1	MR YOUNG: Good morning, everybody. It's 10.00, so it's time to open this traffic and
2	transport issue-specific hearing 13. I'm Dominic Young and will chair the
3	hearing today. Can I just check with the case team that I can be heard and the
4	recordings have started? Thank you. Before we proceed, I'll quickly ask my
5	panel colleagues here in the room to introduce themselves. Can I just start with
6	Mr Taylor?
7	MR TAYLOR: Good morning, everybody. My name's Ken Taylor, panel member.
8	MS LAVER: Good morning, everybody. Janine Laver, panel member.
9	MR PRATT: Good morning, everybody. Ken Pratt, panel member.
10	M SMITH: And good morning. Rynd Smith, panel lead, and I will hand over to Dom to
11	resume.
12	MR YOUNG: It's Dominic Young speaking again. Can I also introduce our planning
13	inspectorate colleagues? Today, we have Ryan Sedgman, Jake Stevens – who's
14	controlling the virtual room – and Spencer Barrowman, who are helping us
15	deliver the hearings this week. We also have, at the back of the room, two
16	inspector colleagues of ours, and that's Mr Guy Rigby and Mr Alex Oyebade,
17	as you may see us talking to them today. Turning to today's hearing you should
18	all have seen the agenda which was circulated last week, or perhaps the week
19	before last, now. Before we make a start on the agenda, can I remind people, as
20	with all the hearings, today's event is being livestreamed and recorded. Unless
21	anybody tells me otherwise now, I will assume that all those present are familiar
22	with the terms of our $-$ on which our digital recordings are made. Thank you.
23	Good, in that case, can I go round the room and ask people to introduce
24	themselves? What I'll simply do today – I'll deal with the physical room first,
25	and I'll just go round the table, and then I will deal with the people who are
26	joining online, so if I could start with Thurrock Council first.
27	MR MACKENZIE: Good morning, sir. I'm George Mackenzie of Counsel for Thurrock
28	Council. To my right is Kirsty McMullen, director of transport planning, and
29	then Chris Stratford, consents and DCO senior consultant, and sitting
30	immediately behind us three, Colin Black, also director of director of transport
31	planning. Online I can see that we have Tracey Coleman, interim chief planning
32	officer, and Mat Kiely, transportation services strategic lead for Thurrock.
33	MR YOUNG: Thank you, and moving on to Kent.

1	MR FRASER-URQUHART: Good morning, sir. Andrew Fraser-Urquhart, King's
2	Counsel, for Kent County Council. I will be assisted today principally by Mr
3	Joseph Ratcliffe who sits to my left. He is the transport strategy manager. We
4	have other colleagues as well, but we'll introduce them on an ad hoc basis if we
5	need to. Thank you.
6	MR YOUNG: Thank you, and London Gateway.
7	MR SHADAREVIAN: Sir, good morning. Paul Shadarevian, KC, for London Gateway
8	DP World, and to my right is Simon Tucker, DTA
9	MR TUCKER: Good morning.
10	MR YOUNG: Mr Bedford.
11	MR BEDFORD: Morning, sir. My name's Michael Bedford, King's Counsel, on behalf
12	of Gravesham Borough Council, and next to me on my right is Mr Tony
13	Chadwick who is the NSIP project manager for the borough council.
14	MR YOUNG: Thank you. Right, I'll go to the virtual room now, and then I'll come to
15	the applicant, so Mr – let me just start with the first name I can see there. Mr
16	MacDonnell.
17	GARY MACDONNELL: Good morning, sir. Gary MacDonnell, programme manager
18	at Essex County Council, representing the authority.
19	MR YOUNG: Just yourself today for Essex?
20	GARY MACDONNELL: Just myself today, yes.
21	MR YOUNG: Thank you. Right, do we have anybody for the London Borough of
22	Havering? No, okay. In that case – who else? Do we have Port of Tilbury?
23	MR FOX: Yes, Matt Fox, senior associate at Pinsent Masons, on behalf of the Port of
24	Tilbury.
25	MR YOUNG: Thank you, and do we have Mr Rees?
26	MR REES: Yeah.
27	MR YOUNG: Morning.
28	MR REES: Morning, Dafydd Rees. I'm an associate director at SLR. I'm here acting
29	on behalf of Thames Enterprise Park Ltd and Molesey Ltd.
30	MR YOUNG: Thank you. Right, is there anybody else joining virtually who wants to
31	speak, who I've missed? Just turn your camera on. Introduce yourself. Right,
32	in that case I'll hand over to Mr Tait, and if you can introduce the applicant's
33	team.

MR TAIT: Thank you, sir. Andrew Tait, KC, for the applicant. To my right, Mr Mustafa
 Latif-Aramesh, BDB Pitmans, to my left, Dr Tim Wright, head of consents, to
 his left, Professor Helen Bowkett, transport modelling and economic appraisal
 lead for the project, and to her left, Graham Stevenson, who is the transport
 planning lead for the project.

6 MR YOUNG: Thank you. Do you want to say something now about tomorrow?

7 MR SMITH: Yeah. No, that's probably quite good timing.

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8 MR YOUNG: Yeah. Okay, let me just – before we just jump into the agenda, pass over
9 very briefly to Mr Smith.

10 MR SMITH: Thank you very much, Mr Young. I just thought before we got too deeply 11 embedded in the agenda items for today that it would be important to remind 12 everybody that we did end up part heard and adjourned on the final items around 13 control documents in issue-specific hearing 12 last week. Just as a reminder, 14 those items which do relate, essentially, closely to the operation of the draft 15 development consent order will still be heard, and it's our intention to make 16 space for them to be heard tomorrow at the end of issue-specific hearing 14, 17 when we will proceed through the agenda items for the DCO.

Almost without apology, I'm afraid I will flag that that means that tomorrow is likely to be a reasonably long day. I mean, I think we'd be looking at wrapping by 6.00, 6.30, I trust, but it is important that those matters are properly ventilated around the table, and I did think that it was worth placing that marker on the table today so that everybody knew where they stood. I'm sure, because of the very close congruence between the parties involved in the two hearings, that that won't inconvenience attendees too substantially.

One of the reasons I thought it was worth surfacing that today is because – I will jinx things here, but if we end up finishing reasonably early – for us – today, I did think it was worth flagging that we wouldn't be moving into that business, even though we have apparently saved a little time, because we are conscious that the two sets of interested parties are not a completely overlapping set. There are people, essentially, not here today who would want to be involved in that conversation, and equally, there are people here today of a rather specialist traffic and transportation modelling ilk who are here, who we don't need for that conversation. So it didn't seem appropriate or fair to try and do any of that business today, but I just thought I'd flag that up. Does anybody

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want to make any observations or remarks on timing and that issue? Thurrock, yes.

- 3 MR MACKENZIE: George Mackenzie for Thurrock Council. Thank you for that 4 indication, sir. The only point is, really, a point of order, which is whether it 5 would be the Examining Authority's intention to introduce the topics which we didn't cover at the end of the last ISH into - or tag them on to the back of ISH 14, 6 7 or whether it would be the intention to close ISH 14 and then reopen ISH 11, 8 which on the last occasion was technically adjourned. The only reason – and it 9 may be a distinction without a difference, but just from the point of our producing the post-hearing submission, it would be helpful for us to know. 10
- MR SMITH: No, that is very usefully asked, and so I will make clear that we will deal
 with agenda items and business for 14, and that will be 14. We will then close
 it. We will then return to the adjourned matters, and action lists, etc., will all be
 marked up as from the adjourned business, and so again, when people are putting
 in their written submissions about the two events, hopefully that means we get
 one package that is the adjourned hearing in its totality and one package that is
 the DCO hearing in its totality.

18 MR SMITH: Okay, unless anybody has anything else to raise, I will hand – Mr Tait.

MR TAIT: Sir, one brief matter. If progress is swifter today and there is time available,
 one matter that might be worth contemplating is whether consideration of the
 specific transport-related requirements could be given later this afternoon. I
 appreciate R11, 17, 18 –

23 MR SMITH: And 18.

MR TAIT: - is already on the programme today, but there might be scope to consider [Crosstalk]

26 MR SMITH: - a matter that Mr Young would have raised very briefly in a second or 27 two, had you not raised it. Yes, it does make sense that where this discussion 28 goes directly into draft requirements we talk about them, which then means that 29 hopefully we can save ourselves a little time tomorrow, because the parties who 30 are principally interested in those requirements will already have spoken. We'll 31 need to potentially just go back to make sure that people who weren't here today 32 have an opportunity to submit, but that should make it quicker. Okay, so unless 33 I see anybody else wanting to intervene on process and what we do when, I will 34 hand back to Mr Young.

1 MR YOUNG: Thank you. Yes, we had reserved some space in the agenda to speak 2 about requirement 18. We had a - did have a discussion this morning about if 3 we did make good progress that we would bring in somebody of a 4 transport-related requirements and get those dealt with, so just turning back to 5 today's agenda, that sets out the topics that we will discuss. The applicant will 6 generally speak first, although that may not be strictly the case in – under all the 7 items, and the panel will then ask questions. Please remember to introduce yourselves every time you speak. If you're not with us live today, watching this 8 9 on a recording, you can make your comments in writing on anything you hear by deadline 8, which I think is 5 December. 10

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Just a couple of other housekeeping matters before I finish, there will be a testing of the fire alarm by the hotel today at approximately 2.00 p.m. I'm told the test will last for approximately 30 seconds, and then that – I'll move – lead me on to the timings for this hearing. We'll aim to break for a mid-morning break at the usual time, around 11.30, and again further around lunch at 1.00 p.m. with the intention being that we'll be having lunch when that fire alarm is tested, and then as Mr Smith mentioned, we're looking to finish earlier today, slightly earlier time of around about 4.00 p.m.

Right, so that is my opening concluded, so let me move on to agenda item 2. The purpose of this issue-specific hearing is to enquire into progress, and on the actions arising from issue-specific hearings 4 and 10, and seek final positions on localised traffic modelling carried out by the applicant and Thurrock since issue-specific hearing 10 and submitted by the applicant at deadline 6A. We also want to hear opinions on the local modelling carried out by Thurrock, and how mitigation of Orsett Cock might best be secured through DCO requirement 18. We'll also have – we'll want to hear final positions in relation to Blue Bell Hill in Kent this afternoon.

Right, unless anybody's got any comments on that, let's move on to agenda item 3. So the first issue I want to discuss is with reference to REP5-084. To what extent were the inputs into the latest VISSIM modelling – which I'm going to refer to throughout the day as version 3.6. Modelling that Thurrock Council carried out, I'm going to refer to modelling 3.6T. I think everybody knew that. Yeah, so what I want to do today is to take this, as much as we can, in a chronological order, so I want to explore what the applicant has done, what was agreed before the version 3.6 modelling was done in terms of the workshop that was held.

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Then we'll move on to discuss what the applicant modelling showed, and how that was different to previous runs of the model, and then we'll move through to discuss – yeah, the traffic effects at Orsett Cock, journey times to and from the port, and how the latest modelling does or does not affect some of the early work that was done by the applicant in that regard, what other implications there might be of the latest round of modelling for any of the other assessments that the applicant has carried out. We'll have a discussion about the LTAM outputs in relation to rerouting of traffic through Orsett village. Then we'll come on to discuss Thurrock Council; at that stage, I'll probably ask them to introduce that section, tell us what they've done in terms of their model 3.6T. I think at that stage there's going to be a video. We're going to probably present a video for us to watch, and then finishing off with requirement 18, and if we get time, some of the others, and then Blue Bell Hill.

Okay, so let's just start with what has happened since we were all last here in this issue-specific hearing 10, and as I've said, I want to take it in chronological order. This is my – or the ExA's – understanding: the workshop that we sent the parties away was held, and various changes were made to the version 3.6 model to reflect Thurrock Council's previous comments which were recorded in their model issue log, but my reading of the submissions that have come in at deadline 6A and 7 – that two of the changes that were requested by Thurrock Council were incorporated into version 3.6. So the two issues that are – that were outstanding, as I understand it, before the 3.6 modelling was done was one issue around driver behaviour, and the other issue in that model issue log was in regard to the weave length, so it's those two issues that I just briefly want to start with.

First of all, let me go to the applicant and just ask them is what – everything I've said consistent with the applicant's understanding? And then if it is, can I then ask the applicant to set out what their position is and – on the two issues that I've highlighted, the driver behaviour and the weave length? And were all other matters agreed before the modelling was carried out? Mr Tait.

33 MR TAIT: Thank you, sir. I'll bring in Dr Tim Wright straightaway.

1 DR WRIGHT: Tim Wright for the applicant, so yes, your characterisation is correct. 2 There were actually three matters, I think, that were in the joint position 3 statement that we set out, REP5-084. There was the driver behaviour matter, 4 where Thurrock Council requested it be characterised as urban (motorised), and 5 we maintained that urban (merge) was appropriate. I think that's going to be quite a lot of discussion this morning about that. The design of the merge 6 7 coming off the A13, Thurrock Council represented that that should be, as per the 8 general arrangement drawing, of about 90 metres. We'd identified in the 9 localised traffic modelling that it should be about 200 metres. However, my understanding – albeit we have only recently received the VISSIM model – is 10 11 that that longer merge is adopted into the 3.6T model, so whilst I think that's a 12 matter in principle disagreed, perhaps we'll hear from Thurrock Council on that 13 one. And then the final one, I don't think we got an absolute conclusion on the 14 use of vehicle activated signal timings versus fixed timing signals, which was 15 an amber and a clarification in that position statement, but -MR YOUNG: Because you used fixed time in 60 second cycles. 16 17 DR WRIGHT: We used fixed timing, yeah. That's correct, and so again, I don't think 18 that was a firm agreement on that matter, but the primary one I think for 19 [inaudible] is the driver behaviours, so I do have comments on the 6A 20 submission, but would you like me to pause there so that you can go around 21 before we get to 6A? 22 MR YOUNG: Yeah, just pause there. Let me go to Thurrock, and just – again, with my 23 opening gambit there – was that consistent with Thurrock's understanding? 24 We'll come back and we'll talk about those three issues. 25 MR MACKENZIE: Yes, George Mackenzie for Thurrock Council. Sir, I'm being told 26 by Kirsty McMullen to my right that that is correct. Can I just flag at this point, 27 I appreciate that the points – the agenda items are points of detail. Can I just 28 flag that there is a final position submission, really, that I would like to make at 29 some point in relation to this issue, broadly? I appreciate, clearly, it's not the 30 time to make it right now, but just a signal that I'm entirely in your hands and I 31 would like to make it at some point, whether it's now or after one of the breaks 32 or after lunch, or at any time, or... 33 MR YOUNG: Yes, thank you. 34 MR MACKENZIE: Yeah.

1	MR YOUNG: Yeah, that's fine. Okay. I mean, I'm not purposefully trying to exclude
2	any of the other parties, but the two protagonists in this situation are mainly the
3	applicant and Thurrock, so again, grab my attention if at any point you want to
4	come in. Right, let's just go back to a couple of those issues, then. I think the $-$
5	let's just deal with the weave length, because this one $-$ I'm a little bit confused
6	as to what the issue is here. It seemed to me, having read Thurrock's comments,
7	it was not an objection to the weave length being extended to 200 metres per se,
8	but it was just more of an issue that that hadn't been reflected in the scheme
9	drawings. Is that a fair characterisation of where Thurrock is? There isn't any
10	objection to it extending the weave length, is it? It's
11	MS MCMULLEN: Sorry, Kirsty McMullen on behalf of Thurrock Council. The issue
12	is that it's been extended in the model but not within the general arrangement
13	drawings, so the design doesn't then match the modelling, so there's not an issue
14	about extending the length of – the weave length. It's that it's not incorporated
15	in the design.
16	MR YOUNG: So in modelling terms, it isn't inappropriate.
17	MS MCMULLEN: The other element is that the VISSIM and the LTAM, their
18	modelling, that passes that in a different way so they're not aligned, but from a
19	– if we're just talking about VISSIM, which I think your questions related to –
20	is that they don't align with the design.
21	MR YOUNG: Yes. Mr Smith.
22	MR SMITH: In relation to not aligning with the design – we don't have to solve it now,
23	but I'm just going to put a crumb on the table, which is and does any of this at
24	any point need any land that is not within the existing red line boundary? You
25	need say no more, but if it does, or if there's a possibility that it does, we do need
26	to surface that before the end.
27	MR YOUNG: Does the applicant want to address us on that point before we move away
28	from it?
29	DR WRIGHT: Tim Wright for the applicant. Sir, I can confirm we have checked that
30	merge and that merge is fully deliverable within our limits of deviation, so it's
31	within the order limits. It's also within the permanent land take and the defined
32	limits of deviation, so the answer is no.
33	MR SMITH: Thank you very much.

- MS MCMULLEN: Kirsty McMullen on behalf of Thurrock. We haven't actually seen
 that evidence, so it would be helpful if the applicant could submit that evidence
 so that we can review that.
- MR YOUNG: We'll put that as an action point. Okay, fine, let's just on I mean, the
 driver behaviour is the main one I want to come to, perhaps. Let's just deal with
 the signal timing issue. Where are we with that, Ms McMullen?
- 7 MS MCMULLEN: Kirsty McMullen on behalf of the applicant. What we would like to 8 point out, so the – we did have a meeting at the workshop, and we documented 9 what was going to be changed out of the various comments that we'd made. We were expecting those changes to be made. What actually happened was that 10 11 there were further changes made, so I don't think it's a case of going through 12 the ones that weren't necessarily agreed. I think we set out our position within 13 the joint position statement, particularly with regards to signal timings. There 14 were lots of – we've documented that in terms of green, amber and red, so all 15 of the various aspects, to help you. What we were expecting - so in terms of 16 version 2, which was - at the point that we had that workshop, we were on 17 version 2 of the model, and so what we were expecting, based on the comments 18 that the applicant had agreed to make – I think all, bar two or three, they agreed 19 to make. We weren't expecting the results to change considerably. We were 20 expecting -
- 21 MR YOUNG: Yeah, let's –
- 22 MS MCMULLEN: I know you don't want to talk about –
- 23 MR YOUNG: Yeah, let's –
- MS MCMULLEN: The point, more, is to do with there were additional changes made
 which we weren't expecting, as opposed to –
- 26 MR YOUNG: And this was one of them, the signal timings.
- 27 MS MCMULLEN: No, I think the signal timings weren't changed –
- 28 MR YOUNG: No, is it a big issue?
- 29 MS MCMULLEN: No, so I wouldn't want to dwell on the signal timings.
- 30 MR YOUNG: Right. Okay, I think that's probably –
- 31 MS MCMULLEN: Yeah. That's fine.
- MR YOUNG: all I need to know. Okay, driver behaviour then, let me just see... Yeah,
 I need a bit of clarification on this driver behaviour issue. I mean, on the one
 hand Thurrock say a couple of things that Thurrock say on it. One is that it is

- the different parameter that had been set in the 'do minimum' and 'do 1 2 something' scenarios. Now, when I then read the applicant's forecasting report 3 - and I pulled out a quote here that says: 'Given the whole circulatory is to be 4 widened to three lanes in the DM and DS models, all circulatory links in these 5 models have been adjusted to use the urban (merge).' That suggests to me that 6 urban (merge) has been used in the DM and DS scenario. Thurrock seem to 7 suggest otherwise, so I want to get to the bottom of was there a different 8 behaviour type used in the 'do minimum' compared to the 'do something'? 9 Because if there was, that would not seem to me to be an appropriate way to deal with it changing the driver behaviour between the two scenarios, so let me go to 10 11 the applicant first, then I'll come to Thurrock. Mr Wright.

DR WRIGHT: Tim Wright for the applicant. To specifically say, we have used the same
merge behaviour between the 'do minimum' and the 'do something'. I have a
further submission I can provide on the driver behaviour, if you would like, at
this point.

16 MR YOUNG: Yes.

17 DR WRIGHT: So the driver behaviour characterises how the driver interacts with other 18 drivers on the highway, and urban (motorised) behaviour characterises a driver 19 that would seek larger gaps in the traffic prior to changing lanes and pulling out 20 into traffic. The urban (merge) behaviour reflects behaviour of a driver more 21 used to movement in a high traffic situation, so as I've said, for clarity, the 22 V3.6 model uses consistent behaviour, urban (merge), in both the 'do minimum' 23 and 'do something'. This is different to the baseline model, where urban 24 (motorised) behaviour was used, but the introduction of the lane and the 25 improvement works mean that we think that the more cooperative lane change 26 behaviour associated with urban merge parameters is appropriate. That leads 27 to higher deceleration parameters and shorter safety distances, which is common 28 and appropriate for coding links with traffic signals, and people will accept a 29 smaller gap for a lane change as they're approaching a stop line when there's a 30 signal in place.

31 So we consider that given the nature of the highway network in this area, 32 drivers are likely to take full advantage of the gaps in the traffic, so urban 33 (merge) certainly characterises the local driver behaviours, and it's important 34 that when you're developing a model like this, you should align the driver

behaviour with the behaviour that you would expect to see at that site. And just 1 2 to give some further context, we've reached out to the teams who've done the 3 localised traffic modelling for the Silvertown Tunnel and the M25 junction 30 4 reviews to check how they've characterised drivers in their models, and they 5 confirmed that for selected junctions around the Silvertown Tunnel and for junction 30 of the M25, they've also applied the urban (merge) behaviour as 6 7 being appropriate, so I think there's, by reflection, a connection between driver 8 behaviour in the region and the driver behaviour we're proposing.

MR YOUNG: Well, that's helpful. I was going to ask about precedents and whether you
could provide an example, but you beat me to it. I trust you'll put those in your
post-event submissions. Yeah. Right, let me go to Thurrock, then, on the driver
behaviour issue.

13 MS MCMULLEN: Sir, Kirsty McMullen on behalf of the applicant, so we set out our 14 view on driver behaviour within the joint paper, and so that was flagged as not 15 agreed, and the reasons for it, but what I would – I think it's useful to have a 16 common sense approach to this, because we could go backwards and forwards 17 about different parameters here, and I don't think it's particularly helpful. What 18 we're trying to do is to understand and isolate what the effect, what the impacts 19 are of LTC, and to make sure that drivers are behaving is a reasonable way. 20 They're not overly aggressive; that would be an unsafe design, or constitute an 21 unsafe design, and so there should be like for like parameters and reasonable 22 parameters put in for driver behaviour, which is what we've looked at to do in 23 3.6T, and by doing so, all it's doing is isolating and allowing the understanding 24 of LTC impacts, without there being pursuing of what that might be to do with, 25 and drivers behaving in a different way.

So I think it's – we have set out within the submissions the more technical 26 27 stuff. I think it's just raising that to be the reasons why we're doing that is not 28 to do tit for tat on technical modelling parameters. It's literally just to say there 29 should be reasonable behaviour of drivers, and like for like, and the other thing 30 I just – I suppose it's useful to comment, is that in the applicant's model, there 31 is significant queuing, so it's not that we've got a situation whereby everything 32 was fine and now it's suddenly not within the council version. There was 33 significant queuing and delay within the applicant's version. What it does show 34 in terms of the driver parameters is that this part of the network is very sensitive

1	to congestion, so that's really, probably, the conclusion that should be reached
2	about very tiny little changes to driver behaviour and how people react to
2	congestion – which probably happens in reality – does create different changes,
4	to the model, and so I suppose it's just making sure that we're using the model
5	to create common sense conclusions, and what we were trying to do in 3.6T is
6	just to make sure that there was a consistency across behaviour, so that you could
0 7	understand the actual effects of the additional traffic for LTC.
8	MR YOUNG: But it was consistent, wasn't it? They used the same driver behaviour in
9	their – so that part of your submission was inaccurate because you said that they
10	changed the behaviour.
11	MS MCMULLEN: There was some –
12	MR YOUNG: They've said that they haven't.
12	MS MCMULLEN: Yeah, so my understanding – and I need to check with the modellers,
13	which I can do – is that there were a few parameters that were made more
15	conservative. There were some that were made more aggressive in terms of the
16	'do minimum' and 'do something', but I think there were some that were made
17	more conservative. But ultimately, what we're –
18	MR YOUNG: Well, will you check that?
19	MS MCMULLEN: I can check that. Of course I can, sir.
20	MR YOUNG: Because this should be a black and white issue. It shouldn't be a grey
21	area. It's either been –
22	MS MCMULLEN: I will check that for you and confirm. Thanks, sir.
23	MR YOUNG: Yeah, thanks. Does the applicant want to come back on any of that?
24	DR WRIGHT: Tim Wright for the applicant. I think some of that conversation leads
25	into some of the discussion around the 6A submission where we go into more
26	detail, so perhaps as you want to follow through we'll discuss that further as we
27	get into the 6A submission.
28	MR YOUNG: Fine, okay.
29	DR WRIGHT: Sorry, deadline 6A submission from Thurrock Councill, for clarity.
30	MR YOUNG: Yeah. Okay, right, shall we, then, move on? We've had that brief
31	discussion there, but shall we move on then to the second part of this topic?
32	Now, what I want to understand here is the outputs from the version 3.6
33	modelling. Where does it take us compared to what we had before? I've gone
34	through, spent quite a bit of time looking at the tables in the applicant's 6A

submission, and it's quite clear that there is some delays through the junction. Let me just start with this. I mean, what Thurrock have said is that the applicant now accepts that – this is from Thurrock's deadline 7 submission – the applicant now accepts that there's an unacceptable adverse impact on congestion at Orsett Cock junction, and has inserted a new requirement to mitigate the impact. We'll come on to talk about the requirement, but is that the applicant's position now, that the 3.6 modelling shows unacceptable adverse impacts on congestion?

8 DR WRIGHT: Tim Wright for the applicant. No, we don't accept that position. We do 9 not accept that there are unacceptable adverse impacts. We acknowledge that there are queues and delays, and we have said since the earlier days of this 10 11 examination that there would need to be modifications made at Orsett Cock, and 12 that is why it was included into the works plans and schedule 1 of the draft 13 development consent order. The requirement secures that, but we don't accept 14 that they are unacceptable, and we'd say that there are a series of requirements 15 that deal with all sorts of matters that are not considered to be unacceptable but 16 appropriately handled through requirement, so it doesn't follow that by 17 conclusion of us putting in a requirement we accept that there are unacceptable 18 impacts.

19 MR YOUNG: Yeah, Ms McMullen touched on it a few minutes ago, where she said that 20 there had been an expectation beforehand that there would be – the result would 21 be different, and that the 3.6 modelling that you carried out showed a similar, or 22 slight increase, in queueing compared to the previous round of modelling. I 23 mean, was the outputs of the 3.6 modelling consistent with what you were 24 expecting? And does it – and is it a game – does – is that right that it doesn't 25 really move the earth a great deal in terms of what had previously been done? I mean, the results - the amount of queuing and delay at the junction - was that 26 27 significantly different to the previous VISSIM modelling that had been done?

- DR WRIGHT: Tim Wright for the applicant, so we see that the 3.6 model was what we
 expected to see. It was similar to version 1 and version 2 of the model.
 Version 1 and version 2, we've set out our position previously. We didn't see
 anything we didn't expect to see in 3.6, and it hasn't really changed our position.
- 32 MR YOUNG: Okay. Right, let me go to –

33 MS MCMULLEN: Sir, can I just –

34 MR YOUNG: – Thurrock, yes.

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MS MCMULLEN: Yeah, sorry. I was going to say I had something to say on that, but that's fine, sorry. Jumping the gun.

3 MR YOUNG: I could see you. I knew you were chomping at the bit. Yeah.

4 MS MCMULLEN: Thank you, sorry. Kirsty McMullen on behalf of Thurrock Council, 5 so we were surprised with the results. Obviously we'd been tracking version 1 and commenting on that version 2, and with the model log that we had of 6 7 changes to be made as part of the joint paper that we'd produced, suddenly quite 8 a difference, and just to provide a couple of examples, so in the a.m. for 2030 -9 and we always talk about 2030 at the moment, because we're not even going to 2045, so they would be worse still – but for 2030, 8 a.m. until 9 a.m., the total 10 11 delays – so if you look at all of the delays in vehicle hours in version 2, and we look at the model network as a whole, so Orsett Cock roundabout as well as -12 13 we then looked at the Rectory Road, Stanford Road junction, so take the delays 14 at that part of the network. In version 2, the total delays increased by 27% in 15 terms of the 'do something' and the 'do minimum scenario', whereas we then 16 received version 3.6 and suddenly they reduced by 30%, so all of a sudden we 17 had a betterment of 30% in the a.m. period, which was confusing.

In the p.m., for example, the version 2 delays – when we compared with and without LTC in version 2 – they increased, the total delays, by 362%, and then we received version 3.6 and the increase had dropped, so it was only 82%, so there was obviously lots of changes that were happening, that had been made, and they were more than what we were envisaging, because suddenly there was betterment where there hadn't been reported before, and then considerably less delays.

25 MR SMITH: This is twitching the ears of a one time old mathematical modeller. I mean, 26 essentially here, it feels as though we have reached a margin point, or a number 27 of margin points, in modelling, where potentially quite small changes are 28 demonstrating that the model is distinctly tentative to those changes, and 29 therefore understanding the specific parameters that are driving that order of 30 change is probably the first step. Have you dug into this? Can you actually tell 31 us, 'Yes, we tentatively tested this factor; it didn't change, but we did this and it 32 appeared to replicate the scale of change that we saw'? And if so, have we got 33 as far as a list of the specific parameters that you floated back to the applicant 34 and said, 'We think this drives it. Do you agree? Can we explain?'

MS MCMULLEN: That's fine, so in our D6 – sorry, Kirsty McMullen on behalf of the 1 applicant - in our D6A submission, so REP6A-013, we've identified three 2 3 elements of the V3.6 that we think are key to this, and it's not just about the with 4 LTC scenario. It's also about the 'do minimum' scenario, and so the 'do 5 minimum' scenario has suddenly got worse, and then the 'do something' 6 scenario suddenly got a bit better, so taking them in turn, one of them is the lane 7 allocation, so in the 'do minimum', as you're coming from A128 Brentwood 8 Road south, your approach – you're on the Orsett Cock gyratory, circulatory 9 carriage, and in the 'do minimum', only one lane can go straight ahead to the Brentwood Road south arm. In the do - and that caused quite significant 10 11 queueing on the A128 Brentwood Road, and that was a change that was made 12 and that is actually in the model log, so just to point out, so that was something 13 that had been discussed.

14In the 'do something' scenario, though, what had happened is that all three15lanes had been allowed to go from three lanes circulating, and all three could16come off onto Brentwood Road south, so you're suddenly creating fake capacity17on the circulatory. The drivers wouldn't behave like that; you wouldn't be18veering across three lanes to – well, some drivers might, but we wouldn't expect19that to be modelled, and nor would it be –

20 MR YOUNG: And you're sure it was all three.

21 MS MCMULLEN: All three, but in the forecasts report, only two, so the middle and the 22 offside, so there is a diagram within the forecast report that shows two lanes, but 23 what was modelled is three, and so that was quite key for the differences between 24 the models of one having a lot of congestion and one not, and what we – so the next change is the driver behaviour, which we've discussed, and then the last 25 thing was actually Pegasus crossing, which is included within the applicant's 26 27 works plans but had not ever been modelled, and we then discussed this and said 28 'You are proposing a Pegasus crossing on Stanford Road – at Rectory Road that 29 hasn't been modelled', which was then included, so again, that was an agreed 30 change. What it did was it did – so your next question might be back to us to 31 say, 'Well, two of the three things you've identified were things that had been 32 discussed. It's only the driver behaviour changes that hadn't been discussed', 33 and obviously the lane –

34 MR YOUNG: That's what I was going to say.

1	MS MCMULLEN: Yeah, so the lane change was modelled differently to how it was
2	intended, so the lane allocation - because three rather than two were in the
3	model, so I think that was just a modelling error, but it actually created a lot
4	more capacity. What we would say is that in the – so what's actually happened
5	with these changes is that we've ended up with a 'do minimum' scenario that's
6	actually got queuing and delay in it. We've got over 600 seconds queuing on
7	Rectory Road. We've got hundreds of seconds queueing on Brentwood Road,
8	and so inadvertently, the – what's happened is in the 'do minimum', the growth
9	has been added, so we add the growth in 'do minimum' but then any mitigation
10	that might come forward with that development traffic, even before LTC – so as
11	a local highway authority, there would be this growth that's delivered, and
12	Thurrock Council would look at that and consider those applications, and then
13	say, 'There needs to be some mitigation', and indeed the applicant has said the
14	same thing as part of the free ports. They can't add the free port traffic in without
15	mitigation, so this is a reasonable –
16	MR YOUNG: Yes, this is the crux of the issue, isn't it?
17	MS MCMULLEN: Yes.
18	MR YOUNG: Now, if I was – just to play devil's advocate, what one could say is, 'Well,
19	what Thurrock are doing is' – you're appropriating the applicant's 'do
20	something' scenario, and using it as your 'do minimum'. You're taking his
21	improvements – their improvements, and putting it into your 'do minimum', so
22	it's not a 'do minimum' because you're proposing to do something. Now, have
23	Thurrock actually got schemes for these improvements that you're talking
24	about?
25	MS MCMULLEN: Kirsty McMullen on behalf of the applicant, so the lane allocation is
26	three lanes, and it should be two, okay? So that needs to change anyway within
27	the applicant's model, so what that involves is one arrow being marked on the
28	road, and so - and a Pegasus crossing is effectively one signalised crossing
29	across; they're very low-cost interventions. All we're saying is that the purpose
30	of this exercise is to identify – is to create a 'do minimum' situation that isn't
31	chaotic, that isn't full of lots of delay, because with growth comes mitigation,
32	and so you cannot have – and that's exactly what the applicant have said about
33	free port. With the growth of free port – they've resisted putting it in, because
34	they don't know what that mitigation would be, but it is general good modelling

1	practice that you wouldn't – what we're trying to do is isolate. There is an
2	increase in traffic associated with LTC by a few hundred vehicles. We need to
3	have a 'do minimum' scenario, whereby yes, you've added on the growth, but
4	you've added potentially – you've made sure that you haven't created a 'do
5	minimum' that is really bad to disguise the effects of LTC, by saying, 'Well,
6	that's chaotic. Ours is less chaotic, so we don't need to do anything about it.'
7	MR YOUNG: But isn't a 'do minimum' exactly what it says on the tin?
8	MS MCMULLEN: No, so –
9	MR YOUNG: You don't do anything. It's not a 'do minimum' if you're saying –
10	MS MCMULLEN: No. It's probably called that in the wrong way. It should be called
11	a reference case, sir, so a reference case is what your reference case is, that it is
12	a reasonable reference case from which to understand the impact of scheme, so
13	it shouldn't be because a highway authority and developers – so that road that's
14	been added is development traffic. It's background traffic in growth, so be it a
15	local highway authority or developers coming forward, would not allow
16	10 minutes of queue on Rectory Road, if the solution to that would be one
17	pedestrian crossing. They wouldn't allow an exponential queue –
18	MR YOUNG: I understand –
19	MS MCMULLEN: – if the answer is –
20	MR YOUNG: I understand the point that you're making. It's just fairness to the
21	applicant. Before they carried out their modelling, did you raise this issue with
22	them?
23	MS MCMULLEN: No, we didn't, because –
24	MR YOUNG: No, right.
25	MS MCMULLEN: Yeah, so I understand –
26	MR YOUNG: So this is an issue that's come up. You've looked at the results. They're
27	not what you had expected, so you've had a look and these issues have now
28	arisen, so is that fair to the applicant?
29	MS MCMULLEN: Is it fair? Well, we've pointed this out.
30	MR YOUNG: If you hadn't pointed out before they did their modelling.
31	MS MCMULLEN: We've pointed it out when we reviewed it to say, 'These are the areas
32	of' –
33	MR YOUNG: 'These are the schemes that we would implement.'

1 MS MCMULLEN: No, so what we're saying is that that level of delay – I think it's going 2 back to what the applicant has said. The applicant, effectively has said that, 'All 3 of a sudden, we've got a 'do minimum' that's suddenly got a lot worse than in 4 version 1 or 2', okay? So version 3.6, it's a lot worse than in version 1 or 2 in 5 terms of level and delay, and so by then them looking at with LTC, their conclusion is, 'We've got queueing and delay, but there's queueing and delay 6 7 here, so we've got a lot of queueing and delay; we're not making things any 8 worse', and so what we're saying is that that hasn't actually identified – neither 9 - both of them have got unacceptable queueing and delay, so what you need to do is then say, 'Would that level of queueing and delay happen in the 'do 10 11 minimum? No, because of these low-cost things that would happen', and then 12 isolate what the actual impact is of LTC.

So you could do it in a different way, sir. You could say, 'Do no intervention whatsoever', so sometimes you have it so that you do it in step changes so you do 'do minimum' – or the reference case – and that all you then do is keep adding traffic on that you could just isolate saying, 'What would happen in 2030 without LTC if we just loaded all this traffic on but we didn't do anything about it? And then what would happen if LTC traffic is loaded on to that?' but that's not what we're – we haven't got that test, and so we're trying to provide like for like. We could do a like for like in a different way, so we're not comparing apples and pears, so that's really all we're trying to do is to really just isolate the impact of LTC, so that we can see what effect it actually has.

23 MR YOUNG: Sure, yeah. Mr Wright?

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24 DR WRIGHT: Tim Wright for the applicant. I think first of all, it might be helpful if I 25 talk about this lane change situation. Actually, the first thing I'd like to say is in terms of the characterisation of which elements are fundamental to the 26 27 behaviour of the model, I think we agree that the merges on the lane, the driver 28 behaviour and the Pegasus crossing are the factors that are important here. I 29 think that's Thurrock Council's representation, and we'd agree that those are the 30 three that really influence the performance of the roundabout, just I think that 31 might help. So in terms of the lane change behaviour, we don't agree with the 32 characterisation that Thurrock have put forward for our lane change behaviour, 33 but I'm going to go back first and just explain the position over time.

1	So in our 'do minimum' version 1 and version 2 models, we allowed
2	traffic from both the – and I have some notes here, which – it's a question about
3	whether we're talking about the offside, outside, nearside or inside lane, which
4	we could get confused about so let's just try and be specific and use one
5	language. If it is on the outside of the roundabout, I'll refer to the nearside or
6	the inside lane, because that is next to the hard shoulder, as it were, on the
7	roundabout. If it is on the interior of the roundabout, next to the roundabout
8	itself, it is the offside or the outside lane because that would be the fast lane if
9	you were on a three-lane carriageway, and hopefully I'll get that consistently
10	right, and maybe we won't get too lost.
11	MR SMITH: And we have to write a report on this.
12	DR WRIGHT: We will provide this in our deadline 8 submission.
13	MR SMITH: Actually, I think what would really assist in terms of the linguistics of this
14	- and I may be over-simplifying here - but if you were literally to provide a
15	circular diagram and label up each lane with your preferred term, whether or not
16	Thurrock agree with the terminology. I think at this instance it would be good
17	to have just one set of terminology, given that we're looking at a complex
18	roundabout with multiple passage of lanes and options to enter and exit. Can
19	that be done?
20	DR WRIGHT: It certainly can, sir.
21	MR SMITH: Thank you.
22	DR WRIGHT: Okay, so Tim Wright for the applicant. In our version 1 and version 2
23	model, we allow traffic - and this is on the southbound carriage of the
24	roundabout – we allow traffic in the nearside and the central lane to leave via
25	that A128 exit to the south – Brentwood Road exit to the south. In the discussion
26	at the meeting, Thurrock advised us that in the 'do minimum', they would like
27	us to limit it to only traffic on the nearside lane, and therefore although our view
28	was that it was better to be the nearside lane and the central lane, in terms of
29	seeking agreement, trying to remove the areas of disagreement, we did make
30	that change to our 'do minimum' model to limit it to just the nearside lane, but
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51	version 1 and version 2 reflected what we thought was best was nearside and
32	central lane, and as I understand it, 3.62 reflects the nearside and central lane as
32	central lane, and as I understand it, 3.62 reflects the nearside and central lane as

1 If I then turn to our 'do something' model, we disagree with the 2 characterisation of three carriageways trying to make their way off at Brentwood 3 Road to the south. We agree that that wouldn't be appropriate, and that's not 4 what we consider our model to do. What it does allow you to do is move from 5 the third lane into one of the two lanes that are allowed to move onto Brentwood 6 Road as you move across the south carriageway across the A13, so as you move 7 around the roundabout, you can move from one lane to another to get into the 8 right location to leave that Brentwood Road south connection, and the reason I 9 think that's quite important goes beyond just the performance of traffic trying to get out there. What that does is it restricts movements for other people right the 10 11 way across the roundabout trying to come through there, so if you're actually 12 going from the A128 down to Brentwood Road south, you would hope that you 13 are in the right lane and that you follow that carriageway through.

But if you're coming off the A13 eastbound coming up onto the roundabout and you want to make your way round to that south link off the roundabout, there you are quite likely to be in a different lane and need to move across between carriageways as you move around the roundabout to get into the right lane, and we would say that that is normal driver behaviour and so we think our model does represent safe, normal driver behaviour, and don't agree with the characterisation put forward by Thurrock Council.

MR YOUNG: Do you think we could have a plan of the roundabout put up? I know
 there are various – Thurrock's had one and I think the applicant has a plan. There
 was one in a recent submission that I think actually highlighted in blue the lane
 markings.

25 [Sotto voce discussion]

26 MR YOUNG: Can you zoom it in on the – that Brentwood south exit? That's it.

27 MR TAIT: That's REP6A-007[?] on page 14.

MR YOUNG: Yes, it's not ideal, is it? That text could – needs to be rotated 180 degrees,
but I think that gives a flavour. You can zoom in a little more on it. That's it.
Do you want to – are you okay to continue?

31 DR WRIGHT: Yeah. Tim Wright for the applicant.

32 MR YOUNG: Yeah, just talk us through that again.

33 DR WRIGHT: So –

34 MR YOUNG: So it wouldn't be the three lanes –

1	[Crosstalk]
2	MR YOUNG: What you're saying is on the inside lane, you would be able to move over
3	into the middle lane and then exit that way. It's not three lanes all coming off
4	for Brentwood south. Tim Wright, from the applicant.
5	DR WRIGHT: Tim Wright, from the applicant. So the position put forward by Thurrock
6	Council is that, as you move south, all of those three lanes can come off and exit
7	onto Brentwood Road, to the south. That's how they say our model performs.
8	Now, we would say, what our model allows is when you're travelling down,
9	across, approaching towards the east-facing connection there, our model allows
10	you to move from the outside lane into the central lane to be able to pull off onto
11	that southbound link, which is Brentwood Road; and that that is an appropriate
12	move that you would make at that point in the roundabout circulatory. You
13	wouldn't be able to come directly from the outside lane or the central lane onto
14	that Brentwood directly, taking a sharp left, as it were, and crossing three lanes
15	of traffic.
16	MR YOUNG: Because that would never get through a safety audit, in any event, would
17	it. That would not be appropriate. Do you think you could give us a better plan
18	that zoomed in on that particular area of the roundabout and put that in your
19	post-event submissions, just making that a little bit clearer?
20	DR WRIGHT: Absolutely, sir.
21	MS LAVER: Could we possibly also – could you show us that with your cursor? I'm
22	trying to visualise it because I'm hearing lots of going east and coming south.
23	So it would be helpful if you put your cursor on and you identify, on that plan,
24	those movements.
25	DR WRIGHT: Sir, I do have plans – I'm aware they're not in the examination library
26	yet – which I think would be a helpful comparator to look at. They are versions
27	of that plan with red lines on. If you would like us to pick them up, we can, in
28	possibly just a few minutes, because there is text on them that we'd have to
29	remove as well. They're my briefing notes, and they would form part of the
30	deadline 8 submission on this. But would you like us to take a moment's pause
31	to do that?
32	MR SMITH: It seems useful. I think one of the issues that we are, essentially, potentially
33	struggling with is the arrangement of the intersection as proposed. I think it's

1	critically important that we use the hearing time today to achieve the best
2	common understandings that we can. So let's have that done. Take a 15.
3	MR YOUNG: Five minutes, or 10.
4	MR SMITH: How long do you need to get it done?
5	MR YOUNG: 10, should we say 10 minutes?
6	DR WRIGHT: Yes, let's take 10 minutes.
7	MR YOUNG: Okay, alright. Let's adjourn then, and we'll come back at, just, 11.10.
8	Thank you.
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10	(Meeting adjourned)
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12	MR YOUNG: Okay, it's 11.15, the hearing is resumed. Let me hand back over to Dr
13	Wright.
14	DR WRIGHT: Tim Wright, for the applicant. Thank you, sir, for the brief intermission.
15	If I can ask my colleague to share his screen; I see he's having to re-log in, so
16	he will do it, but two-factor authentication slows us all down at times. Okay, so,
17	Tim Wright, for the applicant. I see we are now there. This first image – and
18	we will submit these at deadline 8, just so that we can see – but this is so that
19	people can see, this is my briefing note to myself about which lane we are talking
20	about on the roundabout. So as I've said, the offside lane is the central lane near
21	the centre of the roundabout, also the outside lane; and the nearside lane, or
22	inside lane, sits on the outside of the roundabout.
23	MR YOUNG: Can you just use the cursor, just so my panel members are just clear which
24	exit is Brentwood Road south? Because it's not massively clear on that. I know
25	which one it is, but –
26	DR WRIGHT: Okay. So Brentwood Road south is the south-facing exit you see there.
27	The other ones I'll refer to are the A1013 east – thank you – and the A128, which
28	is the north one; and then I'm also going to refer to the on slip from both the
29	A13 eastbound, and the LTC, which is that one there. Okay. So if we can move
30	to the next slide, please. Next screen. So this is the position set out by Thurrock
31	Council in their representation; this is a direct capture from their submission to
32	deadline 6A. It shows their proposition that we are taking traffic down three
33	lanes and trying to push it off the Brentwood Road south. We agree that is not
34	an appropriate manoeuvre to make. So if we can move forward to the next slide,

and you'll see what our model actually does is it actually only allows for two lanes.

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So traffic coming down the nearside lane can only actually exit out onto the A1013 east, at that point. The traffic coming off at Brentwood is travelling either down the offside lane or travelling down the central lane. But you can also make a movement from the offside lane into the central lane. And actually – it's only a single lane coming off – that movement from the offside lane into the central lane is the one that allows the traffic to make that movement. Now, if we can move forward to the next slide, please. This is what we originally had in our due minimum, and is represented in the Thurrock 3.6T, and that shows traffic coming down the nearside lane and the central lane to come off Brentwood Road.

13 But what's particularly important here is that you cannot get from the 14 offside lane out at Brentwood Road. And there's another diagram - if we can 15 just move on, please – and I think this is quite important to understand the overall 16 performance of the roundabout. So if you were coming from the A13 eastbound, 17 wanting to leave by Brentwood Road to the south, your natural movement would 18 be to take the offside lane, to travel around the middle of the roundabout, and 19 then move towards the outside of the roundabout as you go around it, to make 20 that natural movement off on Brentwood Road. And that movement is 21 prohibited by the coding in the model in Thurrock's 3.6T model. And I think 22 that leads to further consequences to the overall performance of the roundabout. 23 It's a realistic manoeuvre, but it actually quite substantially restricts how traffic 24 can use it, in a way that we don't consider to be representative. I hope the 25 diagrams have made that a little bit clearer for you. Thank you.

MR YOUNG: And then, in terms of the other issues that were raised by Thurrock, in
terms of the Pegasus crossing and some of the – basically, their argument, 'Well,
the due minimum wasn't realistic because we would come along as a responsible
highway authority; we would do some tweaks here and there and put a Pegasus
crossing in.' Anything you want to say on that particular line of argument?

DR WRIGHT: Tim Wright, for the applicant. So we would agree the position put
forward by yourself, that the due minimum should represent the condition that
it is currently to be. That got confused. There are, as we understand it, no firm
plans in place to deliver a crossing at Rectory Road and, therefore, we don't

consider it appropriate to be in the due minimum model. We included it in the do something because it is in our design. It is proposed to be delivered by us under the – it's part of the walkers, cyclists and horse riders programme of works. But as we understand it, there is no proposal in the due minimum to provide for that.

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I would also like to say, at this point, that we disagree that there were other changes between the version 2 model and the version 3.6 model. A number of changes were identified in the REP-6A submission, by Thurrock Council. However, we consider that a number of those relating to the driver behaviours, the priorities, the merges, they were all actually the same in our version 1 and version 2 model submission. We did not change them between version 2, version 3 or version 3.6 and, therefore, the representation we consider to be on matters that essentially were agreed by the fact of them having been in the reports and the models that were issued to them going back to summer 2022. We don't agree that we made further changes to that. The only changes that we did make were the Rectory Road signal, which we've talked about, and the merge.

As I said previously, we did emend that merge behaviour in the due minimum model because that was what Thurrock Council asked us to do and, therefore, we were doing it to reduce the areas of disagreement between us in the model. However, in terms of the performance of the due minimum, perhaps going back to version 2, that would reflect the original merge behaviour that, I think, both sides are concluding is closer to the reality for the due minimum. Thank you, sir.

25 MR MACKENZIE: George Mackenzie, for Thurrock Council. Sir, I'm going to ask Ms 26 McMullen to address the points of detail. But can I just make what is, 27 essentially, a procedural point, which is that my understanding was that the 28 examining authority didn't want any more modelling and technical information 29 submitted after D7. My understanding, from the exchange that you had with Dr 30 Wright a moment ago, is that there's a further package of diagrams, including 31 the ones we've just had a look at, which are going to be submitted at D8. That 32 may be problematic, from the point of view of natural justice. And I would like 33 to understand what exactly is proposed to be submitted at D8, and whether it

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runs against the indication that was given, in fairly strong terms, by the examining authority previously on this topic.

MR SMITH: What I'm going to do is I'm going to set out our stall, as we see it, and hopefully then provide some indicative guidance both to the applicant and yourselves as to what might appear at deadline 8 and what the consequences of that might be. I think we can then look briefly at the question of whether that trespasses against our in-principle view that, in principle, modelling exercises needed to have been done by now, in fairness, which was I think a sound view and remains as such. Now, if it does feel like it trespasses, then we need to think about how we adjust what we ask for. But let's start by saying what we think we're going to get. And I think what we think we're going to get, having been working on the wordings of the actions concerned, is essentially no more than an explanation of the modelling work that has already been done and submitted.

And it is simply there to provide clarifying diagrams that identify, in the Orsett Cock roundabout, the numbers of available lanes; gives each of those lanes a consistent name that all parties interested in this conversation can then adopt in final submissions; that, in turn, clarifies the entrance and exit points and the routes between them; and then goes on, in stages, using the same diagrammatic base, as essentially Dr Wright has just done, but using some scratch diagrams that do need some additional work, to illustrate the key modelling points that remain at issue between yourselves. So in other words, the question of whether there is an availability of three lanes to move to the Brentwood Road south. In their view, they say not; in your view, you say yes. But then we have a diagrammatic representation of that, so that when we are reporting, quite frankly, we will probably extract that and include it in the report if it becomes a matter on which the relevant part of the report turns.

27 So we're trying to arm ourselves with the clearest diagrammatic 28 representations of what has been done. But this is the rub, as I see it; I don't 29 think we have asked – and I really trust and hope we have not been interpreted 30 by anybody as asking for anything new. On that basis, my proposition to 31 Thurrock Council is, there's nothing that should arrive at deadline 8 that 32 surprises you. But you will, nevertheless, have an opportunity at deadline 9 to 33 put to us your concern, if you believe that there is anything in any of this 34 explanation that is inherently new. I trust, however, there won't be. But you

1	will have that opportunity. So, no loss of your, clearly necessary, ability to
2	respond in natural justice terms is implied, unless the applicant, frankly, does
3	something contrary to our expressed desire. Does that help?
4	MR MACKENZIE: George Mackenzie, for Thurrock Council. Thank you, sir. That is
5	clear. Can I ask Ms McMullen to take up the mantle, as it were, and deal with
6	the technical points.
7	MR SMITH: Just before she does, given that that was a procedural intervention, I will
8	go back to Mr Tait and ask if he's content. One word will suffice if he is.
9	MR TAIT: Yes, sir.
10	MR SMITH: Thank you. Back to Ms McMullen, then.
11	MS MCMULLEN: Kirsty McMullen, on behalf of the council – sorry, Thurrock Council.
12	We will put that it in writing, and we can explain in diagrams. There's just one
13	diagram that would be helpful, if we could just put on the screen now, just seeing
14	as we've been talking about it, and that was included in appendix B of our REP-
15	6A, our deadline 6A submission, which is REP6A-013. If we zoom in a little.
16	So this is, as your coming south on the Orsett Cock, this is a screenshot from the
17	applicant's 3.6 VISSIM model. And as you're coming south along Orsett Cock
18	carriageway, you can see that you've got three lanes in a 50-metre stretch of
19	road, between the A1013 as they're coming off, all three carriageways, at that
20	point, then are able to turn off onto Brentwood Road south. So hopefully that
21	makes things clear from a modelling perspective.
22	We'll explain it in writing, just because $-$ no, that's fine. We can put the
23	modelling and then a diagram showing what that means, next to the carriageway
24	layout. But that's the issue that we've been discussing.
25	MR YOUNG: Are you, for the time being –
26	MS MCMULLEN: I think it's probably best, at this stage, that we put – there's quite a
27	lot of detail that we'll put in writing. That's' fine, but we understand the brief.
28	MR YOUNG: That's fine. Let me then go to Mr Fox, on behalf of Port of Tilbury.
29	MR FOX: Thank you, sir. I'm just going to make two quick points. The first was just
30	to say that I think this whole discussion - and we'll come onto it with the
31	requirement later – but I think this whole discussion indicates why we need a
32	detailed requirement to deal with this issue. As your colleague said, there is the
33	issue that the model is sensitive to lots of different inputs, which just
34	demonstrates that when we get to however many years' time before the scheme

1 is built, that there is an issue there. But we'll come back to that later. And the 2 second point I just wanted to briefly mention, which is just this, I suppose, the 3 question of what actually defines what is due minimum. 4 Because the suggestion from Dr Wright, there, was that, essentially, they 5 can't make any assumptions about what is brought forward. But they, in themselves, in bringing forward the scheme, have acknowledged that 6 7 improvements would need to be made. And given they're at a localised level, I 8 don't quite understand why you wouldn't be able to assume that interventions 9 such as the one Ms McMullen was talking about would be able to be brought forward. 10 11 MR YOUNG: Thank you, Mr Fox. Does the applicant want to come back on that? 12 DR WRIGHT: Tim Wright. I think we've already set out our position there. 13 MR YOUNG: Right, okay. The next thing I just want to just ask, if we're just sticking 14 with what the applicant's done – the applicant's version 3.6 modelling – then 15 was to go to Thurrock and ask if they could be very specific and point the 16 examining authority to any, what they deem to be, unacceptable adverse impacts 17 shown in that modelling at the Orsett Cock junction. There are generic 18 comments that Thurrock have made, that I read in your submission, but I didn't 19 see anything specific. You didn't point me to a particular scenario or a particular 20 approach. That's what I'm just trying to explore a little bit now. If you could 21 be specific about what unacceptable impacts are shown in the version 3.6 22 modelling. 23 MS MCMULLEN: That's fine, sir. Kirsty McMullen, on behalf of Thurrock Council. I 24 just wanted to check I'm on the right part of the agenda; this is point 2 of the 25 agenda, yes. 26 MR YOUNG: Yes. 27 MS MCMULLEN: Yes, that's fine, in terms of severe impact. So there isn't a definition 28 of severe impact; it's a matter of judgment. So rather than us going backwards 29 and forwards on different definitions of severe impact, we note that the applicant 30 has pointed to an appeal decision in their wider impacts position paper, which is 31 REP6-092. And they consider a definition of severe, and I can quote: 'the term 32 severe sets a high bar for intervention by the planning system in traffic effects 33 arising from development. Mere congestion and inconvenience are insufficient 34 in themselves, but rather, it is a question of the consequence of such congestion.'

So taking that on board, rather than debating the definition, we consider that we have pointed to a number of consequences of the congestion that are set out within the modelling provided by the applicant, and indeed by Thurrock Council.

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So a number of those are for, one, being an unacceptable impact on the delivery of growth within Thurrock as a result of the queuing and delay caused by LTC, highlighted in the VISSIM modelling. And it's not just, sir, within the 3.6T; there is significant queuing and delay, particularly in the p.m. peak, within the applicant's own VISSIM modelling. Impact on road safety, which we've pointed out a number of road safety concerns about the design of the junction, in terms of Orsett Cock and the junction off - when we talk about Orsett Cock, it's also the junction of the LTC and the A1089, A13 junction itself. They were set out within our local impact report. The community harm due to inappropriate re-routing of traffic through local communities, as a result of queuing and delay on the highway network - if we're talking just about Orsett Cock, then the impact that we've highlighted here has been that the VISSIM modelling and the increased delays within the VISSIM modelling, and when that's put, which we can come onto later, when those parameters have been put into Orsett model, show re-routing to Orsett Village.

20 The severance effect, with reduced ability of pedestrians and cyclists to safely cross the roads, as a result of increased traffic on the network, and the 22 impact of bus journey times, bus service reliability, and viability of those bus services.

24 MR YOUNG: Yeah, I read that, and I think you are just rehearsing what you've already 25 put in your statement. What I'm – we'll put it as an action point, but I specifically want you, as part of your post-event submissions, to point the 26 27 examining authority to where, in the applicant's 3.6 modelling, there is an 28 unacceptable impact at that junction, between the due minimum and do 29 something scenarios, on journey times.

30 MS MCMULLEN: That's fine. I think it would have to be caveated that we don't accept 31 that version of the model. But we can look at that as an action. That's fine, sir. 32 MR YOUNG: Thank you. Let me go to the applicant and just ask, or explain the position, 33 in terms of the journey times from the A13 east, around the carriageway of Orsett 34 Cock, to the A1089, because that's something that has come up in previous issue

- specific hearings. And I would just like to understand what the version 3.6 tells
 us about the difference in journey time between the due minimum and do
 something scenarios for that movement. I know that will be of particular interest
 to the ports.
- 5 DR WRIGHT: Tim Wright, for the applicant. Sir, I don't have the specific journey times 6 that you ask for to hand. I will ask my team to have a quick look and pull that 7 together. But what I would like to do is to talk about the 2030 position and the 8 relative delays, if we could bring that plot up. So what I've asked my colleague 9 to do is bring up a plot that we have set out in our local traffic modelling appendix C forecasting report, in relation to Orsett Cock. And if we could make 10 11 that slightly bigger; it's a little detailed, I appreciate that. However, what we're 12 looking at here, on the left, is the due minimum scenario.

13 MR YOUNG: Just zoom in a little more, if you can.

14 DR WRIGHT: And on the right, we have the do something scenario for the a.m. peak. 15 So these are plates 4.3 and 4.8 of that report. They show the relative delays to 16 traffic on the approaches to Orsett Cock in 2030. And I think it's important to 17 understand the relative delay. I mean, it's a detailed assessment of the delay that 18 you experience on that journey, relative to the total time spent travelling. But 19 one way of looking at it – and it correlates quite well with queuing, so it can be 20 used as a proxy for queues. It's an output of VISSIM software that is a helpful 21 way of looking at the information. So these show the relative delays on the 22 approaches to Orsett Cock roundabout. It shows that there are relative delays in 23 both due minimum and do something scenarios. The extent of the road on which 24 these delays occur is relatively limited and, as shown in table 4.2 and 4.3 of the 25 report, so are the associated queues.

It should be remembered that these queues are only present to this extent 26 27 during the peak hours. So they're limited; we don't consider that they present a 28 There is increased traffic on the roundabout, which we safety concern. 29 acknowledge, and so there could be a concern about severance due to the fact 30 that there are currently uncontrolled crossings across the roundabout. But we 31 consider that the proposed traffic lights that we've set out in the localised traffic 32 modelling report - which would fit at the existing uncontrolled crossings and 33 provide signalisation, and therefore, an ability for pedestrians to move across 34 that junction - they're secured by our proposed requirement 18, and should also

1	be seen alongside the provision on Rectory Road, which, actually, we're
2	enhancing to provide better connectivity. The Pegasus crossing, but also the
3	provision on that bridge, and the connectivity in that area is enhanced. So that
4	provides for the non-motorised users.
5	MR YOUNG: You can see the betterment on that on the Rectory Road, can't you,
6	between the two scenarios?
7	DR WRIGHT: So you can see the betterment in terms of traffic. There's also a
8	betterment in terms of the physical provision that we're providing, at Rectory
9	Road, for walkers, cyclists and horse riders as well, which wouldn't be seen in
10	the traffic modeller but experienced by users.
11	MR YOUNG: And one of the other highlights from that is a reduction on Brentwood
12	Road south, so a betterment there, but an increase on Brentwood Road north
13	approach. So you've got a two-way thing going.
14	DR WRIGHT: That's right. It is a very complex roundabout, and it does move around
15	the adverse impacts and the beneficial impacts. If we move forward to the 22.30
16	p.m., you can see there, again, there's betterment on Rectory Road. We do create
17	an increased queue on the A12 – sorry, betterment on the A128. We create an
18	increased queue on the slips from the A13 and LTC, leading to the roundabout.
19	But the traffic is contained within those slip roads. So again, we don't see a
20	safety concern at this location.
21	MR YOUNG: So nothing there to indicate any main line – anything queuing back onto
22	main lines. And indeed, in terms of the A13, the throughflow along the A13,
23	nothing there to indicate any delays on the A13 itself.
24	DR WRIGHT: So there is no queuing back onto the main line on the A13, albeit, we
25	have put forward in previous representation, that's not necessarily an
26	unacceptable safety risk. But there is no evidence from the modelling that there
27	would be queuing back. There is a reduction in flow times along the A13 itself,
28	which is more seen in the strategic model than the VISSIM model. But that's
29	set out elsewhere and is part of the wider adverse impacts and beneficial impacts
30	across the project. But in terms of the VISSIM modelling, very clearly, you can
31	see the increase in delay that we are reporting. So we consider that, in 2030,
32	very clearly, the effects on the roundabout are not severe.
33	If we then move forward to 2045. So by 2045, there's more substantial
34	relative delays on the approaches to the roundabout. And these occur – between

the due minimum and the do something, there is some changes. We do lead to betterment on the Brentwood Road, approaching from the north, and Rectory Road. But we start to increase those queues on the A128 south, in the a.m. And if we move across to the p.m., here again, we see that there are some changes around – I won't go through them in detail – but there is queuing, and we've always acknowledged this, on the approach from the A13 and the LTC. However, again, this is contained within the slip roads that lead through. They are only present during the peak; they reduce in the inter-peak periods. So this is reflective of a particular period, a particular time of today, and is representative of relatively conservative model assumptions as well.

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However, it's our view – just to say, again, sorry, that there is no queuing back onto either the A13 or the LTC main line in our models. Albeit, again, as I've said previously, that's not necessarily unacceptable, but it doesn't exist anyway. So again, we consider that the impacts are not severe. Now, it's important, I think, to consider our position overall, which is that whilst there are delays and queues at this junction – albeit, at 2030, we actually see quite a substantial amount of betterment between the due minimum and do something – but they need to be seen in the context of the overall flows across the area. And therefore, that takes you towards the use of the strategic model in understanding the overall impacts on journey times and the overall impacts on flows.

Now, the purpose of transport modelling is to consider how travel across the area would change as a result of an intervention and determine the performance of the highway network. Whilst there's been discussion about the different assessments arising from the Orsett Cock modelling exercise, I think it's important for us to say, there's a number of elements that remain consistent here. So disbenefits have been identified across the network as use of LTAM. We're talking about Orsett Cock here, but we have previously talked about Pitsea, Five Bells, Manorway, all identifying similar impacts. These are shown in LTAM, as well as in the localised junction modelling; albeit there are differences in how the models reflect these. They are represented in our strategic transport model.

Specifically in relation to Orsett Cock, to help the flow of the examination, we provided information where we took those delays from the VISSIM model 3.6 and inserted those into the LTAM model. Now, we've set out previously, we consider this to be far from normal practice. But we do consider that there's some helpful thought experiments that this leads to. This demonstrates that the divergence between VISSIM and the LTAM runs, at this location, did not lead to a significant change in the wider movements of traffic across the area. While there are differences between the core model and the model that we submitted as appendix N of the localised traffic modelling report, they are relatively limited in scale, and localised, which indicates that whilst you would expect to see a variation at Orsett Cock because of the inclusion of those delays into the model, it doesn't lead to a fundamental change in the way traffic flows, including onto the next locations on the network, with relatively small changes at Manorway roundabout and the M25 junction 30.

13 So, in other words, the VISSIM model doesn't really lead us to make a 14 different conclusion. This demonstrates a decision made using LTAM for its 15 purpose, which is a tool to inform the decision-making process, is robust, and 16 that the 3.6 VISSIM model output does not lead to a different conclusion but, 17 actually, the same conclusion being made. And I'd also like to point out that 18 nobody's asked, within the examination, for localised traffic modelling of the 19 beneficial impacts, which, I think, is a huge relief to all of us. And it wouldn't 20 be a proportionate thing, but it's important that we recognise that our focus is 21 very much on the adverse impacts here, but that shouldn't lose sight of our 22 understanding, across the project, that actually we need to balance the 23 considerations and that there are substantial beneficial impacts across the 24 network that are also being represented in our assessments.

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Now, I can say a little bit more about the port traffic, but not that specific movement, which leads onto the next agenda item.

MR YOUNG: Maybe if we just take a pause there and just, I don't want to deny Thurrock
the opportunity if they want to come in and respond. And then we'll come back
to the specific point about the ports.

30 DR WRIGHT: Thank you, sir.

31 MR YOUNG: Thurrock, do you want to come back on anything that's been said there,
32 or do you want to deal with that in writing?

MS MCMULLEN: Kirsty McMullen, on behalf of Thurrock Council. I think this goes
 to the crux of it, that we're quite confused as to how LTC, which the applicant

accepts does induce quite a considerable amount of traffic to the Orsett Cock, how that can then lead to such a betterment that's shown through the presentation that Mr Wright's just given? And we just – it just doesn't seem plausible. If something doesn't feel right, you have to delve into why. And that's what we've been trying to seek to do. We're literally trying to identify and isolate the true impact of LTC, that LTC is acknowledged by the applicant to induce traffic to this part of the network, and with one arrow marking and a pedestrian crossing, there suddenly is a huge betterment, which doesn't seem quite right.

So we've tried to set that out within our D6. I think what we will need to do is to go away in writing and to set out to you the impacts of their 3.6 and our 3.6T, so that you can see where we consider, in 2030 and 2045, there to be severe impacts in both models, so that you've got that as a clear set. But we do not contend that LTC would provide a betterment to this part of the network, and that there are severe –

16 MR YOUNG: Anywhere?

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17 MS MCMULLEN: This part of the network, in terms of Orsett Cock. So I think the 18 other element to set out is about LTAM. What we haven't discussed - I mean, 19 there's been an interesting discussion about the detailed parameters of VISSIM 20 this morning, but it shies away from, actually, the crux of this is that the applicant 21 are seeking for you to make your decision only on LTAM. And within our D6A 22 submission, we set out that comparison in terms of delays, and there's quite 23 considerable differences. I won't repeat them, but they're set out within our 24 section 2, within tables 2.1 and 2.2 of REP6A-013 of the – and this is 3.6, so the 25 applicant's 3.6 and a comparison to LTAM. And there's huge differences; so we're talking here of 900% difference on some arms; 1245% difference on other 26 27 arms.

So on the one hand, LTAM is being used for the whole appraisal, which we've set out before, the whole appraisal and the BCR and the benefits and disbenefits on the wider network, which the applicant is seeking for you to make judgments on. And on the other hand, the evidence is showing that there's significant delays and mismatch between the two. So we don't consider that the evidence is before you to be able to say that the benefits outweigh the disbenefits, given the evidence that's there, that's been sent by the applicant.

1 MR YOUNG: Okay, just one particular question I'll just put back on what Ms McMullen 2 said there, and it was about the applicant wants us to base our decision solely on 3 the strategic model. Is that fair? Would the applicant put it in those terms? 4 DR WRIGHT: Tim Wright, for the applicant. Sir, no, we wouldn't consider that fair. 5 LTAM is the primary basis, and in order to understand the variety of factors so the overall benefits and the overall impacts and the environmental 6 7 consequences, and all of those matters – that does require the use of a strategic transport model. Those can't be informed by a localised transport model of this 8 9 nature. But we're not saying that the VISSIM model is irrelevant. We are saying it is informative about flows; it has informed our discussions around the need 10 11 for requirement 18 and localised traffic modelling will continue to be a part of 12 the scheme as we go through the detailed design. So I wouldn't say it is solely 13 on LTAM, but I would say that the majority of matters will require the use of 14 the strategic model in their consideration. 15 MR YOUNG: Right. Anything else on that? I'm just going to move onto – you want to 16 come back. 17 MS MCMULLEN: Sir, Kirsty McMullen, on behalf of Thurrock Council. The applicant 18 only submitted LTAM information with their DCO application. There was no 19 other modelling submitted. So their intention, when they submitted the 20 application, was for you to make your judgment solely on the basis of LTAM. 21 It was only because the examination authority required them to submit -22 MR YOUNG: Yeah, but that's not where we are now, is it? 23 MS MCMULLEN: That's the intention, that they solely were wanting you to make 24 judgments. And it has been repeated throughout the examination that that should 25 be your focus. 26 MR YOUNG: Yeah. 27 MR SMITH: I think I will make a brief observation on that point, framing it in terms of 28 what the examining authority ought to do. And then, again, given that there 29 seems to be some measure of concern between parties about what we will do, 30 let's make sure that we get it onto the table and see it and name it before we 31 move on. I think my immediate observation - any of my colleagues who 32 disagree with me are very welcome to come in on this as well - would be that 33 we have moved on from an LTAM only position; that to inform our 34 deliberations, we have asked questions and we have orally examined this issue

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on several occasions, and we have asked for local modelling information. Now, that may not have been the applicant's initial preferred approach.

But sensibly, they could have either said, 'No, we are not doing that for reasons,' and advanced those reasons and sought to persuade us of the disbenefit of pursuing that local modelling information. Or they could have done what it appears to us they did, which was acceded to that request and place that information into the public domain and, in fact, open a conversation around this table about the content of that material and whether it was or was not, in principle, relevant, and if it was, what weight out be accorded to it. Now, it feels to me that that is, essentially, now where we are. Therefore, it appears open to this examining authority, then, to deliberate on the outcomes of those processes and to include consideration and, where appropriate, weight to be placed on the outcomes of local modelling.

Again, taking into account the fact there will no doubt be remaining points of dispute between yourselves, where you say, in relation to your version of the local modelling, there are factors that the applicant hasn't taken into account, and the applicant also have said that they think there are aspects of their modelling that you haven't, essentially, fully taken into account. So what we are, then, I think, needing to try to get to after this hearing is the clearest possible statements of each of your cases at deadline 8, so that each of you can then reply to those at deadline 9, so that, by the end of the examination, we then have clarity about, again, those matters unagreed between you. Because it strikes me that we are going to have to go into deliberative mode on this.

Now, is there anything that I've just said, in terms of explaining what we think will be before us by the end of deadline 9, that anybody thinks, as a matter of principle, oughtn't be before us or oughtn't be treated in the way that I've indicated that it might be?

MR MACKENZIE: George Mackenzie, for Thurrock Council. Thank you, sir. That is
well understood. I think, can I just offer some observations on what appears to
be a change of position on the other side of the room. The change of position is
that the local micro-simulation is relevant, is an important and relevant
consideration. And that's something that we agree with now and have always
advanced as a submission. But in terms of where we are now, the applicant still,
in our submission, has not submitted a reliable forecast micro-simulation model

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for the Orsett Cock roundabout; albeit, that we've provided version 3.6T, which we say is reliable, but it throws up its own set of problems.

But the problem with saying, on the other side of the room, that the local micro-simulation is relevant is this, that they haven't provided any reliable micro-simulation, let alone agreed, validated micro-simulation, for six of the other key junctions in the area that we're the statutory local highway authority for. And that is Manorway, Daneholes, Asda, the A216, Marsh Brook Road, Five Bells, and the A1012 Devonshire Road. So we're certainly not in a position where the change of stance by the applicant is to have moved from exclusively relying on LTAM to saying, 'Well, here's micro-simulation too.' We're nowhere near that position. So it's just subject to that topspin; that's where we are, as opposed to, 'Well, we've moved on from a SATURN-exclusive approach to a SATURN plus VISSIM.' We're nowhere near that position.

MR SMITH: Okay, observations noted. Now, I do note that Mr Shadarevian probably
wants to come on this point. And we should return it to Mr Tait before it closes
out, before we actually get back to the substantive item. So Mr Shadarevian.

17 MR SHADAREVIAN: Yes, Paul Shadarevian KC, for DP World London Gateway. I'm not sure which question I'm responding to, now. It's been moving on, and 18 19 around and around so much, and I've had so many interventions to 20 make, I'm not quite sure in which order I should make them. But can I start with 21 this premiss, first of all, were it not for our initial objection and the approach we 22 took to modelling, and the work done by Mr Tucker here, and the work 23 subsequently done by Thurrock Council, we would not be in the position, now, 24 of considering this more detailed modelling in the context of LTAM. And it's 25 very important, therefore, in my submission, to ensure that this exercise is, so far as possible, perfected. 26

Now, I'm a realist and I perfectly understand that it's not going to be perfected prior to the close of this examination. And to that extent, we need to be aware of the need, therefore, to exercise caution in the way in which the decision-making processes will engage if the order is subsequently made. I make that point now because we're going to come back later on today or tomorrow about the effectiveness of the proposed provisions. Now, having said that, it is our understanding that the VISSIM modelling, which has been

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introduced into LTAM by the applicant, that's 3.6, does not predicate any regulation of traffic through Orsett village.

3 MR YOUNG: We're going to come onto that. I don't want to stop you, but -

MR SHADAREVIAN: That's absolutely fine. I'll just address it in broad terms at this stage. It is not appropriate for the applicant to suggest that the impacts of the scheme, having regard to Orsett Cock and its design, will only result in impacts which are not unacceptable having regard to the impacts on that village in terms of its role in supporting strategic traffic. That being so, it would have been appropriate for the applicant to run model 3.11, which does predicate such control, through the strategic model in order to understand what the broader impacts would be on the network.

Again, because they haven't done that, they're not in a position to say that the impacts are 'not unacceptable', whatever that means, and whatever 'severe' means in that context. This is something we're going to have to grapple with, because I'm not entirely sure what 'severe' means. This is not a mixed-use development being proposed which has highways implications. This is, essentially, a highways scheme which is meant to work and produce the benefits it does. But it doesn't do – and what the applicants haven't done thus far, is adequately assess the impacts on matters of acknowledged importance, including matters of national significance and importance, like the ports, in order to assess what those impacts might be.

We've had nothing from them to say, 'Well, we think it's not going to 22 23 have an impact because of this or that it can be moderated because of that.' There's nothing. We have a bald statement today which says, 'We don't think 24 25 it will be unacceptable.' But in the absence of that modelling, it's a conclusion which cannot be derived yet and probably will not be able to be derived before 26 27 the end of this examination. So I'm setting up, as it were, a discussion, and it 28 may be helpful for Mr Tucker, here to my right, to address the issue of the 29 modelling and the LTAM at an appropriate stage, whether that's not or later on. 30 I don't know, but I don't want to put words in his mouth –

MR YOUNG: Well, we don't need to hear from Mr Tucker if he's going to rehearse
 what he's already said at previous issue-specific hearings because those points
 have been made –

34 MR SHADAREVIAN: No, we don't want to do that.

1 MR YOUNG: - and they were made well, and we've heard them. 2 MR SHADAREVIAN: No, we don't want to do that, but I think there are a few technical 3 matters which might have arisen since through this discussion which might need 4 addressing. But it's been difficult for me to monitor the discussion and also have 5 those conversations. 6 MR YOUNG: Well, that's fine. If Mr Tucker wants to speak now on what's been 7 discussed, he's more than welcome to put his hand up and participate. 8 MR SMITH: Can I just – in the interests of focusing this, though – be clear that what 9 we're trying to resolve is this broad question that Thurrock placed onto the table in front of us about what sensibly this ExA ought to be having regard to so that 10 11 we can be clear on that particular point before we then move back into the 12 specifics of the evidence that support individual positions. And I do know that 13 Mr Young is going to go on to the ports' position and allow Mr Shadarevian, 14 you, and Mr Tucker to unstack your position in relation to all of the matters that 15 have transpired since we were last in this room talking about travel and transport 16 impact, so that opportunity's coming to you. 17 But I do want to focus this on the high-level point that I put to Thurrock 18 following their request to, essentially, know the case before them and know what 19 the Examining Authority considered the case before it was. And I think that's a 20 reasonable question and one that it's very helpful to try and bed down. Are there 21 any other observations that you've got on that particular point? 22 MR SHADAREVIAN: No, sir. Thank you. 23 MR SMITH: Thank you. Right, in which case, I think we do have to go to Mr Tait in 24 fairness. Sorry, apologies. 25 MR BEDFORD: Sir, Michael Bedford, Gravesham Borough Council. Sir, absolutely 26 only dealing with matters at that high level, which I think was where you were, 27 and obviously, you appreciate that we're not a local highway authority - we 28 recognise that. But we've been following the discussion, and you will know that 29 we set out some overarching comments in our deadline 6A submission about the 30 implications of, as it were, deficiencies in the modelling and what that might 31 mean more widely. 32 But on the particular point about the role of LTAM as opposed to the role 33 of VISSIM microsimulation – and I note what the applicant has now said in 34 those oral remarks through Dr Wright about recognising the role of the VISSIM

it would just be helpful to have some clarification on is that in REP6A-004, which is the localised traffic modelling report – and I think 004 is the clean version – at section 3.2, the applicant sets out their approach to undertaking traffic modelling, and in particular, at paragraph 3.2.2, they refer to the strategic traffic modelling undertaken for the project. They say they consider that's appropriate and proportionate to the scale of the scheme.

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They then say, 'Whilst proportionate localised traffic modelling may be helpful for the purpose of considering the sensitivity of individual junctions in addition to the work already completed using the LTAM and reported in the transport assessment, further traffic analysis must not be taken as bringing into question the use of the national methodology, i.e. TAG, in respect of the modelling provided in the transport assessment.'

Now, that could be read in a number of ways. And it could be read as the applicant telling you that if there is a tension between what LTAM is telling you and what the localised modelling is telling you, you should not allow the tension to be resolved in favour of the localised modelling; you must prefer the LTAM. Now, I may have misread that, and that may not be what the applicant is intending, but that – I welcome some clarification as to how that paragraph is intended to be read in the light of what the applicant is now telling you about recognising the value of the VISSIM modelling.

MR SMITH: Indeed, and I think that is a very clear and well-made submission, and I'll
return that to Mr Tait very shortly and ask him to address us on that point. What,
however, I will do just before we bring this item to an end, noting that it has
extended more broadly than the conversation that was just taking place between
Thurrock and the applicant on the agenda item, because the procedural point is
of general interest.

I do note that we also have Mr Fox in the room for Port of Tilbury, who wishes to speak on this item, but just before I introduce him, I'm going to essentially call last orders. Is there anybody else who wishes to intervene on this broadly process-driven point before we return to the substance of the agenda – because I'd like to see hands in either the room or the virtual room to make sure that we're not continually moving on with additionals after each submission from an intervening party is concluded. And I'm seeing no more hands, so, as

1 soon as we've heard from Mr Fox, Mr Tait, this item will be yours to respond 2 to. Mr Fox. 3 MR FOX: Mr Fox on behalf of the applicant. Mr Bedford has actually made much of 4 the point I was going to make, but I'll just add to it, which was just to say, in 5 answering that question, we've already heard today about the difference in 6 impacts between VISSIM and LTAM. 7 And if the impacts are going to be focused – sorry, if your consideration 8 of impacts are going to be based on VISSIM then that leads to greater 9 consequences for the network and the [inaudible] drafting compared to LTAM, so we need to understand, are you being directed by the applicant – or suggested 10 11 by the applicant, I should say, to follow what Mr Beford was suggesting or not? 12 But I think, if your point is around impacts - because they are clearly differential 13 in their impacts, and I think we would say the VISSIM modelling is what needs 14 to be listened to. 15 MR YOUNG: Thank you, Mr Fox. Let me go to Dr Wright. I mean, I would just make 16 the point that I thought the applicant had made it quite clear what their approach 17 It's not surprising that approach might evolve during a six-month was. 18 examination. And ultimately, Mr Bedford, it would be a matter for this 19 Examining Authority what weight we put on the VISSIM modelling and what 20 weight we put on a SATURN modelling. It doesn't really need to go any further 21 than that, but if Dr Wright wants to respond. 22 DR WRIGHT: Tim Wright for the applicant. I will be brief, but just stepping back a 23 moment, because we've talked a lot about Orsett Cock, but reference has been 24 made to the other models that we have submitted into the examination, so I think 25 all of these models are helpful in understanding the behaviour of localised junctions around the network. 26 27 I think that the way I see it is that this exercise that we've undertaken in 28 relation to Orsett Cock provides a bit of a crucible for the examination of the 29 issue. What I believe that we have shown through that and through the test we 30 did with LTAM, taken in the delays from Orsett Cock, is that whilst there is 31 useful information, LTAM remains a reliable source of information for the 32 broader decision. 33 So these localised models have a role. They provide information. They're 34 important for consideration. But at the end of the day, the broader consideration

- of this project needs to consider the benefits. They're reflected both in the economic analysis in the journey travel times, and it also needs to consider the environmental assessment. An environmental assessment is fundamentally reliant on the strategic model LTAM.
- I think our view is that nothing we've discussed in the localised traffic modelling has cast shadow on the LTAM that we put forward, and that's why our position – that it remains reliable. And that, when we have tested it by including the delays, it hasn't shown that LTAM is overly – has a very high level of sensitivity to these delays, essentially, and that it, therefore, remains robust.
- MR SMITH: And essentially, to draw that point together and this Examining Authority
 has to go away and deliberate on the points that have been put to us, and I think,
 if we labour too much more around this table on that, then we're in danger of
 chasing our own tails somewhat. But at risk of one final round of tail chasing, I
 am conscious that a number of the submissions made to us before we went to
 Dr Wright did come through Counsel. Mr Tait, is there anything that you feel
 you need to put to us before we close this and go back to the substance?
- MR TAIT: No, sir, other than in REP6-005, which is the LTAM at 6A, it goes back
 through the history of provision of material about VISSIM and that is A.5.3
 and 5.4 and the provision of that material to Thurrock in particular proceeded
 the submission of the application.

21 MR SMITH: Okay.

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MR YOUNG: And just before we move onto the – just one thing I want to say, and I
think this has come up before, and the Examining Authority has made this clear,
that we have always drawn a distinction between Orsett Cock roundabout and
pretty much everything else because, as the applicant has accepted part way
through this examination, Orsett Cock is integral to how this scheme operates
and that isn't true of wider network impacts. So Orsett Cock is an issue that's
wrapped up with port access.

29Other impacts, including Blue Bell Hill, comes under the umbrella of30wider network impacts. And the Examining Authority have been quite clear to31draw a distinction between those issues, and that's why disproportionately much32more time of this examination has been spent on Orsett Cock. Right, ports. Let's33move onto the next bit.

1	Just as the background to this, earlier on in examination, the applicant did
2	usefully provide some travel times to and from – that was at London Gateway –
3	I think at maybe deadline 4. That was something that we had requested at one
4	of the earlier issue-specific hearings, so it's just to touch base on that again and
5	see if anything that has happened in terms of the additional modelling changes
6	– any of those conclusion.
7	As we set out in one of those earlier issue-specific hearings – and I think
8	all the advocates and people around the table when I explained that when we're
9	going to look at the issue of port access and report to the Secretary of State, have
10	to take a holistic view of journey times. It's simply not going to be an
11	appropriate approach to take one particular journey time without looking at all
12	the others. That's the background of where the ExA are coming from. That's
13	why we want to understand has anything changed in terms of those journey time
14	benefits that were set our early on in the examination.
15	DR WRIGHT: Tim Wright for the applicant. Sir, in order to understand the journey time
16	benefits, we need to move away from the VISSIM model and back to the LTAM
17	model, but what I'm going to talk about is the LTAM model where we included
18	those delays.
18 19	those delays. MR YOUNG: That's exactly what I'm after, yeah.
19	MR YOUNG: That's exactly what I'm after, yeah.
19 20	MR YOUNG: That's exactly what I'm after, yeah. DR WRIGHT: Yeah, so we're calling that the manipulated LTAM model because – just
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the application. These increase by two minutes to between three- and six-minutes additional time overall on these journeys, and that's on a baseline journey time of approximately 13 to 14 minutes – sorry, let me say that a different way. On a baseline journey in the 'do minimum' scenario of 13 to 14 minutes, our core scenario would increase that by one and four minutes. In the manipulated LTAM model, those increase by three and six minutes.

7 The second point to raise is a very specific journey from Port of Tilbury to Basildon, so, in that - you'll see in our appendix N, in the core scenario - that 8 9 increases by one minute in the p.m. peak. That journey time does forecast by a little less than 20 seconds in our manipulated LTAM model. So, referring back, 10 11 we consider the manipulated LTAM model to be unbalanced. It's not a 12 reasonable or worst-case forecast because it takes all of the delays at Orsett Cock 13 and implements them without considering the re-balancing of flows on the 14 network. But even once you account for that, the actual effect is relatively 15 limited on the overall travel times that we see, and we still deliver substantial 16 benefits to the ports.

MR YOUNG: Can I just set an action for you to update and provide – I'm sure you
would do this anyway as part of your post-event submission, but can you update
that earlier appendix with the journey times. And can we have the journey times
Port of Tilbury – I think the previous one concentrated on London Gateway. I
know it did look at the journey time between the two ports, but can we have Port
of Tilbury as well in terms of various – south of the River Thames, the M25?

23 DR WRIGHT: Okay.

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MR SMITH: To ensure this is captured accurately, can we just have the document
 reference for – and the appendix number, please, again? I apologise. I didn't
 quite get it when –

27 MR YOUNG: REP2-050. It was annexe 2 to that document.

28 MR SMITH: Annexe 2.

- MR YOUNG: Deadline 2 submission. So just an update to that, but can we ensure that
 the same journey times to and from both ports, and then the journey time savings
 or increases as aggregated, so we can see an overall result in terms of journey
 times to and from the ports?
- 33 DR WRIGHT: Tim Wright for the applicant. So I think all of those are in the application.
 34 I believe that the core scenario is at appendices B and C of the transport

1	assessment, which were updated at REP4 following an action to include the port
2	times, so that's REP4-154 and REP4-156. And then parallel tables, which
3	include the manipulated LTAM outcomes, are included at appendix N of the
4	localised traffic modelling report REP6A-004. We'll happily signpost that, but
5	we will also do a review and identify whether there is an imbalance in the
6	information provided and whether there is anything else we can usefully submit.
7	MR SMITH: For action purposes – I've just taken a note – we'll look at that over lunch.
8	We'll come back to you if we think that needs to be a formal action.
9	DR WRIGHT: Thank you.
10	MR YOUNG: Thurrock.
11	MS MCMULLEN: Sir, just one observation, so Kirsty McMullen on behalf of Thurrock
12	Council. The comparison that you've been provided with – so now I'm calling
13	it manipulated LTAM – that's a manipulated LTAM with LTC, but you're then
14	comparing it to an unmanipulated LTAM without LTC. You're comparing
15	apples and pears again, which we keep falling into the trap of, so we just need
16	to be very careful about these broad comparisons of LTAM and the updates, that
17	the updates are actually a consistent update across 'do minimum' and 'do
18	something', which I don't think I've seen.
19	MR YOUNG: No.
20	DR WRIGHT: Tim Wright for the applicant. I agree that there is a trap we can fall into
21	with exactly that. That is a point that we were going to make later on, but
22	fundamentally, comparing the manipulated LTAM to the 'do minimum' is
23	losing the fact that actually, if you were to take the 'do minimum' delays and
24	introduce them into the LTAM 'do minimum', you would end up with a further
25	set of data together, and that would be a more appropriate comparison. That will
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27	come up in some of the later discussion with regard to the BCR.
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28 29	However, we don't propose to submit a manipulated 'do minimum' scenario into the examination because our fundamental view is that the manipulated LTAM model doesn't provide an alternative; it provides a useful
28 29 30	However, we don't propose to submit a manipulated 'do minimum' scenario into the examination because our fundamental view is that the manipulated LTAM model doesn't provide an alternative; it provides a useful sense check to see how sensitive the modelling is to these variables. But actually, it's not intended to be an alternative model. And, recalling back, it was produced for a very specific purpose, which was actually to consider what the
28 29 30 31	However, we don't propose to submit a manipulated 'do minimum' scenario into the examination because our fundamental view is that the manipulated LTAM model doesn't provide an alternative; it provides a useful sense check to see how sensitive the modelling is to these variables. But actually, it's not intended to be an alternative model. And, recalling back, it was

- 1 cautious about trying to use it to do too much else. It was produced for a specific 2 purpose, so I would say that we have to be cautious about any comparisons. 3 MR YOUNG: Just putting – going back over Thurrock – a wider concerns, but you've 4 seen the tables that were provided before, and we've just heard from the 5 applicant when you aggregate those journey times savings, substantial benefits 6 to the port, so that's something that Thurrock would clearly support. 7 MS MCMULLEN: I think the issue is that we can't rely on that evidence because it's 8 not comparing – it's not a meaningful comparison, which Dr Wright has just 9 accepted. MR YOUNG: Yeah, but you're not suggesting there wouldn't be benefits, though. 10 11 MS MCMULLEN: Well, this is the issue, isn't it, so – well, less with what evidence have 12 we got before the examination that we could look at in order to make that 13 judgment, and so I think we both accepted the caution that needs to be placed on 14 the submission at – I'm trying to think. I'm losing track of the submissions now. 15 It was the latest submission, so REP6A-004, where there was the manipulated 16 LTAM compared to the unmanipulated 'do minimum', so we both just accepted 17 the caution that's been placed at that, so, therefore, you're left with two bits of 18 evidence to look to give you an indication of the impact that there might be to 19 and from the ports. 20 Looking at the individualised junction, so you've got, say, Asda. We 21 haven't got Manorway before us, so, really, the two junctions that form a key 22 part of the network to and from the ports would be your Orsett Cock VISSIM 23 model and the Asda modelling that's been presented. You could look at the 24 within/without LTC and what the impacts might be to form a judgment on what 25 that might do as a wider journey time, or you can then go back to LTAM presentation in the TA, which is REP4-154 and REP4-156, which Dr Wright has 26 27 just alluded to. 28 But the issue with that is that it doesn't include any of the delays that are 29 presented within the localised modelling, so it's very tricky. I have to say, I 30 don't think the evidence is before us – any of us, to be able to make a judgment 31 on – 32 MR YOUNG: But if the port traffic doesn't have to go through Dartford Crossing and 33 all the delays and that's widely accepted, and the journey time improvements.
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1	Now, I take your point that you're saying that the evidence isn't there, but if the
2	ExA is satisfied the evidence is there, that's a big win for Thurrock, isn't it?
3	MS MCMULLEN: Sorry, you'll have to repeat the question. Sorry, sir.
4	MR YOUNG: If the journey time improvements associated with port traffic not having
5	to go through the Dartford Crossing, this is an overall improvement to journey
6	times because of that, even taking into account the worst-case delays that you're
7	putting forward at Orsett Cock and other locations, that must be a big win for
8	the ports.
9	MS MCMULLEN: I don't quite follow, sir. Sorry.
10	MR YOUNG: Right, okay, well, I've asked you twice.
11	MS MCMULLEN: Sorry.
12	MR YOUNG: I won't ask it again. Mr Shadarevian.
13	MR SHADAREVIAN: Yes, sir. Paul Shadarevian KC. I'm going to ask Mr Tucker to
14	address this issue for you.
15	MR TUCKER: Thank you. Simon Tucker on behalf of DP World London Gateway.
16	There's a couple of things there that $-just$ to respond to. Firstly, in terms of port
17	traffic and the benefits of it, from London Gateway's perspective, less than 20%
18	of their vehicles travel south across the river. So, in terms of HGV movements
19	from the port, most of them – because of its function as a deep-sea container
20	terminal, most of movements from the port are actually heading upcountry,
21	effectively, so for the Midlands or into London, so the demand south of the river
22	is, as I said, it's about 18 or 20% depending on numbers, so that just gives some
23	context as to - the importance is, actually, for us, is movement through
24	Manorway interchange and then north, effectively, or along the A13 into
25	London.
26	In terms of the discussion that you were just having about the journey time
27	savings as set out in LTAM, those numbers are still unevidenced on the basis
28	that we've got, I think, still a convergence problem with the modelling. So
29	we've got modelling in terms of the new VISSIM 3.6. As Thurrock have set out
30	quite clearly, there are still convergence issues in terms of overall delay and
31	movement through Orsett Cock junction, so although we've rerun LTAM, we've
32	still got a convergence issue with Orsett Cock.
33	What that means then is that LTAM is sharing too much traffic going
34	through Orsett Cock, which was the debate we had at Orsett Hotel. That, having

been run back through the LTAM at REP6A-004 shows that – proves the point, effectively, that LTAM can't get that traffic through Orsett Cock and shows that that traffic then basically diverts through Orsett village and/or back to the junction 30 of the M25.

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Dr Wright said earlier that they've proven that there was no change at Manorway. And on the basis that it would be acceptable that those traffic movements that can't get through Orsett Cock can go through Orsett village, that would be correct. I think the second sensitivity test for VISSIM 3.10 and 3.11 assess the implications of, effectively, accepting that putting something like 600 cars through Orsett village wouldn't be an acceptable impact – that's per hour.

The problem we've got is that that hasn't been put back into LTAM, so if you prevent that diversion effect of traffic from Orsett Cock to Orsett village, you're further constraining it and that traffic has to go somewhere else. It's either going to go to Manorway or its going to go to junction 30 of the M25 because there's no other corridor for it to take.

In the absence of knowing what that means, you've got two problems. One is, does the journey times out of London Gateway DP World that have been provided bear any relation to what's going to happen in practice? As you know from our original evidence, that junction is extremely sensitive to changes in flows, and it only needs 100 or 200 PCU difference in an hour to basically gridlock that junction. That hasn't been tested. It's not in front of you.

And the other point is, of course, if it goes to junction 30, then one of the benefits of the scheme is to remove that through traffic from junction 30. If it's only going to go back to junction 30 because it can't get through Orsett Cock, then, again, you've got increased journey times and delay elsewhere on the network.

27 So, in summary, we don't accept that the applicant has proven that LTAM 28 is consistent with the VISSIM modelling. We don't accept that they've taken 29 that far enough in terms of the LTAM modelling to demonstrate that the journey 30 times that they're proposing in terms of the port are robust or evidence-based. 31 And therefore, we maintain our objection on the basis that unless there is a robust 32 requirement in the DCO to ensure that Orsett Cock is fixed in its design in a 33 manner that appropriately accommodates forecast flows, then there will be an 34 adverse impact on the operation of the port. And we consider, in terms of your

1	original question on the agenda, in terms of severity, that would have a severe
2	impact on the ability of DP World London Gateway to operate in a manner in
3	which it's consented to do. Thank you.
4	MR YOUNG: You didn't really address me on the journey times at all, Mr Tucker. So
5	what is your position – that they'd be no betterment at all to the port's overall
6	journey times?
7	MR TUCKER: Thank you. Simon Tucker.
8	MR YOUNG: You don't accept any of the applicant's evidence on that.
9	MR TUCKER: I think the applicant's evidence based on LTAM is at present unproven
10	and unevidenced. If you took it at face value – and this is where we've always
11	been as a position, those savings as set out there, are welcomed by the port.
12	We've expressed our support already for the scheme.
13	But that only occurs – those journey times – if Orsett Cock is operating
14	properly and that doesn't create offset impacts, if you like, in terms of Manorway
15	because Manorway is the front door to the port. If Manorway's not working,
16	and you've got a two-minute journey time saving from the port to somewhere
17	else on the network, it only takes some disruption at Manorway, i.e. a change in
18	flows that increases that back to two minutes, that you've completely wiped out
19	any strategic saving, and that's the bit that hasn't been proven to you or to us.
20	MR YOUNG: They have gone away and hardcoded those delays, haven't they, and rerun
21	the LTAM, which is exactly what you and Thurrock were asking them to do, so
22	what more now can the applicant do?
23	MR TUCKER: Well, until we've run – our proposition always was that LTAM isn't
24	going to be able to accommodate the flows that it has assumed it can at Orsett
25	Cock, and therefore, that's going to have an effect of spreading traffic around.
26	At deadline 6A we got that rerun of LTAM, as you've just described, and it
27	wasn't until we had that that it proved the point that it doesn't accommodate
28	LTAM – sorry, Orsett Cock in LTAM, in its application form, is accommodating
29	more traffic than it can physically deal with. That's proven by the VISSIM
30	model.
31	You put the VISSIM model hardcoded as you put it back into LTAM, that
32	shows that necessarily, traffic flows through Orsett Cock, as assumed in an
33	LTAM world, have to reduce, and they go elsewhere. And where they go
34	elsewhere, at the moment, in terms of the evidence in front of you – which is,

just for an example, plate M12[?] of REP6A-004 – shows all of that traffic is running through Orsett village. So it can't get into Orsett Cock, so it basically comes through the village. That can't be acceptable in terms of an impact of a scheme, to have that traffic, which is supposed to be running through a strategic highway corridor, running through the centre of a village and so, necessarily, there would have to be some intervention to that.

That intervention has been tested in VISSIM – that's test – well, in two different ways, but test 3.10 and 3.11, which is set out in REP6A-006. What we don't know is what happens if you put that back into – if you stopped those – well, what is it, 600 vehicles going through Orsett Cock, where would they go instead? And we just don't know that, but the likelihood is it's going to come down to Manorway, or it's going to come back to junction 30 because there's nowhere else for it to go. They can't got through Orsett Cock. And that hasn't been modelled, and we didn't know it needed to be modelled 'til we'd seen the answers, which we've got here.

And I'm not suggesting it's going to be modelled before the end. I suppose my point of the examination is that that just reinforces the need for making sure that any requirement for Orsett Cock is robust enough to make sure that what's been identified doesn't happen.

20 MR SMITH: We're well aware of that. We are, absolutely, going to come onto that.

21 MR YOUNG: Dr Wright, do you want to close this off? Then we'll move on.

DR WRIGHT: Tim Wright for the applicant. A lot has been said about Orsett village,
 which is item 5 on the agenda, so I suspect you would like me to hold that back.

24 MR YOUNG: Yes, I would.

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25 DR WRIGHT: In that case, no, I don't think I have anything else to add, sir.

MR YOUNG: Right, fine. Thank you. Alright, let's move onto the next issue that we
have, which isn't actually Orsett Cock, is it. It's the issue around the version 3.6
modelling and what, if any, impact does that have on the scheme's benefit-cost
ratio and environmental assessment. I think it's already been – you've touched
upon it. Is there anything else that you need to say on this? Yes, okay.
Dr Wright.

32 DR WRIGHT: Tim Wright for the applicant. So you're right. I have said a number of 33 pieces before. The BCR and environmental assessment need to rely on LTAM, 34 and so – let me just check. Yeah, so, fundamentally, our position on this is that

we don't consider it appropriate to use the manipulated LTAM to support assessment of a BCR or an environmental assessment. But what we do want to add to that just here is that noting that there have been some fairly extensive submissions on the BCR from Thurrock Council in their submission, so, therefore, we have undertaken a high-level review of how these delays would affect the BCR, not excepting the validity of the exercise.

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We've identified a number of arithmetical errors and other issues in the presented calculations, so, at a high level, we will provide more in our deadline 8 submission. In two locations, Thurrock Council effectively double counted the dis-benefits, firstly by multiplying peak hour figures by two before applying combined expansion and annualisation factor that already included multiplying by two to go from the peak hour to the peak period, and then, secondly, by adding together the values for 2030 and 2045 but not dividing by two when calculating an annual average value, so that has an overall effect of quadrupling the value of dis-benefits that they put in.

The second goes to this point that I think the representative from Thurrock Council and myself agreed on, that there is a challenge to the comparison of the manipulated 'do something' scenario with a non-manipulated 'do minimum' scenario. And actually, it should be a comparison of a manipulated 'do something' with a scenario that actually adopted already the delays from the 'do minimum'.

It's highly – sorry, I'm jumping across there. So they've compared the – sorry, stepping back. They've compared the difference in times between a VISSIM 'do minimum' and 'do something' model against the difference in times between a SATURN 'do minimum' 'do something', so they've got a direct comparison of VISSIM and SATURN, and that can place a difference in the modelling software – slightly different point. Apologies.

So, in summary, we don't agree with the 100 million dis-benefit assessed by Thurrock Council. We consider it'll actually be 15.8 million against a net journey time savings benefit of over 2 billion, as reported in table 11.2, appendix D of the combined modelling appraisal report APP-526. So, if you then take that 15.8 million, that would lead to no discernible change in the BCR, which would remain at 1.22. So just a specific point around BCR there, but that doesn't

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change our fundamental principle that, actually, we don't agree with the validity of the exercise, regardless. Thank you.

3 MR YOUNG: Thurrock want to respond on that?

4 MR MACKENZIE: Sir, yes, it will be David Bowers who will respond on the technical point, but just in relation to the environmental assessment, which is part of this agenda item, version 3.6 included test 1, test 2 and test 3 in terms of inputting 6 7 VISSIM parameters into LTAM and also two sensitivity tests. And in Thurrock's submission, all of those tests, in terms of parameter iteration and 9 sensitivity testing, show essentially that strategic traffic, which ought to be accommodated on LTC, is displaced and rerouted through Orsett village. That's 10 11 a topic that Mr Shadarevian - and you heard submissions on that point.

12 And that gives rise to a very serious issue in the context of the 13 environmental assessment because all of the environmental reporting carried out 14 by the applicant, as Mr Wright has submitted already twice today, is based on 15 the SATURN model, LTAM, and not the VISSIM model, so our submission is 16 that the environmental statement and, in fact, all of the environmental 17 information, doesn't pick up the likely significant environmental effects of what 18 version 3.6 is showing in terms of tests 1,2 and 3 and sensitivity tests 1 and 2. It 19 will now be David Bowers.

20 MR BOWERS: Yeah, hi, David Bowers representing Thurrock. So the fundamental 21 issue here is that the LTAM models and the VISSIM models, there is a lack of 22 convergence. I note the queries around the mathematics of it. We can go away 23 and check that. But I think it's clear that the applicant is submitting that, if you 24 use the VISSIM model, they'll be further dis-benefits that would be added into 25 the calculation of cost and benefits.

And this is a fundamental point that, if people can cast their minds back to the diagram that was shown on the screen of the VISSIM model - it showed all the red on one of the approaches – it's those delays in that VISSIM model which are not apparent in the LTAM model. And what we tried to do in a very short time period available in this quite fast-moving examination is to do a high-level estimate of that. And it's not just at the Orsett Cock junction. Our view will be that the other junctions where modelling has been undertaken are also underestimating the delays and dis-benefits of those junctions.

1	And whilst each individual junction has possibly a relatively small change
2	or impact on the benefit-cost ratio, it's when you aggregate all those changes
3	together with the other issues that have been identified through the examination
4	around the assessment of light goods vehicles and heavy goods vehicles, the
5	assessment of carbon and the assessment of accidents - when all those are
6	incorporated, you start to have a fundamental impact on the benefit-cost ratio in
7	this scheme, which, if you remember in the DCO submission was just 0.48 to 1
8	for the well-established level 1 benefits. And even with the less well-established
9	level 2 benefits, it was 1.22.
10	So our view is that by including and looking at the VISSIM model, which
11	we consider is the appropriate way to assess the impact of a scheme like this on
12	the operation of a junction that has this impact on the benefit-cost ratio, which
13	inextricably brings it down lower and lower towards a position where the costs
14	outweigh the benefits.
15	MR YOUNG: Anybody else want to speak on this before I go back to the applicant? No,
16	okay. Dr Wright, do you want to respond to any of those points?
17	DR WRIGHT: Tim Wright for the applicant. If I can just pick up on the environmental
18	assessment, so the application of – going back to this exercise of the VISSIM
19	and the LTAM, we consider that the application of delays at a single junction
20	would lead to an unbalanced model, as we've set out. Environmental impact in
21	assessment legislation requires consideration of likely significant effects; that's
22	how it's set out in law. And an unbalanced model of this kind would not present
23	likely effects; rather, it would locally present an unreasonable worst-case
24	because it would focus particularly on certain local movements without
25	accounting for the effect of the overall highways network.
26	So, if we wanted to address this, and I think we've talked about this before,
27	I won't go on, but it would be necessary to incorporate the delays at other
28	junctions to create a more balanced model, and then, once you had done that,
29	you would then want to reiterate those delays back through localised - that
30	would be the way to achieve conversions. We've set out our position on that
31	report, so I won't go on.
32	MR YOUNG: I think those points were well made in the previous issue-specific hearings
33	we've had, and we're alive to those comments. Okay, if there's nothing else on
34	that, we should carry on. And now we do get to Orsett village. Can I just ask

1 the applicant then just to explain the sensitivity test that was done and then what 2 that showed in terms of - I've heard generic comments about increases in traffic. 3 I don't know if that is quantifiable, or give us a little bit more flesh on the bones. 4 DR WRIGHT: Sir, Tim Wright for the applicant. I'm going to pick up a couple of the 5 other points that were in relation to the effects at Orsett village that have been 6 raised by others. First is a point of clarity. It isn't actually the LTC traffic that 7 is displaced and going through the Orsett village. The traffic going through the 8 Orsett village is actually doing the north-south, south-north route, so the whole 9 thing is Brentwood Road. It's Brentwood Road in the south and then becomes the A128 in the north, and it is that traffic that is displaced across to Rectory 10 11 Road in the various models. That's a point of clarity.

So we haven't done a full review of the transport assessment findings in relation to the manipulated model. And again, we go back, I think, to this point that I mistakenly made earlier that the manipulated LTAM assessments, you have to be cautious about comparing a manipulated 'do something' to a standard 'do minimum'. And actually, the appropriate thing to do would be to compare a standard 'do minimum' – a manipulated 'do minimum' – I'm confusing myself now – to a manipulated 'do something'. Now, obviously, that information isn't in front of the examination. So we can look at the way flows happen and draw some conclusions, again, in a port exercise about that.

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But fundamentally, what we see in the 'do minimum' VISSIM model is that there are delays and queues leading into – affecting traffic flows through the village. So those queues on the approaches would also lead to flow changes within the village itself.

Going back to the core scenario, what we see on the majority of links is that there is actually a benefit to Orsett village; there is a reduction in the traffic flows in Orsett village, so when we then consider that you might want to add in a manipulated 'do minimum' queues, you would also expect to see a substantial increase in the traffic flows through Orsett village in a manipulated 'do minimum' LTAM scenario.

And so, at that point, you then would compare your manipulated 'do 32 something' scenario, and it was likely that you would actually see similar effects, so you would see similar benefits on some of the links and adverse impacts on other of the links but that the information – doing the comparison that is set out

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1	in appendix N of our submission – isn't actually a fair comparison for the
2	transport assessment terms.
3	What you actually need to do is compare a 'do something' to a 'do
4	minimum' – manipulated 'do something' to a manipulated 'do minimum'. Were
5	you to do that, you would likely see substantial benefits in certain links.
6	Obviously, that isn't in front of the examination right now.
7	So, in summary, we don't accept that we cause increased adverse impacts
8	in Orsett village in the manipulated 'do something', that there is particularly a
9	concern there, and we revert back to our core scenario anyway, which shows
10	that, on many of the links, there are substantial benefits and where there are
11	adverse impacts on links in Orsett village, they are limited to less than
12	100 PCUs.
13	MR YOUNG: Thank you.
14	DR WRIGHT: Apologies, though, you did also ask me about the sensitivity analysis as
15	well. So we did then submit sensitivity analysis on Rectory Road in
16	REP6A-006. Now, that doesn't look at the manipulated 'do something' model.
17	That purely looks at 3.6, and it did two things, so one restricted the amount of
18	traffic flow on Rectory Road, and one prohibited traffic on Rectory Road. And
19	what that shows is clearly there is an impact – there is a balancing effect of traffic
20	between the A128 and Rectory Road.
21	And if all the flows on Rectory Road were reduced to the 2016 flows,
22	which is the restriction but not the prohibition, what our modelling showed, that
23	there was a relatively small impact on Orsett Cock junction. And if all the traffic
24	is removed from Rectory Road, then, as you would expect, there is a larger
25	impact on the junction, especially on the length of queues on Brentwood Road.
26	But what we would say is it's not – this goes back to the question of the
27	'do minimum' scenario – it's not for us to design a junction that accommodates
28	a scheme for the closure of Rectory Road to all traffic that is far from certain to
29	be implemented and that any proposed changes to Rectory Road are not
30	sufficiently certain to be included in the network according to the TAG criteria.
31	Thank you, sir.
32	MR YOUNG: Thank you. Thurrock.
33	MS MCMULLEN: Kirsty McMullen on behalf of Thurrock Council. So I think what
34	Dr Wright is trying to say is that current levels in Orsett village – there would
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be a betterment with the introduction of Lower Thames Crossing and the induced traffic that that brings about, and people's lives in Orsett village would be better. I think that's the gist of the interpretations of the modelling. We don't believe that to be true from a commonsense perspective and also from an experience perspective because the council has recently undertaken quite extensive roadworks at Orsett Cock which did, unfortunately, lead to delays as a result of the traffic management.

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And one of the adverse impacts of that construction were that there was rerouting of traffic through Orsett village, and it is a very sensitive village to rerouting traffic. You only have to look at a map to come to that conclusion. You don't need to be a transport planner. And that's the kind of concern that the council has raised numerous times, both as a result of their experience and recent experience but also because of the disconnect between the modelling and between LTAM and VISSIM.

And it's unfortunate that we have been provided with a sensitivity test, or half a sensitivity test, whereby one side of the story's been manipulated, and the other half hasn't been. But that's still an evidence base that the applicant has put forward, and so we're having to make some judgments from that, and that's what we do as a profession.

And what that does show is that if there is a VISSIM-levels of delay included within LTAM at Orsett Cock, that there is rerouting of traffic. The level of that rerouting compared to – I suppose it's we haven't got something to compare it against because we haven't got a manipulated 'do minimum', but it does show that there is 550 additional vehicles routing through the village. And then, by preventing that traffic from rerouting to the village, and from that going back to where it should be on Brentwood Road, that then further causes delays to Orsett Cock.

So all we're trying to do – I suppose I'm just a bit flabbergasted that there's a betterment to Orsett village or the evidence before the examination leads to the conclusion that the people living in Orsett village – and that's really why Thurrock Council are here representing those communities and those people – that their life will be better as a result of LTC. And we just don't concur that from the evidence.

1	MR YOUNG: Just picking up on one question there, you said it was obvious, if you're a
2	transport planner, that – I'm not sure the words you used, whether you said it
3	was a sensitive village, but just explain that a bit more to me because I've looked
4	at it. It's quite a modern road layout. There's no schools there. There's no
5	traffic signals. There's no one-way system through the village. Why do you say
6	it's 'obviously sensitive' in that regard?
7	MS MCMULLEN: Sorry, sir. Kirsty McMullen on behalf of Thurrock Council. I should
8	have probably been more specific with my terminology. When there are delays
9	on a strategic network, it is an attractive alternative route is what I meant. And
10	that traffic is intended to route $-$ it hasn't got destination within the village. It's
11	intended to be on a more strategic local route, and increase in delays on the
12	strategic roads result in that traffic inappropriately rerouting through the village.
13	And that traffic doesn't have a destination within that village.
14	MR YOUNG: Okay, but that's quite commonplace, isn't it, for traffic to route through a
15	village.
16	MS MCMULLEN: It doesn't necessarily make it right, sir, that the consequence of a
17	strategic project such as this is that the – and it hasn't also been assessed within
18	the ES – and we're focusing on Orsett village. There's other locations; there's
19	other communities where LTAM is showing rerouting through other villages as
20	well, which we've set out in our local impact report. But it hasn't been assessed,
21	so this rerouting of traffic through Orsett village hasn't been assessed in an
22	environmental assessment, so –
23	MR YOUNG: No, that's a fair point. Thank you. Anything else before I go back to the
24	applicant? Mr Tucker – sorry. I do apologise.
25	MR MACKENZIE: George Mackenzie for Thurrock Council. Forgive me, sir, for
26	adding this topspin to what Ms McMullen said in relation to the failure to have
27	captured these – well, likely significant environmental effects in terms of Orsett
28	village. The submission is that on the evidence that we currently have, we can't
29	exclude the possibility that there are likely significant environmental effects in
30	and around Orsett village that haven't been picked up in the EIA process, so
31	that's one defect.
32	The other defect, which is essentially of the same character, is a policy
33	defect, and that's because paragraph 4.6 of the National Networks NPS exhorts
34	the promoters of NSIPs to provide sufficiently accurate detail of the impact of a

1	project and it's clear that that needs to be both at the strategic and the local levels.
2	So that's the top spin.
3	MR YOUNG: Thank you. Mr Tucker, I know you've already touched upon it. Is there
4	anything else you need to say on Orsett village?
5	MR TUCKER: Simon Tucker for DP World. Briefly, sir, just to clarify, I wasn't
6	suggesting that all of that traffic would be strategic traffic that was routing
7	through the – as Dr Wright suggested – routing through Orsett. It's the impact
8	of what's basically, as set out in their own assessment, a minute's worth of
9	change in journey time through that junction if table 4.9 of REP6A-006 has got
10	movements increasing by 300, 400 seconds in terms of journey times through
11	the junction, and it's that impact on Orsett Cock which forces people to take
12	different routes, rather than this being strategic traffic in itself, basically.
13	MR YOUNG: Understood. Right. Let me just go back to the applicant and close this
14	off. No, nothing further to add? No. Right. Okay. We're going to look to
15	break for lunch shortly, and then we're going to come back and have quite a
16	detailed discussion, I imagine, take a bit of time to discuss the requirements as
17	we've got them before us. Does anybody – this is an opportunity now, I guess,
18	for anybody that's participating, to raise anything that I haven't covered this
19	morning specifically. Okay. Well, in that case, it's just gone 1.00. Shall we
20	make it 1.05?
21	MS MCMULLEN: Sorry sir, there's an agenda item still to go, isn't there, before the
22	requirements, which is the 3.6T?
23	MR SMITH: Yes, there is, yeah. I think – but let's be practical – I don't think we would
24	manage to bring that in and do it justice before a lunch break.
25	[Crosstalk]
26	MR SMITH: There is another consideration here as well in terms of setting lunch, is that
27	the venue have informed us that there will be a fire alarm test at or around 2.00,
28	and we really don't want to be coming back in the middle of that, so a break
29	until at least 2.10 would be my suggestion.
30	MS MCMULLEN: That's fine. I just didn't want you to forget about it. I'd love to show
31	you the video.
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33	(Meeting adjourned)
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1 MR YOUNG: Welcome back, everybody. The hearing is now resumed. Let's just turn 2 to item 6 on the agenda and this is where I would like - I'm not too precious, 3 actually, where we start here. I was thinking perhaps if we go to Thurrock first, 4 they can open this. Then we'll go to the applicant, anybody else who wants to 5 speak, and then come back to Thurrock. That okay with you, Mr Mackenzie? 6 MR MACKENZIE: George Mackenzie for Thurrock Council. Thank you, yes. That 7 would be welcome, but before we deal with that agenda item, I know that Mr 8 Stratford just wanted to say some brief words in relation to the previous agenda 9 item. Would that be in order, in relation to Orsett village? 10 MR YOUNG: If it's succinct. 11 MR STRATFORD: One minute. Time me. You mentioned about the sensitivity -12 questioned sensitivity, I think, of the village, and my team has pointed out a 13 number of things there. First of all, the village is a rural village. It originated back in the 14th century. It has been a conservation area since 1973. The 14 character appraisal was done in 2007. It has a hospital, a school, and a limited 15 16 number of residential properties, and a very active couple of groups of 17 communities. Originally, prior to the M25, it was part of the north-south link 18 and it is very, very important to the council that it doesn't become another side 19 north-south link. I think that's a minute. 20 MR YOUNG: Very good. Right. I'll hand back to Thurrock. Do you want to just 21 introduce what you've done? We touched upon elements of it, but do you want 22 to set out what you've done? 23 MS MCMULLEN: Kirsty McMullen on behalf of Thurrock Council. So this morning 24 we touched on 3.6 and then a revised version of 3.6T, which we've called it in 25 our submission 6(a). The only changes that we've made to the model were three changes: one, to align driver behaviour so it's consistent between do minimum 26 27 and do something, so it didn't skew results; two was about the lane allocation 28 and we can put that in writing with some diagrams to explain the issues that we 29 had with 3.6 and then how we've rectified that in 3.6T, and the other element 30 was pegasus crossing, and that was largely to do with introducing growth and 31 without any intervention and that the – it is highly likely or highly unlikely that 32 the council as the local highway authority, given Orsett Cock roundabout is part 33 of Thurrock's network, and Rectory Road - Stanford Road is as well - that the 34 level of queueing in the do minimum would be allowed.

I think what's – I suppose part of the – or one step has probably been missed out by the applicant that you would normally do. So normally you would have a future case – and this is probably where the confusion comes in terms of mitigation and how we deal with this – is that normally, as part of an ES, you would do a future base scenario, and that would include your background traffic road and consented developments and any interventions, and that gives you a reference base to compare back to in the future. You would then add on the scheme, so in this situation add on the LTC, and then obviously the traffic associated with LTC which has been forecast from LTAM, and that would allow you to look at and compare a base and the effect of that traffic, that induced traffic.

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So in terms of LTAM, by 2045 it's forecasting 14% increase at Orsett Cock in the a.m. and 19% increase of traffic in the p.m., and that's just the traffic. That doesn't account for displaced traffic. That's just the traffic that's going through, and we set that out in detail with the numbers in REP4-352 and that's in annex B. So it's probably useful just to look at the numbers and where we set that analysis out. That's in our written representation of ISH 4. So that would have allowed you to look at a like-for-like comparison of with and without the scheme in the future, in 2030, 2045, and then as part of an ES you'd then say, 'Is the effect of that significant? Yes, or no?' It gives you that yes/no test.

If those residual effects are significant, you can then move onto, what do we do about that and what would the mitigation be? I suppose part of that's been missed out. So we've ended up with jumping forward to – we've got a scenario with no mitigation in. Is that realistic for a local authority to not do any intervention, but to have a lot of growth added onto it and that development traffic and their liaising as part of planning applications coming forward – what impact are you having without essential interventions which you need to do? So we've got a scenario where we've got nothing would happen and the local highway authority in this area would do nothing about it, and that would be acceptable to them, and then we've got a scenario whereby some minor changes are made or some mitigations added in, but we haven't been able to isolate what the effect of the LTC traffic is before any mitigation.

So it would have been a helpful scenario, probably, for you to have, but you haven't got that. So what we've tried to do with 3.6T is to try and create –

1	and I keep saying – isolate the impact, but that's really what we've been trying
2	to do, so that you've got a comparison that's a more genuine comparison,
3	like-for-like, between a do minimum and do something, that looks at what a
4	reasonable local authority would – how they would react to a do minimum
5	situation with that growth, but then also look at making sure that the behaviour
6	of the drivers is similar in both models, and they are the only changes that we've
7	made to version 3.6.
8	So we've then created a model – sorry, a video – of that which we can play
9	now. We may just stop it in a few locations. Hopefully my assistant will put it
10	on the screen.
11	MR YOUNG: Just before we get that, let me ask you just one question. Three issues
12	there: the driver behaviour, the lane markings, and pegasus crossing. Now
13	clearly there are different ways of doing modelling. Now, the fact that
14	something could be done differently to the way you've done it doesn't
15	necessarily make it unreasonable, does it? Is there anything about the
16	applicant's approach which is inherently unreasonable?
17	MS MCMULLEN: Thank you, sir. Kirsty McMullen on behalf of Thurrock Council.
18	Yes, I think we've been quite clear in our D6 submission that we think that the
19	driver behaviour that has been modelled is overly aggressive, and it is very clear
20	in the NPS in paragraph –
21	[Crosstalk]
22	MR YOUNG: On the driver behaviour.
23	MS MCMULLEN: Yes, so the driver behaviour we don't accept so that's the one we
24	think is overly aggressive and it's not standard practice, and in paragraph 3.10
25	of NPS it's that the applicant needs to take opportunities to improve safety and
26	so relying on aggressive driver behaviour we don't think is in accordance with
27	policy as well as best practice in modelling. We also don't concur with the lane
28	allocation and how that's been modelled, so we have agreed to set that out in
29	writing as to why it's not just about – we can spend a lot of time going, 'Oh, but
30	this is a different way of doing it and there's lots of different ways of doing it'.
31	We considered some of the ways that $-$ or 3.6 has been modelled is incorrect as
32	opposed to a nuanced way of modelling and we agree to disagree.
33	MR YOUNG: I know it's very difficult to get into precedent and 'This scheme did this
34	and that scheme did that'. It's not always that helpful, but the fact they've

1	pointed to two big schemes' recently made DCOs where they use that driver
2	behaviour
3	MS MCMULLEN: Well, we haven't seen any of that, so that's new evidence from today,
4	so we'll have to go back and have a look at that and that's fine, sir. But the other
5	thing to point out is that 3.6 has significant queues in it as well, so it's – and it's
6	completely different to LTAM, so it doesn't shy away from that. We don't
7	necessarily agree with 3.6, but even if we were to look at that, we will set out
8	where we consider there to be severe impacts which is one of our actions for 3.6
9	in our submission hearings.
10	MR YOUNG: Shall we have a look at the?
11	MS MCMULLEN: Thanks. I'm going to have to put my glasses on. I'm getting old.
12	So this is the p.m. peak, sir, in the [2032 something?], in the 3.6T. So zooming
13	in on Orsett Cock junction you can see queueing on the circulatory and on the
14	approaches, particularly the A13 off-slip – so westbound off-slip – and then now
15	it's going to be moving; it will now move to the west, and now orientating so
16	you're now looking west towards the A13/LTC/A1089 junction - so pause,
17	sorry – so you can see here this is Rectory Road. Sorry, you'll have to go back.
18	Sorry. Can't get the staff.
18 19	Sorry. Can't get the staff. PARTICIPANT: You're relying on my IT skills. Apologies.
19	PARTICIPANT: You're relying on my IT skills. Apologies.
19 20	PARTICIPANT: You're relying on my IT skills. Apologies.MS MCMULLEN: So if you pause here, sorry, you can see this point is where the A13
19 20 21	 PARTICIPANT: You're relying on my IT skills. Apologies. MS MCMULLEN: So if you pause here, sorry, you can see this point is where the A13 eastbound off-slip is merging – or is joining – the LTC off-slip, and you've got
19 20 21 22	 PARTICIPANT: You're relying on my IT skills. Apologies. MS MCMULLEN: So if you pause here, sorry, you can see this point is where the A13 eastbound off-slip is merging – or is joining – the LTC off-slip, and you've got queueing back on in both of those arms and lane starvation as they're merging
19 20 21 22 23	 PARTICIPANT: You're relying on my IT skills. Apologies. MS MCMULLEN: So if you pause here, sorry, you can see this point is where the A13 eastbound off-slip is merging – or is joining – the LTC off-slip, and you've got queueing back on in both of those arms and lane starvation as they're merging and joining each other, and then you can see just at the top of the screen, that's
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- going northbound and it's queueing with traffic queueing to get off on that 1 2 northbound off-slip. So you can see it loops around. So just north of the trees 3 you've got that new loop which we've raised safety concerns about because it 4 copies the existing loop which is a tight U-turn for traffic to make and it copies 5 the existing one you can see within the trees, this is the A1089 loop. So that's 6 the LTC northbound off-slip and traffic queueing back onto LTC and then 7 queueing back around. I think that's the end of the – should be the end of the 8 video, sir. Yeah, that was our submission for 3.6T. Thank you.
- 9 MR YOUNG: Mr Tait.

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10 MR TAIT: Dr Wright again, sir. Thank you.

DR WRIGHT: Tim Wright for the applicant. So we've undertaken a review of the C6T
model results that were provided, both the report REP6A-013 and the video
REP6A-014 that we've just seen. I'd like to note we have requested a copy of
the model file so that we can do a little bit further investigation. That was
provided after hours on Friday, so our team are looking at it hard, but we haven't
had a chance to go through that in detail yet.

So referring specifically to the report, first of all I just want to pick up that there are some possibly erroneous entries in the results tables. We're not sure, but for example in table 3.4 of the report, the average delay in seconds and the mean max queue in metres are identical for both the A13 west Rectory Road and Stanford Road east which is possible but might be something to check.

Going onto the video itself, it raises a number of questions. First of all, we note there isn't a do minimum version of the video, and notwithstanding the discussion about Rectory Road, it is likely that a do minimum model with similar behaviours would show significant queues. Again, referring to table 3.3 of the report, mean max queues were 1.3 to 1.4km on Brentwood Road, Rectory Road and Stanford Road in the do minimum 3.6T model. And that is likely to be a consequence of the driver behaviour and the lane allocation settings that have been chosen within the model.

From our view, it's quite important, when you're doing modelling like this, that it does actually need to be a realistic representation of the behaviours that you would actually see on the road. To illustrate a couple of the concerns, we aren't going to play the video but what we have taken is a couple of screen grabs, so I'll ask if the first screengrab can be put up on screen. This is timestamp 19 seconds and is a grab from the image. Now just to place you, we're looking at the western side of the roundabout here, the approach of the combined A13/LTC road. Now just to avoid distraction – and I'll be honest it distracted me at first – what you can see is a VISSIM model superimposed over an aerial image. The lane – it looks like a V shape, the dark lane – thank you very much, Graham – that is not in our scheme, nor is it in their model. That is an artifact of the image behind the model. We wouldn't have been able to – I'm not suggesting this is wrong – we wouldn't have been able to produce something different ourselves. It's just to help you ground yourself in what you're looking at, so there will be no traffic on that road, nor should there be.

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But what I actually want to draw your attention to is what is happening along that line. So you can see there that there is quite a substantial queue of traffic coming down from the top of the screen to that point where the red arrow is. Now what that's showing is that the traffic coming down there is all trying to get into the left-hand lane, partly due to the lane allocation and partly because of other reasons for why they want to move around that roundabout, and they're being extremely cautious about moving into that lane. They haven't found a suitable merge in order to get in. So you can see how the drivers in the right-hand lane are all queueing cautiously. You'll see that they are stationary in the video, waiting for a gap to move into the left lane. This results in them holding back the traffic on the three lanes for a period of time. It's not possible from the video to determine exactly how long, but it is likely linked to signal change timings, could be up to a minute because of that. We don't think that's a reasonable representation of what would actually happen with the traffic holding back at that location.

If we can move onto the next timestamp which is timestamp 47, we've already seen something close to this in the still from Thurrock Council, and what we're looking at here in particular is the LTC northbound – if I can draw your attention – so that's on the right-hand side of the screen, LTC north and southbound there, and in particular if you look in the red circle you have a lorry and you have a blue car. Now what's happening with that blue car is it is clearly trying to merge into the left-hand lane, and you do see in the video the point at which it finds the space and it starts to move across. In fact, it stays stationary for about 10 seconds in the video. Now we don't consider that to be a realistic

1	representation of what would happen. The vehicles would – if it was coming
2	off, it would have moved into that left lane earlier. It would have found a gap.
3	The urban merge is designed to show collaborative behaviours and it
4	would have signalled, it would have moved into that gap in the normal practice,
5	so it's because of timid behaviour that that driver has effectively got to that point
6	on the road network where, to be clear, it has stopped in the right-hand lane and
7	is waiting for a clear spot to merge to the left. Now I call that timid. Perhaps
8	that's not timid, to stay stationary in the fast lane of the road, but we go back to
9	our point that is not a realistic representation. So we think this model shows that
10	the driver behaviour that has been selected by Thurrock Council as being
11	representative is not actually appropriate for the highway at this location. Thank
12	you.
13	MR YOUNG: Thank you.
14	MS MCMULLEN: Would I be able to just come back on one point, please? Sorry.
15	Kirsty McMullen on behalf of Thurrock Council. We haven't made any changes
16	to this part of the model, so when you're looking at those points, the driver $-$ all
17	of that is the existing model. We've just focussed on the Orsett Cock
18	roundabout, nothing to do with LTC/A13/A1089 junction. So that is an issue
19	that's within the National Highways model as well.
20	MR YOUNG: Anything else on this item?
21	DR WRIGHT: Clearly, we haven't seen their model with enough time to pick through
22	it, so I think we'll come back further at our deadline 8 submission, but I do think
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25	that our point stands about whether the model reflects realistic driver behaviour.
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1	appropriate or whether it would not be better to wait until the scheme is
2	operational and you have the benefit then of being able to see what queues, if
3	any, have materialised at the junction?
4	MR TAIT: Dr Wright, initially.
5	DR WRIGHT: Tim Wright for the applicant. So we introduced this requirement because
6	our localised traffic modelling report identified that it would be beneficial to
7	make some changes during the – ready for the opening of the scheme, and that's
8	why we introduced the requirement, because we think it is appropriate for it to
9	be done at the pre-construction stage to be delivered for 2030.
10	MR YOUNG: Okay then. I'm just thinking that through. You – I'll come back to you,
11	Mr Tait. One second. Just on, then, the issue of monitoring, just if you've
12	already put in a scheme, then you have the monitoring that indicates that there
13	are additional issues that need to be addressed there. How does that fit into the
14	drafting that we've currently got?
15	MR TAIT: Could I turn to Mr Latif-Aramesh in this response?
16	MR YOUNG: By all means.
17	MR LATIF-ARAMESH: Thank you, sir. Mustafa Latif-Aramesh for the applicant. I
18	just wanted to clarify two things. So at deadline 7 we amended requirement 18
19	and importantly the scheme that is submitted under subparagraph 2
20	subparagraph A must be based on and informed by appropriate pre-construction
21	monitoring, and so I was going to get onto this and explain some of the changes
22	we made, but that was one of the key changes. So the scheme itself would be
23	based on monitoring. The other amendment to requirement 18 that was made
24	was securing monitoring for operation beyond the delivery of the scheme.
25	I think the other key point to recognise – and again, this relates to one of
26	the changes that we made in response to the Port of Tilbury submissions – is that
27	the measures which the scheme must include are those which are reasonably
28	necessary not just to minimise the traffic flows on the roundabout but to optimise
29	the performance of the roundabout beyond reducing the impacts from the Lower
30	Thames Crossing. And so we think, given what Dr Wright has just said, the
31	scheme is appropriate. It secures monitoring before it's prepared. It then
32	requires a scheme which not just minimises our traffic impacts but optimises the
33	roundabout, and then after that there is further operational monitoring secured
34	by one of the further amendments we made to requirement 18.

1	In case it's helpful, sir, table 7.1 of REP7-190 goes through the key
2	differences – not key differences that we've highlighted, but key differences that
3	the Port of Tilbury highlighted – between our requirement and their proposed
4	requirement, and we have responded to each one of those differences either by
5	way of an amendment to requirement 18 or by way of an explanation as to why
6	the requirement achieves what they're seeking it to do. So that table, I think,
7	has brought us slightly closer on the terms of requirement 18, but I just wanted
8	to highlight that those changes mean monitoring is in place.
9	MR YOUNG: Mr Latif-Aramesh, can you just give me that reference again? Table 7.1
10	MR LATIF-ARAMESH: Of REP7-190.
11	MR YOUNG: Thank you. And then just in terms of what the work that Thurrock's done
12	– and actually Thurrock didn't mention – but they have, as well as 3.6T
13	modelling, they actually then went and looked – took a further step and looked
14	at a more wider ranging mitigation scheme for Orsett Cock, and I think the ExA
15	were interested to hear the applicant's thoughts on whether that kind of scheme
16	would be – whether that would be precluded from the wording that we've
17	currently got, the drafting of requirement 18 at the moment, would something
18	on a grander scale be deliverable under the existing wording?
19	DR WRIGHT: Tim Wright for the applicant. So with caution, because the scheme
20	proposed by Thurrock Council is contained in some limited drawings, it would
21	be quite difficult for us to actually say whether that scheme would be deliverable
22	or not. However, what I would say is the wording isn't that restrictive. So if the
23	engineering design of that demonstrated that it sat within the environmental and
24	the land use controls, the wording wouldn't restrict something like that being
25	brought forward if that were to be the appropriate solution to the situation. So I
26	would say it's a helpful contribution to the discussion. I wouldn't be able to say
27	whether we would bring forward a scheme such as that or whether it could
28	without a lot of further work on it.
29	MR YOUNG: Yes. Okay. Does Thurrock want to come in on any of that? Do you see
30	any barrier in the wording, the drafting that the applicant provided, that would
31	preclude something on a grander scale?
32	MR MACKENZIE: George Mackenzie for Thurrock Council. We do have something
33	to say on that. Let me just check. Ms McMullen.

1	MS MCMULLEN: Sir, Kirsty McMullen on behalf of Thurrock Council. I think one of
2	the main concerns is that the drafting prepared by the applicant doesn't set out
3	any threshold for what this scheme is going to be, but it does say – allude to –
4	that it's – and this is effectively what the applicant is proposing – is optimisation
5	of signals and some kind of tweaks to line marking. We don't consider that is
6	sufficient, and the drafting that we've set out jointly with the Port of Tilbury and
7	DP World and TEP is that there would be thresholds that would need to be
8	agreed so that there's no material worsening of the highway.
9	MR YOUNG: Can you just point me specifically to what parts of the applicant's
10	requirement 18 would preclude something along the lines that Thurrock are
11	envisaging?
12	MR STANDING: Ben Standing for Thurrock Council. There's a number of comments
13	to make, but just to respond to your questions there. There's nothing in the
14	wording which precludes something more than signalling to be done. It's about
15	minimising delays and optimising performance, which in my opinion is still
16	quite vague and we will – and I'll speak later about it – there's some more detail
17	to go into, but there's nothing which precludes it. There is an argument about
18	what would be included within that.
19	MR YOUNG: Yeah. I guess it's a problem with any requirement, isn't it, that it is going
20	to be vague? Even if I look at Thurrock's, we've got the phrase 'material
21	worsening'. Well, that's as vague as anything, isn't it?
22	MR STANDING: Ben Standing for Thurrock. We've had this internal debate we're
23	having now and you've having, which is why we haven't sought to set out what
24	the material worsening is and what measurable thresholds are at this stage, but
25	there needs to be something measurable, otherwise we're going to spend a lot of
26	time with disagreement between the parties which is why, when this has to be
27	approved by the Secretary of State, both sides submit what they think should be
28	the measurable thresholds and what a material worsening is, and then that can
29	be agreed and everyone can get on with complying with it rather than arguing
30	with what should or shouldn't be there. So we were trying not to be too
31	prescriptive but trying to get something that in practice would actually work.
32	MR YOUNG: This is the great dilemma, isn't it, that as soon as one wants to move away
33	from any forms of words, which invariably you can level an accusation of vague,
34	you try and then think on what specifically you could put in words and it

1 becomes -I mean, I thought about this long and hard but I couldn't think of -I2 couldn't find anything. I mean, you could say for argument's sake, 'Well, if 3 there's a doubling of queues on a particular arm, that could be a trigger point.' 4 But then what if you get a doubling of queues or delays on one arm and 5 betterment – which is actually the situation that the modelling shows, that you get improvements on some arms, you get disbenefits on other arms of this 6 7 junction. I just don't see how one moves this forward from that. I don't know 8 if you had any specific ideas on specific benchmarks that you could put into the 9 requirement.

10 MR STANDING: If I may, sir. Ben Standing for Thurrock Council. One of the 11 characteristics of the requirement that we put in is to understand what we expect 12 - to agree the modelling to what we expect the junction to operate like, and then 13 to set the measurable thresholds in relation to that. And whilst it is welcomed, 14 the addition to the requirement 19 at the moment, that the baseline will be based 15 upon and informed by appropriate preconstruction monitoring, an important 16 aspect of what we had suggested was an assessment, including microsimulation 17 of what it's going to look like, the likely impacts. And then if you know what 18 you think it's going to look like and you've made your decision in relation to 19 whether to proceed with a project based on a junction working in a particular 20 way, if it doesn't work in that way, obviously it's important that mitigation is 21 put in place.

22 And I think it's useful very quickly if I may have just one minute to draw 23 it back about what we're trying to achieve. So without prejudice to where we 24 are generally in terms of views on Lower Thames Crossing, it is important that 25 the junction at the project works as described. We have genuine concerns that it won't work. We've just had an interesting video and commentary on the video 26 27 about disagreement in modelling and a serious disagreement about how effective 28 it's going to be. If it doesn't work in the way that we're doing it, we're going to 29 be leaving a legacy for Thurrock residents of a scheme which we thought would 30 do X but actually does Y. So what we're actually using this for is to say, 'Okay, 31 you've made a decision based on what the scheme is meant to do. If it 32 measurably doesn't achieve that, you've got a requirement to put in place 33 mitigation measures so that it does achieve that'. And what we hope we've 34 achieved with all the work that we've done is to show it should be possible to

make Orsett Cock work, but we need a requirement like this which is quite strong.

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Basically, we want to agree how it works now, how it's meant to work with the modelling, to then, for the Secretary of State and for us to agree what the measurable thresholds are, to then agree monitoring. Now we do have monitoring, but monitoring is only as effective as – if you know what you're trying to measure. So by having the modelling, we understand what we're trying to measure, then we're going to have the monitoring so we know whether that is going to be effective. And if it's not effective, then there needs to be a scheme of mitigation where that's implemented.

And it's not enough that that's just implemented during construction, although that's obviously something which is in the outline traffic management plan for construction, but it's also important that it's during the operation. It's all about the legacy. It's not just about the construction of it; it's about the legacy of the scheme and if it works. If the scheme works entirely as the applicant suggests, there will be very little mitigation required.

17 But of course – and we haven't said this as a blanket thing across the whole 18 project because I don't think that would be a reasonable approach to take – but 19 where we've identified some genuine professional concerns - we've got 20 consultants; you've heard the detail about how it's going to work – one of the 21 ways of settling that disagreement is to have a really effective requirement, and 22 that's what we've tried to put forward. And we don't believe that the current 23 wording of requirement 18 quite gets there. We acknowledge that it's trying to 24 get there. I think broadly we're saying similar things as to where we want to get 25 to, I just don't think it quite gets there on the current wording. I hope that's 26 helpful, sir.

MR YOUNG: Can you give me an example of Thurrock would see as material worsening and we'll see if that is something that I would disagree with or not.

- 29 MR STANDING: If I may, sir, just hand over to my colleague Kirsty McMullen.
- 30 MS MCMULLEN: Sir, I think some of this boils down to the discrepancies that there
 31 are within the modelling –
- 32 MR YOUNG: The modelling is not going to be agreed, is it?
- MS MCMULLEN: No, I understand that sir. But if you're talking about what we're
 trying to achieve, which is what we've just been talking about so what the

applicant is actually trying to achieve or say will be achieved is LTAM. The 1 2 world is going to be in accordance with LTAM. And so that's – those low levels 3 of delay to vehicles is what the whole assessment is based on, and the BCR is 4 based on, and the environmental assessment is based on. And so that's really 5 what - if that happens in reality, then that's fine; there's no, then, need for further 6 mitigation as part of this requirement. And so that would be one example, sir, 7 to if you – if that's not achieved, then we're – 8 MR YOUNG: That's not very specific. I'm asking what - give me an example of what 9 you would see as material worsening, and you've just not answered that. 10 MS MCMULLEN: I think I just did. What we're trying to say is that the – we're setting 11 out what the junction should achieve in terms of its operation, which is 12 effectively what the applicant has put forward. If that doesn't happen, and if 13 there's significant diversions from the levels of queuing and delay that are 14 forecast within LTAM, and actually the reality is different, then there would 15 need to be some intervention. 16 MR YOUNG: Would there? So you're saying that if the applicant's strategic modelling 17 is slightly out, and that these queues are slightly above what the applicant's 18 strategic model predicted, that would be - that would need intervention? 19 MS MCMULLEN: All of this, sir, is a judgment, and so that's where we're saying that 20 - and this is effectively what monitor and manage is about. So this is the 21 direction that the applicant and the guidance is requiring, that you look at some 22 - you look at the – what's forecast to happen, what actually happens, and you 23 monitor that over time, and you say 'What's the consequence of this?' So the 24 LTAM, or the low levels of delay within the assessment, if they don't 25 materialise, then there would be further consequences in terms of the levels of impact that have been assessed within the ES, for example, so -26 27 MR YOUNG: And that's through to 2045 or is there any end date that you have in mind? 28 MS MCMULLEN: Well, I have to say, we're not proposing it to 2045 in terms of 29 monitoring. I think it's five years. Five years post construction. 30 MR YOUNG: So I mean what we've effectively got, isn't it – we've got two bookends. 31 Because the modelling – there's no agreement. You're as far apart now as 32 probably at any point of the examination, so as the ExA what we have is two 33 bookends and a range of impacts, okay. At one end, we have the applicants, and 34 at the other end of that scale, we have Thurrock's 3.6T, modelling that perhaps

represents the other far end of the bookend. What we have to have is flexibility within any requirement that can deliver a range of mitigation between those two bookends. And that – isn't that what we should be working towards?

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MR STANDING: Ben Standing for Thurrock Council. You've described that correctly, sir, that there is a bookend. I like that as an analogy that you've got two different views. I think the idea that any worsening, any confusion about what would need to be mitigated is the essence of the conversation we had a moment ago, but we have tried to address that. Obviously, we've also set it out that the Secretary of State will help with measurable thresholds, but we've also set out what those measurable thresholds should broadly be based on.

So this is a material worsening, which is, in planning terms, is something which is understood, and then a substantial detriment to the efficient operation of the ports. So it's – oh, there's a 15-second delay. I don't know if a 15-second delay is material or not, but it's a short delay. We wouldn't be trying to change everything. It is just, broadly speaking, as my colleague Kirsty said, that the world is as predicted by the applicant. It doesn't have to be exact, but materially, it is the same outcome.

18 And it's only when it's materially not that we're saying that there are 19 things to be undertaken to ensure that that world happens, and that seems to be 20 in the wider public interest. It seems to be delivering what the scheme promised to deliver. And that's what we're trying to achieve, because if it doesn't – if the 22 world doesn't turn out in accordance with LTAM and as the applicant predicts, 23 actually the benefits of this scheme are significantly less.

24 And also, it's not just the impact on Lower Thames Crossing, but the 25 impact on the wider road network. We've already seen there's a lot of the wider 26 network that converges at this point, so this is all we're trying to do. We're just 27 trying to make sure that LTAM is achieved, and if it's not, then it is - then 28 measures are taken so that it is.

29 MR YOUNG: Thank you. That's helpful. Yes, Mr Mackenzie, and then I'll come to 30 you, Mr Fox.

31 MR MACKENZIE: Thank you. George Mackenzie for Thurrock Council. Just a short 32 reflection on the bookend point, which is certainly a useful analogy here. I mean 33 the critical difference between the requirement that Thurrock is proposing and 34 is agreed by other highway authorities and stakeholders is a requirement to

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essentially deal with and mitigate any material worsening of traffic conditions. That's in our requirement or the port requirement but isn't promoted as a requirement by the applicant.

The short point, I think, is this – that in between those two bookends, there is certainly a possibility that relative to what LTAM is telling us at this point in time, there may well be a material worsening of traffic conditions in reality on delivery of the scheme. So our requirement is simply trying to say that if that happens – and I appreciate that it's a judgment call as to what constitutes a material worsening, but if that happens – and that possibility can't be excluded at this stage – then something should be done about it. That's the critical difference between the requirement on this side of the room and the applicant's requirements, so that's why we say that ours should be preferred.

13 MR YOUNG: Thank you. Mr Fox.

MR FOX: Thank you, sir. Mr Fox on behalf of Port of Tilbury. I think one of the things
that I wanted to emphasise in relation to different strategy of the requirements is
bringing it back to the tests that you would need to be thinking about in terms of
– or the Secretary of State would need to be thinking about in terms of imposing
the requirement: in terms of what's reasonably necessary in planning terms,
what's precise, and what's enforceable. And I think that is key in considering
the two requirements.

21 So if you look at the applicant's requirement which talks about being 22 based on preconstruction monitoring, what does that mean? Based on what -23 we have the monitoring information; what are you doing with it to decide 24 whether or not you do anything or what is appropriate to be done? And the -25 and in terms of what is reasonably necessary to mitigate and what does optimise mean? What are those terms? Whereas the approach that we've sought to take 26 27 with the council and ourselves and London Gateway is to create a process by 28 which that preciseness and that enforceability can be created. So I know you've 29 been asking the questions, 'What does material worsening mean? What's the 30 measurable thresholds?' but the point is in producing something the Secretary 31 of State then approves, he or she then makes that decision based on the views of 32 the various parties, and on that decision you determine what the mitigation is 33 that's brought forward so it's specific to the impacts that are caused rather than

the more vague wording, I would suggest, that's in the applicant's version of the requirement.

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And I think that principle has underlined the whole of our drafting – is that allowing for a proper process to be followed for a reasonable, objective, and proportionate response to the impacts of the actual scheme. And I know you haven't touched on it yet, but the other point I wanted to mention was around the post opening monitoring, where the applicant's approach has been to essentially just point to the wider networks process, which – when they've already admitted today in the course of hearing that the issues at Orsett Cock are a scheme issue, not a wider networks issue, which is why our requirement deals with ongoing monitoring within the context of that requirement instead of pointing elsewhere. But I'll leave it there for now.

13 MR YOUNG: Thank you. Mr Tait. Mr Aramesh. Oh, sorry, Mr Shadarevian.

MR SHADAREVIAN: Paul Shadarevian KC for DP World London Gateway. So you 14 15 will recall that it was – Mr Fox's firm first promoted the apart[?] provisions, 16 which we are considering now, along with the applicant's proposed wording. 17 And the differences between the approaches is one of the baseline and the 18 objectives and the reference points, so if I can just deal with those first of all. 19 What are the objectives to be achieved? And one might identify them as 20 maintaining a relative free flow of traffic, so far as possible - I'll come back to 21 that - during peak hours. To avoid an unacceptable impact on Orsett village. 22 That must be an objective, however you settle it; the threshold you use. The 23 other must be to avoid an unacceptable impact on the operational efficiency of 24 the ports.

So let's take those as broad objectives, so far as Orsett Cock is concerned. What this clause starts, the one being promoted by the applicant – what it does is provide a basis for further consideration. Its main faults, I would suggest, are that it doesn't provide for the setting of a baseline against which to judge the severity of potential impacts and therefore to make an appropriate judgment about their acceptability or otherwise. And insofar as it exhorts the use of measures reasonably necessary to minimise delays for traffic arising as a result of the operation of the authorised development and talks about that without reference to what objective is to be met: minimised by reference to what? Similarly, optimise the performance of the Orsett Cock roundabout: optimised by reference to what parameters? In other words, what are the limitations you are assuming before you can make the judgment that something is optimised? Now these are difficult things to address in a clause like this, but it's necessary to address them by reference to the objectives to be achieved. What the apart proposals did, as amended now, provide the ability to estimate, by reference to the survey work, what an appropriate baseline condition is. And then it's a matter of judgment beyond that in regard to whatever objectives are set for those words to provide a level of mitigation – and I call it mitigation, effectively, it's not really mitigation; it's about scheme design, detailed design – which allows the applicant to implement a scheme, a solution approved by the Secretary of State, which, so far as reasonably possible, avoids any unacceptable impacts and meets the operational requirements of the port so far as reasonably it can do so, and also avoid that environmental harm to Orsett village.

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So that's what we need to try and achieve. And I don't disagree that it is a very difficult thing to achieve in terms of drafting, but we have to rely upon the doctrine, as it were, of regularity; provide the Secretary of State with the means to exercise reasonable judgment about what is needed in any given circumstances.

So I can talk about it from the port's point of view. Our objective, without in any way wishing to undermine the viability of the scheme itself, is to maintain operational efficiency. You will be aware of the need to do so by the way in which the port operates. That is what we're trying to achieve. We don't disagree that there could be some worsening, but the effect of that worsening must not be to interfere with the operational efficiency of the port, because that is a matter of public interest, not at just local and regional level, but also at national level, as we've already established.

And if one has regard to the NPPF, although it says you should only refuse development proposals where the effects are severe, it also proposes that the effects on the highway network should, so far as possible, be mitigated. So it is not just a one way analysis. There is a reciprocity there which needs to be respected, and that reciprocity is something which needs to be respected here as well in my submission.

1	MR YOUNG: That is useful. One of the issues this Examining Authority is going to
2	have to grapple with is the use of terms and language, and whether optimise is
3	better or worse than material worsening or any other formal words that come
4	before us before the closing examination, but just let me put a quick question to
5	DP World. And that's – we've heard from the applicant that they feel that their
6	requirement, as drafted, does provide flexibility and that it would be possible to
7	deliver something similar to what Thurrock have suggested at that location. If
8	this Examining Authority were minded to go with the drafting that's been
9	provided by the applicant, how would that change DP World's stated position in
10	your written rep at the outset of this examination, that you support the scheme
11	in principle?
12	MR SHADAREVIAN: That's an interesting question. I think at the moment, as it stands,
13	the clause isn't robust enough because there aren't sufficient parameters to
14	enable the Secretary of State to make an informed decision about what the design
15	ought to achieve. So I need to take instructions on that because I'm talking now,
16	as it were, without instructions, but that would be one of the principal concerns.
17	I can certainly take instructions on that, but I'm not prepared to give you an
18	answer straight away. I'm being prompted. In the absence of a degree of
19	confidence in what is going to be proposed, we would object to the scheme.
20	MR YOUNG: Right. And you don't consider that there's a flexibility?
21	MR SHADAREVIAN: No –
22	MR YOUNG: You disagree with the applicant that there's a flexibility in their
23	requirement –
24	MR SHADAREVIAN: For the reasons I've already set out, the clause doesn't go far
25	enough in setting the objectives and providing the reference points according to
26	which the Secretary of State is going to be able to exercise his judgment
27	appropriately – his or her judgment appropriately as to what design is required
28	with respect to those objectives.
29	MR SMITH: Noting, Mr Shadarevian, your initial concern there about a) the significance
30	of that question, and b) the nature of the instruction that you have received. An
31	observation that I would make is that I think it is a very significant question, and
32	it would seem sensible that we set it as an action and that we actually ask for
33	responses to it in writing at deadline 8, simply because then everybody will have

1	had due time to mull it and its various push and pull consequences. With respect
2	to the clients, would that assist?
3	MR SHADAREVIAN: It would assist, because that would enable us then to go back
4	after hearing the arguments and hearing your observations and put those
5	observations – that we can go back and consider whether or not there might be
6	some kind of compromise between the two positions, the two bookends – which
7	actually do meet in the middle – and provide the necessary degree of confidence
8	in the outcome.
9	MR SMITH: Indeed. And at this point, I am actually going to draw in the representative
10	for the Port of Tilbury, London, because I think, in fairness, if we're going to
11	afford that opportunity to yourselves, we should afford that opportunity to them,
12	given that they also originated some of the alternative drafting on this. So
13	Mr Fox, you're in principal position there.
14	MR FOX: Mr Fox on behalf of the applicant – on behalf of the Port of Tilbury. I don't
15	think $-I$ don't have instruction to be able to give a definitive answer on that
16	point, but I did want to make one observation, which was that I think there is a
17	difference between this – the applicant's drafting allowing for flexibility in what
18	is provided, which I agree their version of the drafting does, versus how you
19	decide what is provided – whether that's – and how. And at the moment, I think
20	that would be our concern, shared with London Gateway in terms of there's no
21	certainty of what will be delivered rather than if it can. But in terms of whether
22	that means that we would revert to having an against - in principle objection,
23	I'll have to take instructions on that.
24	MR SMITH: Okay. So getting then to my suggestion that we might deal with this as a
25	written action by deadline 8, with the applicant's obvious opportunity to respond
26	to deadline 9, does that seem - because again, it seems as though just as
27	Mr Shadarevian is feeling stretched at the edge of his of his instructions and
28	you've said that you would have to seek instructions, but nevertheless, it does
29	seem to be a very important point so feels though we need a way of getting to a
30	response on it.
31	MR FOX: Sir, it does. I wonder if it would help if one of the actions - you may not feel
32	like you have to put it in writing – is for ourselves and the gateway and TEP and
33	the council to have a discussion with the applicant about whether we can find

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that compromise drafting, and whatever we can do in said discussions can then be reflected in each other's deadline 8 submissions as well.

MR SMITH: Certainly, that's a proposition. Yes, I mean the timeframe would be the concern there. I mean, I guess my proposition which was that something emerges from each of the ports with absolutely no bar against cooperation in a shared position, if a shared position could be achieved at deadline 8, with the applicant's ability to respond at deadline 9, at least there are some givens in timescale terms, and we're not going to bump into the end of the examination.

But there's a way of potentially framing that time imperative and perhaps even recovering a little bit of time if there was space between now and deadline 8 for an offline conversation between Port of Tilbury London Limited, London Gateway, and the applicant directly, so that if an agreed position was able to emerge at deadline 8, it could. But that requires a certain amount of – shall we say – pressure in the pipes. Is that something that that would commend itself to you? And then I will go to Mr Shadarevian and I will go to the applicant on that point.

17 MR FOX: Yes sir, it does to me. Yes, sir.

MR SMITH: Yes. Okay. Mr Shadarevian. 18

- 19 MR SHADAREVIAN: We will do our best. Inevitably, the applicant is under a lot of 20 pressure to get a lot of stuff turned around but will do our best to cooperate and 21 find, if we can, a drafting solution that satisfies everyone. It's probably unlikely, 22 although we can try, but at least we can provide you with an updated position 23 which attempts to resolve some of the issues that have been identified.
- 24 MR SMITH: A sort of closest indication, for want of a better – I mean, if there was 25 agreement on two thirds of the draft with reservations on the remaining third, or something of that nature. Yeah. I'll go to the applicant then. We've got two 26 27 models to do. One is a standard they write by deadline 8, you write by 28 deadline 9, but one is a slightly more pressured model that seeks some sort of 29 collaborative engagement for a joint position at deadline 8.
- 30 MR TAIT: I think the collaborative approach, the second approach you've indicated, is 31 the most appropriate in the circumstances, so notwithstanding the pressures Mr 32 Shadarevian's referred to, we'll seek to do that, and then -

33 MR SMITH: Okay.

34 MR TAIT: See where we get to at deadline 8. 1 MR SMITH: We will bring an action.

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MR YOUNG: Does the applicant feel that there is potential for narrowing the gap or
even getting agreement on the drafting on this? I certainly feel that there's – I'm
more optimistic that that could happen than anything to do with the modelling,
because we we're not going to narrow the gap there, but potentially in terms of
getting the flexibility and the wording that everybody can live with –

MR TAIT: Could I ask Mr Latif-Aramesh to deal with the substance of the differences, and then we'll come back to that having heard that, if that's acceptable, sir.

MR LATIF-ARAMESH: Thank you, sir. Mr Latif-Aramesh for the applicant. I think just in the spirit of what Mr Tait has said about collaborative working, it's worth summarising where I think all parties agree. I don't hear any party saying that the wording is too restrictive to deliver solutions. Mr Shadarevian has said, and Mr Fox has agreed, that there is flexibility in the objectives, and that's what calls for a process, and I think that's the nub of the outstanding area of disagreement, and that's about measurable thresholds.

16 Our issue with the drafting that was previously put forward on a joint basis 17 was we're not sure that the language of material worsening gets us that much 18 further. I certainly haven't heard a definable or certain definition of what that 19 means. What we have done is because of the potential for the impacts is we've 20 tried to define the outcome. The outcome we're trying to achieve is a 21 minimisation of traffic on the roundabout, and in order to provide something 22 over and above that, an optimisation. And so we think our drafting helps achieve 23 the outcome. We also agree – I think Mr Mackenzie said it; Mr Fox said it – it's 24 a question of judgment. And what the requirement secures is preconstruction 25 monitoring, it secures consultation with DP World, the Port of Tilbury, Thurrock Council, so they can see what's being proposed and they can make 26 27 representations on it. That's then submitted to the Secretary of State to enable 28 them to make a judgment on whether what is proposed does minimise the delays 29 and separately does contain what is reasonably necessary to optimise the 30 roundabout.

Now, Mr Fox, I think, said it, that what is seeking to be secured here is a process. Because the draft requirement is in schedule 2, all of the other paragraphs of part 2 of schedule 2 apply. Now, there are two important paragraphs in part 2. One is paragraph 22, which sets out how consultation is

carried out, how regard is had to representations, and how that's then presented to the Secretary of State, along with everyone's representations. So that, for example, if a stakeholder said, 'We think it should include X or this measurable threshold', that would be before the Secretary of State.

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The second thing part 2 secures – and it's not one that we've talked about in a lot of detail to date – is paragraph 21. And Mr Shadarevian made the point that what DP World wants is to ensure that the Secretary of State has sufficient information to make the judgment on whether appropriate measures have been secured. Paragraph 21 allows the Secretary of State to request further information, so if – and let's run a hypothetical. If the Secretary of State considered they needed more information and DP World said in their representations as part of the consultation secured on the paragraph 18, 'We don't think there's sufficient information', the Secretary of State has a mechanism not only for seeing that representation, but then responding, through the use of paragraph 21, to ensure that further information is required from the undertaker.

So, as Mr Tait said, we prefer the collaborative approach, we're happy to have discussions about it, but we have spent quite a while thinking about the definitions that are used and the overall process that is secured as part of schedule 2. And that's why we've iteratively updated it, but we think it's appropriate at this juncture.

22 MR YOUNG: Thank you. I certainly don't have any magical wording that I can suggest, 23 but what I will say is that I think wherever you start from, to have an outcome 24 which is to optimise traffic flows through the roundabout, I think it's difficult to 25 argue with that. I think that is that is a good outcome to work towards. In fact, I can't see of anything that – at least it is tangible. And our optimisation of the 26 27 roundabout has to be paramount. I'll also add to that that I've always been 28 uncomfortable with wording such as material worsening, not least because it has 29 no basis in policy. Now I don't know whether that assists or not in trying to 30 bring the party together and to get the wording agreed. Thurrock?

MR MACKENZIE: George Mackenzie for Thurrock Council. Sir, we'll obviously
 reflect on those observations, and it may be that we have to take them on the
 chin, as it were, and notwithstanding them, present you with a form of wording

which you've already indicated you may not be minded to agree with, but I think there are two points that I ought to make.

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3 The first is that the notion of optimisation is itself also not a creature of 4 policy, so that applies with equal force. Material worsening isn't grounded in 5 policy, nor is optimisation. But really, again, the difference between the two requirements is not just a matter of language. We've been talking about 6 7 language for the last half an hour or so but it, I think, boils down to a debate 8 about what the parties think might need to be delivered to secure the proper 9 functionality of the Orsett Cock. And if it's just a question of tinkering with signalisation and lane markers and things like that, then clearly, I don't think 10 11 there'd be any doubt that the word optimisation would be sound to achieve that. 12 But the problem is that we think that the scale and magnitude of interventions 13 that may be required to make the Orsett Cock work – and it's got to work, both 14 for LTC and to deliver our own growth agenda – might be significantly more – 15 a significantly greater scale of intervention than would be needed to get it to 16 work than would be implied by simply using the word optimise. So I think we'll 17 have to get back to you on that if we may, but -

MR YOUNG: No, I understand the point that you're making. I think it's crucial that
there is that flexibility, whatever the wording is, that gives Thurrock the comfort
that that range – those bookends, the interventions to cover that can be
accommodated. So I do understand totally what you're what you're saying.
Mr Fox.

MR FOX: Yes, sir. Just three quick points. Firstly, just on that point about optimisation,
I think we do need to reflect on the fact that there are a lot of different parties
who are interested in this roundabout, and what optimisation might mean for one
party might not necessarily be the same as for another. And that is why we've
sought to define by reference to both the performance of the highway network
and the reference to no substantial detriment to the operation of the ports, and
it's for the Secretary of State then to be able to make that decision.

The second point is you referenced there about concerns about material worsening. I would just make the point that, of course, there are many, many DCOs that have been made with the no materially new or materially different effects, which I know are related to environmental effects, but that in itself is not something in policy or even in the words of the EIA regulations. And the third point I wanted to make was just actually, if I may, the question directed through you to the applicant, which was I absolutely want to work collaboratively but I just wanted to hear their response to the point I made earlier about the post opening monitoring and whether they would accept that that would be able to be in this requirement rather than just the reference to the wider impact requirement.

7 MR YOUNG: Thank you.

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8 MR SHADAREVIAN: Paul Shadarevian. So it will only work if we set the objectives 9 as I've already identified, so we need to agree what those are, and once we've done that, we can work to a drafting solution. And that should embrace also the 10 11 potential effect on the Manorway interchange. It might well be actually that the 12 combination of this clause and other protected provisions etc will give the 13 opportunity to carry out, if necessary, change to that particular junction if that, 14 in combination with works to Orsett Cock, would satisfy the objective to 15 maintain the efficient operation of London Gateway. But I say that as another 16 way of looking at this to say, 'Look, there are ways of dealing with it, but we 17 need to identify the objectives first, agree what they are, and then provide the 18 Secretary of State with appropriate parameters within which to make a 19 judgment'.

20 MR YOUNG: Right. Does the applicant want to have the final –

21 MR TAIT: Very briefly, Mr Latif-Aramesh.

MR LATIF-ARAMESH: Thank you, sir. Mr Latif-Aramesh for the applicant. Just a
few points very briefly. So on Mr Mackenzie's point, I just wanted to
emphasise, I think Mr Standing acknowledged earlier there's nothing in the
requirement that restricts what would be delivered to signalisation, so it does go
beyond that and we explicitly amended it to ensure that it provides for a number
of different appropriate measures that could be delivered under that scheme.

On the point about optimisation is different for different parties, I think you would be able to make the same argument about material worsening. And so, one of the things that we've done is we've tried to look for wording that is helpful in giving the Secretary of State enough information to make a judgment as well as the wider processes, as I explained. The drafting of the requirement we have is in part and substantially based on requirement 14 of the M25 junction 28 order. On that scheme, the M25 roundabout had a similar – not identical, but

1	a similar issue - and the wording that was proposed and endorsed by the
2	Secretary of State on that scheme was – I'll read it out.
3	'Its measures, as may be reasonably practicable to prevent delays for
4	traffic on the A1203 Brook Street entering the M25 junction 28 roundabout' -
5	that's why we started with as soon as reasonably practicable measures. We've
6	moved to provide more assurance by using reasonably necessary, but if we're
7	looking for recent examples of where the Secretary of State has had to consider
8	this issue, we think our wording does achieve the security of measures which $-$
9	along with the process, which allows the Secretary of State to reach a decision.
10	And then just very finally on Mr Fox's two points, so he makes reference
11	to materially new and materially different. As I'm sure we'll explore tomorrow,
12	that phrase has become widely used and widely understood in the EIA context,
13	whereas material worsening, I'm not sure it's the same in the context of traffic
14	impacts. And on the specific question, which is whether the monitoring could
15	be secured. As I mentioned, we amended requirement 18 to secure operational
16	monitoring as well as preconstruction monitoring, and we don't think we need
17	to go any further which might run the risk of duplicating what is already secured
18	through requirement 14. Thank you, sir.
19	MR YOUNG: Thank you. Yeah. An action point. Yeah, I agree. I think that's probably
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21	MR SMITH: It's fairness, isn't it. The Examining Authority – I'm very conscious, Mr
22	Fox, of your hand still being up. Did you wish to come in on that particular
23	point?
24	MR FOX: Yeah. I just wanted to ask one question really, which was that I think a lot of
25	the discussion we've had in the last 15, 20 minutes has been around the
26	definition of the objective starting point of what you do, and that that is one
27	question that we need to discuss with the applicant.
28	The other question is the process that's created by the requirement, in that
29	the applicant has been saying that they consider that the process can just be like
30	any other requirement and the consultation and the Secretary of State being able
31	to take account of responses received, whereas of course our drafting is trying
32	to create a process by which the things that are presented to the Secretary of
33	State are clear and the views of parties are given in the context of that

1	information, rather than a quite generic process that applies to the requirements
2	generally.
3	So I think that – I suppose the question I would have is, is there an issue
4	with having a more specific process rather than the more generic process that we
5	have in the requirements? Because if there is, and the reason I'm asking that is
6	because if there is, then the chances of - obviously, we'll try and work
7	collaboratively, but they are the two key aspects of our requirement drafting, and
8	if that can't be accepted, then there needs to be a specific process with specific
9	information shared. Then I think it would be difficult to reach agreement. So I
10	would just like to understand if there is any scope for movement on that.
11	MR SMITH: Which rests in the applicant's gift to a degree. Brief response on that,
12	please, through Mr Tait.
13	MR TAIT: Sir, we'll reflect on that. I don't think I want to give an answer immediately,
14	if that's acceptable. We will have this collaborative process. We think our
15	approach – we've explained it and we think it is robust, but obviously we'll listen
16	and that can be discussed.
17	MR SMITH: Yeah, yeah, now before we leave the land of potential collaborative
18	processes, I think the ExA have been quietly crunching through our grey matter.
19	The implications of the conversation that we've just had about the collaborative
20	process between the ports and the applicant – and sensibly, I wanted to then look
21	at Thurrock. Now, I think Thurrock's interests are in principle partially aligned
22	but somewhat separate from those ports, so I guess a sort of initial observation
23	between us as an Examining Authority was that it wouldn't necessarily be a good
24	idea to essentially mandate direct collaborative engagement in the same process
25	as the ports and the applicant, because you may want different things. And
26	frankly sometimes when parties want different things and you force them into a
27	collaborative engagement, what comes out is mud or no agreement, and we're
28	seeking neither mud nor an absence of agreement.
29	We are seeking the best possible clarification and articulation of positions
30	that are agreed. However, what it does flag is that there might be some virtue in
31	setting up a roughly equivalent process to the one that we've just suggested in
32	relation to the ports between Thurrock and the applicant on the same point, on
33	requirement 18. Mr Mackenzie.

MR STRATFORD: Chris Stratford for Thurrock. I'm nervous about a number of things

here. We have already submitted –

3 MR SMITH: Yes, you have.

4 MR STRATFORD: - a joint position between the four parties that are going to be 5 seriously affected if the National Highways position is wrong, and we have given you ample evidence, and we have tried for three years to persuade the 6 7 applicant to get to a certain point that they're beginning to get to. I'm nervous 8 about splitting the responsibilities of Thurrock from the ports. I appreciate that 9 we have different interests. I'm also nervous about the sheer time involved in trying to get a meeting in the next four or five working days, when we've already 10 11 got to respond to ExQ3, these submissions, and all of the 93 documents that 12 we've got to review from the applicant, and trying to fit a meeting in in the midst 13 of all of that at the same time as statements of common ground. I think we've 14 been talking for a long, long time now. I don't want to shut the door or anything, 15 but just nervous about splitting us.

16 We have submitted our joint position. They've come a little way towards 17 us, perhaps. Perhaps the question should be back to them? Can we not, since 18 it's our junction, as the local highway authority - can we not ask for a little bit 19 more understanding and accommodation on behalf of the applicant? I mean, it 20 seems to be pushing towards us. Why do we have to change when we have set out our position - all four of us - and we seem to know what we're doing, I 21 22 think? It's just a little puzzling as to why the applicant's not coming – because 23 if they get it wrong, everybody suffers, and unintended consequences can be 24 awful. Sir, I'm not sure that's a clear answer, but it's just a set of worries.

MR SMITH: It's a set of worries. I guess in terms of the thrust of a decision that we
need to make about specifics of actions, the question about whether this is a
process that engages the ports, it essentially continues to mirror the engagement
that you've already had, or whether we get a ports position plus a Thurrock
position, or whether you rest on what you have already put. I mean, those are
still the three broad options, I guess. Before I kind of bring the gavel down on
this metaphorically, why don't we ask the applicant?

We are trying to frame a process flowing out of this hearing that enables us to have the clearest possible understanding of the greatest extent to which there are views on harmonised objectives, views on clarity of definitions, views

on the outcomes sought that are agreed, and then the reservations, the drawback 1 2 positions, from a general approach. But, yes, I mean this is not necessarily going 3 to be a quick and easy win, but it has just struck us that it would be very remiss 4 of all of us I think to leave this room with a view that we weren't going to have 5 one more try at this at least. So yeah, from the applicant – you've heard some 6 reservations there. Your observations about a joint process including Thurrock, 7 as against a separate process with Thurrock, as against a process where 8 essentially Thurrock makes its own representation at deadline 8.

9 MR TAIT: Sir, looking at the target, which is to seek to have this discussion over the 10 course of the next few days essentially, it's pretty evident I would have thought 11 that if one has it in the form of a quadrilateral summit, that is going to be less 12 likely to lead to efficient disposal of the matter. Mr Stratford talked about the 13 diary issues that they've got this week. Well, that's from Thurrock's position. 14 It's even more acute if one's trying to funnel that through a quadrilateral 15 approach. So I would have thought a flexible approach is correct. That might 16 be quadrilateral. It might be individual. There are not necessarily identical 17 positions that have been articulated today -

MR SMITH: Frankly, we could craft a pair of actions – this essentially would pick up
 the ports' position and Thurrock's position – and absolutely not preclude a
 quadrilateral if that's achievable, but equally provide a path out that wasn't a
 quadrilateral if that couldn't be achieved.

MR TAIT: So what we don't want to have is, if there is one ship that is at the back of the convoy and therefore we never get any discussion, and therefore ensuring that whatever approach is taken, there is the opportunity for bilateral discussion on this matter is not precluded.

26 MR SMITH: Okay, I'm going to return to Mr Stratford. Observations.

27 MR STRATFORD: Well, it is the local highway authority's junction –

28 MR SMITH: We know.

MR STRATFORD: And so to have conversations about the council's junction without
 the council there seems a bit odd, especially as there might be ramifications and
 implications for the council, which is why I didn't shut the door. But we have
 actually put forward a joint position –

33 MR SMITH: I know.

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MR STRATFORD: – but there seems to be a plan afoot to try and split us up or change our position or something when we've got a joint position already, and I'm nervous about that.

4 MR SMITH: No, it's not a plan – not on our part – afoot to split you up or in any way 5 bear down on a joint position, other than we've all now sat in a hearing for the best part of a day. We've ventilated further issues around that joint position. 6 7 There is a sense of maybe some movement in the room which is not just on your 8 side of the room, and frankly a desire in the Examining Authority not just to rest 9 on the basis of the joint position that was put forward if some further movement is capable of being achieved, but equally a desire to actually understand best 10 11 positions as clearly as we can. So in other words, if it were to be true that 12 Thurrock's concerns about certain issues were capable of being met by the 13 applicant, but those were not matters of particularly great concern to the ports, 14 that we nevertheless capture that.

15 But equally, that if there were elements of the ports' position that they 16 view as of significance, but Thurrock doesn't view as being as important, that 17 those are captured too, so that we can see essentially the best balance of positions 18 between the parties as individual parties in the round, but also within a process 19 that has involved collaboration and discussion between the parties. Now, 20 essentially there we can write an action that asks for an engagement between 21 four, but makes it clear that if an engagement between four is unable to be 22 delivered within a very tight timescale, that an engagement between three and 23 an engagement between two is also an option, so it doesn't leave you with 24 nowhere to go.

It doesn't leave you out of the room, but it does make sure that we don't end up with everything from diary malfunctions through to the difficulties around trying to coordinate four parties in a very short period of time, meaning we just don't have a conversation, and that would be a tragedy in my view.

MR STRATFORD: Certainly. Can I make two points – one a suggestion and one a
point? So I will make the point first. Thames Freeport includes Thurrock
Council, the two ports, Ford Motor Company and others, so we're already a
joined-up group. The second point, and the suggestion, is perhaps D8 might be
a step too far, too much. Would D9 be a possibility? I know it's only six days
later, but six days is six days.

- 1 MR SMITH: Yeah.
- 2 MS LAVER: Mr Smith, can I just say Mr Fox is waiting for Port of Tilbury, and I think 3 he might have something on this matter as well.
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MR SMITH: I'm sure, and I know the applicant's waiting as well. Heard. Let's go to Mr Fox, then go to the applicant, but then we do need to try and land this.

MR FOX: Thank you, sir. Mr Fox on behalf of the Port of Tilbury. Yeah, I was actually 7 going to make the same suggestion as Mr Stratford there, because if we are able to collaborate or have the meetings to attempt to collaborate, and we know coming out of those meetings what each party's position is going to be coming out of that meeting, then at deadline 9 you will have essentially both parties' 10 final position, having had the discussions to understand where we think we're 12 both going to be able to get to.

13 And then the second point I was going to make was just that I think a lot 14 of this comes down to -I don't want to repeat the point, but most of that drafting 15 is about the process, and the thing that's the key debate is about those four lines about what does 'measurable thresholds' mean. And we don't necessarily need 16 17 a meeting to be able to knock around what that little section of our drafting might 18 look like, and then each party to have their own position on what the process 19 looks like. Also, just to say, it doesn't necessarily need to be a big meeting if it 20 can be focused on those four lines, subject to the applicant's view on being 21 happy with the process or not. If they're not, then we obviously want to 22 understand that, but yes, I would just make the point that I think deadline 9 is 23 probably more achievable if everyone understands that's the basis of what our 24 final positions are, having had meetings beforehand or email traffic.

25 MR SMITH: And of course if it is collaborative and it engages the applicant as an equal 26 party, then the need for a bounce-down is somewhat obviated because you were 27 all in the room, you all had an opportunity to put your position in what is at the 28 end of the day a jointly-subscribed statement with reservations, and if that's 29 done, yeah, happy with that. The fact that it comes a deadline later and therefore 30 there are difficulties in making what amount to closing submissions on it isn't 31 the sort of substantial problem it might otherwise be. Okay. I'm going to go to 32 the applicant.

33 MR TAIT: We don't feel particularly strongly about the timing of this, other than to 34 ensure that it's the most efficient process. One shouldn't, I would suggest,

1	preclude the option of seeking to see whether there is some additional wording
2	during the course of the next few days, in advance of deadline 8. So I think
3	that's all I would say at this stage.
4	MR SMITH: Okay. I think we've probably heard enough to enable us to frame what
5	will be an important action that will draw in, on a collective but separable basis
6	should there be insufficient grounds for collaboration, both the ports and
7	Thurrock, and the applicant. I'll probably leave it at that. We'll deliberate.
8	You'll see what emerges. We will lay an egg.
9	MR YOUNG: Right, we'll take a 15-minute break and then we'll come back and we're
10	going to hear from Kent. I'm well aware you've been sitting patiently for a long
11	time, but we'll come to you, yeah. Just have a short 15-minute break. We'll
12	come back. Yeah. Thank you, everybody.
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14	(Meeting adjourned.)
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16	MR YOUNG: Good afternoon, everybody. It's 4.00. This hearing is resumed. Right,
17	just to update you with quick deliberation there. Given where we are and the
18	time of day, we'll park any remaining discussions about requirements until
19	tomorrow. I think it's only fair to Kent that we give them a fair crack of the
20	whip. Sat and listened through a lot, and it did occur to me, Mr Ratcliffe, if you
21	ever did apply for a job at Thurrock, you would be in a very, very good position,
22	wouldn't you?
23	MR FRASER-URQUHART: Do you know something we don't?
24	MR YOUNG: Right, the Bluebell Hill. Let me just ask then, one of the discussions that
25	we'd had as an ExA was around the problem – we've heard a lot about the local
26	large major scheme that's still awaiting a decision from the DfT, and what we
27	wanted to explore was whether there was any other form of mitigation there, or
28	improvement, that would be a smaller scheme obviously, but would be focused
29	on mitigating the impact of just LTC traffic, as opposed to LTC traffic and local
30	growth, which I think is what the LMM scheme is all about. So can I just put
31	that to Kent, and is that something that's been considered?
32	MR FRASER-URQUHART: Yes, thank you, sir. Andrew Fraser-Urquhart for Kent.
33	I've got Mr Ratcliffe with me, who I'm going to turn to in just a moment. I've
34	also got, if we get into levels of granular detail, Victoria Soames, who is the

project manager for the Bluebell Hill improvement scheme. So we note the question that you've asked on the agenda and reiterated there. Obviously, it's something which has been thought about for many years in reality, but perhaps if I might just make one or two introductory remarks, and then I'll turn to Mr Ratcliffe and we'll see where the discussion then takes us, as the Examining Authority wants.

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As you know, sir, our underlying approach to all this is that whilst the junction at Bluebell Hill is already somewhat problematic, given the significant impact that the LTC has on traffic at Bluebell Hill, then it is appropriate that National Highways should mitigate the impacts and provide, in default of provision from central government, the overarching scheme to deal with all of the issues which arise at the junction, because they are inextricably linked and it's difficult in reality to strip out one effect from the other in terms of what can be provided by way of mitigation.

Now, you will recall, sir – and I'm not going to spend much time on this at all, particularly in the light of what you've said about requirements – that in our representation at deadline 7, which is now referenced as 7-198, we put in a draft requirement, providing effectively a default mechanism in the event that the large local major scheme doesn't progress or isn't fully funded by central government. We also note, by way of reminder as much as anything else, that back at deadline 4, Gravesham in their representation 4-302 put in an alternative form of requirement. So there are things for the Examining Authority to consider. That's our overall position, as you know.

I'm going to ask Mr Ratcliffe to comment in a little bit of detail on the recent developments so that you're updated, but in essence we're moving towards, we hope, the outline business case which will lead eventually to the large local major's funding, in full we believe at this stage. I express those words with a great deal of caution. However, we're in something of a catch-22 situation in that whilst we might get the funding when we put forward our outline business case, we can't actually afford to fund the preparation of the outline business case, so there may be a need for mitigation to come from National Highways on that relatively limited issue in any event. So we'll hear from Mr Ratcliffe on that in just a moment, and I hope that will be helpful.

And then coming on to the smaller scheme options, obviously they have to be considered within the context of three major sources of increased pressure on that junction. The first is from existing committed development and underlying growth. The second is from those schemes which are emerging in emerging local plans. The Maidstone local plan review has some major developments emerging, for example, which simply can't proceed unless the Bluebell Hill junction is improved so as to unlock that junction, that potential, and then finally the Lower Thames Crossing growth.

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9 So there are those three independent sources of traffic growth, but of course they all have impact. They're all cars on the network, on that junction, 10 and the one thing that we do say when looking at multiple smaller schemes, 12 contemplating these different sources of growth, is the one thing that we simply 13 must avoid is repeated tinkering with that junction over a number of years. That 14 would be an epic fail frankly, and we're very anxious that no such scenario 15 comes forward. So that is our overall approach, and I hope with that context I 16 can now turn to Mr Ratcliffe just to put a little bit of flesh on the bones, in 17 particular on the recent developments and on the work we've previously done 18 looking at these smaller schemes, because obviously you're not the first to have 19 had the same idea.

20 MR RATCLIFFE: Thank you. Joseph Ratcliffe for Kent County Council. Before I come 21 on to answering the specific questions set by the Examining Authority, I thought 22 I'd just give a very brief update on what's happened since we last met at the 23 previous issue specific hearing on this topic. So the Department for Transport 24 have confirmed the uplift of 85% to 100% funding at the end of the outline 25 business case stage, should the scheme be given approval, which of course if it's not, developer contributions are still expected to be made for large local majors, 26 27 but the DfT no longer expect contribution from the local highway authority, so 28 obviously that is really good news. So it would appear that if Bluebell Hill does 29 proceed through the approval process, there should no longer be a funding gap 30 for scheme delivery.

31 Government of course also announced as part of the Network North 32 proposals for the rest of the country, that having waited three years Bluebell Hill 33 scheme is to proceed to the outline business case stage, so it would appear double 34 good news for us. However, we have been informed that at most the DfT would fund two-thirds of the development cost of the outline business case, which for a scheme of this size leaves us with a funding gap of around £3 million. It's not that we haven't already put money into this scheme. We have. We've already spent about £1.6 million developing the scheme to this point, so it's not that we're expecting others to pay for addressing our highway issues. We are not. But as Mr Fraser-Urquhart said, there are three elements to this – local growth, emerging local plans, plus Lower Thames Crossing growth.

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So therefore just before I come on to answering your question, as it currently stands – and as I said at the previous issue specific hearing – as it stands today, we have to assume that the scheme will not come forward because we don't have the money to develop the scheme and there's no guarantee, even if we do develop the scheme, that the decision will be to proceed with construction. So therefore whatever Lower Thames Crossing, when it opens in whatever the year is now, Bluebell Hill as it is today will remain as it is. So National Highways need to be comfortable accepting the impact on their junction at M20 junction 6 and M2 junction 3, the resulting queues, and the safety implications that brings, as I mentioned at the last hearing.

So just moving on onto your specific question about a smaller scheme that could come forward in the event of the large local major scheme failing, which is a really good question to ask because that's the situation we find ourselves in as we sit here today. So the simple answer is yes, of course, a smaller scale scheme could be delivered, but the question becomes to what benefit that is. We were asked the other way round, and I'm sure I've said this before at previous hearings. The DfT asked us to develop a scheme that assumed that there was no Lower Thames Crossing, which we did, and you can do that quite easily. If the scheme doesn't come forward, local growth is still going to happen, so you can accommodate for that, and we do need to build a scheme for that. The problem is you can't really do it the other way around because local growth's going to happen anyway.

30 Even if local plans are not approved, the development will come forward, population growth, increased traffic etc. Unless something dramatically changes 32 in terms of policy on people driving cars, that growth will happen, and therefore anything that you do that just caters for Lower Thames Crossing is going to be used up by the background growth. So a scheme that only concerns - and I know in planning terms that's what you're looking to do, to offset the impact – but in reality the scheme would be used up by local growth, and what you'd then end up doing, like Mr Fraser-Urquhart said, is you end up digging up the road again and again, and these discussions have come up with the other local planning authorities, with Maidstone Borough Council, similar issue for Medway Council, and Tonbridge and Malling as well.

So we have looked at the smaller proposals. There were 73 different variations, different interventions, that were tested to make up the scheme. 26 different proposals at junction 6 of the M20, 43 at junction 3 of the M2, four on the A229 main line itself, plus 17 broader package/strategy interventions looking at the picture holistically. All of those did not address the problem, so we have done this, and it doesn't work. I didn't know, Victoria, if you had anything to add on any of those specifics. No. So therefore, yes, you could deliver a smaller scheme, but the benefit/cost ratio of such scheme would not meet the DfT's test, and certainly not our test. I mean, we could do minor interventions at that junction. We've looked at it over the years – left turn lane, segregated turns etc, bit of extra lane here and there – and it just does not work.

When you add in everybody's local plans, Lower Thames Crossing etc, you need a bigger picture scheme, hence why as local highway authority we were developing the large local major. I'll stop there, but happy to take any specific questions on what we've looked at and, like I say, we've got Victoria Soames here as well. Thank you.

MR FRASER-URQUHART: Yes, it's not a very cheery picture, but that's the work that
 we've done and the conclusions that we've come up with, I'm afraid.

25 MR YOUNG: Anyone else want to ask anything?

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26 MS LAVER: I would like to ask a question of KCC, and that is - and it's probably 27 National Highways on this side of the table can't really give any indications for 28 but KCC can - and that is, in local plan allocations - you mentioned Maidstone 29 are on the point of producing a new local plan, and there will be other councils - Medway, who came the other day - we didn't get to hear from - whether 30 31 National Highways – their other arm, not their own planning application arm but 32 the consultee arm – whether they are objecting to schemes in the KCC area on 33 the back of the fact that Bluebell Hill is as constrained as it is.

1	MR RATCLIFFE: Thank you. Joseph Ratcliffe, Kent County Council. I mean, I
2	obviously can't speak for National Highways themselves, but I believe that is
3	the case, where development comes forward and it puts pressure on their
4	junctions, certainly the latest circular from the DfT makes the case for no new
5	motorway junctions or link roads, and development should be accommodated
6	through local highway improvements or modal shift away from car-dependent
7	developments, which is obviously easier said than done, but I think that's one
8	more for National Highways to answer, but I believe that is the case. Thank you.
9	MR FRASER-URQUHART: We can probably check the position with those authorities
10	and include that information in our written summary at this stage.
11	MS LAVER: Yeah, I think that would be helpful. As I say, it's certainly a different arm
12	to the applicant's side so I'm not expecting them to know the answer to that, but
13	I was trying to understand that – you suggest Bluebell Hill is severely
14	constrained, which means ordinarily when planning applications are made for
15	major growth, even if that's 200 houses up to thousands of houses, there's
16	ordinarily a position of National Highways with a holding objection until some
17	scheme can come forward to solve the issue on their strategic network, and I'm
18	just trying to sort of understand how the impact of LTC can be treated differently
19	to that. But obviously there's a national need against what would be a local
20	need, so it would be helpful if you could find out some information and respond.
21	That would be good.
22	MR FRASER-URQUHART: We're pretty sure the answer to your question is yes, but
23	we'll find out for sure.
24	MS LAVER: Thank you.
25	MR YOUNG: Mr Tait.
26	MR TAIT: I'm going to turn to Dr Wright in relation to this specific question, first of
27	all.
28	DR WRIGHT: Tim Wright for the applicant. To the specific question about whether
29	smaller scale mitigation could be delivered, it's our view – I think we would
30	agree with Kent County Council that the Bluebell Hill is an integrated scheme
31	and that it wouldn't be sensible to bring forward smaller elements because as
32	they have said of the local growth, local plan, and the current issues there as
33	well. So that's all from me. I'll pass back to my colleague.

1	MR YOUNG: Anything on the funding – the £3 million funding gap to develop the
2	outline business case?
3	DR WRIGHT: Tim Wright for the applicant. Point out that the scheme is proposed to
4	develop for the local plan and existing issues as well, there is already two-thirds
5	coming from the Department for Transport, we heard. I don't have any more to
6	add than that.
7	MR YOUNG: Okay. Do you want to come back on any?
8	MR FRASER-URQUHART: No, we were just contemplating whether we could sneak
9	in some submissions about our other concerns about the wider network impacts,
10	but, yeah, even with the moral high ground of having sat here all day, we
11	probably won't go that far –
12	MR YOUNG: Those positions are well understood. I'm grateful that you haven't
13	rehearsed them again, but that's not to say that we haven't heard them before,
14	and we've taken those into account –
15	[Crosstalk]
16	MR FRASER-URQUHART: – got the point, so I appreciate that.
17	MR YOUNG: Okay, do we want to do the action points now or send those out? How
18	many are there, do you think? Okay. Alright, before I close, Mr Smith will just
19	run through the action points, which we will get out as soon as we possibly can.
20	MR SMITH: Yes, and I will verbalise these to the best of my ability, noting that one or
21	two of them are still in a fairly advanced state of torque wrench and hammer.
22	Things are going on. The first group of actions unsurprisingly do relate to the
23	Orsett Cock, and the first is an action to the applicant and Thurrock Council on
24	the specific point around additional weave length and the general arrangement
25	plans. The first obvious point was the submission of a drawing demonstrating
26	the proposition relevant additional weave length can be provided without the
27	necessity for additional land within the limits of the order land and limits of
28	deviation. And then there was the related matter of providing an amendment to
29	the general arrangement plans volume C, REP7-028/029, that showed that
30	change in-situ.
31	Now, if your view is that it's within the parameters of the general
32	arrangement plans as currently provided, and that therefore the additional length
33	isn't a matter that would not be generally in accordance with those plans, say it.
34	But that was where we were seeking the applicant's position. Now, that's for
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deadline 8 from the applicant, with Thurrock Council's opportunity to respond at deadline 9. And so again, looking at the specifics of that, if it was your view that you were still unsatisfied, for example, that the general arrangements plan showed something sufficiently clear or specific, say so.

Moving then on to the second action, Orsett Cock modelling parameters and driver behaviour, and this was one where the burden really rests on Thurrock Council as we saw it, seeking you to confirm the extent to which Thurrock Council and the applicant are in agreement or not in agreement and why in relation to driver behaviour assumptions employed in the modelling, and to the extent not done so in the hearing, please explain any differences between the approaches that Thurrock are proposing as being necessary to take, and that the applicant has already taken. And this is particularly about essentially the sort of shall we say aggressive driving style points, for want of a better description.

Right, if we then move on to action number three, this is firmly on the applicant's desk, and this is about drawing the various diagrams that we have seen, some of which are a little scrappy, into a single schematic representation of the Orsett Cock roundabout route, and with a lane name convention. Gosh, it's getting late and I'm struggling to say 'lane name convention'. What we would seek is an intersection route and lane diagram or diagrams, with the individual lanes, and the entrance and exit routes, and paths, shown and named consistently.

And what we would then ask is that if that's provided at deadline 8, any final submissions referring to lanes, routes and paths through the Orsett Cock strictly use that – and frankly, as I said in our discussion of it in hearing, if it could be prepared graphically with a viewpoint that it might end up as a figure on a page in our report, because it will save a thousand words, and possibly a considerable amount of misunderstanding. Yes, Mr Stratford.

MR STRATFORD: I just wonder whether you could include pedestrian and cycle
 facilities in those diagrams, because they are expected. Active Travel England
 certainly expect it. I know it's a major junction, but it will have a bearing on
 both safety and traffic flow to accommodate pedestrians and cyclists. Thank
 you.

33 MR SMITH: Okay. Any objection to that from the applicant?

34 MR TAIT: None whatsoever.

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MR SMITH: It is done. Then we move on to an action on the applicant, action number 2 four, at the Orsett Cock again. Roundabout route modelling assumptions, and what we're then asking the applicant to do is with reference to that schematic diagram or set of diagrams, to illustrate the differences, to the extent not already accomplished, between the applicant's version 3.6 and Thurrock Council's version 3.6T modelling assumptions.

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Now, some of this – when we wrote this, we hadn't seen Thurrock's video representation, and actually when we tighten up this one, we may directly refer to that material that was put in front of us because that kind of did some of the job, but what we are seeking will be to the degree that there are matters outstanding and agreed between the applicant and Thurrock Council. For example, as to whether three lanes of traffic would be able to exit the southbound route out of the Orsett Cock junction, or alternatively where lanes of traffic along slips would essentially attempt to merge and stop, and whether over conservative or cautious assumptions have been taken into account. Those matters of dispute we – to the extent that they were not drawn out in oral submissions, need to be drawn out. Now, it may well be that that gets picked up by both parties in just simple post-event written submissions.

Whether it's done that way or done specifically as a freestanding document it needs to be done, and if it's to be done, again with reference to the standardised junction diagram that we're aiming to have produced. Then there's a fifth action on Thurrock Council, and this is the identification of deemed unacceptable impacts. And again, just to be clear, [inaudible] we have a final list identifying instances of what Thurrock Council deems to be unacceptable impacts at Orsett Cock emerging from the applicant's version 3.6 modelling, noting of course that that modelling itself is not agreed between Thurrock Council and the applicant, but to know where you stand on the applicant's position would be very, very helpful.

Okay. We have a living discussion in the Examining Authority about the virtue or otherwise of an action engaging the applicant and the ports in relation to affects on port journey times. Now, we are further reviewing REP2-050, Annexe 2, and REP4-154, REP4-156, and REP6A-004, with a view to forming a clear view in our mind about whether or not we do need to set any further action in relation to that matter or not. I will say that that deliberation is going to carry on overnight. You know we're thinking about it. It may be an action, but it may not be. We're clearly not going to ask for information we've already got. We then have an action on the applicant in relation to Thurrock Council's version 3.6T modelling at the Orsett Cock. Just as we've asked for Thurrock's view based on 3.6, knowing that it's not agreed, we're doing exactly the same in reverse, asking for the applicant's view on 3.6T, knowing that it's not agreed.

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We then have a pair of related actions bearing on the ports and the applicant, and indeed Thurrock and the applicant. Now, the first of these, which engages potentially all of the above, is what we are referring to as a collaborative development draft requirement 18, and this is – depending on the way we deliberate after closure this evening – either for deadline 8 or for deadline 9, an engagement to seek a further revised draft of requirement 18, in which objectives to be met and definitions of terms and clarity around outcomes sought to secure the proper functionality of the Orsett Cock are as far as possible agreed, although with statements of reservation by individual or groups of parties entirely possible to be appended to the document – and essentially that in a nutshell is what we're seeking.

Now, we are aiming to draft that in a way that says that if it is possible to produce that around a table that engages the ports, the Freeport – therefore with Thurrock Council engaged – that that would be our preferred approach, but that equally if, time being very pressing, that does not prove possible, what we don't want to end up with is nothing. And what in those circumstances we would urge is that progress might then continue in circumstances where an agreed and reserved position between the applicant and Thurrock emerges, but then an agreed and reserved position between the applicant and the ports emerges, if those are different things, and we would much, much rather have that than nothing. Hopefully, that's reasonably clear.

We have then directed a consequential action on the Port of Tilbury and DP World London Gateway, which is essentially the matters on which you were both saying that you wished to seek instructions and deliberate. The question about in-principle support for the proposed development in circumstances where requirement 18 remained as proposed to be drafted by the applicant. In your view, was that 'a showstopper'? And obviously, the instructions haven't been

1	sought. It would be very useful to have the view of both of the ports on that
2	point.
3	We are then finally looking at an action in the direction of Kent County
4	Council in relation to Blue Bell Hill local plan allocations and major planning
5	applications in Kent, which I trust, as only literally, just having discussed it, is
6	reasonably clear and straightforward, and we're seeking the details of responses
7	from National Highways in its function of providing consultation responses for
8	local plan allocations and major planning applications where matters relating to
9	the capacity of and required improvements to the Blue Bell Hill junction have
10	been raised. Is there anything else? Mr Fox? Okay, now I do see a hand from
11	Mr Fox for the Port of Tilbury.
12	MR FOX: Yes, sir. Thank you. Just to check on the action about trying to reach an
13	agreed – well, some kind of position on the requirements. I wondered – and I
14	know you were going to take this away, but at deadline 5 there was a joint
15	statement, not all of which was agreed, but there was a joint statement on
16	people's positions in Orsett Cock, and I was wondering if that's perhaps what
17	we should ultimately aim for, where it feeds into that.
18	MR SMITH: Absolutely, that's very much the kind of philosophy and feel of the
19	document that we're seeing.
20	MR FOX: Yeah, okay, and just on that, I wonder if that last action, in terms of the in-
21	principle point, is whether that can come along with wherever we get to with
22	that joint statement.
23	MR SMITH: Yes.
24	MR FOX: Because I think it's better if that reflects whatever position each party is taking
25	on, whatever National Highways' position is at that point, rather than now. I
26	think would be more helpful to you.
27	MR SMITH: Absolutely, and one of the things that we need to think about in timing
28	terms is the relationship between those two because it would be very perverse to
29	seek from you a position on client instructions on the second point, on in-
30	principle support, that had to come too early, whilst discussions were still
31	ongoing about a collaborative approach on requirement 18, because, frankly, the
32	closer a collaborative approach on requirement 18 gets to a consensual position,
33	the less needs to be said in response to the second question.
34	MR FOX: Yes, absolutely. Thank you, sir.

1	MR SMITH: Okay, thank you very much. Mr Mackenzie for Thurrock.
2	MR MACKENZIE: Thank you, sir. I hope I'll be brief. George Mackenzie for Thurrock
3	Council. It's just in relation to the action point for us to identify deemed
4	unacceptable impacts in V3.6, and there are two questions. One is would you
5	like us to do that exercise also in relation to V3.6T and set them out together?
6	MR SMITH: Yes, that would probably help.
7	MR MACKENZIE: Yeah, thank you. That's what I had – when we discussed this at the
8	time, and then the second question also on that action point is, sir, you referred
9	to deemed unacceptable impacts –
10	MR SMITH: Meaning, deemed by yourselves.
11	MR MACKENZIE: Yes, just to check, that will include significant impacts,
12	unacceptable impacts, and severe impacts. Those are the three terms perhaps
13	unhelpfully used in –
14	MR SMITH: And furthermore, to the extent that we need definitions of terms, it would
15	be helpful.
16	MR MACKENZIE: Thank you.
17	MR SMITH: Yeah. Just reversing orders on a couple of things. I'll just pick up that last
18	point. Okay, are there any other points that anybody wishes to raise in relation
19	to those actions? We will try to publish them as soon as we possibly can, but
20	obviously, having discussed them, work can commence on certain of the more
21	certain ones at least, in any case. Mr Young.
22	MR YOUNG: Okay, well, thank you, everybody, for your contributions today. I'm now
23	going to close this. I will just apologise in advance. I will be here tomorrow,
24	but not in person. So I do apologise to that, but it can't be helped. So I'll be
25	joining virtually tomorrow and participating. Safe travels home, everybody.
26	Thank you very much. This hearing is now closed.
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28	(Meeting concluded)