

PLANNING INSPECTORATE ISSUE-SPECIFIC HEARING

on

6 SEPTEMBER 2023

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PRESENT

PLANNING INSPECTORATE

RYND SMITH
JANINE LAVER
KEN PRATT
KEN TAYLOR
DOMINIC YOUNG

CASE TEAM

BART BARTKOWIAK SPENCER BARROWMAN

LOWER THAMES CROSSING

ANDREW TAIT KC
MUSTAFA LATIF-ARAMESH
DR TIM WRIGHT
PROFESSOR HELEN BOWKETT
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LOCAL AUTHORITIES

GEORGE MACKENZIE (Thurrock Council)

KIRSTY MCMULLEN (Thurrock Council)

[NATALIE BEW?] (Thurrock Council)

PROFESSOR PHIL GOODWIN (Thurrock Council)

DAVID BOWERS (Thurrock Council)

ADRIAN NEVE (Thurrock Council)

[MAT KILEY?] (Thurrock Council)

DR COLIN BLACK (Thurrock Council)

CHRIS STRATFORD (Thurrock Council)

SHARON JEFFERIES (Thurrock Council)

GARY MACDONNELL (Essex County Council)

MARK WOODGER (Essex County Council)

MICHAEL HUMPHRIES KC (Kent County Council)

JOSEPH RATCLIFFE (Kent County Council)

VICTORIA SOAMES (Kent County Council)

DANIEL DOUGLAS (London Borough of Havering)

[LEE WHITE?] (London Borough of Havering)

LYNN BASFORD (London Borough of Havering)

JONATHAN QUILTER (Brentwood Borough Council)

[DAVID DEBARCA?] (Brentwood Borough Council)

MICHAEL BEDFORD KC (Gravesham Borough Council)

WENDY LANE (Gravesham Borough Council)

TONY CHADWICK (Gravesham Borough Council)

SUSAN LINDLEY (Shorne Parish Council)

DEBBIE WRIGHT (Higham Parish Council)

STATUTORY PARTIES

ALISON DABLIN (Port of Tilbury London Ltd)

PAUL SHADAREVIAN KC (DP World London Gateway) SIMON TUCKER (DP World London Gateway) MATTHEW RHEINBERG (Transport for London) [SHAMAR ALIKA?] (Transport for London)

INTERESTED PARTIES

GRAHAM REEVE (Essex Area Ramblers)
LAURA BLAKE (Thames Crossing Action Group)
ROBIN BEARD
JACKIE THACKER
[LEIGH HUGHES?] (London Veteran Group)
ADAM PIPE (Essex Police)

JOHN ELLIOTT
[BEN HUNT?] (Emergency Services and Safety Partners Steering Group)

1 MR YOUNG: Good morning, everybody, and welcome to the traffic and transportation 2 issue-specific hearing. I am Dominic Young, panel member of this Examining 3 Authority for the Lower Thames Crossing application. I will be in the chair for 4 this hearing. Can I just check with the case team that we can be heard and that 5 the recordings have started? That's good. Right, before we proceed, I will 6 quickly ask my panel colleagues to introduce themselves. Let me just start by 7 going to Mr Taylor. 8 MR TAYLOR: Good morning, everybody. My name's Ken Taylor, member of this 9 panel. 10 MR PRATT: Good morning, everybody. Ken Pratt here, panel member. 11 MR SMITH: Good morning, everybody. Rynd Smith here, panel lead, but of course Mr 12 Young is in the chair today, and then finally if I can hand over to our colleague 13 with us virtually. 14

MS LAVER: Hello. Good morning, everybody. Janine Laver, panel member.

MR YOUNG: We are also joined by the same case team that we had yesterday, and that's Bart and Spencer in the back of the room. So, turning to today's hearing, you should have all seen the agenda that was circulated a few weeks ago. If not, then I'm sure there'll be copies around on the table. Before we make a start, can I remind people that with all the hearings this week, today's event is being livestreamed and recorded. Right, what I'm going to do now is ask people to introduce themselves – do that in a similar manner to what we did yesterday, but my list is slightly different so I'm just going to start form the top, so I'm going to start with authorities first and then we'll go to the statutory parties and then anybody else at the end. So at the top of my list, I have Thurrock, so I can just ask Thurrock to introduce themselves?

MR MACKENZIE: Yes, good morning, sir. My name is George Mackenzie. I am of Counsel and I act for Thurrock Council as part of the team. I'm led by Mr Douglas Edwards of King's Counsel who, again, sends his apologies that he can't be here today. So far as the rest of the team, some are sitting in close proximity to me and others are in the dress circle, but if I can ask them to introduce themselves, and also ask for the microphone to be provided to those sitting at the back of the room for that purpose, thank you.

MR YOUNG: Thank you.

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1 MS MCMULLEN: Good morning, sir. Kirsty McMullen on behalf of Thurrock Council, 2 dealing with transport matters today. I'll pass on to others behind me. 3 MS BEW: Hi, Natalie Bew, I'm a transport modelling expert. PROFESSOR GOODWIN: Hello, I'm Phil Goodwin, working with Thurrock Borough 4 5 Council. MR BOWERS: Hi, I'm David Bowers, director of transport planning, 6 Sorry. 7 representing Thurrock. 8 MR NEVE: Hello, Adrian Neve, again representing Thurrock. 9 MR KILEY: Morning, [Mat Kiley?] from Thurrock Council. 10 DR BLACK: Good morning, Colin Black from Thurrock Council and I think we have a 11 couple online as well. 12 MR STRATFORD: Should we go now? 13 MR YOUNG: Yes. 14 MR STRATFORD: Chris Stratford for Thurrock Council. Apologies, but I'm on Teams 15 today. I'll be back tomorrow. Nice to see you all. 16 MS JEFFERIES: Hello, Sharon Jefferies on behalf of Thurrock Council. 17 MR YOUNG: Right, is that it? Yeah. Thank you. Right, let me move on to Essex, then, 18 in that case. 19 MR MACDONNELL: Morning, my name's Gary MacDonnell. I'm representing Essex 20 County Council today. I'm a programme manager working within highways 21 and transportation, and to invite my college, Mark Woodger. 22 MR WOODGER: Morning, Mark Woodger, Essex County Council. 23 MR YOUNG: Thank you. Right, now Kent. 24 MR HUMPHRIES: Sir, my name is Michael Humphries. I'm a barrister representing 25 Kent County Council, and I've got with me Joe Ratcliffe, who is likely to speak, 26 and behind me, Victoria Soames, who is also likely to speak. There are other 27 people from the county council, but I don't think that they will speak and I don't 28 think they need to be introduced. Thank you. 29 MR YOUNG: Thank you, and now the London Borough of Havering. 30 MR DOUGLAS: Good morning, sir. Good morning, everyone. My name's Daniel 31 Douglas, representing the London Borough of Havering. 32 MR YOUNG: Do your colleagues want to introduce themselves? Mr White. 33 MR WHITE: Yes, good morning, sir. [Lee White?], representing London Borough of 34 Havering in all matters related to the DCO. Ms Basford

1	MS BASFORD: Good morning, Lynn Basford, representing Havering on all matters
2	DCO, chartered town planner and transport planner.
3	MR YOUNG: Thank you. Now, Brentwood Borough.
4	MR QUILTER: Good morning, Jonathan Quilter from Brentwood Borough Council.
5	I'm also joined by colleague, [David Debarca?]
6	MR DEBARCA: Good morning, David Debarca, consultant at Brentwood Borough
7	Council, leading on all matters for transportation and urban development.
8	MR YOUNG: Thank you. Gravesham.
9	MR BEDFORD: Good morning, sir. My name's Michael Bedford, King's Counsel, and
10	I'm speaking on behalf of Gravesham Borough Council. With me are Tony
11	Chadwick and Wendy Lane, the project manager and the assistant director of
12	planning, respectively, but I'm expecting I will be doing the contributions.
13	MR YOUNG: Right, and that's it for the local authorities. I haven't missed anybody,
14	have I? No, okay. Let me go, then, to Port of Tilbury.
15	MS DABLIN: Good morning, Alison Dablin, and associate of Pinsent Masons and I'm
16	appearing for the Port of Tilbury. Thank you.
17	MR YOUNG: Thank you. DP World.
18	MR SHADAREVIAN: Sir, good morning. Paul Shadarevian, KC, acting for DP World,
19	and this morning I have next to me Simon Tucker from DTA, from whom we
20	will hear today.
21	MR YOUNG: Do you want to introduce yourself, Mr Tucker?
22	MR TUCKER: Yeah, thank you. Simon Tucker from DTA here on behalf of DP World.
23	MR YOUNG: Thank you. Right, do we have Higham Parish Council? Okay, they're
24	joining us this afternoon. Anybody from Shorne Parish Council?
25	MS LINDLEY: Good morning, sir. Yes, Susan Lindley, representing Shorne Parish
26	Council.
27	MR YOUNG: Thank you. Right, there's some other interested parties on the list. Let
28	me just see who we've got. Do we have Mr Graham Reeve.
29	MR REEVE: Good morning, I'm Graham Reeve, representing the Essex Area Ramblers.
30	Thank you, sir.
31	MR YOUNG: Thank you. I missed out Transport for London, apologies. Transport for
32	London, could you introduce yourselves?
33	MR RHEINBERG: Yes, thank you. Matthew Rheinberg, major projects and design
34	manager at Transport for London, joined by my colleague.

1	MR ALIKA: And I'm [Shamar Alika'], Transport for London strategic analysis
2	manager.
3	MR YOUNG: Thank you. Do we have anybody else here? Quick show of hands,
4	anybody else? Yes, we have Ms Blake. Morning, Ms Blake.
5	MS BLAKE: Good morning, Laura Blake, chair of Thames Crossing Action Group.
6	Thank you, sir.
7	MR YOUNG: Anybody else? Yes, Mr Beard.
8	MR BEARD: Robin Beard, local resident.
9	MR YOUNG: And Ms Thacker.
10	MS THACKER: Yes, Ms Jackie Thacker, local resident of Orsett.
11	MR YOUNG: Good morning.
12	MS HUGHES My name's [Leigh Hughes?] and I'm a local resident plus the vice chair
13	of the London Veteran Group.
14	MR YOUNG: Right. Have I missed anybody either in this room or virtually? No, okay.
15	In that case, I'll go to the applicant.
16	PARTICIPANT: Sorry, virtually?
17	MR YOUNG: Mr Pipe, do you want to introduce yourself? You're on mute.
18	MR PIPE: Sorry, schoolboy error. Morning, sir. I'm Adam Pipe. I'm the head of roads
19	policing for Essex Police.
20	MR YOUNG: Morning, and Mr Elliott, you turned your camera on; do you want to
21	introduce yourself?
22	MR ELLIOTT: Yes, I'm [John Elliott?], resident of Kent and long-time transport
23	planner. Worked for GLC in various boroughs and still working for the chief
24	engineers society of local authorities.
25	MR YOUNG: Okay. Right, we've covered everybody, then. In that case I'll hand over
26	to the applicant's team.
27	MR TAIT: Thank you, sir. Andrew Tait, T-A-I-T, King's Counsel, instructed by BDB
28	Pitmans. I have Mr Mustafa Latif-Aramesh on my right from BDB, Dr Tim
29	Wright, head of consents of my left. Beyond him, Professor Helen Bowkett,
30	who is the transport modelling and economic lead and beyond her, Mr Graham
31	Stevenson, who's the transport planning lead for LTC. There will be a slightly
32	different composition of the team for item 5, but perhaps they can be introduced
33	at that point.

MR YOUNG: Fine, thank you. Right, so turning back to today's hearing, the agenda sets out the topics that we are going to discuss and generally, the applicant will speak first and the panel may ask questions at that point, and then we'll turn to the highway authorities and then to the interested parties. Please remember reintroduce yourself every time you speak and please speak clearly into the microphone. If you are not with us today live and you're watching this as a recording, you can make comments in writing on anything you hear by deadline 4 on 19 September. The introductions are now complete. Before I move on to item 2, does anybody have any comments on anything that I've covered in this opening? PARTICIPANT: There is one hand up, sir.

- 12 MR YOUNG: There's a hand up.

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- 13 PARTICIPANT: Yes, we've got -
- 14 MR YOUNG: Not sure who that is that's...
 - MR SMITH: Can I actually ask that the people dialogue is displayed on the Examining Authority's monitor screens on Teams, because it does actually then list the names of people who raise their hands? It's very hard to follow if that dialogue isn't displayed. Thank you very much.
- 19 MR YOUNG: Mr Hunt.
 - MR HUNT: Good morning. Apologies if this has arisen by some error on my part, but I was missed off the interested parties list. My name's Ben Hunt. I'm from Browne Jacobson LLP. We're providing support to the emergency services and safety partners steering group, so I'm here with Adam Pipe, head of roads police of Essex Police. If I could also just ask one thing - and it's probably a good point in the proceedings – Mr Pipe is only available for the morning, unfortunately, so if the panel would like to hear from him in relation to the area - the item on the agenda which is of main concern for us, which is item 5, perhaps that could be dealt with during the morning, if possible, though I appreciate that may present some other difficulties. Thank you.
 - MR YOUNG: We'll do our best to come to Mr Pipe before he has to leave. We'll come back before we break for lunch. Right, okay, any further questions on anything I've covered in the opening? Right. Mr Shadarevian?
 - MR SHADAREVIAN: Yes, thank you, sir. You will recall yesterday evening we were discussing matters in relation to slide 32, and I raised the issue about traffic

movements traveling south on the LTC to destinations of Little Thurrock and Chadwell St Mary, and we had a discussion about that and its implications. Following representations from Dr Wright that the additional movements at Orsett Cock would be about 245 in the a.m. peak, 395 in the p.m. peak, and I understood that further figures would be forthcoming today from the applicant in order to demonstrate what those movements would be to those destinations, and whether or not there would further impact to be assessed in relation to Orsett Cock. I don't know whether or not that information's forthcoming.

MR YOUNG: Well that's not really anything I've covered in my opening. I'm going to come to Orsett Cock. I think that might have been the best place to raise it.

MR SHADAREVIAN: Very good. I just wondered what was happening.

MR YOUNG: Yeah, okay. Well, thanks for raising it.

MR SHADAREVIAN: I apologise if it's come at the wrong point.

MR YOUNG: Okay, if you want to know any more about the programme for the remainder of this week, please see the recording of yesterday's event because I'm not intending to set out everything that Mr Smith set out yesterday. Okay, moving quickly to item agenda 2, the purpose of this hearing is to examine the operational and construction effects of the proposed Lower Thames Crossing. Now, very clearly a lot of traffic and transportation matters have been raised in written and relevant representations, and I'm sure you can appreciate it would be impossible to cover all of the issues raised in this hearing today, and therefore the agenda sets out those areas where the Examining Authority wishes to explore the written submissions in a bit more detail.

However, those that have raised a particular concern that is not covered in today's agenda, we would remind you that the examination of nationally significant infrastructure projects is primarily a written process, and written submissions carry just as much weight as oral submissions here today. So because of the technical nature of the matters that we're going to be covering today, I would expect the discussion to be mainly a discussion between the applicant and the highway authorities and the representatives of the ports. That's not to say that other people won't have — won't contribute, but there will be technical matters so I do want to — whilst we have everybody in the room — to concentrate on trying to resolve some of those issues.

That's all I need to say about purpose of the hearing. Does anybody have any questions about that before I move swiftly on to traffic modelling? Okay. Right, item agenda 3: traffic modelling. We want to focus on the localised modelling work that was submitted by the applicant at deadline 1, but we will have a discussion later about Bluebell Hill, but as far as this morning goes, I do want to concentrate on Orsett Cock, where the impact of this scheme is a subject of intense debate, as we heard yesterday. The Examining Authority had hoped that the submission of the VISSIM modelling at deadline 1 would have helped to resolve some of these issues, and we're aware – certainly from submission yesterday and those that I've read at deadline 3 – that there are a number of outstanding issues, particularly regarding the interpretation of the VISSIM outputs on whether or they support the SATURN modelling, and whether they indicate that mitigation would be required in this location.

I also want to discuss the implications of the DTA report prepared by Mr Tucker which was submitted by DP World at deadline 1, as well as appendix E to the deadline 2 submission. That was the applicant submission which was entitled, 'Comments on the written representation to the ports', and that – we'll have a discussion later about the overall impact on the ports. It might be useful to have some of these documents to hand.

I should add, also, that I'm making my way through deadline 3 submissions. I have read most of them, but please do refer me to those where you think it would be useful. I think the best way to kick this off is to ask the applicant to summarise where we're at in respect of what has been submitted at deadline 1 which was the localised modelling report. I just want them to clarify in their opening whether the results contained in that report are different to those that were supplied to Thurrock and the ports at the pre-application stage. Thurrock and the ports have submitted comments that were based on the August 2022 Orsett Cock modelling report. So I'm a little bit unclear whether they are one and the same, or if a totally different modelling exercise has been done for the deadline 1 submission.

After that, I would like to explore in detail why there seemed to be a considerable difference of opinion when it came to this junction, and to try and identify a pathway by which outstanding concerns can be resolved. That's

2 and then we'll go round the room, so Mr Tait. 3 MR TAIT: Thank you, sir. I wonder if I could just start by picking up the point Mr 4 Shadarevian made in relation to the request yesterday, and ask Dr Wright to 5 explain where we are with that data. DR WRIGHT: Tim Wright for the applicant, so we pulled the numbers overnight. We've 6 7 had the checks done, and it's an email ready to go to stakeholders, so I can get 8 that out very shortly. What I'm aware of is that that will be sent outside of the 9 process. That will be shared directly with stakeholders, so I wanted to understand 10 if that was something that you wanted to talk to today as well, or whether you 11 were comfortable that that was just going to stakeholders for now and informing 12 the process alongside the discussion today. 13 MR YOUNG: Yeah, I think at this stage it would be helpful if it was shared with 14 stakeholders, and then once they've had time to consider that we can begin to 15 think about - have a look at that information, how it's introduced to the 16 examination. 17 MR SMITH: Do you have any observations on process as well? Mr Shadarevian, I mean, 18 we are talking about process here, but you obviously have a strong engagement 19 in this. Do you have any observations on process as well? I mean, I have to say 20 as a starting observation, we – it has been our instinct that it's best to get this 21 information circulated between stakeholders swiftly so there are no blockages in 22 time terms. That means that we can then resolve, procedurally, how best and to 23 draw in everybody's responses to it. 24 MR SHADAREVIAN: It's kind of you to invite a response from me on that issue, and I 25 would agree with that process, because we do need to interrogate that information and it can then be presented to you at an appropriate time once the 26 27 parties have been able to consider it. 28 MR SMITH: Right, again, just to make very clear where we might go – and we have 29 made, obviously, absolutely no judgement pending what emerges, but we may 30 need to form this as part of the October or November hearing sessions, and/or 31 pursue further in the second written question round, and obviously we can form 32 a judgement about what's best once we've seen what has emerged and formed a view about the degree to which there might be likely agreement on it. Is there 33

enough form me, let me go to the applicant, get them to set out where we're at

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anybody else with procedural observations on that point, or does that just confine itself between DP World and the applicant? Thurrock.

MR MACKENZIE: George Mackenzie for Thurrock Council, sir. We are content with that approach, thank you.

MR YOUNG: Thank you. Yeah, okay, Mr Tait.

MR TAIT: Thank you, sir, so if I can ask Dr Wright now to pick up the reins on what has been submitted at deadline 1 and supplemented at deadline 3 and then to proceed, focusing on some of your points from there on.

DR WRIGHT: Tim Wright for the applicant, so I'll try and take you through the information shared. I can also talk to information requests as well if that would be helpful, so we've set out a summary of the junction modelling submitting at deadlines 1 and 3 in table 5.1 of REP3-126, but to repeat that here, I think, would be helpful. So we've provided junctions and modelling reports for Orsett Cock, Manorway, Asda roundabout in operation and construction, Five Bells, [pit C?] and a number of junctions in Thurrock on an east-west model and the Havering TfL area.

In terms of the information submitted, there was a question regarding the information submitted at deadline 1 versus the information that had been shared with stakeholders prior to submission of the application. There were some minor differences in that model, so the model that was used for preparation of material for the stakeholders prior to the submission of the application was based on a model run, to use a code, CS-67 —

PARTICIPANT: 67.

DR WRIGHT: 67, thank you, which was used in the early preparation of the application materials and has informed certain parts of the assessment. There was a minor modification that was made to that model to create the CS-72, and that was the information that was included in the transport assessment and the combined modelling appraisal report within the application, and therefore, to avoid confusion, we updated the localised traffic modelling that had been issued prior to the submission to make sure that it was aligned fully with the modelling that was submitted as part of the application. The actual impact of that change was small. It was a very minor modification, but we felt it best to avoid that confusion.

In terms of the information supplied then, I think – was there anything you wanted to ask on that before I move on to some of the outstanding requests for information?

MR YOUNG: I will ask questions, but not as this point, so if you want to carryon.

DR WRIGHT: So we have a number of outstanding requests for information, and I'll talk to them in turn. So first of all, Thurrock Council have made some requests for information, set out in a submission that they made at deadline 3, REP3-211. That sets out a number of actions that its states were agreed between us and Thurrock Council in a meeting, but we have a different perspective and we replied to that correspondence by setting out a different position with regard to the actions that were agreed. Nevertheless, many of those actions were agreed. We are currently working on developing some information; other information has already been passed over. It's a work in progress to provide information across to them.

However, to pick on some of the ones where, I think, a bit of clarity would be helpful, so they've requested a number of models or model elements that don't actually exist, and I think that's because of an interpretation of what we wrote in the localised traffic modelling report, so if I can talk about that. These models were either developed earlier in the process and were used as part of the design, and therefore are superseded by design changes that have happened after these models were developed, or they are terminology that's been used to characterise something that doesn't actually constitute a model as such, but more a series of tools that work together. So effectively, a lot of these were run at optioneering stage, and the outcomes of that have been captured in the engineering and the SATURN model, rather than them being models of the scheme as it would operate, as set out in the application.

To be specific, in table 14.1, Thurrock asked the applicant to share an M25 corridor model, and we do not have a full corridor model. We modelled one part of one link on the M25 during design development, and so that model is no longer applicable; it's been superseded. Thurrock also asked for A13 corridor model. We've confirmed to Thurrock that there is no full model of the A13. We modelled a small part of the A13, which was used in model development to calibrate driver behaviour, and that was captured and brought in to the VISSIM model that we prepared and shared separately. And finally on Thurrock, they've

put in some additional requests for construction scenario assessments at a number of local junctions, and I propose that we respond to this under agenda 5 where we talk about the construction modelling.

I could talk to Havering, but – well, I understand the focus is really Orsett Cock today. Would you like me to pick up havering for completeness?

MR YOUNG: Pick up Havering a bit later, but I just want to just, this morning, really concentrate on Orsett Cock. Yeah, do you want to...?

DR WRIGHT: I'll continue.

MR YOUNG: Yeah, just continue for now. Then I'll ask my questions.

DR WRIGHT: Tim Wright for the applicant, so Port of Tilbury set out in their deadline 3 submission that they've asked National Highways to undertake a construction assessment on the private road network within the Port of Tilbury. The applicant's in discussion with the Port of Tilbury in relation to the use of their private roads during construction, and that will form the framework – the – will develop in the form of agreements between National Highways and the Port of Tilbury that are underway. So we consider that is best handled through the development of those agreements between the two organisations.

In terms of DP World, DP World put in a representations in their late deadline 2 submission, REP3-154 on table 4, and I'm going to read it and this, I think, sets a little bit – in responding, I'll also provide a bit more context as to the work we've done and how we see it fitting into the wider scheme, so if I can read from the submission. They've asked that we, 'Rerun the LTAM modelling using the known capacity constraints at Orsett Cock so that the model properly reflects the known throughput of the junction. This would allow the displacement effect of that capacity constraint to be reassigned to other routes. The individual junctions should then be reassessed using the individual junctions, using localised – local modelling tools to consider the impacts and potential mitigation. It may then be necessary to undertake a further run of the LTAM to consider the wider impacts of the mitigation proposed.'

So to talk to this, what I want to do is set out in the first instance the nature of the modelling work we've undertaken and how we see that combining together, so it's really the context within which we've used the VISSIM model, the purpose that we see that the VISSIM model then fulfils, and then talk to why we have concerns with this approach. So as I'm sure people around the table

are well aware, our approach has been to use the SATURN model to forecast flows across the area, and by using the SATURN modelling, we can account for drivers' behavioural responses to changes in the network conditions, so traveling at different times or going to different places and rerouting to take a different route to get to the same destination. The approach of variable demand is important to understand the nature of the changes that would happen with the scheme, and our approach is set out in REP3-126, section 3.2.

Now, in addition to the strategic model, there are obviously microsimulation tools such as VISSIM, which are appropriate for assessing small networks, but VISSIM doesn't deal with that driver response, and can't handle that aspect of route choice over a wider area. So where we have used VISSIM models is in the design development to look at the performance and safety of individual junctions. We take the outputs from SATURN and put them into a VISSIM model to check the performance of an individual junction, and as we do that, where we have identified concerns in the way that a junction has performed, we have then changed the highways design, as has happened two or three – or more – times through the development of the project, and then we take that revised highways design and we remodel using the strategic SATURN model to deliver the final assessment of the proposals.

I won't list all of the times that we've gone through that and modified. We highlighted some of them in our – an appendix to the localised traffic modelling report, so we see that the iteration loop of using SATURN and VISSIM is that we develop the highways design. We run it through SATURN to see what the flows are like. We then check local junctions using VISSIM. If they demonstrate that a change is required, we modify that highways design to then re-run it through SATURN.

MR YOUNG: Can I just clarify on that point, then, the flows for the VISSIM model that was done for Orsett Cock were taken directly from SATURN, because there is the issue that had been raised by Mr Tucker about actual flows, demand flows. It's a little bit complicated there, but are you able to speak to that?

DR WRIGHT: I'm able to speak to that to an extent, and then I would have to defer to my colleague, Professor Bowkett. Because of the nature of the discussion we were having with Thurrock Council at Orsett Cock, there are some questions about the peak hour of traffic flow. So SATURN produced as a.m. peak and a

p.m. peak, but in the discussions with Thurrock Council, we identified that their concern – particularly in the morning peak – did not coincide with the peak that we model using the strategic model, and therefore we had to make some modifications to that in order to allow for a different peak flow in the morning. If I can just check with my colleague, Professor Bowkett whether there's anything she wants me to say or that she wants to add.

PROFESSOR BOWKETT: Helen Bowkett for the applicant. I'd just like to add that the — we developed a VISSIM model of Orsett Cock during our own design development, but Thurrock Council asked if we could build a fresh VISSIM model under their direction through a series of workshops using traffic flows that they approved, and that they could see everything that was happening as we were developing the model. It's almost like we were a model for them as the client, so we had a whole series of workshops which set out a local modelised report. Now, for Orsett Cock — so this work was taking place during Covid, so we were looking around for what available traffic counts there were before Covid that could be used to build a [inaudible] VISSIM model, and we identified some one-day turning movement counts at Orsett Cock from 2016, and then there was another one-day count on A1013 from 2018, but we worked with Thurrock Council to develop a matrix for the VISSIM model based on those one-day turning counts, and we worked with them to develop a base model.

So how it works is we developed – had a series of presentations. We worked through how we felt the flows should be developed [inaudible] the counts, and developed the model and then shared it with them, took on board their comments, and revised the modelling line with their comments where they had made some. And then for the forecasting, you take the changing flows that's predicted by the SATURN LTAM model, and then you apply it to your base view VISSIM model flows, and then we're at the stage where we've submitted the forecasting report and the VISSIM model to Thurrock, and they've now kindly responded with their comments on the forecast report, so we'll be hoping swiftly to have another workshop with them where we can go through, address their comments, update the model accordingly and rerun traffic forecast with the model. So it's been very much a collaborative work in progress.

MR YOUNG: Thank you. Do you want to continue?

DR WRIGHT: Tim Wright for the applicant, so with that context set, if I return to the request from DP world, so we understand that DP World would like us to take the VISSIM results and input them back into SATURN. Now, that's feasible. The difficulty with that approach is that where longer delays are shown on VISSIM and those queues and delayed are fed back into SATURN, the driver behaviour – the queues and delays are likely to reduce in the SATURN model, because that's able to reflect driver behaviour and route choices over the area, and reflect the fact that some trips would be likely to reroute, choose to travel at a different time.

Our concern is that we were to – sorry, I need to just... If you took the VISSIM results from a single junction and you fed them back into SATURN, what that would do would be to unbalance the SATURN model because it would be taking a single impact at a single location and not accounting for the various impacts across the wider junction, so – and then you would have to do it for a multitude of junctions across the modelled area. That would then lead to a requirement for an iterative process in which the VISSIM outputs are put into SATURN and the SATURN back into VISSIM, and vice versa, so on. The models would eventually reach convergence, but that would be an extremely long process. It wouldn't be proportionate, and isn't necessary for, or appropriate for preparation of –

MR YOUNG.: Had it ever been done, to your knowledge, in any other NSIP, any other road scheme you've been involved with? Have you ever taken that approach?

DR WRIGHT: Our understanding is that certainly in terms of National Highways, no, that hasn't been the case. If I can just get my colleague, Professor Bowkett, to confirm.

PROFESSOR BOWKETT: Yes, this isn't standard practice in National Highways to take results from the VISSIM model and put it back into SATURN. They have two concerns with doing it, which is this issue of balance across the wide area. If you start changing numbers at one junction, you'd be changing them at other junctions, and then you – how far out do you go? And their second main concern is with this iteration that you would have to do, so therefore the length of time the whole process would take doing it across a model for a wide area, because you take your SATURN flows, you put them into VISSIM, you would, by the nature of the fact you're using different modelling tools, get different forecasts,

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delays, out of the VISSIM model. You put those back in SATURN, run your SATURN, bearing in mind that you've only manipulated - changed one junction, not the others, you'll then get a different set of flows because the SATURN model deals with what we call the variable demand modelling so the drivers change their destination, and it also would deal with the rerouting. So people might decide to move towards the junction or away from the junction if you change the delays in it. Then you'd get another set of flows out of SATURN which you then put into VISSIM, run VISSIM. You'd get another set of numbers. You'd go back to SATURN.

Where National Highways have the – it's standard practice for them to do - taking the outputs from the SATURN model, put it into a VISSIM model to look more closely at the operation of a junction, and they know of one occasion where, for a small scheme, only a VISSIM model was filled and then they actually had concerns that that VISSIM model, say, was not taking into account the variable demand rerouting aspects that you would get in a SATURN model, so they actually required a SATURN model to be built so that the SATURN model could then feed information down into the VISSIM model. So there was one exceptional case where they then looked back at the VISSIM into the SATURN. It was for one junction, not over a wide area like we have in the Lower Thames area, so that's our caution with that because it's not standard practice.

MR YOUNG: Yeah. Okay, so it's not that technically what DP World are asking to be done can't be done, but it's – from what you're saying it opens such a Pandora's box that it would be so disproportionate to do that...

DR WRIGHT: That's right; it would be disproportionate. What we have discussed with them is that we would do one iteration just to demonstrate to them the nature of that, but that we do not agree with the proposal and the process, but we are aware - and I think we'll come back to this this afternoon - that in some instances, it is necessary to move the conversation forward to do things that... So we have spoken to them about it, and we are exploring ways that we could do one version, just to test.

MR YOUNG: Yeah. Well, that's one of the questions I was coming to about – are you proposing to do any more modelling? But aside from what you've just said, is

National Highways content with what's been done, not proposing to do any further junction modelling at this stage?

DR WRIGHT: We're satisfied that what we've submitted into the application – and that the SATURN model that we've put into the application – is a robust tool for the assessment of this scheme of making the decisions. The VISSIM does serve a purpose to help people explore the issues and that's why we have shared it, to help that discussion move forward, but we remain in the position that the SATURN modelling we've done is an appropriate and robust decision-making tool.

MR YOUNG: Can you just help me and my colleagues by – if you can, you may not be able to answer this, but in terms of other projects and NSIPs that you've been involved with, how does the level of the amount and scale of modelling that's been submitted for this compare to other large road schemes that National Highways have been involved with?

DR WRIGHT: I'll defer to my colleague, Professor Bowkett, to set that out, please.

PROFESSOR BOWKETT: Helen Bowkett for the applicant. The modelling that we've done for Lower Thames Crossing is comparable with the modelling that's done for other schemes by National Highways. In fact, in way it's more advanced because we did a considerable amount on the Lower Thames area model. It's a very well developed model which – it was very important to build a model that covered such a large area as the Lower Thames area model to pick up the variable demand response and the rerouting which could affect a considerable part of Kent and Essex, so it has been an intense and comprehensive exercise, and particularly the use of the VISSIM model in the design process as well.

MR YOUNG: Is it normal that you would do that, the VISSIM modelling?

PROFESSOR BOWKETT: Yes. It's normal industry practice because in modelling, you've got a variety of tools suitable to different purposes, and it's – making a big investment like this, it's very sensible to look at the VISSIM model because it does give you different insights into how a junction would operate, so it would be common practice to use both tools together and take the insights from both.

MR YOUNG: Okay, alright. Do you want to say anything at this stage about DP World's submission, Mr Tucker's report at this stage? Do you want to cover that, and then I think probably that's going to be a time – after you've covered that, we'll go round. I do want to come back to the results of the VISSIM modelling,

though, so we'll come back and ask the applicant to comment – summarise what the results showed. But yeah, do you want to say anything DP World's submission, and have I missed anything at deadline 3? Because I know I have read a comment that the applicant was going to digest Mr Tucker's report and you were going to submit some comments on it. Have I missed that at deadline 3, or is that still – are we still waiting for that information?

DR WRIGHT: Tim Wright for the applicant. We haven't yet submitted that response, so that is still to come. But again, if I can talk further about the DP World submission, and our understanding of the concerns there. So DP World have raised concerns about U-turning movements at Manorway to access the A1089, so this relates to traffic travelling north or south from LTC, coming off at Orsett Cock and being put off by the queue length on the roundabout's circulatory lanes. They feel that traffic will instead decide to carry on traveling further east to Manorway roundabout, to U-turn and come back to Orsett Cock in order the A1089, and they have a concern about the increase of traffic on Manorway in terms of their access into their port. In REP2-050, table A.1, we set out the number of vehicles using Manorway to U-turn to get on to LTC.

MR YOUNG: You gave that figure yesterday, didn't you?

DR WRIGHT: No, that was a different figure I gave yesterday, so in REP2-050, what we set out – we don't believe that there are vehicles that are doing the movement that DP World are setting out. LTAM does not forecast vehicles doing the movement to come off at Orsett Cock, travel along the – sorry, come of at the LTC, travel along the A13 and U-turn up Manorway. What we believe some vehicles do is they come from the A128 Brentwood Road to the Orsett Cock junction. They are wanting to get on get on to the LTC but can't directly, and therefore they will go up to the A13, turn around at Manorway and return on the A13.

MR YOUNG: Why wouldn't they be able to – if they're coming down the A128, why wouldn't they be able to get onto this slip road to 1089 from Orsett Cock?

DR WIRGHT: No, they would be able to get on. What we're saying is that the 4only vehicles that are travelling along the A13 to Manorway and returning are actually originating from the A128 southbound, who want to join LTC, cannot directly at Orsett Cock, and therefore they go up to Manorway and back. But we set out those numbers, and in the 2030 a.m. peak it's 40 PCUs that would

make that movement, 29 in the p.m. and by 2045 that would actually be zero in the a.m. peak and zero in the p.m. peak, so we do not agree that there are vehicles making that U-turn.

MR YOUNG: No. I mean, Mr Tucker will speak for himself, I'm sure, but I think that

R YOUNG: No. I mean, Mr Tucker will speak for himself, I'm sure, but I think that report, as I understood it, was predicated purely on the basis that Orsett Cock is so congested, and I'm assuming in a world where Orsett Cock is not congested, then that problem dissipates, not there anymore, so...

DR WRIGHT: Sir, Tim Wright for the applicant. If I can speak to that, we recognise that there will be queues at Orsett Cock roundabout and that is set out in our documentation and our reports, but we don't consider the movement to be an attractive alternative, so let me, if I can, just set out why we don't think traffic will take that route. The route used in the project, A13, U-turning at the Manorway junction, Orsett Cock junction and the exit for the Orsett Cock junction is 6.6 kilometres longer and would take an addition 7.9 minutes in the 2030 a.m. peak and then by 2045, an extra 10 minutes, so the additional journey times for vehicles, if they were to U-turn at the Manorway junction – which we set out in table 5 of the document – is substantial.

So we've done the VISSIM modelling, which shows that the delays that would be incurred as you go through Orsett Cock junction are substantially lower than that. The distance would be lower, and therefore whilst, yes, traffic will have to sit in a queue at certain times in order to move through, Orsett Cock roundabout, the diversionary route that would otherwise be taken is so significantly longer that we don't believe that traffic would make that.

Now, if I can talk to that actual modelling information that DP World supplied, DP World produced a LinSig model which, again, doesn't show U-turning movements, and if fact if you take the base model which excludes the – any U-turning movements, that shows Manorway junction functions satisfactorily. So they then explain in paragraph 3.1.3 of their submission, REP3-154, that they added an additional 200 vehicles to reflect a scenario that would be Orsett Cock not operating in a normal scenario. We don't consider that scenario to be representative of, and – or a reflection of how the variable demand model, the SATRUN model, would account for such a circumstance. So we don't think that the modelling provided by DP World is representative of the performance of Orsett Cock junction, excepting, potentially, some unusual

1 conditions, and even then whether the 200 vehicles is right or not is something 2 that we haven't really – we consider that to be an arbitrary number. 3 MR YOUNG: Yes. Mr Tucker's report had flows of 755 and 664 in the – doing the 4 U-turn movement, and your deadline 2 submission had the number way lower. 5 I think they're the figures you gave us yesterday: 231, 204 – I'm not sure whether that's PCUs or movements, but anyway. The figures were vastly different. I 6 7 suspect that's why there was – in terms of the performance of Orsett Cock, that's 8 why there was a big difference between the two but Mr Tucker will speak to 9 that, I'm sure. Okay, is there anything you want to say on the work that 10 DP World did? Because I think it's only fair at this stage to ask them to come 11 back on. 12 DR WRIGHT: I'll just confer with my colleagues quickly. 13 MR YOUNG: Yeah. 14 DR WRIGHT: No, sir. That will do. 15 MR YOUNG: Okay. Alright. I'm going to ask DP World to come in now rather than 16 Thurrock, because - only on the basis that they've done an alternative 17 assessment, okay? Nobody else has, so in terms of – I really want to get to the 18 bottom of this. I think it's fair that I go to them and then if it's anything – I'll 19 give you the opportunity to come in as well, Essex. 20 MR MACKENZIE: George Mackenzie for Thurrock Council. Thank you for explaining 21 that, sir, noted. 22 MR YOUNG: Yeah. Okay, Mr Shadarevian. 23 MR SHADAREVIAN: Yes, sir. I'm going to hand over to Mr Tucker. We're going to 24 start by looking at the Manorway junction, just to contextualise this and explain its sensitivities and its functionality. 25 MR TUCKER: Thank you. Simon Tucker for DP World, so yes, starting at Manorway, 26 27 the sensitivity of Manorway interchange in terms of being the critical access to 28 the port links on to the fact that it was reconstructed as part of the consents at 29 DP World London Gateway to provide additional capacity into the port from the 30 A13. That junction is designed to, obviously, accommodate all movements, but 31 predominantly to accommodate a high flow of traffic, and HGVs in particular, 32 from the A13 west down the Manorway and into the port and park, and as a 33 function of that, the capacity – and the predominant capacity in the junction is

that movement – changes to the disposition, if you like, of traffic around the junction.

So U-turning is one example, but also traffic coming from the north and turning right down the A13 will have a significant impact on how that junction operates, and I've set it out in my first written REP, but that comes down to a very small point which is on the southern side of the roundabout there's a very short link at a give way line, where, if people are U-turning round the junction, there's only three or four cars – sorry, five cars or two or three HGVs where, if they're waiting at a red light, that effectively gridlocks back around the junction. So although the numbers that you heard in the set out in REP2-050 – 40 vehicles an hour U-turning – that, potentially, on a link which is already at capacity, could have a disproportionate impact on the capacity of that junction, so it is critical that that node is properly assessed and considered.

The knock-on effect from Orsett Cock – if I could just provide a few summary points before we go into the detail – is that the – if there is congestion elsewhere in the network, and if that were properly captured in SATURN, as Dr Wright said earlier, SATURN would then disperse, reassign or redivert traffic to other locations, i.e. in simple terms, and these are round numbers, but if SATURN assumes that the capacity of a junction is 5,000 vehicles an hour in its actual capacity, but the demand flows are 6,000 vehicles an hour, then that extra 1,000 vehicles, SATURN will assume, cannot get through that junction and will have to go somewhere else because they're on the wider network.

So the fundamental concern about Orsett Cock is that if it cannot be shown to be operating within reasonable capacity, there will be additional diversion and reassignment of traffic on the network, which hasn't been properly captured in LTAM, which is likely to have a significant impact on Manorway.

MR YOUNG: Yeah.

MR TUCKER: And sorry, sir, just to finish the thought process, we've talked about the U-turning, but the other concern that I've got is the A128 southbound, so coming from the – sorry, got the numbers wrong – that coming from the north, so from Laindon for example, if, as forecast in the VISSIM model, there's a long queue on that link, then rather than come down that road to Orsett Cock, they might choose to turn off the main road earlier, if you like, to the east, an therefore come down and join Manorway from the north, from the B1007, so there are

interactions between the two junctions which LTAM hasn't properly capture, and the reason it hasn't properly captured it, and the reason we know it hasn't properly captured it is because the VISSIM modelling, for whatever reason it was prepared, whether it was prepared for design processes or not, it's in the evidence base in front of us all, and that shows that the throughput of the junction is significantly lower than SATURN has assumed, so there is a clear disconnect between what SATURN is saying about the wider network and what VISSIM is saying about the wider network and it's not adequate to say that, 'We're only doing that for design progression,' because it does fundamentally question whether LTAM is right.

Now, the way to deal with that, Dr Wright kindly read out part of my table 4. He missed out – and you had a discussion about whether that was a reasonable amount of work. I had an 'or' in that table, which I can take you to, if you like, but the alternative approach that I was proposing to deal with that was that: if you don't want to re-run LTAM or you haven't got time or you think it's disproportionate, then you ought to get the operation of Orsett Cock in VISSIM to a point that properly corroborates and converges – to use Dr Wright's terminology – with the LTAM assumptions. I'm sure that it's designed to provide the amount of capacity that LTAM is assuming it can accommodate.

So you don't have to – ideally we would go through that iterative approach – yes, I know that Thurrock could make the same point – but if there isn't time, then the right solution to resolve it and to get convergence is to provide a junction form in VISSIM, which, you can have comfort, converges with the assumptions in LTAM, i.e. show some mitigation, re-run VISSIM to show that that throughput can be achieved and then we would have comfort – I would have comfort – that the reassignment effect of LTAM generally is properly represented.

MR YOUNG: Can you not accept the point that you would have to do that at every junction? Which was I think the point that National Highways were making: you couldn't just simply do it in isolation.

MR TUCKER: Well, there is an issue, isn't there, that this assessment and this process has highlighted that LTAM as a strategic model may or may not validate and calibrate to WebTAG and all those other questions, but there is an issue here that we have a known evidence base that proved that the two don't agree with each

other. And that disconnect needs to be resolved and if there are other junctions, which have the same problem, yes, they need to be resolved as well – and I haven't delved into the detail of the other wider junctions and I've heard concerns yesterday about capacities – but fundamentally if you're going to rely on LTAM to make a decision on the scheme, you need to be comfortable that it properly assesses the impacts and we've got evidence – I mean, it's not my evidence – I mean, I'll come back to my own evidence in a minute – but this is National Highways' own assessment that shows that the two don't corroborate, converge, whatever the right terminology is.

So I think my view is that for those critical nodes, this being one of them for the port, but I'm sure there are others, that assessment does need to be done to check that it is correct.

MR YOUNG: Just be clear though, you're not suggesting that the LTAM model is in any way defective. It doesn't validate – it's been calibrated – it's not part of DP World's case, nor is it, I don't think, part of Thurrock's case. That's not been challenged, has it?

MR TUCKER: In terms of –

MR YOUNG: It does meet TAG standards, does it not?

MR TUCKER: It does meet certain TAG standards, as far as I'm concerned. What I'm questioning is – as a strategic model, it meets TAG standards. What it clearly doesn't do, in terms of a refinement of that, is validate with a known assessment of Orsett Cock. And that's the thing: that you've got a strategic model. It covers – Professor Bowkett said most of the south east of England. It's a massive model. It's gone through a due process but it's never going to be able to properly consider impacts at isolated locations. That's not its purpose and that's not what it does. If you're worried about particular node, Professor Bowkett said she did it the other way once, but that's fine, but you do need to corroborate on those individual bases whether you can rely on the evidence base.

So the way that I see it is that – I'm not saying that LTAM needs to be thrown in the bin; I'm saying that there's sufficient evidence – produced by the applicants themselves – that says on this particular part of the network it does need proper refinement one way or the other to ensure that you can be comfortable that the evidence-based supports fit the overall scheme and what it's been promoted to achieve.

MR SHADAREVIAN: Paul Shadarevian. Sir, in that context it's important to understand that the Manorway junction is a sole point of access to what is an interest of national significance in terms of port activity.

MR YOUNG: Yes, that's well understood. To go back to the point I raised with Dr Wright, in the scenario where you're happy with Orsett Cock, concerns at Manorway disappear, don't they?

MR TUCKER: More or less, I think it still needs – the 40 vehicles U-turning could still have an impact on that short node that I described earlier, which hasn't been assessed. But if we had comfort that the SATURN model – the LTAM was properly forecasting what's happening at Manorway, then yes, that would be correct. Subject to one other caveat, which hasn't been discussed and isn't, I don't think, on the agenda, but is the issue of incidents on the Dartford Crossing and how that's been properly assessed, in terms of the additional traffic that might come across to the A13 corridor as a result of those incidents, which are frequent, daily, ten times a day and that hasn't been assessed.

And we might design mitigation at Orsett Cock, which resolves the point you've just asked me, but then if you're adding on more traffic, because everything's diverting frequently from the existing crossings to the new crossings, that's a test that hasn't been done yet. So there may be further impact arising at that same point, which is just not in the evidence base at the moment.

MR YOUNG: Thurrock –

MR TUCKER: Sorry, sir, just a final thing in my note was that the comments about LinSig modelling that I produced. And one of the reasons that we were challenging or seeking the numbers that have been issued this morning, is to understand what actually is changing at Orsett Cock. So my LinSig modelling based on what I could understand from the TA —

No, step back – from the data that we've got from the modelling, the eastbound approach to Orsett Cock experiences, something like 1,000 extra vehicles in the morning peak as a result of the LTC, whether it's described in the transport assessment in terms of Orsett Cock being used for U-turning traffic to the A1 – sorry, 1089 I assumed that that 1,000 vehicles was effectively U-turning around the roundabout to go back down to the 1089.

What's been clear in the revised assessment and modelling that we have got – and I've set that out at table 1 of rep 3154 – is that there's actually a more

dynamic change at Orsett Cock in terms of the LTC. So there is the 200 and – just take the morning peak for an example, it's 250, 245-odd, movements doing a U-turn but the other 1,000 vehicles that are additional on that link are actually going south down Brentford Road. They're going east on the A1013 and they're going west on the A1013.

So in terms of my assessment, that's superseded because the numbers that [inaudible] put into it were wrong, but with those new numbers the impact's going to be the same: you've still got a large amount of traffic, whether it's genuinely a U-turn or whether it's going round the roundabout and then south down Brentford Road, it's still a significant increase in traffic and that's why those numbers are important. Yesterday we looked at slide, I think it was 32, which showed the movement to Tilbury Port with the U-turn around the roundabout. But actually what LTC induces at Orsett Cock is a lot of extra traffic on all movements.

And so my LinSig model, I suppose, is superseded, but we could re-run it with that new number and it would still show, as does the VISSIM, it would sort of corroborate the VISSIM that there's significant queuing on all of those arms.

MR YOUNG: Does Thurrock want to come in as well?

MR MACKENZIE: Yes, sir, we do. George Mackenzie for Thurrock Council. We obviously have a lot to say on this topic, sir. I proposed a deal with matters in the following way: can I firstly pick up a question that was directed to us, as well as DP World about whether LTAM is in accordance with the current TAG? Our position is, 'No, it's not,' and the reference is paragraph 7.8.10 of our local impact report. Can I ask Kirsty McMullen to just talk to that issue for now and I'll then move on to the other substantive points that we want to make, please?

MS MCMULLEN: Kirsty McMullen, on behalf of Thurrock Council. So LTAM model is based on 2016 data. It's now considered to be out of date by the council but it's also considered to be out of date by National Highways themselves. So we're aware that they are updating LTAM at the moment as part of their work for the full business case. And effectively they need to do that so that they can go on to that next step.

MR YOUNG: At the time of submission.

MS MCMULLEN: At the time of submission, they were updating LTAM for their full business case, but the DCO is based on the out-of-date LTAM model.

1 MR YOUNG: Was it out of the date at the time of submission?

2 MS MCMULLEN: It's based on 2016 data.

MR YOUNG: Yeah, that doesn't strike me as unusual for a transport model.

MS MCMULLEN: So what we've set out in the LIR is that there's lots of changes that have happened since that time that haven't been reflected. So we've had Covid. We've had Brexit. There's other demand changes. So it's a seven-year period, within which those changes have been made. Professor Goodwin will be talking further on this in more detail on the next agenda item, in terms of uncertainty and our view of uncertainty is it's probably better, I think, to come on to those matters in more detail.

MR YOUNG: I think so. Yeah, we don't want to –

MS MCMULLEN: I'm conscious we're probably straying into the next agenda item, but just to stress that our position is that we consider LTAM to be out of date and not in accordance with current guidance and is being updated at the moment. Is it useful now for me to just go on to Orsett Cock and the position on Orsett Cock?

MR YOUNG: Yeah.

MS MCMULLEN: So what we have done is set out both in our LIR and we updated it at deadline 3 – it has moved on slightly since then, but we've got a table, which we set out as a RAG system of hopefully to help you guide the process at each deadline and we will update it at each deadline.

MR YOUNG: That one, the flow diagram.

MS MCMULLEN: Yeah, that's it. Exactly, yeah. So the latest one we submitted was at deadline 3, and that's at appendix E, annex 1. And so what that shows is that, in terms of what – I'll do an overview quickly, but then concentrate on Orsett Cock – we do now have an Asda VISSIM model, and so that will now, at the next stage, go from red to orange because we're now reviewing that Asda VISSIM model. Orsett Cock, I'll come onto in detail shortly. East-west model, we do have a base model, but it's not yet approved and therefore until that's approved we can't then move on to discussing the forecast model with the applicant. So we're still raising concerns with that base model.

Manorway, we haven't got a base model; there's a forecast model based on LTAM flows, but the forecast model isn't based on observed traffic behaviour. There's been ample opportunity since the A13 construction works

were complete, for the applicant to collect that data and build that base model, from which to create a forecast model. That hasn't been done and therefore we are doing that at the moment. So we are undertaking a VISSIM base model of Manorway and that will be submitted shortly to the applicant in time for them to review it by deadline 5. So that hopefully starts to take the Manorway issues forward, though currently at red.

Five Bells junction, we have received an ARCADY model, but ARCADY doesn't address the concerns that we're raising at Five Bells. We're expecting a VISSIM model at that junction. We will respond formally at the next deadline. And Tilbury Junction resubmitted ARCADY information as part of our LIR on the operational impacts of the Tilbury junction but I haven't received any information on that.

But, going back to Orsett Cock and where we're at at Orsett Cock: we have worked with National Highways and we have agreed a base model so we haven't submitted any differing data. I suppose, there's the confusion of which version of the model because we're obviously provided with a version of the model pre-examination, and we heard from the applicant that they have updated that as part of deadline 1 to reflect a change in demand within LTAM so that version is now – we don't know what that version is called, the version we were provided with, the version 1.5 – we have asked for proper version controls and model logs that will hopefully help when we're discussing the examination that we can keep track on versions. So hopefully that will help going forward.

In terms of the forecast model, we're yet to agree that for Orsett Cock. Based on the previous version that we were provided with – version 1.5 – we set out a number of issues with the coding of that model. And we have now provided that updated forecast model back to the applicant for them to review, and hopefully that will speed up the process, rather than us providing a review to the applicant to then address. So there will be elements that they need to address, even though we provided a full updated forecast model to them. There are a number of points that they will need to address, which they are already aware of, based on the model meeting we have with them on 16 August.

To name some of those, latent demand is an issue. So latent demand is whereby there is extra vehicles within the network that are trying to get into the network, but they are out of the model network and out of the approaches, so

there is a significant amount of latent demand on the approaches to this model. And what the applicant is seeking to do is to extend the approaches on the arms to the model so that we can get a clear understanding of the actual length of the queue and the journey time impacts through the junction. So, at the moment, we've provided them with an updated, coded model, but that now needs to be updated again to reflect latent demand. It will also need to be updated to reflect their latest CS-72 LTAM demand flows.

And the final thing that we've requested is that the VISSIM model is showing significant queues, which the applicant accepts on Rectory Road, and so, as part of the modelling meeting actions from 16 August, they agree to do two sensitivity tests of removing traffic from Rectory Road and reallocating that back onto the A128, Brentwood Road. And a second sensitivity test to see the effect of having a bus only link on Rectory Road. So we still have some way to go on Orsett Cock and understanding what – or be able to make judgements on the impacts at Orsett Cock.

And it's important to note that this isn't wider mitigation; this is part of their scheme as we were explaining – or they were explaining yesterday at issuespecific hearing 3, they need this junction to work because it is an integral part of their project.

Just as a final couple of points I wanted to make in terms of the interaction between VISSIM and LTAM. So it is common practice for there to be this iterative approach between VISSIM and a SATURN model, and that is actually set out in TfL's modelling guidance of best practice for modelling, so we can provide that in written submissions, in terms of this iterative approach. What is incorrect is to say that we're expecting there to be the flows going from one to the other. Actually, what is required is that the operational models – the VISSIM model – is optimised in terms of all the signal timings and the modelling parameters from the VISSIM model are input back into LTAM. We would need to do the same on other junctions when we get to that point but we've identified this as a severe difference between what VISSIM is showing and the significant queuing and delay in VISSIM that is not reflected in LTAM.

And in the modelling actions the applicant has agreed to go through that process. It will then effectively change the journey times and the driver behaviour within LTAM that the transport assessment, the business case and

everything is based on, but it is common practice to have this iterative process and that's what TfL do on their schemes.

MR YOUNG: There's a lot to digest there.

MR MACKENZIE: I'm afraid I do need to add some further material into the digestion chamber, if I may. George Mackenzie for Thurrock Council, before the applicant responds. So yes, it's really just to, if I may, take a step back and place some of the observations that Ms McMullen has addressed you on in a legal context because Thurrock Council has a fundamental concern that there is now a real risk that, even by the end of this examination, the applicant won't have furnished to stakeholders or to the panel, validated micro-simulation or operational models of the local junctions, and nor will they have fed the parameters and signalisation outputs of those models into the SATURN model.

And yesterday Ms McMullen said that there was still a long way to go in respect of where we need to be so far as achieving convergence between the two types of models, and I hope that that position is now understood at the more fine-grained level. And there are consequences of that position and also on the consequences of that position changing because, as Mr Shadarevian explained yesterday, we're running out of time. And that is the case both in absolute terms because of the statutory period, within which the examination must take place, but also in procedural fairness terms, if I can put it like that because clearly any new modelling and any new attempt to take up that iterative approach and share the results of it with stakeholders needs to be fairly appraised and interrogated by parties to the examination, and that needs to be sufficient time for that.

But the headline point that I want to emphasise, if I may, is that the consequence of the information deficit, which exists at the moment, sir, is that the panel is being asked to make a determination on the merits of a scheme without an adequate set of local junction models. And that means that the operational impacts on LTC on local junctions and of course on local communities, it follows, can't be properly understood or appraised. And that means – and I don't shy away from this submission, sir – that means that a lawful in the sense of a decision, which I is supported by adequate evidence on these matters is at present impossible.

And with respect to the applicant, it's not an answer to this point, we respectfully submit, to say that LTAM itself should be used to assess these

localised impacts and that the VISSIM micro-simulation is only an appropriate tool at the design stage and should be discounted or disregarded thereafter. And we've been over the reasons for this and there are five headline points to note.

The first is that the SATURN model is better suited, and indeed designed, to inform the business case and the economic appraisal and the strategic effects of the project. And secondly, it follows that it's an inadequate tool to inform and understand the operational impact of LTC at the local junction and local community level.

Ms McMullen has dealt with the point on the out-of-date base data and the absence of local road validation. And also the final point is the difference of opinion between Thurrock Council and the applicant to do with the SRN peak period being earlier than that on the local road network and it's the VISSIM models, which are the appropriate tools to assess that peak period in the a.m.

And so we're not aware of any other NSIPs which have been examined in the absence of a major and unexplained friction between the strategic and the local operational modelling where each model tells a different story.

MR YOUNG: Well, that's not the applicant's position, though, is it?

MR MACKENZIE: Well, it's our position. So, taking a step back, we know – and indeed this is acknowledged by the applicant – that there will be a range of major adverse impacts on local junctions and, in that context, it's necessary to understand precisely what those impacts are, how severe they will be and what the appropriate mitigatory tools are to address those matters. And again, that is something that we say can only be understood on the basis of sufficient microsimulation.

And if I can just give one example of how important the micro-simulation is – it's a matter that we touched on yesterday in relation to Orsett Cock, which is a junction that has been subject to micro-simulation in VISSIM, although the council hasn't signed it off, as it were – but it's the issue of the weaving section where traffic from LTC and the A13 merges on the westerly approach to the A13. And, following micro-simulation, the weaving length of that lane was increased only in the model from 90 metres to 200 metres, which is a significant change, which arose because of micro-simulation and having regard to it. And there's a footnote to this, that change, which is shown in the model, hasn't been incorporated yet into scheme design.

But I want Thurrock's position on this matter to be crystal clear and unambiguous and it's as follows: that if the local modelling isn't completed and validated, then there will not be a legally acceptable basis on which to assess and determine the merits of LTC and that will mean that the project can conflict with the national networks NPS, paragraph 4.6 in particular, which provides that, 'Applications for road projects should be supported by a local transport model to provide sufficiently accurate detail of the impacts of a project.' And we say that, in the absence of the micro-simulation operational models that we're talking about, it would fail that test.

And the same paragraph of the NPS states that, 'The modelling should be proportionate to the scale of the scheme and include appropriate sensitivity analysis to consider the impact of uncertainty on project impacts.' And, although the applicant today has suggested that it would be disproportionate to achieve or seek to achieve model convergence by way of model iteration as between VISSIM and SATURN, absolutely no explanation as to why it would be disproportionate has been provided. No indication as to the length of time that might take or the level of resource it would consume and no explanation as to why that process wasn't started earlier.

And, given the scale of this particular project, we consider that it's perfectly obvious that micro-simulation is proportionate and therefore necessary in the context of policy. And so that's our primary submission that, in the absence of this information, there isn't a sufficient or reasonable evidential basis for assessing the full range of scheme impacts in determining appropriate mitigation.

And the second subsidiary point is the timing point, which I've made already, which is that, clearly as a matter of procedural fence, if this additional information is to be provided, then there also needs to be sufficient time to digest and interrogate it and to provide comments to the applicant and to you, sir.

MR YOUNG: Thank you. Mr Shadarevian, we're looking to take a break and then we'll look to let the applicant come back after that.

MR SHADAREVIAN: Yes, I just wondered whether I might just indulge you – whether you might just indulge me – a little a bit longer. Just two points really in response to what was said this morning by the applicant. And I wonder if Mr Tucker could just refer to the relevance of latent demand, which was referred to

by Thurrock, and also the issue of driver behaviour and the propensity to go to Manorway to do the U-turn. Just quickly deal with those two points. Just for completeness.

MR YOUNG: Yeah, Ms Dablin.

MS DABLIN: Thank you. Alison Dablin for the Port of Tilbury. Obviously the Orsett Cock junction and the smooth operation of this junction is extremely important to the Port of Tilbury, given that three out of four routes onto the A1089 now divert via the Orsett Cock. We would definitely support the need for greater modelling and for that modelling to be appropriately fed back into the LTAM model so that the full impacts of the scheme can be properly assessed.

I think at this stage though, just to touch upon the points made by Thurrock about timing, it's clear to our mind, and I think the mind of quite a lot of IPs, that the impacts on Orsett Cock are, or at least appear to be, potentially extremely serious, and the mitigation that the applicant has proposed for Orsett Cock is — well, I think it might even be none. And I think it's important not to lose sight when we are assessing how much further work is required on the modelling that we also need to have in the back of our mind consideration as to how, should negative impact be identified, how those will be mitigated.

We've touched upon yesterday a number of methods that our transport assessments have assessed in terms of the Orsett Cock junction themselves, but I think the Tilbury link road is a fairly significant potential mitigation as it would have the effect of removing quite a significant proportion of the additional traffic. Based upon the numbers that Dr Wright provided, it would be around 20% of the additional traffic is heading to the A1089 and to the extent that traffic can be removed from that junction then it should be done so.

So I guess our ask is that there is also a focus on the mitigation potential and ensuring that that is secured in the DCO, whether that be through provision of the Tilbury link road or merely ensuring that the mechanism is in place within the DCO in the form of constructing the junction immediately to the north of the north portal so that it meets the relevant design and technical standards that the Tilbury link road can be constructed without needing to do any major works on that junction, which should be possible to design the junction based upon the information that has already been provided to the applicant. Thank you.

MR YOUNG: Thank you. And I agree, I think there does need to be some thought given to mitigation because in a scenario that the examining authority feel that the impacts of that junction would be unacceptable, there needs to be some sort of fallback position in the detail to deal with that. We'll come onto that later.

I mean, I can probably speak for my panel members where I think we are a bit dismayed to find ourselves where we are with this. I mean, I read about how long the workshops have been going on prior to the submission of this and one wonders what was being discussed? Anyway, on that point, I think it's a –

MR SMITH: Are we going to allow Mr Shadarevian to conclude his position? And then we can go to the applicant immediately after the break.

MR SHADAREVIAN: Yes, I'm so sorry to labour this. I just want to be clear in response to points made this morning. But, first of all, if you could deal with latent demand.

MR TUCKER: Yeah. Just to pick up what Ms McMullen said about latent demand in the VISSIM model. That's obviously a fairly fundamental omission at the moment in terms of considering journey times and queuing because that traffic is just not represented in the outcomes. So you'll have seen, and I think it's – well, I don't think – it is rep 187, Section 4.1.7 onwards, the applicant sought to compare outputs from VISSIM and LTAM and demonstrate that they were comparable.

I mean, clearly, unless the latent demand, which in some cases is over 1,000 vehicles not getting into the model, is properly represented in VISSIM, that comparison just has no weight because it's got a VISSIM number, which is missing a lot of traffic effectively. So if there's any reliance on that rep 187 assessment, it would need to be re-run following a proper model, which addresses that latent demand point.

And then that leads on to the second point, which is about journey times and propensity, as we heard earlier, for people to do the U-turn that I've described. So that's people coming down the Lower Thames Crossing from the north and basically seeing either visually in some cases by 2045 or certainly on their satnavs picking up significant delays on that approach to that junction. The journey time to Manorway of six or seven minutes, depending on the time of the day, is comparable with the length of the queue that VISSIM is forecasting, even without having considered that latent demand point in its assessment.

So yes, it's a longer distance, but that has to be considered in the context of the fact that there is a very significant queue on the approach to the Orsett Cock forecasts and VISSIM modelling so driver behaviour will balance out. Either they'll see the back of the queue and want to avoid it, or their satnavs will find it before they get there. So we think there's a very real risk that will happen despite the rule of distance.

MR SHADAREVIAN: Thank you very much, sir.

MR YOUNG: We're going to break now. We'll come to you afterwards. Okay. Right, it's 11.35. 15 minutes and then so we will come back 11.50. Thank you.

(Meeting adjourned)

MR YOUNG: Thank you, everybody. It's 10 to so the hearing is resumed. Before I go to Ms Blake, just a question for Thurrock, having just reflected on their submission before the break. Let me just ask this: you're seeking a certain level of fit between the models and you're critical of that and requested more information. We've heard from the applicant to say that they have dealt with many road schemes but they've never done that level of work in respect of any other large road scheme.

The information you're asking for, could you provide us, not now, but at next deadline, examples of where National Highways have provided that fine grain of detail that will fit between the models that you're asking from them now? That would help the examining authority.

MR MACKENZIE: George Mackenzie, for Thurrock Council. Sir, yes, we can provide that information. And would it also be acceptable for us to explain, also from first principles, why we say it's not acceptable to proceed on the basis where you have two different sets of models, which disagree with each other, and that in itself calls for a response, which is a response other than an individual or body expressing a preference for one over the other. If we could also address that point, we would be grateful.

MR YOUNG: Yeah, I think we need to get to the bottom of whether what Thurrock are asking is reasonable or whether you're asking for something that is way and above and beyond anything that's ever been provided before. Okay. The applicant will say you are; you're saying the opposite. So we need to get to the

bottom of that.

MR MACKENZIE: Yes. And, sir, if you'll indulge me as well, can I just pick up on the comment you made before the brief adjournment, where you referred to the workshops? And I know you know this already, but it's not just in the workshops that Thurrock Council has been pressing this information —

MR YOUNG: Indeed.

MR MACKENZIE: I'm grateful.

MR YOUNG: Right, Ms Blake.

MS BLAKE: Thank you very much, sir, and I appreciate this is a very technical level discussion that we having here today on your agenda. I'll try and keep it quick but just some points that I've observed as a more layperson from the community and bearing in mind that I have picked up some knowledge on traffic modelling through discussions in consultations and my place on the taskforce at Thurrock Council on a monthly basis.

Firstly, I'd just like to point out that, whilst this item agenda might be in regard to DP World with the Orsett Cock, this does actually have an impact on the communities as well in the area obviously because this is a junction that is very close to our communities, both Manorway and the Orsett Cock.

Secondly, the National Highways actually commented with regard to the increase in traffic doing the Manorway U-turn and Stanford detour, mentioning the A128 to the LTC specifically as a traffic movement and saying that the 6.6 kilometre detour is not one that people would readily take. Residents in Thurrock would have no other option but to take that route should they wish to use the Lower Thames Crossing. It would increase it, based on the fact that residents and those actually coming across the water to work over here and then returning home wanting to get onto the LTC would have to use it. I wonder if that's been included in the modelling, since they're only mentioning the A128 as a few traffic movements.

And of course that is also, as touched on by Mr Tucker, not taking into account the incidents, which I believe National Highways refer to along the lines of something like, 'Unusual circumstances.' As a resident – a long-term resident, lifelong resident of Thurrock – I can assure you that what National Highways consider to be unusual is very usual for us. It's a very common occurrence. We can tell when there are issues at the Dartford Crossing by the

traffic that's coming through our communities. We don't need to look at traffic reports.

And, just to finish off, in regards to the fact that, yes, I share the panel's dismay on the fact of the ongoing discussions between Thurrock and National Highways. Thames Crossing Action Group have had a seat on the taskforce, the LTC taskforce at Thurrock Council, which, if you're not familiar, is a monthly meeting, started in September 2017 and we were offered a seat on that as a community representative. And we have monthly meetings with National Highways in regular attendance, more so earlier on than more recently since DCO has started.

But in that time we have actually witnessed and experienced the frustration from not only us requesting information but from Thurrock Council requesting information from National Highways and the complete lack of meaningful engagement from them and the constant delays and refusal to share information in a timely and appropriate manner.

And, just to finish off: with regard to the fact of you saying, 'Has it been done with any other projects?' Obviously that is something to be directed to Thurrock Council but I would respectfully just point out: this is the largest road project ever built in the country. I don't think necessarily we should take it as standard because, being the largest project, that is something that needs to have special consideration. Thank you.

MR YOUNG: Thank you. Yeah, Mr Elliott, you've got your hand up.

MR ELLIOTT: Yeah, sorry, I've just got my picture and the like. Yes, one comment Susan Lindley made is latent demand. Also in my written statement and in the subsequent submission by CIHT, RTPI, etc, to the Department of Transport, we do cover traffic growth – very quick traffic growth – when you provide additional capacity. London area is very different from most rural roads on the strategic road network, and there's a tremendous amount of latent demand that will vanish if you remove capacity. And latent demand that will vanish and latent demand that will grow very rapidly with new capacity. And that could affect things a lot.

Also Laura Blake's comment, common occurrence of delays, etc. And I must admit when I've been using Dartford Crossing, there's a parallel frontage road. You can

always go down there and get further up the queue going south. So routes get funny. People do do U-turns, etc as well. So that's one comment.

The other comment is there seems to be a terrific reliance on models and not on what happens in practice. And that worries me, that there's not the looking back what has happened, and the accuracy of models is also very suspicious. Phil Goodwin, who I know very well, and myself and Keith Buchan, another name in transport planning, were involved in the Thames Gateway Bridge. And I was involved in the east London river crossing for a long time as well, and the flows from models, particularly at the east London river crossing, by the Ministry of Transport at that time, had very big differences from actual – during calibration stage and presumably, model stage, but that's a bit hazy in my memory, sorry. Thank you very much.

MR YOUNG: Thank you. Does anybody else want to speak? Any other highway authorities want to speak on Orsett Cock?

MR MACDONNELL: Gary MacDonnell on behalf of Essex County Council. I'll keep this reasonably brief and high level. We've had conversations with Thurrock, and we've had conversations with Lower Thames Crossing on Orsett Cock as, point we made yesterday, it's not in our jurisdiction, but it's an area that we're very keen to keep an eye on because of the potential effects on the Essex highways network.

It's been stated a couple of times, certainly by Thurrock and both ports, that we need this junction to work. And that seems to be an extremely obvious and basic point. It has to work. This is an important junction. It's connecting to some major drivers for the economic growth of the country, so the fact that we're here discussing it is a poor reflection, quite frankly. And we would go back to representations that we've made previously around the removal of the Tilbury link road, for example, which would appear to mitigate quite a lot of these concerns that were shortsighted at the time and is more shortsighted now as we sit here talking about the modelling.

In terms of the modelling itself, Essex has been provided, like all other authorities, with data. I would comment on, there's a general point. We were reasonably happy with the inputs and how the models were built up. We didn't have any particular concerns around that. However, getting data and being confined to very small cordons has been problematical and has limited our

ability to discuss around this particular point. But I don't think we could add a great deal more from what Thurrock and others have said, so no great loss there.

I would just comment, I'd put the argument, the discussion in terms of what is appropriate and what isn't appropriate? Clearly, you've requested some additional information on that, so we'll wait for that to come through. I would agree with the Thurrock stance, though, in terms of we're looking at an £8 billion scheme, eight billion-plus here. I don't quite know how we can draw the line as to what is proportionate. Particularly, economically, this is high stakes and Orsett Cock has to work, so that would be my comments.

MR YOUNG: Mr Douglas. I can't hear you.

MR SMITH: Apologies, Mr Douglas, but I think your microphone's off.

MR DOUGLAS: Apologies. Can you hear me now, sir?

MR YOUNG: Yes.

MR DOUGLAS: Good morning. Daniel Douglas, London Borough of Havering. Just a couple of brief general points, if I may. Havering supports comments that Thurrock made around the out-of-date-ness of the LTAM model. I won't reiterate what Thurrock have said, obviously, but I will make the point that the 2016 traffic model, in the context of the Secretary of State's decision to rephase construction of the project and that, obviously, makes the date-ness of the model even worse from Havering's perspective because there's obviously a bit of uncertainty now as to when the project's going to become operational with that two-year rephasing.

The points around local junction modelling, Havering's had similar concerns. I mentioned those yesterday to a certain extent, where we've asked for junctions within our borough to be looked at. And we've carried out some of our own local junction modelling as well, which we submitted as part of our local impact reports.

The other point I'll just make – and I guess it's really a point of clarification, if I may, via the panel to the applicant. I think the applicant said fairly early on in their evidence that the latest model run that was used was – had a reference of CS-72. I think we've been using, or we've only had access to the model run CS-67, so I guess my question would be, would the applicant be able to share that latest model run in terms of [inaudible] with Havering and also,

whether they would be able to provide a breakdown of the changing outputs from the CS-67 and CS-72 model runs. Thank you.

MR YOUNG: Thank you. Any other hands up? No. Okay, Mr Tait, do your team want to come back on – there's a lot there. I appreciate it.

MR TAIT: Thank you, sir. Perhaps, just to deal initially with what Mr Mackenzie was saying on behalf of Thurrock, and on the base year, I think we are coming to that under the next item as I understand, so I'm not going to come back on that point, the 2016 base year.

First of all, there is clearly adequate and sufficient information to allow a decision to be determined, having regard to compliance with TAG and the approach accepted by the Secretary of State in relation to National Highways schemes. We're going to come back to you on that later on, but in this context, there's reference to 4.6, and I don't think mention was made of the last part, which is that modelling should be proportionate to the scale of the scheme. That's obviously important.

And in relation to that exercise, Mr Mackenzie said, 'Well, we haven't heard about what the period would be, if one was going to undertake the large exercise of seeking convergence between the two across the whole of the LTAM model,' and I don't know whether Professor Bowkett can just assist on that just to give an indication. We'll reply in writing fully, but just to give an indication of what that scale is.

PROFESSOR BOWKETT: Helen Bowkett for the applicant. It would take years. When I was first asked, I said, 'It's probably my lifetime.' I don't quite know how many years I'm going to be blessed with, but it's a really considerable task to build, collect data, build the VISSIM models over the area that generally could be affected by re-routing traffic, because it's not just junctions on the A13 corridor. You've got the A127 corridor running above, so the vehicles could change between corridors as well. It's an extensive area. Then, when you've built the models, to run round and do the convergence and intervention, it will take a considerable length of time.

MR TAIT: Thank you. Second point relates to the Orsett Cock junction localised model.

And I appreciate the dismay you expressed that further progress hasn't been made on that, but I wonder whether Professor Bowkett can indicate when that was supplied to Thurrock and when we got their comments.

PROFESSOR BOWKETT: It's working very well. We worked with, obviously, Thurrock. We supplied the forecast model, I believe, in August 2022, and we've now received the comments back, in August '23. We will be addressing them promptly, and replying to Thurrock, but as I say, there has been a large gap in time. We're also getting feedback from Thurrock.

MR TAIT: So, then, we were going to respond, essentially, on your second part of your agenda under this, which is 'Pathway to resolving outstanding concerns', which we had parked, I think, and I wonder, first of all, if I could just ask Dr Wright and then Professor Bowkett to pick up three specific points that have arisen and then come back to that one.

DR WRIGHT: So, talking to the partners – sorry, Tim Wright for the applicant. Sorry, technical points first. Apologies. So there were just a couple of points that I wanted to pick up before I pass over to my colleague, Professor Bowkett. And I'm afraid I wanted to pick up on a terminology point. There's been a characterisation of the movements at Orsett Cock as U-turns, and particularly, the movement of LTC coming back down the A1089. I would like to say that it's not a position that that's a U-turn; that's normal use of a junction coming on at one exit and leaving at another, so I did want to make that point.

In terms of the discussion around the traffic then leaving Orsett Cock and moving onto the local links, again, that does happen as part of the flow. And I'd just like to take a step back a moment and say, this is traffic, local people using the crossing, local people benefitting, and businesses. And it's actually a sign that the crossing is providing economic benefit to the region and to the communities in the area. So, whilst that traffic obviously does raise concerns in terms of flows, it is a sign of the benefits of the project being realised. With that, I'll pass over to my colleague Professor Bowkett to pick up on a couple further, more technical points.

PROFESSOR BOWKETT: Helen Bowkett for the applicant. Just wanted to pick up first on the point about latent demand. Yes, in the Orsett Cock VISSIM forecasting model that we submitted, there were three short links in the model, which was Rectory Road and the A128 north and south, and that's where the latent demand is occurring.

So, as a sensitivity test, we've lengthened the links already to remove the latent demand. Thurrock requested that we sent that to them once we've taken

on board their comments that they'd made on the forecasting model. But we're really sure that the latent demand issue hasn't affected the queuing that we've used from the LTC onto the Orsett Cock, so that's a long link in the model.

And the second point on Manorway and the VISSIM model being based on base data and not on collected turning counts, but using the LTAM flows for the base model, that was agreed in workshops with Thurrock because there wasn't any available turning count data at the time, so that's the reason it was decided to proceed with the models from LTAM. We had a series of workshops with them on that.

DR WRIGHT: Tim Wright for the applicant. So, if I come back to pathways for resolution, really, I think there's two pathways. One is to look at the modelling. We will continue to work with the stakeholders to develop the modelling, but we would like to refer back to our initial position that we consider the SATURN modelling robust and that this VISSIM modelling is a useful tool to explore and understand the nature of that model, but that the application, the decision, is contingent on the SATURN. We will continue to work with stakeholders to explore this.

And then, secondly, the further use of the VISSIM model. So this is a preliminary design for the scheme that we are seeking consent for. It has a follow-on process of detailed design and implementation, and this modelling will inform that process of detailed design. It'll continue to evolve, as we've identified in the localised traffic modelling report, and continue to inform the development of the scheme as it goes forward, and so it doesn't end with consent. It continues.

National Highways has a licensed obligation to continue to collaborate and work with local authorities and National Highways and that will continue to do so through the delivery of the project, and then, subsequently, through into the operation of the strategic road network.

Then, I'd just like to flag – you've already questioned us – 4.2.5, relating to mitigation security at Orsett Cock. And your question there is, 'How would certain works at Orsett Cock be secured in the DCO?' I don't propose to repeat that. You've asked that question, and we'll provide a response in the appropriate format at the next deadline.

MR SMITH: Rynd Smith, panel lead, speaking. I will just make a brief observation on that particular point about the distinction between where you find yourselves now in terms of seeking development consent and then the continuation of necessary detail design processes thereafter, which is maybe trying to observe. But clearly, that which you seek to put for consent before the Secretary of State needs to have sufficient provision within its Rochdale Envelope to ensure that the nature of the design iterations that you see as being at all reasonably foreseeable moving forward are within the scope of the red-line boundary and the Rochdale Envelope description of the environmental effects and that which you are putting in front of us.

So we can take some comfort from the proposition that there will be detailed design processes that may continue after this examination. But we can't take comfort in the proposition that those detailed processes might need then to push forward at something that might essentially need to push out to the red-line boundary, the land take of the scheme, and/or push out the assessment of its environmental effects, broadening its Rochdale Envelope.

So, by the time we reach the end of this examination, and the time points that have been urged upon us around the table – and Mr Shadarevian has specifically urged those points – are important because, of course, we need to reach a point where we can actually be sufficiently clear about where we stand in that line between essentially outlined scheme and detailed design at the point that we make recommendations to the Secretary of State.

So some work does need to be done in this space still, and this is not to suggest you don't understand that because clearly you do and you are, but we need to inject, over the next two or three weeks, I would indicate, a very substantial sense of pace and direction into that work because when we return to hearings, I would indicate in October, we're probably going to have to come back to this. And we are going to need to have seen a tangible sense of engagement and progress around this table by then because, at the moment, my colleague Mr Young expressed his dismay, very rightly so, so we need to try and get a grip on this. And I thought it was important to put those remarks into the public domain. Yes, no, that's a very, very good —

MR YOUNG: Just picking up on that point, does Thurrock or the ports want to make any oral comments about possible requirements that might go into the DCO to alleviate concerns around Orsett Cock?

MR SMITH: If only to flag matters that we will return to in issue-specific hearing 7. I would say we don't have to deal with the detail today. It would be extemporary if we asked you to, but if we can return in issue-specific 7 to ways in which drafting in the order might help us through some of this, we're very willing to do that.

MR MACKENZIE: George Mackenzie for Thurrock Council. At this stage, I think all that I can say is that we will consider that and get back to you in ISH 7 on that topic. I don't think I'm in a position extemporary right now to give you anything other than that.

MR YOUNG: Mr Shadarevian. Then I'll come to you, Ms Dablin.

MR SHADAREVIAN: Very grateful, sir. I have touched on this in the past about what potential mitigation might be needed. Once the outputs from the models are reconciled, and we know where we stand, we will then be able to indicate to you about how best that might be accommodated through mitigation and what mechanisms might be employed through the order in order to achieve that.

But at this moment in time, I think it's premature to speculate on what the nature of that litigation might be or where it might occur. But we would be very happy to consider that further once the outputs of the models have been reconciled because, at the moment, this examination is in a quandary with regard to the model outputs and what that really means in effect, in practical terms, for the operation of this critical junction. But we will certainly give it some thought and, if necessary, if you think it's appropriate, by our next deadline, we'll include a response – within our response, a submission which addresses those matters.

MR YOUNG: Ms Dablin.

MS DABLIN: Thank you. Alison Dablin for the Port of Tilbury. Yes, we will be very happy to discuss potential mitigation for the Orsett Cock roundabout and how that could be secured. I think our primary focus will be on ensuring that a Tilbury link road can be brought forward at a future date and ensuring that the mechanism for doing so is secured, as that seems to be the simplest mitigation

1 available at that stage. However, yes, we will make preparations to speak about 2 that on Monday's hearing. 3 MR YOUNG: Yeah, the applicant has made their position very clear on a Tilbury link road and even set out numerous times – it is what it is. It's not within their gift. 4 5 It's being pursued. That's not their decision. That's been imposed upon them, 6 so I don't think Tilbury link road is going to be a viable option. 7 MS DABLIN: The submissions that we are proposing are not that the Tilbury link road 8 should be included within the Lower Thames Crossing. We acknowledge that, 9 by this stage, it is essentially too late to include it. 10 However, given the potential for it to act as such a significant mitigation, 11 what is contained within the Lower Thames Crossing scheme, which includes 12 the junction immediately to the north of the north portal, the mechanisms to 13 ensure that that is constructed in order that a Tilbury link road can be brought 14 forward, either by National Highways through the RIS 3 programme or by 15 third-party developers or Thurrock, even, but ensuring that that can be done 16 without there being any impediment. 17 So, for instance, were the junction not constructed in a way that the 18 Tilbury link road could be connected, that would be hampering the ability for 19 the Tilbury link road to mitigate the wider network impacts, so that is where our 20 focus has been. 21 It is on ensuring that, to the greatest extent possible, the Tilbury link road 22 is enabled and not impeded, and this is what we are seeking to secure, rather 23 than trying to get the Tilbury link road reinstated into the scheme. 24 MR YOUNG: That's understood, and I think the applicant has already accepted that 25 point. That's already in writing. MS DABLIN: Yes, though I think we haven't seen – it isn't yet secure in the DCO that 26 27 that junction will make the relevant standards, and submissions by Dr Wright 28 are very much to the extent that they cannot confirm that, and that's what we're 29 seeking to ensure is secured in the DCO. 30 MR YOUNG: Okay, thank you. 31 MR DOUGLAS: Daniel Douglas, London Borough of Havering. Just a general point 32 about your comments, sir, around putting board requirements to try and deal with this modelling issue. I think, from Havering's perspective, and again, it 33 34 will probably get discussed in more detail at issue-specific hearing 7, but I'll flag

it up anyway. Havering, and I know other local highway authorities – some have raised a similar point. I think we'd probably be looking for something along the lines of requirement 7 of the Silvertown tunnel DCO, where we're within that requirement. I think it's sub-paragraph 4.

There's a requirement before the Silvertown tunnel is operational for the applicant to carry out an updated assessment of the likely impacts of the scheme on the wider network. And I think that's something that I'll just flag up as being a requirement that we'd like to see considered for this DCO. Thank you.

MR YOUNG: Yeah, we'll come to that a bit later this afternoon, I think.

MR SMITH: Yes, I think we have to because, otherwise, we're leaving some as I understand it.

MR YOUNG: Mr Pipe, are you there? And we're just aware that time's ticking on. You've got to leave at 1.00 o'clock. I think now may be the best time. It's probably going to assume that what you want to talk about is not what we've been talking about up to now, but do you want to make the submission?

MR PIPE: Yes, thank you for the opportunity, sir. It's Adam Pipe from Essex Police. I'm the head of roads policing. I've had concerns for – and I've been part of the working groups for a long, long time now, and I hear what everyone's saying in relation to the modelling, whether it be during the construction phase or during the operational stage. Clearly, the modelling of the road network, it's for the highway authorities to satisfy themselves that the modelling's absolutely spot on for what they need. My primary focus is our ability to get to incidents in a quick manner, free of hindrance, but more importantly, an understanding of the current climate in policing. And this is one of the big things I've had, is our ability actually to even get to incidents.

I operate with a very, very low number of offices from roads policing. At any one time, maximum, I'd have a maximum of seven PCs working out of Chigwell. Chigwell is some considerable distance to the operating area we're talking about. And demand upon us is absolutely enormous, so I need to be absolutely satisfied that, with any modelling, we've got an ability to a) to respond to something in a quick and efficient manner. But also, do I have officers that are there to respond, particularly when we're talking about any potential growth in the area, particularly post-construction.

My genuine feeling is we are going to see significant growth. That whole area of the Thurrock area, with all the development ongoing, ports, it's going to become a real intense area. And I really, really worry about my ability, with my officers, to get to anything in a quick and efficient manner and deal with it.

Just anecdotally sir, just to – we've got ongoing work at the moment in the north of the county with a National Highways project. I know, anecdotally, that is already giving us extreme levels of additional calls of service, which, again, is putting pressure on my team based in the north of the county. Thank you.

MR YOUNG: Thank you. Right, okay, I think what we'll do now is, before we break for lunch, I'd like to like to deal with the modelling uncertainty issue. Let me just open this up by saying there's quite a few issues been raised, particularly by the highway authorities in relation to the approach, both in terms of the uncertainty log for a future development and highway schemes.

And I know that Thurrock and Port of Tilbury are very concerned about future growth in a model, particularly the omission of the freeport growth. Brentwood, Kent, Medway, Tonbridge and Malling have raised concerns about planned growth for their area not being reflected in the core scenario.

Now, the applicant has responded at length to those concerns. They are in writing, and I'll ask the applicant maybe just to respond to some of those concerns. Let me do that first. Let me go to Mr Tait and see if there's anything that the applicant can add to what it's already put in writing on this issue.

MR TAIT: I think I'll turn to Professor Bowkett first.

PROFESSOR BOWKETT: Helen Bowkett for the applicant. As we have reported in our traffic forecasting report application number 522, we have set out how we've done the traffic modelling in accordance with TAG. It's worth pointing out that, when you have your uncertainty log, it has different categories of certainty about the developments, so you have your 'near certain' and you have your 'more than likely', and it's the same TAG unit, M4, that you should include the 'near-certain' developments and the 'more than likely'. You should exercise an element of judgment.

So the presumption is that you would include them, but you have to exercise an element of judgment, mainly in regard as to whether the – basically, it's robust enough as a proposal to put into the traffic model. The traffic model

has two parts, so you've got the demand side, the matrix, and so if you get a new development, then you can assess how many trips you would get, and put that in your matrix.

But then you also have the supply side, the network, the transport network, so you have to ensure that you've got sufficiently robust highway interventions, or public transport interventions proposed, to support and to balance out the new trips. So, I mean, an example of the issue we have is on the Hoo Peninsula. We hear that was a local planning development. We didn't include the Hoo scheme in the modelling or the local plan development, although we were requested to by Medway, because the Hoo scheme, although it had funding for the railway station and a road, it didn't have sufficient certainty to be included, so that's why we excluded it from the model.

We published the uncertainty log in the document, and we did state that there were two developments that we didn't include, Highsted Park and Medway One because, in our judgment, they didn't have appropriate highway intervention to go alongside them, so I hope that answers your question.

Sorry, my colleagues have asked me to remind you that the Hoo funding has been withdrawn, so we were proven right in that case as schemes have come forward.

MR YOUNG: Indeed, yes, you were.

PROFESSOR BOWKETT: Sorry, I should have mentioned that specifically for the sake of the record.

MR YOUNG: Okay, alright. See if the highway authorities or the ports –

DR WRIGHT: Tim Wright for the applicant. Actually, I'm going to pass to my colleague, Mr Stevenson, who's going to talk about the freeport specifically.

MR STEVENSON: Thank you, Dr Wright. Graham Stevenson for the applicant. Yes, so you asked us in your opening remarks about the freeport. Obviously, the freeport covers a number of different sites, some of those sites already within the model, such as the development of DP World, for example, which is already in there.

Not all the elements of the freeport are yet known and in the public domain and, as such, it's an unknown as to exactly what's going to happen. As part of our ongoing engagement with the Port of Tilbury, however, they have been provided, in 2021, some details by them of the potential land uses and

1 accompanying trip generation for freeport development at the Port of Tilbury. 2 We had undertaken a modelling assessment of that and have provided the results 3 of that to the Port of Tilbury. 4 DR WRIGHT: Tim Wright for the applicant. Just to provide a couple more points on 5 that, we were provided with the master plan development that allowed us to 6 consider the traffic generated, but what we were not provided with was any set 7 of interventions or changes that might be made to the localised traffic flow – to 8 the localised traffic to allow that to flow. We did express concern to them at the 9 time that, without that, the model would not be representative of the nature of 10 flows, which is why it hasn't been shared prior to fairly recently. 11 But following the concerns that have been raised, we have now shared that 12 with them. But we remain of the position that, actually, the freeport, without the 13 interventions to the road network that would be required to go along with it, it 14 would – we don't consider that to be appropriate for inclusion and furthermore, 15 concern that it is not really for National Highways to be putting forward likely 16 interventions and indeed, entering into the domain new information that is not 17 currently being shared by the developer of that site. 18 MR YOUNG: Do you want to say anything about growth that's built into the model in 19 the first place, accounts for future development, the TEMPro growth? 20 DR WRIGHT: Absolutely. I'll ask my colleague, Professor Bowkett, to set that out. 21 PROFESSOR BOWKETT: Helen Bowkett for the applicant. As we've reported in the 22 traffic forecast in report, APP-522, let me take the uncertainty log. We put those 23 developments in, but the overall level of traffic growth in the model comes from 24 the NTEM 7.2 traffic growth forecast, which was current at the time at which 25 the modelling was undertaken. 26 MR YOUNG: And you've run a sensitivity test, haven't you, at deadline – you submitted 27 at deadline 3 on TEMPro 8. 28 PROFESSOR BOWKETT: Yes. 29 MR YOUNG: Because I think that was one of the criticisms that had come in from some 30 of the highway authorities – that I think it was shortly after submission that data 31 set had been updated. 32 PROFESSOR BOWKETT: Helen Bowkett for the applicant. Yes, so NTEM 8 was released in November '22, and the goods vehicle factors that you also need to 33 34 do the modelling got released in December 2022 from the national road traffic

projections, and so we have done the modelling for – using TEMPro 8 and the 2032 opening year, and we published those in paper NTEM 8 and the common analytical scenarios, at REP3-145. So we've compared the traffic forecast, using TEMPro 7.2 and TEMPro 8. And we've also carried out the forecasting for all the common analytical scenarios. Traffic growth factors for those were also released at the end of 2022, to enable us to do that modelling work.

MR YOUNG: Thank you. And just finding on the toolkit, the updated toolkit, one of the uncertainties that have been raised as well by various highway authorities – is there anything in that recent publication that would require any further assessments of the applicant to revisit any of its work?

PROFESSOR BOWKETT: Helen Bowkett for the applicant. Just adding further to my first point of the comparison between the NTEM 7.2 and the NTEM 8 traffic modelling, we can supply these figures. They're provided in that 'NTEM 8 and common analytical scenarios' REP3-145 report, but moving from TEMPro 7.2 to NTEM 8 – sorry, NTEM 8 and TEMPro 8 are interchangeable terms – resulted in very, very slight change in the forecasted traffic flows at the Dartford Crossing, the Lower Thames Crossing.

Coming back to your point about the uncertainty toolkit, again, with sort of synonymous terms, uncertainty toolkit, it's the same name as the common analytical scenarios, so the DfT published the traffic growth forecast to enable traffic modellers to implement the common analytical scenarios, seven of them, in the traffic models.

Again, running these large models is a time-consuming task, but we've undertaken all seven of them. And we've published that because the stakeholders are asking, 'Well, what difference does it make?' We've published the results in REP-145 'NTEM 8 and common analytical scenarios'.

There isn't a really big range in traffic numbers. The biggest changes are with the behavioural change, in 2047, the average peak hour, where reduction's about 9%, and then you've got the highest increase is with the high economy scenario. This is because we're working in a very busy network, so if you had a high growth scenario with more trips, there is still only a certain number of trips that can move around on the network and access the Dartford Crossing and the roads in the area.

If you have one of the scenarios where you have fewer trips, then what's happening is the variable demand model has more people being allowed to make the trips that they want to make, and there's a lot of people wanting to cross the river, so you don't have the decrease in flows that people might have been expecting with the publication of the commonality scenario. So that's why we felt it was helpful to do that modelling work and publish those numbers.

MR TAIT: Could I ask, finally, Professor Bowkett to pick up age of data because that was raised earlier this morning.

MR SMITH: Just before we move on, I do know that we have had a hand from Alison Dablin for a while, and if it's an interjection that relates to the detail of the material that we've just covered, it would probably be best to hear that before you wrap that last point up, Mr Tait.

MR YOUNG: Ms Dablin.

MS DABLIN: Alison Dablin for the Port of Tilbury. It's comments about the freeport and how it should be assessed under TAG. Happy to speak now or let the applicant finish, if that would be preferred.

MR YOUNG: Yeah. We'll let the applicant finish. We'll come to you in due course.

18 MS DABLIN: Thank you.

MR TAIT: So, Professor Bowkett, just to pick up a point I think made by Thurrock about the age of data.

PROFESSOR BOWKETT: Helen Bowkett for the applicant. The Lower Thames area model is based on the number of trips and the pattern of trips as observed in 2016, and this is a vast representation of travel patterns in the area.

In the modelling work, we then take the number of trips in 2016, and we factor that up to 2030 or 2032 using the TEMPro 7.24 or, now, TEMPro 8 traffic growth forecast. And it does say in TAG unit 2.2, paragraph 444, that if you're using – when you're using your data, your model, you have to assess whether it is still suitable for the intended use of the model. And we believe that the travel patterns in the area are similar to they were in 2016, and so it is suitable.

We have secured data from TomTom, which has a large number of in-car and in-HGV GPS units, where they track in very great detail where the vehicle was going. And we purchased that data, the 15-kilometre radius from the Dartford Crossing, to track the movements of vehicles using the Dartford Crossing, and that data has shown great similarity between what was happening

1 in 2016 and 2019 and in March 2023. So, on the basis of that, we're content that 2 the modelling's robust. 3 MR YOUNG: So would you say – Thurrock mentioned Covid-19 – they're not the only 4 one to mention that in point of fact – the base year of the model predates Covid. 5 Is there any evidence whatsoever then, from what you've just said, that travel 6 patterns long-term are going to be impacted by that period, Covid-19. 7 PROFESSOR BOWKETT: Helen Bowkett for the applicant. It seems that travel 8 patterns are returning to how they were before Covid, particularly on the SRN, 9 with the longer distance trips and the trips that are using the Dartford Crossing 10 nowadays. And also, the trip volumes are coming back as well. 11 MR YOUNG: Yeah, and fairly obvious I would have thought, but there is no data 12 involved in building the model that would have been collected during Covid-19. 13 No. 14 PROFESSOR BOWKETT: Helen Bowkett for the applicant. We didn't use any data 15 that was collected during Covid-19, for either the LTAM model or any of our 16 VISSIM work. 17 MR YOUNG: Okay. Does that conclude the – okay. Alright. What I certainly don't 18 want to do, we go around the table and have each highway authority go through 19 all the schemes that they think ought to be in this model that aren't, because 20 you've already put that in writing. You've heard the general approach. It's a 21 general approach. Does anybody dispute that what the applicant has done is 22 contrary to what is in TAG? That's the sort of submission that I'd like to hear. 23 Does anybody want to speak on this? Let me start with – I'll work around. I'll 24 start with Transport for London. 25 MR RHEINBERG: Thank you, sir. Matthew Rheinberg from Transport for London. This is a general point, and it's not necessarily having an issue with the approach 26 27 that's been taken to date. TFL, admittedly, would have preferred to have used London plan forecast within London, which are more detailed, but we accept 28 29 that M10 is the policy position approach. 30 It's more an issue about the uncertainty, given the period of time between 31 the modelling taking place and the observed data it's based on and the scheme 32 opening, and the range of things that can happen in that period, whether they're 33 new projects coming forward, changes in general travel patterns, new

developments. And that's not something that any applicant could foresee precisely, all those things that are going to happen.

So the key point we wanted to make really is that that demonstrates why there does need to be a further stage of modelling closer to the scheme opening to inform what mitigation may be needed. There is too much uncertainty over such a long period. If you look back at what's happened in the last 10 years, there are policies and schemes we're coming to face that would not have been considered in any way, committed 10 years previously, so, yeah, that's essentially the point.

MR YOUNG: What you're asking, going over and above, beyond what's in TAG, could they've done the low-grow, high-growth scenarios?

MR RHEINBERG: Sir, we're not asking for any additional modelling now. This is more – it's linked to the approach of mitigation, which will be discussed later.

MR YOUNG: Yeah, okay. Kent.

MR HUMPHRIES: So, yes, Michael Humphries for Kent County Council. Sir, we would like to make five points relating to uncertainty generally and the implications and consequences of uncertainty. The first point is this, that the extensive discussion you had under the last agenda item, which we didn't take part in because it related specifically to a site north of the river, is, in a sense, an example of uncertainty, a lack of conversions between two different types of models.

National Highways' response in this I would summarise in part as being not that it would not, in theory, be desirable for these models to converge – it clearly would – but that it would be, in effect, disproportionate to do that. They don't do that elsewhere. The consequence of that position, though, is an acceptance of either some uncertainty or potential uncertainty. As you have very directly put it: 'Where does this leave us?' That's the first point I make.

The second point I make is it's absolutely clear in work TAG unit M4 that uncertainty is inherent in modelling. It gives examples of it. It asks for 95% confidence intervals. I don't think they've been provided here, but uncertainty is inherent in that type of modelling.

It's also absolutely clear that the transport assessment accepts that there is uncertainty in this particular case. You can look at various passages. 5.7.19 in the transport assessment talks about the uncertainty log, and the following

paragraph refers to the two sites that were referred to. It makes it clear that the uncertainty log was produced at the end of September 2021, so two years ago, and reflects the known scheme's stage. Again, an acceptance, in effect, of uncertainty because what's happened since is not reflected.

Now, the two important points I want to make in a sense are this, but because there is modelling uncertainty, that is why pre- and, in particular, post-operational monitoring is absolutely essential. And that point is accepted by National Highways. There's no argument that they should be monitoring. Why? If the models were perfect, you wouldn't need it. But there's an acceptance that they're not.

The impact may not be what the models are telling us. But that has then a further consequence, which then you touch on in your subsequent agenda items, and so I won't explore them now. But that, if the modelling is uncertain, if the monitoring is there to try and understand what actually happens — one of the members of the public make these points, then we would say it's absolutely essential that the PCO also makes some provision or recognises the need for mitigation of those effects because, in effect, you're not being told what they are now, for all the reasons we've already discussed. The real world may not reflect the computer models, so I will stop at that point because that's the generic point.

But clearly, we will want to explain things under wider network impacts and some of the particular things for us under your later agenda items.

MR YOUNG: Thank you, Mr Humphries. That's informative. Thurrock.

MR MACKENZIE: George Mackenzie for Thurrock Council. Sir, with your permission, I'll ask Professor Goodwin to deal with this. And can I, just for my part, seek your assurance that it will be acceptable for us to provide a copy of Professor Goodwin's qualifications, credentials and experience in the context of our written summaries, as opposed to going through it now?

MR YOUNG: Yes.

MR MACKENZIE: Thank you.

PROFESSOR GOODWIN: Thank you, sir. Phil Goodwin for Thurrock Council. What I propose to say is going to take rather more than 10 minutes, and I noticed we're now very close to lunch. I mean, I'm happy – I'm in your hands on this, but I'll forge ahead if you want.

MR SMITH: Yeah, anything that extends much beyond about 1.20, 1.30.

PROFESSOR GOODWIN: Oh, well before that.

PARTICIPANT: Between 10 and 20.

PROFESSOR GOODWIN: Good. Thank you very much. Now, uncertainty. DfT, correctly, I would say, has come to understand increasingly that all forecasts and appraisals are uncertain. And it's therefore necessary to apply full and fair tests, challenging the robustness in projects and a wide range of alternative futures and assumptions. We argue that the applicant's advocacy has not fully followed the spirit or the letter of DfT's guidance in relation to 12 critical areas.

For months, we've been arguing that the appraisal does not reflect changes in conditions and in DfT advice since 2016, since the project was designed, and even since the application was submitted. And these changes relate to the impacts of Covid and Brexit and financial constraints, the delay in the planned opening year, revised trip rate forecasts by the DfT, which are a significant reduction in car trip rate growth, and recommendations by DfT for a significantly wider spread between the high and the low possible future traffic flows than have been tested in the appraisals.

Now, I'm certainly pleased to acknowledge that, in the last few days, the applicant seems to have accepted all these points in principle, and we now evidently agree that this starting point, the rates of growth, the central forecasts and the range of uncertainty in the original analysis all no longer apply. But their only application of that so far is in a series of detailed tables of river crossing traffic, which we've not yet had time to assess in detail, but we'll do so.

But the more important application of the principles of uncertainty is to apply these new conditions to the analysis of congestion and environmental impacts in the whole network, not only in river crossings, and incorporating them in the analysis of benefits and costs overall and in value for money. They're also likely to be sensitive to any changes in the use of road capacity arising from local plans and, of course, design issues.

If we're serious about the different scenarios, the Orsett Cock issue has to be solved for both the high-traffic scenario and the low-traffic scenario, and it's a serious matter if we end up with a solution which is either unnecessarily overdesigned and expensive or inadequate. Our assessment of this is that incorporation of those principles in the appraisal of the scheme as a whole is

probably going to further reduce the viability of the project, which is already very close to marginal.

Now, the next risk uncertainty point is that, in one respect, the applicant has treated as certain aspects whose certainty cannot be defended. The applicant asserts and attributes to the DfT, I think quite wrongly, that heavy and light good vehicles do not experience any variable demand.

In other words, their origins, destinations, numbers and total mileage are almost exactly the same with and without the Lower Thames Crossing throughout the appraisal period in 30, 50, 60 years. The probability, I would say, that this could not be true was not even mentioned in the uncertainty log. But the assertion is incompatible with the analysis of wider economic impacts and with DfT published empirical evidence and with the project's strategic objectives.

And the greatest irony of all, it contradicts the applicant's own reporting of companies supporting the project who say they can and will expand their activities and, therefore, their traffic, to make use of the crossing. Therefore, it seems likely that the traffic impacts of increased goods vehicle traffic will have been underestimated. And further, it's likely that the wider economic benefits, which I'll come back to, without which the scheme could not be viable, will be over-optimistic.

The next point is that their very dismissive treatment of the traffic impacts of decarbonisation commitments, both in relation to electric vehicles and of traffic reduction from government-announced policies, which have not been taken into account in the sensitivity testing. And I would add here, the same would apply for any other reasons for favourable changes in the public transport market, which have been particularly notable in and out of the east of London.

The next point is that the DfT express a variety of different carbon values for use in appraisal: low, medium and high. The medium ones have been tested. The high values of carbon – and surely that's the direction that we're moving in, have not been tested or even mentioned, even in the most factful value-for-money sensitivity test.

There's a failure to consider the implications of higher and earlier levels of climate change on the operating conditions and geographical constraints that will affect travel in the lower Kent corridor. And there's no recognition that

wider economic impact can be either benefits or costs. All the analysis is in terms of WEBs: wider economic benefits.

The DfT's TAG guidance always and systematically avoids this language. It talks of wider economic impact, which can be negative or positive, and both of them have to be addressed. Prima facie, there is, therefore, an overestimate of the net year outcome in terms of benefits.

The penultimate point I'd make is that, in pursuit of this, the basis and derivation of wider economic impacts are not explained in a way which is comprehensible to a professional economist, let alone, I think, to most of the people in this inquiry process. Our repeated requests for relevant input and output files, specifications, to make our own assessment of these wider economic impacts have been refused. And the calculation of reliability benefits and their relation to travel speeds and times also seems very uncertain, because they're not tracked to the cost and benefit analysis. Again, information has been requested but not provided. There's a particular potential for double-counting in the treatment of value of time savings and reliability benefits.

Now, the problem, to me, in all this is that these uncertainties are not randomly optimistic and pessimistic, tending, as it were, to cancel each other out. Rather, in each case, they have the effect of exaggerating the calculated benefits, or underestimating the calculated costs. Now, partly, this is just human nature, and I understand the drive to align all analyses to demonstrate that the project is a good one, but the fact is – surely this is self-evident – that the project now is not nearly as good as it was assumed to be 10 years ago. As things stand, the project is facing these two unacceptable possibilities: that the scale of the investment is unnecessary, or that it will fail to deliver the lasting improvements in travel times that are promised, and it could be both.

Therefore, we're strongly recommending that further essential and challenging model, and appraisal, and sensitivity tests, are undertaken to reflect the Council's comments in its local impact report, and to be in accordance with what we've described as a genuine and unbiased application of the principles of DFG[?] guidance on uncertainty.

What we want, in summary, is first, to update the baseline trip rates and common analytical scenarios, including high and low traffic roads forecast, and apply all these changes to every stage of the appraisal, including design,

estimation of costs and benefits, value for money, and environmental impact; to provide and publish the technical specifications and the input and output files for the assessment of wider economic impacts and the assessment of reliability benefits; to undertake tests which allow for the probability – near certainty, I would say – that future traffic via HGVs and LGVs will be different in the with and without LTC case; to carry out tests of the traffic implications and further electrification of vehicles, further implementation of government's declared policies, which would tend to reduce car traffic; and to report the effect of higher carbon values within the existing demand framework, and the likely physical and transport effect in the transport corridor of further increases in global average temperature.

For example, the Defra recommendations that considers scenarios of two or four degree global temperature increase.

Thank you, sir, for your attention.

MR YOUNG: Right, we're going to break for lunch very soon. Ms Dablin.

MS DABLIN: Thank you. Alison Dablin for the Port of Tilbury. I will first say that the Port supports the submissions made by Michael Humphries KC for Kent, in respect of the impacts of uncertainty. In respect of the freeport, I'd first like to correct a statement made by the applicant. They said that the data was provided in September 2021, which it was. However, this was the third occasion that we'd provided it. The first occasion was, in fact, in April 2020. What we have been requesting is that an alternative scenario is run in accordance with the TAG Unit M4 guidance, on the basis that the freeport is a reasonably foreseeable project. That is: it's a development that may happen but there is significant uncertainty.

We're not requesting that it is included in the core scenario, but we do think that as a significant development, it should be run as an alternative. Since the data was provided to the applicant, the freeport has been designated, which occurred in November 2021, and as of March this year, the freeport was given the go-ahead to operate.

Now, the applicant referred to some modelling that it had carried out, and this was shared with us a few days ago. This is not modelling that has actually been carried out in accordance with TAG Unit M4. What the applicant has done is they have looked at the impacts of the freeport on a baseline that includes the

Lower Thames Crossing. What they haven't done is updated the baseline to include the freeport. They have assumed that the freeport will be coming wholly after the Lower Thames Crossing being operational.

This is a misplaced application of the EIA regulations, which require the direct and indirect effects and the accumulative assessment to be undertaken and the TAG process that the applicant states it's following. It incorrectly assumes that the freeport will be brought forward after the Lower Thames Crossing is operational, but this has never been the case. The certainty that the freeport is to commence operations and it consists of greater areas of land than just those areas that the applicant will be using for its construction compound. So to suggest that the Lower Thames Crossing – not the Lower Thames Crossing – sorry, the freeport at Tilbury – won't come forward until after the Lower Thames Crossing is operational is misguided.

Our request is that the freeport is included in an alternative baseline so that the full impacts of the Lower Thames Crossing scheme are properly assessed in accordance with TAG Unit M4, because until they do so, the full impacts of the project are not fully understood.

Thank you.

MR YOUNG: Any questions on that? Mr Bedford.

MR BEDFORD: Thank you, sir. Michael Bedford, Gravesham Borough Council. Sir, the point that we've raised in our local impact report is related to the modelling process, but given the way that your agenda has been framed, it's only, as it were, broadly related to the particular agenda item on the uncertainty log, and I'm just going to touch on a point, which is the issue that we've raised, that the M10 input, which, obviously, has been used to generate the travel demand for the purpose of the model, we consider is materially out of kilter with what we see as being the likely growth in the – particularly in Gravesham, but also in the related districts in the vicinity, such that we consider that sensitivity tests need to be undertaken, which doesn't apply.

The M10 data has a constraint on overall demand in the model, and we appreciate that that does not accord with the guidance in WebTAG, and we've commented on that in our local impact report. We also recognise from and sense the way you've structured the agenda for today, that, at the moment, you're probably not entirely persuaded by our points and that we need to probably

1 provide you with more information to explain why we've got the concerns that 2 we have. 3 I'm referring, particularly, to figure 3.4 of the local impact report, which 4 sets out where this discrepancy is, and how stark it is, and so what I was 5 proposing to do, sir, if this is a convenient way of dealing with it, is we need, I 6 think, to flesh out why we're saying this is a problem and why more needs to be 7 done by way of the sensitivity tests, and hopefully, if we do that in our post-8 hearing submissions, we may see that it gains some traction and that you might 9 require some further evidence to be provided to reassure us on that point. 10 So that's the point I flag up. That's also the way I'm proposing that we 11 seek to deal with it. MR YOUNG: Okay. Anybody else? Did the applicant want to come back? Because I 12 13 do want to break for lunch now. Uncertainty. Yes. Speak into the microphone. 14 You can stay there. Come forward if you want. 15 MR REEVE: Graham Reeve on behalf of the Essex Area Ramblers. I'm a retired 16 transport planner, who worked for quite a few of the international consultants 17 over many years, and I'd like to continue a bit of the discussion that Mr – rather, 18 Professor Goodwin brought up, about the implications of the changes due to 19 Covid. 20 MR YOUNG: Is this going to be – I'm more than happy to hear from you, but I'm just 21 trying to understand the timescales involved in what you have to say. 22 MR REEVE: Probably no more than three or four minutes. 23 MR YOUNG: Oh, that's fine. The way you were setting up, we could be here for a 24 while. 25 PARTICIPANT: A technical dissertation, 30 minutes' duration. 26 MR YOUNG: The way you were rustling the papers. 27 MR REEVE: Well, I'll try to keep it fairly untechnical. The WebTAG – TAG Unit M4 28 clearly picks up in appendix B that there are changes due to Covid and these 29 should be taken account of in the modelling exercise, and that doesn't seem to 30 have happened. Now, in terms of the evidence that's been provided by the 31 applicant, they do accept in paragraph 5740 of the transport assessment, they 32 accept that, 'From 2021 onwards, demands rebounded and returned to pre-33 Covid-19 levels. Although, this does vary by location and there has been some

changes in the mix of vehicle types, especially during peak hours.'

34

Now, therefore they're accepting that there have been changes in traffic patterns. We spent this morning talking about Orsett Cock, but it might be that the traffic flows at Orsett Cock are very different to what they were in 2016.

So the whole debate about the modelling may be irrelevant, because a whole basis could be fundamentally wrong, but also it could affect – as, I think, Professor Goodwin said, it might affect the overall value for money. I mean, the current central figure is 1.22, which seems to be fairly low. So if that is reduced because of changes and because of lorry growth, then that could well fall into the situation where it's not value for money. The fact that the traffic has returned to existing levels in 2021 indicates that there has been a lot[?] of growth for a couple of years, which was wrongly taken account of in the assessment.

I'd finally just like to read out the second paragraph of B11 in the Department of Transport's paper, and it says, 'It is the department's view and recommendation that this evidence [inaudible] of travel demand, relative to a pre-pandemic projection demand at this time, should be appropriately represented in transport analysis.'

This is important particularly in appraisal and analysis supporting transport and investment decisions, and because it's such a major scheme — we're talking about a scheme of the order of about £10 billion, and it's the largest scheme within the National Highways programme — it seems to us that it's not right that decisions are taken on such a major scheme, when clearly, the whole basis of the modelling could be fundamentally wrong.

Thank you, sir.

MR YOUNG: We'll break for lunch and then we'll come back to the applicant, and try and tie this agenda item pretty quickly after lunch, and then we'll move on to have a discussion about mitigation.

MR TAIT[?]: I was going to say we were going to respond in writing to the various points. You might have questions of us, but if you don't – unless we're going to –

- MR YOUNG: I don't have –
- 31 MR TAIT: extend into the afternoon with...
- 32 MR YOUNG: Well, we'll break for lunch now. I think that's the best thing to do.
- 33 MR SMITH: We can –

34 MR YOUNG: Yeah, pick it up.

MR SMITH: We can deliberate briefly over lunch to see if there are any other matters that we, as a panel, need to explore with you, and pending that – so we may want to come back to you on this before we close the item out. Otherwise, we might just close it out as soon as we return. Okay.

MR YOUNG: So 2.15 then, please, everybody. The hearing's adjourned.

(Meeting adjourned)

MR YOUNG: Good afternoon, everybody. It's quarter past. The hearing's now resumed. Just a couple of matters, just coming out of that lunch break. We haven't got any further questions for the applicant. Just one thing we just want to highlight is: in your deadline 4 submission, we would very much like you to respond in detail, if you could, to Professor Goodwin's submissions today. Yeah. Thank you.

PARTICIPANT: All a round of nodding that that can be done.

MR YOUNG: Yes, good. Thank you.

MR SMITH: I will just briefly speak on that point, Mr Young, which is to observe that we have a sense that there is still a substantial amount of clear water between the applicant's position and the position that is being advocated by Thurrock, and when one is in that position, merely telling the parties to go away and continue to try and negotiate, with a view to returning with an agreed position within the timeframe of the examination, isn't something that necessary delivers results. We, therefore, need to put ourselves into a position where we fully understand what remains as outstanding matters.

I mean, PADS is the process that we've been using in this examination as a pretty useful way of doing that – to understand what's outstanding, because at the end of the day, there are matters in our report that we deal with in a judicatory mode, where we are, essentially, making a recommendation to the secretary of state about how to resolve points of difference that have emerged that are not resolving themselves through the examination process. If we need to do that, we need clear resolution of what is outstanding, and actually, in relation to the conversation that went on this morning, we need detail.

MR YOUNG: Mm-hmm. Thank you. Just a reminder to speak into your microphones

– something the case team has asked me. Ms Bowkett and Mr Shadarevian, you
two have been highlighted as repeat offenders, so lean forward, please.

MR SHADAREVIAN: Apologies.

MR YOUNG: Okay. So we'll move onto item 4 on the agenda, which is wider network impacts, management and monitoring. Just a few preliminary remarks from me, and then we'll go to the applicant as usual. This is an issue, or the lack of mitigation at junctions identified in the transport as being adversely affected is a matter that's been raised, I think, by all highway authorities. The applicant's oft-repeated position is that it has assessed the wider network impact of the project and considered these against the requirements set out in the NPS, and considers that the adverse transport impacts are acceptable under this policy.

What I want to do this afternoon is try and explore that a little bit. Just for the benefit of those who might not be aware of what the NPS says in relation to mitigation. It says that, 'Mitigation measures should be proportionate, reasonable, and focused on promoting sustainable development.' There's a second reference where it says that, 'Where development would worsen accessibility, such impacts should be mitigated as far as reasonably possible.'

So the applicant is proposing to monitor the impacts of the project, as we all know, on the local road and strategic road networks, and if monitoring identifies opportunities to further optimise the road network, as a result of traffic growth or new third-party developments, then local authorities would be able to use this evidence to support scheme development and case-making for existing funding mechanisms and processes.

From what I've read, the overriding sentiment from highway authorities is that, while monitoring is welcomed, it doesn't necessarily help them resolve problems on their network as a result of the scheme, particularly in light of a prevailing climate where funding for local highway schemes outside of planning process is extremely limited, and likely to be for some time.

So just with those introductory remarks, let me go to the applicants first, and on that key point, ask the applicant to justify its approach to the wider network impact monitoring, planning, and particularly that issue about mitigation, or unforeseen impacts, should they arise.

MR TAIT: Sir, could we then take A(i) and (ii) together?

MR YOUNG: Yeah.

MR TAIT: And then deal with the precedent separately. That's a separate – but the first two seem to lie together. So I was very briefly just going to echo what you were saying about what you were saying about the policy position and elaborate on that, very briefly. So you know our position in relation to policy compliance is set out in appendix 4 of the TA at 535, and in appendix A of the planning statement at 496, and as you've indicated, there's a specific section on impacts on transport networks between paragraphs 5201 to 5218, and this is clearly the section that governs consideration of wider network impacts.

As you've mentioned, sir, there is the reference in 5215 about mitigation needing to be proportionate and reasonable. There are three more specific aspects of policy within the NPS relevant to this. The first is the reference in 5206 to environmental impacts, which makes clear that that's to be done pursuant to WebTAG and then the environmental impacts, in terms of noise and [inaudible] are to be reported, and clearly that's been done.

Secondly, there are the two points about severance and accessibility, which you've mentioned. That's 5205 and 5216, where there are specific exultations about mitigation as far as reasonably practicable, with a very strong expectation in the case of NMUs that that would be mitigated.

And thirdly, cross-referring to 4.64 and 4.65 of the NPS, there are various tests about safety of that which is being proposed, and the short point I would wish to make just by way of preface is that, in contrast, and notably, there isn't any specific requirement in relation to the need for interventions where there may be increased congestion in the wider network as a consequence of the particular intervention.

So that was the policy context. I was then going to ask Dr Wright to deal with the application of that very briefly, and then to explain how the [inaudible] process is intended to work, and why it's proposed. So Dr Wright, please.

DR WRIGHT: Tim Wright for the applicant. So just to restate – and I know we have said this before, but I'll be brief – that fundamentally, the position is that the project, as set out in the need for the project and the economic appraisal package, provides overall benefits to each local authority area, and that the adverse impacts have been quantified and accounted for in the determination of that benefit, and so by delivering against the need, we're in alignment with section 2

of the national policy statement for national networks, and we've complied with the specific relevant tests, considering the impacts for change in traffic flows against, away from the project boundary, and so we consider that the project is compliant.

If I can jump then to some specific matters, so the tests, as my colleague set out. I will go through the three core areas that we see in turn. So severance and accessibility. Accessibility is talked as well in paragraph 3.19 to 3.22 of the national policy statement, and it talks about provision of ensuring access for varied communities, including people with disabilities, and so we have assessed that through the HEQIA, and then alongside that, it talks about severance, and we've provided a severance assessment in the HEQIA as well, and through that, we did identify that there were three locations where there were, potentially, severance issues associated with the changing traffic flows away from the project.

Each of these are identified within our section 106 heads of terms proposals as being an area for investigation with the local authority to see if we can improve crossing locations in those areas.

If I move forward, then, onto environmental impacts, which I won't go into detail, because I'm sure we will have whole, separate discussions, but clearly, those have been considered and addressed in the environmental statement, and clearly air and noise impacts associated with the project, and also landscape impacts in sensitive areas of the changing traffic flows. Needs are being mitigated where appropriate, or dealt with otherwise through the application materials, and they are set out individually and addressed against their national policy statement requirements in the appropriate areas.

And then finally, moving on to the safety, there's a couple of different areas where the safety is talked about in terms of the potential issues associated with changes in traffic flows. The first talks about showing that they've taken steps that are reasonably required to minimise the risk of death and injury, and contribute to an overall reduction in road casualties, and reduction in the number of unplanned incidents. We've set out in the application materials how, on a per kilometre travel basis, our proposals lead to a reduction in the total number of casualties across the scheme.

And then the second one relating to safety, which is paragraph 4.65, we need to demonstrate that we have considered the safety implications of the project from the outset and are putting in place rigorous processes for monitoring and evaluating the safety, and those requirements are addressed by the National Highways' standard approach of delivering a post-opening project evaluation.

So there is no specific requirement to propose interventions in response to increased congestion. Paragraph 2.15 sets out the section on impacts on transport networks. Mitigation measures, as you quoted, 'should be proportionate and reasonable.' The applicant's position on that is that because the benefits significantly outweigh the impacts, providing additional interventions across the regional highways network would be disproportionate and unreasonable, and I'd like to talk a little about that if I may.

So a little bit of context around this matter from our perspective: the licence issue to National Highways by the Department of Transport sets out statutory directions and guidance, and that's informed the approach that we've taken to the ongoing management of the highway network, and the consideration of the changes in traffic flow resulting from the project.

Through the licence, we're under a statutory duty to work with others to align national and local plans and investments, and I'm quoting here, 'balance national and local needs, and support better end-to-end journeys for road users. Impacts on the highways' network resulting from changes in flows following opening of the Lower Thames Crossing will be considered by National Highways as part of the exercise of this duty.'

And these principles are confirmed in the road investment strategy too, which explains that National Highways has a very specific role as an applicant, and quite a comprehensive role. First of all, it notes the purpose of the Lower Thames Crossing, and we can't lose sight of the strategic intervention on road network – that 'the purpose is to tie the nation closer together, to link Essex to Kent, and the south to the north,' and then it goes on to talk about how road schemes will be considered for inclusion, and if I can quote, 'It is widely accepted that it is not possible to outbuild congestion across the whole of the road network. RIS 2 will address more of the most notorious delays.'

So RIS 2 is a five-year plan, second one, and it's part of a vision to 2050. It can only ever be considered part of the story, and in that context, the role of

National Highways as the strategic highways company is particularly important. So National Highways, originally Highways England, was established as a steward of the strategic road network with a remit to operate, maintain, renew and enhance our motorways, the main A roads, to the benefit of road users, people who live next to or depend on the road network, and the natural built and historic environment.

RIS 2 then goes on to set out how the Lower Thames Crossing is a key component of a broader investment pipeline by stating, 'We expect to investigate linked improvements on the A2 into Kent as part of the pipeline of works for the next RIS,' and these and similar matters are considered through future investment strategies, and in May 2023, National Highways published its root strategy initial overview reports, looking at various regions around the country, and that is the continuation of this process of looking at investment across the regional and the national network, but to take where I'm going with this – in other words, not all areas of congestion are intended to be resolved by singular investment, or even within a single investment period.

The supported schemes are part of a national connectivity strategy, and each investment will have consequences, particularly the larger schemes, but the full scale of change is the subject of ongoing work, engagement, and investment.

RIS 2 sets in place the process for further investment into the future. For example, Tilbury link road is listed as a pipeline project, and that was updated following the written administerial statement for RIS 4, set out in the May route strategy initial overview report on Kent.

There's no suggestion that LTC cannot go ahead without that or other investments. LTC's role is nationally important and transformational. So the DfT has in place mechanisms for dealing with further investment, each on its merits, and allowing for the prioritisation of issues nationally.

As a matter of government policy, any necessary further investment to the road networks of Essex, Kent, and Thurrock and beyond, will be considered through the RIS process when related to the strategic road network, and similar funding regimes when on the local road network, and it's important that that road funding process is objective and fair.

There's going to be competing claims, as we well know, for scarce government resource to tackle bottlenecks and other substandard highways, and

it would be unfair to the case for investment in those projects if local projects were committed to by government on the back of the Lower Thames Crossing, bypassing the existing processes.

It is possible, as a consequence, there's some road investments which may be meritorious, and some may be seen as essential, may fail to receive government funding support. That decision, however, would be an exercise by government of weighing priorities in the full knowledge of government policy. It cannot be regarded as inherently unacceptable.

In summary, it's National Highways' position, in relation to the provision of further interventions to optimise flows across the wider network, either directly in the DCO, or through a commitment to a triggering criteria in the monitoring, but it would be disproportionate for such a project to be held accountable for further investments to address adverse impacts without taking into account the scale of the benefits provided by the project.

If the applicant were required to address the identified areas of adverse impact, the scope of the project would expand beyond that intended by the government in their decision to include the project in the road investment strategy too.

Furthermore, as the existing flows across the network are already constrained, addressing the identified impacts would likely lead to the creation of further impacts, essentially resulting in the applicant be held accountable for each junction that is currently at or near capacity across the region. This has to be considered disproportionate, counter to the intention of both the policy and the government's investment strategy. Specifically drawing attention back to paragraph 2.24 of the national policy statement: 'Individual schemes will be brought forward to tackle specific issues, including those of safety, rather than meet unconstrained traffic growth.'

So in summary, the Lower Thames Crossing really is a transformational project. It will bring change to the strategic road network on a scale that hasn't been seen since the construction of the M25, and in order to bring this scheme forward, it is necessary to look at the benefits the scheme brings as well as the adverse impacts, and our view is that the proportionality that needs to be applied to the consideration of the wider impacts, and the need for mitigation on the

wider network, is informed by the scale of the intervention, the scale of the benefits, as well as the nature of the adverse effects.

MR YOUNG: Just a quick question then from me. Are there any circumstances in this case where if there was a demonstrable impact on the highway network as a result of this scheme going on – your submission is there are no circumstances under which mitigation would be justified, because you'll always fall back on the position of wider benefits.

[Crosstalk]

MR YOUNG: Let me put a scenario to you then. Let's just say the Examining Authority have concerns about Orsett Cock. We prefer Thurrock's or Mr Douglas' assessment of that junction, and we came to the view that we were going to have vehicles queuing back onto the A13 main line, and that's a congestion issue, but it's a safety issue. Two sides of the same coin. In those circumstances, would it be justified to tie a commitment to mitigate at Orsett Cock, or any other location for that matter, if we found that there was going to be a 'severe impact', in the words of the framework?

DR WRIGHT: Tim Wright for the applicant, and I note that that is a question that has been put to us, and we are, of course, preparing a response to that, but I'll come to that here. That would be contingent on the nature of the flows that resulted in that. Obviously, the network is subject to change daily and there are incidents on the network and quite regularly, you will get queueing back onto a main line. We've all seen it in certain scenarios, but what I would say is that we're confident that our localised traffic modelling does demonstrate that that wouldn't happen.

If that were to be the case – we did, I note, identify with the modelling at an earlier stage of the project that that was a risk, in relation to the traffic leaving the Lower Thames Crossing, coming onto Orsett Cock roundabout. So we used the vision modelling at that time to inform a decision to increase the nature of the slip road, produce extra capacity on that, to remove that implication.

So I hope that goes some way to answer the question. We would have a concern in that situation, depending on the specific nature of that, and when we did identify that, we made modifications to the scheme to address that scenario.

MR YOUNG: Anything else?

PARTICIPANT: Let's see. Yes. There was...

1	MR YOUNG: Ms Laver, do you want to ask the applicant a question? Just unmute
2	yourself.
3	MS LAVER: Yeah. Thank you very much, Mr Young. Just hearing all of that, I realised
4	that the scheme has come out of the RIS 2 programme, but I just want to get
5	some clarity on whether the applicant is suggesting that RIS 2 is a policy
6	document that is an important and relevant consideration to the ExA, in terms of
7	whether we should be asking for mitigation or not, because in my view, it doesn't
8	equate to a national policy statement, and I just want to understand - there's a
9	lot of reliance placed upon what's said in RIS 2, but how does the ExA have to
10	deal with RIS 2? I'm just looking for a bit of clarity from the applicant on that,
11	please.
12	DR WRIGHT: Tim Wright for the applicant. So it doesn't equate to the national policy
13	statement, which obviously has a special status under the Planning Act 2008, but
14	we do consider it to be a policy document which is important and relevant, and
15	it is a strategy and plan of the government which needs to be considered in
16	appropriate fashion.
17	MS LAVER: Okay, so just coming back on that point – but you would agree that the
18	national policy statement takes precedent over what's said in RIS 2?
19	DR WRIGHT: Yes, and there is specific reference to the RIS in 4.27, albeit in the context
20	of the full options, the alternative provisions. So it's tied into it, but clearly, the
21	NPS has the statutory precedence.
22	MS LAVER: Thank you. That's all I had to say. Thank you.
23	MR YOUNG: What the NPS doesn't say is that if there's a wider benefit, we don't need
24	to deliver mitigation at a particular location. It doesn't say that, does it?
25	DR WRIGHT: Tim Wright for the applicant. It doesn't use those specific words.
26	Equally, it doesn't say exactly where you do, or what the measure of
27	proportionality would be, except in the areas where I've identified previously.
28	MR SMITH: [Inaudible].
29	MR YOUNG: [Inaudible]. Okay. So who wants to speak on this? Mr Humphries,
30	you're going to deal with it.
31	MR HUMPHRIES: Michael Humphries for Kent County Council, and again, should I
32	follow Mr Tait's lead and take items (i) and (ii) to run on together?
33	MR SMITH: Yes.

MR HUMPHRIES: Yeah. The first point to make is that the applicant's submissions on this and the policy context and why they've done what they've done is itself very revealing. We were told that when looking at wider network impacts, they'd looked at environmental impacts, severance and accessibility, and safety, and they say that that is based on the NPS, and if that is what they have done, they have only considered wider network impacts on those three grounds. That is, as I say, is very interesting.

What the existing designated national network NPS actually says, at paragraph 5.202, is that, 'Development of national networks can have a variety of impacts on surrounding transport infrastructure, including connecting transport networks. Impacts may include economic, social, and environmental effects.' It goes on to talk about exactly the things that National Highways refer to, but in no way in an exclusive sense. At no point are impacts on the highway network in some way excluded from consideration, either in the assessment or indeed in mitigation.

The second point – KCC's written representations have made reference not only to the existing national networks' NPS and indeed, I think, in the preliminary meeting, I actually drew attention to some paragraphs, but in our submissions we have, but also the draft revised NPS, and as I said at that point, the draft revised NPS, paragraph 1.17, makes it clear that it itself may be an important and relevant consideration for the Secretary of State.

Now, what is the consequence of that being potentially important and relevant for the secretary of state, for the secretary of state to be informed about that, in order to decide himself whether it's important and relevant? Therefore, he must be told about it. It must be exempt so that you can report upon it. Now, in the LTC planning statement – because, obviously, perfectly properly of its date, it predates the draft revised NPS, and so that document APP-496, appendix A, does not give National Highways' views on the draft-revised NPS that's currently in admission. We would expect them to deal with that. If they have – there have been such a plethora of documents and some very recently – I apologise, but I couldn't find anything at the moment.

This is important because the national networks' NPS, according to the government's own timetable, ought to be designated before, certainly, a decision is made, and in most likelihood, before the end of the examination. So one

would expect National Highways to actually have to deal with this. When one looks at the draft revised NPS, there are some significant changes, and changes of emphasis, that are directly material to what we're considering at the moment. So, for example, if I look at the quote – yeah, mitigation. So the existing NPS, paragraph 5.215, says 'Mitigation measures for schemes should be proportionate and reasonable, focused on promoting sustainable development.' You heard that quoted back to you just now. But just seeing what the draft revised NPS says. 'For road and rail developments, the applicant's assessment should include an assessment' – sorry, I'm quoting, I think, from the wrong bit on mitigation. I apologise.

'Mitigation measures may relate to design, layout and operation of developments for the scheme – operation of the scheme – or support or funding for the immediate surrounding area.' In other words, an emphasis has moved on from just looking at things that are proportionate. What's introduced for the first time, in several places, and I won't be tedious by going through them all, is the idea of National Highways actually funding mitigation. Why is that important? One of the things that National Highways will say to you about wider mitigation now is, 'Well, look, it's all too late to include a scheme in our red line. You'd have to consult with landowners, you'd have to ES[?], carry out an environmental impact assessment and so on.'

But the draft revised national policy statement seems to have understood and anticipated this, and anticipated that it may be appropriate not for things to be included in the red line boundary – clearly that would be an option – but for National Highways to fund other schemes that are outside its boundary. Clearly, this, as you will appreciate, drives directly into the whole point about monitoring for future effects, and then mitigation. At the moment, the wider network impacts monitoring and mitigation plan, APP 45 – 545, deals with monitoring, but gives no commitment to any form of mitigation. It, incidentally, also identifies various external sources of potential funding, although it's actually out of date; some of these have expired, but that's, for the moment, by the by.

The wider network impacts monitoring and mitigation policy compliance document, APP-353, of course, once again does not deal with the draft revised NPS; they've just simply omitted it because it postdates the application. The transport assessment, however, does recognise that there will be impacts on the

wider network. National Highways have not for one moment and demurred from that. Their point is, 'Well, that's not for us, RIS 1 or RIS 2 don't include these. But as you have quite rightly pointed out, neither does RIS 1 or RIS 2 actually preclude that. It's not precluded at all; it's just not included. When you look at the national networks NPS, it mentions the road investment strategy, but it doesn't in any way say that mitigation is confined to that. So under a later agenda item, Mr Ratcliffe, to my right, can explain to you our concerns about the A229, Blue Bell Hill. I won't elaborate that now.

Importantly, there is no legal or policy exemption for National Highways when it comes to mitigating the effects of its schemes. There is nothing that says, 'Oh, well, National Highways doesn't have to mitigate its schemes like everybody else.' And currently, you cannot be satisfied that such impacts will be mitigated, when National Highways say that it's to depend on external future funding from other programmes.

Now, I emphasise this point, and I suspect all of you, as inspectors, will be familiar with this. National Highways, of course, does require developers of other projects to fund improvements to its network. We can think of many examples of that, where they will turn up at inquiries and say, 'Look, your development has an impact. We want some sort of contribution to the improvement of a junction', for example, or a link, or something else. And because of the potential for objection by National Highways to large schemes, very often they are able to secure that, usually through side agreements. Usually through side agreements.

Now, it cannot, of course, be argued properly by National Highways that the funding is simply not available here. If we look at the funding statement, APP-063, we will see that the project capital costs are between 5.2 billion and 9 billion. That's a range of 3.8 billion. They make it clear that the upper end of that range, 9 billion, is funded by Government. Of course, that doesn't just cover capital costs – there's also land costs – but the majority of that.

It also makes clear that their estimates include various things including risk. In other words, a contingency. We do not know the size of that contingency. It's quite clear, however, that with a range, upper and lower range of £3.8 billion, that the sort of improvements to the local network that would be required to satisfy Kent County Council, Essex and other highway authorities is

clearly within the range of reasonable contemplation. You've been provided with no evidence to suggest that that is not the case.

And therefore, sir, our position very strongly is, in the light of the things we were talking about this morning — uncertainty with impacts — in the light of the need for monitoring, which is accepted, and an acceptance, we say, which is implicit, that there will be some impacts that need to be mitigated, we can see no proper reason why this DCO should not adopt the type of approach — type of approach — that the Silvertown Tunnel DCO — another strategic crossing of the Thames, and also a project that I promoted — no reason why that type of approach should not be adopted here. And we suggest that you would require very, very convincing reasons and justification from National Highways not to adopt such an approach. So under these two agenda items, those are my points, sir.

MR YOUNG: Thank you. Just remind me, what was the funding gap for Bluebell Hill? MR HUMPHRIES: It's about 200 million. I can — we can give you the precise figure, but the funding gap is about 35 million. The total project, I think, is just over 200 million, but the funding gap is 35, I believe.

MR YOUNG: Thurrock.

MR MACKENZIE: George Mackenzie for Thurrock Council. With your permission, sir, I will deal with agenda items 1 and 2, together with Kirsty McMullan. Can I begin by saying that we agree entirely with everything that Mr Humphries has said on behalf of Kent Council. We align ourselves with those submissions, in particular those in relation to the draft revised NPS for National Networks, and as a result, I would repeat what Mr Humphries said about the draft revised NPS, and we'll focus on the position under the extent NPS for National Networks, and address the proposition advanced by the applicant that it's not necessary for an NSIP to address – by way of providing reasonable mitigation – adverse effects and impacts on the local road network, caused by project.

Clearly, we disagree with that proposition in the strongest terms, and indeed don't shy away from the submission which I 'll develop, which is that it's absurd. I think I need to just highlight, at the outset, that the extent NPS for National Networks says this in paragraph 5.202, last sentence – and I begin by drawing attention to this because it is just abundantly clear and leaves no room for argument about what the policy position is. It's this: 'The consideration and

mitigation of transport impacts is an essential part of Government's wider policy objectives for sustainable development.' It doesn't get clearer than that.

And I'll, in a moment, draw attention to other paragraphs in the NPS which set the scene for that statement of policy, but it is necessary to draw attention to it at the outset. But just taking a step back for the moment, LTC is introducing major transport infrastructure into this area and is relying heavily on access to existing local junctions in order to deliver the scheme objectives and to deliver proper functionality. And indeed, it can fairly be said, in particular in relation to the Orsett Cock roundabout, that LTC is appropriating the capacity that was introduced into the local road network by Thurrock Council in order to support and drive its local growth ambitions.

And in that context – or it's in that context that we say it's both counterintuitive and indeed absurd that LTC, which depends on the appropriation of those junctions, and which will have adverse effects, in terms of congestion, on other nodes in the local road network in a way that damages the council's growth ambitions, should not be required to provide any mitigation in respect of those matters. And further by way of context, the applicant recognises that there is a need to provide a range of mitigatory interventions, in respect of a wide range of impacts that LTC would bring about: landscape and visual mitigation; ecological and hydrological mitigation; mitigation on the significance of designated heritage assets and scheduled monuments; noise and mitigation in respect of effects arising during the construction phase, and yet they say that it's not for them to mitigate adverse operational effects on the local road network. And there is a logical gap there, in my submission, that is worth observing at the outset, by way of context.

I will turn now, if I may, to the NPS. Starting with paragraph 4.3, which provides as follows: that – again, I'm just kind of picking out the highlights – 'The Examining Authority and the Secretary of State should take into account' – bullet 2 – 'Any long and cumulative adverse impacts', and then it says this: 'As well as any measures to avoid, reduce or compensate for any adverse impacts.' And the language used here is, 'any adverse impacts', and that's important, and in my submission sets the stage for a policy requirement to mitigate traffic and transport effects, in terms of congestion on the local road network. Paragraph 4.4 goes on to say that, 'Environmental, safety,

socioeconomic benefits, and adverse impacts should be considered at national, regional and local levels.' That too is important.

Paragraph 4.9 articulate the well-known requirements for – the requirements for requirements in relation to a development consent, and in my submission, there is no reason in principle why these tests are incapable of being met, in relation to mitigation interventions in respect of adverse effects on the local road network, and that is a further indication that mitigation for adverse operational effects on a local road network are properly to be regarded as falling within the scope of a DCO. And indeed, there are many DCOs, as Mr Humphries indicated, which make comprehensive provision for mitigation of operational effects on a local road network.

The next section that I draw attention to is paragraph 4.31. 'A good design should meet the principal objectives of the scheme by eliminating, or substantially mitigating, the identified problems, by improving operational conditions and simultaneously minimising adverse impacts.' Again, there's no indication here that adverse impacts on a local road network are excluded from the exhortation in the policy to minimise adverse impacts.

We then turn to the section that I dealt with at the outset, by way of headlining, and it's section 5, which deals with impacts on transport networks, and I've drawn, sir, your attention already to paragraph 5.202, which sits in the context of 5.201. And again, I think I just need to say only this: that one could not find a clearer statement that mitigation of transport impacts is something that is expected to be delivered by applicants under the NPS.

Then, paragraph 206, which concerns 'Road and rail developments likely to have significant environmental impacts, and therefore needs to be subject to environmental impacts assessment', and the policy says this: 'That the applicant's environmental statement should describe those impacts and mitigating commitments.' And why, I ask rhetorically, would that be the case if in fact there was no expectation in the NPPS – in the NPS, that those effects would in fact be mitigated and that those commitments would in fact be secured by way of DCO requirements?

5.211 is next. 'The Examining Authority and the Secretary of State should give due consideration to impacts on local transport networks.' And – forgive me – again, I say in relation to that that it simply couldn't be clearer that

unmitigated impacts are relevant considerations under the policy framework and that the primary expectation, as I've indicated, is that mitigation will be delivered in relation to adverse impacts.

We then come to 5.215 to 5.217. Attention to these paragraphs has already been drawn by others, so I won't labour the points made here, except, I think, just to read out paragraph 5.217, which says this: 'That mitigation measures may relate to the design layout or operation of the scheme.' And again, there's no indication that mitigation measures are excluded or outwith the scope of the policy expectations in the NPS when it comes to adverse effects in terms of the operation of the local road network.

So if I can draw these points together, I'll do so as follows: that the guidance in the NPS is brief, perhaps, but it's enough. And it expressly envisages that reasonable and proportional mitigation in respect of any adverse operational effects on the local road network should be put in place as part of an NSIP, and that if they are not, the corollary is that the project is contrary to policy and further that due consideration should be given to residual effects. Thank you.

MR SMITH: Excuse me, Mr Mackenzie. Rynd Smith, panel lead. There is an interesting issue that flows from those submissions, because one may take it from those that it is your position that any and indeed all adverse effects on a local network that flow from the implementation of a nationally significant infrastructure project development ought to be mitigated. There's possibly an alternate view that sits mainly maybe in between the position that the applicant has advocated and that you have responded to, and indeed Mr Bedford – sorry –

MR HUMPHRIES: Humphries.

MR SMITH: Mr Humphries. You always appear on the same cases and so I mix you both up.

MR HUMPHRIES: I just thought I'd finally had an upgrade.

MR SMITH: Yes, they are deploying a new operating system for you as we speak, Mr Humphries. Yes, a position that might lie between the approach taken by the applicant and the approach taken by yourself, namely that there may be certain instances of adverse effect on local networks that the proponents of the national scheme might say they acknowledge, but they do not propose to mitigate, and they do not propose to mitigate it because its adverse effects rest in the planning

balance in circumstances where the national scale benefits outweigh – that are positive – outweigh the local scale adverse impacts that are negative.

Now that's a thought experiment. I'm not suggesting that we adopt that in any way at this stage, but I thought it would be quite useful to hear you on it, and then, when we return to the applicant, to hear them on it.

MR HUMPHRIES: That line is exactly, in fact, exactly the line that National Highways has taken. For example, in its response to our written representation, so REP2-045, at PDF page 11, they make exactly that point. Ultimately, there is – as in any planned case – there is a planning balance. That is also implicit, or explicit, frankly, in section 104 of the Act. But that doesn't absolve a party from seeking to mitigate those effects that should properly be mitigated.

Now, you are absolutely right. I don't think anyone is suggesting – I don't think Kent County Council is suggesting that in order for this scheme to be consented, every impact, however minor, wherever it is, has to be resolved, but there has to be a balance. What is very noticeable, if I may characterise it in this way, and the approach of National Highways is that they have just not looked at it like that.

They've made it very clear, on this scheme and many others, anything that is outwith precisely what is their scheme is just to be funded by some other mechanism, and that is part of the problem. That is part of the reason why monitoring and mitigation are important, and I quite accept that that mitigation may have to acknowledge that there are some effects that are more important and more – and should be mitigated, and others that, for whatever reason, cannot be. But you can't just absolve yourself of going through that exercise by saying, 'Oh, look, there are colossal economic benefits of this scheme,' because you still have to make reasonable efforts to mitigate.

MR SMITH: So, in following up from that, then, in your proposition, therefore, this must be an express and a rational exercise, in which you tabulate the nature of the impacts, for example, and if you are not going to address them fully because you believe it is justified in policy terms not so to do, and also that there is a net benefit balance arising from the national benefits of the scheme that in some way clears your way, that needs to be clear. But equally that, in returning to your words about not being absolved, that there will be, necessarily, other local network, local system impacts that ought, on their face, be addressed, because

they can be. And there's no harm to the scheme that flows from that and no diminution of net benefit, overall.

MR HUMPHRIES: Using the language of the draft revised NPS, supported and funded. Some assistance given, if it can't be included in the scheme, some assistance given to those highway authorities that have to deal on a day-to-day basis with these problems and the consequences, to assist them to appropriate solutions, for the benefits of the network as a whole. I pause there. So I agree with your summation of the various positions.

MR SMITH: Thank you. Apologies for that interjection.

MR YOUNG: No, just for Mr Humphries, Mr Mackenzie, again, on that issue of proportionality, we heard comments from the applicant about, 'Well, if you get into this, where does it end?' I'm paraphrasing what they said, but, 'If you start to do this junction, that junction, you release the throttle here, that's going to have a knock-on impact', before you know it, we will be doing road improvement all over the Southeast. And indeed, one of the reps, I think it was from Dover, was suggesting that roads in and out of Dover should be improved, on the back of this. Going back to proportionality and how you keep a lid on it

MR HUMPHRIES: I think there are two – thank you, sir. Michael Humphries for Kent County Council again. I think there are two aspects of that. One, I'm not ever aware that that exercise has been gone through. There's no evidence before us that they've looked at various other improvements beyond their own network, and said, 'Well, this one really is quite serious and warrants attention, and this one is not.' Secondly, that exercise is, of course, in the very nature of planning. That is what we do. We look at different things. You look at mitigation with all mitigation, whether its environmental effects, socioeconomic effects, whatever effects. We form, as people within the planning professions, judgements about what effects ought properly to be mitigated.

Now, the difficulty for you is that that exercise has not been gone through, and realistically will not be gone through. But that is why a mechanism of the sort in requirement 7 schedule 2 of the Silvertown Tunnel DCO is something – and I appreciate obviously you've identified it later in your agenda – something that needs to be looked at very carefully as being appropriate, because that, in that particular case, was exactly that: a mechanism that would have allowed

appropriate mitigation to be identified and then funded. Now, we can move onto that discussion at some point, but I think that's where this lands, ultimately.

3 MR YOUNG: Yeah.

MR HUMPHRIES: Okay.

MR YOUNG: But I think we are interested just talk a little bit more about Silvertown shortly. Let me just – we've got plenty of hands up. Just in the room, though. Can I go to Gravesham first? Or do you – is it a quick pint?

MR MACKENZIE: George Mackenzie for Thurrock Council. I don't think it is a quick point. It's just that our response to these agenda items was going to be me followed by Ms McMullan. I know that she has some points that she would rather like to address the panel on, if that would be in order. That's fine. Sorry.

MS MCMULLAN: So I'll be very brief. Kirsty McMullan, on behalf of Thurrock Council. It was just a couple of points, just to add to Mr Humphries' and Mr Mackenzie's submissions. We've all worked and got experience at a number of DCOs, and obviously not just DCOs but developments in general, and the applicant seeks to distance itself from other applicants of DCOs. I've recently been involved in Sizewell C, giving evidence that on behalf of the applicant. We reached a position – there was a lot of modelling. There was a lot of assessment. There was a lot of mitigation.

We had very lengthy discussions with the highways authorities. There was no expectation, on either side, that we were trying to seek to mitigate all adverse impacts. That's not what policy says and that's not what the highways authority there were expecting. But we did mitigate significant adverse impact, and there was a very wide-ranging, in terms of safety; in terms of traffic calming through villages; in terms of investment in the A12 corridor and impact on there and on other wider junctions. There was millions of pounds of investment in mitigation for those identified, known mitigation. And in addition to that – so that was what was flowing out of the assessment – and in addition to that, there was a recognition that there is uncertainty in models, that we cannot predict the future and there are – and models don't predict everything. Parking overspill, traffic calming, those kind of more nuanced things are not picked up in a strategic model. And therefore, there was a further fund, a contingency fund, that is secured within the DCO, that the Transport Review Group can draw down from, and through the monitoring, there is further mitigation. There was a whole

schedule of the types of mitigation and the locations where we might envisage those unforeseen impacts to occur, and money identified and safeguarded for those potential impacts.

So it's – we feel that this isn't – we're not asking for every adverse impact to be mitigated. We are asking for significant impacts to be mitigated. And just a further point in terms of Orsett Cock, it's not a wider impact. This is an integral part of the scheme and it has to be sorted out now, rather than in the future. This is not something – we are very concerned. We won't revisit the concerns that we have raised this morning, but we do wish to separate the thoughts of wider impacts and Orsett Cock. It's an integral part of the scheme that the applicant is relying on.

MR YOUNG: Thank you. That was – point well made. So let's go to Gravesham.

MR BEDFORD: Thank you, sir. Michael Bedford, Gravesham Borough Council. Sir, I don't repeat, but I do endorse the various submissions that have been made to you on the relevant parts of the current National Networks NPS, which make it quite clear that there is not any, as it were, doctrinaire position that would suggest that congestion impacts on the local road network will always fall on the wrong side of the line of what is proportionate or reasonable to mitigate. That, one would say, as a matter of common sense, cannot be right, but it will always – we would suggest inevitably – be a case-specific judgement, which is also in part an answer with respect, sir, to your question of, 'Well, how far does it go?'

Mr Humphries dealt with that. Inevitably it comes back to the particular circumstances and the particular nature of the local impacts and what the consequences of those will be, and again, in reality, there needs to be an assessment of those, and we have got some assessment through the Transport Assessment, and then there needs to be a judgement, an informed judgement, made on that severity, and therefore the extent which it would be proportionate or reasonable to require the project to mitigate. So that's the overarching point.

Then, so far as Gravesham is concerned, we are keenly concerned that the impacts which are caused to the local road network, which might then have consequences for local plan growth, those are classically the type of impacts which do require to be adequately mitigated, because after all, one of the drivers and central objectives of the Lower Thames Crossing is to release economic growth, and you don't achieve that effectively if you stymie local growth in local

plans from then coming forward because of your impacts on the local highway network which you have declined to mitigate. So that's our position on this particular issue.

MR YOUNG: Thank you. London Borough of Havering.

MR DOUGLAS: Thank you, sir. Daniel Douglas, London, Borough of Havering. I won't go over the points that have been made by colleagues at Kent and Thurrock, other than to say that Havering endorses many of those points, particularly in relation to compliance with the NPS, and we've made a number of similar points in our written representation, submitted at deadline 1, REP1-253.

The only point that I will make in relation to that is, and it goes on from a point that Mr Humphries made, that whilst we recognise that, from an NPS point of view, a balance has to be struck between benefits versus adverse impacts, we would suggest that, given paragraphs 4.64 on safety; 5.206 on severance and 5.216 on accessibility, that that balanced between adverse – benefits and adverse impacts assumes that consideration for mitigation has been taken into account in relation to safety, accessibility and severance as far as it reasonably can, so that's the point that I wanted to make on that particular one.

The other matter that I just wanted to mention – and again we've touched upon this in our deadline 3 submission – that's REP3-186 – is around the funding streams that the wider network impacts management and monitoring plan signposts host authorities – host highway authorities – towards, in terms of how funding could become available to mitigate impacts.

As the panel I'm sure is aware, funding opportunities for transport within London is different to outer London, outside of London. There isn't the opportunities to bid for a number of funding pots that government have available, because quite often they're available only to authorities outside of the GLA boundary area. We're very much limited to funding from the Mayor of London, because of the Mayor's devolved powers for transport. And setting aside the fact that we're effectively asking five local highway authorities to compete against each other to bid for funding to mitigate impacts on their network, which we don't agree with – if we end up not being able to secure external funding, any impacts on our network, the Havering taxpayer is going to

have to pay. We don't consider that's right, given that this is a scheme that's being promoted by a third party, yet it will have an impact on our network.

So in terms of the applicant's position around monitoring impacts and then signposting local authorities to how they can be funded, we don't think that's the correct approach, and we'd certainly encourage consideration to changing that approach to at least working with local authorities and trying to reach an agreement around how mitigation can be funded. Thank you.

MR YOUNG: Thank you. TfL.

MR ALIKA: Thank you very much. Firstly I'd align ourselves –

MR YOUNG: Just introduce yourself, please.

MR ALIKA: Sorry, thank you, yes. Shamar Alika, for Transport for London. Align myself with Messrs Humphries, Bedford, Mackenzie and Douglas, on the points they've made, and particularly appreciate the forensic dissection of the National Networks Policy Statement, which I won't repeat.

I think on the mitigation point, I think right as you said at the start, I think it was very clear that policy hooks there. I think we would just add, as well, the reference to local plan policies in the national policy statement, including, which would therefore include London plan policy T4, which again is very clear on the need for mitigation. A lot of the discussion, quite understandably, has of course been about the extent of mitigation of the impacts, but clearly there's a separate, equal question that we've also touched on, which is, what is the extent that we can be certain to the extent of the impacts?

And I think that's a really important one because the scale, as I said earlier, a scheme of this scale, the biggest in the Southeast since the M25, and the inherent uncertainties, even with the most perfect modelling context, to understand what those impacts would be for most opening, it would be a tall order.

You factor in the discussions we've had this morning about the challenges with the robustness of modelling, the uncertainty, and fundamentally your – the decade between when much of the modelling was done and when the scheme will open. And the risk is you're sort of in an exercise which is as much about crystal ball gazing as it is rigorous understanding or analysis of the data. I mean, simply by virtue of that time period to when you are basing your entire

mitigation approach solely on the modelling that was done way back when, I think leaves you in a very uncomfortable position, as the applicant.

And of course the impacts, if they are not addressed, are very considerable and would have to be addressed by local authorities, with no certainty of securing that funding and the – to achieve those otherwise. The point has been made about congestion. I would just add that, conscious that, as said, it is not in the current NPS, it is in the draft NPS, that is a very clear direction of travel from central government and one would expect a government agency to be taking that lead.

But as Mr Young made in the example, there are others, such as the safety, but equally, environmental issues, so with increased congestion becomes increased emissions in terms of carbon, in terms of air quality, in terms of noise, and actually the functioning of the highway network, when we are in our patch in Havering in London, where junctions on the A127, which will cease to function at certain times because of the interactions, because of the tailbacks.

We had a very decent discussion this morning about Orsett Cock, and actually the impact on the ports. And I think this brings very neatly into this question which again was made by the applicant of that benefits versus the impacts. And I think the problem we have here is that they are saying that benefits will outweigh the impacts, without an understanding of knowing what the impact is going to be, and that is a real challenge. We don't have a mechanism to then look at the impacts and look at how they're developing and then say, 'Okay, fine, on balance this is...' They're sort of saying, 'No, we don't need to do that', and I don't think that's right.

And again, the Orsett Cock example is a very good one, because it's eroding the benefit – the economic benefits – of the scheme, if it means that the ports of Tilbury and other economic hubs in this area are not able to function. So it's really important that we do have – we have that understanding so we can make that planning balance. I think that is absolutely critical. Also mentioning the points of the statutory duty, of course, that National Highways has. And of course that's fine to make its own roads functional, but a lot of the roads we are talking about are roads – whether it's the Transport for London road network, whether it's local authority roads in Havering and Essex and Thurrock, and they

are not part of the remit of National Highways, so those won't – issues won't be addressed through their statutory duty and their processes.

So it places a real burden on us to deal with this and find resources, and there are — which we have no — which we have a significant challenge getting. And if I could finish, and again the point has been made about Silvertown. We are agnostic to the exact mechanism but we do appreciate that the applicant is keen not to be on the hook for a blank cheque. This has a huge scope. I guess the point being made about Silvertown is you have a mechanism which is specifically designed to not put TfL on the hook for that, but at the same time it creates a really useful framework for engaging the stakeholders to have a mitigation plan — a monitoring plan which feeds into mitigation.

So I know we are going to talk about that in detail in the subsequent part, but I think, in principle, that gives you a way of addressing that and avoiding the concern that somehow you are going to be funding every scheme in the Southeast for the next 10 years or something.

MR YOUNG: Were you involved in the Silvertown –

MR ALIKA: We've not been directly involved, but had a lot of conversations with our colleagues about it, so we can share more about that.

MR YOUNG: Just on the issue of how it evolved, whether it was always part of this scheme as it was submitted, or whether it was something that came through the examination process or from the Examining Authority.

MR ALIKA: It came through – well, it came as a result of the engagement with the stakeholders. We had, probably not dissimilar to this, it's similar– it's a road crossing with impacts over a wide area, and some stakeholders who were in favour but concerned about the impact; some who were outwardly hostile, and it became part of the approach which TfL realised would be required if we were to provide that reassurance.

Because again, it would be – even with the modelling that we had done – it would be impossible to fully demonstrate that the impacts would be completely addressed. In that case, air quality was a particular challenge. But that level of uncertainty, a scheme of that scale – yeah, have you anything to add?

PARTICIPANT: I was actually going to suggest I think Mr Humphries – but overall, yes, my understanding is that yes, it was developed through the examination

process, but put forward, I believe, by Transport for London as a means to satisfy the stakeholders that reasonable efforts were being made to address the concerns they had on the need for mitigation.

MR HUMPHRIES: And maybe I can just add to that. It was partly that recognition that without that mechanism, you are placing all your eggs in the modelling basket, a modelling done pre-DCO, and that has to be a damn good basket if it's going to carry that sort of load.

MR SMITH: Okay, thank you, that's useful. Still got quite a few hands up. Let's see.

Can I go to Mr – I think I'll go in the order that the hands went up, so Mr – let me just say – no, let me go to Ms Basford. I think you're with London borough. Yes.

MS BASFORD: I am, yes. Lynn Basford, on behalf of London Borough of Havering. Just really on the last point, that I was directly involved with the Silvertown Tunnel scheme. I represented Royal Borough of Greenwich and London Borough of Tower Hamlets, and it became apparent through the scheme development, prior to examination, that the provision of mitigation, from TfL's perspective, was to be largely achieved through the management of the charging regime and this was to be examined, post-operations through re-running the model etc.

And on behalf of the local authorities, we worked to convince TfL that the monitoring and mitigation strategy was put forward, and I have to say that TfL did a very robust job in terms of drafting the monitoring strategy and relating that back to the charging regime, which I appreciate is not relevant for this examination here, but you can see the interconnectivity between project and the requirement to mitigation.

The mitigation strategy set out a clear set of assumptions that local mitigation would be judged against, and this included external factors that may not be attributed to the provision of Silvertown Tunnel etc. And I suppose this is why, from Havering's perspective, we are very keen to see a type of Silvertown Tunnel monitoring and mitigation strategy come forward from the applicant, but also an important part of the process was the establishment of a Silvertown Tunnel Implementation Group.

Now, this went above and beyond the environmental monitoring etc; this was particularly with regards to traffic and transportation, and this was the local

authorities, and London Airport etc, and a zone of influence was set around the Silvertown Tunnel, from which the monitoring modelling was undertaken, but also the membership of Silvertown Tunnel Implementation Group was also undertaken. That group is still going, and I think, as Havering has indicated in its representation, that something – a group of a similar nature that is not a traffic forum, because this is talking about operation, not construction – is brought forward. Thank you very much.

MR YOUNG: Thank you. Okay. Alison Dablin.

MS DABLIN: Good afternoon. Alison Dablin, for the Port of Tilbury. I'm going to keep this very brief. Port of Tilbury fully support and agree with the submissions of Mr Humphries for Kent and Mr Mackenzie for Thurrock, and we would also emphasise the importance of having regard to the Ports NPS. To the question of the proportionality, I think it is also important to note that where local impacts also affect the ports, these should be considered to be national impacts, given the role of the port in the national economy. Thank you.

MR YOUNG: I think that's a point well put and I think it's on the back of that that we have wanted to focus a lot of the discussion today on Orsett Cock, because we do, we acknowledge the special importance attached to ports in the NPS. Right, we'll next go to Councillor Wright.

MS WRIGHT: Good afternoon. Hello. Thank you for inviting me to speak. So the point I would like to make on the wider network impact – having listened to the barristers speaking, I think they put it somewhat clearly, but I think – I'm from Higham parish council, so south of the river. I think from our point of view, the issue is that the impact on Blue Bell Hill is directly – or the redirection of traffic from Dover up the 229 along the M2 will occur directly because of the LTC. So it is part of the LTC route, and then – so it's fundamentally part of the project.

I understand what the applicant is saying, that any impact, say, on the 228 or the 226 or the 227 may not – not the 226; the 249 and the 227 – are just congestion issues that might be formed, but if the work on the Blue Bell Hill is not undertaken, the impact on the 228 and the 227 in particular will be absolutely catastrophic, and the traffic is likely, then, to also carry on up the M20 to the M25, and then – and potentially come back down the A2 from the – eastbound, and that would just not be achieving the project aims, which is to alleviate traffic at Junction 2 of the A2 and the M25. So I think there's a balance. The impact

on the 228 – on the Blue Bell Hill, 228 – no, 229 – is only happening because of LTC being implemented, and therefore it really needs to be considered a fundamental part of the LTC project. Without it, the LTC project doesn't really work. But I accept that other elements shouldn't – don't need to be done. So that's my point number one.

My apologies, I wasn't able to attend this morning, but the other issue that Higham Council have is – and obviously I haven't listened back to the recording yet from this morning – is, does the traffic modelling really take account of traffic flows on minor – on smaller roads? So the A226 comes straight along the top of Higham parish and becomes a very narrow road at the Forge Lane – Gads Hill junction, and we are very concerned about the traffic levels that are going to be coming through there, particularly during construction, but the operational phase during any incidents – that lane on the 226 gets blocked up anyway currently, as does the 289, so do the traffic flows really represent the impact on what is an A road, but actually a very underutilised A road currently? It doesn't go anywhere, as such, other than from Medway to Gravesend, so there is no industrial traffic particularly going along there. So that's my second point.

And the third point is, could we have some understanding of how the construction traffic that is proposed along the 226 has been calculated? I've seen two different documents – one that says 125 lorries a day, and another says 50 lorries a day – and that, in conversation in a meeting with National Highways, they've indicated is to bring all construction materials to the site. Now, 50 lorries is quite a lot, but it's not a lot a lot. So I'm just wary that I don't have any calculations behind that to model house that level of construction traffic has been calculated. So it would be really helpful to have that. Sir, thank you.

MR YOUNG: Yeah. Okay. Maybe the applicant can deal with that in writing. Thank you, councillor. Just a quick pint on the distinction – we did – I think as a panel, we realised that Orsett Cock and Blue Bell Hill were two particular points of interest, because they were critical parts of the network, and if it goes wrong there, there would be pretty severe implications. I think the reason we wanted to deal with the Orsett Cock this morning was because there was a dispute about the impact there, a big dispute about modelling.

As I understand the submissions on Blue Bell Hill, there isn't the same level of disagreement. I think the Transport Assessment sets out what the impact

is. I think from Kent's Local Impact Report takes those figures and has got its own transport model. I don't think there's a great deal between the applicant and Kent on the issue of Blue Bell Hill. The issue there was just more, how does that impact get mitigated? That's why I've separated it out on the agenda. I don't know, when we come back from the break, whether we need to say any more about Blue Bell Hill. Okay, well, we'll give you the opportunity to do that. It is obviously wrapped up in the whole debate about mitigation, as well.

MS WRIGHT: Sorry, just a question on that before – sorry, you may be looking in the room, I couldn't quite tell. But does that mean that Blue Bell Hill mitigation is going to happen? And if it is, is it considered in the benefit ratios for the project? It is only 200 million, which in the context of 8 billion isn't a lot, but the saving on the impact of the Kent Southeast, Medway areas would be significant, and I'd go to Gravesham's issue that if that isn't mitigated, the impact on local growth would be significant. So is it confirmed that they will do Blue Bell Hill? MR YOUNG: We will come – I won't say any more than that because we are going to have a break and we'll discuss that in a bit more detail. Right, is it just Mr Elliot left? Mr Elliot. Anybody else? No. Mr Elliot.

MR ELLIOT: Yes, it's John Elliot, a transport planner of many years. First of all, I should apologise to the panel, not being able to refer to all the documents. I was involved with NNPS[?] 1 and the policy statement but not since. I have been quite ill. I was in hospital most of July and my brain hasn't been fully functional. Well, it wasn't functional much in August, but I'm trying to get back into it now. So that's apologies to you, examiners. I've got four points, I'm afraid. I'll try and be as quick as possible.

One is relating to the mitigation and the extent of that mitigation. The extra capacity of the Lower Thames Crossing could very quickly add 5000 vehicles – the maximum probably, but the standard says 6000 vehicles – to the network in each direction. We know from past schemes of this sort in the London area that the growth – the all-day growth – happens within five years and peak traffic happens within two years, and Thames crossings can happen within under a year, the massive growth in traffic. So we are looking for that sort of volume of traffic.

Now, the obvious route if you are going to Dover, for a car coming off this road is not Blue Bell Hill but to carry along on the A2. The A2 was

programmed to be a smart motorway, as I understand. Smart motorways are now – new smart motorways are now out, but that road is quite full now and I believe it's outside the immediate study area. There's 11 miles of that road, so there's a big strategic mitigation problem there.

All trips, or almost all trips, use the local road network to reach the final destination. 98%, or 97.6%, of network, total network in the country is local roads. Vehicle miles, I accept that about 30% is on the strategic road network, but all trips need to do it, and local roads are very seriously congested. So that's to be solved, and I fully agree with KCC that it doesn't just include roads like Blue Bell Hill or the highways – National Highways road, of the M2.

The second point is economic return. I have said on that, but they are saying, I think it's 1.22, the last time I've read a figure. That is a pretty low rate of return. You've only got to lose 20% and you are in a negative field. It's based on an awful lot of assumptions. I know it was – I had intended to submit this as part of my original bit, but my son had to submit it because I was in no fit state to do it.

Deadline 3, I put quite a bit in, which was a document supported by the Chartered Institution of Highways and Transport; local government technical advisors' group, which I am part of, but my objection is not from them; it's as an individual involved in these things. RTPI – Local Government Association was consulted about it, but the actual detailed modelling is not something they do regularly. But those points on economic assumptions and how it's done are highly relevant. We are having – we've had one meeting with the DfT on that and we've got another programmed for 4 November for that group of people.

Phil Goodwin mentioned the negative effects to take off from the transport, socioeconomic peak hour travel time savings. Interestingly, the economic – North Kent is not an area of boom, and perhaps it's one of the areas that should be levelling up. Now, with the extra – potential extra traffic on the A2, it means that people would not be able to visit those areas so much. So perhaps there's quite a big negative economic effect and a real negative economic effect, just of that, not a time-saving economic effect. So those are the main two points.

Casualties – when people come off fast roads, casualties often occur on local roads. In my experience, in Westminster, where the ramps came off

Westway, we had an absolute crop of accidents in Westbourne Park area. In France they have reduced speeds as you go down the slip road, from 130 to 100 before, and then 80 and then 60, but they are rather more efficient at speed control than we are now.

The final point – linking the country together. I obviously live in Kent. I travel west or north quite regularly, and this rule, I think, everybody around here accepts, that if you're traveling more than 90 degrees of the M25, you will have 40-minute delay extra, one in three times. It isn't all at Dartford. Dartford might be slow approaching, but most of the time it moves. It does get congested, but you'll always find a few other places where it's congested. So one of the things we say, it separates us in Kent from the rest of the country. It doesn't link us to it, the M25, because of its inherent congestion. High-speed train does.

Thank you very much. Sorry about the links of that, but I think those are quite important points. I know Blue Bell Hill is mentioned further and is another point where I would be bringing up the M2 issue, which hasn't been included, the extra congestion on that, which would be a negative effect on the overall economic benefit, but outside the study area. Thank you.

MR YOUNG: Thank you, Mr Elliot. It would just help me if you could just keep focussed on the agenda in future. We've really diverged from some of those comments, when it would just be helpful for us just to stick to the points that the applicant had raised, that we were discussing.

- 22 MR ELLIOT: Rather I'm supporting the other comments that –
- 23 MR YOUNG: Duly noted.

- 24 MR ELLIOT: Yep. Thank you.
- 25 MR YOUNG: Right, Mr Shadarevian sorry. It's just the camera's obstructing.
- 26 MR SHADAREVIAN: Can you hear me now?
- 27 MR YOUNG: Yes, sir.
- 28 MR SHADAREVIAN: Good.
- 29 MR SMITH: Perfect.
- MR SHADAREVIAN: I'm very lucky because my learned friends to the left have done
 all the hard work, so I'm going to just simply adopt what they've had to say, so
 far as consistent with my case. That's a real cheat's way of doing it. I just want
 to add a couple of small points really to what's been said, and it's about delivery,
 not simply the principle of mitigation and who pays, but delivery and whether

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or not the mechanisms which are being promoted here are appropriate. Let's just take Orsett Cock by way of example. We know from the VISSIM modelling that there is a real prospect – I put it no more highly than that at the moment. You know what our case is -a real prospect of harm occurring, that there would be an impact on the operation of Orsett Cock, and we say by extension, also Manor Way. The VISSIM model indicates that that is the case, so this is not an issue that can be, as it were, kicked into the long grass and reliance placed on the mitigation measures that are being proposed. They are too nebulous as a means of securing the necessary mitigation, should that harm be found, and it also be found on the planning balance that that harm ought to be mitigated in the public interest. So that's the first point.

The second point is the timing of delivery and who delivers and what mechanisms will be needed in order to deliver it, and none of these matters are addressed. With something as important and as critical as these two key components in the local highway network north of the Thames, we need to be in a position – or I should say, the Secretary of State needs to be in a position to know that the harm, if it is found to be unacceptable, can be mitigated, and that requires either a mechanism within the instrument itself which allows those mitigation measures to come through in a timely way, or a change to the scheme itself, which I know would be unacceptable. But there are means of dealing with it. It's not just a question of funding. It's a question of how and when it needs to be delivered. So those are the only points I'll make at this stage.

MR YOUNG: Thank you. Does anybody want to say anything else about the Silvertown Tunnel issue before we break, because I'm going to come back afterwards and I'm going to let the applicant respond? It was specifically asked about why we couldn't take that approach here, but just want to make sure nobody else wanted to say anything on that.

MR BEDFORD: Sir.

MR YOUNG: Yes.

MR BEDFORD: Michael Bedford, Gravesham Borough Council. I don't want to say anything elaborate on it because you've been given that material by London Borough of Havering and a number of parties have spoken to it. I'll just say that from a Gravesham perspective, we would endorse the more, as it were, iterative approach that's set out in their Silvertown Tunnel requirements.

1 MR YOUNG: Indeed. Okay, fine. Thank you. Right. Well, it's 3.50. Shall we come 2 back then at 4.05? Thank you, everybody. 3 4 (Meeting adjourned) 5 6 MR YOUNG: Okay. It's 4.05. The hearing is resumed. 7 MR HUMPHRIES: Sir, before we move to National Highways, can I just clarify 8 something with you? Apologies. It's Michael Humphries, for Kent County 9 Council. I think in my submissions I had assumed we were coming back to 10 touch on Silvertown Tunnel. I sort of got the impression, as did others around 11 the room, that you felt we'd done with Silvertown Tunnel. 12 MR YOUNG: I was just going to say something about it. I'll say it now, because I spoke 13 with Mr Smith during that adjournment and realised perhaps that I had curtailed 14 the time for people who were going to want to say a bit more about that. There 15 is going to be a sufficient room in the agenda for issue-specific hearing 7 to discuss this. So if parties want to make representations on the appropriateness 16 17 or otherwise of a Silvertown Tunnel approach in this case, then that perhaps is 18 where we're going to pick this up again. 19 MR SMITH: If I can maybe help here, what we very deliberately opted to do was to 20 place, on Monday morning, an issue-specific hearing agenda for issue-specific 21 hearing 7 for the DCO that is an empty framework, because essentially, what it 22 is there for is to do two jobs. One – monitoring around the various changes in 23 train to the DCO that the applicant is already working on and/or wish to inform 24 us about. But secondly, and by far the most important function, is to provide a destination for DCO form and drafting issues arising from these hearings, so that 25 we don't end up bogging ourselves down in essentially statutory drafting. We 26 27 can talk strategy here and then we can take away to ISH-7 all of the toing and 28 froing around specific approaches to drafting, whether a provision is merited, 29 not merited for reasons, what the form of drafting might be, how it might be 30 preferred, whether there are precedents, etc. We can deal with all of that on 31 Monday. 32 MR HUMPHRIES: Sir, obviously I can only speak for my client. I'm happy with that.

I will be here on Monday and you raised there, sir, the other agenda item, (iii),

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1 'Hear precedents for and against the approach,' so you would kick that over to 2 Monday as well? 3 MR SMITH: Yes. 4 MR HUMPHRIES: As far as I'm concerned, that's fine, but I know that several people 5 had raised this with me, so I'll stop now. MR SMITH: Yeah. Well, given that we've got people intervening on the point, and so 6 7 that we can plan well for Monday, why don't we hear others on it? 8 MR RHEINBERG: Thank you, sir. Matthew Rheinberg, Transport for London. I 9 thought the only other point we felt might be useful to me today is to give some 10 experience of how the Silvertown Tunnel implementation group is currently 11 working, which we felt might be useful to that panel. 12 MR SMITH: It would be very useful. It would equally be capable of being drawn into 13 that Monday agenda, to be frank, and if that enables us to complete the rest of 14 this agenda, that is not DCO drafting, then my distinct preference would be to 15 have Mr Young finish his substantive matters today and then we can deal on 16 Monday with all things DCO, including comparative practice with made[?] 17 DCOs, which brings in, of course, Silvertown. 18 MR RHEINBERG: Thank you, sir. 19 MR YOUNG: I'm grateful. [Inaudible] still going to go back to the applicant, and still 20 item number 5. Also, I just want to highlight, we've got an evening session. 21 The panel are going to want a little bit of downtime, so I really do not want to 22 go beyond 5.30 at all tonight. So that's helpful. Right, in that case, I'll go back 23 to the applicant. 24 MR TAIT: Thank you, sir. Just six points, if I may, in response. First of all, when I was 25 introducing the NPS policy, the purpose of that was to draw a distinction between the specific requirements on safety and environmental assessment, 26 27 accessibility and severance, in contrast to what it doesn't say about wider operational impacts. But it shouldn't be taken from that it was being 28 29 suggested by me that there hasn't been very extensive consideration of the wider 30 operational impacts, both in the [inaudible] in the TA, and also appendix F of 31 the TA, which is at 535, in a policy context, specifically looks at operational 32 impacts on the wider network in that policy context and reaches a conclusion about the overall acceptability of that. So that's the first point, and I think related 33

to that first point is that at 545, which is the plan itself – identifies a number of

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monitoring locations -32 – which have been informed by the assessments of the wider transport effects. So that makes that clear. So it's quite clear that this has been understood and reported. The issue is the process for addressing that, if it is required to be addressed.

The second point is that the NPPF, which is an important and relevant consideration, does have some text in it which relates to how one approaches impacts on the road network in the context of, one, safety, and secondly, the cumulative impacts on the road network. So that's set out in APP-538, which is Appendix I of the TA, and it looks at paragraph 112 of the NPPF, and draws a conclusion about it in the context of that test as to whether the cumulative impacts are acceptable, and reaches the conclusion that they are.

The third point relates to the draft NPS, which was referred to, and I appreciate there's a question about that, but even if that is adopted in its final form, it won't displace the application of the NPS in relation to this project and it refers to acceptable levels as the test, and so our answer will, and you will see more fully set out — is that that doesn't reflect a substantive change from that which is currently embodied in policy.

Fourthly, Mr Mackenzie referred to paragraph 431 of the NPS, which was on the agenda yesterday, relating to design, and the decision of the Secretary of State in February this year on the A47 – the Wansford to Sutton DCO – makes it clear one shouldn't elide or conflate that with the tests in section five, i.e. the wider impacts ought to be considered under section 5. That's where the policy focus is.

Fifthly, that the scale of the project must mean that any impact so far as they arise, nine years hence, need to be considered on a national basis rather than on an individual project basis, and in relation to that, I'm just going to ask Mr Wright to comment on the materiality of this being a highway scheme, as opposed to some of the other schemes that have been referred to.

DR WRIGHT: So, as we set out in the transport assessment, appendix F, it's important to recognise that, as a highway scheme, the nature of our scheme is different to other schemes that have been referenced today, for example, Sizewell. It leads to the movement and changes of journeys across the network, people making different decisions about where to go and which journey to take, rather than creating a centralised point-of-trip[?] generator, which people would travel to

and from, and so that then links, I think, to the NPPF statement about cumulative impacts. We deliver substantial benefits to the highways network, but it's important to consider that this is a highway scheme as a differential to another type of scheme.

MR TAIT: So sixthly, we'll come back to precedents on Monday, and also in relation to Silvertown, but just two points at a high level in relation to Silvertown, as that's been discussed. Again, I'd like to ask Dr Wright to contribute, please.

DR WRIGHT: Tim Wright, for the applicant. At a high level, two points about Silvertown. One we've heard earlier about the specific nature of funding for Transport for London, that they are a different organisation operating under devolved powers, in comparison to National Highways, who work under the DfT, and so that different funding arrangement provides for a different perspective to be taken, and secondly, in terms of the engagement. Now, National Highways – sorry. There was a reference to the STIG group and how that was a useful mechanism, allowing for engagement with concerned stakeholders in the review of the performance and the ongoing optimisation of the road network.

National Highways' licence obliges National Highways to work with local highways authorities and as such, there are existing engagement groups, along with local highways authorities, and also in industry bodies, to look at the performance of the road network, and I referred earlier to the route strategies in development, the early reports of which were published in May '23. If you were to look through those, you'll see many references to National Highways working with local highways authorities and working with different groups to understand the performance and the challenges that the road network provides, looking at the intersections between the strategic growth network and the local highways network, and how they need to work together to bring forward. So I would propose that those groups are already in existence and delivered as part of the National Highways' licence obligations. Thank you, sir. That's our response.

MR YOUNG: Okay. Thank you. Right, before we move on to that final agenda item, I did promise Kent that I would come back to them on Blue Bell Hill. They put it in the agenda and we've only skipped over it very briefly. So, Kent, do you want to make some submissions on that now?

MR HUMPHRIES: Yes, sir, and you'll be delighted to hear, it won't be me. It'll be Mr Ratcliffe. So, Mr Ratcliffe, thank you very much.

MR RATCLIFFE: Thank you. Joseph Ratcliffe, for Kent County Council. I'm not quite sure what to start, really. I'll only take a few moments. I won't be long. I'll be brief, but the overall context of this whole scheme – I completely agree with what Dr Wright said earlier. This is a transformational project. It's one that Kent County Council supports, this new strategic link all the way from the Channel portals, all the way to the Midlands and the North. We want that new transformational scheme. We recognise the relief that gives to the road network to the west of the new crossing. It relieves the A2. It obviously provides relief for Dartford, which is its primary objective.

However, because it is a transformational scheme, it redistributes the traffic, as Professor Bowkett said earlier today. People's route choices are changed and it loads traffic onto the network, which is not designed to cope with it, and this has been recognised right from the very beginning. Prior to National Highways', then called Highways England, inception in, I think, 2015, the 2013 Department for Transport consultation on options for a new Lower Thames Crossing recognised the link between the M20 and the A2/M2 corridor, up to the crossing – the option C variant – which was an improvement to Blue Bell Hill, the A229, which, let's not forget, although a local road, it's junctions, M2 junction three and M20 junction six are key parts of the strategic road network, serving not just that link between two motorway corridors, but also serving the two biggest conurbations in Kent of Maidstone and Medway.

That option C there, it was ruled out at a very early stage. I believe, on the basis of the high cost of the scheme and the environmental impact. Although, to my knowledge, I'm not sure how much options appraisal was looked at to rule that out on cost an environmental impact and the scheme progressed without it. We've always been told, those sorts of wider network impacts will be addressed through the risk program road investment strategy, yet nothing is put forward for M2 junction three or M20 junction six in RIS. Kent County Council, recognising that this is not just a problem for Lower Thames Crossing to enable it to function properly, but also because, and we admit, obviously it's already a congested route. There's a lot of local planned growth in Maidstone and Medway to deal with, plus the rest of Kent – put forward its large local major

scheme bid, which was parallel with the major road network program that the Government launched in around, I think, 2019. These schemes were meant to be delivered between 2020 to 2025. Here we are in 2023, having submitted what's called a strategic outline business case to the DfT in December, almost three years ago, waiting for a decision on whether it even proceeds to the next stage of project development – outline business case.

It's only at the end of that stage that we'll have an investment decision from DfT as to whether the scheme proceeds. So as we sit here this evening, we have to assume there is no improvement to Blue Bell Hill, other than what – it will be as it is today when the scheme opens. Even if the DfT makes that decision and funds it, we still have to go through planning – our own local planning system. There's no guarantee we'll get permission to deliver the scheme and it's only for 85% of the project's cost, which at £200 million leave 15% for the local authority to find, which at the current time is quite frankly impossible. Local development cannot meet those contributions. We have put – and it's in our local impact report. It's in our written representation, and as my colleague Mr Humphries described earlier, in the context of the overall scheme cost of several billion pounds, a contribution from this project towards what is essential for the project.

Now, as part of this toing and froing of business case with the Department for Transport, we were asked to develop a lower-cost scheme, which only dealt with local growth, assuming, I presume, that LTC is never delivered. That's £130 million less expensive than the current scheme. So you could argue that that is the cost of the LTC functioning properly at this location. I could go on to quote all the figures, etc, of the extra traffic. I won't, other than to say this is not just a congestion issue. There are tailbacks already and there will be increased tailbacks on the M2 main line and the M20 main line on approaches to those junctions. That becomes a safety issue with people changing lanes, stationary traffic in live lanes, etc, so it does need to be mitigated. Otherwise, National Highways will have to deal with this problem, and it could be – what I don't understand, going back to the acknowledgement of this as an issue – National Highways has proposed to the DfT for RIS 3, so 2025 up to 2030, to explore options to trunk the A229. Now, that means it becomes part of the strategic road network. It's no longer a local road if that

happens, and it will become National Highways' issue, the entire link between the M2 and the M20.

Now, that is not guaranteed and it will be for the Department of Transport to make a decision when they approve the next RIS, which I believe will be probably March '25, but probably around the same time as a decision on this project is made as to whether it's going ahead. So clearly, there's a recognition from all concerned that this is an important part of the project, right from the beginning, right up to now, considering its trunking and everything else. So, I mean, I will stop there. There's issues in terms of HGVs, movements, etc, and the need obviously to balance the delivery of the two projects in terms of construction and the impact of that will have on the route. But I just wanted to clarify, because I think a question was raised about, 'Is Blue Bell Hill going ahead?' The answer simply at this time is 'no', because we haven't got a funding decision from DfT and there's a huge funding gap, so I just wanted to clarify that. I hope that's clear. If there are any more questions about facts and figures of Blue Bell Hill, my colleague, Victoria Soames, has been patiently awaiting here all day and is available to answer them. Anything else, Michael, to add to that or -

- MR HUMPHRIES: No, I'm finished. Thank you.
- 20 MR RATCLIFFE: Thank you very much.

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- 21 MR YOUNG: Thank you. Now want to respond to that in writing or –
- 22 MR TAIT: We can do it in writing, but very briefly, Dr Wright.
 - DR WRIGHT: Tim Wright, for the applicant. I will be brief. A couple of things I wanted to clarify there. C variant was looked at early in the scheme development and to give the reason that it was not taken forward was because it was limited in how much it increased the relief at Dartford, and we were focussed on delivering scheme objections, the Blue Bell Hill delivered limited relief and therefore that option was not carried forward. In terms of the sorry. I've lost my train of thought a moment.
 - MR TAIT: That's a good indication. We'll come back in writing. It couldn't have been that important.
- 32 DR WRIGHT: Apologies, sir.
- MR SMITH: There's a lot of stuff to keep. We all need to be clear that there is a lot of detail here and sometimes we need a little space to find it.

MR YOUNG: Right. I think we'll move on then to the final agenda item, construction matters. I've got a small number of issues really that I want to just discuss. I don't know how many people are planning to speak on this. What I don't want to do is to go around a table and everybody to say, 'This location – 10 months closure here is unacceptable.' We could spend a whole day doing that. There's going to be that many road closures, contraflows, traffic lights. I think the only time that's going to be helpful, and I'm reminded of – I think it was Havering yesterday were lamenting the closure of Ockendon Road for 10 months. That's perfectly understandable. I understand the highway authority is going to have concerns about any length of closure, but unless you can put forward an alternative programme that brings that down, that's something that the applicant can comment on – the Examining Authority can see – I'm not really sure how helpful that is to us as a panel.

Most of the other sessions we've had, I've invited the applicant to set out its approach. I don't think really, we perhaps should depart from that approach here. Let me just set this out and get some preliminary comments, and that we – the outline traffic management plan for construction, commits a project to a traffic manager and traffic management forum with attendees, consultees, contributors, as listed, and the traffic management forum specifically is intended to resolve issues through consultation with the relevant authorities. The traffic management plan will be developed post-consent, in line with controlled commitments. That's all set out in the outline document. As part of the preparation of a traffic management plan, temporary traffic management measures will be consulted upon with the relevant authorities.

So a lot of these issues will be resolved post-consent. Research I've done and having read some other made DCOs for road schemes, that approach in general term seems to be fairly standard commonplace and has been for road schemes for quite a number of years. Let me just start by asking the applicant then, are they aware that, as a general approach, that led to any significant problems in practice?

MS TAFUR: Sir, may I just introduce myself for the first time? My name is Isabella Tafur, and I'm acting for the applicant on this topic and also, I think you've already been introduced to Mr Graham Stevenson, who's on my far left, who's the transport planning lead, and next to me now is Mr Mohammed Halli,

who's the construction roads lead. So they will be able to assist, sir, but certainly National Highways' perspective on this is that this is a very well-trod path. It hasn't resulted in any problems or difficulties at implementation stage. They have, as Dr Wright already touched upon earlier, a well-established mechanism for engagement with local highway authorities and local authorities and stakeholders more generally, and it's worked well in practice and they anticipate the same in this case.

MR YOUNG: Thank you. Anybody want to take a different – anybody have a difference of opinion on that? Just the general approach that the applicant's taking here – MR SMITH: Mr Humphries.

MR HUMPHRIES: Sir, Michael Humphries, for Kent County Council. I think our position is, in a sense, to send into slightly more detail on some of your agenda items. So agenda item 5(a)(i) — adverse impacts arising from specific construction routes or road closures. I think you will have noted that our position there in the local impact report was what we identified as a short heading of transport impact J, and that's in the PDF, paragraphs 8.61-65, and then in the written reps, transport impact J again was paragraph 4.44-46, and essentially, our point here was that the expeditious delivery of the project will mean construction routes, many of which will pass over our roads — that is going to impose a considerable burden on just mundane but, I'm afraid, very important things like wear and tear on the roads.

If any of those road services were to fail because of the additional impact of large numbers of HGVs, that would have potentially very serious effects on the construction phase and the delivery of the Lower Thames Crossing. What we've asked for, and you can see we've articulated it in the written reps, is that there should be, agreed with National Highways and ourselves, some expenditure for pre-emptive strengthening and improvement on those roads, so that they can withstand the extra wear and tear from large numbers of HGVs and perform the function, because clearly, if they can't – those roads are closed for periods or whatever – then all of the traffic modelling for the construction impacts is out, because that traffic will have to go somewhere else or the project will be delayed.

Now, we believe that this is not unreasonable as an approach in order to deliver the Lower Thames Crossing. We'd be very happy to deal with it in some

form of agreement with National Highways, but it is an important issue to us, and if it can't be dealt with by some form of agreement, then something will have to be drafted on the face of the DCO. Now, I don't know whether Mr Ratcliffe wants to add to that, but in a nutshell, sir, that's our point and its traffic impact J, both in the local impact report and the written representation.

MR YOUNG: The powers under the Highways Act, for the highways authority to recover the expenses – wear and tear of the highway.

MR HUMPHRIES: There are, but not from National Highways.

MR YOUNG: Right.

MR HUMPHRIES: So far as I'm aware, we can't turn around to National Highways and say, 'Well, look. Actually this is your traffic that is causing this. We want you to pay for it.' I haven't had to look at that recently, but we can check that. But that's my understanding.

MR YOUNG: We'll both check. Thurrock.

MR MACKENZIE: George Mackenzie, for Thurrock Council. I'm going to ask, if I may, Adrian Neve to deal with this agenda item for the council.

MR NEVE: Sir, thank you very much. Adrian Neve, on behalf of Thurrock Council, and thank you for my first appearance here. I will try and be brief. Obviously, a lot of what we have on this point is already in our evidence base and local impact report 15.6 specifically, so that will go into the detail about our views on the construction period. But what we mustn't forget is this is a period of at least six years, so it's not a temporary impact within Thurrock and so we need to make sure that we have the processes in place and there is a suite of documents that cover those control mechanisms, and those can't be dealt with in isolation. So, when we talk very much about the traffic management plan and the results of the outline traffic management plan for construction, which will subsequently be the traffic management plans, it's reflecting how those actually coordinate across those suites of documents.

At the moment the view is that we really haven't got the robustness that we seek, that there are initiatives that were enshrined within those documents, but they're just not giving us that control and that surety that we require as the local highway authority. So we need to see that robust built into them.

1 MR YOUNG: But, as you heard, it's a tried and tested approach, so in your evidence, if 2 you can refer me to cases where it hasn't worked, because unless we've got that 3 information – 4 MR NEVE: Sir, we're not saying that the traffic management forum itself wouldn't work, 5 providing it is constituted correctly and it is a mechanism – I mean, I've spent a 6 number of years working on the Thames Tideway project where we will have 7 similar – 8 MR YOUNG: Is it more the governance then of it, or is it the actual – Thurrock and the 9 ports and all the sort of relevant players are included in it, aren't they? 10 MR NEVE: We are included in the traffic management forum. It is a bit of a toothless 11 beast, if I'm honest. We obviously have them in the moment now in the 12 examination. We will have one more moment when it comes to our review of 13 the traffic management plan that comes forward. There's some confusion from 14 National Highways as to whether it is a plan, or a number of plans. I would trust 15 it's a number of plans that come forward. There's some confusion in the 16 documents as to how that's then coordinated across the contract, and so, as I 17 said, the principle of a forum to hold those discussions and to help that review 18 during the process is there. It just doesn't go far enough as we stand with the 19 evidence and suite of documents. 20 MR YOUNG: What more do they need to do? I'm just trying to really drill down to 21 specifics, rather than being woolly about it. What specifically needs to change? 22 I mean, I think Thurrock would like to be at the final say, wouldn't they? Not 23 the applicant's position, but a Secretary of State will have the final say, but I'm 24 not – beyond that, what specifically is it that Thurrock want the applicant to 25 change? MR NEVE: As it stands, so much is pushed down the line beyond the DCO grant to the 26 27 contractors to self-govern. 28 MR YOUNG: But we've heard that's tried and tested, and there's no evidence that that 29 leads to problems in practice. 30 MR NEVE: Well, from my experience, it's not tried and tested. There is greater 31 governance beforehand with commitments set by the applicant, in that case the 32 undertaker, to how those contractors should adhere to those controlled 33 documents. At the moment the view is that things like the governance of 34 movements into the compounds – the applicant will have heard me mention on

many occasions about how we manage across the network the flows into and out of those compounds. At the moment it isn't reflected. The modelling is done in – sorry to mention the modelling word again today, but the modelling of the construction scenarios is done slightly differently to the way that the applicant is suggesting that they will commit their routine traffic to, that their models don't apply, that that routing analysis – so that –

MR YOUNG: Okay, and you think all these issues need to be resolved now.

MR NEVE: They should be to give us the confidence around – the confidence that there is that control mechanism within there to give us the surety of those impacts.

MR YOUNG: Okay. Sorry. I did interrupt, but do carry on.

MR NEVE: No. We're here to quiz. Thank you. So going back to my shortlist, which I will try and keep short, we talked about the robustness, and I'll mention these commitments. I mean, if we look at the materials handling plan as it stands, there is a commitment to deliver 35% of the project's loose aggregates. I believe we'll talk more tomorrow about the tunnelling aspect, and I'm sorry if I repeat myself slightly tomorrow, but we're looking at how does one commit oneself to a better control on the materials and equipment. That needs to be captured across that coordinated documentation. At the moment, part sits in the materials handling plan. The materials handling plan doesn't talk to the traffic management plan, so it's that coordination of the framework construction travel plan. There are flaws within the principles of the framework construction travel plan.

There are a number of aspects, that we have these controlled documents that just aren't aligned and coordinated, and that's down to then the role of the traffic management forum to actually try and help that coordination, at which time, as a local authority, we are limited in our influence, if you like, and our powers. Sorry. I'll just try and wrap up on those points.

So, as I said, there's certainly some concern on the traffic modelling that we've seen and we'd like to understand that there's an application that vehicles were applied to the 11 scenarios. There are going to be many other scenarios that will be undertaken during the construction period, and so we understand the need for agility within the traffic management plans and traffic fora – but the view is that we need to understand now, what those commitments are to that

routing agreement, how that's going to be managed and monitored during the process.

We have had some verv constructive conversations with National Highways, dare I say. We've got into the documentations a range of monitoring locations, so that's adopted into the traffic management plan for construction. We provided a catalogue of views of roads. I mean, we were specifically talking about road closures and disruption to routes, so we've provided a catalogue of Thurrock's network and how that can be brought into the traffic management plan, and I trust that that will then get brought forward to the contractors. So it's giving that robustness, if you like, to those future terms. Thank you.

- 12 MR YOUNG: Are Thurrock are going to talk to me about the Asda roundabout at all?
- 13 MR NEVE: We can do, sir.
- 14 MR YOUNG: I thought it would be –
- 15 MR NEVE: I'm happy to introduce the –
- 16 MR YOUNG: the cornerstone of what you were going to talk about.
- 17 MR NEVE: Just one of many.
- 18 [Crosstalk]

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- MR STRATFORD: Mr Young, if I might sorry. Before you move on to the Asda roundabout, would it be possible to interrupt you? Chris Stratford from Thurrock Council.
- 22 MR YOUNG: Yeah. Go on, Mr Stratford.
 - MR STRATFORD: I mean sorry. Can I continue to interrupt you then? I've already done so. Apologies for that. I just wanted to draw out more and what Adrian was saying about the TMF. We're not disputing the tried and tested method of a TMF traffic management forum. What we're concerned about, and we will set this out in writing, of course, is more about the governance because the membership seems to have all the various local authorities in. It's not quite clear who the chair is, but we're assuming it's National Highways or the contractor, but what we don't understand is how you resolve disputes. How do you reach decisions about what's the best thing to do?

For instance, when the highway management team in Thurrock are trying to manage the network in Thurrock and yet, if National Highways want priority on a particular closure or a diversion, that may have unintended consequences

1 throughout the borough, and it's important that that measure of forcing something through and giving priority is paid attention to against the backlog of 2 3 all the other closures and diversions, and therefore, what we're asking for, I 4 suppose, in simple terms, might be a dispute resolution system within the TMF. 5 It's just not there right now. It's mentioned in the OTMPFC[?]. It's mentioned 6 in the COCP, but there's no detail. So, when you said, 'Is it about governance?', 7 it is about governance – a lot of it. So I just wanted to make that point before 8 you moved on to Asda roundabout, if you didn't mind. 9 MR YOUNG: Thank you. 10 MR NEVE: Adrian Neve, for Thurrock Council. Thank you for inviting me to talk about 11 Asda roundabout. We obviously have only just received – 12 MR YOUNG: Yes. Have you had time to digest it? 13 MR NEVE: We haven't yet fully digested it. We are aware of some of the initial outputs 14 and it's confirming our concerns that, during construction periods, there will be 15 significant impact on some of Thurrock's local road network, and obviously 16 we'll come back to you in detail at D5 – is it? D4. But it just demonstrates that 17 we have been looking at these issues for some time. We have been seeking some 18 information on what those impacts are and the concern that, through the 19 governance process, are those impacts actually then going to be mitigated? I've 20 raised the concerns about the coordination between the different documents. 21 The mitigation process during construction is very much around hearts and 22 minds. It's issues where perhaps you're dealing with work and travel to the main 23 compound, and I know it's something that is shared by the Port of Tilbury, the

We're somewhat unclear as to how National Highways sees the movement of workforce, which is one of the major movements to and through Tilbury Port. There seems to be some difference as to how that workforce will access compound five, north portal compound, so I'm going to maybe –

MR YOUNG: Well, they've provided the routes, haven't they?

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- 30 MR NEVE: They have provided different routes yes in different documents.
- 31 MR YOUNG: So I think each compound has primary access, secondary access, etc, hasn't it?

concern over the impacts on that junction and workforce travel.

MR NEVE: I think it's the WAR. The worker accommodation report refers slightly different to the framework construction travel plan, which looks differently to

the traffic management plan, so there's a little bit of confusion as to whether workers are permitted to travel through Chadwell St Mary's, for instance, coming straight south through the Cross Keys junction, or are they required to come through St Andrew's road through into the port? So I mean, there's fairly detailed points there. I'm sorry, but I think it illustrates the point that there is uncertainty through those documents as to exactly how these fairly considerable movements are accessing the sites.

MR YOUNG: Okay.

MR NEVE: Thank you.

MR YOUNG: I'll come around the room, but let me just go to Ms Dablin because I suppose she might want to come in on some of the issues maybe – perhaps Asda roundabout maybe. I don't know.

MS DABLIN: Thank you. That's appreciated. Alison Dablin, for the Port of Tilbury. Yes. On the Asda roundabout, we have been reviewing the traffic modelling that was provided by the applicant at deadline 3. If I may just correct something that you just mentioned however, you referred to the primary and the secondary accesses to the compounds. Now, at least as we've understood the documents, those relate to the HGV movements to the compounds. For the construction workers, the documentation suggests a route and I believe it's Station Road, and then you go up through, eventually, to Gun Hill, but that is not actually secured. So this forms part of our concern. It's that construction workers won't take that route, will not be obliged to take that route and will instead route via the strategic highway network, through the Asad roundabout, and that this has not been included in the junction modelling.

From the review of the junction modelling report, and the only thing that we have been provided with is the same report that's been provided into examination, we do have concerns about a number of anomalies that have not been explained. For example, there are instances where the vehicle movements decrease or appear less, which is contrary to what is expected, and this includes for phase six of the construction, where there are anticipated to be an additional 200 PCUs per hour. It results in decreases and there is no explanation for that. We also have traffic survey data from 2018 that was collected two months prior to that collected by the applicant, and there are significant differences between

the traffic surveys, as are several hundred higher in some instances in terms of traffic movements through the junction.

In order to assess the impacts on the Asda roundabout, we would like to see the extracts from the LTAM model that have been utilised to create the VISSIM model. We would like to see the extracts from the VISSIM model. We'd like to have the access to the VISSIM model impacts, and we'd also like to have the raw traffic data for the 2018 base surveys. The report also – it seems to indicate that there will be impacts, in some cases very significant ones, particularly on Dock Road, but the report doesn't follow through to assess whether or not that impact needs to be mitigated. It also doesn't consider the further impacts that this may have on the wider local road network and, as I said, the various anomalies, we need to understand whether or not these are functions of the model inputs, or anomalies with the model. So, whilst we are very grateful that some modelling has now been undertaken, the report itself does not provide sufficient information and we would be very grateful to receive the underlying inputs as I just set out. Thank you.

MR YOUNG: Thank you, Ms Dablin. Yeah. At deadline 3, there was a series of VISSIM reports and I must admit, I picked up on the fact that they finished very abruptly. For the Asda one, for example, you had quite significant impacts occurring and it's just – there's no conclusion. There's no discussion of the results. There's no mitigation. It's a similar case, I think, with some of the others as well. That I was surprised at, and it just leaves a very big question mark as to where we are with that. Right. Let me just see who else is in the room.

MS DABLIN: Sorry. Alison Dablin, for the Port of Tilbury. If I may just make one further comment, just on the outline traffic management plan for construction, you will have seen from various submissions that we do have concerns that this is not fit for purpose, given the proximity of the construction compound and everything that goes with that, to the operational port, including the shared – the solo access to the port is also being shared by the main construction route into that compound. Yourselves have asked a question of that in EXQ1, which we will be responding to more fully, but in brief, it's fairly generic and it does not deal with the unique situation and the fact that we will need to have real-time response when issues occur, and currently there isn't that escalation procedure

and it isn't reactive enough. So that would be the very high-level summary of our submissions. Thank you.

MR YOUNG: Thank you. Mr Bedford.

MR BEDFORD: Thank you, sir. Michael Bedford, Gravesham Borough Council. Three short points, sir, in relation to construction matters – first, to say that we agree with and endorse the remarks made by Kent County Council in relation to the importance of looking at pre-emptive works, in relation to anticipating where these construction impacts are likely to be felt, and that ought to be brought into the document, so that there's actually a process of – as we're trying to take anticipatory measures to avoid problems as opposed to dealing with problems once they have arisen.

Secondly, in relation to the issue of governance, we would agree with the matters raised by Mr Stratford on behalf of Thurrock, and certainly the need for dispute resolution and a clear decision-making arrangement with an escalation in the case of disputes, so that there can be a ready resolution, and it's not always, as it were, what National Highways and/or its contractor wishes to do. I think, from some of your remarks, probably what you would be helped by is us proffering some form of wording that could be added to the document so that you've got something to consider that's tangible, and obviously, equally that the applicant can consider. So we'll do that in our post-hearing submissions.

Then the third points are – I have to say, I rather suspected you might have been looking at my pre-script notes when you said you didn't want to hear about somebody saying, 'So and so – the closure is X weeks,' because we've got 19 weeks for a particular closure at Brewers Lane, which is a matter of concern to us and obviously to the communities affected by that. So I think the issue, as opposed to the specific location, is again, I believe, probably incumbent on us to try to suggest some wording to address this – is to impose, effectively, a management obligation on the contractors to minimise the closure, so that it doesn't become that the default is, 'Well, we said 19 weeks in the ES documentation,' and therefore everybody just proceeds on the basis that it's going to close for 19 weeks. Given that is a – sorry, 19 months. I apologise. I'm getting too abridging of things – that these are lengthy closures and clearly, there ought to be an obligation to minimise, wherever that is practicable, and again, I think we'll look to see if we can find some wording to make that an

1 obligation so that that actually has to be a process of bringing those periods down 2 where it is possible to do so. 3 MR YOUNG: I think that's helpful, but then on one level, I just wonder, isn't that just 4 common sense that it's not going to be National Highways' interest to prolong 5 these closures. I mean everybody – 6 MR BEDFORD: Well, with respect, sir, I'm not sure it's quite that one-sided, in the 7 sense that there can be cost implications and so therefore it may be that, from 8 the contractors' perspective, there's a particular way of working which they 9 would prefer, which does impose a closure. It would be possible to reduce that 10 closure, but there might be cost implications to the contractor of reducing that 11 period. So it's not necessarily the case that you can assume that everybody will always want to minimise the periods of closure because the affected 12 13 communities obviously would want the minimum period of closure, but I'm not 14 sure that necessarily all of the other parties would necessarily want that outcome. 15 MR YOUNG: Is there a suggestion there then that the National Highways' contractors, 16 as it currently operates, are not incentivised to complete the work as soon as 17 practically possible and get these routes open? You're sort of saying, if they 18 finish early, they maybe get less – 19 MR BEDFORD: Well, I mean, obviously I don't, and we're not aware of the commercial 20 detail, but I don't think you can assume that it will always be the case that, from 21 the contractor's perspective, as it were, the best way of working to deliver their 22 particular obligations will be to minimise the road closure periods. That might 23 well be the position, but it won't necessarily be the position, and so if it's 24 something which is actually placed as an obligation in the control documents, that maybe gives some reassurance that the closures will be for the minimum 25 26 period that they need to be. 27 MR YOUNG: Yes. That's quite interesting. Let me come back to it. Let me go to the 28 TfL. They want to speak on this. 29 MR RHEINBERG: Thank you, sir. Matthew Rheinberg, Transport for London. It was 30 just building on the points made just there, that drawing a precedent from a 31 recent scheme – the M25 junction 28 scheme – where the traffic management 32 plan included a closure of a particular slip road at junction 28 for 70 nights – the contractor and National Highways subsequently proposed that that slip road is 33 34 actually closed for nine months, 24 hours a day. So it's 270 days approximately.

That eventually, in response to the local highway authority – that National Highways withdrew that proposal. We understand the intention was to make a construction programme more efficient, to fully close that slip road for the full time, but we and other highway authorities felt it would have a very significant effect.

But it does demonstrate that there is a risk that, when the traffic management plan – that there is the risk that contractors will try and make changes. In that case, we felt it would be almost – a materially different impacts, which would not be compliant with the DCO, but it shows there is risk there, and certainly having some way to incentivise the contractors, or require the contractors, to minimise closures would be helpful.

MR YOUNG: Yeah. I think we'd all agree, minimising the length of closures should take precedent over cost implications. But again, I go back to the point I made at the beginning. I think what's going to be particularly useful for us as the Examining Authority, and for the applicant for that matter, is looking at those closures. If it's 19 months, and looking at the work programme, is that reasonable, and if an authority of Gravesham doesn't think that's reasonable, then to say why, and to set out a programme that the applicant can consider for reducing it. Essex.

MR MACDONNELL: Thank you. Gary MacDonnell, Essex County Council. Just generally on the construction management plan, as it currently stands, Essex are broadly content with what has been put forward. We have worked well with the Lower Thames Crossing in terms of discussions around that, and there have been changes made to that plan as a result of our feedback. So we had concerns over certain routes that were being suggested and they have been changed within that, so we've been broadly happy with the way that that has panned out.

It was interesting with TfL mentioning the junction 28 project. We're affected by that as well. I would take a slightly different view, if I'm being honest, in terms of how all that panned out, listening to the discussions. I think, from our perspective, we shouldn't be too prescriptive. There's contractors who've got to come on board and we've welcomed their input into the process. The example on 28 – there's a contractor brought on board. They've offered up something different. I totally agree, it would have been a change to the DCO and it wasn't right that it went forward in that instance. I fully agree with that.

However, I would say that, in that instance, perhaps the construction management plan was too prescriptive and I think we need to allow some room for manoeuvre and bring a contractor on board to add into that process. So that's where we currently sit with that. Thank you.

MR YOUNG: I'll go to Mr Humphries and then I'm going to go to the people that are waiting in the virtual room because they have had hands up for a little while now. Mr Humphries.

MR HUMPHRIES: Thank you, sir. Michael Humphries, for Kent County Council. A short but generic point, as we've moved on to the current management plan for construction. I think an important point to emphasise on this is the way in which schedule two, requirement 10, actually operates. The outline traffic management plan for construction, which we have as a document, will be a certified document. What requirement 10 tells us, that no part of the authorised development is to commence until a traffic management plan – so the actual traffic management plan for construction for that part – which is substantially in accordance with the outline traffic management plan for construction, substantially in accordance with – and then the obligation that you actually have to carry out the authorised development in accordance with the approved management plan.

So that outline plan is a pretty important document. It constrains what the actual transport management plan for construction can be. I'm not going to elaborate them now, but we have a number of concerns about the outline. For example, and of course it can be corrected, but plate[?] 2.4, which shows the monitoring positions, only shows monitoring positions for construction traffic north of the river. There's nothing in Kent at all. Now, that, I'm sure, could be corrected in monitoring points, but when you have an obligation then that the actual traffic management plan has to be substantially in accordance with that — I give that as an example. One that can be, I'm sure, corrected, and there's no need in a sense to discuss it in detail, but that outline plan does need to be very carefully understood and scrutinised, because many of the points that have been discussed about what people would like to see may end up being constrained by a document that receives relatively little discussion or consideration. So I make that point and I will now stop.

MR YOUNG: Thank you, Mr Humphries. Let me go to Lynn Basford.

MS BASFORD: Good afternoon, sir. Lynn Basford, on behalf of London Borough of Havering. Just picking up on our lamentations from yesterday with regarding the ten-month closure and the impact on the cemeteries and crematorium, rather than lamenting, we have actually looked to inform the applicant how measures could be introduced on the diversion routes which would provide resilience to overcome the potential increase in journey times for, in particular, this very sensitive business. Some of the construction routes are unsuitable in terms of their rurality, and therefore we have made these suggestions. These are documented in our LIR, REP1-249, and in particular paragraphs 7.2.26, which picks up on detailed proposals. Now, we carried out initial engineering feasibility examinations on these

Now, we carried out initial engineering feasibility examinations on these routes and what could actually be done. We've attempted to discuss this with the applicant. The applicant has said this is a matter for much further down the line, however I think that bringing up the issues that Michael Humphries has just done regarding the certification of these documents, that we need to provide surety now that what are is being put forward is actually feasible, and whilst the 10 months has been reduced from previous lengths, there is still a matter of resilience and I think that's a practical, positive action by Havering to assist the process, but as yet has not been taken up by the applicant.

I would just very briefly say that the construction of the slip roads is still cited as being 24 months, which seems to us rather a lengthy duration, given that of course each engineering situation is different, but compared to the construction period of 15 months for a whole new junction at Harlow, junction 7a on the M11 – so I would also just like to reiterate the point that TfL made about the issues of contracts in junction 28. It's really important that we get these sound documents and that contractors understand that they need to follow them. Thank you.

MR YOUNG: Thank you, Ms Basford. I do recall seeing those submissions, I think, from Havering about the – oh. Yeah. I do remember reading your submissions on that. They were very lengthy, weren't they? Incredibly detailed – they were looking at things like pavement widths, visibility [inaudible]. You name it, and I must admit, I had some sympathy with, if the applicant's saying that was too much detail. I think on that occasion I probably would have some sympathy with that position.

MS BASFORD: Well, here's the thing. How can we be certain that a route is feasible, unless we actually look at how it can operate in practice – and if there is shortcomings that could be taken from a safety perspective, then those are the matters that we will look at. There's safety matters, as well as free-flow issues here. So, yes, they are very detailed, but those were for discussion and I think it would be good and useful for the applicant to have those discussions. I go back to Hinkley Point C, where we had this very same issue on construction routes. I was appointed by the Somerset County Council on that matter there and there was a real issue with the panel about the general arrangements drawings and the appropriateness of it because once those get into a document, those get into a document and it takes a great deal of movement to change. So, yes, it is a lot of detail, but we were endeavouring to give the applicant every opportunity to consider what really needs to be done and what would be the best routes.

MR YOUNG: Yeah. I think you're quite entitled to point out what you think is the best route. I was just thinking, if you were expecting the applicant to respond on all those technical matters at this stage, that would perhaps be a little unreasonable, but I take your point. I think your point is well made.

MS BASFORD: Thank you, sir.

MR YOUNG: Thank you. Mr Pratt.

MR PRATT: Good evening. Yes, Ken Pratt, panel member. Sorry to interrupt. It was just going back to Essex County Council. The reason what he just said about getting contractor input and to make things better, or to construct things better. Being an engineer, I know how much reliance I've placed sometimes in contractors for improved schemes, but could I just ask you, and in fact, I think with my colleagues' agreement, anybody who comes up with bright ideas along those lines – and I call it a bright idea. It's a good idea – can you also at the next opportunity actually put something in writing to us to suggest how we could incorporate that into the DCO, or some other mechanism, so that it's both an opportunity, but it doesn't let the contractor do as they like because they will tend to do it the cheapest way. I'm talking very generically about contractors, but they tend to do it the cheapest way to suit themselves, as opposed to the best quality for what we're all here trying to do, so anything along those lines would be gratefully received.

MR MACDONNELL: Gary MacDonnell, Essex County Council. Yeah. Duly noted, and we'll flesh that out for representation at the next deadline.

MR YOUNG: Let me just go to Thurrock and then I will go to the virtual room.

MR NEVE: Thank you. Adrian Neve, on behalf of Thurrock Council. Mr Pratt, if I'd come straight back to you, that — wholly welcome that thought, because having worked on both the construction side and on the authority, or the client and promoter's side, I wholly understand both sides of that equation. The term 'having your feet held to the fire' has been used on many an occasion, where that constraint, if you like, and that governance, that leadership from the client side, particularly, dare I say, referred back to Thames Tideway. The process and the due diligence that went on before we got to construction phase meant that the controls of governance were there in place for the contractors and rather than, as I've been told before, allowing the contractor to have that innovation, having the restriction fosters that innovation. It pushes it forwards, and giving that free self-governance to the contractor unfortunately, on occasions, will have the opposite effect, as you rightly say.

So I think what we're saying is that we're looking for the robustness – the challenge now, to develop that into the traffic outline – traffic management plans for construction, to give it its full title – and that comes forwards. I'm trusting that we're going to come back to agenda item three, which is on the monitoring and mitigation side, because I'd like to speak a little bit about that as well, but I'm aware of time.

23 MR YOUNG: Yeah. I am.

MR SMITH: I'm acutely aware of time as we have another hearing starting at 7.30 this evening.

MR NEVE: Can I say some very quick ways then? Can I say compliance –

MR YOUNG: You can elaborate it in writing in your submissions.

MR NEVE: Yes, we will do, but compliance control, performance targets, live data, dispute resolution, derogation, challenge – all of those are important and they need to be in the controlled documents now. They are not, and if they're not in now, the likelihood of getting them into post-grant is pretty much gone. Thank you. I was trying to be brief.

33 MR YOUNG: Thank you.

MR NEVE: Thank you.

MR YOUNG: Right. Let me go to Mr Elliott, and then I'll come to Councillor Wright, and then, if there's no more hands going up, we'll go back to the applicant at that point. Mr Elliott.

MR ELLIOTT: Right. Sorry. It will be very quick. It's just about this point of closures and how long they could be, etc. The junction five, which is the A249 junction, which is not a long way away from here – for at least three months and other periods, basically Sittingbourne and Sheppey were cut off from the west and similarly, people up the A249 couldn't get out on M2. The diversion route added 21 miles because you had to go all the way up to Junction seven. That, as far as I know, was not modelled and it wasn't part of the original proposal, but I was told by National Highways people, that the construction company would come back and change it later. So it's just a supporting situation that actually happened to what has just been raised. I don't want to say any more than that.

MR YOUNG: Thank you. Councillor Wright.

MS WRIGHT: Thank you, Chair. Two things from me – one is, we are asking for traffic control measures on the A226, which is before Gad's Hill junction, where construction traffic will be passing to go to the compounds in the south portal. We've asked for traffic control measures there because the junction is very narrow. The 226 at the point of Forge Lane and Gad's Hill is very narrow and we would like to have a roundabout or some traffic lights or something. National Highways accept that it's a pinch point. They've been out to see it and they agree it's a pinch point, although they have put that fully in writing. But what their position is, that they should – the traffic lights, or whatever, may not be agreed until a detailed design. My contention is that I'm a volunteer and a layman and therefore we would like your position on this now, and the other is that if it's a cost for the contractor, why would they implement an additional cost afterwards? Therefore this sort of thing, I think, because it is a safety issue, should be implemented as part of the design the applicant's putting forward. So that's one point.

The other point is that, for Brewers Road, the 19-month closure, in my written reps, or Higham Parish Council's written reps, we have recommended or suggested that is there a possibility to keep Brewers Road open, and to construct the new green bridge alongside it for some time in phases and only open it as it comes? Obviously, I'm not an engineer and haven't looked at it in

detail, but is there any possibility to keep it majorly open and not to close it for the whole of 19 months? That may not be possible, but at least something that should be suggested. Thank you.

MR YOUNG: Thank you. Anybody else in the room? Ms Lindley.

MS LINDLEY: Apologies for speaking at the last minute, sir. Thank you. Good afternoon. It was just in connection with the Brewers Road bridge closure. The point I wanted to make is that sometimes road closures force people to take a different route, and that will be the case for Shorne residents, who will have to go north to the A226 and turn left or right, and that is going to be across the construction traffic increase on the A226. So those movements do need to be facilitated with traffic lights and again, like Councillor Wright said, we would like some assurance that this point is being taken seriously, and will be taken forward to the construction plan. Thank you.

MR YOUNG: Thank you. Right. Go back to the applicant on that.

MS TAFUR: Thank you. Isabella Tafur, for the applicant. So I'm not going to try and respond to absolutely everything, but I will try and respond in groups and I will try and do it within your time estimate, or time limit. Can I just mention one thing, sir? At the outset, you said that generally you'd been going to the applicant for a broad overview, but you weren't going to take that approach in this instance, which I entirely understand, but there was a broad overview that we were hoping to provide on the construction traffic modelling, which we haven't actually spoken about yet. I won't do that now, but I will do it in writing because I would like to draw out several themes about the robustness and the assumptions that have been addressed in that model.

Okay. So, in respect of the issue of wear and tear and highway maintenance that, I think, was raised by both Kent and Gravesham, we would point to section 3.2 of the outline traffic management plan, which creates a requirement on the contractor, where there's an interface between the strategic and the local road network, to seek to agree a detailed local operating agreement with the local highway authority, which will set out the roles and responsibilities of the parties in respect to a numbers of things, including routine maintenance and repair. In the event that that cannot be agreed, the outline plan has a provision for that to be referred to and approved by the Secretary of State, in

which case everybody would have the opportunity to make their representation as to wear and tear maintenance, etc, and we say that's sufficient.

As to the structure and, I suppose, the escalation issues in the event that there's a disagreement amongst the members of the forum, there is provision made for that also in the outline traffic management plan, which includes a table which sets out the escalation process, which is plate 3.3, and effectively, there will be a number of bodies, including highway bodies, public transport operators, local businesses, stakeholders will be members, or invited to be members of the forum. They will have input into the traffic management plan. In the event that there is a disagreement between those members, that disagreement will be escalated by the traffic manager, who has been pointed by National Highways, to a joint operating forum, and in the event that that escalation mechanism doesn't resolve the dispute, then there are obligations in both the DCO itself – the requirements – and in the outline plan for those representations to be submitted to the Secretary of State, along with an explanation from the applicant as to how it's taken into account, or hasn't, and the ultimate arbiter will be the Secretary of State.

So we in fact say that this outline plan goes a lot further than many others, in that it does include a raft of illustrative traffic management measures. They're illustrative plainly, and that's because of the stage of detailed design and the absence of contractors for a lot of these works, yet has been touched upon. So we say that there's an appropriate, well-precedented governance strategy. In fact, the example that was given by TfL seemed to us to be a good example of that system working very well. A contractor came on board. He suggested something. The stakeholders didn't agree. It was changed, and we have every confidence that that's how this will work as well.

In terms of the monitoring positions mentioned by KCC being only north of the river, that was because there were discussions with a number of local authorities, and it was only Thurrock who provided the locations where they would like their monitoring, and there were then subsequent discussions with Kent about that and it was explained to them that the traffic management plan will include monitoring locations. That's already a requirement of this outline plan and that will of course be informed by discussions of the forum, which will

include all the other local authorities. So it's not an error. It's an illustrative example, and there's a provisional –

MR YOUNG: It'll be revisited.

MS TAFUR: Exactly. There's a provision that says, 'Monitoring locations will be included in the traffic management plan,' and obviously Kent and everybody else will have input into that process.

As to the suggestion that it would be useful to have a requirement on the contractor to minimise disruption, that is already contained in the outline management plan and that is, I think, paragraph 2.4.23. I'll just read the wording to you, because I know there was some discussion about that. Hang on. Thank you – which says, 'The contractor would support interventions and/or changes to traffic management measures required to ensure disruption is kept to a minimum at the time of planning, and would identify where continuous improvements need to be implemented.' So that's a specific requirement and then there is another at paragraph 4.4.1 of the plan. In fact there are two 4.4.1s and it's both of them that are helpful. So it's on page 51, and it says, 'To reduce the impact on local road users, the length of traffic management measures will be kept to a minimum and left in situ for the shortest duration, as far as reasonably practicable, and where it's intended for roadworks to be left in place for defined periods, without any construction work being undertaken, for example at weekends, the contractors have to assess whether it's reasonably practicable and safe to remove the equipment during that period.' So these are just outline controls, I accept, at this stage, but thought has been given to this and they will be further revolved through the forum itself.

Let me just check. Asda roundabout – the information that was provided in the appendices was intended to be factual. There is some commentary in the first of the appendices, which is appendix A. It's REP3-126, and I hope that when we set out in our written summary the further information about the modelling approach, it will be clear that, in effect, we understand and recognise from the modelling, both that VISSIM model and from the strategic model, that there are certain impacts, inevitably, from the construction traffic on a number of junctions. We absolutely recognise that, but at this early stage in the design process, it's not really possible to go further than that, and we say that these control documents are the way in which to address those impacts, and they will

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be robust and they won't eliminate impacts. That'd be impossible and scheme of this scale, but they will minimise and manage them appropriately.

I believe that Dr Wright wanted to address you. Oh, sorry. Performance targets – the point from Thurrock about monitoring. Performance targets, live data and monitoring, you said, are all important and all need to be in the control document. They are. They're all in the control document. There's extensive provision for monitoring, which includes live data, cameras recording trips, the reporting of trips, possibly even in-vehicle systems to monitor all of that. There are performance indicators indicative at this stage in appendix D to the outline plan. So all of those things are already included. I think, Mr Wright, in the remaining three minutes before 5.30, wanted to address you briefly on engagement with the Port of Tilbury, and also on the delivery partners that National Highways will work with.

DR WRIGHT: Dr Wright, for the applicant, and I won't take three minutes. On the Port of Tilbury, I just wanted to note that we are in active engagement with the Port of Tilbury team, talking about construction traffic management protocols, which would operate to allow for the optimised use of Asda roundabout, considering both Lower Thames Crossing, but also, the functioning of the port. Then I wanted to make note on our contracting model. This is clearly a very high-profile project for National Highways and as such, we're very aware that our contractors need to be seen and do the right thing by the local communities. We've taken a very collaborative approach to our contracting framework, and I think that can be summed up by, we don't actually call them contractors internally or externally on our communications. We use contractor in the DCO for the clarity of purpose, but actually we refer to them as delivery partners, and I just wanted to make that comment. Thank you.

MS TAFUR: Isabella Tafur, for the applicant. With the remaining one minute, might I ask Mr Halli just to address Brewers Road quickly, because I think it was raised by a number of participants.

MR HALLI: Good afternoon. Mohammed Halli, for the applicant. In regard to Brewers Road closure, so just in response to why the green bridge can't be constructed parallel to Brewers Road – so the design alignment of it is constrained by HS1, and hence falls along the existing alignment. So, in order to build the bridge safely, it requires the closure of Brewers Road.

1	MS TAFUR: On that, there wasn't initially a proposal for it to be close for 19 months.
2	That was then narrowed and secured in the outline plan that it will be a maximum
3	of 10 months, and I understand that the main works contractors are due to $-$ oh,
4	sorry. No, that's a different road. Sorry, that's Ockendon Roads. In respect of
5	Ockendon Road, that has been secured in the outline plan and I understand that
6	the main work contractors are due to speak with Havering shortly, as to whether
7	any further minimisation of that closure will be possible.
8	MR YOUNG: Mr Stratford, I assume you'll make this fairly brief.
9	MR STRATFORD: Yes, of course, sir. Thank you very much. I just wanted to pick up
10	on a couple of points that Ms Tafur mentioned in respect of the detailed local
11	operating agreement, affectionately called the DLOA. It is far from agreed that
12	[inaudible] agreement being agreed with the applicant, or indeed protected
13	provisions –
14	MR YOUNG: Mr Stratford, let me just stop you there. I don't know if you're on dial-up
15	or something, but your signal is not good. We can't really see you very well and
16	now the audio has started to break up.
17	MR STRATFORD: If I turn my camera off, is that better? Can you hear me now clearly?
18	MR YOUNG: We'll ask you to put it in writing, if that's okay, Mr Stratford. Apologies
19	for that. Alright. Anything else from the panel members?
20	MR SMITH: Nothing from me.
21	MR YOUNG: Action points, I think we will tidy those up and we'll get those published
22	as soon as we can. Unless there's anything else – I'm not seeing any hands go
23	up. In that case, thank you very much. Very difficult, but very useful day, so
24	thank you for your participation, and we'll see some of you in a few hours' time.
25	Thank you, everybody.
26	MR SMITH: Indeed, and just a brief reminder, we are back in this room at 7.30 for those
27	who are participating in the open-floor hearing. Thank you very much, Mr
28	Young.
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30	(Meeting concluded)