sure that each part of it has equivalent capacity, so don't build in a bottleneck. And it's the petitioners' case that the effect of having a turnback station is to build in part of the infrastructure which has a lower capacity than the spur. So they're spending all this money to build a tunnel. The spur, we say, has a capacity of 15 trains an hour in each direction and what we say is that, if you adopt a realistic dwell time, and Mr Mould's already referred to dwell times, the station, as designed, has a considerably lower capacity than 15 and our case is that that is an inappropriate way to build and plan this railway.

46. A through train has to go into a turnback station, go in and come back out again and the time spent in the station, as Mr Mould has said, is the dwell time. And this is an issue, I know, that the Committee have already asked about. Mr Morris asked about it on the day of the introductory evidence but we're going to come back to it. It's the petitioners' case that, if you adopted a realistic dwell time, which we say is eight minutes for an NPR turnback train, you would have a capacity at the station of 11. With a five-minute dwell time, you get, with the current infrastructure, a capacity of 13 but you would need extra viaducts, so you're building in a bottleneck.

47. And also, to achieve a five-minute dwell time, it now turns out that HS2 will have to rely on a procedure known as stepping back, which involves changing drivers when an NPR train comes into Piccadilly. So you've got to have another driver waiting at the other end of the train, ready to get in what was the back, which becomes the front, to drive it out again. The GM partners say that builds instability into the system. It's, in effect, a sticking-plaster solution, which is needed right at the beginning. So why design a railway which needs such a sticking-plaster solution?

48. So I then turn to – those are the problems; what are the answers? Well, the answer, the GM partners say, which would overcome economic disbenefits and the capacity and reliability issues, is to build an underground through station and, to borrow a phrase, there would be no turning back because trains would go straight through. Dwell times would be reduced. Fewer platforms are required because each train does not have to stop in the station for so long.

49. And when the promoter considered the underground options in the SIFT report, which Mr Mould referred to, that was for a six-platform underground station. The GP partners consider that a four-platform underground through station would provide sufficient capacity to match the capacity of the spur. And when one thinks about it, one needs to remember that four platforms are going to be adequate at the airport station and the trains coming through the airport station, whether they're from Birmingham, London or Liverpool, will all go through the airport station and up the tunnel.

50. The promoter's reasons for rejecting an underground through station were set out in the integrated rail plan and we'll come back to it, but there is one paragraph in there where the reasons are set out clearly. Those reasons include cost, delay and impact on the city centre. It's the GM partners' view that cost, delay and impact on the city centre would all be reduced by adopting a four-platform solution, compared to a six-platform solution.

51. We don't say that it wouldn't cost more than a surface turnback station. But we say that it wouldn't cost as much more as the promoter says. So in order to assess costs, what the GM partners did was they sought information from the promoter on the costs that were assumed in the SIFT report. They weren't given the further information they asked for. So what they have done is to try and conduct their own like-for-like

comparison by saying, ‘If it cost this much for a six-platform underground station, how much would it cost for a four-platform station?’ And it’s the GM partners’ view that the net construction cost impact, so that’s the extra costs when compared to the Bill proposal, is between £1.75 billion and £2.64 billion in 2015 prices.

52. So we don’t shy away from the fact that it’s going to cost more. I should make plain that HS2 and the promoter do not agree with those figures on costs. But one of the reasons that they don’t agree is that it’s their view that if you had a four-platform underground station, you’d need a turnback facility, to turn trains back past the station, and that would have to be constructed under the city centre. It’s our case that you wouldn’t need that facility under the city centre. You’d have through trains running and there’s no turnback facility of that type immediately north of Manchester Airport station. You wouldn’t need it immediately north of Manchester city centre station.

53. That is a big issue because the cost of that turnback facility in the city centre, once you have added on contingency and so on, would be – and this is not in our costs; this is in the promoter’s costs – that turnback facility would add £2.5 billion. So when you listen in due course to the promoter’s costs, remember that, on our case, you can take off £2.5 billion.

54. But given that an underground through station would cost more, you’re bound to ask yourselves, ‘Is it worth it?’ The GM partners have sought to assess the economic benefit of having the extra development at the surface and the benefits of enhanced connectivity and, again, not an agreed figure but our estimate at 2015 prices is approximately £3.6 billion. So you’re comparing the £3.6 billion benefit, net present value, with a cost of between 1.75 and 2.64. So we say, yes, it is worth it, and that gives you an indication of why.

55. Now, with any benefit-cost ratio, the output that you get, and this is a statement of the absolute obvious, depends on the assumptions that you make and the inputs you make. And what we say is that the indicative benefit-cost ratio for the proposed underground station ranges from 0.9 to 2.1 and that depends on the assumptions. But just to give you an idea of how that works compared to Phase 2B as a whole, the promoter’s own BCR range for their project is between 0.5 and 1.2 and that comes from the supplement to their strategic outline business case. So on an initial analysis, on the

petitioners' figures, a change to an underground station, the cost of the change would have a better benefit-cost ratio than Phase 2B overall. And no doubt we'll go into more detail on that when we hear the evidence, but I'm just setting out the outline at the moment.

56. On disruption and environmental impact, it's our case that excavated materials from an underground station could be removed by rail. Overall, disruption would be reduced by adopting an underground option because, once you'd decided and said and committed to underground, there'd be no reason why you couldn't start developing on the surface, whereas if you have a surface turnback station, you can't develop on the surface in many areas, because a viaduct's going to be built on it and another viaduct's going to come along for NPR. So once you've decided to go underground, you are releasing a considerable amount of land at the surface.

57. I'm coming to an end very soon. Narrowing the connectivity gap between different parts of the country is a critical part of the levelling up agenda and a through station would be of particular benefit to passengers travelling from east to west and west to east on NPR and on HS2 services which go beyond Manchester, because if you have a turnback and you're travelling from Liverpool to Hull, you have to wait in Manchester while you do the turning back operation. If you have a through station, you're stopping at that station, just like any normal station. So although that would be spending more, it wouldn't be spending it just for Manchester. It's spending more for the north as a whole and for the country. So if the levelling up missions are to be achieved, the answer to the critical question, 'Is it worth the cost?', must, the petitioners say, be yes.

58. So I then come back to the ask and I've already outlined what that is. We're not asking you to endorse a specific proposal that is before you. What we're asking you to do is to say to the promoter, 'Go away, work with the local authorities and come up with an underground through station, which would be a better answer'. But, sir and members of the Committee, that's all I say in opening and I'm now going to hand over and turn to my witnesses and my first witness is Cllr Craig, the leader of Manchester City Council.

59. CHAIR: Mr Cameron, I will just say as well, if colleagues wish to ask questions at any point, please do. We try to keep this fairly informal. So I'm just going to use Chair's privilege and ask one now, just as you come to the conclusion of your opening

statement. In terms of any impact on existing infrastructure, such as that at Piccadilly, the existing Piccadilly station, of constructing an underground station, will you be coming to that at some point in your presentations over the next couple of days? That will be one of my questions as to what the knock-on impact would be of constructing an underground station on Piccadilly. So I wonder if you will be addressing that.

60. MR CAMERON KC: We will, and the answer is it will be beside Piccadilly, so the rail operations at Piccadilly would continue but it will have an effect on Metrolink.

61. CHAIR: Of course, okay. Sorry.

62. MR CAMERON KC: So I'm just going to hand over to Cllr Craig and let her address you, rather than doing it in formal question and answer, if you're content with that.

63. CHAIR: Thank you.

Evidence of Cllr Craig

64. CLLR CRAIG: So I'm going to do a very straightforward format, just moving through a presentation rather than leading you to an exhibit. So, good afternoon, and thank you for your time today and the opportunity to put forward our case in Manchester and Greater Manchester for an underground station at Piccadilly.

65. As has already been said, we'll return in the autumn for a more technical discussion on the route as a whole but, today, my role is to outline, as leader of the city, why the city region believes getting the right option for both High Speed Two and Northern Powerhouse Rail at Piccadilly is so important, not just for the city that I represent and lead, but for the city region and across the north more broadly.

66. Much is made of the first intercity railway between Manchester and Liverpool in 1830 but our main train station, the one that we focus on today, Manchester Piccadilly, first opened its doors in 1842 and, with some tweaks, improvements and facelifts along the way, it stands at the heart of the north of England's rail hub with over 30 million passengers each year. Some less kind observers would perhaps observe that Manchester Piccadilly also stands at the heart of many of the bottlenecks that exist in the east-west network. My city's landscape is defined and shaped by it, and for those that came on

the walkabout, you're able to see the legacy of the Victorian viaducts that travel into the city and to the welcome that passengers receive.

67. Therefore, as we sit here today about a new station, set to open almost 200 years after Piccadilly station first opened, it isn't an exaggeration to say that the decisions we take to get the right option for both Northern Powerhouse Rail and HS2 will leave a legacy for generations to come, not just an economic one but a physical one. The train travels underground from the airport. It rises out of the ground in east Manchester on to high, concrete stilts, that travels a mile through a dense, fast-growing and tightly constrained city centre, with more to be added as NPR develops.

68. And before moving in to my formal evidence, I know the confines of this Committee is specifically the HS2 2B leg. However, for the northern towns and cities across our regions, the needs and opportunities are not driven by one programme alone and that's why, whilst acknowledging that we're here specifically around HS2, we cannot ignore our shared ambition to truly connect and unlock often under-harnessed potential of all of our communities who, for too long, haven't been able, not just to fully benefit but, indeed, fully contribute to our nation's success. Investing today for tomorrow and decades to come is the right approach and the ambition of Northern Powerhouse Rail sits firmly hand in hand with the aims of HS2. It's why we've been such a firm proponent and supporter of HS2 over the years. And we see from Crossrail the opportunities that can use connectivity as an enabler and, whilst I remain a firm advocate for the need for HS2, it has to sit alongside getting it right for Bradford, for Leeds, for Liverpool, for Hull, for Newcastle, for all of our towns across the north.

69. So if we move into the next slide, hopefully you can see that we will share much common ground and moving through my presentation, I want to draw out the case to build it once and to build it right, to get the best long-term solution for HS2 and NPR, not just in my city but for the network as a whole.

70. I'll touch on the following key points: briefly on the context of a growing Manchester and why regeneration matters, particularly for colleagues that may be less familiar with the transformation of the city in recent years. I'll draw on the impact on communities and the blight of concrete viaducts that come out of the ground in east Manchester. I'll talk about the improving of connectivity and capacity across the north

and I'll set out what I think the opportunity is.

71. So I suppose, in many ways, Manchester's growth is well told but not yet complete. A declining post-industrial city that's been experiencing a rebirth since the 1990s, seeing considerable success in driving regeneration, social and economic growth, both within the city centre and neighbourhoods across the city centre. This isn't just a benefit for Manchester city centre. And it's a city that's now recognised as one of the fastest growing tech cities in Europe with a diverse economy and a net contributor to UK GDP.

72. As we move into the next slide, we see the legacy of, in many ways, the rebirth in the city centre that came from the partnership with the Conservative Government and private partners after the IRA bomb in 1996. It served as a catalyst to city centre regeneration, the regeneration of communities in Hulme and east Manchester and also the new areas that we'll touch on, as we go through some of our developments.

73. You can see our significant population growth from 2003, we were a city of 420,000, to in 2023, a city of almost 600,000, and that growth has been matched across the city region, growth in the city that's set to continue but growth that's all evidenced and benefiting surrounding towns and villages across Greater Manchester and the north-west. Even the flyover that we saw at the beginning of today, the skyline has changed since then. And we're a city, and the reason I draw this out, with a track record in delivering growth. We understand what works for our city and are best placed to develop this further in partnership with Government and local stakeholders.

74. If we move on to slide 4, it demonstrates that despite these growth opportunities, the city is not yet complete. There are many accolades and many examples of work that's been done. Much has been made about Spinningfields, before and after; the area around NOMA, near Victoria Station; and the work around the town hall.

75. Move to slide 5. Some of our current developments though, and these are indicative, when we talk through some of the potential economic and regeneration benefits that we're able to reap, is that development, despite difficult economic circumstances, continues at pace. So when we went on our walking tour, we visited Mayfield, the area immediately to the south of Piccadilly, and we saw what a public-private partnership involving the city council, TFGM, LCR and the private sector have

been able to both plan and deliver so far of the 6.5 acre park, but with a development over the next seven years that will see 10,000 jobs and over 11,000 square metres of office space. And it's worth saying that this was more than our original SRF. Traditionally, we tend to take a conservative value, I suppose, in the aim of under-promising and overdelivering when it comes to developments. There's also significant work around St John's, a new area that's already home to two global tech companies and that will see the opening of Factory International in that area that complements the 165 world-class commercial and financial organisations that are in Spinningfields.

76. And the reason that I draw this out is because, and as we move through the presentation, you'll see we begin to talk a bit about the tightly constrained city centre. We've moved methodically throughout the last 25 years to develop areas in and around Manchester's core and as that development continues, we're seeing still a high demand for homes and for office space, and that gives us confidence, for our future development plans, that we're able to deliver them.

77. So if we move to slide 6, this brings me to the area of Piccadilly, and I genuinely believe that HS2 and NPR allow us the opportunity to transform this bit of the city, one of the last sections of the city centre to be developed, the final piece in the jigsaw in many ways. And the current strategic regeneration framework and growth strategy that we set out complements these key principles, thinking about what we as a city would need to achieve from an HS2/NPR station. The first is a world-class welcome, so that gateway experience in and out of Manchester. We accept that sometimes when you arrive in Manchester Piccadilly, it's not the welcome that we would all like to see for a world-class city. We've got an ambition to improve that. An integrated one-station solution that makes it easy for connections, for passengers and the ability for onward travel and, of course, world class public realm, a retail and leisure destination that people visit, and high-value commercial benefits.

78. If you move to slide 7, where I touched a little bit previously on the confidence that we've had in our delivery. It explains that we have plans already underway for each of the sections, with the exception of Piccadilly Central. It was the area we spent a bit of time walking around and you can see an area of the city that is underdeveloped and a little bit unloved. We're signing off the masterplan for North Campus, which is the

bright blue bit to the side of Mayfield, which is known as ID Manchester, this month, a public-private partnership driven by the University of Manchester that's already raised over £1.5 billion of private equity and plans to create 6,000 new jobs over the next decade. North, you can see East Village, Piccadilly North and Piccadilly Central. North of that is Ancoats and New Islington, an area that's been voted consistently by things like *Time Out* and *Times Magazine* as some of the best places to live in the UK, an area that 10 years ago was derelict warehouses sitting underutilised, and not a safe place to travel in the city. And we've got plans around Holt Town, spreading all the way to the Etihad, which will be busy as we speak, a part of east Manchester that's also been transformed with plans for future expansion.

79. If we go to slide 8. I want to set out in a little bit more detail what it means to me when I talk about connectivity and capacity, and I accept that you will hear in great detail from our technical expert, so I won't go in too much to the details of the route network. But as I said, Piccadilly sits at the heart of the current and future HS2/NPR network.

80. So this is the map of NPR set out by Transport for the North in 2016 with an underground station at its core to deliver the network to maximum benefit. Now, since we began talking about NPR and HS2, there have been many, many studies, particularly over the last decade, around the optimal delivery mechanism and underground stations have featured in many of them, from the work that we've commissioned ourselves that you'll hear more about, to independent Transport for the North work that we'll draw on and, of course, external reviews that concede it's a viable option, because we're clear that improved connectivity could produce significant economic benefits, as set out in our later evidence, and maximise the country's ability to genuinely level up.

81. Page 9. Now you'll be pleased to know, as a politician, I won't attempt to steal the thunder of our technical experts and we will set out more explanations of our position on the turnback station that will feature in later presentations. This is, as we've seen already, plans that currently exist around a station that sits alongside the overground option.

82. But if we move into slide 10, I want just to take a few minutes to explain, from my position – and this diagram is part of our environmental statement – the complexity of

the area we face, because this is probably one of the most controversial issues, as the leader of a city, that I face from my residents: a notion that concrete stilts will rise out of the ground in Ardwick and travel a mile into the city centre. Concrete viaducts will create significant visual and severance blights, and construction disruption on local communities and, of course, the lack of land for development. And we will get into this in more detail but what remains in the severed land isn't truly developable in the same way we're able to develop land that isn't severed. Overground infrastructure that assumes no current use, current communities disengaged and assumes no realistic plans for the future, is something that I disagree with. Under the current Bill proposals, communities in east Manchester would experience an extended period of disruption due to the construction of HS2 but also the subsequent construction of NPR infrastructure. The IRP suggests that this disruption could last, with an overground network, for over 17 years. And that's the plea that I make in making a decision around HS2, that we contemplate what comes after with NPR and the knock-on impact that that will have.

83. So, if we move into slide 11, why as leader of a council am I so concerned with current plans, particularly at times when residents always want us to focus on the delivery of now, investment for now, that we're so concerned around the impact of this for the future? So, of course, there's a point around development, the valuable and finite land that we have in the city centre of 16 hectares that could be used for the growth in jobs and the growth of homes, and plans above ground fail to take advantage of significant regeneration opportunities. You just have to walk around places like what's happened with King's Cross and St Pancras to see that blend of jobs and homes in high-value land.

84. As has already been drawn on, and Martin will cover in his technical expertise, it imposes constraints on services throughout the north, the turnback station potentially operating as a bottleneck. It fails to take advantage of the new capacity that's already been drawn out and we will go into, in great detail, around the full capacity of the spur, to be able to build in the future. Because I think what's useful to bear in our minds is at this moment in time, TFN's estimates suggest that we see about 180 million journeys per year across the north but by 2050, these figures and estimates rise to 760 million by 2050. So we have to build something that works for the future, that we can develop, we can build on and we can add in more, as more people move to rail. Experts will set out

why it creates a less reliable station and, of course, the potential for future disruption if we had to retrofit for additional capacity.

85. So if we move to slide 12, what myself, on behalf of GM partners, believe is the solution. We think to address these issues, to create and enhance capacity and connectivity, to reduce blight, to harness economic growth and future-proof, in my view, the plans that we need, this is why an underground station at Piccadilly is the best for Manchester and for the north.

86. And I want, I suppose, to reflect on some of the specifics that would follow later but I want just to re-emphasise that point that my colleague has made, that we've consistently called for HS2 to work alongside us. Now I only became leader of the council in December 2021 and one of my first tasks when I became leader was to understand some of the discussions that we'd had over the prevailing decade. And in that prevailing decade, as I say, many reports had been commissioned, much work has happened and I think we've been really keen to actually, as a supporter of HS2, as a supporter of welcoming and supporting those that want to invest in long-term infrastructure in this country, something that's so greatly needed, the ability for a long-term plan, that we really wanted to work alongside HS2 to get the right options.

87. And the ideas that we set out are precisely that. I don't sit here as an elected politician, professing to be a technical expert when it comes to tunnelling, when it comes to station build, but what I know is what works for my communities. I know what works for some of the challenges that we face in terms of connectivity and I would reiterate our position. We're a realistic and pragmatic city, a city that has drive, ambition and knows how to get things done. But crucially, along the way, we've galvanised many across the public and private sectors to back us, not just in our developments that we've achieved, but particularly around this proposition.

88. So if we move into slide 13. In setting out a recap as to why I think the solution we're putting forward is the right one, to reiterate that point that we're maximising regeneration and we'll go into greater detail. Being able to generate around £3 billion GVA over a decade, an additional net gain of 14,000 jobs, and round and about 450 square metres of developable land creates a great economic opportunity.

89. This is a conservative estimate and, as I've talked through, doesn't factor in some

of the wider city region or northern economic benefits and is purely for land gained. We didn't want to come out here and set a wildly unrealistic figure; we wanted to give something that we could stand by.

90. An underground station makes full use of its capacity, the more reliable station, the station performances. It reduces disruption and blights to communities in east Manchester and it futureproofs rail capacity for the growth we all need.

91. So in our ask is work with us; let's look again. I wanted just to, I suppose, in many ways, address the elephant in the room that is cost because we know that it will cost more. We know that it will give greater value in having an underground station but we also know that, as a pragmatic city with the recognition of costs, we'd of course participate in a discussion around strategy, the question to be resolved, of course, at a national level, but GM would work with the Government to support the promoter in developing an agreed funding strategy to meet the additional investment, because GM's already expected to make significant local commitments to HS2, more than any other local authority. No other local area thus far has been asked to contribute, but already, we're talking around contributions at the airport station for HS2 and NPR, and contributions around Metrolink.

92. So, if we move –

93. CHAIR: Sorry to interrupt. On the 14k jobs, that's on the land that otherwise would be, in your terms, blighted and unusable due to the construction of the viaducts etc.

94. CLLR CRAIG: Yeah.

95. CHAIR: So, it's the opening up of that land provides 14,000 jobs potentially with a £3 billion GVA.

96. CLLR CRAIG: So it's specifically as it pops out of the ground about a mile out, and that stretch – the orange shaded land that we had previously. So we've not talked about the wider economic benefits to HS2; we've assumed them anyway. This is specifically on the land, developable land, that if we were to talk about some of the national funding solutions could, in itself, provide some answers.

97. CHAIR: Okay, thank you.

98. CLLR CRAIG: Then I suppose I just wanted to conclude, and in many ways, it is hard to think so far in the future, particularly when we talk about the need for investment in many things now, but if you will just indulge me.

99. In 2053, 30 years from now, I'll be 68, hopefully –

100. CHAIR: Lies, I don't believe it.

101. CLLR CRAIG: Charmed. Good skincare.

102. CHAIR: I'll still be 35.

103. CLLR CRAIG: Hopefully, I'll be retired – my predecessor did this job for 25 years – and the world will be different. Manchester's population will have grown even more. There will be people on trains as we're achieving our net zero ambition and have more streamlined and integrated railways, but with that we have more constrained railways. The Government of the day, perhaps giving in and realising, like much of the world with dense cities, that underground is the only way.

104. I don't want people in Manchester, residents or visitors alike, to look around the city and think, 'What on earth were they thinking? Concrete stilts cutting off sections of the city, not futureproofing their significant investment,' wondering why when we had the chance, we didn't build it once and we didn't build it right. Thank you.

105. CHAIR: Thank you. Members any questions at this point? Mr Cameron. Oh, Mr Mould?

106. MR MOULD KC (DfT): I know we haven't hitherto adopted the practice of asking questions of witnesses, but I wonder in the context of this particular case, if you would indulge a few questions which are effectively in the form of cross-examination. Lest anybody take offence at that, I don't intend to cross-examine in the way that people see on the television.

107. CHAIR: Right.

108. MR MOULD KC (DfT): I'm sorry about that, but just really by way of seeking to

narrow the issues a little between us.

109. CHAIR: Sure. I mean, Mr Cameron you're content for that, are you?

110. MR CAMERON KC: Yes, of course, sir, and when it comes to Mr Mould's witnesses, I would ask for similar indulgence, as he puts it.

111. CHAIR: Well, I think as Mr Mould will attest, I have tried to kept our committees as flexible as possible so that we can actually have, and facilitate, a proper discussion because that's beneficial to us, but of course, that will happen in the other direction as well.

112. So, Mr Mould, yes?

113. MR MOULD KC (DfT): Thank you very much. And Cllr Craig, good afternoon to you. It really is just a few questions of context really. The first is this: as you will know, in the later years of the last decade, in 2018-2019, I think it was Manchester City Council, commissioned some work from Bechtel to review the then current emerging proposals for the station solution at Manchester Piccadilly. Bechtel in their report, which I think they produced in December of 2019, recommended that further detailed consideration should be given to the option of a six-platform underground station, through station. You remember that.

114. CLLR CRAIG: Yes, I've read it in the report.

115. MR MOULD KC (DfT): If we just put up, please, slide P419(14), you will then recall that, in March of 2020, an independent advisor to Transport for the North, Richard George, was asked to review, as a whole, the technical and economic evidence which existed at that time. And if we go to the next slide in relation to the Bechtel report, he made a positive recommendation, which is recorded on this slide, that – I'm reading from the third paragraph – 'The only option other than the surface station I believe is worthy of consideration is the combined HS2 Northern Powerhouse Rail underground through station with a different alignment as in the Bechtel report', in other words, the six-platform alternative, yeah? You remember that?

116. CLLR CRAIG: Yes. What I've been very clear about – so I became leader in 2021, so yes, I'm familiar with Bechtel, yeah.

117. MR MOULD KC (DfT): You're familiar with it.

118. CLLR CRAIG: Yes

119. MR MOULD KC (DfT): If we then turn to the next slide, we can see what the Secretary of State made of that recommendation. This is June 2020. The Secretary of State for Transport wrote to the mayor of Greater Manchester noting the contents of both the Bechtel report and the Richard George review, recognised a request from the Mayor of Greater Manchester to develop the wholly underground option outlined in the Bechtel report, in order to develop a more detailed costing and ensure a robust evidence base for the Hybrid Bill Select Committee. HS2 was to carry out the work with input from Manchester City Council, Transport for Greater Manchester and Transport for the North into the scope and requirements of the study. Engagement regarding the scope and requirements commenced in July 2020, with the study kicking off in September 2020, and finishing in mid-2021.

120. So essentially, it was that instruction that led to the work that was reported, as you know, in the SIFT report that was published on 26 June 2022; is that right?

121. CLLR CRAIG: Yes. And I'm sure we'll come onto some of the challenges that we've previously identified with the SIFT report.

122. MR MOULD KC (DfT): And that was, at least to some degree, a collaborative exercise, because those three authorities, the mayor/Manchester Combined Authority, Manchester City Council and Transport for the North, were all consulted on the work that culminated in HS2's SIFT report, published last June. That's right, isn't it?

123. CLLR CRAIG: So I think there is an interpretation point there when the use of 'consulted' is utilised, but yes, there was some consultation.

124. MR MOULD KC (DfT): Do you want to tell me what you mean by 'there's an interpretation point'?

125. CLLR CRAIG: So my understanding from the SIFT report that was published in its full unredacted form was that there are some areas of contested space and some areas of disagreement.

126. MR MOULD KC (DFT): Yes.

127. CLLR CRAIG: And Martin specifically will draw out some of that contested space. But I think there was a view, and it is a view, I believe, to be on record, that the surface and underground stations weren't fairly compared and that there is a view, from Manchester City Council and GM partners, that the underground station design wasn't optimised to maximise benefit. So, I think in the words of 'consultation', there was a consultation, but I think there was a point of difference both in terms of how deeply we were engaged, but also our agreement and support with the recommendations that were proposed within that.

128. MR MOULD KC (DfT): Are you able to accept this way of characterising the position? Manchester City Council and Transport for Greater Manchester, and indeed, the combined authority, were all consulted on that work but they didn't necessarily agree with all of the conclusions that were drawn in the report.

129. CLLR CRAIG: I think one of the things that we would draw out is that we would agree – I'm not from a legal background, so you'll accept this with a caveat that I offer it – is that we agree there was partial engagement and consultation.

130. MR MOULD KC (DfT): Yes.

131. CLLR CRAIG: It could have been deeper, it could have been more detailed and I think we've firmly advocated that all along. And we therefore didn't agree with the full recommendations and findings.

132. MR MOULD KC (DfT): Right. Those recommendations are summarised – for the record, the executive summary of that report is at P421(8-10) – I'm not going to go to that, but they're summarised on P418(14). Just so the Committee can see, this can be checked for its accuracy if it thought appropriate, but they essentially concluded that, of the three best performing of the underground options considered in that report, the authors of the report, HS2 Ltd, judged that all three resulted in 'a moderate worsening or major worsening in terms of construction feasibility, health and safety, cost and scheduled delivery into service when compared to the base-line service scheme', and then it goes on to deal with option B1, which in HS2's view was the best performing.

133. Now, I take your point; you and those with you don't necessarily agree with all of those conclusions, but those were, in summary, the conclusions drawn in that report, weren't they?

134. CLLR CRAIG: So yes, they were the conclusions and particularly option B1, which came out, I think from memory, £4.4 billion more with a delay of seven to 11 years, which was something that we contest and will set out through the course of our evidence why it is that we contest that, not just in terms of how much it costs, but we'll also set out what we believe our proposals are, that yes, there will be a delay, but not in the region of seven to 11 years.

135. And I suppose, in many ways, that's why we're here, isn't it? We do not agree on the proposal that's been put forward at this point, and we believe there are ways of optimising that, and I think there are reflections that we have and how we perhaps could have worked better in the past, to have not got to this point, but we are at a point where there are some disagreements in not accepting positions.

136. MR MOULD KC (DfT): Well, that report considered a variety of underground options, each of which involved the provision of a six-platform underground station, didn't it?

137. CLLR CRAIG: So, option B, option B1 and option D?

138. MR MOULD KC (DfT): Yes, a six-platform underground. Your case today is for a four-platform underground station.

139. CLLR CRAIG: So, I suppose I would draw back to what my KC's outlined is that our case is for an underground station. It's not for me, as leader of the council, to articulate, should it be four or should it be six? But the point that we put out is that, from the evidence that has been presented to me and the evidence that will be presented to the Committee, a four-platform station, from the evidence that I've seen on the basis of what HS2 Ltd have shared with us to date, fulfils that function. It fulfils that function in a way that is cheaper and in a way that delivers less delay time. But to say that we're only advocating only a four-platform position is perhaps not quite a true articulation of where we are.

140. MR MOULD KC (DfT): I've looked through, not only your slides, but the whole 150-odd pages of slides that have been produced by you and other witnesses. I think I must have missed the slide which said, 'If we don't succeed in persuading the Committee that a four platform underground station is appropriate, we'd like, please, to advocate a six-platform underground station instead.' Where is that slide?

141. CLLR CRAIG: So, I think perhaps there's an issue of interpretation of what I'm saying, so let's be really clear. My position is that, from all of the evidence that's been presented to me and the evidence that will be presented before this Committee, from the experts, the witnesses that we have, they will seek to demonstrate that it could be achieved within four platforms what is currently achieved within six, and, therefore, that's the premise of much of the argument. But to be really, really clear, my position throughout is that underground station is the best option for the City of Manchester, and that's the position of GM partners.

142. MR MOULD KC (DfT): I see. Well, then we pick up the – just carrying on a little further, the Manchester City Council's petition was lodged, I think, on 8 August or thereabouts, 8 August last year. Can we just bring up, please, R175(10)? And just so you know, this is page 11 of your petition.

143. Do you see at paragraph 2.3, we see this: 'The location of the proposed surface-level terminus station will remove an area for development within the Piccadilly SRM and wider Ardwick area' – that's strategic regeneration framework – and the wider Ardwick area, 'equating to 500,000 square metres of floor space, which will cause irreparable long-term damage to the prospects of beneficial comprehensive regeneration and growth of the area and would cost up to 14,000 new jobs as a result of the lost development opportunities, cutting potential economic growth by an estimated £333 million each year by 2050.'

144. Effectively, your petitioning position was even if, as the SIFT report puts forward, moving to a six-platform underground option would involve considerably greater capital cost and significant delay into bringing the railway into service, those burdens are offset by the huge economic benefits that will begin to flow from what you saw at the advantages of going underground to the six-platform option from 2050 onwards. That was the point that was being made there, wasn't it?

145. CLLR CRAIG: The point that was being made was the land, in a fast-growing city, that could be utilised would be able to generate that benefit.

146. MR MOULD KC (DfT): Yes.

147. CLLR CRAIG: And that could move – could move – towards a partial offset, but it was around demonstrating that actually, the area around the station, if you were go underground, you could utilise that for the creation of jobs and homes. And that was what we were proposing, that essentially, it creates value to the economy over a longer period of time by allowing that development. And I know that, since the original 2021 study, there's been revised versions and this will be a point of contention, and you will hear we will call an expert witness specifically around economic regeneration to set out on the Bennetts report, through Allanfield, what it is that we articulate, but we do believe that in the region of 14,000 new jobs and a GVA of around £3 billion over a decade by 2050 is an achievable target.

148. MR MOULD KC (DfT): And this was the crux of your economic case, and it remains so, as you told the Chairman earlier.

149. CLLR CRAIG: The crux, yes. We're a fast-growing city with the ability to develop but also the demands to develop in and around the city centre, and the purpose, I suppose, of when we grow cities, who we grow cities for. We grow cities for the residents that live there and we grow cities to be able to create jobs that benefit to the economy. And our argument is that growing Manchester benefits the UK's economy and on that single piece of land alone, that's the field of income that will be generated in GVA.

150. MR MOULD KC (DfT): Yes, and as you know, there is an issue about that but I'm not going to explore that with you. We understood, and I think from what you've said rightly, that that paragraph was at the forefront of your case for an underground station, and so senior officials within the Department immediately asked for the underlying and supporting evidence which you say justified that figure of £333 million per year, didn't they? The Secretary of State's officials asked for that information and it wasn't provided, was it, until the last working day before Christmas of last year?

151. CLLR CRAIG: I mean on the basis that we have a lot of information provided to

us last week, I think that's –

152. MR MOULD KC (DfT): No, no, I'm asking about your role in acting collaboratively. If we turn, please to A70(1), this is a document which is dated 22 December 2022. This is the report headed, 'Manchester City Council, Piccadilly HS2/NPR Station Options Assessment, Technical Report, version 2d'; this is the report which was finally supplied to the promoter on the last working day before Christmas, which sets out the justification for that figure of £333 million per year from 2050, isn't it?

153. CLLR CRAIG: Mm-hmm.

154. MR MOULD KC (DfT): Yes, alright. And upon receipt of that report, allowing for the Christmas and new year festivities, the promoter's officials asked a series of questions arising from that report in the early new year, didn't they?

155. CLLR CRAIG: I believe so.

156. MR MOULD KC (DfT): Yes, yes. During this period, none of the GM partners indicated that their case had now changed, or was going to change, to a four-platform underground alternative; there was no suggestion of that, was there?

157. CLLR CRAIG: I'm not sure in relation to the questions you're asking; I think I would have to check with colleagues –

158. MR MOULD KC (DfT): Well, that's my reading of the position; if I'm wrong about that –

159. CLLR CRAIG: I think, given my affirmation, I don't want to misdescribe questions that were asked of officers of the council rather than to me directly, but we can check for that.

160. CHAIR: I'm sure that's reasonable. Mr Mould, the point here being that – what's the connection between – I may be missing something here – the four-station underground option and the £333 million? I thought the beginning of your questioning was going to be that you have effectively – the promoter has effectively already, on instruction by the Secretary of State, undertaken what has been asked for, or am I wrong

in that?

161. MR MOULD KC (DfT): No, you're right about that.

162. CHAIR: Okay, I'm right about that. So, just explain to me the connection between the – whether it's four or six underground and the £333 million, given it's – I'm trying to -

163. MR MOULD KC (DfT): I'm trying to – it may not be helpful to you – what I thought might be helpful to you, through the medium of these questions, is to identify precisely when, for the first time, the proposal for a four-platform underground through station was actually published by the GM partners.

164. CLLR CRAIG: When was that?

165. MR MOULD KC (DfT): Well, if you turn to A68(1), you can see it was on 14 April this year.

166. CHAIR: What's the importance of when as opposed to –

167. MR MOULD KC (DfT): I'm interested in exploring a complaint that was repeatedly made by Mr Cameron in opening that there has been some lack of collaboration on the part of the promoter in exploring and understanding the Greater Manchester alternative proposals for the time being. I've showed you the position in relation to six-platform alternatives – underground alternatives – and I was looking to show you that – in a sense, you've anticipated my next question, which was, when did we first hear about the four-platform alternative? We've now seen that. That's right, isn't it, Councillor? It was when we received this document and the underlying technical reports dated 14 April of this year?

168. CLLR CRAIG: I suppose from my perspective though, that misrepresents the fact that dialogue had been closed for those discussions by that point, so I think, just on the record, we would have happily – if there were avenues to discuss in greater detail with HS2 on some of this, we would have happily taken it up. And I appreciate that you're following a line of questioning that the KC highlighted from our end.

169. MR MOULD KC (DfT): Yes.

170. CLLR CRAIG: But what I articulated was the position that I've set out and the position as it appears to me as leader of the council, some of that –

171. MR MOULD KC (DfT): If you're willing to –

172. CLLR CRAIG: Sorry, one second –

173. DR CAMERON: Can I ask a question?

174. CLLR CRAIG: Yes, of course.

175. DR CAMERON: You're saying that dialogue was closed; did you make any attempts to open the dialogue before sending this report at that time?

176. CLLR CRAIG: I think what I was just going to say is that the chronology of contact will be presented and informs the basis of part of my colleague Martin's expert witness piece that he will give. So, I don't want to accidentally draw on dates incorrectly, having them potentially misleading –

177. DR CAMERON: I don't mean dates specifically, but did you make attempts?

178. CLLR CRAIG: I mean, yeah, this has been going on for over a decade in terms of engagement around an underground station.

179. DR CAMERON: You'd got this proposal previous to this date in April.

180. CLLR CRAIG: The four station?

181. DR CAMERON: Yeah.

182. CLLR CRAIG: If I could just double check chronology, if that's okay, yeah?

183. CHAIR: Mr Mould, you've got the floor at the moment.

184. MR MOULD KC (DfT): I don't recognise as factually accurate the assertion that dialogue has been closed. I'm not going to pursue that with Cllr Craig; if necessary, we can come back to that with a later witness. But what I hope is agreed, because it's a matter of record, is that the proposal which your council and others are now putting before this Committee for consideration was first presented to the promoter on 14 April

2023. Are you able to accept that?

185. CLLR CRAIG: I can accept the date of submission. As I say, I just would like to clarify with colleagues as to what efforts – in relation to your question – as to what efforts previously had been made. I've spoken at many events with HS2 colleagues where they've said, 'Well, we'll come back to the issue of the underground station once the Hybrid Bill Committee has met.' So, speaking from my perspective, I've felt, when I've had conversations with colleagues, that that avenue had been closed until this Committee met. So that's what I'm reflecting on, but the chronology is something that colleagues will be able to –

186. MR MOULD KC (DfT): And that date, of course, is just under two calendar months before today's hearing.

187. CLLR CRAIG: Yes.

188. MR MOULD KC (DfT): Yes. I had one other point I wanted to ask you about and then I'll stop. If we could just turn to A63(10), please. You showed the Committee this slide and as I understood it, the purpose for showing this slide was to bring out the point that, under the Bill's surface station scheme, there will be a significant quantify of surface infrastructure to the south of Piccadilly Station itself, running at surface between the station and Ardwick, and also running out to the east to serve the Leeds NPR line; that was your point, wasn't it?

189. CLLR CRAIG: Yes. It was basically the area of the city that it runs through and what challenges that would create in terms of blight and some of the construction disruption that exists around there, particularly in and around Pin Mill Brow, which, for those familiar, you can see towards the end of the picture.

190. MR MOULD KC (DfT): Can we just turn up A64(17), please, which is the final slide I want to ask you about? This is one of Mr Lax's slides but it's relevant to your own position. We can see here presented in colour coding – and Mr Cameron showed the Committee this already – the area coloured red is the HS2 Hybrid Bill infrastructure and we can see the viaduct going down to the tunnel portal. And the area coloured blue, the light blue lines, those are the future surface NPR infrastructure to serve the Leeds line, aren't they?

191. CLLR CRAIG: Mm-hmm.

192. MR MOULD KC (DFT): This is your own evidence, this is your own plan, and you can see that, on the basis of that surface infrastructure, the city council is anticipating that significant potential development parcels will remain available to bring forward; that's the pink areas and also the medium blue area. Those are all identified as potential development parcels, aren't they?

193. CLLR CRAIG: Yes, but obviously, from experience of regeneration, the potential varies, depending on those sites.

194. MR MOULD KC (DfT): Yes. But it's not your case that the presence of the surface infrastructure will prevent significant development potential coming forward in the area to the east of Manchester Piccadilly as shown pink and medium blue on this plan; it's not your case, is it?

195. CLLR CRAIG: So the reason it says 'constrained' beside it is that it's fair to say it can be developed, but it can't be developed in a way that you would, with the traditional strategic regeneration framework, where you would create a neighbourhood. So if you think about, I suppose, Kings Cross St Pancras and the development that's happened to the north of Kings Cross station, you've got an area where you're able to create some public realm, some office space, and that's a homogenous area.

196. It's my view that with the constrained sites you're not able to operate the same type of development, and experience tends to show that, so yes, I think why there's two separate colours. You could have, of course, some use for that land, be it some kind of low density, be it some of the car scrap, haulage stuff that we saw there, but the reality of actually developing it properly, as you would in a coherent neighbourhood plan, you would lose that.

197. MR MOULD KC (DfT): And that analysis only applies to the area coloured blue, doesn't it? There's no suggestion on your case, on the pink areas, that they are in any way constrained, is there?

198. CLLR CRAIG: I don't think they would be as attractive, but you're able to develop them, and I suppose that's the – we're not, as a city, in 2045, going to sit on

areas that don't have any development, and that's why we talk about the net benefit that comes with the type of development that we would have.

199. CHAIR: Can I just jump in there, then, on this because this is an important point? The 40 acres which is referred to, which is not developable unless there's an underground station, which bit is that on this map, please? I think that was the submission, wasn't it? It was 15 hectares, 40 acres of land that will be developable if there's an underground station that isn't if there's, obviously, the viaduct. I'm just trying to figure out where that is on here.

200. MR CAMERON KC: Sir, it's not me to answer the questions, but the next witness is going to.

201. CHAIR: Right, okay.

202. MR CAMERON KC: So I don't know whether it would –

203. CHAIR: I'm happy to wait for that.

204. CLLR CRAIG: I could try to present to you Martin's evidence but I'm not sure he'd thank me for it.

205. CHAIR: If we're going to come to that, it's important we do see that at some point, so let's park that there and the next witness can respond on that, because that's obviously an important contention of the case from the Manchester partners. But I'll accept that's coming later.

206. MR MOULD KC (DfT): Can I just record the answer is, 'I don't know'?

207. CHAIR: Okay. Well, we're going to find out at some point in the future so we'll leave that bit there, I think.

208. MR MOULD KC (DFT): Alright.

209. CLLR CRAIG: I'm happy to point to the bits of land as I understand it but I'm just conscious it's not my –

210. CHAIR: We're going to get an answer to it in these proceedings and that's all that really matters. So we'll draw a line under that bit, please.

211. MR MOULD KC (DfT): Absolutely, and having drawn that line, I have no further questions.

212. CHAIR: Thank you, Mr Mould. Mr Cameron?

213. MR CAMERON KC: Thank you, sir. Normally on re-examination, I go back over all the – or some – points. I don't want to bore the Committee by doing that. On chronology, I will come to the next witness. On that point you just asked about, there's a slide in Mr Lax's pack.

214. Can I just ask you one thing please, Cllr Craig? You were asked about the so called SIFT appraisal where the various options, B1 and D and so on, were considered. As was agreed between you, that was considering six-platform options, not four, but leaving that point aside, can I ask you, do you consider that that report gave sufficient consideration to the matters now being put forward by GM partners?

215. CLLR CRAIG: No, I don't consider it sufficient and I think we've been quite vocal in the areas of the information we felt that it lacked, and that it wasn't, therefore, an adequate basis to make decision, so it doesn't require – we don't think it matched the requirements of the Minister's original letter and we think, for example, the strategic fit assessment doesn't capture the full range of HS2's strategic goals and objectives, so I think the short answer is no.

216. CHAIR: Can I just ask on that, then, is the contention then that the figures of how much a six-platform underground station would cost – your contention is that they are, effectively, overinflated, it wouldn't cost that much, or is it that the provision of a four-platform underground station brings the cost down so significantly that the option is then an affordable option? I'm a bit unclear on that. What's the position of the partners on this?

217. CLLR CRAIG: Was that to you or to me?

218. MR CAMERON KC: I'm happy to give the – this, again, Mr Lax is going to deal with but I can tell you now the approach that has been taken.

219. CHAIR: Alright.

220. MR CAMERON KC: It's that a four-platform station would be cheaper and, to make it easier or to make it manageable for the GM partners, because they don't have access to all the information which HS2 has access to, what the GM partners have done, on cost, is to look at the six-platform options, look at the costing for that, and see how much less it would cost if it were to be a four-platform station. So that is the approach that we've taken.

221. MR MORRIS: That's a four-platform underground through station.

222. MR CAMERON KC: Yes, underground.

223. CHAIR: Okay, thank you. The floor is with you, Mr Cameron, so has the leader concluded or are you calling your next witness?

224. MR CAMERON KC: I'm planning to call my next witness unless Cllr Craig has anything else that she wishes to say.

225. CLLR CRAIG: No, no, I just want to thank you for your time and your questions.

226. CHAIR: Thank you very much, thank you. We will be due a vote, I think shortly, but we'll start with your next witness which I assume is Mr Lax.

227. MR CAMERON KC: It will be Mr Lax. I'm conscious, and I'm sure he's conscious, of the questions that have been passed onto him.

228. CHAIR: Thank you.

229. MR CAMERON KC: He'll be thinking in his mind that he can pass on some others to later witnesses.

230. CHAIR: He should go into politics.

Evidence of Mr Lax

231. MR CAMERON KC: Right, Mr Lax, if I can introduce you to the Committee. We've got your slides headed 'Briefing'. I think these are the exhibits to your evidence but we won't labour over the technicalities. First of all, what's your current position with TFGM?

232. MR LAX: My current position, if we could go to slide 2, please, is transport strategy director at TFGM.

233. MR CAMERON KC: And can I just ask you, from your experience, have you had experience yourself, and have TFGM, of delivering infrastructure projects?

234. MR LAX: We have had experience of delivering major infrastructure; we've tripled the size of our Metrolink network over the past decade, which was a £2 billion programme that we delivered to time and to budget.

235. MR CAMERON KC: Thank you. So let's go onto 64(3), please, which is the next slide, and we can see that your evidence is going to follow the structure that I've already outlined: context, what are HS2 proposing to do, what's wrong with it, what's the solution and what are asking the Committee to do?

236. So, let's go on, if we can, to 64(5), please, and there we have got a rail map. What does that show us?

237. MR LAX: So, this draws on some of the information that Cllr Craig ran through. It shows us Piccadilly in the centre of the map, Manchester Piccadilly, serving around 30 million passengers a year. The Metrolink network is overlaid on that and identifies how that connects into Piccadilly.

238. The station itself is highly constrained; it serves local, long-distance and freight movements, and acts as a constraint for services across the north. There are long-term aspirations to solve capacity through Greater Manchester including the programme that we're here to discuss today, HS2/NPR, and we need the right solution for that to ensure we don't create another bottleneck at Piccadilly.

239. It's a combination of a terminus station and a through station. Two of the platforms operate through services, and they carry around a third of the passengers going through the station. The other 12 platforms carry around two-thirds of the passengers, so clearly a high demand for through services at Piccadilly. It also serves the role of giving connectivity to the region and is one of the reasons that we were keen that the high-speed station, when it came to Manchester, was at Piccadilly.

240. MR CAMERON KC: So the relationship between the terminating and the

through, and the number of passengers handled, can one draw any conclusions from that information, generally, not the detail, as to the capacity of through platforms compared to terminating platforms?

241. MR LAX: It shows that through platforms can carry a significant number of passengers per platform and are attractive to both customers and operators.

242. MR CAMERON KC: Right. That's Manchester Piccadilly itself. Can we go onto the next slide, which is 6? We've got the IRP, integrated rail plan, core network. So what does that show us about the core NPR network?

243. MR LAX: So this is showing us the output from the IRP. That is a snapshot in time based on the current funding plan that takes us to the mid-2040s. The infrastructure that's going to be delivered as part of that programme will be able to deliver capacity for at least a century beyond that.

244. As Cllr Craig set out, at Piccadilly, the station there was built in the mid-1800s; we're now 150 years beyond that. That would give a life for the new infrastructure well in to the 2100s, potentially to the 2200s. So we think clearly there's a longevity; that's why it's important to get the right solution now, putting the right capacity now at Piccadilly.

245. Within Greater Manchester, the plan shows us that we propose to use the High Speed Two infrastructure for NPR; so the High Speed Two infrastructure that's part of this Bill is the blue scheme on the map. By then layering in Northern Powerhouse Rail which is the east/west rail scheme running from Liverpool through Warrington, up through Manchester, Leeds, Bradford, York, Doncaster, what that does is maximises the investment that's going into High Speed Two. So on the spur, NPR services and HS2 services will use the same infrastructure. Clearly, that's something we are very supportive of.

246. The airport there, a key destination from across the north, it's the north's main international hub for air travel and it's really important that areas are connected directly to that.

247. I think it's important that the fact that this Bill is looking at just HS2, but actually

can deliver so much more than that, is the reason that we're here making the case for more capacity through Piccadilly and making the station into a through station, which, as you can see, would be what the network required, rather than a turnback station, which is what is in the Bill at the moment.

248. MR CAMERON KC: Let's go onto the next slide, 7, and that appears to show a wider network. So, what does that show? IRP –

249. MR LAX: Slide 7 is the preferred network that northern leaders agreed at TFN board, so this is the is the NPR network. It's just been republished in the draft strategic transport plan that TFN have published and included an underground station in Manchester Piccadilly; that's set out in the integrated rail plan. So this shows the ambition for the north in terms of the Northern Powerhouse Rail network.

250. MR CAMERON KC: And again, next slide, we've got another indication; what does this show us?

251. MR LAX: This is the original vision from 2016 that shows how we were aiming to connect.

252. CHAIR: I'll have to interrupt there; we've got a division in the House, so I'll suspend the Committee again.

Sitting suspended for a Division in the House.

On resuming –

253. CHAIR: I'll resume the Committee. We were with Mr Lax and Mr Cameron.

254. MR CAMERON KC: Thank you, sir. On chronology, which Cllr Craig was asked about, what I'm going to suggest is – and I've mentioned it to Mr Mould – we will draw up a list where we say there was engagement and we will give it to HS2 and seek, in a spirit of collaboration, to agree it, and save the Committee a bit of time, hopefully.

255. So, right, Mr Lax, if we go back – are you content with that, sir?

256. CHAIR: Yes, absolutely. We like agreement.

257. MR CAMERON KC: Good. We will try and –

258. CHAIR: Try and seek it.

259. MR CAMERON KC: We will. Mr Lax, we're still on context. I'm going to ask you to skip over slides 9 and 10; can we go to slide A64(11)? And this is the context for levelling up, and we've got these boxes, and on the left we see, 'Transport capacity to keep pace with baseline growth'. What are you seeking to communication with this slide?

260. MR LAX: This slide seeks to set out what needs to be done to achieve levelling up and sort the rebalancing challenge and the role of transport and connectivity to enable that. So the box on the left says that, 'Transport capacity needs to keep pace with background growth'. So that's growth in demand and growth in population. What that does is just keep you at a stable position relative to other areas. It doesn't separate the gap; it doesn't help to level up.

261. To level up, on top of keeping pace with baseline growth, you need to ensure that there is intense land use and development within city centres around the areas that have good connectivity. You need to improve that connectivity within the city regions, so those locations need to connect to the hinterland around them, and then you need to improve the transport linkages between cities, so you need to maximise the connection between urban areas as well as within them.

262. Then in addition to that, you need to have synergies between those investment programmes, so they can't work in isolation; they need to work as a whole. You need all of those changes to happen together to be able to deliver levelling up.

263. MR CAMERON KC: We'll come back to that diagram in a moment, in due course. Let's turn to the HS2 proposals and I think these images the Committee are now familiar with so we can take it quite quickly on this bit. So, we've got slides 13, existing, slide 14, proposed HS2, and slide 15 is HS2 plus NPR.

264. MR LAX: That's correct.

265. MR CAMERON KC: And then there's another image so one gets an idea of the viaducts at 16.

266. MR LAX: Sorry, just pausing for a minute, on 16, I think this shows the scale of the infrastructure that's going in east Manchester. So, the viaduct is shown in the middle there, but in addition to that, there are some very significant cuttings and very significant embankments, and those act as a block to connectivity.

267. Just for a sense of scale, in the middle there, we've put a truck, a car and two people, so you get a sense of how big these pieces of infrastructure are.

268. MR CAMERON KC: And then if we go onto 17, and we've already looked at this slide, but when we have potential development parcels constrained, why are they constrained?

269. MR LAX: They're constrained – the blue one, for example, is constrained because it's surrounded on all sides by infrastructure. So, to the south, the orange colour is the existing approach into Piccadilly. To the east, the large orange area is the train depot at Ardwick. To the north would be the NPR and HS2 infrastructure at the point where it went into a cutting and onto an embankment. To the west is the significant highway network at Pin Mill Brow.

270. That means that it's very difficult to integrate that plot within the city and I'm sure that the architectural witnesses will be able to elaborate on that. But the issue here is that there is so much surface transport infrastructure and we're adding to it; we're making it more difficult to build in this area.

271. MR CAMERON KC: Thank you. And next, we've got an image which is from the flythrough which has been referred to earlier. Just on this, you see the surface turnback station. What's that on the right of the station?

272. MR LAX: On the right-hand side, that shows the proposed car parks. So there's a 2000-space car parking facility, or two facilities, to deliver that amount of space, which is clearly a very significant structure and not in line with local policy, but we will come back to that, I think, with any surface discussions.

273. MR CAMERON KC: So, we then go onto deficiencies and adverse consequences, and you've got two of them, not fully supporting levelling up and substandard rail function. You're going to elaborate on that a bit, but if we can go to 21,

I think this may be the answer to the question of where's the 40 acres.

274. MR LAX: It is. So, on 21, this map shows the surface land area taken up by the surface HS2/NPR infrastructure around 40 acres and that's the orange area on the plan. So the 40 acres is the area that's taken up by the surface infrastructure.

275. CHAIR: Without that surface infrastructure, can I ask – because some of it would still be constrained by other infrastructure, would it not? So how developable and valuable is – I mean, obviously, sections of it you can clearly see would be right in the middle of other developable land but some of it is also constrained so the £330 million a year which these 40 acres unlocks, the assessment of that is based on what?

276. MR LAX: It's based on that land being developed. So, the assumption in terms of the comparison – and I think we touch on it a bit later – but the assumption in the comparison is the same level of development could be achieved on those sites in terms of density. So there's something in the development world called the floor space index and that will be discussed more next week. But that gives an assessment of how dense the development can be. So, in this case effectively, it's 3.9, so for every metre of available land for development, you would have 3.9 metres of development on that, so effectively, four storeys, you'd be talking about.

277. The other calculation that has to be done, though, is not all land is developable. So we haven't gone away and said, 'Right, we've just assumed we can build on all that 40 acres' because you need public space, you need roads, there's areas of that land that will be not available for development. So, we've done a calculation that says only one third of the area of that land will be available for development because we're assuming two thirds of that land will have an alternative use which is needed to be able to deliver that development.

278. So that gets you to, effectively, taller buildings, but across the whole of that area, we think that the floor space index that we've used is appropriate, and it's consistent with the level of development that we proposed originally in the growth strategy that we put forward in 2018, so we haven't increased it from that; we've taken a prudent view about the amount of development in this area.

279. CHAIR: The third of the 40 acres on an average of four-storey development

delivers you £333 million GVA per year.

280. MR LAX: Because you're only using a third of the land, effectively the development will be 12 storeys.

281. CHAIR: Oh, I see, so it's four over the whole –

282. MR LAX: We'll talk through this in a bit more detail, I think, next week. But what that means, it would be four storeys if you're using all of it, but because you're using a third of it, that pushes the development height up, which we think for this area of the centre is appropriate, as an average through the area.

283. CHAIR: Okay.

284. MR CAMERON KC: And just while we're on that subject, I think we have as – I don't want to go to the detail of it, but we have at A79, which is in part 5 of the petitioners' documents, we have the Piccadilly strategic regeneration framework, and is the approach you've just outlined, is that consistent or inconsistent with the framework?

285. MR LAX: It's consistent with the framework.

286. MR CAMERON KC: Okay. And if we can have up A79(39), please. Thank you. If you look on the right-hand side at density – so this is the strategic regeneration framework – what is the floor space index which has been applied?

287. MR LAX: 3.9 is the floor space index that has been applied.

288. MR CAMERON KC: So, are you on A79, on the document there on the right-hand side? I think 3.9 is pretty much the same but we have density – the overall density of the proposed development presents a floor space index figure of 4:1, which compares with other developments in Manchester.

289. So has any different or divergent approach been taken when assessing the effect of the lost land?

290. MR LAX: It hasn't, no.

291. MR CAMERON KC: Thank you. Right, let's go back to your slide, so you've identified the 16 hectares, 40 acres; we were on slide A64(21). If we go to A64(22), we

get the levelling up image again. Why have you reintroduced it here?

292. MR LAX: We've reintroduced this image here. Because of the loss of land, there is less development and therefore less agglomeration delivered in this location. That means that, for us to achieve levelling up, as I set out, you need to deliver the land use and agglomeration, and you need to deliver the long-distance services and deliver the local connectivity, and then have synergies between those.

293. If you're delivering less than you could, which is what we believe the surface station does as opposed to an underground through station, then clearly, you're not going to deliver levelling up to the same degree that you could if you maximise the infrastructure.

294. MR CAMERON KC: Thank you. Now, we're still on deficiencies because we can see that in the red box on the right, but we're now moving from economic matters to railway capacity. So, if we go to slide 23, we've got a heading, 'Manchester spur capacity' and you've got a figure there. So why is the spur capacity relevant?

295. MR LAX: The spur capacity is relevant because that effectively sets the width of the pipe into the station. We think that is 15 trains an hour between Manchester Airport station and Piccadilly, and we believe it's essential that we make sure that the station matches the upper limit for the spur capacity, and that we don't deliver a bottleneck at Piccadilly.

296. MR CAMERON KC: And the 15, that's not your analysis, but that's the analysis of the railway expert who's coming later; is that right?

297. MR LAX: It is; it's Mr Palmer's analysis.

298. MR CAMERON KC: So 15 for the tunnel, the spur. And then we get to the station. On slide 24, you say that the station has less than a 15 trains per hour capacity, and that's 15 trains per hour in each direction, is it?

299. MR LAX: Correct.

300. MR CAMERON KC: And the basis for that statement?

301. MR LAX: Again, it's the assessment that we've undertaken of the turnback

station at Piccadilly.

302. MR CAMERON KC: And we then have a number of scenarios and what do these scenarios – that's on slide 25, please – what do they show and why have these scenarios been selected?

303. MR LAX: These scenarios have been selected where we've tested the ability of the surface station to accommodate increasing levels of service. So there are four scenarios on there that we've tested: five trains an hour, nine trains an hour, 11 and 15, and the rationale behind each of those is so that we can see the step change in terms of where we think the station will successfully operate to.

304. So the five trains an hour being the HS2-only services, the London and Birmingham services, that HS2 are proposing; nine trains an hour being the number of services that the IRP requires in this location; 11 trains an hour is the TFN NPR full network, the preferred network that they've set out; and 15 trains an hour is the capacity of the spur.

305. MR CAMERON KC: So, those are the scenarios, and then we have dwell times; why do we go from scenarios to dwell times? What's the relevance of dwell times?

306. MR LAX: Dwell times are really important in terms of how you measure the capacity of a station. So, obviously, the longer a train is in the station, the less trains can come in and out and use that platform. So, we've assessed how long we think trains will need to stay in that station.

307. Remember, this is a through station, so this isn't like a station such as Curzon Street where trains will come in and terminate; this is a station where the London trains may come in and terminate, but NPR, as we showed on the map from the integrated rail plan, means that services will be coming across the north, and all those services will have to come into the station at Piccadilly and then go back out again. So they'll have to wait there in Piccadilly while the train turns round.

308. Now, five minutes we assessed in terms of did we think that was possible to turn a train round? And the answer to that, in the assessment that we will subsequently run through, is no, because that only left us, by the time the train's been effectively switched

off and on, so the cab activities that happen at either end, that would leave the driver three minutes to get from one end of the platform to the other end of the train.

309. Now, these trains are 200 metres long. The London sets will run as two 200-metre trains, so that will be 400, but the NPR sets will effectively be 200 metres long. The nine car Pendolinos, just as a real-world example, are about 220 metres long, so they're not that much shorter than a Pendolino.

310. The driver would need to get from one end of that train to the other end of that train in three minutes, down what would be a very crowded platform, because this is a through train, so lots of people getting off in Manchester, lots of people getting back on in Manchester.

311. That, in anyone's world, would certainly be quite a sprint for me to do 200 metres in three minutes, but that's a driver trying to get down a busy platform, assuming people aren't trying to ask him or her questions, or people haven't got luggage in the way, or they're not moving around, etc. So we think a realistic time to be able to do the turnaround of that train is eight minutes, if a driver is going from one end to the other, of the train.

312. MR CAMERON KC: Just before we leave that, if we look at the text box in the left-hand top corner, so that's HS2 saying, 'Dwell time for NPR services calling at Manchester Piccadilly is five minutes to allow for alighting, boarding and driver to change ends and set up the train for the reverse direction'. So, when you were testing this, what was HS2's position on the five minutes, same driver or different driver?

313. MR LAX: So when we asked the question as to whether or not it would be the same driver –

314. MR CAMERON KC: Well, let's just have a look at what it says there; what does it say there?

315. MR LAX: In terms of it not being enough to get from one end to the other?

316. MR CAMERON KC: Yeah.

317. MR LAX: It isn't enough to get from one end to the other.

318. MR CAMERON KC: Yeah. So, if it's not enough, you come to the conclusion for eight minutes if a driver's going to go from one end to the other.

319. MR LAX: Yeah.

320. CHAIR: What are the real-world examples of that in other stations? You said that the industry standard is eight minutes. So, there are plenty of stations where this is a reality; in one of my local stations, this is a reality, in Hull, where the train comes in, has to go out, same route. What are the real-world examples, then, of the dwell time on other routes, other services?

321. MR CAMERON KC: I think that's something we'll get into with the technical witness, Mr Palmer, when he talks through.

322. CHAIR: Because there will be examples, as I say, where this is happening now at stations.

323. MR LAX: Where services come in and go out again?

324. CHAIR: Yes, yes, Hull being a prime example. The London to Beverley service comes into Hull, has to come back out, and then carry on to Beverley, so this happens now, so I'd be interested to know what the equivalent standard is for a – because this is the crux of your argument, right? It does happen elsewhere on through services, so it would be interesting to know. You've said eight minutes is the industry standard, so presumably that's on real-world examples.

325. MR LAX: We think the eight minutes is our assessment of what you need for a 200-metre train. I'm not sure there are many examples of a 200-metre train –

326. CHAIR: Yes, they may not be 200 metres; that's fair.

327. DR CAMERON: Why have you written, 'In line with industry standards' if it's your assessment rather than an industry standard?

328. CHAIR: So I assumed when I read that – I think this is Lisa's point – that there's obviously some example and standard taken from how long we know it takes to turn trains around – well, not turn trains around but do this dwell time to come back out the same way, from services where that's happening at the moment. So, I'm just interested

to know what the real-world examples are.

329. MR LAX: I think, and it's a technical question – sorry, I missed the industry standard on the slide. I think it's about how long, effectively, it's going to take the driver to be able to power down the train, do the cab activities, get out of the cab and walk from one end of the train to the other in an appropriate way, taking into account the conditions on the platform.

330. The aim here is to ensure that there's enough time for the driver to do that every single time the train comes in and goes out. So that's every single NPR train.

331. DR CAMERON: That's your assessment as to how long it will take; it's not an industry standard that's set that it's eight minutes, is what I'm asking.

332. MR LAX: I think it's using industry standards in terms of walk time and the time it takes, and then converting that to a 200-metre train, effectively. We can certainly come back to the detail.

333. CHAIR: There's obviously quite a significant difference between the two and, over an hour, that's a lot of an hour taken up. So, to understand what's that's based on would be important and valuable. Grahame, did you want to come in now?

334. MR MORRIS: I'm just wondering about the length of the trains. That's the NPR trains are 200 metres. Are the HS2 trains twice as long as that?

335. MR LAX: They are. They're effectively two 200-metre units.

336. CHAIR: But they would be terminating, Grahame, of course. They would be terminating.

337. MR MOULD KC (DfT): I don't think there is an issue about speed of turnaround for the HS2 services. I think the issue here focuses on the NPR.

338. CHAIR: That's the HS2 services that are 400 metres long; the ones from London have, I think, a 20 minute slot to be able to turn round.

339. MR MOULD KC (DfT): They're terminating services.

340. CHAIR: They're terminating services, yeah, indeed, indeed.

341. MR MOULD KC (DfT): In Japan it takes 25 minutes, I think or thereabouts, for the Shinkansen to turn around because they get a full thorough aircraft type clean at the beginning of each journey.

342. CHAIR: I think the Committee should go and see this. I'm told by Committee clerks we're only allowed to go anywhere in the UK, but there, we can watch it on video. Anyway, sorry, Mr Cameron.

343. MR CAMERON KC: Sir, to answer your question on have we looked at other stations where they do this, it will be dealt with by Mr Palmer but just for reference for later, at A71(36), there's something with the snappy title of a reversing information table at various stations. So that's some of the information. I don't know whether it's got Hull there.

344. CHAIR: It does, Leeds, York, Hull.

345. MR CAMERON KC: It's got various stations and the other information that there is, when it comes to Mr Palmer, at A67(11), is different times and reversal times depending on the length of a train. So, the information that you're looking for is there; it's Mr Palmer who is the expert on these matters. So, I think that's a challenge for me, to remember to ask Mr Palmer about those points and I'll probably forget but Mr Byass is going to remind me.

346. MR BYASS: I will.

347. MR CAMERON KC: So, let's get back to where we were. Mr Lax, you were on dwell times on 26 and then there's a heading, 'Station capacity static analysis'. Now again, I think you rely on Mr Palmer, but what is the table here showing?

348. MR LAX: The headlines from this table are showing that, on a static analysis – so this is effectively a calculation as opposed to a dynamic model, which would give you more of a real-world assessment – if you achieve a five-minute turnaround for a train, the surface station could accommodate 13 trains an hour, and then you can see the various tests, six minutes, seven minutes, down to eight minutes, where we think the station would accommodate 11 trains an hour.

349. MR CAMERON KC: So, in short, the shorter the dwell time, the more trains you

can get in and out.

350. MR LAX: Yes.

351. MR CAMERON KC: Now, when we were back on A26, we were looking at a statement that relies on five minutes and the driver changing ends. You remember the box that we looked at.

352. MR LAX: Yeah.

353. MR CAMERON KC: Now, we're going to come back on A28 to dwell times, drivers stepping back. What is this process of stepping back?

354. MR LAX: So, this process of stepping back is where a driver – when the train comes into the station – would get out at the front of the train, and there would be another driver already waiting on the platform at the other end of the train to get on it and drive it away. So effectively, it removes the walk time between the front and the back of the train, but requires you to have a driver at the other end of the train all of the time to be able to drive it from the station.

355. MR CAMERON KC: Right, and is stepping back usual or not usual on a high-speed service?

356. MR LAX: I think it's not usual. As the slide sets out, it's typically applied to a metro style operation. I think – and there's a quote at the bottom there from an HS2 document that says, 'Applying this method of operation on every service' – because that's how the network's been designed – 'and relying on this to deliver the timetable is not common practice for a main line or high-speed railway operation'.

357. MR CAMERON KC: And so if it's not common practice, is it appropriate to use this for HS2/NPR, and in particular, NPR?

358. MR LAX: No, it would not seem to be appropriate.

359. MR CAMERON KC: Why is that?

360. MR LAX: Because there is a significant amount of investment going into the HS2/NPR network and it's important that that is designed with the capability to operate

without an intervention such as stepping back; it should be able to operate in normal operational scenario. Stepping back can then be used if there's service perturbation or if there's issues with the network and drivers need to be moved around, but not designed in. As soon as there's an issue with the network, very quickly, drivers can be, particularly with a high-speed network, in the wrong place at the wrong time, so they're not stood at the right place at the end of the right platform for the right train where they need to be to deliver stepping back.

361. MR VICKERS: It might seem quite a facetious question, but based on the timeframe that we're anticipating that it's going to take before these trains are actually running, we might have driverless trains by then, might we not?

362. MR LAX: It's a short question with a long answer, I think, is that one.

363. CHAIR: Just take it as a comment.

364. MR LAX: There's automation in the industry, clearly, but I think the network, as it stands, is being designed for trains with drivers. And the network is integrated – the integrated rail plan effectively said, 'We're not just having a high-speed network, we're going to tie that into the existing network', so the whole network would have to become driverless to achieve that and that might be a bit further away, I think.

365. CHAIR: We'll see. Just to assist the petitioners, I think we've got the point on dwell times. You have another 40 slides to go in this presentation; you do have three more witnesses tomorrow. How you manage your time tomorrow if obviously a matter for you but I'm going to have to bring the Committee to a close at 7.30 because we have other events, various colleagues do, on the parliamentary estate this evening. So, if you wish Mr Lax to continue tomorrow, that's up to you, because it will eat into your time of your other witnesses. So, I'm just trying to assist on that.

366. MR CAMERON KC: Thank you, sir, I've got the message.

367. CHAIR: Sure.

368. MR CAMERON KC: What I'd like to do, if I can, is to take advantage of the extra 14 minutes we've got now to carry on with Mr Lax and hopefully get to a point and then continue with him tomorrow, and if that eats into the time of other witnesses,

so be it.

369. CHAIR: Okay, sure.

370. MR CAMERON KC: So, point on dwell times: if we go to the next slide 29, that shows the capacity of the spur at 15 and then the capacity of the station being different to the capacity of the spur.

371. MR LAX: Exactly. So this shows the pipe and the constraints in the pipe, the bottleneck effectively, that's created at 13 trains an hour if stepping back works and 11 trains an hour through the station if it doesn't.

372. MR CAMERON KC: You've described a static analysis and if we go on slide 30, you refer to a dynamic assessment, and has that been conducted as well using appropriate software modelling and carried out by the railway expert?

373. MR LAX: It has, yes.

374. MR CAMERON KC: So anything else on that slide before we go to the HS2 underground study of 2021, which we've heard about?

375. MR LAX: I think the assessment that's been done – and we can touch on it in a bit more detail with the witness – shows that for the surface station, we've tested extended dwell times. So, if we don't meet the dwell times, what happens? And we see a significant performance degradation there.

376. Then what would happen with increasing levels of delay, because there may be delay elsewhere in the network, less so probably on the new network, but again, we've got the integration with the existing network and, even at lower service levels, the five-minute reversal times, the station can't deliver the required performance levels that we think it needs to.

377. MR CAMERON KC: You then refer to the study, referred to variously as the SIFT appraisal or options assessment, and of those you point out a number of options are technically feasible, so not ruled out on technical grounds, and B1 best performing, but it was only a six-platform underground station that was considered.

378. MR LAX: That's 31, I think, is the slide, yes.

379. MR CAMERON KC: Yes, slide 31. And can we just have up P421, please, at page 135? So that's in the promoter's exhibits. This is on this SIFT appraisal; we've got that. Have you got that? You can see it there in front of you, 'Section 10, stakeholder comment and further work', and this is the document that Cllr Craig was asked about. And if you go to 10.1.2, 'one of the key themes of the feedback is a desire to reduce the size of the underground station as far as possible, potentially by reducing the number of platforms from six to four and shortening the station approaches by reducing the number of switches and crossings.'

380. MR MOULD KC (DfT): Just read the next sentence.

381. MR CAMERON KC: Yes, of course. 'As outlined in appendix E in response to a previous query, six platforms are required to operate the ITSS.'

382. MR MOULD KC (DfT): Thank you.

383. MR CAMERON KC: So was the possibility of four platforms raised at the time of the SIFT appraisal?

384. MR LAX: It was; it was raised so that we could consider if six or five or four was an appropriate solution.

385. MR CAMERON KC: And did the SIFT appraisal consider four platforms?

386. MR LAX: It did not.

387. MR CAMERON KC: Thank you. Now we're going to the GM solution. Not wishing to waste time, let's press on, shall we, if everybody's happy?

388. DR CAMERON: Can I ask if you went back to that at all, with HS2?

389. MR LAX: We made a number of comments on the report.

390. DR CAMERON: But did you try to open the dialogue again on that issue?

391. MR LAX: We felt that the work should have continued, absolutely, and I think it's set out there from HS2's perspective as to why they –

392. DR CAMERON: Did you tell them that, that you wanted it to continue?

393. MR LAX: Yes, we definitely told them –

394. DR CAMERON: In writing, by speaking?

395. MR LAX: Yes. We said, ‘We think there are a number of things, including optimising the number of platforms’ and we’ve continued to look at –

396. DR CAMERON: You’re saying you’ve continued to raise this repeatedly and this is not a shock now, as of a few months ago.

397. MR CAMERON KC: We’ve actually asked for information that’s behind this study because we got to the point where – and the results of the work that that you’ll see coming up in terms of the solution – we thought we’ll do the work ourselves.

398. DR CAMERON: So you continually raised this and this isn’t something that’s just happened in the past few months.

399. CHAIR: We did, when we came back from the vote, say that there was going to be an attempt for the two parties to highlight and agree upon when consultation took place. So that may answer that question, I’m thinking.

400. DR CAMERON: But you don’t think you can answer it right now.

401. MR LAX: I think considering the scale of exchanges, the right approach is, let’s get it set out as to who asked for what, when and we’ll all have that information between us.

402. DR CAMERON: When do we get that? We wouldn’t be able to ask you about it, though, at the time we get it.

403. MR LAX: I would say yes, it’ll certainly be before we end the Committee period, yeah.

404. DR CAMERON: Right, thank you.

405. MR CAMERON KC: I’m going to stick my neck out and say that we’re going to have a draft tomorrow morning – I’m looking at the people who are actually going to do it – and we’ll get it to the promotor. They will obviously need time to look at it, but I hope that will answer Dr Cameron’s question.

406. MR MOULD KC (DfT): On that basis, I'm confident it would be ready at the very least for you to see before we resume on Monday, a week today.

407. MR MORRIS: Are there any relevant comparisons with the Elizabeth line? It's a brand new line. There are issues about delays, even though it's brand new, the signalling system, the compatibility with the rest of the network; there are issues about overcrowding and forecasting on capacity increases. Are there any parallels or any lessons we can learn from that that are relevant to the evidence that you're giving today?

408. CHAIR: I mean, the issue of Woolwich –

409. MR MORRIS: That's what I mean, yeah.

410. CHAIR: The issue of Woolwich, of course, being added was raised at the beginning.

411. MR CAMERON KC: Woolwich, I raised, sir and Mr Morris, and I raised it because of the procedural issue it raises: that the Committee would have the ability, if it so wished, to delay and say to the promoter, 'Come back with a proposal'. It's an example of doing that. As I sought to make clear, it's not the same; it's different, but it's a precedent of an approach that could be taken. It doesn't answer your question on capacity.

412. MR MORRIS: I mean, I understand what you're saying. I appreciate that as an example, but in terms of what's happened on the Elizabeth line, which is generally judged as a huge success, but in terms of the capacity, the usage, the delays, because of the anticipation that, as a brand new line, there won't be delays, there won't be problems of signalling and so on, that wasn't correct, was it, because there have been such problems? I wonder, is there anything that we can learn from that that's relevant to your presentation?

413. MR CAMERON KC: I better let Mr Lax answer that.

414. MR LAX: I certainly think there will be lessons we can learn from the Elizabeth line and the delivery of that. There are lessons we can learn from every major scheme that gets delivered. And you're right, the analogy, it's underground, it's relatively fast, so yes, I think there are lessons we can learn.

415. There are lessons we can learn from the ongoing delivery of HS2 as well, clearly. They're constructing now between London and Birmingham, and I think that that will draw out lessons. So, the answer is we should absolutely be trying to draw that knowledge into the work that we're doing.

416. MR CAMERON KC: Sir, I think if you're looking for an appropriate moment to break, the next subject is the GM solution. We'd start on it and we certainly wouldn't finish it in three or four minutes.

417. CHAIR: Okay, that seems reasonable, I think. So we'll reconvene on this point tomorrow. So, on that basis, I'll bring today's proceedings to a close and we'll see everybody at 2.00 p.m. tomorrow.