TRANSCRIPT OF PROCEEDINGS HEARD BEFORE THE HONOURABLE HERMAN J. WILTON-SIEGEL held via Arbitration Place Virtual on Tuesday, December 13, 2022 at 9:32 a.m.

VOLUME 81

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Jonathan Chen	For City of Hamilton
Heather McIvor	For Province of Ontario
Chris Buck	For Dufferin Construction
Jennifer Roberts	For Golder Associates Inc.

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1 Arbitration Place Virtual 2 --- Upon resuming on Tuesday, December 13, 2022 at 3 9:32 a.m. 4 MR. LEWIS: Good morning 5 Commissioner. Counsel, Registrar. I would like 6 to start off with the land acknowledgement. 7 I would like to open this hearing by acknowledging that the City of Hamilton 8 9 is situated based on the traditional territories of the Erie, Neutral, Huron-Wendat, Haudenosaunee 10 and Mississaugas. This land is covered by the 11 12 Dish With One Spoon Wampum Belt Covenant which was 13 an agreement between the Haudenosaunee and 14 Anishinaabek to share and care for the resources 15 around the Great Lakes. We further acknowledge 16 that the land on which Hamilton sits is covered by 17 the Between The Lakes Purchase 1792, between the 18 Crown and the Mississaugas of the Credit First 19 Nation. 20 Many of the counsel appearing at this hearing today are in Toronto which is on 21 the traditional land of the Huron-Wendat, the 22 23 Seneca and, most recently, the Mississaugas of the 24 Credit River. Today this meeting place is 25

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1	still the home to many indigenous peoples from
2	across Turtle Island and we are grateful to have
3	the opportunity to work on this land.
4	Before we get to the matters
5	at hand today, Commissioner, just as a
6	housekeeping matter I would like to introduce a
7	document as an exhibit, which document was raised
8	during Ms. Nicole Auty's examination on October
9	4th, 2022 but has not yet been marked as an
10	exhibit. It was just inadvertently omitted at
11	that time.
12	Registrar, the document is
13	HAM64319, that's again HAM64319, which is an
14	e-mail exchange between Ron Sabo, Nicole Auty
15	dated January 17, 2019. I ask that that be marked
16	as the next exhibit, which is number 219.
17	THE REGISTRAR: Noted.
18	EXHIBIT NO. 219: E-mail
19	exchange between Ron Sabo
20	and Nicole Auty dated
21	January 17, 2019; HAM64319
22	MR. LEWIS: Commissioner,
23	we're here today for you to hear motions by the
24	City of Hamilton and Golder Associates seeking
25	leave to file expert reports responding to those

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1 delivered by commission counsel. 2 First, Golder seeks leave to 3 file a report by Dr. Hassan Baaj, responding the 4 report of Dr. Geraldo Flintsch. Counsel for 5 Golder submitted a letter dated December 7, 2022 б setting out the anticipated contents of Dr. 7 Bauge's report and the relevance to inquiry's terms of reference. 8 9 The City of Hamilton seeks 10 leave to file two reports; one by Mr. David Hein, responding to the report of Dr. Flintsch, and one 11 12 by Mr. Dewan Karim, responding to the report of 13 Russell Brownlee. 14 Counsel for the City also 15 submitted a letter dated December 7, 2022 setting 16 out the anticipated contents of the reports of Mr. Hein and Mr. Karim and the relevance to the 17 18 inquiry's terms of relevance. And the letters 19 from counsel for Golder and the City respectively have been posted on the inquiry's website. 20 21 On Friday, December 9th you 22 directed that counsel for Golder was to proceed 23 first and the City counsel for the City second. 24 So I would ask Ms. Roberts for Golder to proceed. 25 MS. JENNIFER ROBERTS: Thank

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1	you. Commissioner, Counsel.
2	SUBMISSIONS BY MS. JENNIFER ROBERTS:
3	So Golder seeks leave to
4	submit an expert report from Dr. Hassan Baaj of
5	the University of Waterloo. Dr. Baaj is a tenured
6	professor and the chair and sustainable pavement
7	engineering and civil and environmental
8	engineering at the University of Waterloo. He's a
9	doctor at Ansell Engineering from the National
10	Institute of Applied Sciences of Leon, bachelor of
11	civil engineering from the University of Damascus.
12	I don't intend to go through his CV. He has
13	extensive experience in materials engineering and
14	particular focus on asphalt.
15	In his report of
16	November 2022, Dr. Flintsch develops detail on the
17	outline he provided in his primer at the very
18	outset of this inquiry. My client Golder is
19	largely in agreement with the findings and
20	observations of Dr. Flintsch. My focus is on a
21	particular area of Dr. Flintsch's November report.
22	In his primer Dr. Flintsch
23	describes the characteristics of pavement surface
24	that affect friction. He describes the two main
25	components that affect the tire pavement friction

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of microtexture and macrotexture, and really we're 1 2 focusing here on microtexture. 3 Microtexture is defined scale 4 texture on the surface of an aggregate and how it 5 interacts with the tire. Microtexture is б primarily affected by the aggregate and its 7 surface aggregates and its polishing characteristics. In broad strokes, the more 8 9 resistance to polishing the better. The 10 frictional properties of the aggregate will be able to provide, in particular whether it will be 11 12 able to provide good and enduring frictional 13 characteristics. 14 You'll remember at the outset of this hearing we went to the evidence in 15 16 relation to the design and construction of the Red 17 Hill Valley Parking, and part of that evidence was 18 that Dufferin proposed to supply aggregate from a 19 quarry in Quebec, the Varennes quarry, and that aggregate was to be used both in the stone mastic 20 21 asphalt surface on the main line as well as the SD2 asphalt for the ramps. And although that 22 23 aggregate from the Varennes quarry had been used 24 in Quebec it had no history of use in Ontario and

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was not on the designated source materials list in

25

1 Ontario.

2 So there's in 2002 there was 3 an incidence of process of the qualification of 4 that aggregate and the first phase of the hearing 5 in June of this year went into that qualification, 6 both in terms of the laboratory testing results 7 that were provided as well as what testing had been conducted to assess its polishability. 8 9 As part of the data provided 10 to qualify the aggregate as suitable for use on the Red Hill Valley Parkway, Dufferin provided a 11 12 number of laboratory tests. Chief amongst these 13 that I want to focus is on the Micro-Deval 14 abrasion and Los Angeles abrasion test, as well as 15 test used in Quebec to measure the resistance to 16 polishability, which was the coefficient of 17 polishing by projection test, which I'll call the 18 CPP test. 19 So in Ontario the test that the MTO uses to assess polishability of an 20 21 aggregate is the polish stone value test, and 22 there's been significant evidence on that. 23 In Quebec they use a different 24 test to assess the same thing, which is whether the aggregate is susceptible to polishing. And we 25

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understand the CPP test to be an equivalent
methodology.

3 In his November 2022 report 4 Dr. Flintsch focuses on one particular test 5 assessing the polishability of the aggregate, which the PSV testing. But, as I said, this is 6 7 just one of the tests that were provided by -sorry -- this is just one of the tests that would 8 9 assess polishability, and Dr. Flintsch does not in his of November report consider the other testing 10 results provided by Dufferin which are relevant to 11 12 the assessment of resistance to polishing. 13 Specifically, Dr. Flintsch does not consider the 14 results from the Micro-Deval and LA abrasion 15 testing and he does not consider the results of 16 the CPP testing. 17 So the essence of my submission here is that Dr. Flintsch hasn't 18 considered all of the evidence and that the 19 20 totality of the evidence is important in 21 evaluating the aggregate. We propose that Dr. Baaj of the University of Waterloo will assess 22 23 these additional tests and augment the evidence 24 provided by Dr. Flintsch.

25 Dr. Hassan has worked for

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LaFarge and has significant experience in
materials engineering and is well-qualified to
provide that analysis of the laboratory as well as
the CPP test results.

5 We anticipate that Dr. Bauge's evidence will address all of the testing conducted 6 7 on the Varennes guarry aggregate, indicating its quality and resistance to polishing, and this will 8 9 supplement Dr. Flintsch's findings. The testing 10 conducted on the aggregate in 2007 is, we submit, important to the assessment of the quality of the 11 12 aggregate.

13 JUSTICE WILTON-SIEGEL: If 14 what you're saying is the testing of Dr. Baaj --15 sorry -- the report of Dr. Baaj is really limited 16 to conducting an equivalent analysis in respect of these three additional tests to that of Dr. 17 18 Flintsch in respect of the PSV test, that would 19 seem to be relatively straightforward and not involve any particular additional evidence; is 20 21 that correct? 22 MS. JENNIFER ROBERTS: That is 23 correct. He's going to look at evidence that is 24 already in the record. 25 JUSTICE WILTON-SIEGEL: It's

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1 already in the record? 2 MS. JENNIFER ROBERTS: That's 3 correct. 4 JUSTICE WILTON-SIEGEL: And 5 not beyond. б MS. JENNIFER ROBERTS: Not 7 beyond. He will, I'm confident, identify additional academic analysis that casts light on 8 9 the testing but if you're asking specifically about whether there's additional evidence that 10 will be introduced, the answer is no. 11 12 JUSTICE WILTON-SIEGEL: With 13 respect to the aggregate no? 14 MS. JENNIFER ROBERTS: 15 Correct. 16 JUSTICE WILTON-SIEGEL: 17 Simply with respect to the meaning or understanding, scientific basis of these tests. 18 19 MS. JENNIFER ROBERTS: Yes, 20 that's right. 21 So I think that that's 22 important but it goes to a point that I want to 23 highlight here, and that is I think that an 24 assessment of all of that evidence that was 25 brought forward by Dufferin and reviewed by Golder

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and others in 2007 is an important part of this assessment and really goes to an overview of what was done at the time and whether the testing that was done provided a realistic and thorough assessment of the likelihood that this aggregate would provide good and enduring resistance to polishability.

8 And part of that -- and I'm 9 going to go back to this theme -- but I think that 10 this deserves particular scrutiny because one of the issues that's been a persistent theme is this 11 12 notion of whether this aggregate didn't provide 13 the qualities that it should have, and I think 14 that it's an important exercise to undertake and 15 scrutinize with some focus, is whether any of the 16 test data in 2007 indicated that the aggregate was 17 likely susceptible to undue polishing. 18 I want to turn to some other 19 aspects of -- Flintsch's findings. 20 JUSTICE WILTON-SIEGEL: So

21 that is essentially prospective, looking at the 22 testing in 2007?

23 MS. JENNIFER ROBERTS: Yes.

24 JUSTICE WILTON-SIEGEL:

25 Whether it adequately addressed the likely future

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1 performance of the aggregate. 2 MS. JENNIFER ROBERTS: Right. 3 That's exactly what I'm looking at. So whether --4 all that work that was done in 2007, part of that 5 is whether that was a sufficient survey and so б Dr. Baaj is going to look at that. And then in 7 fairness to the work that was done in 2007, whether there was anything there that should have 8 9 been, could have been a flag to say, no, this 10 aggregate might not have been resistant to 11 polishing. 12 I now want to turn to a 13 different part of Dr. Flintsch's assessment, and 14 really what I'm scrutinizing here is his findings 15 in his report in paragraphs 2.1.5 about polished 16 stone value, because he looks at the PSV testing 17 that was done and PSV testing was done on the 18 Varennes aggregate 1992 and again in 2008. It was 19 tested also in 2017 by Golder but that was by 20 taking cores of the aggregate that had been in 21 service and -- for 10 years in the Red Hill Valley 22 Parkway. 23 Dr. Flintsch in particular 24 focuses on the data from the testing conducted in 2017 of the recovered asphalt, recovered 25

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1 aggregate. What he states is that PSV testing in 2 2017 resulted in a test result of 45, and he describes it as relatively low compared to British 3 4 standards which he refers to. And he goes on to 5 say that this indicates that the aggregate is б susceptible to polishing. PSV would -- and the 7 issue we have here is that PSV is typically 8 conducted on virgin aggregate. The question is 9 whether an apples and apples comparison can be 10 made to test results from virgin aggregate as opposed to the in-service aggregate. 11 12 We're anticipating that Dr. 13 Baaj has not yet provided analysis on this topic 14 but we anticipate that he will not agree that such 15 a comparison can be made. In other words, what 16 in-service testing results doesn't tell you what 17 you would have found in 2007. 18 In particular --19 JUSTICE WILTON-SIEGEL: And 20 that's the point I want to stop at. The issue 21 about -- there can be two issues. One is, what does that testing say about the aggregate in 2007; 22 23 the other is what does it say about the aggregate 24 in 2017.

MS. JENNIFER ROBERTS: Yes.

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1 JUSTICE WILTON-SIEGEL: I want 2 to focus on the latter for a second. Obviously 3 you're not challenging the actual test result of 4 45. 5 MS. JENNIFER ROBERTS: That would be awkward since it's my client's --6 7 JUSTICE WILTON-SIEGEL: 8 Exactly. And are you -- your client's evidence, 9 as I understand it, is aligned with Dr. Flintsch's 10 in a prospective sense that 45 is too low for any new laying down of asphalt, and that if this 11 12 proceeded in the context of the hot in-place, but 13 if hot in-place or resurfacing was contemplated 14 then you would have to build up the quality by 15 introducing much higher performing aggregate to 16 balance out the existing aggregate having the PSV 17 value of 45. 18 MS. JENNIFER ROBERTS: That's 19 correct. 20 JUSTICE WILTON-SIEGEL: And 21 that seems to be consistent with -- I say only 22 seems to be consistent because we haven't had that 23 conversation, but first blush seems to be 24 consistent with Dr. Flintsch's view that as of 2017 the aggregate in place could be demonstrating 25

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1 low micro friction.

2	MS. JENNIFER ROBERTS:
3	Dr. Flintsch says his language is relatively
4	low. I think Dr. Uzarowski said that that value
5	was moderate. But you're absolutely correct, the
6	outcome of that analysis was that Dr. Uzarowski
7	did not think the aggregate from in service
8	that had been in service on the Red Hill Valley
9	Parkway could be used without augment as a new
10	surface.
11	JUSTICE WILTON-SIEGEL: And
12	Dr. Flintsch's report goes a little further and
13	suggests to the extent that were friction problems
14	on the highway at that time that are attributable
15	to the asphalt, that would be attributable to the
16	state of polishing of the aggregate.
17	MS. JENNIFER ROBERTS: Yes.
18	JUSTICE WILTON-SIEGEL: And I
19	don't think your client is taking exception to
20	that; is that correct? Your client is really
21	taking exception to the use of the testing results
22	in 2017 as an indication of what the aggregate
23	quality might in fact have been in 2007,
24	notwithstanding testing that we just addressed.
25	MS. JENNIFER ROBERTS: That's

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1 correct. That's absolutely correct. And the 2 other thing that -- the other part of this is though -- is that Dr. Flintsch seems to use that 3 4 2017 testing as an indicator of a decline in 5 friction on the asphalt. б He says that -- and perhaps 7 maybe I'm jumping forward too guickly here, but one of the issues in Dr. Flintsch's -- one of the 8 9 findings he makes is essentially a correlation 10 here or connection between what he describes as a relatively low PSV of 45 obtained from the 11 12 in-service aggregate and he says that's consistent 13 with the significant drop in friction of 14 approximately 20 percent observed between 2008 and 15 2014. And he notes an aggregate susceptible to 16 polishing loses its microtexture because of the abrasive effect of traffic. 17 18 So what he seems to be doing 19 is he's suggesting a relationship between, as he said, the relatively low PSV in 2017 as reflective 20 21 of a decline in friction on the Red Hill Valley 22 Parkway between 2008 and 2014. 23 I think that's a really 24 interesting question, whether in fact that 2017 is evidence of polishing. And when I raise that as a 25

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1 flag with the materials experts that I consult, 2 including Dr. Baaj, they are doubtful but they are 3 also not aware of research. 4 So when Dr. Flintsch raises 5 this as a connection, some sort of correlation, I б say that that deserves some scrutiny. If you're 7 going to say that this shows and reflects polishing let's have -- let's shed some light on 8 9 that and see whether that is supported by academic 10 research. So I'm anticipating that Dr. Baaj will look at that, and I've not been able to offer a 11 potential opinion because I don't know what that 12 13 might be and that (indiscernible) right now. 14 JUSTICE WILTON-SIEGEL: That 15 would seem to cross over into the second category. 16 MS. JENNIFER ROBERTS: Yes. 17 JUSTICE WILTON-SIEGEL: 18 Everything else seems to be in the first category. 19 In other words, if I can put in it a different 20 way, your client's position would be that this 21 would -- that most of the report would support the conclusion that whatever the actual experience of 22 23 this aggregate there was no reason to believe that 24 it would not have performed adequately. 25 MS. JENNIFER ROBERTS:

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1 Correct. And then this part of Dr. Flintsch's 2 findings though seem to focus, just as you've identified, on the second part, is what actually 3 4 happened. 5 JUSTICE WILTON-SIEGEL: Yes. 6 And what was the state of -- there's no real issue 7 about what the actual state, is but you're, in the 8 second part, taking some exception to the 9 suggestion -- potentially to the suggestion that 10 there was actual degradation of the aggregate. MS. JENNIFER ROBERTS: I can 11 12 hear my client's voice in my ear saying all 13 aggregate polishes. 14 JUSTICE WILTON-SIEGEL: Yes, 15 well, that's where I'm having trouble. But it 16 doesn't seem to me that this is the point at which we have to discuss -- that we have to decide that. 17 18 I'm simply trying to elucidate the issues that are 19 being raised by the report. 20 MS. JENNIFER ROBERTS: 21 Exactly, sir. But I think -- I think Dr. Flintsch raises real interesting potential theory. I just 22 23 think the statement can't be left as it is and 24 deserves further focus. Having said it, that it needs to be looked at. 25

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1 JUSTICE WILTON-SIEGEL: Let me 2 just make some notes if you don't mind. I've 3 tried to capture what we've been talking about in 4 the following. 5 I said most of the report is 6 intended to deal with whether the testing in 2007 7 can you used to contradict the evidence that the testing done in -- sorry -- whether the testing in 8 9 2017 can be used to contradict the evidence that the testing done in 2007 was sufficient to 10 conclude there was no reason to doubt the future 11 12 performance of the aggregate. 13 The state of the aggregate in 14 2017 is not challenged or the fact that it would 15 be a source of low friction by low microtexture. 16 However, there is some doubt about Dr. Flintsch's 17 suggestion the aggregate PSV declined testing 18 results, declined in line with the observed 19 decline in the friction numbers as tested by the 20 MTO. 21 MS. JENNIFER ROBERTS: Thank 22 you, Commissioner. 23 JUSTICE WILTON-SIEGEL: Is 24 that an adequate representation of what we're talking about? 25

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1 MS. JENNIFER ROBERTS: Yes, I 2 think you captured it perfectly. I realize that in jumping ahead to that last question of the 2017 3 4 testing I jumped over one of the points which 5 you've covered in your summary, which is whether 6 the -- whether the comparison of the 2017 and the 7 use of that testing in compared to what was found on the PSV testing in 1992 indicates a seam or a 8 9 consistent -- something about the way the rock was 10 quarried at the Varennes quarry. I think you've 11 captured it with what you've got, but that's 12 something I'm anticipating Dr. Baaj is going to 13 say having significant experience working with 14 aggregates, with LaFarge -- say, no, no, no, that 15 that can't be used, that testing cannot be 16 interpreted in that way. And it's not in fact likely that the scene in 1992 is reflective of 17 18 what was found from aggregate excavated in 2007. 19 JUSTICE WILTON-SIEGEL: The 20 last point just -- and I just raise it because I 21 quess it will be an issue that someone will have to address. It still leaves the question about 22 23 how we get from what was observed in 2007 and what 24 was observed in 2017.

MS. JENNIFER ROBERTS: Sorry?

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1	JUSTICE WILTON-SIEGEL: We're
2	still left with the question of was there not a
3	decline in the quality of the aggregate between
4	2007 and 2017? But perhaps that's picked up by
5	the suggestion that the testing can't be compared.
6	MS. JENNIFER ROBERTS: I think
7	that's right. And if you want to look at the
8	quality of the aggregate resistant to polishing in
9	2007, that the correct test to be looking at is
10	the CPP test, not trying to speculate as to what
11	1992 might have shown you or what 2017 of the
12	JUSTICE WILTON-SIEGEL: That's
13	fine. Thank you. I don't have any other
14	questions.
15	MS. JENNIFER ROBERTS: Thank
16	you. Then that's what I'm anticipating Dr. Baaj
17	will address, and I submit that the importance of
18	that testimony in relation to establishing the
19	aggregate was resistance to polishing and would
20	provide good frictional properties is important to
21	the terms of reference.
22	JUSTICE WILTON-SIEGEL: Thank
23	you. I'm going to reserve comment until the end
24	of the submissions today.
25	Just before we proceed, I

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1 think I'm going to need another pen, so bear with 2 me for a second, I'm going to get one on my desk. 3 Okay. 4 MR. LEWIS: Now, Mr. John 5 Chen, Counsel for the City of Hamilton, has б submissions for the City of Hamilton and two 7 responding reports that the City is seeking to 8 help leave to file. 9 JUSTICE WILTON-SIEGEL: Mr. 10 Chen. 11 SUBMISSIONS BY MR. CHEN: 12 MR. CHEN: Thank you, 13 Mr. Commissioner and Commission counsel. 14 So as we've set out in our 15 written materials the City is seeking leave to put 16 forward evidence from two experts, David Hein on 17 the friction related topics, and Dewan Karim on 18 the road safety and design aspects. 19 You have their CVs, Mr. Commissioner. Both Mr. Hein and Mr. Karim 20 21 have significant expertise in their fields. Their 22 expertise, as I understand it, is not in dispute. Very briefly, Mr. Karim is 23 24 practice lead of the transportation engineering and safety group at 30 Forensics and he 25

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1	specializes in transportation engineering, planned
2	and traffic safety issues and he has over two
3	decades of experience in this area.
4	Mr. Hein is a principal
5	engineer at Applied Research Associates and his
6	expertise includes pavement design, evaluation,
7	pavement construction materials and he has actual
8	experience in friction testing and analysis on
9	various highways, including the 407, York region.
10	In that case it's very (sic) intersections, worked
11	on rehabilitation project as well.
12	I would just say Mr. Hein is
13	the only Canadian-based friction expert testifying
14	more broadly in this inquiry. Of course you just
15	heard from Ms. Roberts and Professor Baaj will be
16	speaking on a more limited issue.
17	So both Dr. Flintsch and
18	Mr. Brownlee address a number of topics in the
19	reports, spans 30 pages or so. The City
20	appreciates that this is not your typical
21	litigation responding report. To that end,
22	Mr. Hein and Mr. Karim come at this with a focused
23	approach. I appreciate that they touch on a
24	number topics but at the end of the day we say
25	it's on particular issues in that regard.

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1 So the City's view is that 2 leave should be granted because Mr. Hein and Mr. Karim will, one, on certain issues be 3 providing an contrary perspective from those 4 5 raised by Dr. Flintsch and Mr. Brownlee and, two, б they will also be opining on issues that are 7 unaddressed by those two experts. So we say in our view each of those criteria should be 8 9 sufficient for leave to be granted so that the 10 inquiry can proceed on fulsome evidence. 11 This approach we say would be 12 consistent with the rules of procedure for this 13 inquiry, which is focused on evidence that is 14 helpful to fulfilling the mandate of an inquiry. 15 And I'm simply referring here to rule 3, which is 16 the general principle for receipt of evidence and testimony of witnesses. 17 18 What falls into the helpful 19 category is broad. And again, taking guidance from the rules, the experts would be witnesses 20 21 that are holding a contrary view, as I mentioned, or challenging a view or commenting or 22 23 supplementing a particular point. 24 One of the great strikes of an inquiry process is the ability for you, 25

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1 Mr. Commissioner, to hear multiple and different 2 viewpoints. This strength is emphasized in a case where we are dealing with not just a single, but a 3 4 plethora of technical concepts that are not well 5 established and deserve to be debated. 6 Of course at the forefront is 7 the analysis of roadway friction but even that, I 8 think as you've just heard from Ms. Roberts, can 9 devolve into a number of other technical-related 10 questions. Road safety and design are not any 11 simpler. But beyond the responses that 12 13 Mr. Hein and Mr. Karim will make there is a 14 further reason that we would ask you to bear in mind which we flagged in our written material. Of 15 16 course outside this inquiry there are a number of 17 other active legal presentation respecting the Red 18 Hill Valley Parkway. Part of this inquiry we of 19 course expect you will make numerous findings as

20 it relates to the terms reference. Those 21 findings, although made in this context, may have 22 influence in those other legal proceedings. 23 Obviously they can't say for sure it will happen

24 but as a lawyer I think that's something we can

25 predict with reasonable confidence. For that

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1 reason, again bearing -- being open to hearing 2 different viewpoints and receiving a balanced response especially technical issues, which is 3 4 where they're mostly desired -- elsewhere, is 5 important in our view. 6 Just as final opening point, 7 the City appreciates that there are competing interests at play and that the Commission is not 8 9 looking for duplicative evidence and would like to 10 expert phase to be efficient. This is top of mind for us. And as I say Mr. Hein and Mr. Karim will 11 12 be efficient in providing pointed responses. We 13 expect these pointed responses will be insightful 14 and helpful and will get into the issues that 15 we've raised, and we don't expect them to add 16 significantly to any schedule. I think they have 17 been allotted about two days or less, so in our 18 view there is lots to be gained there. 19 So just with those opening remarks what I propose to do is go through the 20 21 categories and the materials that we have filed 22 and explain its significance. 23 JUSTICE WILTON-SIEGEL: Sure. 24 Just before we begin can I raise one question in respect of the three reasons, three general 25

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1	reasons that you raised in your covering letter?
2	MR. CHEN: Yes.
3	JUSTICE WILTON-SIEGEL: Item
4	one seems to suggest that the terms of reference
5	include finding whether or not the collisions on
б	the Red Hill Valley Parkway are higher than on
7	other roadways with similar characteristics. I'm
8	not aware of any provision in the terms of
9	reference that require such a finding.
10	MR. CHEN: In our view that
11	particular point is particularly important because
12	it deals with the terms of reference that address
13	whether there is any misconduct or negligence in
14	failing to disclose the report and its
15	recommendations, and it goes to impact, as I say,
16	of not disclosing the report.
17	The comment about high, wet
18	road collisions is often assessed in totality with
19	the other evidence, such as the friction level, to
20	understand what, if any, countermeasures should be
21	implemented. So when we consider the effects of
22	not disclosing the report we say there is a
23	corresponding question of what information was
24	known through and relevant.
25	So to us to a key point would

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1 be whether in fact the Red Hill Valley Parkway had 2 an overrepresentation of collisions, including wet road collisions. We've heard an abundance of 3 4 evidence not only from the fact of this is being 5 asked about wet road collisions, but also the б experts such as Dr. Flintsch includes as part of 7 his conclusion, that drives his conclusion, that there there's a -- I think the wording is 8 9 something to the effect of very high proportion of wet road collisions. 10 11 So by looking into this 12 particular point and doing it properly, because we 13 say that it hasn't been done properly and we can 14 talk about Brian Malone's evidence to that effect 15 where he makes the comparison to provincial 16 averages but acknowledges that is not an apples to 17 apples comparison because what you need to look at 18 is --19 JUSTICE WILTON-SIEGEL: Let's 20 just stop for a second. 21 There are two very different issues. The proportion of wet weather accidents 22 23 on the highway, and that came to be assessed at 24 particular locations, and then the much more general question of collisions on the Red Hill 25

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1 Valley being higher than other roadways. This refers to the latter and I don't see how that is 2 3 within the terms of reference. 4 MR. CHEN: So the analysis 5 will be segmented, and obviously this will be -- I б hope I'm doing justice to the experts -- will be 7 seqmented, so there will be an overall comparison. 8 And as it relates to ramps or the wet road areas, 9 I understand there will be a comparison based on 10 proxies. So it's going to be, as I understand it, 11 an apples to apples comparison. 12 JUSTICE WILTON-SIEGEL: Let's 13 proceed through these. I wanted to understand 14 what the thinking was, because I'm not at all convinced at the present time that the terms of 15 16 reference require that I make any finding with 17 respect to whether the collisions -- and I'm 18 talking now collisions on the highway, 19 expressway -- are higher than other roadways with similar characteristics, beyond what we have in 20 21 front of us. But let's proceed with --22 MR. CHEN: If I could just 23 clarify. You used the term roadways. It would be 24 of course the highway to highway --25 JUSTICE WILTON-SIEGEL: I

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1 didn't use the term roadways; you used the term 2 roadways. 3 MR. CHEN: I apologize if I 4 did. 5 JUSTICE WILTON-SIEGEL: Why 6 don't you proceed through what you want to say 7 with respect to Mr. Hein's report. MR. CHEN: 1A. If we go to 8 9 appendix A of our written material, characterization of friction levels. Talking 10 about characterization of friction levels. So in 11 12 his report Dr. Flintsch goes through the friction 13 data from locked wheel to the grip tester 14 measurements, and in numerous places Dr. Flintsch 15 concludes that the friction results are relatively 16 low. 17 So Mr. Hein will provide a 18 contrary review here. He doesn't accept Dr. Flintsch's conclusion that the results are 19 relatively low and his anticipated view is that 20 21 the friction results are reasonable based on --22 JUSTICE WILTON-SIEGEL: And I 23 can help you a little bit on this one. This seems 24 to me to be an example of a category that should be relatively straightforward. As I understand it 25

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1 there would be no new evidence adduced. It would 2 simply be his opinion based on the evidence that 3 is already before the commission; is that correct? 4 MR. CHEN: Yes, that is 5 correct. He won't be bringing comparator friction 6 results. 7 JUSTICE WILTON-SIEGEL: Right. 8 And I would understand to be the same with respect 9 to B. 10 MR. CHEN: To B, that's correct. Obviously with the caveat that he may be 11 12 referring to any studies or papers that he is 13 aware of. Especially with respect to the friction 14 value conversion. I think he has a view on that 15 and the availability of papers that support his 16 position. 17 JUSTICE WILTON-SIEGEL: Let me 18 just make some notes here. Correct me if I'm 19 wrong, but I would assume the same is true with C. 20 MR. CHEN: Same is true with 21 C, that's right. Again, with the caveat he may 22 include reference to papers or studies and 23 whatnot. 24 JUSTICE WILTON-SIEGEL: Right, in the same way as Dr. Baaj might refer to the 25

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1	scientific basis for his opinion.
2	MR. CHEN: So that takes us to
3	D, which the applicability of the UK
4	JUSTICE WILTON-SIEGEL: My
5	question here is to what extent is he intending to
6	provide additional fact evidence?
7	MR. CHEN: So my understanding
8	is just set up the position he is his view
9	is that the (indiscernible) development and
10	different criteria, so to the extent that him
11	referring to studies in how the UK guidelines are
12	developed and what conditions and whether they can
13	be applied in the Canadian context, I think that
14	would be the extent of the research or discussion
15	that he would be providing.
16	It's a point that Dr. Flintsch
17	urges, the application of UK guidelines, but
18	there's, on our read and Mr. Hein's read, little
19	substantive discussion on why we should be
20	applying the UK guidelines whether they can be
21	appropriately applied.
22	JUSTICE WILTON-SIEGEL: Well,
23	it's one thing to give an opinion as to whether
24	they can be appropriately applied. It's another
25	to provide a whole lot of new evidence that might

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1	have been adduced a long time ago.
2	MR. CHEN: Mr. Hein will come
3	at it with his broad experience and expertise with
4	respect to the standards he has seen.
5	JUSTICE WILTON-SIEGEL: His
6	experience is in Canada, correct?
7	MR. CHEN: His experience is
8	in Canada, but beyond that as well he's worked in
9	the US, as an example.
10	JUSTICE WILTON-SIEGEL: That's
11	not the UK. I'm trying understand how he is going
12	to be able to adduce any new factual evidence, and
13	indeed why he should be allowed to as opposed
14	to providing his opinion for his conceptual
15	reasons he doesn't believe it should be relied
16	upon.
17	MR. CHEN: And perhaps we may
18	be saying the same thing and I'm perhaps
19	misunderstanding the question.
20	JUSTICE WILTON-SIEGEL: But
21	we're going to end up having to say the same
22	thing.
23	MR. CHEN: I appreciate that.
24	But I think the majority of his analysis will be
25	based on the differences, which frankly he has

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1 cited to me without reference to papers. One of 2 the comments that Commission counsel had raised to 3 us is whether there's a potential that he will be 4 relying on new evidence, and I frankly took that 5 to mean papers as well, and I was just -- that was б my additional input. He is going to focus on his 7 experience and why the guideline is different and 8 he'll put forward the red flags that should be 9 considered before -- so that you have that to 10 consider on the question of the applicability of the UK guidelines. 11 12 I'm content, though, that we 13 are saying the same thing, Mr. Commissioner. 14 JUSTICE WILTON-SIEGEL: In other words, no new factual evidence. 15 16 MR. CHEN: No new factual 17 evidence. 18 JUSTICE WILTON-SIEGEL: His 19 comment or his opinion based on his personal 20 experience. 21 MR. CHEN: Understood. 22 JUSTICE WILTON-SIEGEL: Okay. 23 Let's turn to E. What is contemplated by E? MR. CHEN: So --24 25 JUSTICE WILTON-SIEGEL: I'm

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1 sure the MTO would be pleased to know that he 2 regards their use of FN30 as reasonable, but I'm not sure anyone is objecting to it. 3 4 MR. CHEN: So we think there 5 is value. 6 JUSTICE WILTON-SIEGEL: What 7 exactly is contemplated by this? 8 MR. CHEN: So Mr. Hein's 9 anticipated evidence will be the FN30 guideline is 10 a reasonable one to apply to municipalities, that it's a conservative threshold suitability for 11 municipalities, and he will base that opinion on 12 13 his previous experience. 14 We have Dr. Flintsch, who although goes through an expensive analysis of 15 16 friction, he explicitly avoids opining on the 17 application of the FN30 guideline, but we also 18 know the FN30 guideline is really the only (indiscernible) or Ontario-based guideline that we 19 20 have, and I think there's value in at least having 21 the Canadian friction expert speak to the FN30 22 threshold and whether that is one that should 23 apply to the City of Hamilton. 24 JUSTICE WILTON-SIEGEL: Again, that's without any new factual evidence, simply 25

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1 his views with respect to that; is that correct? 2 He's not actually acted -- he's not been a member 3 of the -- or an MTO employee; is that correct? 4 MR. CHEN: I don't believe 5 he's been an MTO employee. I guess that's a б problem with having an extensive resume. I can 7 confirm that, but my instinct is that he has not 8 been employed. That's not to say he hasn't 9 provide some services as a consultant throughout 10 the years. JUSTICE WILTON-SIEGEL: I 11 12 guess my reaction is if he wants to say it's a 13 reasonable number it may not be objectionable but 14 it's not really going to have any influence 15 because of two things. 16 One, the MTO's evidence was a 17 little bit more refined. It was up and down 18 depending upon the circumstances in which one was 19 analyzing matters. Secondly, whether it is or is 20 not a reasonable standard is ultimately. If there 21 is such a thing, a scientific question, not a question of practice. There's no suggestion that 22 23 the practice is improper. There's no suggestion 24 at the present time that there is any issue with any scientific basis of 30. In fact, there is no 25

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1 scientific 30 basis, it's a rough and ready guide. 2 So with those qualifications 3 what exactly is Mr. Hein going to add? 4 MR. CHEN: With respect, I 5 appreciate MTO's evidence was refined, but at the 6 end of the day it wasn't expert evidence from 7 someone who has worked in the --JUSTICE WILTON-SIEGEL: How is 8 9 his expert evidence -- where is the expertise --10 as opposed to experience he's observed something, but where is the expertise in this evidence? 11 12 MR. CHEN: So --13 JUSTICE WILTON-SIEGEL: Where 14 is the scientific basis for something he's going 15 to say? 16 MR. CHEN: And I understand 17 your point on that. Our discussions with him 18 specifically on this point, having been as refined 19 as I think questions you're asking me in the limited time, but when he talks about the 20 21 conservative -- as I mentioned he thinks that it's 22 conservative threshold suitable for 23 municipalities, he can draw on his experience as 24 to what other jurisdictions I think he has seen and can make a comment on that. 25

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ED HILL VALLEY PARKWAY INQUIRY December 13, 2
JUSTICE WILTON-SIEGEL: You
see, that seems to me to be more in the nature new
evidence of a factual nature.
MR. CHEN: And I don't think
I completely agree with that. I do think in the
Brownlee reports and the Flintsch report there is
some new material in there and
JUSTICE WILTON-SIEGEL: What's
the new what you just described I'll repeat
your words. He can describe what he has seen done
by other municipalities. That doesn't strike me
as anything more than factual evidence.
But incidentally, that seems
to relate to the next category of question, not to
this category of question which is about the MTO's
use of FN30.
MR. CHEN: That's correct, and
the majority of the discussion in this section by
Mr. Hein will be, as I say, that the guideline is
a reasonable one for municipalities to apply, and
again that is a perspective from an expert I think
we do not have on the record and would benefit
from so that we have a well-rounded discussion.
JUSTICE WILTON-SIEGEL: So
this is really your issue is not so much E as

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1 in F. 2 MR. CHEN: E as in? 3 JUSTICE WILTON-SIEGEL: Rather 4 That the standard of FN30 is a reasonable one F. 5 for municipalities. Isn't F the --6 MR. CHEN: Are you referring 7 to --JUSTICE WILTON-SIEGEL: Oh, 8 9 I'm sorry no, there's no F. It's number 2. E is 10 -- I apologize. Assuming if I flipped page I would find F. E is just a lead up to number 2. 11 12 MR. CHEN: I agree with that 13 the -- yes. 14 JUSTICE WILTON-SIEGEL: So I'm 15 not sure that you've yet identified why E is 16 useful or indeed why E is expertised. That's 17 dealing with the MTO's use of FN30. Perhaps it's 18 a word choice of mine, but it's the municipalities 19 -- the application of the MTO's FN30 to 20 municipalities. That's what that heading is meant 21 to convey. 22 But both E and 2, in my 23 submission, falls under the category of Mr. Hein 24 is the only Ontario-based expert that has this expertise and can provide a unique perspective 25

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1 based on his experience. 2 JUSTICE WILTON-SIEGEL: So 3 you're saying E is supposed to be the use by 4 municipalities of FN30. 5 MR. CHEN: Correct. 2 is a б bit more general just in the sense of friction 7 management programs and whether those existed in 8 Ontario. 9 JUSTICE WILTON-SIEGEL: Well -- so let's just deal for a second with F (sic). 10 11 MR. CHEN: 2? 12 JUSTICE WILTON-SIEGEL: No. 13 E, not F. Why in the context of this inquiry 14 where there was no friction management program, 15 would it be helpful to the inquiry to be told that 16 FN30 is a useful standard for municipalities that 17 have a friction management program? 18 MR. CHEN: The --19 JUSTICE WILTON-SIEGEL: Are 20 you thinking that the inquiry should recommend 21 that municipalities have a friction management 22 program? 23 MR. CHEN: No, I'm not going 24 that far. The point about the FN30 is to provide 25 a framework under which we can assess the friction

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1 test results that were obtained and from that draw 2 various conclusions as to -- of course with other evidence, as to the safety of the roadway, whether 3 4 investigations are needed, countermeasures, and 5 That's the intent of E, so that there is so. б something to measure the friction results against 7 and to keep in mind that Dr. Flintsch is unclear what his views are about the FN30 but as he seems 8 9 to be pushing the UK guidelines for the -- for you to measure the friction test results based on the 10 11 UK quidelines. 12 So the simple point we're

13 making is that the FN30 is the guideline or 14 threshold that we should be looking at because it's the one that was developed here. And going 15 16 back to the other point about whether the UK 17 quidelines are applicable, Dr. Hein will raise the 18 red flags so that you can consider when you're 19 trying to balance, assuming you have to go through that analysis, when you're trying to balance 20 21 between well is it -- how can I look at these 22 numbers, is it the MTO's FN30, is it the UK 23 quidelines. It strikes me if we don't have a 24 guideline that we can say we go on then the number, the friction numbers have little meaning 25

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1 ___ 2 JUSTICE WILTON-SIEGEL: But 3 I'm now confused. Obviously in assessing 4 friction, or the traffic safety generally, the 5 City never had the MTO numbers. 6 MR. CHEN: Right. 7 JUSTICE WILTON-SIEGEL: So all 8 they had was the Tradewind report, and Dr. 9 Flintsch's evidence is that they shouldn't have 10 ignored it -- oversimplifying, I appreciate -- and for much of the terms of references that all we 11 12 have. 13 Now, what's the context in 14 which you think that it is useful for the inquiry 15 to be told that the MTO numbers are credible and 16 should be preferred to those of the Tradewind 17 report. I think that's where you're headed. MR. CHEN: That is where we're 18 headed. Of course there's the reference to the 19 2007 that there was knowledge of. 20 21 JUSTICE WILTON-SIEGEL: But 22 that's not really relevant for that. That's got 23 to do with a different problem all together. 24 MR. CHEN: We still see that as a dataset that's --25

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1	JUSTICE WILTON-SIEGEL: Fine.
2	MR. CHEN: and I think
3	JUSTICE WILTON-SIEGEL:
4	Believe me, that's not going to be determinative.
5	So deal with the bigger question.
б	MR. CHEN: Fair enough.
7	JUSTICE WILTON-SIEGEL: What's
8	the context in which apparently you want the
9	inquiry to disregard the Tradewind report and
10	prefer the MTO results. I'll stop there.
11	MR. CHEN: Well, the Tradewind
12	report, obviously it references the grip tester
13	numbers, and by accepting the MTO's FN30 I think
14	it puts the grip tester, Tradewind numbers, in
15	context, which is always that how do we understand
16	these numbers and what do they mean.
17	JUSTICE WILTON-SIEGEL: I'm
18	asking what's the context in the sense of what are
19	the questions under the terms of reference that
20	the inquiry has to address where you say the
21	inquiry is going to be urged to disregard the
22	Tradewind report and consider the MTO numbers are
23	somehow determinative.
24	MR. CHEN: I think a number of
25	terms of reference go to that point, and the ones

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1 talk about what's the impact of not disclosing the 2 report and whether that would have led to -whether that contributed to accidents, whether 3 4 that contributed to -- whether that would have 5 lead to other road safety changes. 6 I should be clear that we're 7 not asking you to completely disregard the UK quidelines. It's more of a Dr. Hein, as I said 8 9 before, will put red flags up but it's also to look at it from the lens of the FN30. 10 I think both of those 11 12 thresholds, and what they mean, address a number 13 of these terms of reference that -- you know, 14 whether they are the users of the Red Hill were put at risk as a result of failing to disclose the 15 16 report, because we need the standard to understand 17 the friction numbers and what they are suggesting. 18 JUSTICE WILTON-SIEGEL: I'm 19 not sure that I fully understand then what E is 20 all about but.... 21 MR. CHEN: Perhaps there's something I can clarify that exists with that 22 23 point. 24 Dr. Flintsch I think was -stepping back. Dr. Flintsch puts forward the UK 25

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1	guidelines said we should look at the numbers
2	through that lens. We say we should look at it
3	through the MTO's FN30. Dr. Flintsch does not
4	offer an opinion on why we should use the FN30.
5	Mr. Hein comes in and does exactly that.
б	So frankly whichever
7	whatever purpose the UK guideline discussion goes
8	through in the terms the reference we say the
9	discussion under FN30 point would go to the same
10	terms of reference. It's just a matter of which
11	road you go down or which standard you follow.
12	JUSTICE WILTON-SIEGEL: Okay.
13	I think there's a certain air of unreality to
14	this, or level of generality which I think really
15	misses the evidence, which is that from 2013 to
16	2018 there was a terrific evolution, as according
17	to the evidence, in terms of what people what
18	the traffic safety consultants, like CIMA, and the
19	staff themselves came to concentrate on, and these
20	aggregate numbers really cease to have any
21	significance. As the concentration came to be
22	about certain locations, northbound and
23	southbound, under certain environmental
24	conditions.
25	So speaking for myself, I

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1 think the evidence of the MTO that's most useful 2 and nuanced is about how they looked at accident 3 locations and how they factored friction in as one 4 of a number of matters. 5 But if the exercise here is 6 simply again to provide an opinion without any 7 additional factual evidence, an opinion that FN30 8 is a reasonable standard, I suppose it's 9 innocuous. 10 MR. CHEN: I think the analysis is one that takes into account a number 11 12 of factors, and I appreciate the point you've made 13 about friction being one aspect of the analysis, 14 and of course the wet road collision is another one. That said, there needs to be some foundation 15 16 set, and obviously the MTO has done a lot of that 17 and I have to go back to the point of Dr. Hein 18 being the only one who can provide the expert 19 evidence on that point. 20 JUSTICE WILTON-SIEGEL: Let's 21 turn to the more difficult (ph) one in number 2. 22 MR. CHEN: Friction management 23 programs. 24 JUSTICE WILTON-SIEGEL: Right. So the evidence before the inquiry right now is 25

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1	that no municipality in Ontario has a friction
2	management program.
3	MR. CHEN: I think that's
4	correct, and it's come out in, for example, the
5	agreement between counsel. I certainly don't
6	think it's well developed. I did go back
7	JUSTICE WILTON-SIEGEL: I
8	think the evidence I'm not sure how you can
9	develop a negative. The evidence of Mr. McGuire
10	was that he attempted to ascertain whether any
11	municipality had a friction management program.
12	He had conversations with a counterpart or someone
13	in Ottawa, was told they did not. Mr. Moore was
14	very emphatic, I believe, that there was no
15	friction management programs in any Ontario
16	municipality. So what exactly is this intended to
17	speak to?
18	MR. CHEN: Of course one of
19	the distinguishing features is that Mr. Hein is an
20	expert and he provides the expert perspective and
21	he's obviously brought expertise, decades of
22	experience, worked with many municipalities, so he
23	will speak to
24	JUSTICE WILTON-SIEGEL: I
25	think you're treading water.

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1	MR. CHEN: And just be a bit
2	more nuanced on the point, he will speak to
3	Ontario municipalities not having friction
4	management programs, but also, as I understand it
5	from him, why that is the case.
б	JUSTICE WILTON-SIEGEL: He's
7	not this is not a matter in which he's an
8	expert. At best this is his view based on his
9	experience, whatever it may have been, with
10	municipalities over the years.
11	MR. CHEN: I think his
12	experience can be categorized, specialized
13	experience, in the sense he's done this work for
14	decades and has a nuanced appreciation much more
15	than some of the fact
16	JUSTICE WILTON-SIEGEL: What
17	is he going to say?
18	MR. CHEN: So the trouble, and
19	just to be upfront on that, is that the report is
20	not complete and I don't I can't summarize what
21	his position is, and of course he's a bit hesitant
22	to provide all the details having not done the
23	work and
24	JUSTICE WILTON-SIEGEL:
25	Mr. Chen, if your client had wanted to provide

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1 this evidence they had three-and-a-half years to 2 provide it, including their own participants. If this is evidence that you think is important I 3 4 think it would be much more appropriate for 5 representatives of municipalities who are actually б knowledgeable in terms of their own experience to 7 come in and to provide that in some way or 8 another, in other words to work up a proposal that 9 gets this evidence in a more balanced way than 10 what you're proposing, which is inevitably dependent entirely upon his experience at certain 11 12 times in certain places. 13 MR. CHEN: Our understanding 14 was that this sort of evidence from Dr. Hein 15 should be left until the expert phase to deal 16 with. 17 JUSTICE WILTON-SIEGEL: T'm 18 not suggesting if you feel that it's important 19 evidence, it may be that there's a proposal that can be worked out with Commission counsel that 20 21 involves getting the actual knowledgeable parties of municipalities to provide that evidence. But I 22 23 don't think Mr. Hein is an expert in this. He's 24 never worked for municipality. It's entirely -it's episodic. 25

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1	MR. CHEN: I just want to be
2	just want to ensure that we are giving credence
3	to Mr. Hein's expertise as it relates to friction
4	and his involvement with municipalities. I wasn't
5	aware that his expertise would be in dispute, and
6	if there's any way we can have an opportunity to
7	flush that point out and draw out more
8	experiences, I think that would be helpful for the
9	commission to have. It's not merely fact
10	evidence. We say it's expert evidence.
11	Just up on the point that it's
12	not fully developed of course we come at this
13	as a leave motion, not needing to have fully
14	developed a report which may ultimately not be
15	granted.
16	JUSTICE WILTON-SIEGEL: I
17	fully understand their limitations, haven't done
18	the report. I think if this evidence is
19	appropriate it may be necessary to consider
20	another route by which it is or another means
21	by which the evidence is adduced. But we'll leave
22	it at that for a moment.
23	MR. CHEN: Thank you,
24	Commissioner.
25	JUSTICE WILTON-SIEGEL: Number

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This may duplicate something of what Golder is
doing; is that right?

MR. CHEN: That's correct, 3 4 Mr. Commissioner, it's about aggregate guality, 5 which you had in extensive discussion with Ms. Roberts. So Dr. Flintsch draws various 6 7 conclusions about the aggregate guality and frictional values based on the polished stone 8 9 values obtained in 2017 on the Red Hill. In 10 particular, Dr. Flintsch makes a connection between the 27 PSV testing and frictional decline, 11 which again you discussed, and we agree with Ms. 12 13 Roberts it's a really interesting question without 14 an answer.

So Mr. Hein's focus is going to be I think what we categorized the second part of Ms. Roberts analysis. I think the first part is focused on all the existing testing already done and what that shows with respect to the polishing qualities. We're happy to leave that to Professor Baaj.

As Ms. Roberts was talking, I was trying to think about a way we can streamline this a little bit to avoid duplication so I -- the beauty of an inquiry is that we can be creative

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1 about certain things so if there's collaboration 2 to be had so that -- either the panel or sole 3 voice so be it. But that is the point there. 4 JUSTICE WILTON-SIEGEL: Okav. 5 Just in the interest of time, as well as б everyone's cost, it would seem that if the point 7 that Dr. Baaj is addressing is the same as the point that Mr. Hein would be addressing, wouldn't 8 9 be any need for Dr. Hine's evidence, especially 10 his -- well, I won't say it but -- two people 11 saying the same thing is not going to have any 12 more --13 MR. CHEN: To the extent that they are going to be analyzing it the same way, 14 15 what they may come to the same conclusion for 16 different reasons. But as I say that, I will make 17 one distinction which is Ms. Roberts pointed out 18 it would be awkward for her to dispute her own client's findings on the PSV of 45 in 2017. 19 20 My understanding is that 21 Mr. Hein takes a different view and would like to look into whether PSV testing on the aggregate 22 that's been in service for 10 years is a reliable 23 24 way of conducting the test. As I understand it, his 25

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1	knowledge is what the PSV testing definitely
2	done on virgin aggregates.
3	Ms. Roberts has jumped on.
4	MS. JENNIFER ROBERTS: I don't
5	mean to intrude, but it just occurs to me there is
6	an opportunity to have a dialogue with counsel on
7	this to make sure that we're (skipped audio) and I
8	will make sure we do that.
9	JUSTICE WILTON-SIEGEL: Thank
10	you. So that takes us to number 4.
11	MR. CHEN: Number 4, tire
12	measures. Dr. Flintsch concludes that resurfacing
13	or microsurfacing is a treatment that could have
14	resulted from a detailed safety analysis. So Mr.
15	Hein will provide a different view on what
16	countermeasures he believes was necessary to
17	implement based on the available information, and
18	you'll see in Mr. Hein's resume that he has
19	significant expertise on pavement management and
20	rehabilitation. (Indiscernible) career in Ontario
21	so he can offer a unique perspective in that, on
22	that front. And his anticipated opinion will
23	discuss the factors that are considered before
24	implementing a particular countermeasure.
25	Previous engagements about that. And in respect

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1 of the 2014, his anticipated opinion is that it 2 was not unreasonable for the City to focus on 3 other countermeasures. 4 JUSTICE WILTON-SIEGEL: And 5 that's fair. That seems to be a relatively б straightforward question of giving us his opinion 7 based on the facts that are in the record. 8 MR. CHEN: That's a fair 9 assessment. 10 JUSTICE WILTON-SIEGEL: So 11 that takes us to number 5. What are you saying 12 here? 13 MR. CHEN: Also the last 14 topic. This is talking about the identification 15 and categorization of factors that are proposed as 16 contributing to wet road collisions, which is 17 detailed in (indiscernible). 18 So the conclusion that Dr. 19 Flintsch draws here is that he just doesn't have 20 enough scientific evidence to do the analysis. 21 It's not clear to me what that means, but Mr. Hein intends to build on that point. His point of view 22 23 is that every accident, whether wet road or not, 24 has its own factors that may have contributed to the accident and the idea of being able to 25

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1 pinpoint or rank one factor over another in 2 generality or a vacuum just doesn't work based on his experience. So to actually draw a conclusion 3 4 about factors and rank there needs to be an 5 analysis of each accident. So again here he's б going to be relying on his experience, but he's 7 mentioned to me some previous work that he's done 8 in this area.

9 JUSTICE WILTON-SIEGEL: So, 10 Mr. Chen, these paragraphs and comparable paragraphs in respect of Mr. Karim appear to throw 11 12 together several different possible issues. The 13 first and easiest to deal with is the question of 14 whether having identified contributing factors to 15 accidents on the road -- again I say under certain conditions at certain location -- it is possible 16 17 to rank one as more significant than another or 18 rank them in order.

I accept that that's a legitimate question of opinion and that there appears to be a difference between Mr. Brownlee, who says he's comfortable doing that, and Dr. Flintsch, who says in the absence of any scientific explanation, he's not comfortable doing that -- not comfortable in doing that.

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1 But then there is the more 2 fundamental question about whether it is 3 meaningful to talk in terms of contributory 4 factors in the absence of accident 5 reconstructions. 6 Now, what I'm not sure of is 7 whether that is what you're suggesting Mr. Hein is of the opinion because there are some significant 8 9 consequences to that kind of approach. I'm not saying that he couldn't have that opinion, but I 10 want to know first whether that's what the City's 11 12 expert is proposing. 13 MR. CHEN: Mr. Hein is 14 proposing to speak to why it's not possible to 15 rank them in the absence of an accident 16 reconstruction. 17 JUSTICE WILTON-SIEGEL: He's 18 not taking exception to the conclusions of CIMA 19 and the staff that there were contributory factors that were enumerated, is that correct? Just the 20 21 ranking of the contribution in respect of any 22 particular accident. 23 MR. CHEN: So I think Mr. Hein 24 would disagree with being able to immediately identify a set number of factors that could 25

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potentially contribute to a collision. You would 1 2 have to look at the accident itself to say whether 3 ___ 4 JUSTICE WILTON-SIEGEL: In 5 respect of any particular accident. 6 MR. CHEN: In respect of any 7 particular accident, as I understand the opinion. JUSTICE WILTON-SIEGEL: I want 8 to be very clear about this. I've written down 9 10 that the opinion would be that you can't rank or even identify particular contributory factors in 11 respect of any particular accident in the absence 12 13 of an accident reconstruction of that accident. 14 MR. CHEN: That's correct. 15 JUSTICE WILTON-SIEGEL: The 16 question is -- that may be true but that's not the 17 approach to traffic safety, that as underlain the 18 approach of CIMA and the staff. That may be true 19 in respect of particular accidents but they have said on a, if you like, a more aggregate basis it 20 21 is possible to conclude that there were various identified contributory factors in respect of wet 22 23 weather accidents at particular locations on the 24 expressway, and that analysis provided the basis for the recommendation that went to counsel. 25 So

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1 my question is whether Mr. Hein is challenging 2 that approach. 3 MR. CHEN: Hein is challenging 4 the approach of when you're looking at a 5 particular accident. I think what CIMA is doing б is drawing conclusions about what may be 7 contributing, and in Mr. Hein's view that's not helpful in terms of determining in a particular 8 9 accident what the causes are. 10 JUSTICE WILTON-SIEGEL: But we're not engaged in this inquiry in determining 11 12 the cause of any particular accident. We're 13 engaged in assessing, in the broadest sense, the 14 safety of this highway, but more particularly the 15 approach to safety on this highway of the City 16 through the City staff in reliance on CIMA's 17 consultancy and their own professional opinion, as 18 we keep being told. 19 And that is that there are various contributory factors -- friction one of 20 21 them, geometry another, speed, another -- that 22 have contributed to a disproportionate rate of wet 23 weather accidents on this highway. 24 Now my question is, is it your understanding that Mr. Hein's testimony, and for 25

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1 that matter Mr. Karim's, challenges those basic 2 assumptions, if you like, the basic approach to 3 traffic safety. 4 MR. CHEN: To that I would say 5 they both challenge the way that, for example, Mr. Brownlee has ranked the --6 7 JUSTICE WILTON-SIEGEL: Set 8 aside ranking. I set aside ranking. If that's 9 all we're talking about we can pass onto something 10 else, but the words that you have written are susceptible of a much more fundamental allegation. 11 12 MR. CHEN: Just so I 13 understand. I think the interpretation that you 14 are taking from the -- from the materials is that 15 -- does not possible even in a general sense to 16 identify contributing factors to a motor vehicle collision and a curve. 17 18 JUSTICE WILTON-SIEGEL: Not to 19 a motor vehicle collision. To motor vehicle collisions as they have been collected in 20 21 accordance with accident collision statistics. 22 MR. CHEN: On that point I 23 think there is likely agreement that at least from 24 Mr. Karim as to the potential factors that may contribute to accidents generally, but if we look 25

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1 at a particular accident then of course they have 2 a much different perspective. 3 JUSTICE WILTON-SIEGEL: Sure. 4 I say again, I'm not aware we are looking at any 5 particular accident. 6 MR. CHEN: When we read the 7 TNS, the Brownlee report, and one of the inferences that can be made and we're -- we want 8 9 to be alert to, is what is being inferred from those factors. And I think it goes towards the 10 point of one drawing the conclusion we should 11 12 always assume that if it's friction for a 13 particular accident it's the conclusion that of 14 course we want to avoid. 15 JUSTICE WILTON-SIEGEL: Well, 16 that's fair. That's a matter of opinion. 17 I just want to know how much 18 further the opinion is going because at some 19 level, put it on the table, if there's a more fundamental attack on the way or the approach --20 21 let me use that more general term -- that CIMA has adopted and the staff adopted and used as the 22 23 basis for the recommendations to counsel, then 24 that might raise issues of concern to those small 'p' participants in the traffic safety analysis of 25

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1 the City from 2013 to 2018, and they might have 2 some belief they're entitled to respond to that 3 attack on their professional competence. 4 MR. CHEN: Fair enough, 5 Mr. Commissioner. 6 JUSTICE WILTON-SIEGEL: And I 7 say that that would have significant timing and 8 cost consequences to this inquiry that I wonder 9 whether can be justified. 10 But if the opinion is really down to saying that Mr. Hein doesn't think you can 11 12 rank contributory factors, then that's a much 13 simpler straightforward exercise in judgment. 14 MR. CHEN: I agree. 15 JUSTICE WILTON-SIEGEL: Can I 16 proceed on the basis that that's what was intended 17 by number 5? 18 MR. CHEN: I think that is the 19 majority of it, and I take your point that the 20 inquiry is not about any particular accident, 21 which of course was -- it goes back to the third point I made at the opening with respect to the 22 23 existence of active legal proceedings beyond this 24 inquiry. 25 JUSTICE WILTON-SIEGEL:

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1	Mr. Lewis has joined us for a moment.
2	MR. LEWIS: I simply wanted to
3	observe that neither Dr. Flintsch nor Mr. Brownlee
4	were purporting to opine on any particular
5	accident. It was, I think, as Commissioner you
6	said, it's in the aggregate that that term can be
7	used. There wasn't any intention of adjusting
8	otherwise. Thank you.
9	JUSTICE WILTON-SIEGEL: I note
10	that it's almost 11:15. I think in the course of
11	this we have probably fleshed out all but one of
12	the major issues. I'm in the hands of counsel as
13	to whether they wish to proceed without a break or
14	take a ten minute break.
15	MR. CHEN: I'm happy to take a
16	quick ten minute break if that's okay,
17	Mr. Commissioner.
18	JUSTICE WILTON-SIEGEL: Okay.
19	Then let's adjourn until 25 past 11:00.
20	Recess taken at 11:14 a.m.
21	Upon resuming at 11:27 a.m.
22	JUSTICE WILTON-SIEGEL: Okay,
23	Mr. Chen, why don't you continue.
24	MR. CHEN: In our previous
25	discussion on the friction management program you

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1	had raised what expertise Mr. Hein has in dealing
2	with various municipalities. I just did a quick
3	look at his resume. And just to list a couple for
4	you, and I don't want to belabour that point, it
5	stands from York municipality, Niagara Falls,
6	Halifax, Calgary, Regina, just to name five of
7	them. And he's also been part of this TAC update
8	team in respect of a pavement management guide.
9	Just to emphasis the point that he's worked with
10	diverse municipalities and can offer a perspective
11	different than a lay witness.
12	Of course, the followup of
13	that is he is unlike any witness and has the
14	expertise to opine on that issue.
15	Moving onto appendix B. There
16	are two categories that are left to be discussed,
17	although of course the collision statistics we had
18	a mini discussion at the start. But 1(a) of
19	appendix B, which is the intended use of geometric
20	guidelines. So Mr. Brownlee in his report spends
21	a significant amount of time reviewing the
22	compliance of the Red Hill with the 1985 MTO
23	design guide, and we know he draws various
24	conclusions respecting whether the criteria was
25	met.

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1	This section is meant as to
2	provide additional context to kind of understand
3	the analysis of it better. It's to provide an
4	understanding of the purpose of the guideline, how
5	that guideline is to be interpreted and what it
б	might mean if a particular criteria is not met,
7	and it's really of the latter two points, how is
8	it supposed to be interpreted and what it might
9	mean. That will be the focus.
10	As we read it and as Mr. Karim
11	reads it, the Brownlee report appears to treat
12	this topic as somewhat black and white, and that's
13	contrary to Mr. Karim's understanding.
14	Mr. Karim intends to go
15	further though and discuss, as we've set out in
16	our materials, the relationship between the
17	guideline and also the effect of deviation on the
18	general outcomes of roadway safety, because it's
19	important to see what connection, if any, there is
20	between geometric design and safety, and that's
21	related to the last term of reference as to how
22	you look at the different factors that contribute
23	to motor vehicle accidents.

25 relying on his expertise, on the application of

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1 the guidelines, and he will draw I understand from 2 various statements from regulatory bodies, on the purpose of the guidelines and the safety outcomes. 3 4 JUSTICE WILTON-SIEGEL: That 5 seems to be a matter of opinion, and (b) seems to б be essentially a matter of opinion as well; is 7 that right? 8 MR. CHEN: Correct. 9 JUSTICE WILTON-SIEGEL: Ιt 10 raises the same question that we spent some time on before the break about whether Mr. Karim is 11 12 suggesting that it's not possible to identify 13 contributory factors in the absence of collision 14 reconstruction. I'm not sure whether this is 15 another iteration of the question of simply not 16 being possible to identify the primary cause. 17 MR. CHEN: I think our 18 previous discussion would also apply in this case. 19 JUSTICE WILTON-SIEGEL: What does -- just so that I understand this, minimal --20 21 I'm looking down under design speed in (b), "minimal changes in design speed will not result 22 23 in significant changes to highway geometry and 24 associated safety outcomes." What exactly does that mean? 25

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1	MR. CHEN: So as I understand
2	it, and I hope I'm doing justice to Mr. Karim who
3	is extremely knowledgeable on this topic, the
4	distinction appears to be between the difference
5	of 10 kilometres per hour and 20 kilometres per
б	hour. It's one of the issues, points that Mr.
7	Brownlee raises, is that there is an alleged
8	expectancy violation on the Red Hill, because I
9	think the difference between the design speed and
10	the posted speed is 10 kilometres per hour, and as
11	I understand it if it was 20 kilometres per hour
12	then it would be I could think more expected by
13	motorists.
14	But I think there's an
1 5	
15	interesting question as to, well, what is the
16	interesting question as to, well, what is the material difference really between 10 and 20
16	material difference really between 10 and 20
16 17	material difference really between 10 and 20 kilometres per hour. And that's the analysis that
16 17 18	material difference really between 10 and 20 kilometres per hour. And that's the analysis that Mr. Karim will get into. So is the minimal
16 17 18 19	material difference really between 10 and 20 kilometres per hour. And that's the analysis that Mr. Karim will get into. So is the minimal changes in design speed and whether that has any
16 17 18 19 20	material difference really between 10 and 20 kilometres per hour. And that's the analysis that Mr. Karim will get into. So is the minimal changes in design speed and whether that has any outcome, impact on the geometry of the highway and
16 17 18 19 20 21	material difference really between 10 and 20 kilometres per hour. And that's the analysis that Mr. Karim will get into. So is the minimal changes in design speed and whether that has any outcome, impact on the geometry of the highway and also any associated safety incomes outcomes.
16 17 18 19 20 21 22	material difference really between 10 and 20 kilometres per hour. And that's the analysis that Mr. Karim will get into. So is the minimal changes in design speed and whether that has any outcome, impact on the geometry of the highway and also any associated safety incomes outcomes. I think it's an important

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1 road collisions. That's his conclusion where he 2 says the interaction between design consistency and motorists' expectations and so on, so on, are 3 4 contributory factors in the overrepresentation --5 JUSTICE WILTON-SIEGEL: Might 6 just be I'm stumbling over the words. I'm not 7 sure what change there is to the highway geometry 8 we're talking about. 9 MR. CHEN: I think you're on 10 to exactly what we're on to, is that, well, what really is the difference between a 10 and 20 11 12 kilometres per hour difference. And we can fairly 13 say that there is this alleged expectancy 14 violation that goes even further and contributes to overrepresentation of a wet road collision. 15 16 That's the inquiry that we're interested. 17 JUSTICE WILTON-SIEGEL: I'm 18 not sure that you understood my problem, but 19 perhaps we don't have to spend more time on it 20 right now. 21 B, again, would be a matter of 22 opinion. No particular additional evidence that's 23 required. Let's pass to number 2. 24 MR. CHEN: Sure. So collision statistics, which of course we had a discussion 25

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about earlier. I guess the second aspect of what
we were talking about here, just address the first
one.

4 One of Mr. Brownlee's key 5 mandates is to offer an interpretation of certain 6 statistics from the annual citywide collision 7 reports. He draws conclusion based on the data. But Mr. Karim takes issue with certain of 8 9 conclusions, such as his conclusions respecting 10 the resurfacing. So in illustrating why that 11 12 conclusion is unreliable, Mr. Karim will provide 13 evidence on standard methodology to interpret 14 collision data and the limitations of drawing 15 conclusions on an incomplete dataset. 16 JUSTICE WILTON-SIEGEL: Let me 17 just explain what my concern is, because again the 18 language in this is certainly susceptible of 19 different interpretations. 20 I'll go to 2018. In 21 connection with the lighting study, interestingly, 22 but then also the road safety assessment, CIMA

23 drew conclusions based on accident statistics that

24 the City of Hamilton published for the five

25 presiding years to the end of 2017, as you're well

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1	aware, and the staff adopted those conclusions and
2	that analysis and made recommendations on that
3	basis to the council.
4	Now, is there a suggestion
5	that because of the reference in the first
6	sentence to historical collision trends, is the
7	incomplete dataset that you're referring to that
8	dataset, or is there really limited to saying you
9	can't really draw conclusions about the
10	pre-resurfacing statistics of the highway from the
11	data that was received post resurfacing.
12	MR. CHEN: That's correct.
13	It's the latter.
14	JUSTICE WILTON-SIEGEL: It's
15	the latter?
16	MR. CHEN: Yes.
17	JUSTICE WILTON-SIEGEL: So
18	that's what number 2 is about?
19	MR. CHEN: That is what
20	there are two parts to 2; one is the drawing of
21	inferences based on incomplete dataset, and then
22	it leads into the second and very critical
23	(indiscernible) Mr. Crews analysis is the
24	assessment or examination of the collision
25	statistics between the highways with the Red Hill

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1 Valley Parkway, which is what we had discussed 2 earlier, and I would appreciate the opportunity to speak to that point again, Mr. Commissioner. 3 4 JUSTICE WILTON-SIEGEL: Okav, 5 then why don't you do that. 6 MR. CHEN: At this point in 7 the record we see references to Red Hill having high rates of wet weather collisions in various 8 9 places, and we've seen that statement being relied upon. For example, Dr. Flintsch in his concluding 10 paragraph makes reference to there being a very 11 12 high percentage of collisions during wet 13 conditions. 14 That is troubling to us 15 because it doesn't appear to be substantiated 16 anywhere in the record. Mr. Brownlee makes a 17 similar reference that there's a much higher 18 proportion of wet road surface conditions that 19 occurred on the Red Hill compared to provincial 20 and city averages. 21 But what this Commission has 22 not heard any evidence of that really gets at is 23 whether that statement is true or not. So we 24 appreciate there being comparisons, as I just indicated, to the provincial and city averages, 25

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1 but that's a comparison of all roads, right. 2 We know that, because I think 3 Mr. Malone had explained that during his 4 testimony, and that to understand the collision 5 rates that you were seeing and to contextualize б them, there has to be an apples to apples 7 comparison, and an apples to apples comparison 8 allows you to take the rates from the Red Hill 9 Valley Parkway and compare it with a paired 10 facility or proxy site, one that has similar characteristics, and to even break it down further 11 12 by segments. 13 That is the type of analysis 14 that we have not seen and that Mr. Karim, we would 15 like to do, so that we can get a precise answer 16 rather than relying on these other statements that 17 just aren't substantiated in our view. 18 This approach is well 19 accepted, and obviously Mr. Karim has vast experience on this front, has told us that. 20 Mr. 21 Malone has confirmed that. The idea of 22 overrepresentation is also discussed in Mr. 23 Brownlee's report and he talks about comparison to 24 pair facilities. So similar ones. And that is just not done. 25

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1	So for anyone to accept that
2	the Red Hill has a high rate, it might very well
3	be the case. But that analysis just needs to be
4	done so that we can be sure about that. It's
5	relied upon again in Dr. Flintsch as part of
6	his analysis of all the factors. And if we look
7	at his conclusion it's the first one that he
8	raises. And that again troubling us to. Where
9	does he get that from.
10	JUSTICE WILTON-SIEGEL: Let me
11	back up for a second. Are we talking about wet
12	weather accidents now rather than collision rates
13	generally?
14	MR. CHEN: My point is here on
15	wet weather accidents, but of course the intention
16	is for Mr. Karim to do a comparison of both.
17	JUSTICE WILTON-SIEGEL: And
18	all collisions or just serious collisions as
19	defined by
20	MR. CHEN: I understand it's
21	all collisions.
22	JUSTICE WILTON-SIEGEL: So let
23	me just understand. First of all, what are you
24	referring to in Mr. Brownlee's specifically what
25	are you referring to in Mr. Brownlee's

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1 MR. CHEN: If I can take you 2 to paragraph -- page 27 of his report. 3 JUSTICE WILTON-SIEGEL: 4 Page 27. 5 MR. CHEN: Footnote 58. 6 JUSTICE WILTON-SIEGEL: 7 Footnote 50? Footnote what? 8 MR. CHEN: 58 where he says road safety. "Used to describe (indiscernible 9 10 reading) when compared to peer transportation facilities." 11 12 JUSTICE WILTON-SIEGEL: No, 13 what is it that you object to in -- you say he 14 assumes that there's a disproportionate wet 15 weather accident experience without evidence. 16 What are you? 17 MR. CHEN: He's simply 18 referring to the CIMA reports, page 23 --19 JUSTICE WILTON-SIEGEL: -- the 20 CIMA report. 21 MR. CHEN: Yep, is a much --22 JUSTICE WILTON-SIEGEL: Refers 23 to the CIMA report, relied on the CIMA report. 24 Essentially rely on the 2017 annual collision report, among other things. Is the view here that 25

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1 they were all wrong? There was no -- are you 2 challenging what the City has done for the last 3 five -- for last five years? 4 MR. CHEN: I think it's a bit 5 more nuanced than that, and what we intend to do б is provide more precision. 7 JUSTICE WILTON-SIEGEL: No, no, I'm not going there. 8 9 We've got wet weather collision rates that form the basis of everyone's 10 11 approach. Now, are you taking the position that -- is the City now taking the position that its 12 13 own staff was all wrong both in terms of the 14 actual experience on the highway and with respect 15 to the appropriate comparators? MR. CHEN: All -- the purpose 16 17 of the exercise --18 JUSTICE WILTON-SIEGEL: No, 19 I'm asking. I understand what the purpose is but 20 the implication is what I'm asking about. 21 MR. CHEN: The answer to that question is no, just to be direct, but --22 23 JUSTICE WILTON-SIEGEL: How 24 can it --25 MR. CHEN: A no with an

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1 asterisk. 2 JUSTICE WILTON-SIEGEL: How 3 can it be no when the City -- to take one issue 4 here. The City has already identified what it 5 regarded as appropriate comparators. CIMA had 6 some and then you recall Mr. Soldo said I (skipped 7 audio) another one. Now you're saying no, those aren't appropriate comparators, you want a 8 9 complete analysis done of other comparators that 10 you think are more appropriate. MR. CHEN: I think the City's 11 12 consultant provided that analysis and again --13 JUSTICE WILTON-SIEGEL: Mr. 14 Soldo added one, and the City -- and the City's 15 consultant provided that. 16 MR. CHEN: Sorry, I missed 17 that point. 18 JUSTICE WILTON-SIEGEL: I said 19 I think Mr. Soldo, when he came on board, asked for an analysis of another highway and the City 20 provided that and the latest collision report. 21 22 MR. CHEN: So as I recall that 23 analysis was not done by segment. Based on our 24 discussions with the experts a more refined way to do the analysis, more comprehensive analysis to 25

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1 assess whether there is a high degree or not of 2 collisions. I'm not disputing there are other ways, but we're in this context where there's a 3 4 lot that I think goes to this point and we now are 5 at that expert phase. б Our expert and others have 7 proposed a method that's more refined, more precise, and I think there's value in that 8 9 evidence being given, at least looked at, to the 10 Commission. 11 Again, it does -- again, we 12 had this discussion at the start -- tie back to 13 the term of reference because it plays into the 14 called it the factorial analysis. It's not just 15 friction it's what the rates of collisions are, 16 and here we're talking about wet road collisions. 17 And we have a pathway forward to get more precise evidence to assist in answering the terms of 18 19 reference. 20 JUSTICE WILTON-SIEGEL: 21 Mr. Chen, here's my problem. If the City wants 22 this evidence it seems to me that it's a very --23 it requires a very extensive review and 24 considerable judgment as to which highways and which segments of those highways are appropriate 25

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1 comparators. 2 If this is -- I would say that 3 this, in the first instance, is well beyond I 4 would have thought was appropriate at this stage 5 because we've had three-and-a-half years of this б inquiry and we've had plenty of evidence as to how 7 the City proceeded, how the City's consultant 8 proceeded, how the City proceeded, what they 9 regarded as comparators, what they regarded as the 10 appropriate analysis. You're coming in and saying, 11 12 well, that really wasn't good enough, because for 13 future litigation purposes what you want is a much 14 better finding that says there never was a problem 15 here in the first place. 16 I get all that, and it may be 17 that that analysis is appropriate, but not on the 18 very selective basis that a particular expert of 19 the City provides. If there is such an analysis to be undertaken I think we need a proposal from 20 21 the City that involves a much more independent 22 approach to looking at this. 23 And I say this for a couple 24 reasons. One is, it is inevitable, as I'm sure you know from your many years of experience, that 25

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1 experts provide the evidence that their clients 2 want, and this just carries with it serious concern for selective provision of evidence. And 3 4 then the question becomes, well, how do the 5 parties whose reputations are challenged in one б way or another by this approach respond. And 7 that's really not the most efficient way of dealing with this. It has significant time 8 9 consequences and cost consequences, and I'm not 10 sure that at the end of the day it really develops the evidence the way anyone would want it to be. 11 12 It's much more confrontational. 13 If the City believes this is 14 necessary with the timing and cost consequences that that entails, then I think the City should 15 16 propose something of a much more independent 17 nature on this issue. 18 MR. CHEN: So my first 19 response, Mr. Commissioner, is that it seems to me 20 Mr. Karim's objectiveness is being challenged when 21 there really is no evidence for us to conclude 22 that there is an issue with his impartiality. 23 He's independent. I appreciate has been retained 24 by the City, but he is not just looking at one highway. That's a DVP. He's also requested a 25

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1	variety of other data for a variety of other
2	highways from the MTO, which he hasn't yet
3	received, and he's undertaking an analysis that I
4	think is well accepted in the industry. And of
5	course the inquiry process has built into it
6	certain mechanisms to explore impartiality through
7	cross-examination, seeing Mr. Lewis conduct a
8	number quality cross-examinations.
9	I just want to make sure we're
10	being fair to Mr. Karim that we're not
11	unintentionally sending any messages with respect
12	to his skill and
13	JUSTICE WILTON-SIEGEL: I'm
14	not sending any message that
15	MR. CHEN: having concern
16	about
17	JUSTICE WILTON-SIEGEL: - at
18	all, but I will be a little bit more specific.
19	This is as much a matter of judgment as it is of
20	technical expertise. Choosing which highways and
21	which segments are apples to apples, bearing in
22	mind there never can be, as the evidence
23	demonstrates, real apples to apples.
24	So that judgment has already
25	been made by CIMA and by the City staff. And for

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1 litigation reasons the City apparently now wants 2 to have that reassessed. And if that's what the City wants it's entitled to have that I think, but 3 in a process in which I think it's fair both to 4 5 Mr. Karim but also to CIMA and the City staff who б have already taken a position on these issues. 7 That seems to me to require some kind of more entirely independent joint instruction with some 8 9 process that involves a joint assessment of which 10 road segments -- which roads and which road 11 segments are going to be analyzed. 12 MR. CHEN: The first point is 13 then, of course, Mr. Karim's analysis will detail 14 why he thinks a particular highway is an apples to 15 apples comparison and certainly Mr. Brownlee, who 16 has expertise, can tell us whether it's a citrus fruit or not. This analysis isn't focused on the 17 outside litigation. Of course, it may have an 18 19 expect as I indicated at the start, but --20 JUSTICE WILTON-SIEGEL: I 21 think you made very clear that that's the context 22 in which you are concerned about that. 23 MR. CHEN: That is part, but I 24 want to be clear. I think this goes directly to the terms of reference. It is certainly not 25

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1 solely for the purpose of litigation, but it's 2 been raised square and centre in this inquiry, and again it goes with the terms of reference which 3 4 we've discussed and this analysis is what will 5 provide -- we say will provide a more refined б analysis, so I hope I've clarified that point. 7 If the proposal is joint one 8 the City -- there is value to undertaking this 9 analysis and -- I will say something is better than nothing, but Mr. Karim has started the 10 analysis knowing that it will take some -- it will 11 12 take some --13 JUSTICE WILTON-SIEGEL: I'm 14 aware of that. I'm sure he would be happy to turn 15 over what he's received from the MTO thus far, if 16 that's what's that's necessary. 17 MR. CHEN: As I said, he's still waiting for MTO to provide him with --18 19 JUSTICE WILTON-SIEGEL: So I 20 understand. 21 MR. CHEN: -- additional data. 22 JUSTICE WILTON-SIEGEL: 23 Anything else? MR. CHEN: I think takes us to 24 the end, as we've addressed the wet road 25

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1	collisions point. So that concludes my
2	submissions, Mr. Commissioner.
3	JUSTICE WILTON-SIEGEL: The
4	wet road okay.
5	MR. CHEN: I can belabour you
6	with one of those fancy lawyer closings that sum
7	up everything, but I will refrain from doing that.
8	JUSTICE WILTON-SIEGEL: Thank
9	you. Sparing us both.
10	All right. I think Ms. McIvor
11	is on the call as well. Do you have anything you
12	want to submit at this stage?
13	MS. MCIVOR: Thank you,
14	Mr. Commissioner. I just wanted to confirm that
15	our position remains as we've previously stated in
16	terms of it not being necessary to explore on
17	specific Ontario roadways and make findings about
18	the reliability or the safety of these roadways in
19	order to decide the terms of reference. And so
20	whether that's done in a comparative manner or
21	not, it is and remains our view that that is
22	simply not necessary in the context of this
23	inquiry.
24	Then I'll also note I know
25	it's been discussed today, MTO witnesses have

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1 testified at length during this inquiry. To the 2 extent that the participants are now suggesting that additional factual information about MTO 3 4 roadways be canvassed at the inquiry we suggest 5 that is inappropriate. It would lead to 6 inefficiencies, I would say, in terms of 7 potentially giving MTO employees the chance to get 8 their views across on the roadways in question, 9 suitability of the comparisons and whatnot, when really it's in our view outside the parameters of 10 the true issues that need to be decided in this 11 12 inquiry. 13 So our view remains as set out 14 previously and we would -- we take the view that 15 additional information about specific provincial 16 highways is just not necessary. 17 JUSTICE WILTON-SIEGEL: Can I 18 ask whether that comment means you have a problem with some kind of broader assessment of the 19 20 accident experience on MTO highways that are 21 regarded as comparators with the Red Hill Valley 22 Parkway? 23 MS. MCIVOR: We do in that we 24 just don't feel it is necessary to go there and get those statistics, and I guess the bigger issue 25

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1 is there can be an analysis of Ontario highways 2 and statistics and collision rates, but to make any findings then about the Red Hill Valley 3 4 Parkway there needs to be an opinion about what 5 those statistics mean in the provincial context. 6 So my friends appear to be 7 anticipating evidence showing that the collision rates at the Red Hill Valley Parkway are lower 8 9 than certain Ontario highways and therefore the 10 road is safe. But in order to meet that finding you have to do an assessment of what the collision 11 12 rates and statistics on the Ontario highways mean, 13 and we just haven't been given an opportunity to 14 call factual evidence about that. 15 And to the extent at this 16 stage we're going to sort of explore those -these new sort of areas, you know, we would just 17 18 urge a finding that's in keeping with efficiency 19 and costs and proportionality, and in our view 20 respectfully we submit that it's not necessary to 21 go that route at this juncture. 22 JUSTICE WILTON-SIEGEL: So 23 neither necessary, nor proportional. 24 MS. MCIVOR: That's correct, 25 yes.

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1 JUSTICE WILTON-SIEGEL: I'll 2 let Mr. Chen speak to that if he wants to. 3 MR. CHEN: I thank Ms. McIvor 4 for highlighting the need for expert evidence on 5 this issue. I agree it is complicated and we have б a qualified expert to undertake that analysis and 7 to have the data, or they are going to get the data from the MTO, I presume, to do that analysis. 8 9 I think Ms. McIvor doesn't speak to how to 10 properly conduct an assessment of whether there is 11 an overrepresentation. I appreciate it will 12 obviously involve comparisons of the DVP and 13 certain 400 highways. I think there are ways to 14 sidestep what the inferences that Ms. McIvor might 15 be concerned about just in terms of how we 16 describe the findings, and that we can obviously 17 work with. 18 But this inquiry has been structured as Phase 1, Phase 2, the fact witnesses 19 going first, and the MTO witnesses that testify --20 21 as I recall were all friction-specific. Would be pose questions about collision statistic on 22 23 particular highway? That just doesn't seem like a 24 fruitful exercise. So what we did of course is leave that to the experts. 25

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1	And just a point about whether
2	it's necessary, I think I've dealt with that. It
3	goes to one of the factors that Dr. Flintsch
4	relies on to draw his conclusions. It's the wet
5	road high wet road collisions point, is again
6	sited elsewhere. This is the analysis that we'll
7	get to whether or not that's true or not. So on
8	that front it's both reasonable and necessary.
9	So Ms. McIvor will
10	cross-examine the expert and it appears she has
11	potentially the most ammunition in doing so. So I
12	don't think that would come at a great cost to her
13	of course. I suppose there's the option of
14	putting in a responding report, but I'm not sure
15	that's necessary.
16	JUSTICE WILTON-SIEGEL: I
17	think what this has identified is that apart from
18	I gather province-wide statistics which we've seen
19	and referred to, there are no statistics on
20	highway-by-highway basis, much less on a
21	segment-by-segment basis. Is that correct,
22	Ms. McIvor?
23	MS. MCIVOR: Sorry, in terms
24	of whether those statistics exist before
25	provincial highways?

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1	JUSTICE WILTON-SIEGEL: Yes.
2	MS. MCIVOR: I'm actually not
3	certain about that. I haven't seen any to date.
4	JUSTICE WILTON-SIEGEL: As
5	part of this process, whoever is conducting this
б	analysis will be generating statistics for the MTO
7	highways as well in order to have a comparator or
8	comparators with the Red Hill Valley Parkway and
9	the staff that you object to.
10	MS. MCIVOR: That's correct.
11	Mr. Commissioner, I'm not sure what data
12	specifically has been requested and I'm not sure
13	what data will be provided, but from what Mr. Chen
14	has provided us in terms of analysis, it does seem
15	to be focused on a comparison between some
16	specific Ontario highways versus the Red Hill
17	Valley Parkway. And I fail to see how that falls
18	within the scope of the terms of reference, and it
19	could be that some findings in the other expert
20	reports, you know, are also outside of scope. I
21	just don't see how getting into those sort of
22	details and leads are necessary to answer the
23	questions posed in the terms of reference.
24	JUSTICE WILTON-SIEGEL: I'm
25	proceeding, although I confess I haven't looked at

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1 this point specifically, that insofar as 2 comparisons were made they were made with respect to publicly available statistics relating to MTO 3 4 highways. 5 MS. MCIVOR: I believe that is 6 the case, or based on the record that's before you 7 already in terms of findings that have been established to date, the report scenario in the 8 9 record --10 JUSTICE WILTON-SIEGEL: I was 11 thinking those reports that made comparisons. 12 Presumably they were made with respect to, or on 13 the basis of publicly available statistics but 14 what you're concerned with what Mr. Chen is 15 proposing his expert do might involve generation 16 of statistics that have not yet been developed, 17 are not public and, by implication, cast -- raise 18 issues with respect to the safety of MTO highways 19 which you say are beyond the issues in the terms 20 of reference. Is that an accurate way of 21 describing your concern? 22 MS. MCIVOR: That is correct, 23 Mr. Commissioner, yes. 24 MR. CHEN: If I could very quickly respond to that. There's no creation of 25

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the statistics. To be blunt, Mr. Karim's team has 1 2 put in an FOI request a while ago to obtain the data and I don't believe there should be any 3 4 obstacles to obtaining the set of data that they 5 will need. And as our understanding is, it's a routine exercise for them to do so and there's no 6 7 restrictions, subject to timing of course, which we could use some assistance with. 8 9 JUSTICE WILTON-SIEGEL: You're 10 saying there should be no restrictions on them 11 performing whatever analysis they want on the data 12 released by the MTO. 13 MR. CHEN: That's correct, and 14 it's not confidential by any means. 15 JUSTICE WILTON-SIEGEL: Okay. 16 If no one else has anything further to say let me 17 just review where we are, because I think it's 18 very important we move forward on this as much as 19 we can as quickly as possible. There are certain matters that 20 21 I think are clearly within the scope of what's contemplated for this phase, and I'm thinking in 22 particular of the matters, first of all, that Dr. 23 24 Baaj is proposed to report on, and I would say again on the basis that the extent of any evidence 25

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1	that Dr. Baaj is introducing beyond what's already
2	in the record that would be limited to evidence
3	that is his scientific basis for the conclusions
4	that he reaches in his report.
5	With respect then to Mr. Hein.
6	The same principle would apply with respect to
7	1A, B and C, as opinion evidence plus any evidence
8	in addition limited to the scientific basis for
9	his conclusions. I'm going to reserve on E. I'm
10	going to reserve on 2.
11	MR. CHEN: Did you skip D?
12	JUSTICE WILTON-SIEGEL: Well,
13	on this enumeration it appears we have. D I think
14	is in the same category as A, B, and C. Opinion
15	evidence, and supplemented only by any scientific
16	evidence that he might have to support his
17	conclusions or opinion. So pass on E, pass on 2.
18	Number 3. What I want to do
19	on 3 is reserve pending a discussion between
20	Mr. Chen and Ms. Roberts to see whether you can't
21	come to some kind of conclusion as to well,
22	I'll put it positively, whether Dr. Baaj is in
23	fact covering all the ground that is proposed in
24	number 3 or, alternatively, Mr. Chen, defining a
25	little bit more clearly what Mr. Hein would opine

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1 on given what we have now had by way of a much 2 more expansive description of what Dr. Baaj will 3 be doing and any discussion you've had with Ms. 4 Roberts. Okav? 5 MR. CHEN: Understood. 6 JUSTICE WILTON-SIEGEL: Sorry, 7 Mr. Chen? 8 MR. CHEN: I said understood. 9 JUSTICE WILTON-SIEGEL: Number 4 I understand basically to be opinion evidence 10 and -- fine. If there is anything scientific that 11 12 supports its conclusion, fine, or technical. 13 Number 5, going to pass on 14 this, complex of issues that we will... 15 Now A. I'm now passing to 16 Mr. Karim 1A, 1B, 1C. I think is in the category of opinion evidence. I don't think it relies on 17 anything more other than if there are industry 18 19 statements upon which Mr. Karim relies that 20 support his position, that can be included. 21 Number 2, collision statistics, is part of the discussion we've just 22 23 had. Reserving on that. And number 3 is in the 24 same category. 25 We will get you a decision

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1	with respect to the matters on which we reserved
2	apart from be specific about the number.
3	Number 3 under Mr. Hein's appendix A, for which we
4	await further communication from Mr. Chen and Ms.
5	Roberts or collectively, or Mr. Chen.
б	MR. CHEN: We will do that.
7	Thank you, Mr. Commissioner.
8	JUSTICE WILTON-SIEGEL: We'll
9	stand adjourned if there's nothing further that we
10	have to deal with today.
11	MR. CHEN: I don't believe so.
12	JUSTICE WILTON-SIEGEL: Okay.
13	Thank you very much.
14	Whereupon the proceedings were adjourned
15	at 12:20 p.m.
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