

RED HILL VALLEY PARKWAY INQUIRY

TRANSCRIPT OF PROCEEDINGS
HEARD BEFORE THE HONOURABLE
HERMAN J. WILTON-SIEGEL
held via Arbitration Place Virtual
on Monday, October 31, 2022 at 9:30 a.m.

VOLUME 78

Arbitration Place © 2022
940-100 Queen Street 900-333 Bay Street
Ottawa, Ontario K1P 1J9 Toronto, Ontario M5H 2R2
(613) 564-2727 (416)861-8720

APPEARANCES:

Emily C. Lawrence	For Red Hill Valley Parkway
Delna Contractor Samantha Hale Eli Lederman	For City of Hamilton
Heather McIvor Chris Buck	For Province of Ontario
Jennifer Roberts	For Golder Associates Inc.
Richard Provost	For CIMA

INDEX

	PAGE
PREVIOUSLY AFFIRMED: BRIAN MALONE	14797
(CONT'D) EXAMINATION BY MS. LAWRENCE	14797
EXAMINATION BY MS. JENNIFER ROBERTS	14966
EXAMINATION BY MS. CONTRACTOR	15007

LIST OF EXHIBITS

NO.	DESCRIPTION	PAGE
204	E-mail dated 2/3/19; CIM17171	14963
205	Memo from Brian Malone to David Boghosian, 8 pages; CIM17171.0001	14963

1 Arbitration Place Virtual
2 --- Upon recommencing on Monday, October 31, 2022
3 at 9:30 a.m.

4 MS. LAWRENCE: Good morning
5 Commissioner. I would like to open this hearing
6 by acknowledging that the City of Hamilton is
7 situated based on the traditional territories of
8 the Erie, Neutral, Huron-Wendat, Haudenosaunee and
9 Mississaugas. This land is covered by the Dish
10 With One Spoon Wampum Belt Covenant which was an
11 agreement between the Haudenosaunee and
12 Anishinaabek to share and care for the resources
13 around the Great Lakes. We further acknowledge
14 that the land on which Hamilton sits is covered by
15 the Between The Lakes Purchase 1792, between the
16 Crown and the Mississaugas of the Credit First
17 Nation.

18 Many of the counsel appearing
19 at this hearing today are in Toronto which is on
20 the traditional land of the Huron-Wendat, the
21 Seneca and, most recently, the Mississaugas of the
22 Credit River.

23 Today this meeting place is
24 still the home to many indigenous peoples from
25 across Turtle Island and we are grateful to have

1 the opportunity to work on this land.

2 Commissioner, sorry, I'm
3 having a little bit of a tech issue. Just give me
4 one second. Commissioner, we have Mr. Malone with
5 us today. He was previously sworn and does not
6 need to be reaffirmed.

7 JUSTICE WILTON-SIEGEL: Fine.
8 Then let's proceed.

9 PREVIOUSLY AFFIRMED: BRIAN MALONE

10 (CONT'D) EXAMINATION BY MS. LAWRENCE:

11 Q. Good morning, Mr. Malone.

12 A. Good morning.

13 Q. I'm going to start with
14 some questions about a meeting involving the
15 roadside safety assessment from December 7, 2018.
16 Registrar, could you bring up OD9A, paragraph 209,
17 please. Pardon me. Page 209, please.

18 Mr. Malone, the inquiry has
19 evidence that you attended a meeting on
20 December 7, 2018 related to the roadside safety
21 assessment report and this was a progress meeting.
22 Do you remember that meeting?

23 A. I don't have a strong
24 recollection of it but I have notes that I'm
25 relying on to refresh my memory.

1 Q. Thank you. There was
2 some slides that were prepared and presented at
3 this meeting to City staff and some minutes were
4 taken in addition to your notes. One of the
5 references to these slides is set out here but I'm
6 actually going to go into the slide deck.

7 Registrar, can you go to
8 CIM17524, please. And you call up the next page
9 as well, please.

10 So Mr. Malone, this is in part
11 just to refresh your memory. A presentation
12 outline: geometric design review, collision
13 analysis, assessment of roadside safety devices,
14 curve advisory speeds, and other reviews.

15 So just to reorient you in
16 time, because it has been some weeks since we last
17 spoke, CIMA sent the first draft of the roadside
18 safety assessment to the City in November and then
19 this is a progress meeting based on the progress
20 to date including the drafting.

21 Registrar, could you go to
22 image 4 and 5, please.

23 So we have the objectives and
24 scope on image 4 and then we have the beginning of
25 the section of the presentation that deals with

1 geometric design review -- thank you, Registrar.
2 Always happy to have the slides just a little bit
3 larger.

4 The geometric design review
5 goes over several pages and deals with curve
6 compatibility and on that first slide, on the
7 right-hand side, it says curves with comparable DS
8 lower to 110 kilometres per hour, and then it has
9 three references. And then it says note:
10 Previous studies found 85th percentile for speeds
11 of 110 kilometres and 115 kilometres. So again,
12 just to reorient you back to where we are.

13 Registrar, can you close these
14 down and go to images 6 and 7, please. Thank you,
15 Registrar.

16 The geometric design also
17 deals with ramp design speeds and then it has a
18 summary at image 7 on the geometric design review
19 based on the MTO roadside safety design 2017. And
20 last time, Mr. Malone, you said that there had
21 been some updates to manuals in between the
22 construction of the Red Hill and when CIMA was
23 doing this review. Do you recall, just generally,
24 that discussion?

25 A. Yes.

1 Q. So in looking at this
2 geometric design review, can you explain why CIMA
3 went into this level of detail about the geometric
4 design in 2018 when it had not gone into such
5 detail in 2015?

6 A. Well, the one element is
7 what you just described in that there had been an
8 update to the Transportation Association of
9 Canada, geometric design guide in 2017. So
10 obviously that wasn't available in 2015. And
11 there had also been modifications to the roadside
12 design guide from the Ministry of Transportation
13 which can deals with roadside safety elements like
14 barriers and clear zones adjacent to roadways.

15 So the changes in those two
16 elements, those two design guidance documents made
17 it relevant for incorporation of comparison of the
18 existing conditions to the updated design guides
19 because the roadway was going to have some
20 significant reconstruction done on it in the -- in
21 conjunction with paving.

22 Q. Just to better understand
23 the scope of this when it related to geometric
24 design, was it CIMA's initiative to go into this
25 level of detail given those changes to relevant

1 guides and manuals or was that part of what the
2 City had asked you to do?

3 A. I think it was within
4 scope of what the City was asking. The
5 terminology might be a little confusing. It
6 wasn't or isn't a review of the fundamental
7 geometric design of the roadway, the curves, the
8 slope on the hill and numbers of lanes and things
9 like that. It was a review of the existing
10 conditions, and as I just described, a comparison
11 of some aspects in relation to the current
12 standards now at the time in 2018.

13 And since some of those
14 standards had changed and the construction was
15 going to be taking place, and one of the focal
16 points of the task for CIMA was to look at
17 roadside safety and those standards had been
18 modified, then we were examining the road and the
19 design of the road, the geometry of the road in
20 relation to the updated standards.

21 Q. Registrar, could you
22 leave this document up but close the callouts,
23 please. On the right-hand side if you could bring
24 up HAM11854, image 2. Actually, start with image
25 2 is fine.

1 Mr. Malone, this is the
2 content of the minutes of that meeting. It's on
3 image 1, but if you could just -- if you would
4 like me to I can go to the first page to show
5 that, but I would like to just highlight sort of
6 one thing and one question. Under 3.1, City
7 comments and discussion, under the second bullet
8 point -- Registrar could you pull that out.
9 Apologies, Registrar, could you close that and
10 call out the entire part of 3.1 instead. Just the
11 second half under 3.1. Thank you. That's what I
12 intended.

13 So this is the minutes of some
14 of the discussion that happened at that meeting
15 with City staff, and you'll see in the first
16 bullet point but on the second paragraph of that
17 it says:

18 "(Indiscernible) first
19 accentuated that the actual
20 design speeds of these
21 locations are unknown to CIMA
22 and asked if the City can
23 provide this information.
24 David asked the City's design
25 team to review the drawings

1 and if available provide the
2 requested design speeds to the
3 consulting team," and then
4 there's reference to the
5 posted speeds.

6 So just stopping there. At
7 this point in December 2018 is CIMA clear about
8 what the initial design speed of the Red Hill
9 actually was?

10 A. My recollection is we
11 still or we had not been provided with the -- what
12 I would call the design document or the design
13 standards as set out in the original construction
14 of the roadway. So we didn't have it formally in
15 writing. There had been, as has been described,
16 some reverse engineering to attempt to determine
17 what a design speed would have been based on the
18 characteristics measured and observed but -- I'm
19 mixing up timelines a little bit here, but I don't
20 think we had received documentation that said the
21 design speed for the roadway and whatever it was
22 originally designed back in early 2000s was a
23 particular number.

24 Q. Okay. And as I recall
25 from your previous evidence, at some point in 2013

1 and 2015, CIMA reverse engineered the design speed
2 to come up with a design speed of 110 kilometres
3 an hour; is that right?

4 A. We made an attempt to,
5 yes. We had limited information. We didn't have
6 drawings of the roadway. I think we used
7 satellite imagery, Google images to do it, so
8 there is some degree of inaccuracy, but yeah, I
9 think your description is correct.

10 Q. Over time the design
11 speed at 110 kilometres an hour was -- did you
12 conclude that that was actually an overestimate of
13 what the design speed was based on your reverse
14 engineering?

15 A. Yeah, I think the
16 information gets clearer later on, and so there is
17 improved accuracy specifically with respect to the
18 radius of the curves, and therefore the estimate
19 of 110 becomes an estimate of 100, but of course
20 the -- that's using the 1999 TAC Geometric Design
21 Guide standards, which also changed in the 2017
22 guide. So even though the elements remain the
23 same, the design speed changes to 90, I believe,
24 based on the new design guide as opposed to the
25 old design guide.

1 Q. Thank you. I won't go
2 into it, but in the roadside safety assessment,
3 you actually go through the application of the
4 changed TAC guide to the curve radii; is that
5 right?

6 A. Making sure I'm
7 understanding your question correctly.

8 Q. Sorry, I can rephrase.
9 You actually went through that analysis of
10 applying the revised TAC guide to the curve radii
11 in the roadside safety assessment?

12 A. Yes, I believe so,
13 because the new guide is now in place. It was
14 published in 2017, and so again efforts are about
15 to take place for significant reconstruction on
16 the roadway, and so we're applying the current
17 standard, the 2017 standard.

18 Q. Thank you. Registrar,
19 you can close this down, and if you can go back
20 into the document on the left-hand side and pull
21 out images 9 and 16, please. Thank you.

22 Part of the presentation also
23 includes reference to the collision analysis that
24 CIMA had done for the roadside safety assessment,
25 and there's a number slides but I'm pulling out

1 two of them. One is main contributing factor wet
2 surface and then there is a chart on the left-hand
3 side. And then on the right-hand side, there is
4 some key findings that CIMA is providing to the
5 City, and you'll see in the key findings --
6 Registrar, could you call out the right-hand side,
7 please. Thank you. It's a little easier on the
8 eyes. The wet surface involves 64 percent of the
9 mainline and 73 percent of ramp collisions, which
10 was an increase from the last study, and you
11 reference some particular locations. And then at
12 the bottom, in bold, it says:

13 "Findings suggest an
14 inadequate skid resistance,
15 surface polishing, bleeding
16 and contamination and
17 excessive speeds may be
18 contributing factors to
19 collisions."

20 Do you recall, was there any
21 discussion about inadequate skid resistance being
22 a contributing factor at this progress meeting?

23 A. I don't have a
24 recollection of any discussion. It's there on the
25 slide, so I assume it would have been incorporated

1 in the presentation.

2 Q. Okay. Understanding you
3 may have been part of the information that CIMA
4 presented, you don't recall any discussion that
5 was prompted by that aspect of the presentation?

6 A. No, the meetings were
7 less years ago. I don't have any real clear
8 recollection of the content of the meeting.

9 Q. At this point, were you
10 aware that the City had a report that set out the
11 friction values on the Red Hill and the LINC?

12 A. You're talking about the
13 Tradewind report?

14 Q. I'm talking about more
15 generally, if you're aware of any such report, but
16 yes, I am talking about the Tradewind report.

17 A. No.

18 Q. If you had understood at
19 this point in preparation for this presentation
20 that the design speed was not 110 kilometres per
21 hour but in fact 100 or down to 90, would that
22 have changed how you viewed the inadequate skid
23 resistance as a contributing factor in collisions?

24 A. No, I don't think so. I
25 mean, it's not uncommon for roadways to have

1 portions, sections, areas that do not meet a
2 design speed which has been determined for the
3 roadway, and there's standard methods in
4 transportation engineering to deal with that in
5 terms of means of mitigation. Provision of, for
6 example, a curve warning sign is a way of dealing
7 with a design element which is not fully
8 consistent with the design speed for the roadway.
9 So no, it wouldn't automatically result in a
10 change.

11 Q. When you say it wouldn't
12 have resulted in a change, you mean a change in
13 your thinking, in your analysis about inaccurate
14 skid resistance, or in terms of what your
15 recommendations were?

16 A. Well, that's sort of a
17 theoretical question. You're saying if we had the
18 Tradewind report, would our thinking have been
19 different?

20 Q. No, I was asking about
21 design speed. If you had understood that design
22 speed was not the assumption that you had made in
23 2015, that it was 110 kilometres, would that have
24 changed how you approached whether inadequate skid
25 resistance was a contributing factor?

1 A. I guess it's difficult to
2 answer that unless you have some context as to
3 what that difference is. I'm afraid I am a bit
4 lost in the timeline as to when we make the
5 determination that it's not 110, it's 100. I
6 thought that had been determined by this point,
7 and at this juncture we're actually coming to the
8 realization that the new design speed, in fact,
9 would be 90 as opposed to 100. So I thought the
10 100 had already been determined at this point.

11 Q. Well, we just looked at
12 those minutes where Mr. Ferguson said, yes, we'll
13 actually confirm design speed.

14 A. I still don't think it
15 changes the conclusion from my perspective.

16 Q. Okay. Registrar, could
17 you close this document down and go back into
18 OD9A, please.

19 THE REGISTRAR: Sorry,
20 counsel, which page of OD9A?

21 MS. LAWRENCE: Sorry, I'm just
22 getting it, so just give me a second. It's
23 page 242, please.

24 THE REGISTRAR: Thank you.

25 BY MS. LAWRENCE:

1 Q. If you can call out 569.
2 Mr. Malone, this is just to orient you in terms of
3 time. Coming out of that progress meeting, Mr.
4 Vala e-mailed a document, MTO functional
5 classification, to Mr. Salek, and says, I'm
6 advised -- I found the design report. The RHVP
7 was designed as RFD 100. That means design speed
8 of 100. And this is just five days after the
9 progress meeting that you had. I don't know if
10 that helps you with the timeline.

11 A. Well, I think this is
12 confirmation of it, yes, but I think we had come
13 to some -- potentially some conclusion that it
14 was, in fact, not the 110, but this is helpful,
15 yes, thanks.

16 Q. Registrar, you can close
17 this down. So, in your testimony the last time
18 you were with us, you spoke about the roadside
19 safety assessment report at that project as being
20 to focus on roadside issues with a view to what
21 the road would look like after repaving, so not
22 focusing on pavement surface but focusing on
23 roadside. In other words, treating your analysis
24 as if the surface had already been replaced.
25 Hopefully I'm paraphrasing your evidence fairly.

1 Am I?

2 A. Yeah, I think it's
3 closer. I would agree with the similar wording.
4 We were not dealing with the pavement surface
5 components because those were being addressed by
6 others, other consultants and by the City and the
7 repaving, and the primary focus of what we were
8 being asked to do was to provide input, with
9 respect to the roadside environment and
10 particularly elements that would relate to safety
11 in that regard. The guide rail and hazards
12 adjacent to the roadside, as I discussed
13 previously.

14 Q. To your understanding,
15 the roadside safety assessment did not include
16 assessing whether interim measures were required
17 pending resurfacing, before resurfacing; is that
18 right?

19 A. To my recollection, they
20 never -- the scope of work never specifically
21 called or asked for that. We did have a number of
22 components, elements in the report that talked
23 about things like oversized speed limit signs and
24 speed feedback signs which could be implemented in
25 conjunction with the construction, which I

1 understood to be our intended scope, but of course
2 could also have been implemented prior to
3 construction because the road -- something like
4 speed limit sign, wasn't going to be impacted by
5 the construction itself. So could have been done
6 prior to construction, for example.

7 Q. Thank you. By
8 December 7th, had anyone from the City's legal
9 department reached out to you?

10 A. Not to my recollection,
11 no.

12 Q. Registrar, can you go to
13 page 220. Can you call out 520 to 522, please.
14 On December 8, Mr. McGuire contacted you and asked
15 if our legal group had got in touch with you on
16 the safety report, and you said no, and then
17 you're not copied on the next two e-mails, but Mr.
18 McGuire forwarded this to Ms. MacNeil who is in
19 the legal services branch, she's a lawyer for the
20 City at the time, and he says I was wondering --
21 "Did you get a hold of the CIMA contact via
22 Edward? I was wondering and if so could I talk to
23 CIMA confidentially."

24 And then Ms. MacNeil responds,
25 "No, we haven't contacted CIMA yet... I would

1 strongly advise you not to speak with CIMA..."

2 Just stopping there, we're
3 going to go through some meetings that you had
4 with staff from the City, Mr. McGuire is sometimes
5 on those, but I invite you to tell me if at any
6 point in the timeline you recall having
7 discussions with Mr. McGuire about the Tradewind
8 report specifically, outside the meetings with
9 staff that we'll talk about; okay?

10 A. Yes, if I can remember to
11 do that, I will.

12 Q. I'll prompt you. And
13 maybe we can just stop there. This might actually
14 short circuit later discussions. Do you recall
15 speaking to Mr. McGuire one on one about the
16 Tradewind report at any point?

17 A. No, I don't believe I
18 ever did. Again, sorry, I want to be perfectly
19 clear. I only got the Tradewind report at the
20 end of January from Mr. Boghosian, so certainly
21 nothing prior to that, and I don't recall any
22 one-on-one discussion with Mr. McGuire
23 specifically about the Tradewind report after that
24 point.

25 Q. Thank you. And maybe

1 more generally, do you recall speaking to Mr.
2 McGuire about friction values on the Red Hill, not
3 maybe naming the Tradewind report, but the idea of
4 friction values on the Red Hill in December or
5 January of 2018 and 2019?

6 A. No, not during those
7 months. Of course, there had been the
8 communication with Mr. McGuire back in August
9 of 2018 where he relayed the same e-mail that
10 Mr. Moore had relayed to me, and we had a back and
11 forth over that. So that was friction-related
12 discussion, but not in December and up to the
13 January 30th date.

14 Q. Thank you. Registrar,
15 you can close this callout. I don't mean to go
16 back over something that we had moved past, but
17 the geometric review that you did, just thinking
18 back on the evidence that you just gave a few
19 moments ago, I think your evidence is quite clear
20 about why CIMA did the geometry review in 2019,
21 given those changes to the manual. Why didn't you
22 do them in 2015?

23 A. Because the manuals
24 hadn't changed until 2017. We were reviewing the
25 roadway -- the roadside safety report is a review

1 of the roadway prior to the construction, and
2 there's been a change in the design guidance in
3 2017. So the standard approach in the industry is
4 when you're undertaking significant reconstruction
5 of roadways, that you would review the current --
6 current design standards, and design standards
7 changed in 2017, so it was an imperative for a
8 more comprehensive review of the design standard
9 standards of the day, 2018, as they relate to the
10 construction that's planned for now, 2019. It
11 didn't exist, the change didn't happen, and wasn't
12 there in 2015, so we couldn't review it,
13 obviously.

14 Q. I see. Perhaps I'll ask
15 my question differently. In 2015 as compared to
16 2018, there is not the same sort of analysis of
17 curve radii based on posted speed or design speed
18 or how the geometry of especially the curves of
19 the Red Hill might affect collisions or might
20 affect collision circumstances. And I'm trying to
21 understand that that seems to be a difference
22 between 2015 and 2018, and why was that not part
23 of CIMA's review in 2015 and is in 2018?

24 A. I think there was
25 components of the review of the geometry in 2015

1 as we just discussed. There was some
2 determination, limited as it was, of design speed
3 based on the geometrics of the roadways, so that
4 was present. There was extensive discussion about
5 the geometry of the curves in the 2013 report.

6 So I'm not sure I fully agree
7 with you there. The scopes were different, but
8 there's definitely discussion of design speed and,
9 you know, therefore the geometric elements of the
10 roadway, and in a broader sense, there is
11 certainly discussion about curvature, and there's
12 extensive discussion about speed on the roadway
13 and the potential disconnect between the observed
14 measured speeds and the posted speed and the
15 design speed is an aspect of that as well.

16 Q. Thank you. I'll move on.
17 Registrar, could you go to page 229, please.
18 Could you also bring up the next page, please.
19 Mr. Malone, I would like to draw your attention to
20 the bottom of 229, which is paragraph 550, which
21 is your notebook entries, and the actual -- the
22 first entry is transcribed, and then there's
23 another entry that is excerpted. I can go into
24 you're underlying notes on the first
25 transcription, but I can't put them up side by

1 side because they fall over two pages, so I'm just
2 going to use the transcription for that first
3 note.

4 You'll see at 550 there is a
5 reference to Mr. Soldo and Mr. -- a Ms. Audi.
6 Registrar, can you pull up the bottom of 550,
7 please. Thank you.

8 Mr. Malone, it appears that
9 there are two different entries on this day, one
10 that we're looking at now and one that appears to
11 be a call with David Mr. Boghosian. Do you recall
12 having two different calls on December 11th
13 with -- in respect of the Red Hill?

14 A. I don't specifically
15 recall the two different calls, but in reviewing
16 my notebook, I know there's a separation between
17 the two notes and there's a different content in
18 the -- in the in between for another project. So
19 a separate project from the City of Hamilton. So
20 I'm pretty sure it was two completely separate
21 discussions, yes.

22 Q. Thank you. So this note
23 references Mr. Soldo, "legal department concern,
24 looking at reports, safety work? Changed
25 reports." And then it's references Nicole Auty.

1 Do you recall who was on the first call with you,
2 if it was Mr. Soldo or Mr. Soldo and Mr. Auty?

3 A. Well, based on my
4 rereading of my notes and very limited
5 recollection of the call, I think it was only Mr.
6 Soldo. I think the name Nicole Auty is -- he has
7 stated that to me, and he's making a reference to
8 her. I didn't know her and frankly I never -- had
9 never spoken to her, at this point, so I'm almost
10 positive that she was not on the call.

11 Q. Thank you. What do you
12 recall about this discussion with Mr. Soldo?

13 A. I really don't have much
14 recollection of it. Direct recollection. I'm
15 relying on the notice as provided.

16 Q. So you later in the day
17 have a discussion with Mr. Boghosian, as I
18 understand your reference to your notebook, at
19 different time periods. Did Mr. Soldo advise you
20 that someone from legal or a lawyer was going to
21 contact you about the Red Hill?

22 A. I don't remember if he
23 used terms that explicitly. He's mentioned Nicole
24 Auty, and he's mentioned legal and auditor, but I
25 honestly don't have a recollection that he said,

1 you know, you're going to get a call from
2 David Boghosian later in the day.

3 Q. Thank you.

4 A. I assume I would have
5 written Boghosian's name in my notes if it, in
6 fact, it had been mentioned to me.

7 Q. Registrar, you can close
8 this down, and if you can call out 551, please.
9 This is the entry for -- that references
10 Mr. Boghosian, and before we get into its content,
11 had you worked with Mr. Boghosian on litigation
12 matters for other clients?

13 A. Well, I had worked for --
14 Mr. Boghosian had hired me as a retainer to do
15 expert work for traffic engineering and traffic
16 safety on projects I think starting back in, I
17 don't know, 2008 or something like that.

18 Q. Do you recall how this
19 call came to be? Did he call you out of the blue?
20 We don't have any evidence that there is anything
21 by e-mail to set this up.

22 A. Yeah, I think it was just
23 that, a call out of the blue. Direct call from
24 him.

25 Q. Thank you. So we have a

1 few different sources of information about this
2 call. There's the notes that are in front of you.
3 Then Mr. Boghosian makes some notes, and then also
4 he summarizes this conversation in his eventual
5 opinion. Do you recall ever seeing a copy of his
6 opinion?

7 A. No, not until preparation
8 for this inquiry.

9 Q. Thank you. There was two
10 versions that were circulated, the draft Boghosian
11 report and then the final Boghosian report. Is
12 your the evidence same on both, you didn't see
13 them until preparation for the inquiry?

14 A. Yes, absolutely.

15 Q. Thank you. I'm going to
16 leave your notes for a moment and go to
17 Mr. Boghosian's. Registrar, could you close this
18 out and go to the next page, please. Can you --
19 and the next page as well, please. Thank you.
20 Can you start by calling out 231.

21 Mr. Boghosian's notes start
22 with referencing the opening of the LINC and the
23 Red Hill at the top, and then at phase 1, and it
24 references October 2013, and then phase 2, 2015.
25 Just stopping there. Do you recall having

1 discussions with Mr. Boghosian setting out CIMA's
2 past work in 2013 and 2015?

3 A. I don't recall the
4 discussion, but it would seem natural to me that I
5 would have if the questions were talking about the
6 Red Hill and the LINC.

7 Q. Okay. At the bottom half
8 of this page, there seems to be a reference to, it
9 says "recommendation" on one side, and a number of
10 different recommendations that we know that CIMA
11 made over time, slippery when wet signs, speed
12 enforcement, vegetation trimming, oversized speed
13 limit signs, oversized curve signs, rain-activated
14 flashing lights. Do you recall providing this
15 information to Mr. Boghosian, or was he -- sorry,
16 and there's question marks or yeses beside them.
17 Do you recall providing this information to
18 Mr. Boghosian, or was he asking you about this
19 information from his own knowledge of what CIMA
20 had done? Could you assess that?

21 A. I think it was a little
22 bit of both. In reviewing his notes and mine in
23 preparation for this testimony, I get the sense
24 that he had or was aware of the two reports, the
25 2013 CIMA report, the 2015 CIMA report that

1 related to the Red Hill. And obviously having
2 those, would be aware of the various
3 recommendations that were included in those
4 reports. The way it's worded, I think he's
5 questioning me, asking, you know. The report
6 called for oversized speed limit signs. Are those
7 in place. And in a number cases, I would know
8 anecdotally that things had been done because I
9 was a regular user of the roadway, so I could
10 comment. In others, you know, I wouldn't know and
11 I would be either guessing or potentially aware
12 that something had not been done because, again,
13 not having seen it.

14 Q. Thank you. So where it
15 says yes, yes, yes for speed enforcement and speed
16 limit signs, that's you confirming that yes,
17 CIMA's recommendations from 2015 had been
18 implemented; is that right? Is that how you
19 interpret these notes given your recollection of
20 the meeting?

21 A. Correct, but I, again,
22 would clarify that it would be not me confirming
23 on behalf of or after consultation with the City.
24 It's me confirming based on what I've seen.
25 Again, I drove the road, drive the road regularly,

1 so I, for example, was aware that rain-activated
2 flashing lights on slippery when wet signs were
3 not in place. They were not present on the
4 roadway. At the time of this discussion, and
5 still don't think they are.

6 Q. Fair enough. There's a
7 reference at the bottom of this page to "paved
8 friction testing?" Do you recall Mr. Boghosian
9 asking you if were you aware of whether the
10 pavement friction testing recommendation that CIMA
11 had made in 2015 had been implemented?

12 A. I don't recall the
13 question being asked from the meeting, but I see
14 it listed and it was one of our recommendations,
15 so it's logical that he's asking on it, and the
16 question mark would indicate a response that I
17 wasn't aware or hadn't been made aware whether or
18 not it had been done.

19 Q. There's also a reference
20 to "PSV" with a less than arrow "problematic."
21 That's in the middle of the page. Do you see
22 that?

23 A. I do.

24 Q. Were you familiar with
25 PSV testing?

1 A. I know what it is. I
2 don't -- I don't do it on a regular basis, or it's
3 not part of what our normal business work is, but
4 I'm aware of it. I don't know if I stated that to
5 him. I kind of doubt I would have. I looked at
6 these notes, and I know we've talked about it in
7 some of the preparation for this testimony. I
8 still think that perhaps he had other information
9 that he's sort of merging together. The 30 is a
10 value in the range consistent with the friction
11 values from a design perspective and -- so maybe
12 there was some overlap in the discussion, but I
13 don't recall discussing that acronym specifically,
14 no.

15 Q. I don't want to go back
16 to it just given the callouts, but in your notes
17 there is reference to PSD testing equals 45 and
18 then some other references. Does that assist with
19 your recollection of having a discussion about PSV
20 or PSD?

21 A. It only assists in that
22 if it's written in my notes, it's an indication
23 that something has been stated and I'm
24 transcribing it. So to me, that means it's coming
25 from the other party in the conversation, not me.

1 I'm not transcribing my own words.

2 Q. Okay. In terms of
3 problematic, do you recall making any comments
4 about whether PSV less than 30 was problematic in
5 any way?

6 A. No, I don't.

7 Q. Do you recall discussion
8 about friction testing in general, conceptually
9 what it is, how it works, how it's done? Do you
10 remember any discussion about that?

11 A. No, I don't have a
12 sufficient recollection of the discussion. I see
13 the wording is listed, but I take that to be in
14 the context of the recommendations that had been
15 in the previous CIMA reports.

16 Q. Registrar, can you close
17 this callout for a minute, and on the right-hand
18 side, can you bring up HAM62512, and can you bring
19 up image 7, please. Pardon me, image 9, please.

20 Sorry, I think the picked the
21 wrong page reference. Just give me a second.
22 Image 7, please. I was right the first time.

23 Mr. Boghosian references --
24 summarizes a telephone conversation that he --
25 that he had with you on this date. The first part

1 is -- what we have already gone through, I think,
2 where he says "fully implemented," "partially
3 implemented," that is the recommendations from
4 2015.

5 Registrar, can you go to the
6 next image, please. When it says "implementation
7 unknown" at the top, "pavement friction testing,"
8 do you recall conveying to Mr. Boghosian why CIMA
9 had made pavement friction testing recommendations
10 in 2015?

11 A. No, I don't have a clear
12 recollection of having that discussion, no.

13 Q. Do you recall whether you
14 told him about the recommendations that were made
15 in 2013 for pavement friction testing?

16 A. I don't recall having the
17 conversation to that level of remembering whether
18 or not I told him. I see in the note on the left
19 side of the screen that there was discussion of
20 the October 2013 Greenhill/Dartnall Phase 1, what
21 he's writing as Phase 1, so I believe that there
22 would have been a broader discussion of the series
23 of reports CIMA had completed. Again, in
24 reviewing this in preparation for testimony today,
25 I certainly get the sense that Mr. Boghosian is

1 trying to -- has the CIMA reports and is trying to
2 understand the status of them and is querying me
3 about them. So, yeah, it wouldn't surprise me
4 that there was some discussion of friction in
5 both, but I don't have an independent recollection
6 of it.

7 Q. Thank you. Registrar,
8 could you go to image 10, please. Can you call
9 out the second paragraph under the heading B.
10 Mr. Boghosian references the -- well, I'll just
11 read it out: "In our opinion" -- so this is
12 Mr. Boghosian's opinion:

13 "The friction testing in 2013
14 provided no basis, in and of
15 itself, for any action to be
16 taken-- partly because Golder
17 made no recommendation to the
18 City about addressing this
19 issue, and also because the
20 '40' friction number
21 apparently has no basis in
22 industry standards recognized
23 in Ontario (as per our
24 conversation with
25 Mr. Malone)."

1 Do you recall conveying to
2 Mr. Boghosian in your call of December 11th, the
3 industry standards that relate to friction values?

4 A. I don't have a
5 recollection of the discussion. Just reading the
6 paragraph again.

7 Q. Sure.

8 A. I'm not sure I fully
9 understand it. We made the friction
10 recommendation in 2013, so I don't understand how
11 it can be interpreted to say that there's no call
12 for any action to be taken. If the action is to
13 do friction testing, I'm confused.

14 Q. I'm not interested in the
15 first part of this sentence. I'm interested in
16 the second where it says:

17 "The 40 friction number
18 apparently has no basis in
19 industry standards recognized
20 in Ontario (as per our
21 conversation with
22 Mr. Malone)."

23 That part, the reference to 40
24 friction numbers and the reference to no basis in
25 industry standards. Do you recall conveying

1 information about friction values and standards
2 that might apply to Mr. Malone during this call?

3 A. To Mr. Boghosian?

4 Q. Pardon me, to
5 Mr. Boghosian.

6 A. No, I don't. I think
7 this is a reflection that Mr. Boghosian has
8 information that I don't have and he's reporting
9 to the City in conjunction or with respect to
10 that. So I don't think the "per our conversation
11 with Mr. Malone" is me telling him the 40 friction
12 number; it's an interpretation of other
13 information that he's got.

14 Q. So you did not tell him
15 that 40 was some threshold or was not some
16 threshold on industry standards around assessing
17 friction?

18 A. No, because I've never
19 been provided any information that confirmed that,
20 certainly not in Ontario. That question I had put
21 to Mr. Moore back in 2015, and so it wouldn't have
22 come from me. I'm aware of friction numbers in
23 terms of geometric design criteria, but those are
24 significantly different, much lower, in the range
25 of 29 or 30 -- or .29 and .30.

1 Q. Registrar, can you close
2 this down, and you can close down that --
3 actually, you can leave up that document. If you
4 can call out the left-hand side again.

5 Mr. Malone, just so that we're
6 clear when we're talking about this, there is a
7 reference in Mr. Boghosian's notes that's about
8 halfway down where it says "really high proportion
9 of wet road crashes" about some five columns down.
10 Pardon me, five rows down. It and says "no
11 industry standard re pavement friction."

12 Did you convey that general
13 idea that there was no industry standards for
14 pavement friction to Mr. Boghosian?

15 A. Yeah, I wouldn't be
16 surprised I relayed that. That's consistent with
17 the discussions that took place in 2015 with
18 Mr. Moore, and my research at the time that had
19 not been able to provide a concrete confirmation
20 of industry standards for pavement friction
21 testing. The friction numbers themselves were
22 clear, in my mind, in terms of geometric design
23 parameters, but that's different than a standard
24 when testing is being conducted. It's the
25 question I put to Mr. Moore, and his answer back

1 to me and through other elements of my research
2 was that there wasn't one in Ontario.

3 Q. But you'll recall from
4 the back and forth with Mr. Moore and then again
5 with Mr. McGuire in 2018 that there was a
6 reference to FN30 being a potential threshold. Do
7 you remember that back and forth?

8 A. Yeah, but that's the same
9 number as the geometric design level.

10 Q. I see.

11 A. So that's what I'm
12 referring to, is that certainly there's a level, a
13 threshold, with respect to friction utilized in
14 geometric design considerations, and for -- it
15 varies depending on the design speed for the
16 roadway, but that threshold is either 29 or 30,
17 depending on which design speed you're selecting
18 from. But that's different than, as what we now
19 know in hindsight, the information that's relayed
20 in the Tradewind report about the UK investigatory
21 level standards.

22 Q. Thank you. Do you recall
23 conveying to Mr. Boghosian that you had had
24 discussions with Mr. Moore about friction testing
25 in 2015?

1 A. I don't recall -- I don't
2 recall it specifically. I don't have a sufficient
3 recollection of the discussion, and I don't see
4 anything in my notes or in his notes relating to
5 Mr. Moore. I mean, I think there potentially is
6 an overlap in the information, but no, I don't
7 recall that direct link to Mr. Moore said such and
8 such.

9 Q. Registrar, could you
10 close this down and got page 232 of OD9A on the
11 left-hand side. Thank you. Can you call out the
12 rest of Mr. Boghosian's notes, please.

13 So, Mr. Malone, just to give
14 you an opportunity, there is a reference at the
15 bottom of -- in these notes to -- a reference to
16 Mr. Moore involved in design and develop of RHVP,
17 very strong willed, refused to accept road might
18 be a problem, very D-E-F-'-I-V-E about its
19 condition. So you had said there wasn't a
20 reference. I think that's what you said to
21 Mr. Moore, and so obviously there's no reference
22 in Mr. Boghosian's notes to talking about the
23 discussions you had in 2015 around friction tests,
24 but I just want to ensure that I wasn't only
25 showing you part of the notes that Mr. Boghosian

1 had prepared and not the rest.

2 Does this help refresh your
3 memory either way about whether you told
4 Mr. Boghosian about your discussions with
5 Mr. Moore about friction testing that occurred in
6 2015?

7 A. I don't recall a
8 discussion with Mr. Boghosian about Mr. Moore
9 or -- relaying information from the communication
10 with Mr. Moore in -- that occurred in 2015.

11 I do recall the question, or I
12 see the note relating to, and I can provide some
13 memory of discussion about Mr. Moore, but it's in
14 a different context. It's in the context of his
15 involvement in the design and development of the
16 roadway from its inception or at least initial
17 stages, construction through to opening and
18 initial operation. So -- but it was, as shown in
19 the notes, more in the context of a question about
20 him and his personality.

21 Q. Thank you. We'll get
22 back to that in just one moment. Before we go
23 there, do you recall having a discussion or
24 conveying to Mr. Boghosian that you had 2007
25 friction results that Mr. Moore and later Mr.

1 McGuire, had provided to you?

2 A. I don't think I -- no, I
3 don't have any recollection of a discussion, and I
4 don't believe I made specific comment to it.
5 Again, it's vague at this point (audio dropped).

6 Q. Thank you. There's also
7 a reference on the left-hand side to discussions
8 about stone mastic asphalt, and there is several
9 lines here that deal with that. Aggregate larger,
10 less fines, small stones, large stones coated in
11 asphalt, and then it says "SMA can hold more
12 water/ doesn't drain away." And then "is closer
13 to tar and chip," for example. So I'm just sort
14 of giving you a sense of what those discussions --
15 or what the notes reflect.

16 Was that information that you
17 were providing to Mr. Boghosian about the
18 qualities of stone mastic asphalt?

19 A. Probably. I had become
20 aware of it through the initial discussions with
21 Mr. Moore in 2015, had done some research at that
22 point. The subject comes up again in the
23 communications with Mr. McGuire in 2018 which were
24 only a few months before this, so yeah, probably
25 relayed what knowledge I had or understanding,

1 elements of understanding that I had about SMA as
2 a material.

3 Q. Do you recall where you
4 learned during any of these discussions with
5 Mr. Moore, Mr. McGuire or Mr. Boghosian, that SMA
6 can hold more water and water sits in pockets
7 between large aggregates, so leading to something
8 which Mr. Boghosian quotes as micro-ponds? Do you
9 remember where you learned that information about
10 SMA?

11 A. I don't have a list of
12 specific references. I had done a bunch of
13 reference review, and of course in the original
14 material provided by Mr. Moore, there was a
15 scholarly paper that had some description or
16 discussion about skid resistance and design
17 aspects, elements of SMA asphalt. So I believe
18 components came from there. I also recall at some
19 point, not sure what year, I had a discussion with
20 an individual at a conference who was dealing with
21 pavement design and such, and so I raised the
22 question, oh, what about SMA, and we had a quick
23 discussion about it. This was in the U.S.
24 someplace, I forget where.

25 Q. Thank you. You had said

1 that the last reference on this page to Mr. Moore
2 was really more about his personality. What do
3 you recall telling Mr. Boghosian about Mr. Moore?

4 A. I think the description
5 here is consistent with what I would have said. I
6 don't recall the discussion precisely, but
7 Mr. Moore is, I'll just say, as is listed here, a
8 strong-willed individual. I do believe he refused
9 to accept that the road might have -- might be the
10 problem, the road itself, because we had had that
11 bit of back and forth, Mr. Moore and myself. I
12 know there's some question about what the
13 D-E-F-'-I-V-E means, and whether it means
14 defensive. I don't think I would have used the
15 word "defensive." I think Mr. Moore was
16 definitive. His personality wasn't to defend
17 something, because he believed he was correct in a
18 situation, and so he would be definitive about it.
19 Anyways, I'm not sure it makes much difference,
20 but that's my conclusion as to what that notation
21 means.

22 Q. So if Mr. Boghosian is
23 referencing -- is quoting you, you think that you
24 would have used the word "definitive" in relation
25 to Mr. Moore?

1 A. I do, only because in my
2 vernacular, defensive would be somebody who is not
3 confident in their position relating to something
4 and is trying to defend it; whereas somebody who
5 is definitive has confidence and would articulate
6 their position strongly. So that's why I think
7 that's the wording.

8 Q. Thank you.

9 A. Defensive is not the word
10 that would come to mind for me to describe
11 Mr. Moore.

12 Q. Thank you. Registrar,
13 can you close this callout and go back into the
14 right-hand page and go to image 7, please.

15 So we're just back in this
16 telephone conversation, just orienting you back to
17 this document because I know that you didn't
18 review it at the time it was prepared. So this is
19 a telephone conversation, and it goes over to the
20 next page. Registrar, can you go to the image 8,
21 please. Can you call out the paragraph that has
22 the three bullets. One asterisk. Thank you.

23 So you'll see there's a
24 reference in Mr. Boghosian's notes to this as
25 well. You can't see them now because the callout

1 is up, but it's referenced as one, two, three,
2 four. Mr. Boghosian says, "When asked to rank in
3 order of greatest contribution to the inordinate
4 numbers of wet road crashes, Mr. Malone advised as
5 follows," and that you ranked slippery of the road
6 as the first, speeds exceeding the capability of
7 the highway as second, curves on the road, and the
8 close proximity of on/off ramps.

9 Do you recall being asked to
10 rank in this way and providing this ranking?

11 A. When I read this in
12 preparation, I was surprised it was listed or
13 stated as ranking, because I really don't think I
14 would rank these numbers in terms of highest
15 priority, medium priority, low priority, that type
16 of ranking. I'm certainly not surprised that I
17 would have listed them. I think it's consistent
18 with the content of our previous reports, and
19 there's certainly elements that relate to
20 contribution of crashes in wet road conditions.
21 But part of the reason I wouldn't rank them is
22 that there is an inter-connection between them.
23 Slipperiness is -- becomes -- interacts with
24 speed, so if you're travelling at a lower rate of
25 speed, the slipperiness is not as key a component

1 as when you are travelling at a higher speed. So
2 I don't think I would have ranked them. I think
3 obviously Mr. Boghosian interpreted them as a
4 ranking, and maybe I stated them in this order,
5 which he took to be a ranking. But I wouldn't
6 necessarily rank them one, two, three, four,
7 highest to lowest. I just -- that's not the
8 terminology I would use.

9 Q. Fair enough. Leaving
10 aside the terminology of ranking, by 2018, would
11 you agree that the slipperiness of the road
12 surface as a potential contributor to wet road
13 crashes was crystallizing in your mind?

14 A. Oh, yes, I think there's
15 no doubt about that. I mean, it's come up now in
16 2013, it's returned again in 2015, the CIMA
17 studies. It's -- the wet road crashes, and
18 therefore potentially the slipperiness of the road
19 surface, is an element which is highlighted in the
20 various collision analyses that have been
21 completed. So yes, I think your wording is
22 correct, it is crystallizing as to whether or not
23 it's a factor.

24 Q. Well, okay. By 2018, you
25 knew that speed enforcement attempts were being

1 made on the Red Hill and that CIMA's
2 countermeasures had been -- started to be adopt --
3 many of them had been adopted, and over time by
4 2018, had slipperiness of the road surface been
5 elevated in your mind as a potential contributing
6 factor?

7 A. I think it's still
8 clearly present as a factor. I only had anecdotal
9 information with respect to the amount of
10 enforcement that was taking place, seeing it on
11 the roadway or not seeing it. So I didn't have
12 specific detail as to how much enforcement was
13 present, and therefore what speed levels were. We
14 had highlighted issues with respect to excessive
15 speeds in earlier reports, and I didn't have --
16 don't have specific detail as to how much
17 enforcement had been successful in changing driver
18 behaviour regarding speed.

19 So again, I think it's still
20 present. Some things have been done. Some things
21 I'm not aware of as to whether or not they have
22 done or the degree of success that they may or may
23 not have had if they had been implemented, such as
24 speed enforcement. So the continued presence of
25 crashes on -- elevated numbers of crashes on wet

1 road conditions continues to keep the roadway
2 surface condition as a contributing factor.

3 Q. Thank you, Registrar,
4 could you close this callout, and if you can close
5 the right-hand image, and if you can go to 230.

6 So, Mr. Malone, going back to
7 your notes -- Registrar, can you pull out 551.
8 You record that, under the pink sticky note, "City
9 FOI request Spec." Do you recall Mr. Boghosian
10 advising you that the City had received an FOI
11 request from the Spec?

12 A. I believe that's what
13 this note reflects, yes. The Spec being the
14 Hamilton Spectator newspaper.

15 Q. Yes. And then it says
16 "accident history, transitional," star, "CIMA
17 report," star, "didn't produce report." What do
18 you recall about those notations?

19 A. I don't recall much about
20 them, writing them, but my interpretation of them
21 now reviewing them is that it's Mr. Boghosian
22 providing me with some explanation as to what's
23 going on, there's an FOI request, and there's some
24 knowledge of the accident history, and the City
25 either hasn't or didn't or -- didn't produce the

1 report, which I'm --

2 Q. Which report? Which
3 report do you recall him identifying for you?

4 A. I'm assuming he's talking
5 about the CIMA report.

6 Q. And is that your
7 assumption sitting here today, or you don't know
8 either way?

9 A. That would still be my
10 assumption today. I mean, I've got no knowledge
11 of the Tradewind report at this point in time. So
12 on December 11, 2018, I can't assume anything else
13 because they don't know the Tradewind report
14 exists.

15 Q. Did Mr. Boghosian tell
16 you about the Tradewind report either by name or
17 by content during your call on December 11th?

18 A. Not to my recollection,
19 no.

20 Q. Are you confident in that
21 recollection that he did not?

22 A. Yeah, I think I am. I
23 probably would have scribbled Tradewind in there
24 if it had been something that he had mentioned.

25 Q. Sure. Well, what if he

1 hadn't used the name? What if he just said
2 something about a friction -- a report that dealt
3 with friction values on the Red Hill and the LINC?

4 A. Well, if he had done
5 that, then I wouldn't have interpreted -- I mean,
6 would've been -- I think it's been said a couple
7 times in this inquiry, like ships passing in the
8 night, he's saying one thing and I'm hearing
9 another. Friction, specifically friction testing,
10 has been discussed in the meeting based on some of
11 the notes, and so it's not as though friction
12 hasn't been talked about. But no, I have no
13 recollection of Tradewind having been mentioned,
14 described, even in a roundabout way. As maybe
15 you're suggesting.

16 Q. I ask of course because I
17 believe Mr. Boghosian will say that he did provide
18 you with information about the Tradewind report,
19 not the actual report but information. So your
20 recollection is different than his on this point;
21 is that right?

22 A. Well, my recollection is
23 mine. So --

24 Q. It's different than the
25 summary that I just gave you about what his

1 recollection was, that he did provide you with --

2 A. To me, the challenge is
3 if he's aware of the Tradewind report and believes
4 he's relaying aspects of that to me in the
5 conversation, and I'm not aware of the Tradewind
6 report and I'm hearing something that is talking
7 about friction and I'm aware that we have
8 requested -- or not requested -- suggested that
9 friction testing should be undertaken on two
10 occasions, yes, the two -- there's two parts --
11 parties to the conversation, but I'm not hearing
12 the Tradewind piece of it, if in fact it was
13 presented in some way to me.

14 Q. Thank you. Were you left
15 with any impression from Mr. Boghosian that he had
16 friction value information that you didn't have?

17 A. Going back and reviewing
18 my notes, no, I don't think so at all. I wasn't
19 aware of it, didn't know of the existence of the
20 Tradewind report, had not been provided it. No, I
21 didn't feel that there was something that he was
22 being secretive about and wasn't holding back from
23 me. I took the conversation, as the note under
24 the pink mark indicates, CIMA report, and so --
25 that his discussion, his conversation is around

1 FOI request and the CIMA report releasing --
2 producing the CIMA report. So at best, that's
3 where I would have interpreted the communication.

4 Q. Thank you. Did
5 Mr. Boghosian provide you with any documents
6 either immediately before or immediately after
7 this call?

8 A. No, not to my
9 recollection, and I have no --

10 (Speaker overlap)

11 Q. We have no evidence of
12 e-mails or anything like that. I just wanted to
13 ensure that the record was clear.

14 A. No, I would -- to clarify
15 and emphasize that point, any materials I would
16 received from a party like Mr. Boghosian, we have
17 a fairly rigid system. We're ISO certified here
18 at CIMA, and receipt of external documents from a
19 client or from an external party that may relate
20 to a project we're working on would be received,
21 documented, and recorded in our file system. And
22 there's nothing there.

23 Q. Thank you. Did you have
24 any additional work or to-do items coming out of
25 this meeting with Mr. Boghosian, did he ask you to

1 do anything?

2 A. Not to my recollection,
3 no. In fact, it was a little bit confusing. I
4 think the -- the notes that I make and relay later
5 on is I sort of thought he was communicating with
6 me about a potential expert opinion assignment
7 because that's the context with which I had had
8 communications with Mr. Boghosian in the past. So
9 I think I was sort of left with, m'mm, not quite
10 sure what that was about.

11 Q. Registrar, you can close
12 this down, and if you can go to page 241 of OD9A,
13 please. Can you call out 566. Actually can you
14 call out 567 as well with that.

15 You attended a meeting with
16 the City on December 12, 2018 relating to the
17 lighting study. Do you recall any discussions
18 with Mr. McGuire or any attendee about friction at
19 this meeting?

20 A. No, there's no series of
21 notes in my notebook that I have provided. That's
22 my primary recollection of the meeting, and no, I
23 don't think there's anything about friction.

24 Q. Thank you. Registrar,
25 could you close this down and go to the next page,

1 please. And call out the notation under the page
2 number at the top. The screenshot. Thank you.

3 So this is a screenshot from
4 that day, and it says: "Gord McGuire post meeting
5 discussion, re Red Hill plus FOI request."

6 Do you recall having a
7 discussion with Mr. McGuire about the Red Hill or
8 an FOI request after the lighting study meeting?

9 A. I don't have any real
10 clear recollection of the discussion. I think the
11 notation is sort of a reflection that Mr. McGuire
12 is now aware that Mr. Boghosian has talked to me,
13 and so he's relaying some of the same information
14 about the FOI request.

15 Q. The fact of the FOI
16 request, that the City received an FOI request?

17 A. I'm assuming so, yes.

18 Q. Do you remember anything
19 else about the discussion with -- first, if you
20 had a discussion with Mr. McGuire on that day, and
21 anything about the substance of it?

22 A. I don't have any strong
23 recollection, but probably relayed to him that I
24 had spoken to Mr. Boghosian the day before.

25 Q. Thank you. Registrar,

1 you can close this down, and can you go to
2 page 250, please. Can you call out 591.

3 So this is December 13.

4 Mr. Boghosian asks you for a draft of the roadside
5 safety assessment, and you send a voice mail to
6 Mr. Soldo and you also communicate with Mr.
7 McGuire. I'm just pulling up one of the various
8 discussions about this. All of them suggest that
9 you're seeking permission from Mr. Soldo and Mr.
10 McGuire to provide CIMA reports prepared for the
11 City to Mr. Boghosian. Why were you seeking such
12 permission?

13 A. Mr. Boghosian wasn't my
14 client. So the client and the two reports was the
15 City of Hamilton, and I wouldn't release a report
16 done for one client to somebody else unless I got
17 permission for that. Sorry, I've lost audio.

18 Q. There appears to be a
19 fire alarm in our building. I'm just going to go
20 on mute for a moment and see if it passes. I'm
21 sorry to have to do this through the noise. This
22 is an unannounced issue, and I'm not getting any
23 notification about what it is. Commissioner, it
24 is 15 minutes before our usual break. I'm going
25 to suggest that we take a break now, and hopefully

1 we can come back at 11.

2 JUSTICE WILTON-SIEGEL: I

3 think that's a good idea. Let's take our break a
4 little bit early. So we'll adjourn. Can people
5 hear me?

6 THE WITNESS: Yes.

7 (DISCUSSION OFF THE RECORD)

8 --- Recess taken at 10:47 a.m.

9 --- Upon resuming at 11:05 a.m.

10 MS. LAWRENCE: Commissioner,
11 the fire alarm seems to have resolved itself. May
12 I proceed?

13 JUSTICE WILTON-SIEGEL: Yes,
14 please do so.

15 BY MS. LAWRENCE:

16 Q. Sorry about the impromptu
17 break.

18 You were answering a question
19 of why you sought permission from Mr. Soldo and
20 Mr. McGuire to provide CIMA-- reports that CIMA
21 had prepared for the City to Mr. Boghosian, and
22 I'm not sure I heard your answer.

23 A. The reason I sought
24 permission is because Mr. Boghosian wasn't a
25 client of mine and the reports were done for the

1 City of Hamilton, so they wouldn't release a
2 report to somebody external to the City unless I
3 had permission from the City to do so.

4 Q. But you were clear that
5 Mr. Boghosian has acting for the City, right?

6 A. Yeah. My understanding
7 was he was acting on behalf of the City, but I had
8 no contractual engagement with him at the time.
9 So I wasn't prepared to release the content of
10 reports that I had done for the City without their
11 permission. It's a normal practice, we don't
12 release -- we don't release anything that we've
13 done for one client to anybody, the public or
14 media or anyone else, unless permission is given.

15 Q. Thank you. In seeking
16 permission from Mr. Soldo and Mr. McGuire, did you
17 have any discussions with either of them about who
18 the point person would be with you in respect of
19 Mr. Boghosian's work? Was it going to be
20 Mr. Boghosian or could you also speak to Mr. Soldo
21 or Mr. McGuire?

22 A. I'm not sure I really
23 knew what Mr. Boghosian's work was, so I guess I
24 never contemplated that. I didn't know what
25 Mr. Boghosian was doing precisely. He hadn't

1 engaged me formally, so at this point there is no
2 interaction between the two of them. Obviously
3 he's working for the City but -- I never
4 contemplated that particular question.

5 Q. And you didn't have
6 discussions with Mr. Soldo or Mr. McGuire about
7 who would be your point person, whether it would
8 be them or Mr. Boghosian?

9 A. Well, to me the question
10 is more, point person for what? So I don't know
11 what it is he would be point person for.

12 Q. Fair enough. Thank you.
13 After your call with
14 Mr. Boghosian on December 11 and other than your
15 contact to provide the reports to him, did you
16 have any additional discussions with Mr. Boghosian
17 about the Red Hill between December 11 and
18 January 30?

19 A. No, not to my
20 recollection. I have no notes to that effect.

21 Q. Thank you. Registrar,
22 can you bring up OD9, page 278. So you'll see at
23 the bottom of this page on January 2nd, you
24 reached out to Mr. McGuire asking if you were
25 still needed for a PWC meeting on January 14.

1 What did you understand your role would be at this
2 PWC meeting?

3 A. There had been previous
4 discussions in the fall of 2018 that there was
5 going to be a joint report submitted by Mr. Soldo
6 and Mr. McGuire presented at a PWC meeting and I
7 believe Mr. McGuire had told me it was going to be
8 January 14 and to hold that date to be present in
9 the session when their report was going to be
10 presented, in case there were questions for the
11 consultant.

12 So I had it in my calendar,
13 returned from holidays, Christmas holidays, and
14 was just checking the status of that because I
15 still had a placeholder in the calendar.

16 Q. I understand the
17 reference to why you're reaching out on the
18 scheduling issue, but what did you understand the
19 purpose of your role to be at the PWC meeting that
20 you had been requested to attend?

21 A. Just as I said, it would
22 be to be a reference, potential reference to
23 questions that may come since CIMA had been the
24 consultants authoring various reports that were
25 being condensed and reported to at that meeting.

1 Q. Thank you. Registrar,
2 can you go to the next page, please. In
3 paragraph 649, Mr. McGuire wrote to Ms. Auty and
4 Mr. Sabo who are in the legal services department
5 and asked if either had connected with you and
6 that he was in a meeting today and wanted to
7 understand next steps.

8 By January 3rd, had you spoken
9 to Ms. Auty or Mr. Sabo or anyone else employed in
10 the City's legal department?

11 A. No, not directly. I'm
12 assuming Mr. Boghosian is sort of their extension.
13 But no, not Ms. Auty or Mr. Sabo or anyone else.

14 Q. Registrar, can you go to
15 page 286, please. CIMA provided a draft advanced
16 version of the roadside safety assessment to the
17 City and the City then circulated it internally to
18 seek comment on it. Ms. Jacob from engineering
19 services had some comments, and one of them
20 related to skid resistance.

21 Registrar, can you pull out
22 the fourth bullet point, please. There's a
23 reference to what the report says, so we won't
24 actually go into the report because it's right
25 here. Immediately after the resurfacing is

1 complete and provided that adequate wet weather
2 skid resistance is achieved, remove all slippery
3 when wet signs and monitor collisions.

4 So that was in the context of
5 CIMA's recommendation and the RSA to install
6 slippery when wet signs. And she says, Ms. Jacob:
7 "This seems rather vague. How do we determine
8 what is adequate skid resistance and how long
9 should this be monitored, who will be doing the
10 monitoring, also when and who was installing the
11 slippery when wet sign."

12 So just stopping there. Do
13 you recall receiving Ms. Jacob's comments? And
14 perhaps before you answer, I'm going to go to
15 CIMA's response in just a moment.

16 A. No, I don't recall
17 receiving it. I would have to look at the e-mail
18 to see if I was in the thread or not.

19 Q. Registrar, can you close
20 this down and go to 260, please. I'm sorry, I
21 confused my page numbers, can you go to 316,
22 please.

23 So this is the log that Mr.
24 Soldo provides in response to the city's comments.
25 Registrar, can you call up the next page as well?

1 And if you can call out the third row, please.

2 Page 18, section -- so that's the first row, so

3 down and then the next one, the next one down.

4 Perfect. Yes, thank you.

5 So this is Mr. Salek's
6 response. Was this table approved by you or did
7 Mr. Salek have responsibility to provide comments,
8 response to comments, on the RSA.

9 A. He certainly would have
10 had the ability to respond and the authority to do
11 so. I don't recall if I reviewed it specifically.

12 Q. Thank you. So the
13 reference here is -- an assumption that the
14 contract for resurfacing stipulates that the
15 contractor is responsible for delivering payment
16 that complies with all applicable standards and
17 then just above that, adequate skid resistance
18 should be based on technical standards and then at
19 the bottom it says, monitoring of collisions
20 should be done yearly on an ongoing basis and
21 slippery when wet should be installed if when the
22 OTM book 6 conditions are present. What are OTM
23 book 6 conditions?

24 A. OTM refers to the Ontario
25 traffic manual. It's the guideline -- prevailing

1 guideline in the province of Ontario and book 6
2 relates to warning signs and there is guidance in
3 that document regarding the use and installation
4 of slippery when wet signs. So that's what it's
5 referring to.

6 Q. Where it says adequate
7 skid resistance should be determined based on
8 technical standards, what technical standards is
9 being referenced here, if you know?

10 A. We're not referencing
11 one, I don't believe. I think what we're
12 highlighting to the City is that they should make
13 a determination as to what technical standards
14 they will undertake their assessment based on.

15 Q. You can close this down.
16 Can you go to page 311, please. Can you call out
17 312 as well, please. Thank you.

18 So in mid-January,
19 Mr. Ferguson, on behalf of the City asked CIMA to
20 update the 2018 CIMA collision memo into what the
21 inquiry calls the 2019 CIMA collision memorandum,
22 and you'll recall the last time were you before
23 the inquiry we had some discussion about the 2018
24 collision memo. So you'll see on January 15, Mr.
25 Salek provided Mr. Ferguson with an updated memo.

1 It appears you reviewed this memo before it went
2 out -- documents; is that right?

3 A. The memo goes out under
4 my name, if I remember correctly.

5 Q. Yes, it does.

6 A. So yes, I would have
7 reviewed it in response, if that's the question.

8 Q. Yes, it was. And you had
9 said on the last day that you were not directly
10 involved in the preparation of the 2018 memo but
11 you were involved in the preparation of this memo;
12 is that right?

13 A. I'm aware of the 2019
14 memo and there were questions, issues relating to
15 the differences in the data between the City and
16 other jurisdictions that are explained and
17 clarified in the 2019 memo.

18 Q. And we did, again, talk
19 about this last time but perhaps I can paraphrase
20 and you can confirm if this is accurate, that this
21 2019 memo used both police reported and
22 self-reported collision data, whereas the 2018
23 memo had not used self-reported data; is that
24 right?

25 A. From the City, yes.

1 Q. From the City, yes. And
2 the comparator highways that had been used in 2018
3 and were used again in 2019 used MTO data that
4 included self-reports?

5 A. That's my understanding,
6 yes.

7 Q. So the 2019 collision
8 memo was really comparing apples to apples. That
9 is data sets that included both police reports and
10 self-reports; is that right?

11 A. Yeah, it's comparing all
12 the apples to all the apples.

13 Q. Thank you. And the Red
14 Hill collision rate was higher than the LINC
15 collision rate and higher than the comparator
16 highways?

17 A. For overall collisions,
18 yes. Fatal injury and property damage only, yes.

19 Q. Registrar, can you go to
20 CIM22412, image 70, please. You can close down
21 page 311 and could you call out the next -- the
22 image I'm looking for, image 70 and you can also
23 call out 71.

24 THE REGISTRAR: Sorry,
25 Counsel. This document only has 13 images.

1 MS. LAWRENCE: I am sorry.
2 Can you go to image 4, please. Sorry about that.

3 THE REGISTRAR: That's okay,
4 thank you.

5 BY MS. LAWRENCE:

6 Q. Mr. Malone, this is a
7 note dated January 15, and it references call from
8 Edward Soldo, memo update, HAM2017, HAM -- I can't
9 quite read that, 2017 and then 2016. So this is
10 the same day that MS. Salek provides the memo to
11 Mr. Ferguson, that is the 2019 collision memo. Do
12 you recall what this call was about?

13 A. It's about the -- I
14 believe it's about the 2019 collision update that
15 we just talked about.

16 Q. Do you recall why Mr.
17 Soldo was reaching out about that memo?

18 A. I'm assuming he's just --
19 I don't recall the conversation precisely but
20 reading the notes, I believe he's asking for
21 confirming clarification of the information that's
22 used in the study and the two notes, the HAM2017
23 indicates to me the data was collected or
24 available for Hamilton up to the end of 2017 and
25 for MTO or the other or 2016 or something to that

1 effect.

2 Q. Okay. And did he seek
3 clarity about the differences in the collision
4 rates found in the 2018 versus 2019 collision
5 memoranda?

6 A. I don't recall.

7 Q. Did you discuss friction,
8 friction values, the Tradewind report or the
9 Golder report during this call?

10 A. Not to my recollection.
11 My notes do not reflect that we did.

12 Q. Registrar, can you close
13 this down and go to next two pages, please. Thank
14 you. So these are notations dated January 18 and
15 there's a reference to Edward Soldo, 10 a.m. on
16 the left-hand side and then there's also reference
17 to Edward Soldo phone on the other side. Do you
18 recall did you have two different discussions with
19 Mr. Soldo on January 18?

20 A. Recollection isn't strong
21 given the length of time that's passed. In
22 reviewing my notes, I clearly see there's a
23 physical separation between the two notations with
24 a series of other projects that are dealt with in
25 between so, yes, I believe it's two separate --

1 Q. Okay. What do you recall
2 about these calls as refreshed by these notes?

3 A. I have to look at them to
4 see. The one on the left-hand side of the screen,
5 annual collision report, vision zero, speed limit,
6 LINC, to me it's an overview from Mr. Soldo
7 describing the kinds of things he's going to be
8 describing in the portion of the report that I
9 understand he's going to be writing.

10 Q. Maybe I'll just stop you
11 there, the next line says no recommended change.
12 Did Mr. Soldo advise you of the staff's view that
13 CIMA's recommendation of no change in the speed
14 limit study was -- that staff were not going
15 follow that. That they were going to recommend
16 something different to the PWC?

17 A. I don't have that
18 specific recollection of the meeting, of the call.
19 I've noted no recommended change. I think that's
20 him confirming in discussion with me that what is
21 the content of the CIMA report, which is no
22 recommended change. So -- but I don't have a
23 recollection at this point he articulates to me
24 that the City is proposing something different.

25 Q. There's another

1 reference. Close to the bottom, it's the third
2 sentence up. It says design SPEE, S-P-E-E. Do
3 you recall having any discussions with Mr. Soldo
4 about design speed again during this call of
5 January 2019?

6 A. I really don't, I don't
7 recall the context.

8 Q. And then is there
9 anything else you can remember about these calls
10 that is relevant to the inquiry?

11 A. In reviewing them and
12 knowing that they are physically separated in
13 time, I think what occurred was Mr. Soldo speaks
14 to me in the morning, looks like 10 o'clock, we go
15 over some points, including the fact that CIMA had
16 not made a recommendation for a change and then in
17 the afternoon he sort have -- he's gone away and
18 then in the afternoon or later in the day, he
19 returns back and the second phone call is he's
20 reached his conclusion that he's going to make a
21 recommend for a change in the speed limit.

22 Q. Thank you. In the right
23 hand side it says adamant does know. Did any
24 reference to what that is about?

25 A. I think it's supposed to

1 be adamant does and probably not but I don't know
2 exactly what it refers to. He had reached a
3 different conclusion than we had in our report,
4 which of course he's capable of doing. He
5 obviously also had different information than we
6 had. So we didn't have the Tradewind report at
7 this point. That may have been an influencing
8 factor in his decision, I'm not sure. I didn't
9 author nor approve the speed limit report but I
10 was familiar with it. I agree -- agreed with it's
11 conclusions to not recommend a change and I think
12 we agreed to disagree.

13 Q. Did he explain the
14 rationale for his recommendation to PWC to change
15 the speed limit from Greenhill to the QEW?

16 A. I don't recall that
17 occurring in this discussion. I've heard his
18 testimony at this inquiry and so I understand more
19 clearly, more fulsome description of his rationale
20 for the decision that they have made but of
21 course, the municipality has the authority to
22 designate the speed limit and he can make whatever
23 decision he wants, but I don't recall him telling
24 me specifically at this meeting what his reasons
25 were or were going to be.

1 Q. Do you recall having any
2 discussion about the confluence of wet road
3 crashes and the information that you put in the
4 Red Hill safety assessment, which was later in
5 time than the lighting study in terms of drafting,
6 and whether Mr. Soldo conveyed to you that if
7 those two things were relevant to his decision to
8 recommend dropping the speed limit in that portion
9 of the Red Hill?

10 A. I don't recall him
11 relaying that to me in that level of detail.
12 There are a number things, obviously, taking place
13 in fairly short order, lighting study, speed limit
14 study, collision update review in early 2019. So
15 there's multiple pieces of information on the
16 table for him to take into account and of course
17 he has a whole other set of inputs relating to the
18 political side and/or whatever other information
19 they may have had in their possession.

20 Q. Thank you. And do you
21 recall any discussion with Mr. Soldo during these
22 calls about the -- about a report on friction
23 values that the City had?

24 A. No --

25 Q. Whether it was called the

1 Tradewind report or just referenced more
2 generically?

3 A. No, I do not. Again, if
4 Tradewind or the subject matter had been relevant
5 or significant in the discussion, I probably would
6 have made a note in my notebook.

7 Q. Thank you. Registrar,
8 can you go the next page, please. On January 22,
9 2019, you have a notation, Hamilton Red hill past
10 studies, recognizing that's a little divorced from
11 any context, do you have any idea what this
12 relates to?

13 A. I do have little bit of a
14 recollection. We got a series of requests from
15 staff at the City for us to provide them with
16 copies of past reports, past studies that we had
17 done and in the context of can you provide us with
18 a copy of the report such and such that we think
19 was completed in such and such a year and there
20 were several that had come up.

21 In hindsight, I think this is
22 in response to the audit that was taking place of
23 looking for work that had occurred but I honestly
24 don't remember. That's my recollection of what
25 this note refers to. We provided electronic

1 copies or -- yeah, mostly electronic copies of
2 materials when and if we were requested.

3 Q. Registrar, you can close
4 this down. There was a closed session of city
5 council on January 23rd, did anyone tell you
6 before that closed session that it that was going
7 to occur or what it would be about?

8 A. No.

9 Q. The inquiry -- we have
10 minutes from it, we know you did not attend. We
11 also know that you had a discussion with
12 Mr. Boghosian and a number staff on January 30th.
13 Before January 30th, so between the 23rd and the
14 30th, did you have discussions with anybody at the
15 City about anything to do with the Red Hill?

16 A. Not to my recollection.
17 If I did, there would have been likely a note in
18 my diary but I don't believe so, no.

19 Q. Apologies, Commissioner,
20 I'm just having a tech issue. My computer is
21 frozen at the moment. Registrar, can you go to
22 OD9A. Page 354. Can you call out 355 as well.

23 On January 29, there's some
24 discussion between Ms. Auty and Mr. Boghosian
25 asking for some availability for a call. And on

1 that same day, Mr. Amrani e-mailed Mr. Field a One
2 Drive link. I'm at 342 and 343. Also on that
3 day, you requested access to relevant reports to
4 be presented at the PWC meeting. Mr. McGuire
5 responds the following day, as discussed with
6 Edward that there will be an assignment.

7 I wanted to provide that to
8 you that the context is not entirely clear and we
9 can go into the document, just to ensure if you
10 had -- if that refreshed your memory at all about
11 if you had spoken to anybody before -- in between
12 the 23rd and the 30th when you have calls with
13 various staff.

14 A. Yeah, I think this is now
15 my understanding, that there's going to be a PWC
16 meeting, the one that I had asked about on
17 January 14, where the joint report was going to be
18 presented has been pushed back to February
19 something, so the date is coming along. I
20 probably sent an e-mail saying can you provide me
21 with the reports that are going to be on the
22 meeting that you are asking me to be attend and
23 reference for. I hadn't seen any reports at this
24 point. So I don't really consider that to be
25 discussion about the Red Hill but, fair enough.

1 Q. Thank you, that's
2 helpful. So it was related to your attendance at
3 the PWC, not some new assignment that you were
4 going to get paid for your attendance at PWC is --
5 am I interpreting that appropriately?

6 A. Not sure if I understood
7 you correctly. My understanding was that the
8 January 14 meeting that I had asked about on
9 January 2nd is put off, is delayed and now there's
10 a meeting that the content of that, which I
11 understood to be presentation of a joint report by
12 Mr. Soldo and Mr. McGuire is going to occur
13 February, I think it's February 4th, and the date
14 is quickly approaching and I don't have the
15 content that they are going to submit to the
16 meeting, which I potentially am going to be asked
17 questions, so I'm trying to get prepared in
18 advance of what I understand to be a meeting on
19 February 4 that I'm supposed to be attending,
20 which at this point, I think I still believed was
21 going to occur.

22 Q. No, I don't think you
23 misunderstood me. I recognize that you're asking
24 about the PWC meeting and trying to get more
25 information from it. But you'll see Mr. McGuire

1 responds, as discussed with Edward, there will be
2 an assignment. An assignment strikes me as a very
3 different -- odd way to describe yes, you're going
4 to come to the PWC meeting.

5 How did you understand there
6 will be assignment? Was it yes, there will be a
7 PO assigned so you can -- your time at the PWC
8 will be covered or did you understand it to be
9 some new and different retainer of CIMA?

10 A. Well, assignment to me
11 would mean something new and different. The note
12 says Mr. McGuire responds the following day, which
13 would be the 30th. If you can show me the e-mail
14 that this is referring, I'm assuming it's e-mail,
15 then that might be of assistance.

16 Q. Absolutely. HAM289 --
17 pardon me, 28292.

18 A. Yes.

19 Q. I think we're going to
20 come to this. I think that there's a call
21 sometime either starts at 4, maybe it starts at
22 4:30 and this is from 4:37 on the 30th.

23 A. My notation has that
24 meeting on the 30th as starting at 4 p.m. so it
25 seems odd that they overlap. Maybe it's Mr.

1 McGuire following up after the meeting on the 30th
2 is actually initiated. I'm a little confused.

3 Q. As I am. Thank you.

4 Registrar, you can close this down. If you can to
5 9A, page 358. If you can call out the table at
6 the top, please. So these are Mr. Boghosian's
7 notes as transcribed. They are from January 30th
8 in the morning at 10:30 and it's a telephone call
9 between Mr. Boghosian, Ms. Auty and Mr. Sabo, and
10 so this is after the 23rd, and I anticipate this
11 will be in reference to the events that happened
12 on the 23rd, the closed session.

13 So council quite concerned
14 about situation, haven't given the Tradewind
15 report. Council wants to know. And then there's
16 one, if Brian Malone/CIMA had the Tradewind
17 report, two, is there anything else CIMA thinks
18 needs to be done to address safety, slipperiness
19 as interim measures pending repaving.

20 So we're going to come to the
21 call on January 30th but just so that the evidence
22 is very clear, by January 30th at 10:30 a.m., you
23 did not have a copy of the Tradewind report; is
24 that correct?

25 A. That is correct, yes.

1 Q. And you were not aware of
2 its existence?

3 A. To the best of my
4 knowledge, yes.

5 Q. And you were not aware of
6 the existence of a report about friction values on
7 the Red Hill and the LINC?

8 A. I was aware of the
9 reports that had been done in 2007 and 2013 by
10 what I understand to be the MTO as reported to me
11 by Mr. Moore.

12 Q. And when you say the --
13 reference to 2013, that's from the e-mails that
14 Mr. Moore sent you and then Mr. McGuire sent you?

15 A. Correct, and the e-mails
16 that Mr. Moore provided in response my questions,
17 confirming that, I think his wording was something
18 to the effect of both of those tests were done by
19 MTO. I realize, obviously, in hindsight, that
20 e-mail includes the word Tradewind but I didn't
21 understand it to be the Tradewind report, in
22 quotations that we're talking about now. Those
23 where the only friction testing results that I had
24 been made aware of.

25 Q. Registrar, can you close

1 this down and go to 376, please. Can you call out
2 870. We're going to come back to some of the
3 notes and information about the call on
4 January 30th with various staff but after that
5 call, you report to some of your colleagues the
6 following, and this is the first full paragraph.

7 I had a call from Edward Soldo
8 late in the day Wednesday January 30, asking me to
9 -- teleconference management team regarding, in
10 regards to the Red Hill safety issues. The entire
11 public works management team, the city solicitor
12 the acting city manager, communications director
13 were on-line as was our external lawyer, David
14 Boghosian. The call took place from 4:30 to after
15 six with follow on calls from Edward and Gord M,
16 directly.

17 Just stopping there so we can
18 understand how you're afternoon progressed. Do
19 you recall first speaking with Mr. Soldo before
20 speaking with the larger team on January 30th?

21 A. I don't really recall
22 that discussion. This note indicates that's what
23 occurred but I don't recall it.

24 Q. So you don't recall Mr.
25 Soldo teeing up or asking if you had time or

1 anything like that?

2 A. No, I don't recall it,
3 no.

4 Q. And then there is the
5 broader discussion, and you say at the time that
6 the call took place between 4:30 to after six. I
7 think earlier you said it was 4 --

8 A. No, I see in my notes now
9 I've got 4 o'clock, 1600 hours listed for Edward
10 Soldo, and then in the note after that is when the
11 meeting notes begin, so presumably that's the 4:30
12 time or whenever it actually started or I was
13 brought in on it I think.

14 Q. And then after the
15 meeting with the large team that you reference
16 there, you say there was follow on calls from
17 Edward S and Gord M directly.

18 Do you recall speaking to Mr.
19 Soldo or Mr. McGuire after the larger meeting?

20 A. I do recall there was a
21 discussion. I don't really remember the content
22 of it. I just know there was a -- like I believe
23 it was Gord McGuire who called me. I'm not fully
24 sure, and I'm not sure if both of them were on the
25 call or not. But it was separate from the broader

1 discussion that takes place at 4:30 to 6.

2 Q. So just stopping there,
3 so you think that Mr. McGuire called you
4 afterwards but you're not sure whether Mr. Soldo
5 was on that call?

6 A. Yeah, my notes aren't
7 perfectly clear. I have Gord McGuire listed in
8 the notes. I think it's initiated by Mr. McGuire,
9 I'm not positive and I think Mr. Soldo is on the
10 meeting, but -- I'm not clear. And to be clear
11 this is post the meeting with the large group.

12 Q. Yes, thank you, that's
13 what I understood.

14 Registrar, you can close this
15 down. We do have a number of sets of notes
16 relating to this call. I'm going to go to yours
17 first. Registrar, can you go to CIM22412, image 7
18 and 8, please. Pardon me, I should have said 8
19 and 9, please.

20 Registrar, can you go to 9 and
21 10, please. Thank you.

22 These are your notes or at
23 least the beginning of your notes, they continue,
24 and at the bottom you have Edward Soldo and then
25 you have a list of a number of people. Could you

1 identify where it says "1600 Edward Soldo" and
2 then it has the list after. From your
3 recollection, you had a call with Mr. Soldo first
4 and then the rest of the people that are listed
5 here got on the call; is that right?

6 A. Yeah. Now and reviewing
7 the other reference material provided I think,
8 yes, that's what took place. I didn't really
9 recall the initial tee-up, as you describe it,
10 with Mr. Soldo but it appears that's the way it
11 happened.

12 Q. I think for everybody's
13 benefit, I'm actually going to go to a
14 transcription of the rest of these notes, just to
15 try to have it a bit easier for everybody to read.

16 A. I have a hand written
17 copy in front of me, which I'm going keep open
18 because for me, the hand written is a better,
19 easier reference than the transcription. It's
20 disembodied, so it's harder in the transcription
21 for me.

22 Q. Okay.

23 A. I'll follow the
24 transcription. No worries with that. The context
25 is easier for me to read in the handwritten, maybe

1 not everybody else but --

2 Q. That's fair, I just don't
3 want you to have to try to figure out legibility
4 as well as the substance.

5 Why don't we stay in this
6 document then, at least for a moment.

7 So I do have a number of other
8 notes that also reference this call from other
9 people on the call, but before I get into it, I
10 just sort of wanted to understand, generally, the
11 nature of the conversation that was occurring with
12 this larger group, in particular, was it like sort
13 of a question and answer with Mr. Boghosian or was
14 it were you on receive? I'm just trying to
15 understand how you recall the nature of that
16 conversation.

17 A. Well, I think stepping
18 back half a step, as of the day before, I think
19 I'm still preparing lining up to go to a public
20 works committee meeting on February 4th I think it
21 is. Asked Mr. McGuire for confirmation of the
22 materials that are going to go and then this thing
23 occurs, so I think when it starts I'm of the view
24 that this is in some way connected with that
25 meeting that I'm prepared to go to on the 4th.

1 And then I guess both because of the range of
2 people that are there, including Dan McKinnon and
3 Mr. Zegarac. I realize it's a bigger context than
4 what I had thought. Do my best to scribble down
5 names of the people who are being introduced
6 around the table, it's a phone call, not a video
7 call. So I'm listening in and I'm mostly trying
8 to absorb what is being described, so I'm playing
9 catch up, for lack of a better description.

10 Q. Who was leading the call,
11 in your view?

12 A. It's a good question.

13 Q. I can put it differently.
14 You said you're trying to absorb what is being
15 described. Who is the primary person providing
16 with you information on this call?

17 A. For some reason I think
18 it was Nicole Audi but I don't even see her name
19 here.

20 Q. She's the first one,
21 Nicole Audi.

22 A. Okay, sorry.

23 Q. A-U-D-I. So misspelled,
24 but I think that's her.

25 A. I believe she was the

1 --and again, somewhat vague, but that's my
2 recollection, was she was leading some of that
3 conversation.

4 Q. Okay. Registrar, just
5 for the benefit of others who might find the
6 transcription a little easier, on the left-hand
7 side, could you bring up OD9A at page 360. So
8 this is at least the beginning of what's on the
9 other page. So there is a reference to February 6
10 council meeting, various reports, RSA, de-fic
11 curve, barrier curve, not stop, long term TMP
12 measures, lighting, collision analysis most
13 recent. Other means now to resurface, drop speed,
14 D. Lynn M, more actions, Mike Zegarac,
15 enforcement, no direct enforcement, city will send
16 friction report in front of council to present.

17 So I don't know if that is
18 helpful to answer that question -- but at this
19 point, it looks like it is a back and forth about
20 some of the work that CIMA has done up to that
21 point. Is that how you recall the meeting --

22 A. I think the attribution
23 of the input is by speakers of Boghosian first and
24 then Mr. Zegarac next and in that flow of order.

25 Q. At the bottom of that

1 first page, on both images, it says city will send
2 friction reports. Was that the first time you
3 understood there was -- that the City had friction
4 reports apart from the 2007 report that Mr. Moore
5 and Mr. McGuire provided to you, that they were
6 going to provide -- that they had and they were
7 going to provide to you?

8 A. Yeah, this is this
9 transcription of what's being stated by others, so
10 yes, it's the first recollection of it and later
11 in the notes the word Tradewinds gets utilize or
12 stated as well, so yes, this is first realization
13 to me that there is something that we don't have
14 or had not received that is going to sent to us.

15 Q. Registrar, could you go
16 to the next image on both sides, so 361 for A.
17 Thank you.

18 I think this is a continuation
19 of your notes. It says at the top further Edwards
20 e-mail. Then it actually tracks from here, these
21 transcriptions. It doesn't appear to me that
22 there-- where you have sort of a clear summary
23 being provided to you about what the Tradewind
24 report is. There's a lot of sort of arrows around
25 on the bottom of your side. What information did

1 Ms. Audi or any other speaker from the City
2 provide to you about the Tradewind report and what
3 it contained?

4 A. I don't recall exactly
5 but as you can see from the random notations,
6 including the question mark next the Tradewind
7 report, I don't know what it is. So somebody said
8 Tradewind report, I write it down, probably
9 Mr. Boghosian, the way it's listed. I put a
10 question mark beside it, and then there's
11 additional clarity that comes from the Tradewind
12 report as stated again, again, I'm making catch up
13 here, trying to figure out what is being be
14 described.

15 Q. I'm going to go into some
16 other notes. Registrar, you can close these down
17 and if you can go to HAM64351. No, I wanted to
18 bring up the transcription. HAM64370. Thank you.

19 So this is -- that was the
20 almost illegible handwriting of Mr. Sabo and
21 these are Ms. Sabo's notes. Mr. Sabo is a member
22 -- part of the the City's legal department.

23 Registrar, can you bring up
24 the next image as well. As I read these two sets,
25 I think you may not be on the phone yet.

1 Registrar, can you go to next two images, please.

2 Sorry, for 3 and 4 rather than 2 and 3.

3 I think this is where
4 conversation with you starts. You'll see your
5 name as referenced T.C. Brian Malone about almost
6 halfway down on the left-hand side, and it appears
7 as I read this that Mr. Boghosian is providing you
8 with some information and that you are providing
9 your preliminary responses to what he is telling
10 you.

11 For example, on the left-hand
12 side, it says Q by Soldo details with pending
13 re-opening. And then you say enforcement police
14 is never too much. Re closure not viable with
15 what is done with items pending, danger in a
16 closure is rerouting. I'm just going to take you
17 to a few things and then I am going to ask you
18 about them. So it looks like there's a back and
19 forth between --

20 Registrar, could you pull out
21 where I'm looking, it's right in the middle of the
22 left hand page. You can close that down. On the
23 next page it says David B, wet versus dry and then
24 it says A Brian wet road stands out as exception.
25 And then there's some reference there and then

1 David B re U.K. standard and then A Brian
2 comparison shouldn't compare Ontario to UK.

3 So it appears to me that first
4 Mr. Soldo and then Mr. Boghosian are asking you
5 questions, providing with you information and
6 asking you questions and you were providing your
7 preliminary response on at least three things, wet
8 road collisions, the UK standard in the Tradewind
9 report, and closing the roadway.

10 Is that your recollection of
11 how this call unfolded?

12 A. Yeah, I think that's a
13 fair description. I won't say I'm providing an
14 opinion. I think I'm providing responses to
15 questions but yeah there's a question, what's your
16 thought on this issue and/or your input or
17 anything you can tell us. There's a back and
18 forth.

19 Q. At this point, you don't
20 have a copy of the Tradewind report, right?

21 A. That's correct, yes.

22 Q. So Registrar, could you
23 bring out the bottom of the right-hand side. So
24 here it says David B re UK standard, he has in
25 quotation. Answer, Brian comparison plus

1 shouldn't compare Ontario to UK. Has been some
2 friction test for some time in Ontario plus MTO
3 has used a threshold number but for their own
4 design, plus LINC and RH are not ministry
5 highways.

6 So, am I inferring from these
7 notes correctly that Mr. Boghosian told you that
8 the Tradewind report contained an investigatory
9 standard from the UK?

10 A. I'm assuming so, based on
11 that reference to UK. The overall content is
12 consistent with the back and forth I had with
13 Mr. Moore in 2015 and so yeah, it sounds like
14 there's been some additional input provided and
15 the UK comparison is -- has been mentioned.

16 Q. Do you recall if
17 Mr. Boghosian actually told you that there was a
18 UK standard set out in this Tradewind report and
19 that the Red Hill was below or well below the
20 investigatory standard?

21 A. No, I don't recall that
22 level of detail. I mean, it's now 4:30 or 5 p.m.
23 on the 30th and later that day he sends me the
24 report so, you know, clearly he is aware of it but
25 I don't know what level of detail the exactly

1 occurred in the discussion.

2 Q. Can you close this,
3 Registrar. And could you go back to where we were
4 before, on the left-hand side, where it says Q by
5 Soldo details, A Brian. The reason I ask about
6 how much detail you have is because it appears to
7 me that you may be providing a preliminary view
8 that closure is not viable and that the danger in
9 closure is rerouting. Do you recall coming to a
10 conclusion in the course of this conversation with
11 City staff that road closure would not be prudent?

12 A. No. It couldn't come to
13 a conclusion because I didn't have any input. I
14 think I'm talking generically about the benefits
15 and drawbacks of doing a closure of a roadway, so
16 if someone has put a suggestion on the table that
17 they should close the road, I'm providing
18 commentary about the potential benefits and more
19 important the potential draw backs of doing that.
20 But I don't have input here, so I can't reach a
21 conclusion, I haven't assessed the problem. I'm
22 talking about the generic sense, the high level
23 sense, the macro level of what occurs when you
24 close a roadway.

25 Q. Thank you. Registrar,

1 could you close this and go to HAM64362, please.

2 And the next page as well, please.

3 So these are Mr. Boghosian's
4 notes and it's at the bottom any ways of the
5 left-hand side, there's reference to BM, which I
6 think is you, so I think you were on the call by
7 that point and the notes reflect Mr. Boghosian's
8 notations of what you said to him. So the very
9 bottom of the left-hand side, it said BM, BM
10 closed the RHVP, question mark not necessary.

11 So is your evidence today that
12 you were providing a generic view about the
13 factors to consider with road closure and not a
14 specific preliminary view that the RHVP didn't
15 need to be closed?

16 A. Yeah. I mean, well, at
17 this point, we've done quite a bit of study with
18 respect to the Red Hill Valley Parkway, so I have
19 some knowledge of the collision history, the types
20 of collisions, the operations of the roadway. I
21 do not have the Tradewind report information but
22 if somebody -- with that basis of information, so
23 I'm not ignorant of the roadway but with that
24 amount of information that I have, someone
25 suggests to me, it appears to have occurred at the

1 meeting, that the roadway should now, at this,
2 moment be closed. My reaction is no, I don't
3 think there's a necessity to close the road. I
4 need more information to make some determination
5 whether that's still the case before I would
6 provide a professional opinion on it. But my --
7 not my words not the best but my gut reaction to
8 this suggestion that the road should be closed
9 doesn't make any sense. There's far more
10 drawbacks to a closure than there would be
11 benefit, at least based on what knowledge I have
12 to this moment.

13 Q. Thank you. That's, of
14 course, the knowledge that you have includes at
15 least some reference to the fact that there's a
16 Tradewind report that has friction values, one
17 that you haven't seen yet and so are you saying,
18 just so it's really clear, that up to all the
19 knowledge and expertise you had about the Red Hill
20 up to 2018, you couldn't see a reason to close the
21 road but of course understanding what the
22 Tradewind report says actually might change your
23 view; is that your evidence?

24 A. I certainly would agree
25 that receipt of the Tradewind report and whatever

1 content it had would be a factor to incorporate
2 into any decision-making going forward. To this
3 moment, the Tradewind word has been mentioned with
4 a question mark on my notes, so I don't know what
5 it is, I don't know what it contains, exactly,
6 perhaps something been stated but it hasn't been
7 digested yet. I have previous information from
8 previous studies done at the Red Hill, I have not
9 seen that it would be appropriate to close the
10 roadway based on any of the previous work that's
11 been done, so nothing new has provided to me at
12 this meeting so far to change that, so my reaction
13 to suggestion of closure is no, why would you do
14 that. There's been nothing there to necessitate
15 closure. Yeah, I recognize -- I think the context
16 is being taken incorrectly here. I'm not
17 providing a professional opinion upon which the
18 decision to close or not close should be solely
19 based in this conversation. Of course what occurs
20 later is a more diligent review of updated new
21 information and past information to come to a
22 conclusion. But this is my reaction to the
23 suggestion and I still think it's appropriate.

24 Q. Thank you. There's one
25 more reference I want to take to you to in these

1 notes, and it is 5 lines up from the bottom, it
2 says 2013 Tradewind first report, 2017 Golder
3 report.

4 Do you recall anybody on the
5 call from the City or Mr. Boghosian advising you
6 that there had been additional testing of some
7 kind done by Golder in 2017?

8 A. I see the note. I don't
9 recall that being clearly understood by me. I
10 recognize later in the day I get the Golder input.
11 But no, I don't remember that level of detail.

12 Q. What did you understand
13 was the next steps, coming out of this group call,
14 for you?

15 A. I think, it's in my notes
16 as well, sort of as the call comes to a
17 conclusion, there's going to be or there is a
18 request for me to respond to several questions.
19 And those are going to be -- I think they're
20 preliminary, they are articulated to me in a
21 preliminary manner, and then they are going to be
22 articulated more formally, which occurs in short
23 order and then I'm going to be asked to respond to
24 those questions in the context of the work that
25 CIMA had done with respect to road safety on the

1 Red Hill and previous months and years.

2 Q. Thank you. Were you
3 expecting you were going to provide some sort of
4 written opinion or written report in response to
5 this specific questions that we're going to come
6 more formally?

7 A. I think perhaps by the
8 end, the very end of the meeting, it starts to
9 become clear that that's the case but I think I
10 needed confirmation of that. I didn't -- this was
11 a new task or would be a new task for me and I'm
12 not engaged to do that yet, I don't have a
13 contract for a new task. I need to get
14 clarification before I would do that. The context
15 of what's being described would necessitate a
16 written report in my mind. It's not something I
17 would give a verbal report on. I'm not sure it's
18 perfectly clear until the very end of the meeting
19 or perhaps even after the meeting, in the
20 subsequent communications with Mr. Boghosian.

21 Q. Did you connect the 2017
22 Golder report reference there to the PSV or PSD
23 testing notations that you made during the call
24 with Mr. Boghosian? Was that level of detail
25 about what the 2017 Golder report included made

1 clear to you during this call or only when you
2 received it?

3 A. No, I would not have been
4 able to interpret that level of detail. I don't
5 think I made a notation in my notes about the 2017
6 Golder report. I do have a notation of Tradewind
7 but if it was, I missed it.

8 Registrar, you can close this.
9 If you can go to OD9A, page 368, please. Can you
10 go to 369 as well, please. Actually apologies did
11 you go to 369 and 370. So Mr. Malone, if you see
12 at the bottom of 369 at paragraph 864,
13 Mr. Boghosian e-mailed you under the subject line
14 RHVP council issues and then he included the
15 e-mail that is excerpted at the top of 370.

16 Just before we call that
17 e-mail out, just in terms of the subject line, the
18 last question on the outcome of the January 30th
19 call, did you understand in that call that the
20 Tradewind report had not been made public either
21 to council or the members of the public?

22 A. No, I don't think
23 understood it had not been made available to
24 council or -- but I think -- the penny dropped
25 that part of the FOI request discussion was about

1 or around the Tradewind report, so it probably
2 concluded that it had not been made public but
3 only just, only at this moment. So to be clear, I
4 don't think the header of the e-mail made any
5 difference in that regard.

6 Q. This is my next question
7 is, did you understand that whatever report that
8 you prepared would be provided to city council,
9 either the actual report or some summary of the
10 report?

11 A. No, that didn't become
12 clear to me for a couple of days, in fact, I'm
13 sure you're going there but the draft versions of
14 the report that I write are titled to
15 Mr. Boghosian and it's only on the third version
16 that it gets titled to the mayor and the council.

17 Q. Yes. In terms of you say
18 the penning dropping with the FOI, I may take you
19 to it in a moment because you did summarize these
20 calls for your colleagues, that one we looked at
21 before we got into the details of the call. You
22 do mention that the reports have been held in
23 confidence but we're going to be subject to an
24 FOI. So you say when the penny dropped, what
25 about the content of the January 30th call led

1 that penny to drop for you?

2 A. I think just in total
3 sense. There's everybody from the city's legal
4 department, here's the acting city manager, the
5 director-- the commissioner of engineering. These
6 are the highest levels of the organization dealing
7 with this matter. The discussion concludes around
8 the need for some request that's going to be
9 coming to me to respond to some specific
10 questions, so there is something going on here
11 that I certainly wasn't aware of until that
12 meeting.

13 Q. In your follow on calls,
14 as you phrase them before with Mr. Soldo or Mr.
15 McGuire or both, did they thread the needle in
16 terms of their FOI request and why so many of the
17 senior management and external legal were on the
18 call with you on January 30th?

19 A. My recollection of the
20 follow-up was more in the mundane matters of
21 confirming that this is an assignment that the
22 City is engaging CIMA and me to do. How am I
23 doing that. The legal department hasn't confirmed
24 or clarified that they are engaging me, even
25 though there has been some communication from

1 Mr. Boghosian. What I originally thought was an
2 expert opinion assignment through Mr. Boghosian
3 hasn't become that. He's never followed up and
4 I've never initiated an assignment with
5 Mr. Boghosian. So I believe that the follow-up
6 call was more in the practicalities of speaking to
7 Mr. McGuire, Mr. Soldo about oh, I'm doing this
8 for you and how do you want me to do this, what do
9 you want me to charge my time because this is
10 going to be some effort. There is an assignment
11 here, a task that needs to be undertaken. Nobody
12 has actually, other than a conversation saying we
13 want you to write some report, nobody given me a
14 direction in the form authorization to do work.

15 Q. Thank you. Registrar,
16 can you call out the top half of page 370, please.
17 This is e-mail Mr. Boghosian sends to you on
18 January 30, it encloses two reports, the Tradewind
19 friction report and the Golder evaluation of
20 pavement surface and aggregates report. And then
21 there are three questions that he asks you to
22 advise on. One is, can you advise if there are
23 any changes-- any changes are needed to the
24 recommendations in the RSA, if there are any
25 additional safety measures you recommend to the

1 City -- that the City implement between now and
2 when the road is resurfaced and whether the Red
3 Hill should be closed to traffic in whole or in
4 part. And then you'll note, he says this is very
5 sensitive and urgent matter and asks that you be
6 succinct and direct in your responses and also
7 asked if you would be available to speak to
8 counsel, if needed, on February 13th, commencing
9 at 5 p.m. given your non-availability on
10 February 6th.

11 Just on that very last point
12 in terms of availability, you are on vacation
13 between February 6 and February 22 or so; is that
14 right?

15 A. That's correct.

16 Q. In terms of the three
17 questions that were set out in this e-mail, did
18 you understand that these questions were relayed
19 to you during the course of the call and now they
20 were just being put in writing or were these newly
21 framed questions that you were receiving and now
22 understanding that you were supposed to be
23 answering?

24 A. My notes from the call
25 have some indication that there was questions. If

1 they were articulated, I don't think I had them
2 clear in my mind as to what they were. But I took
3 this to be a follow-up of from the call and
4 confirmation that what is it they were going to be
5 asking me to do. So I would not go so far as to
6 say there was a preliminary version of the
7 questions which became a finalized version of the
8 questions. It was more I was going to be asked to
9 answer some specific questions and again, they may
10 or may not have been articulated in some manner
11 during the call. I don't recall. We're only a
12 couple hours later here, when this lands in my
13 inbox.

14 Q. You forward this to one
15 of your colleagues, Mr. Petzold. Registrar, could
16 you close the call out down and the document down,
17 and go to CIM17198, please. If you could go down
18 to the first image, image 3. I won't take you to
19 image 4, you can see at the bottom that you flip
20 the e-mail that we were just looking at for Mr.
21 Malone, pardon me, for Mr. Boghosian to you to Mr.
22 Petzold, the page breaks, you can't actually see
23 that. Registrar, can you bring up image 2 and 3
24 at the same time?

25 You can see at the very top of

1 the right-hand side, it says on January 30th, 7:14
2 p.m. you wrote and then it says subject to clients
3 list of privilege, confidential Geoff. And you'll
4 see in the back and forth, I believe that that
5 Geoff is Geoff Petzold even though there is not
6 actually a block that says that.

7 Do you recall reaching out to
8 Mr. Petzold that night?

9 A. Yeah, I e-mailed the
10 content that had come from Mr. Boghosian to Mr.
11 Petzold and I believe others as well, I can't
12 remember exactly.

13 Q. Certainly you updated
14 your colleagues, Dr. Hadayeigi and Dr. Salek, Mr.
15 Amrani and Kevin DeCost (ph). You sent them all a
16 summary of what had occurred that night. That was
17 the first document that we first looked at but
18 this one is I believe just to Mr. Petzold.
19 Actually I'm wrong about that. Mr. Salek and Dr.
20 Hadayeigi are copied. I won't go in because I
21 would like to stay in this document. They are
22 copied on this e-mail from you.

23 It looks like given content of
24 this e-mail, that you have read the Tradewind
25 report before you forward it to Mr. Petzold,

1 copied to Dr. Hadayegi and Mr. Salek; is that
2 right?

3 A. I scanned it, I think,
4 yes. Only six or seven pages of text.

5 Q. That the point you had
6 not yet received the Golder report to which the
7 Tradewind report is appended; is that right?

8 A. --

9 Q. That one comes in a
10 number of tranches, the next day I believe, at
11 least that's what the e-mail suggests?

12 A. I would have to open the
13 e-mail but I'm pretty sure there were two things
14 that came from Boghosian -- sends out a more
15 comprehensive multi part e-mail with the full
16 Golder report but there's two documents in the
17 Boghosian e-mail.

18 Q. You're right and I'm
19 sorry, it's confusing because there are two
20 reports prepared by Golder that are relevant and
21 so this one -- Mr. Boghosian sent you the
22 Tradewind report and also the 2017 Golder pavement
23 surface analysis evaluation. My question just now
24 was actually a different Golder report. At this
25 point, you don't have the Golder report to which

1 the Tradewind report was appended?

2 A. Well, I guess. I'm not
3 sure I realize that at this point.

4 Q. Fair enough. You may not
5 --

6 A. They came to me as two
7 separate documents, the bottom on the right side
8 is one and there's a number two listed on the next
9 page, obviously. I don't know the context of
10 what's attached to what at this point because
11 Mr. Boghosian has made a decision how he's going
12 the send it to me.

13 Q. We will come to the other
14 Golder report but this one, so you have the
15 Tradewind report and you have the 2017 pavement
16 evaluation from Golder. So you said you skimmed
17 the Tradewind report. Had you also looked at the
18 2017 Golder report?

19 A. Potentially, I don't
20 recall precisely. I know I'm under a timeline
21 here to provide a response. They're eager for a
22 response as Mr. Boghosian note says. And I'm
23 departing on vacation early next week, so the
24 window is tight.

25 Q. So you say to Mr.

1 Petzold, I've had a very brief read through --
2 actually, Registrar, could you just call out
3 everything from Geoff, down to thanks in advance.
4 Thank you. That assists my eyes.

5 I've had a very brief read
6 through the results for the RHVP look to show poor
7 friction results and the report puts findings in
8 subcontext stating, and then you excerpt from the
9 Tradewind Report:

10 "In Canada there are currently
11 no guidelines with which to
12 compare data collected by CFME
13 for roads and highways,
14 although these are well
15 established for airport
16 runways."

17 And then you ask Mr. Petzold,
18 do any jurisdictions in Canada have thresholds
19 they use, how is data assessed if there are no
20 thresholds?

21 Are you asking Mr. Petzold
22 that because you personally don't have expertise
23 in friction standards?

24 A. No, I'm asking Mr.
25 Petzold for two reasons, one is, I'm familiar with

1 him from previous discussions, had communicated
2 with him when I had understood there may be a
3 potential opportunity to be involved in the
4 pavement design for the -- what ultimately became
5 the repaving assignment, and secondly, I had been
6 provided with input from Mr. Moore in that back
7 and forth back in 2015, saying there are no
8 thresholds, the MTO doesn't tell anybody what the
9 threshold is, words to that affect, so I'm
10 conferring or checking with him to see if he
11 knows, if he can confirm the statement which is in
12 the Tradewind report.

13 Q. You go on to say, well
14 first you want to ask him is the interpretation of
15 data an accurate reflection of it being as bad as
16 it sounds and then you reference the conclusions
17 of the Tradewind report about the localized
18 sections of low friction values and the fact that
19 overall friction averages are well below or well
20 below the UK investigatory level too.

21 Did you have any experience
22 with interpreting friction values, prior to this
23 e-mail? Recognizing you've already said what you
24 did with Mr. Moore and what you did with Mr.
25 McGuire in those e-mails but other than that, did

1 you actually have any experience in interpreting
2 friction data?

3 A. Yeah. Lots of experience
4 in understanding and interpreting friction
5 information in terms of road design and operation.
6 I'm a graduate civil engineer, 35 or 7 years
7 experience at that point, taken post graduate
8 courses in road design including geometric road
9 design and issues of road friction. Completed
10 specialized training in the TAC geometric design
11 guide, I'm designated as a professional traffic
12 operation engineer by a transportation
13 professional certification board and that includes
14 proctored exam, where geometric design controls
15 are part of what is being assessed. 2018, I had
16 recently become a road safety professional
17 designation by the certification board, and that
18 includes understanding of crash patterns and
19 safety problems, which can relate to friction
20 issues.

21 I'm a licensed engineer in
22 Ontario and British Columbia, Saskatchewan and had
23 been licensed in other provinces in the past. I
24 maintain my professional credentials on an annual
25 basis, so yes, I think I have significant number

1 experience, amount of experience with respect to
2 understanding and interpreting road friction
3 information.

4 Q. That's not what I said,
5 that was not my question. My question was had you
6 had experience interpreting friction data. The
7 data itself, the underlying numbers. Had you had
8 experience in interpreting that?

9 A. Well if the friction data
10 is supposed to represent the friction values then
11 what I'm saying is yes, I do have understanding in
12 how to interpret friction values. No, I'm not --
13 my experience does not include collecting friction
14 data using the various methods that are available.
15 I'm well aware there's many, many different
16 methods by which friction data can be collected.
17 The Tradewind report and process used one method
18 but there are, I don't know, 25 or 22 different
19 methods by which you can collect friction data. I
20 believe I'm qualified to respond to this, I've
21 been qualified as an expert in Ontario provincial
22 court with respect to civil engineering, traffic
23 engineering, road design.

24 Q. Sir, we went through your
25 CV at the very beginning of your examination and

1 you just went through your background just now so
2 I think you've moved away from answering my
3 question and I would like to move on.

4 A. I'm just trying to
5 clarify that I do think that I had sufficient
6 expertise to provide an interpretation of the
7 friction data information which was presented in
8 the Tradewind report.

9 Q. Thank you. I think that
10 the inquiry has that evidence. Had you ever had
11 to -- been provided with a report that looked like
12 this, where some company had gone and obtained
13 friction values from a road and then you were
14 asked to look at that report. Have you ever done
15 that before?

16 A. No, I had not.

17 Q. So you ask at the bottom,
18 is this something that we can offer an opinion on
19 and that's in reference to the lawyers -- this is
20 what you say just before that, the lawyers are
21 asking some questions as well including whether
22 the road should be closed based on these results.
23 Alternatively, should immediate remedial action be
24 undertaken even though they're repaving in June?

25 So you ask, is that something

1 we can provide an opinion on to Mr. Petzold.
2 Mr. Malone you, of course, have a lot of expertise
3 in dealing with the road safety aspects of this
4 question. But would you agree that you were
5 asking Mr. Petzold about whether CIMA, as a
6 company, could provide an opinion on this because
7 you needed assistance in the interpretation of the
8 friction data itself?

9 A. I think I'm conferring
10 with Mr. Petzold to guess what input he's
11 potentially able to provide, with respect to the
12 subject matter. He has more experience than I do
13 with respect to pavement materials and pavement
14 design and therefore he could be a valuable
15 resource to assist in the interpretation and the
16 response which is ultimately provided. So that's
17 the context for which I communicated with him and
18 I think conferring with a colleague with respect
19 to the technical information is fully appropriate
20 to do.

21 Q. Would you agree with me
22 that the assessment of whether the road should be
23 closed is going to be -- there's a number factors
24 that are going to go into that. One of them I
25 think you've already spoken to, which is the

1 potential of overflow issues or what might happen
2 if one road gets closed. The second I think is
3 collision analysis of a road and whether there's
4 such a high proportion of collisions, that there
5 suggests a safety issue, and then a third would be
6 the quality of the pavement surface.

7 Would you agree that those are
8 three things that would go into assessment of
9 whether the road should be closed?

10 A. I agree certainly on the
11 first two. When you say quality -- I think the
12 assessment in terms of friction values that are
13 available on the road surface is something that
14 certainly should be reviewed and assessed because
15 friction values are an important component of two
16 metric road design and therefore understanding
17 what friction is potentially available on the road
18 will assist in determining whether the fundamental
19 design parameters have been achieved.

20 Q. Sir, I'm going to suggest
21 to you and this is just a hypothetical, this is
22 not what the Tradewind report says, but if the
23 Tradewind report says friction levels are at 10,
24 they are at 5, they are so low that you must take
25 further action, you'd agree that that in and of

1 itself might lead to a road closer? It's not just
2 geometry, it's not just that analysis, it could
3 actually just be the pavement surface which might
4 be a factor in the road closure, right?

5 A. Well you're saying
6 pavement surface, I want to be clear in terms of
7 words being used. The friction values are the --
8 very much an important component. So the numbers
9 relayed in a report on friction are definitely
10 critically important and the comparison and
11 correlation of those numbers to values used in
12 design would be a consideration, for sure. So if
13 friction values were two, 0.02 in the TAC
14 vernacular, that would be a different situation
15 than numbers that were presented in the Tradewind
16 report.

17 Q. So you had said that
18 friction values can be an important component for
19 metric road design. And you said that they can be
20 an important component in understanding TAC values
21 but you would agree that friction values
22 independently not related to geometric design, not
23 related to TAC values, but that they in and of
24 themselves may be a factor that one would assess
25 in whether to close a road?

1 A. You can't look at them
2 independently, you have to look at them, those
3 numbers, in relation to the geometric design of
4 the roadway and that's the context for which the
5 report is undertaken. So the numbers themselves
6 have to be examined in the context of how they --
7 what degree of friction they present, they provide
8 on the road and that can be compared to the
9 geometric design parameters that are utilized in
10 the industry.

11 Q. So that's the lens in
12 which you view it; that's your evidence?

13 A. Yes, I think so.

14 Q. Registrar, could you
15 bring up CIM17209.0002. Could you bring up the
16 next image as well?

17 So Mr. Malone, this is the
18 Golder -- this someone dated December 17, 2018 and
19 this is the evaluation of pavement surface and
20 aggregates, it's the Golder report that
21 Mr. Boghosian sent you, this is the version that
22 was sent you to. Did you review this on the
23 evening of January 30th; do you recall?

24 A. I believe I would have,
25 yes. I don't have specific recollection of that.

1 Q. Registrar, can you pull
2 up analysis and interpretation, please. Thank
3 you. I'm sorry, I appreciate the big call out
4 from the left-hand side. Actually, I want another
5 call out as well. Can you pull that over,
6 Registrar and call out the three bullet points to
7 left-hand side. Thank you, Registrar.

8 So this report talks about
9 three tests that Golder had done in 2017, one was
10 testing of surface frictional properties using the
11 British pendulum tester, and the next was the
12 pavement texture measurements at the surface
13 friction test locations using volumetric
14 technique, sand patch testing, and then the third
15 was the coring of surface course asphalts. So
16 that's the-- the field investigations that they
17 completed.

18 And then you'll see on the
19 other callout, Registrar, you can close the
20 left-hand callout now. There were laboratory
21 testing done from those field investigations, and
22 they reference that the PSV of the tested
23 aggregate was 45 and at this point, when you read
24 this, did you connect that back to what
25 Mr. Boghosian had been talking about in his call

1 with you in December of 2018?

2 A. No, I don't think I made
3 that direct connection at this point in time.

4 Q. Did you have an
5 understanding about whether PSV testing tested
6 frictional qualities?

7 A. Sorry, I did have an
8 understanding that it did or?

9 Q. That it did.

10 A. Yeah, it's a method of
11 testing friction, yes.

12 Q. Did you understand what
13 the finding of 45 for PSV testing, what that meant
14 in terms of the quality of the frictional
15 characteristics of the aggregate that was tested?

16 A. No, I don't have a
17 context as to what that means based on what I'm
18 reading here.

19 Q. And generally at the time
20 in 2019, you didn't have a context for what would
21 be a an appropriate range or what sort of range
22 one might be looking for for PSV testing?

23 A. I don't know what
24 individual or authorities may use as their desired
25 range, no.

1 Q. And then skipping down to
2 the fourth paragraph, there's a reference to BPN
3 value, 35, and then the results range from 21 to
4 62. It says while the average can be considered
5 as good, the testing results were very variable.
6 Values below 30 would be considered low, six of
7 the readings with below 30 and then it says the
8 BPN testing was carried out while the temperature
9 was below zero and there was a light snowfall and
10 therefore the numbers could not be considered to
11 be reliable.

12 So just stopping at the first
13 part of this, which is the BPN value at 39 on
14 average. It goes on to give you a bit more
15 context about what appropriate ranges would be or
16 what useful ranges would be.

17 Did you independently have
18 knowledge about the ranges for British pendulum
19 testing numbers that would be indicative of good
20 frictional characteristics?

21 A. Not independently. I'm
22 reading the Golder input, as provided.

23 Q. Did you take note that
24 the BPN numbers would not be considered reliable
25 because of the temperature in which they were

1 tested?

2 A. I see that. I didn't
3 take specific note of it but see that the results
4 appear to be discounted.

5 Q. Thank you. Registrar,
6 could you close this down and go to OD9A, page 380
7 and 381. Thank you.

8 This is just a follow-up from
9 the e-mail chain we were just looking at. Rather
10 than going back to the underlying document, we'll
11 just go into the back and forth that you exchanged
12 with Mr. Petzold.

13 So you'll see you send that
14 e-mail to him, the one we were just looking at,
15 and he responds at the bottom of page 830 at 10:08
16 p.m. and just stopping there, Mr. Petzold is in
17 the mountain region, is that right? In terms of
18 time zone?

19 A. Yes, that's why some his
20 e-mails appear to be earlier than the previous
21 ones.

22 Q. Thank you. And so he
23 says at the bottom of 380, this information is
24 quite interesting, so we can call out the next
25 page, 381. Registrar, can you call out the first

1 half of that page, please, just so it's big
2 enough. Thank you. So there is a reference
3 first, the second paragraph doing some quick
4 search on that piece of equipment yields very a
5 little terms results analysis and then it
6 references-- Mr. Petzold references his old
7 professor, performs friction measurement using one
8 of these devices and then references SAGA
9 engineering and Mr. Petzold says this might be a
10 valuable resource. Do you recall reaching out to
11 SAGA engineering?

12 A. I did not, no.

13 Q. There's also a reference,
14 second paragraph from the bottom, to Susan Tighe
15 out of Waterloo. Did you reach out to her at any
16 point as you were assessing the Red Hill friction
17 values set out in the Tradewind report?

18 A. I did not, no.

19 Q. In the fourth paragraph,
20 Mr. Petzold says I'm afraid I don't know of any
21 municipalities that have standards for friction
22 characteristics. Most that I know of would just
23 take the measurements as a baseline and then
24 perform regular checks to see when it drops and
25 how quickly. So that was consistent with your

1 understanding about there not being at least
2 published friction standards within the
3 municipalities; is that right?

4 A. Yeah, and I think more
5 importantly, it's also consistent with my
6 understanding of how friction evaluation is
7 practiced by road authorities. Essentially
8 setting a baseline and monitoring change over
9 time.

10 Q. Registrar, could you
11 close this out and then could you call out the
12 second half of this, starting with having said all
13 this. Mr. Petzold says in the fourth paragraph,
14 the question around whether the road should be
15 closed might be a bit overkill, but I would say
16 that rehabilitation needs to be expedited. Can't
17 do much with the winter other than sand/salt but
18 if they could do an interim chip seal or
19 something, maybe even mill the pavement so it has
20 texture it to, question mark.

21 Do you recall taking note of
22 Mr. Petzold's suggestion that one alternative --
23 one option would be to do an interim chip seal or
24 something or maybe even a mill?

25 A. I think I made note of

1 it. I read it, I'm aware that it's there.

2 Q. Did you provide that
3 suggestion from Mr. Petzold to the City, at any
4 point?

5 A. No, I did not. I didn't
6 -- preparation for this hearing, I understand that
7 had come from Golder.

8 Q. I'll just stop there. In
9 preparing for this hearing?

10 A. In preparation for and
11 listening to the evidence that's been given
12 through the hearing, that I understand that that
13 occurred from Golder.

14 Q. Thank you. So at the
15 time that you were preparing your February 4th
16 memo, you didn't know Golder had made that
17 recommendation?

18 A. Not at this point, I
19 don't think, we're still late in the evening of
20 January 30th, no.

21 Q. I think you're not wrong
22 about that, but my question was more specifically,
23 you never told the City that and at the time, you
24 didn't know that Golder had made this
25 recommendation? I'm just trying to understand

1 your evidence.

2 A. At this time, 10 o'clock
3 on the evening of January 30th, no.

4 Q. No, I'm going to take a
5 step back. The next day, Mr. Boghosian sends you
6 the Golder report. Not the one we've just be
7 looking at but the one that comes to you over a
8 series of several large PDFs. Do you remember
9 receiving that report?

10 A. I do.

11 Q. Do you remember reviewing
12 that report?

13 A. Certainly some review of
14 it, yes. Not sure I read every single page.

15 Q. Do you recall that that
16 report contained a recommendation to do
17 microsurfacing or some other process to texturize
18 the material, pardon me, the surface?

19 A. I would have to go back
20 through the materials to check. I can't recall.

21 Q. This is what I'm getting
22 stuck on. Is if you knew that between when you
23 received the Golder report and when you prepared
24 your report on February 4. I can go to the Golder
25 report if you would like; would that assist?

1 A. Potentially, but there's
2 multiple documents there. I would have to go
3 through and review what and where I'm seeing in
4 the content of it.

5 Q. Registrar, could you
6 bring up CIM17195.0001. Next page as well,
7 Mr. Malone. So this is the actual start of the
8 Golder report, which is over a hundred pages,
9 that's why it's in a number of PDF's. I think
10 Mr. Boghosian sends it to you out of order but the
11 actual has a number of appendices, including the
12 Tradewind report. Registrar, can you go to
13 page 7, please, and page 8, please, I'm sorry.
14 I'm looking at -- I'm at pages of the underlying
15 document, not the image. Page 9 and 10, please.
16 So you'll see there's a reference to friction
17 testing on the right hand side, Registrar could
18 you call out 5.0.

19 So, Mr. Malone, I just want to
20 understand and I'm just referencing this portion
21 of it before we get to more of this. Do you
22 recall seeing this report--and in particular this
23 information in the Golder report, the 2014 Golder
24 report?

25 A. I do, yes, for a couple

1 of reasons.

2 Q. What are those?

3 A. First one is, I think I
4 realized that this is the information that was
5 included in the e-mail sent from Mr. Moore in
6 2015, the summary table. The other is that the
7 Golder report describes these values as being
8 friction numbers. The Tradewind report described
9 them as being grip numbers. So Golder has made
10 the linkage that the values reported in the
11 Tradewind report are friction number values stated
12 in whole numbers instead of decimal numbers, but
13 that's an important connection for me to interpret
14 the information.

15 Q. Registrar, could you
16 close this callout. And can you go to image 10,
17 and image 11. This is the analysis and
18 recommendation section. Registrar, could you pull
19 out the last 5 paragraphs on the right hand side.

20 So Golder, in the third
21 paragraph down, it says it's recommended that the
22 surface --SMA-- be milled and a new surface course
23 be mixed at selected locations. And just skipping
24 to the next paragraph, on the remaining portion,
25 existing cracks in the surface course should be

1 rided and sealed to prevent egress of water in
2 the pavement structure. Following the routing and
3 sealing, it's recommended that a single layer of
4 microsurfacing be applied, by carrying out the
5 mill and overlay where required and applying
6 microsurfacing, the issue of relatively low FN on
7 the RHVP could be addressed.

8 And then it references the new
9 surface course mix should incorporate aggregates
10 that have a good polished stone value.

11 So just stopping there. Do
12 you recall understanding when you received the
13 Golder report, which we know from the evidence was
14 on January 31, that Golder had made
15 recommendations to the City in 2014 to add a
16 single layer of microsurfacing?

17 A. I think I recall reading
18 this, so I was aware of it, yes.

19 Q. That was a bit of a route
20 back to my initial question, so let's go back to
21 the e-mail with Mr. Petzold.

22 Registrar, could you close
23 this down and you can close this and if you can go
24 back to 9A, page 380 and 381, please. If you can
25 call out 3D1, bottom half of that page.

1 Mr. Malone, my question to you
2 was, Mr. Petzold here says can't do much in the
3 winter other than salt/sand but if they could do
4 an interim chip seal or something maybe even mill
5 the pavement so it has texture to it. I think
6 your evidence was that you did not convey Mr.
7 Petzold's suggestion to the City; is that right?

8 A. That's correct, I did
9 not, but that would appear that they had that
10 suggestion from Golder, is my point.

11 Q. Is that the reason that
12 you didn't convey this information to the City?

13 A. No, I don't think
14 explicitly that. I'm reviewing a different
15 question, I'm not reviewing the pavement condition
16 which is subject to the Golder report. I
17 appreciate Mr. Petzold's input but I think he's
18 got a lens which is similar to the Golder staff.
19 I'm looking at it from a different perspective in
20 terms of the road safety question.

21 Q. One of the questions that
22 Mr. Boghosian puts to you is are there any
23 additional safety measure you would recommend the
24 City implement between now and when the road is
25 resurfaced in late spring of 2019? And you viewed

1 that question to be only related to safety
2 measures not including the pavement surface; is
3 that right?

4 A. Well, pavement design is
5 not my expertise, so my perspective would have
6 been context of remedial measures that are
7 consistent with traffic engineering, traffic
8 safety perspectives. We had made a number of
9 those recommendations in the 2013 report, the 2015
10 report and the 2018 roadside safety assessment
11 report. So speed limit signs, feedback signs,
12 slippery when wet, enhanced enforcement, so on and
13 so forth. That's the context that I was reviewing
14 and contemplating providing input at this point.

15 Q. Thank you.

16 Commissioner, it is about
17 eight minutes to 1:00, and we did start -- we took
18 our break a little bit early, so I'm wondering if
19 it might make sense to take a break now and come
20 back at 2 o'clock.

21 JUSTICE WILTON-SIEGEL: Sure.

22 Let's stand adjourn until 2 o'clock.

23 --- Recess taken at 12:52 p.m.

24 --- Upon resuming at 2:00 p.m.

25

1 --- Recess taken at 12:52 p.m.

2 --- Upon resuming at 2:00 p.m.

3 MS. LAWRENCE: Commissioner,
4 may I proceed?

5 JUSTICE WILTON-SIEGEL: Yes,
6 please do.

7 BY MS. LAWRENCE:

8 Q. Registrar, could you go
9 to CIM17189, please.

10 THE REGISTRAR: Sorry,
11 Counsel, do you mind just repeating that? Was it
12 17189?

13 MS. LAWRENCE: 17198. Sorry
14 about that.

15 THE REGISTRAR: Thank you.

16 BY MS. LAWRENCE:

17 Q. So, Mr. Malone, before
18 the lunch break, we were talking about some
19 discussions that you had with Mr. Petzold, and
20 this is part of the chain we were just looking at,
21 the e-mail below. And, Registrar, could you call
22 out the top e-mail, please. Thank you. You say
23 in this:

24 "First, should know that the
25 values have been relatively

1 stable since the road opened.
2 The Red Hill section was built
3 separately and is a different
4 pavement mix."

5 Just stopping there. Did you
6 consider the 2007 MTO friction numbers that you
7 had received from Mr. Malone and Mr. McGuire in
8 advising Mr. Petzold that the values had been
9 relatively stable?

10 A. I don't really recall.
11 The wording of the note would suggest that, but I
12 don't have a recollection of it.

13 Q. Can you think of anything
14 else that would have led you -- on which you would
15 base a statement values have been relatively
16 stable?

17 A. No, I can't.

18 Q. At this point, so this is
19 January 31, 2019, did you understand that the MTO
20 2007 data was comparable in terms of the
21 methodology used to the Tradewind friction data?

22 A. Comparable, you mean the
23 testing methodology was the same or comparable in
24 that friction numbers could be compared to -- the
25 numbers in each grouping could be compared?

1 Q. Either, both.

2 A. Yeah, I didn't have any
3 information on the testing methodologies from the
4 MTO. I think it comes up more clearly later on.
5 So I -- if I'm considering both of those, then I'm
6 trying to determine, consider whether the two sets
7 of friction values can be compared.

8 Q. You may recall when
9 Mr. Moore sent you the e-mail, then when Mr.
10 McGuire sent it to you, there was an academic
11 paper that was attached to those e-mails in
12 addition to the actual testing data that dealt
13 with early age friction issues in SMA. Just a
14 reminder, you were aware of early age friction
15 issues in SMA by 2019; is that right?

16 A. Yes, I think that's been
17 identified in a couple of other e-mails, and I
18 recall the attachment.

19 Q. Did you consider that
20 when you made the statement the values have been
21 relatively stable?

22 A. No, I'm not sure there
23 was a sort of direct correlation to that. I think
24 it would appear that it's a comparison of the two
25 sets of numbers.

1 Q. You also ask Mr. Petzold:
2 I am interested to know how
3 the values noted can be
4 compared to the TACC friction
5 values used in the stopping
6 distance calculation. Are
7 they the same numbers?"
8 Why were you interested in
9 that? Actually, maybe I'll put it differently.

10 I think you've already
11 explained that you understood the TACC friction
12 values from your other work. Was that the reason
13 that you wanted to understand if these were
14 equivalent numbers?

15 A. Yeah, I think I was
16 asking him to -- his opinion on the conclusion
17 that I had reached that they were -- that the
18 values of the friction numbers in the Tradewind
19 report were and could be compared directly to the
20 TACC friction numbers, with an appropriate
21 recognition that one was in decimals and one was
22 in whole numbers. So I think I've reached that
23 conclusion at this point and I'm essentially
24 looking for confirmation or any input he can
25 provide in that regard.

1 Q. Thank you. Registrar,
2 could you close this document down and go to OD9A,
3 page 8 -- pardon me, 382 and 383, please.

4 So you have some back and
5 forth with Mr. Petzold coming from that e-mail we
6 were just looking at.

7 Registrar, can you call out
8 885 to 886. You are sort of asking these
9 questions, I think, just the way that you've just
10 described it. Can they be expressed as decimals?
11 Are they the same as the F values from TACC?

12 A. Yes, I've reached an
13 interpretation, and I think I'm asking him if he's
14 got something different that he understands.

15 Q. Thank you. Registrar,
16 could you close this down and go to the top of 383
17 and call it out. Thank you. This is his
18 response:

19 "That would probably be a safe
20 bet... however, I don't know
21 if we can assume that the
22 numbers in the City's report
23 range from zero to 100. If
24 they did, however, that would
25 be a reasonable is

1 assumption."

2 So did that leave you with
3 some comfort that the TACC F values were the same,
4 except for where the decimal was placed, as the
5 grip number set out in the Tradewind report?

6 A. Well, it was the Golder
7 report that does that correlation between the grip
8 numbers, GN, and the friction numbers, FN. I was
9 more making the connection between the FN, capital
10 F, capital N, numbers that range from zero to 100,
11 or to whatever, to the TACC numbers which are in
12 decimal points. So I was trying to make sure I
13 had that correlation correct or the assumption of
14 that correlation was a reasonable one to take.

15 Q. Okay. And your
16 conclusion at this point was that it was a
17 reasonable assumption to make?

18 A. I think I had reached it.
19 I was reaching out to Mr. Petzold for confirmation
20 of that, or if he had any information to counter
21 that interpretation.

22 Q. Thank you. And going
23 forward, you relied on that assumption?

24 A. Yeah, I think so.

25 Q. Thank you. Registrar,

1 you can close this down, and if you can go to
2 page 400 of ODA. If you can call out 911, please.
3 Actually, I think we might gone through this. I'm
4 just sort of now just running through the rest of
5 this e-mail. I think that's fine. It says, I
6 have a good handle, and your thought is the same
7 as mine. I can make an assumption, but we don't
8 know for sure.

9 So I just wanted to give you
10 that last sort of e-mail back and forth in the
11 chain. So from here going forward that was the
12 assumption that you made?

13 A. It's the assumption I've
14 concluded and believe I got confirmation from Mr.
15 Petzold, and I use that or state that assumption
16 in the subsequent report.

17 Q. Thank you. Registrar,
18 you could close this down, and if you could go to
19 HAM64331, please. Thank you.

20 So on February 1st you were
21 asked to join another call by Mr. Boghosian, and I
22 brought up his final opinion, which you've said
23 you haven't seen, but there's a reference. He
24 summarizes this call, and we'll go to that in a
25 moment.

1 Just before we do, were you
2 anticipating another call with the City and
3 Mr. Boghosian after January 30?

4 A. No. I'm not sure I was
5 anticipating one. I mean, there's the
6 communication that takes place by e-mail
7 clarifying the questions that are going to form
8 the scope of the subsequent memo, so I'm not sure
9 I was anticipating a second meeting to follow up
10 on that, no.

11 Q. Okay. We don't have
12 notes from you on this call in a transcribed way
13 as far as I know.

14 A. Sorry, this call,
15 Mr. Boghosian's note?

16 Q. Yeah, we don't have a
17 transcription of the call. Sorry. We don't have
18 notes that are transcribed is I what I was trying
19 to say. If you go to CIM22419, and pull out the
20 next image too, please. I think on the left-hand
21 side is you doing some research and not
22 referencing the call, but then starting on the
23 right-hand side is the actual call; is that right?

24 A. Yeah, the left side would
25 indicate a meeting or call with Mr. Soldo, Mr.

1 McGuire at 10:30, and the right-hand side, one
2 with Mr. Boghosian, looks to be at 1545, and
3 Nicole Auty.

4 Q. Thank you. What do you
5 recall from the call with Mr. Soldo and Mr.
6 McGuire?

7 A. I don't really recall
8 much. I suspect it was confirmations of sort of
9 where I was, maybe the status of where I was in
10 preparation of the memo that ultimately is
11 completed, but I really don't have any
12 recollection on it.

13 Q. For the call with the
14 larger group, David, Gord, Jasmine, Edward, was
15 that to provide your preliminary view now that you
16 had a couple days with the documents, or was it
17 for some other purpose?

18 A. No, I'm pretty sure that
19 is what it was about.

20 Q. Registrar, could you pull
21 up image 2 and 3. Again, we don't have a
22 transcription of this, but I know that you prefer
23 these notes in any event.

24 Did you -- were you provided
25 with any additional information on this call that

1 you were not otherwise aware of before this call?

2 A. I don't recall any
3 additional information. I don't really recall the
4 discussion. I suspect it was more focused around
5 the next step that was going to occur, which was
6 this presentation of this content of my report,
7 amongst other things, to council. So I see it
8 says "pres," presentation, "in camera." So I'm
9 assuming they are sort of relaying some of their
10 action plan or plans for the upcoming meeting with
11 council.

12 Q. And you said earlier that
13 you often don't record what you are saying to
14 people; you record information that is being
15 provided to you. We do have Mr. Boghosian's
16 summary where it appears, and I'll take you to it
17 in a moment, that you provided your preliminary
18 view about the three questions that he had posed
19 to you, and given your practice, wouldn't be
20 surprising that you wouldn't have those noted here
21 in your notes; is that right?

22 A. Yeah, that would make
23 sense, and the timeline also obviously makes sense
24 as well. I've now had the material for a day or
25 so, started my review. I know I work pretty hard

1 to try to get some clarity on preliminary
2 thoughts, including the communications with
3 Mr. Petzold.

4 Q. Registrar, can you go
5 back to HAM64331, and can you go to image 9,
6 please. Can you pull up 10 as well, please.
7 Thank you.

8 This is the February 4 version
9 of Mr. Boghosian's opinion. The one we looked at
10 this morning was -- had the summary from
11 December 11, and now in this version there's also
12 a summary of your call with him from February 1st
13 of 2019. And he summarized five comments that you
14 made.

15 Registrar, can you pull out
16 the bullet points, please. Registrar, it goes on
17 to the next page. Can you just pull out the last
18 little bit of the next page. Thank you.

19 Mr. Malone, does this fairly
20 reflect the information that you provided on the
21 February 1st call?

22 A. I don't have notes that
23 indicate otherwise, so I would suspect it's
24 probably reflective of it, yes.

25 Q. Okay. But reading it

1 today, nothing is jumping out at you as an
2 inaccurate summary of your preliminary views?

3 A. There's a couple things
4 that I'm not sure are fully accurate. One of the
5 wording, I think it's in the fourth bullet,
6 describes -- second last line, levels that met
7 accepted -- oh, no, sorry, the second line of the
8 fourth bullet:

9 "Tradewind relied on a chart
10 which was not accept within
11 the traffic engineering
12 industry."

13 I don't think I used the word
14 "accepted." I guess my terminology might have
15 been that it's not part of the norm of what's used
16 in the traffic engineering industry, at least in
17 North America. So "accepted" implies something
18 different to me, and I don't think I would have
19 used that word.

20 Q. On that point, had you
21 done any research to confirm what the industry
22 standards were for the pavement materials industry
23 as compared to the traffic engineering industry?

24 A. No, I was looking at it
25 from the perspective of traffic engineering and

1 traffic safety.

2 Q. Okay. Did you have any
3 further information by February 1, since your
4 e-mails in 2015 with Mr. Moore, about the
5 threshold that the MTO used when they were
6 assessing their own pavement?

7 A. No, I had no additional
8 input. I had attempted research to determine
9 friction threshold levels used in the manner
10 described in the Tradewind report of investigatory
11 levels and such, but I was unable to locate any.

12 Q. You didn't reach out to
13 anyone at MTO to try to get that information, did
14 you?

15 A. Well, we're on the
16 weekend at this point, so no.

17 Q. The reference in the
18 second bullet is to not reducing the speed limit
19 on the Red Hill as -- sorry. That reducing the
20 speed limit was not necessary or appropriate, but
21 he -- that's you -- strongly recommended enhanced
22 enforcement of the existing speed limit. What was
23 your basis for taking the view that reducing the
24 speed limit on the Red Hill was not necessary or
25 appropriate?

1 A. Well, it's consistent
2 with the recommendation that was in the CIMA 2018
3 speed limit review report. Again, I wasn't the
4 author of the review or the report, but I had read
5 it and agreed with the conclusion. There's a
6 danger, in my view, in reducing the speed limit,
7 which was articulated in the report of resulting
8 in varying the speed limits.

9 The report had identified that
10 one of the three warrants -- three methodologies
11 reviewed identified one location of the Red Hill
12 for potential speed limit reduction, and the
13 conclusion I had reached, and I think is
14 consistent with the report, is that reducing one
15 section of the highway has the potential to cause
16 more negative issues than positive ones, and the
17 alternative approach of achieving enforcement of
18 the existing speed limit is more likely a better
19 solution than speed limit reduction. That was the
20 professional opinion that was offered, and I
21 agreed with it and maintain that.

22 Q. Thank you, Registrar.
23 You can close this down, and if you can go to
24 CIM17171. And if you can go to CIM17171.0001.
25 Thank you.

1 I'm just bringing up briefly
2 on the left-hand side an e-mail where you sent
3 your draft, your first draft of the -- what we
4 call the February 4 CIMA memo to Mr. Boghosian,
5 and you sent that in the evening on February 23rd,
6 and then the image on the right-hand side is that
7 document. So you'll see the back and forth --
8 pardon me. I think I misspoke. You sent it.

9 Mr. Boghosian responds, and he
10 attached -- he included a draft, and what's on the
11 right-hand side is your original document plus his
12 comments. Sorry about that, I misspoke.

13 A. His markup is the
14 document on the right-hand side of the screen,
15 right?

16 Q. His markup. So your
17 initial plus his markup is on the right-hand side,
18 and the e-mail exchange on the left-hand side is
19 the back and forth. So apologies for misstating
20 that.

21 Registrar, you can close down
22 the left-hand image, and if you can go to images 1
23 and 2. This is a bit smaller, especially because
24 it's with markup.

25 Registrar, can you call out

1 all of image 2, please. As far as I could tell,
2 all of Mr. Boghosian's markups are identified with
3 red highlight or underlined or -- pardon me, red
4 font or underlined or highlighted. I don't think
5 there's anything else in there that's not
6 identified. So at least that's how I understand
7 it. So I'm going to treat the text that is not
8 otherwise marked up as your original text, and
9 then the comments that are referenced and
10 highlighted as Mr. Boghosian's. Is that fair? Is
11 that also your understanding?

12 A. I believe that is my
13 understanding -- that is my understanding as well,
14 yes.

15 Q. Great. So in image 2,
16 you start to respond to the three questions that
17 Mr. Boghosian had sent to you on the 30th. The
18 first question being, in light of the 2014 Golder
19 report, are any changes needed to the
20 recommendations in the previous CIMA report or to
21 the City -- pardon me, CIMA report to the City
22 regarding safety on the Red Hill?

23 And so that this is changes to
24 past recommendations, and it says it's in respect
25 of the information in the 2014 Golder report. I

1 presume you looked at not only the Golder -- 2014
2 Golder report, but also underlying 2014 Tradewind
3 report; is that right?

4 A. Correct, yes.

5 Q. So you'll see

6 Mr. Boghosian has a notation in the paragraph that
7 is three paragraphs down in the answer. It said:

8 "Had the Golder report been
9 provided to CIMA and reviewed
10 prior to completing our
11 report, we would have
12 appropriately adjusted the
13 friction testing
14 recommendation to one that
15 urged further investigation of
16 the friction findings in the
17 Golder report relating to road
18 design and operations."

19 And Mr. Boghosian adds:

20 "Indicate that you are aware
21 that further friction testing
22 was in fact undertaken by COH
23 since the receipt of the
24 Golder report."

25 So I'm going to come back to

1 your initial drafting, but just for the moment
2 looking at Mr. Boghosian's comment. Did you
3 understand his comment to be a reference to the
4 2017 Golder testing?

5 A. He doesn't make a
6 specific reference to it -- to any specific
7 document. I think he's talking post Tradewind
8 report, so I don't think he makes a specific
9 reference. I don't think it had an interpretation
10 of one or the other.

11 Q. So did you understand
12 that there was further friction testing undertaken
13 since the receipt of the 2014 Golder report?

14 A. I received his comment,
15 but I didn't simply regurgitate it back with, yes,
16 further friction testing was done. I think the
17 wording that is -- I do make a modification to the
18 wording, but the wording change I make is that
19 further pavement evaluation was undertaken, which
20 was my interpretation of the additional
21 documentation that I had.

22 Q. And did you review the
23 2017 pavement evaluation that was done, which I
24 will agree is what you put in your revised draft?
25 Did you view those evaluations as meeting the 2015

1 CIMA recommendation to conduct friction testing?

2 A. No, I didn't. I read
3 them as meeting the Tradewind recommendation for
4 further evaluation -- further investigation I
5 guess would be the better wording.

6 Q. So you didn't view the
7 2017 Golder pavement evaluation as friction
8 testing in the way that CIMA had recommended it?

9 A. No, I don't think so. I
10 don't think I was ever provided with anything,
11 until the information shortly before repaving,
12 that friction testing was done by the City.

13 Q. Thank you. So just going
14 back to your drafting. So you say:

15 "Had the Golder report been
16 provided to CIMA and reviewed
17 prior to completing our
18 report, we would have
19 appropriately adjusted the
20 friction testing
21 recommendation to one that
22 urged further investigation of
23 the friction findings in the
24 Golder report relating to road
25 design and operations."

1 So I find that sentence to be
2 a bit confusing. Do you mean that CIMA, had they
3 had the Tradewind report and Golder report, would
4 have recommended further investigation of the
5 pavement?

6 A. Yeah, maybe what's making
7 is confusing from my end, is that I'm using the
8 words Golder report, but I think I'm really
9 meaning the Tradewind report. The Tradewind was an
10 appendices to the Golder report, so having now
11 seen that information, the Golder report with the
12 Tradewind component to it, it's recommending or
13 it's identifying the investigatory level which is
14 indicative of need for additional evaluation, and
15 we would have potentially incorporated a comment
16 or recommendation that that be undertaken.

17 Q. So I think I could read
18 this sentence in two different ways. One is, if
19 CIMA had known about the Tradewind report and the
20 Golder report, it would have said to the City in
21 2015, you need to think about a high friction
22 application or something to fix this payment.

23 It's very similar to what was
24 done in 2013 in respect of one of the ramps.
25 That's one way I could interpret what you mean by

1 "urge further investigation of the friction
2 findings relating to road design or operations."

3 The other way that I could
4 read this is that you would have urged the City to
5 more carefully consider whether and how friction
6 was a contributing factor to collisions.

7 A. I think I'm somewhere
8 maybe between those two, which is that I think
9 what we would have done was said to do the
10 follow-up of the investigation, the evaluation
11 that was identified in the Tradewind report. I
12 mean, we're -- in 2015, the Tradewind report had
13 been completed by that point.

14 If that document had been part
15 of what we were reviewing in 2015, I think what
16 I'm saying, attempting to say in this paragraph is
17 that we would have said yes, you should continue
18 your evaluations of your pavement as identified in
19 the Tradewind report, because the further
20 evaluation would not have been done at that point,
21 and the recommendation for evaluation would have
22 been in our hands with Tradewind. There's a time
23 sequence to consider here, but that's what I'm
24 intending to say. I guess I'm not doing it very
25 well.

1 Q. So you would not have
2 changed the way that you approach, that is, you
3 CIMA, approached the assessment of friction as a
4 contributing factor to collisions if you had had
5 the Tradewind report and Golder report in 2015?

6 A. Yeah. Yes, I think
7 that's correct. I mean, the problem with the
8 results of the Tradewind report is that they
9 indicate, in my interpretation, friction levels
10 that are in excess of the values that are utilized
11 in road design. So theoretically, that should
12 mean that friction is not an issue because the
13 friction levels are provided. We have a
14 preponderance of wet road crashes. We -- I don't
15 think it would be the smoking gun of confirmation
16 that pavement surface was the key factor and
17 problem in the resulting consequences of these
18 collisions.

19 So I don't believe -- I don't
20 think that our recommendations would have changed
21 significantly overall. Wet road crashes are still
22 problematic. They are at a proportion which is
23 too high. We have more information regarding
24 friction, but I still have, based on my
25 interpretation now, information about friction

1 which indicates it's -- exceeds, is more than the
2 values used in design, and then therefore
3 theoretically are not an issue.

4 Is there a different friction
5 problem beyond the straight comparison of those
6 numbers? That is something there, and that's
7 where further evaluation of the pavement could be
8 potentially useful, which is what was recommended
9 and was ultimately done.

10 Q. Had you known at the time
11 of preparing the 2015 report that the design speed
12 was actually 100 kilometres an hour -- and you'll
13 recall I asked you about this earlier -- and had
14 you had the information in the Tradewind report,
15 would that have changed the way that you
16 approached the recommendations in 2015? And
17 before you answer, I'm just going to try to put a
18 bit of context for my question, and then maybe
19 I'll ask it again.

20 By 2018, you said this morning
21 that the issue of friction as a potential
22 contributing factor was starting to crystallize
23 for you, and had you had the Tradewind report and
24 the Golder report in 2015 and had you known about
25 the design speed being 100 kilometres an hour in

1 2015, would that have crystallized earlier for
2 you?

3 MR. PROVOST:

4 Mr. Commissioner, this is Richard Provost.

5 Mr. Malone is here to testify as a witness of
6 fact. This triple hypothetical question, in my
7 opinion, exceeds the boundaries of what we can ask
8 a witness of fact. It clearly becomes an expert
9 at this point.

10 MS. LAWRENCE: Commissioner,
11 you're on mute.

12 JUSTICE WILTON-SIEGEL: I'm
13 sorry. Ms. Lawrence, do you want to speak to
14 that?

15 MS. LAWRENCE: I certainly
16 disagree with the characterization that Mr. Malone
17 is being asked to provide any sort of expert
18 analysis. As a fact witness, it's entirely
19 appropriate to put information to him that if he
20 had known, you know, he may have taken a different
21 approach, and so I'm trying to understand the key
22 thing in this case, which is if people had had the
23 Tradewind report and more information about the
24 Red Hill at an earlier period of time, would that
25 have changed the way that the City received

1 information from its consultants. I view it to be
2 entirely fair.

3 JUSTICE WILTON-SIEGEL: Yes.
4 Mr. Provost, I don't see this as a question of an
5 expert witness. I think this is trying to
6 understand Mr. Malone's statement with respect to
7 whether or not the 2015 report recommendations
8 would have been any different, and I think all
9 that's being put to Mr. Malone are the additional
10 facts, one of which of course is the Tradewind
11 report which is the purpose of the memorandum in
12 the first place, and he's giving his answer as a
13 revisiting of the 2015 report, and I think all
14 this additional question adds is the further
15 element that was reflected in the roadside safety
16 assessment which was that the design speed was in
17 fact different from that which had been assumed by
18 CIMA in 2015.

19 I think that's a fair question
20 to ensure that the answer captures all of the
21 differences in assumptions from those which
22 prevailed in 2015.

23 MR. PROVOST: My reaction is
24 likely because of the experience in civil cases
25 where these hypothetical question -- I've remained

1 very quiet, but when it becomes a triple
2 hypothetical question, my ears are buzzing.

3 JUSTICE WILTON-SIEGEL: Well,
4 that's fair. And I appreciate you're raising the
5 concern for your client. I actually see it
6 only -- and I don't mean this as purely
7 linguistic. I don't see this as a triple
8 question, only a double. Really he's being asked
9 bear in mind -- if I understand the question
10 correctly, bear in mind that in 2015 CIMA was not
11 provided with the right design speed for the road.
12 And it wasn't provided with the Tradewind report.
13 Had it had those -- effectively the memo should
14 respond to both, and had Mr. Malone had both of
15 those, would the answer or the recommendations
16 have been any different.

17 MR. PROVOST: Thank you.

18 JUSTICE WILTON-SIEGEL: So
19 I'll allow the question to be put in those terms.
20 So I think it was the manner in which it was put.

21 THE WITNESS: Would you like
22 me to respond?

23 JUSTICE WILTON-SIEGEL: Yes.
24 Not to me, Mr. Malone. I just take notes.

25 THE WITNESS: I am responding

1 to the inquiry.

2 JUSTICE WILTON-SIEGEL: But to
3 Ms. Lawrence.

4 THE WITNESS: So to clarify.
5 If the design speed is different, then the
6 friction threshold value that I would be comparing
7 to from the geometric design guidance also moves.
8 They move in conjunction with each other.

9 And in preparation for this
10 testimony, I have had a closer look at the
11 Tradewind report, which I would have done at the
12 time, presumably. It consists of a range of data
13 points. I think there's something like 280
14 individual numbers that are provided through the
15 run through the roadway.

16 I took a close look at each of
17 the numbers that are -- were measured, and I see
18 only a change of one data point that would move in
19 relation to a revised threshold if the design
20 speed differences is nil. So it's not irrelevant,
21 but it's not overly relevant, and my conclusion
22 today, and again it's in hindsight, is that I
23 don't think it would change our recommendations
24 still.

25 I think it's a valid question

1 to ask, and obviously in hindsight we would have
2 preferred to have all of the information in its
3 entirety, but I don't think it changes anything
4 because the change between the two design speeds
5 and the corresponding change between the friction
6 levels provided in the design guidance is
7 extremely small, one data point out of 280.

8 BY MS. LAWRENCE:

9 Q. Thank you for that, Mr.
10 Malone. Registrar, can you close this and can you
11 go to CIM17165, please.

12 You asked some colleagues for
13 contact information at the MTO with regards to
14 pavement. Did you have any other discussions with
15 Mr. McGuire about why he was asking for this?

16 A. Not to my recollection,
17 no.

18 Q. Did you have any other
19 involvement in discussions between the City and
20 the MTO in respect of pavements?

21 A. No, no, it was a -- he
22 was reaching out for a contact. He knew I had
23 known people at MTO. I had worked there at one
24 point in time, so no.

25 Q. Thank you. Registrar,

1 can you go to CIM17150, please. Can you call out
2 the next image as well.

3 In the finalization of the
4 February 4th memo, Mr. Boghosian asked you to
5 remove the reference to the speed limit
6 differential under the first question that could
7 be released to the public and is addressed to the
8 mayor and council. So just stopping there.

9 I think you said earlier that
10 you originally addressed this to Mr. Boghosian,
11 and at some point you learned that it was going to
12 be provided to the mayor and council; is that
13 right?

14 A. Yeah, I'm not exactly
15 sure when that occurs. I know it's on the --
16 edition three of the memo to the mayor changed
17 from Mr. Boghosian.

18 Q. Yes. Did you understand
19 that your memo itself would be released to the
20 public as a document?

21 A. No, I didn't realize that
22 until well after.

23 Q. Until it was released?

24 A. Yeah, pretty well.

25 Q. So you'll see

1 Mr. Boghosian e-mails you and asks you to amend
2 the report, and then you reference with
3 highlighting what will stay in and what will go
4 out, as you are trying to understand what the
5 request is. And Mr. Boghosian says they want both
6 paragraphs removed, and you say okay.

7 So one of them is about
8 recommending lowering the speed limit and why, in
9 green. And then the other was that lowering the
10 speed limit could theoretically improve safety.
11 And then you speak about what you spoke about
12 today in your evidence, the result could have
13 other consequences. I'm just going to paraphrase
14 very quickly. Why did you agree to remove these
15 sections from the February 4th memo?

16 A. Because I thought they
17 were clearly articulated in the speed report that
18 had been provided earlier to the City.

19 Q. Thank you. After you
20 provide your final February 4 -- Registrar, you
21 can close this down -- February 4 memo to
22 Mr. Boghosian -- did you have any additional
23 discussions about friction or safety on the Red
24 Hill with him?

25 A. Not to my recollection,

1 no.

2 Q. I know you were departing
3 for a fairly lengthy vacation. Did you have any
4 discussions with anyone at the City before you
5 departed on February 6th?

6 A. Not that I recall, no.

7 Q. Did you speak with anyone
8 at the City during your vacation?

9 A. No, I don't believe I
10 spoke to anybody. I did get a couple of e-mail
11 alerts of what was going on, but no, no
12 conversations with City staff.

13 Q. Registrar, can you go to
14 HAM36825 -- no, let me try that again. HAM36285.
15 Registrar, can you call out the content of this.

16 This is an e-mail from Mr.
17 Soldo, and it copies friction testing, it provides
18 copies of friction testing that MTO had performed
19 between 2008 and 2014. Had you had any knowledge
20 that there was such testing completed by the MTO
21 before receiving this e-mail?

22 A. No. Yeah, I mean -- just
23 to clarify, I'm on vacation at this point in time.
24 I'm cc'd on it, so I don't believe I read this at
25 the time it came out. It went to Dr. Hadagyeigi

1 and he was the primary recipient, but the answer
2 is the same, no.

3 Q. Registrar, could you
4 close this and go to CIM17113, please.

5 I think you do actually wade
6 in on this e-mail -- this is a kind of e-mail
7 exchange, but you'll see on image 1 on the
8 left-hand side, they are asking -- the City is
9 asking for a degradation curve, or an
10 extrapolation, and you, at 1:06 in the morning,
11 say, "I'm back Monday and perhaps we can discuss
12 then."

13 Sorry, I was looking at the
14 e-mail two e-mails ahead. The bottom of the
15 left-hand side, you say:

16 "Isn't the City just asking
17 for an analysis of the MTO
18 data for the 2007 to 2014 to
19 see the data trend in those
20 numbers?"

21 Do you see that? And then you
22 sort of say, I'm coming back and we can chat when
23 I get back.

24 Sorry, yes?

25 A. No, I see it, yes.

1 Q. You come back the Monday,
2 which I think is the 22nd. You don't have to be a
3 calendar, but I think that's right. It might be
4 the 23rd. And CIMA prepares a memo in respect of
5 this request on February 26. How involved in the
6 drafting of that memo were you?

7 A. I wasn't overly involved
8 in the drafting of it. The initial preparation,
9 Dr. Salek was the primary author, but I certainly
10 reviewed it and provided input to the content
11 prior to it going out, and it goes out under my
12 name but a co-signature from the two of us.

13 Q. Thank you. Registrar,
14 can you go to HAM36336.

15 So as I understand this and
16 interpret it, this is a plotting of the known
17 friction data from the MTO and then an
18 extrapolation of what the trend would be based on
19 the known data; is that right?

20 A. It's more than a plotting
21 of it, but it's an analysis of the data that was
22 provided, yes.

23 Q. Does this -- did these
24 include the 2013 Tradewind data? I note there's
25 nothing at the 2013 column, and so am I correct

1 this is just the MTO friction data?

2 A. Yeah, the memo states
3 that specifically. It's -- Tradewind data is not
4 included in this.

5 Q. Okay. Did this analysis
6 cause you to reconsider whether you should either
7 make additional recommendations or interim measure
8 recommendations, given where the friction data
9 could be if this was accurate in 2019?

10 A. No, didn't cause a change
11 in the conclusions. That was one of the questions
12 that we were asked to contemplate when we were
13 asked to review the data, and to put it in proper
14 context, to be clear, we were asked to determine
15 if we could do an extrapolation. Dr. Salek and
16 others, upon assessing the information and doing a
17 regression analysis for it, determined that an
18 extrapolation could be undertaken, and the
19 conclusion of that extrapolation provided a result
20 which is shown and can be read, but it did not
21 change the determination, conclusions that we had
22 in our previous memo because the values were still
23 at approximately the range which would meet the
24 design thresholds.

25 We added a significant number

1 of caveats in the memo to attempt to ensure that
2 the City would interpret the results with
3 appropriate caution and make determination as to
4 how to utilize it. This is a mathematical
5 exercise of extrapolating data values. Taking
6 that and making a decision whether what's
7 represented by the numbers is acceptable or
8 unacceptable is a different story for a whole
9 bunch reasons that are identified in the report.

10 I can go through some of the
11 caveats, if you like, to help. We were very
12 careful to say that you have to be cautious about
13 using this extrapolation because it could be off.
14 We in fact flagged a number of aspects as to how
15 it may not be accurate.

16 Q. So why did you do it if
17 you had so many caveats with its use?

18 A. We were asked to do it.
19 We were capable of doing it. We were comfortable
20 that the logarithmic -- non-linear logarithmic
21 function which was used for the extrapolation was
22 mathematically accurate. You know, extrapolating
23 data requires a sufficient number of data points
24 and some recognition of the variation that exists
25 from data point to data point, and so from a

1 mathematical perspective it could be done. So
2 there's statistical confidence in the
3 extrapolation of the line.

4 The application of the results
5 from that line are a different story, and, for
6 example we highlighted that we have no traffic
7 volume information. So we have no way of knowing
8 whether the trend, which is shown by the dots in
9 blue here, are in fact going to continue along the
10 same trend because one of the influencing factors
11 which was identified in the analysis was traffic
12 volume.

13 We also flagged and noted that
14 the data varies by lane in the roadway, and we
15 don't know how much that potentially changes as
16 time goes on. We flagged that the extrapolation
17 accuracy changes -- the confidence in the
18 extrapolation changes as you extrapolate over a
19 longer and longer period of time, and therefore
20 your confidence in the results further out would
21 get worse and worse.

22 We highlighted that there's no
23 comparator from the LINC, only the Red Hill was
24 provided. So we don't have an alternate facility
25 to also compare to. We --

1 Q. Mr. Malone, I don't want
2 to keep you late today, and to the extent that you
3 are just reiterating what the report actually
4 says, I don't think that's answering my question.

5 A. Well, the suggestion is
6 that there is no context to the extrapolation, and
7 I'm simply highlighting that there is.

8 Q. Mr. Petzold had suggested
9 that there was really no substitute for doing a
10 field test. Did you make that recommendation to
11 the City before agreeing to do this analysis?

12 A. We made it in the
13 analysis. It's in the report, in the memo.

14 Q. None of you and the
15 others who were involved in the preparation of
16 this report are pavement material experts; is that
17 right?

18 A. I think that's correct,
19 yes.

20 Q. Registrar, could you
21 close this, and can you go to OD10A, page 232.

22 In 2020, so we've moved
23 forward a fair bit in time, you attended a meeting
24 with Mr. Ferguson and other colleagues of yours,
25 the stated purpose of which was to review

1 collision numbers for the RHVP main line between
2 2013 and 2018. Registrar, could you go to the
3 next page, please. Can you bring up the next page
4 as well, 234. Thank you.

5 In April, CIMA finalized a
6 report called "Red Hill Valley Parkway Analysis"
7 which included a collision analysis which had a
8 very large caveat about its use because it was a
9 relatively short period of time that was being
10 considered. Do you remember being involved in the
11 preparation and finalization of this report?

12 A. I do, yes.

13 Q. As I understand it, but
14 please confirm, the primary collision analysis
15 here was looking at the period of time after
16 February 2019; is that right?

17 A. Well, before and after,
18 yes.

19 Q. Sorry, maybe I should
20 have been more specific. So in February 2019
21 there was increased police enforcement that
22 started to be commenced after the public release
23 of the Tradewind report, and then the resurfacing
24 of the Red Hill happens a little bit later that
25 year. Was this only looking at the period of time

1 after both the police enforcement and the
2 resurfacing had occurred?

3 A. Sorry, could you repeat
4 the context. The last portion of the question,
5 please?

6 Q. Sure. So you'll see
7 right under 4.3, "Collision Analysis," is looking
8 at data before and after the increased police
9 enforcement which was ordered in early 2019, and
10 then the resurfacing which happened a little bit
11 later in the spring of 2019.

12 A. Correct.

13 Q. So was this intended to
14 try to demonstrate that before and after both of
15 those periods of time, recognizing that they're
16 different periods of time when these two events
17 occurred?

18 A. I think that was the
19 desire of the City to make a determination of
20 that, yes.

21 Q. And I certainly have the
22 report. I'm not going to go through it. Some of
23 it is here. What did the findings in the
24 collision analysis, recognizing it's a very small
25 sample size, tell you about the relative

1 contribution of friction levels to collisions
2 before resurfacing, if anything?

3 A. I haven't reviewed it in
4 that level of detail recently, so I'm cautious
5 about summarizing the content of the report. My
6 recollection is that it concludes that there is
7 reduction in numbers of crashes, but I believe
8 also states that it's both difficult to determine
9 which factors may be the contributors to reduction
10 and also, as flagged by the red box, that the
11 timeframe in the after period is extremely short,
12 and very difficult to determine whether or not
13 it's reflective of true accounts in a long-term
14 sense.

15 Q. Thank you. Registrar,
16 can you go to ODA 235, page 235. Thank you.

17 In May of 2020, CIMA finalized
18 a report entitled "Review of Red Hill Valley
19 Parkway Friction Testing Results," and the scope
20 is set out in that paragraph at 603 as being a
21 review of the new friction test results completed
22 after resurfacing.

23 Were you involved in the
24 preparation and finalization of this report?

25 A. I was involved in the

1 review of it and I believe I signed off on it, but
2 I didn't do the actual analysis myself.

3 Q. Okay. Am I correct that
4 CIMA was not asked to review any pre-surfacing
5 friction testing?

6 A. I would have to double
7 check. I don't recall. I think it was after
8 repaving, so I don't believe that we did.

9 Q. Thank you. Do you know
10 why you were not asked -- assuming for the moment
11 that there was friction testing done just before
12 the resurfacing, why you were not asked to
13 consider that as well?

14 A. No. No, I do not.

15 Q. Thank you.

16 Commissioner, I see that it is
17 three minutes to 3, and I think it might be an
18 appropriate time to take a slightly earlier than
19 normal break and I can discuss the remainder of
20 the day with my colleagues.

21 JUSTICE WILTON-SIEGEL: Sure,
22 that will be fine. How long a break are you
23 recommending, the usual 15 minutes?

24 MS. LAWRENCE: 15 should be
25 plenty.

1 JUSTICE WILTON-SIEGEL: I
2 wasn't suggesting longer. I wanted to shorten it
3 a bit to make sure we completed this exercise
4 today. If you think 15 minutes is appropriate,
5 let's do that.

6 MS. LAWRENCE: Thank you.

7 JUSTICE WILTON-SIEGEL: We'll
8 return at 3:15.

9 --- Recess taken at 2:57 p.m.

10 --- Upon resuming at 3:15 p.m.

11 MS. LAWRENCE: Thank you.

12 Just waiting for the live-stream to catch up with
13 us. May I proceed?

14 JUSTICE WILTON-SIEGEL: Yes,
15 please do.

16 MS. LAWRENCE: Thank you.

17 I have two documents that I referred to during
18 Mr. Malone's examination to mark as exhibits.
19 CIM17171, and CIM17171.0001, which are the e-mail
20 and then the draft with Mr. Boghosian's comments
21 to the February 4 memo. And those, I believe,
22 Registrar, are Exhibits 204 and 205. 3.

23

24 THE REGISTRAR: Noted,
25 Counsel. Thank you.

1 EXHIBIT NO. 204: E-mail dated
2 2/3/19; CIM17171.
3 EXHIBIT NO. 205: Memo from
4 Brian Malone to David
5 Boghosian, 8 pages;
6 CIM17171.0001.

7 BY MS. LAWRENCE:

8 Q. Thank you. Mr. Malone, I
9 have one last set of questions.

10 I understand that throughout
11 your analysis of the Tradewind report and its
12 contents, you relied on the reliability or the
13 veracity of the temperature data that's contained
14 within it in terms of the data -- the temperature
15 data from the day that the Tradewind report data
16 was taken; is that right?

17 A. I accepted the Tradewind
18 data as it was presented to me, and it contained
19 information about weather and temperatures, yes.

20 Q. Thank you. I understand
21 in the course of preparing for your evidence, you
22 noted that Environment Canada weather reports for
23 the date of the Tradewind report data collection
24 indicated a maximum temperature of 3 degrees, plus
25 3; whereas the Tradewind report recorded a

1 temperature of plus 7. You did that additional
2 research on your own?

3 A. I heard it come out as
4 evidence when the Tradewind's representative was
5 being interviewed. And what I did for the day of
6 and what I did also examine was the day before,
7 and I noted that there had been snow in the
8 overnight period of -- not the night before but
9 two nights before. So the weather seemed to be
10 different than what was described by the witness
11 and recorded in the Tradewind's documentation.

12 Q. Thank you. And you
13 brought that to the inquiry's attention --

14 A. I did.

15 Q. -- prior to your
16 examination today?

17 A. Yes.

18 Q. Do you know how friction
19 data can be affected by a temperature swing
20 between 3 and 7 degrees?

21 A. I don't know precisely
22 what the outcome might be. It would depend on the
23 testing methodology. I do know that the
24 Tradewind's representative indicated some
25 indication that temperature or weather was a

1 relevant factor. Contaminants on road surface
2 would be a relevant factor. And also that when we
3 looked at the MTO data, which I recognize is a
4 different testing methodology, we found a
5 statistical correlation between temperature and
6 the results.

7 Q. Thank you.

8 (Speaker overlap)

9 A. Temperature. Excuse me.

10 Q. And apart from that, you
11 don't have any expertise around the collection of
12 friction data that might assist the inquiry; is
13 that right?

14 A. No. I think it's a
15 testing protocol question, which I'm not able to
16 provide an input to.

17 MS. LAWRENCE: Thank you.
18 Commissioner, those are all of my questions for
19 Mr. Malone. I have canvassed the other parties
20 and I understand Ms. Roberts and Ms. Contractor
21 have questions, and the MTO, Ms. McIvor, may have
22 questions. And in terms of the order of
23 proceeding, that Ms. Roberts will go first, and
24 expects to be between 40 minutes and an hour.

25 JUSTICE WILTON-SIEGEL: Okay.

1 Please proceed, Ms. Roberts.

2 MS. ROBERTS: Thank you,
3 Commissioner.

4 EXAMINATION BY MS. JENNIFER ROBERTS:

5 Q. Mr. Malone, we have met
6 before. Hello. I have a number of questions, and
7 I will try and be brief as Ms. Lawrence has
8 covered off most of what I wanted to go to.

9 I do want to go back first to
10 the exchange you had with Mr. McGuire in August of
11 2018 in which he re-sent the summary of friction
12 data that had been exchanged between Dr. Uzarowski
13 and Mr. Moore on January 24 of 2014.

14 Registrar, can you please turn
15 up overview document 9A, pages 61, 62. Go to
16 paragraph 146, so can you go ahead. Interesting.

17 A. This isn't correlating
18 with my version of 9A.

19 Q. It doesn't correlate with
20 mine either, which is a little alarming.

21 THE REGISTRAR: My apologies.
22 This is 10A.

23 MS. JENNIFER ROBERTS: My
24 heavens. Okay. Panic attack. Thank you. Sorry,
25 I don't want 10A. I want 9A, please, Registrar.

1 THE REGISTRAR: For some
2 reason it keeps popping that one up. Let me do it
3 another way. My apologies.

4 BY MS. JENNIFER ROBERTS:

5 Q. Thank you. So this is
6 the beginning. August 30, Mr. McGuire sends you
7 an e-mail, and he says, here's the study of the
8 RHVP prior to opening.

9 Registrar, can you please turn
10 up the next page. I'm not going to belabour this,
11 Mr. Malone, but we just had evidence that in early
12 2018, you've discovered that in fact the lighting
13 was not something that was prohibited. I think in
14 fairness, you've questioned some of the
15 information provided by Mr. Malone.

16 Your evidence was that again
17 you went back to what Mr. Malone had told you that
18 this was --

19 MR. PROVOST: Mr. Moore.

20 Mr. Moore.

21 BY MS. JENNIFER ROBERTS:

22 Q. Moore. Thank you.
23 Forgive me. Mr. Moore had told you that it was a
24 comparison of two data sets obtained by MTO. And
25 my question is, given what has transpired here,

1 you didn't reconsider and relook at this and
2 assess whether in fact that that was -- could
3 possibly be true?

4 A. I had nothing to indicate
5 it was not true.

6 Q. Well, except in fact that
7 if you look at page 62, it references Tradewind
8 Scientific. You didn't repause and relook at this
9 e-mail in any further different -- in any further,
10 more clear way when it was re-sent in August
11 of 2018?

12 A. It was the very same
13 e-mail I had received in 2015, and so my
14 understanding was the description or explanation
15 of it was the same. In fact, that's what I
16 reiterate or respond to Mr. McGuire about.

17 Q. I just want to point out
18 something else here. I'm not sure if you can read
19 it, but it says in 2013 the friction numbers were
20 measured on the Red Hill in both directions by
21 Tradewind Scientific using a grip tester, and the
22 average -- when you read that, I suggest to you
23 that when the language is that there is an average
24 of friction numbers, that that tells you, does it
25 not, that there's a dataset?

1 A. Yes, okay.

2 Q. And that didn't cause you
3 to go back and ask for the full data?

4 A. No, I wasn't provided
5 with the data in 2015. This is the very same
6 e-mail coming to me again in 2018, so I'm assuming
7 it's either not there or wasn't going to be
8 provided to me.

9 Q. I'll move on. You've
10 given a fair amount of evidence in relation to the
11 design speed, and it's clear that in December
12 of 2018 you're provided with information and know
13 at that point that the design speed for the Red
14 Hill Valley Parkway at the time it was designed
15 was 100 kilometres per hour. When you were giving
16 testimony earlier, you talked about what that
17 meant, and in response to questions by Ms.
18 Lawrence, you said that you were trying to
19 understand the safety aspects of geometric design,
20 and if the design speed is lower than the
21 operational speed, then drivers potentially are
22 exceeding the design speed, and that potentially
23 puts you in range of a safety concern. Do you
24 remember that exchange?

25 A. Not the exact wording,

1 but I remember the question.

2 Q. In fact, you knew, and
3 you just testified this morning on it, that
4 according to the 2017 TACC guidance, that there's
5 one turn on the Red Hill that has a design speed
6 of 90 kilometres per hour. That's correct?

7 A. In comparison to the 2017
8 manual, yes.

9 Q. So there's been a great
10 deal of testimony about people speeding on the Red
11 Hill and excessive speed, and I'm not judging that
12 but what I'm interested by is the fact that anyone
13 travelling faster than 90 kilometres per hour as
14 they go into that turn with a design speed of 90
15 is, in fact, exceeding the design speed for the
16 sharpest turn. Do you agree with that?

17 A. The design speed, yes.

18 Q. Doesn't that mean that
19 you are -- that there's very little -- that you're
20 limiting the safety margin of that road when
21 you've got a design speed that's so low and you've
22 got people that are travelling at the posted speed
23 of 90?

24 A. It means you have a lower
25 safety margin.

1 Q. I'm going to move on.
2 Registrar, you can take that down, please. I want
3 to go to OD9A, 230 to 232. Forgive me, Registrar,
4 I want to go first to HAM1642, which is the
5 roadside safety assessment.

6 First of all just let me cover
7 off a point. You were asked whether you knew that
8 the Red Hill Valley Parkway was designed with the
9 maximum superelevation of 6 percent, and I think
10 your answer was yes, you did. Do I have that
11 right?

12 A. Yeah, I don't think it
13 came today, but I think at some point that
14 assumption was understood.

15 Q. I think your evidence
16 today is that you had no information to confirm
17 that -- the as-constructed superelevation?

18 A. I believe that's correct.
19 I don't think it's stated today but....

20 Q. No, you're right, I think
21 that was your last day of testimony. Can we
22 please go to image 9. So this is -- Registrar,
23 can you go back one page first, please. This is
24 the scope of work. Registrar, image 9 now,
25 please. Thank you.

1 The first item is the
2 geometric design review to confirm radii and
3 compatible design speeds on the main line and
4 ramps, as well as a requirement for the median
5 barrier, and then you go on to the other items.
6 When -- and you touched on this this morning.

7 In your review of geometric
8 features, you're addressing curve and design, but
9 you don't address here in this report the
10 proximity of the interchanges or the site distance
11 available or the length and extent of the weaving
12 lanes, do you?

13 A. It's not stated in this
14 paragraph, I agree.

15 Q. Right. But you do
16 discuss those factors with Mr. Boghosian later as
17 relevant to the number of collisions on the Red
18 Hill. So I take it that all of those factors that
19 I just identified are relevant to the analysis of
20 collisions?

21 A. They would be part of a
22 collision analysis, yes, and were incorporated in
23 the elements in the 2015 report and also in the
24 2018 roadside safety assessment.

25 Q. Can we please go to image

1 23 of this document, Registrar. I want to go to
2 the summary of your collision history. So you've
3 gone to this a number of times, so I'll try and be
4 brief.

5 You identify in overall
6 findings wet surface collisions were found to
7 represent 64 percent of main line collisions and
8 73 percent of ramp collisions, and you talk about
9 that as being an increase on the main line. And
10 the last bullet item is:

11 "These findings suggest that
12 inadequate skid resistance
13 (surface polishing, bleeding,
14 contamination, and excessive
15 speeds maybe contributing
16 factors to collisions)."

17 Now, I took you to this same
18 language which is repeated from the 2015, and I
19 take it, sir, at this point that you have --
20 there's no factual finding on the part of CIMA
21 that there is any surface polishing or bleeding on
22 the Red Hill.

23 A. Yes, I think that's
24 correct. We're describing conditions that could
25 suggest inadequate skid resistance in a generic

1 sense.

2 Q. In a generic sense. So
3 these -- I think you said they were out of a
4 textbook. At this point you haven't confirmed --
5 they are still repeating what the textbook
6 potential contributing cause is, do I have that
7 right?

8 A. I think that's an
9 accurate way to describe it, yes.

10 Q. Thank you, Registrar.
11 You can take that down. Can we please go to
12 overview document 9A, pages -- images 231, 232.

13 You've been taken to this.
14 These are notes from your exchange with
15 Mr. Boghosian on December 11?

16 A. Mr. Boghosian's notes,
17 yes.

18 Q. Registrar, can we please
19 turn up or bring up page 232. It's easier to
20 read. Thank you very much.

21 You were taken to this in item
22 4 -- you've got a number of items here, and you
23 initially list them, design speed of curve
24 sometimes 100 kilometres per hour and sharp. I
25 think that -- I think what you're talking about

1 there is that the design speed for the curves are
2 100 kilometres per hour. Is that what that means?

3 A. These are Mr. Boghosian's
4 notes, so....

5 Q. Fair. Do you remember
6 telling him that one of the turns was 90
7 kilometres per hour in accordance with current
8 TACC guidance?

9 A. I don't have a sufficient
10 recollection of the conversation to confirm that.

11 Q. I want to sort of dig
12 into the point 4, which is "slipperiness of the
13 road surface (slipperier when wet than other
14 roads)."

15 I want to understand the use
16 of the word "slippery" here, Mr. Malone. First of
17 all, is that the language that you recall using
18 with Mr. Boghosian?

19 A. I don't have sufficient
20 recollection of the conversation to be able to
21 confirm that wording exactly. The context of the
22 paragraph or the sentence is wet road crashes
23 occurring on roadway. We were comparing to other
24 wet road crash performance in other locations, so,
25 I mean, you can translate that into more slippery.

1 Q. I want to sort of dig
2 into the word slippery because it's -- when -- the
3 use of the word slippery might mean a number of
4 things. It might be referring to just the surface
5 friction, but I think in the context of road
6 safety, slippery might also mean or encompass many
7 other factors. Would you agree with that?

8 A. Of course. The condition
9 of the tires of the vehicle, for example, would be
10 a component of the slipperiness that exists
11 between the two.

12 Q. Right. But would you
13 also include in that assessment of experienced --
14 slippery as an experienced condition, the factors
15 of tight geometry, the curvature, the vertical
16 alignment, the close proximity of interchanges,
17 and the fact that in those circumstances there's a
18 very high demand for friction?

19 A. I'm not sure I understand
20 your question.

21 Q. Okay. I'm not expressing
22 it very well. Forgive me. What I'm trying to
23 understand is whether, in using a word like
24 slippery, that you're addressing or you would have
25 been addressing a number of factors, one of which

1 is pavement friction?

2 A. First of all, these are
3 Mr. Boghosian's notes. I'm not sure I can confirm
4 I used the word slippery or slipperiness or
5 slipperier myself, but -- yeah, of course, any
6 collision involves a number of factors. Driver
7 behaviour, speed are directly relevant and
8 interact together, and the condition of the
9 vehicle as well as I just described. Yes, there
10 are a number of factors.

11 Q. And those factors would
12 also include a circumstance where there's a high
13 friction demand because of the road itself, would
14 it not?

15 A. Well, in a curvilinear
16 road, the requirement, necessity for friction to
17 be available to you in a curve is more important
18 than on a straight line, for example, if you're
19 not turning. But even in a straight line
20 direction, if you're stopping for congestion ahead
21 of you, then friction is a relevant element, but
22 it only comes into play when you begin to
23 decelerate.

24 Q. Right. Let me just cover
25 off a couple of things. If I'm understanding --

1 I'm trying to dig into road safety analysis here,
2 and you'll have to be patient with me, Mr. Malone.

3 What I understand is that a
4 stopping distance in wet weather conditions are, I
5 would say, significantly longer than stopping in
6 dry conditions.

7 A. Stopping distance
8 correlates directly to available road friction,
9 and if the road is wet then the friction of that
10 surface will be less. So there's a direct
11 correlation.

12 Q. Is there an established
13 distance for comparing wet and dry weather
14 stopping?

15 A. The design guidance
16 considers the road in a wet condition in terms of
17 undertaking design standards and determination of
18 stopping site distance, so wet road condition is
19 baked into the analysis.

20 Q. I understand that from
21 the design perspective. But included in analysis
22 is there an established guidance for what the
23 difference would be between a stopping distance in
24 dry conditions versus stopping distance in wet?

25 A. If you make an assumption

1 as to what the variance in friction would be, then
2 yes, you can determine the difference.

3 Q. I take it today in this
4 small, little exam that I seem to have set for
5 you, you don't remember what that is?

6 A. I try not to remember
7 those things. I refer to the manual.

8 Q. Thank you. I take it,
9 too, that on a downhill slope, that also there
10 would be guidance for additional distance required
11 to stop?

12 A. That's correct. There's
13 -- the design guides incorporate or provide that
14 input to potentially make adjustments based on
15 other geometric conditions like slope.

16 Q. Got it. Thank you. I
17 want to go to a different point within these same
18 notes. You say -- you talk about stone mastic
19 asphalt here, and you say, "SMA can hold more
20 water/doesn't drain away, water sits in pockets
21 between large aggregate pieces," and you are
22 recorded as identifying micro-ponds.

23 I think your evidence this
24 morning is that this is something that you think
25 you were told at a conference in the United States

1 by someone, that that was a possible feature of
2 SMA. Do I understand that correctly?

3 A. I think, yeah, a
4 combination of that type of discussion and other
5 research, although I think Mr. Boghosian
6 characterizes it more accurately in his other note
7 that this was more speculation on my part. I'm
8 not an expert in SMA asphalt.

9 Q. I take it, then, when
10 you're expressing this view about SMA, that you're
11 not aware that, in fact, SMA is considered to have
12 good properties in draining water?

13 A. I had read a variety
14 things about SMA, so I'm trying to provide some
15 characterization of it. Potentially that was a --
16 he's made notes of apparently what I said.

17 Q. At this point, in
18 December 11 of 2018 you're not aware that. In
19 fact, Golder had tested the macrotexture of the
20 SMA surface, are you?

21 A. I wasn't aware that
22 Golder had engaged in any way.

23 Q. Are you aware, though,
24 that good macrotexture is the property necessary
25 to drain water from the pavement?

1 A. In general terms, yes, I
2 think so.

3 Q. Later you were provided
4 with Golder's pavement evaluation, and you were
5 provided with the results of Golder's measured
6 texture depth and Golder's finding that the
7 texture of the surface was generally considered
8 good. Do you remember that?

9 A. I remember I was provided
10 with the document. I don't remember that specific
11 content.

12 Q. But you knew that good
13 macrotexture means that pavement surface does
14 provide good drainage. That's true, is it not?

15 A. In a general sense, but
16 again, it's not my area of expertise.

17 Q. If there's good drainage,
18 that would mean there's no evidence in support of
19 your theory of micro-ponding, is there?

20 A. I don't think I'm
21 qualified to comment on that.

22 Q. When you read the Golder
23 report, did you go back to Mr. Boghosian or your
24 client and say that your theory wasn't supported
25 by the evidence?

1 A. Again, I think
2 Mr. Boghosian understood it for what it was,
3 indicating it was speculative. So no, I didn't go
4 back to him, and I don't think he --

5 Q. I ask and I'm digging
6 into this point though, Mr. Malone, because this
7 (sic) unsupported theories of yours gets repeated
8 and becomes part of a narrative, and it's not
9 true, so it ends up being important. Let me just
10 stay with the alternative theories of water
11 drainage while we're here.

12 Registrar, you can take down
13 that callout, although I will go back to it.

14 MR. PROVOST: Mr.
15 Commissioner, this is Richard Provost. I would
16 appreciate if Ms. Roberts would stick to question
17 rather than characterizing if what Mr. Malone said
18 is true or not true. This is for you to decide.

19 MS. JENNIFER ROBERTS: That's
20 certainly fair. Sorry. I take that admonishment,
21 Commissioner.

22 JUSTICE WILTON-SIEGEL: Okay.
23 Please proceed.

24 MS. JENNIFER ROBERTS:

25 Q. Thank you. I want to

1 stay with theories of water drainage because I
2 think it's interesting.

3 When you suggested that water
4 might be ponding, did you consider the relevance
5 of the superelevations and crossfall on the road?

6 A. Those would be relevant,
7 yes.

8 Q. Relevant. So you
9 understand that one of the purposes of the
10 crossfall and the superelevation is to facilitate
11 drainage. We're agreed on that, are we?

12 A. They serve slightly
13 different functions in my understanding.
14 Crossfall is for drainage, and superelevation is
15 more for geometric design. But obviously there's
16 a drainage element to crossfall by definition.

17 Q. And so what happens if
18 the cant on the superelevation is not even? So
19 just to express it. If it's designed to be
20 6 percent and it's 6 percent at one part and maybe
21 flatter and 4 percent in the middle, might that be
22 relevant to the ability of the road to effectively
23 drain?

24 A. I'm not sure I can
25 comment on that, other than variation in the value

1 may have a difference in the degree of flow that
2 would take place. The normal crossfall is
3 2 percent.

4 Q. Yeah, but a
5 superelevation, it's 6?

6 A. Correct, but the
7 superelevation isn't normally defined as being a
8 6, larger than 2, in order to facilitate drainage.
9 It's defined as 6 to satisfy a geometric design
10 requirement. So the drainage aspect has
11 presumably achieved at 2 percent crossfall, and if
12 you're more than that in a superelevated
13 circumstance, then you would have the same or more
14 drainage capability being a steeper slope if
15 you're beyond 2 percent.

16 Q. And if the -- my point,
17 though, is is that if the cant isn't consistent,
18 wouldn't that affect drainage?

19 A. When you say "the cant,"
20 you mean the superelevation through a curve, if it
21 varies?

22 Q. Yeah, if the slope
23 varies.

24 A. Well, superelevation is
25 typically built in with a -- gradually increasing

1 as you get from a road which may have normal
2 crossfall into the superelevation. We're getting
3 into road design theory here.

4 Q. Yeah. But sorry, we're
5 not on the same page. I'm talking about stay at
6 the one location, at the apex of the turn where
7 the superelevation is supposed to be 6 percent,
8 and what I'm saying is what if that cant at that
9 point, that superelevation is not consistent,
10 would that maybe explain or that be relevant to
11 this theory of inadequate water drainage?

12 MR. PROVOST: Now,
13 Mr. Commissioner, I do think we are in the expert
14 field. And I will object to this line of
15 questioning.

16 JUSTICE WILTON-SIEGEL: I
17 think I'm inclined to agree with Mr. Provost on
18 this question.

19 MS. JENNIFER ROBERTS: Well,
20 if I might respond, and I take the point. The
21 witness has clearly tried to understand why
22 there's an issue with wet weather collisions and
23 whether that is a consequence of water ponding in
24 some fashion. He's raised this theory of
25 micro-ponding, which I've suggested was not

1 supported on the evidence, and what I'm raising is
2 an alternative theory. I think I've made the
3 point, though, that I meant to make, and I will
4 move on, Commissioner.

5 BY MS. JENNIFER ROBERTS:

6 Q. Sorry, I'm just trying to
7 see this thing. It's not so easy to see. Sorry,
8 can you go back, Registrar, to page 232 and call
9 it up so that I have a running chance of seeing
10 it. Thank you.

11 Still staying with SMA, you go
12 on, and it's towards the bottom of the page. You
13 are recorded as saying that SMA is not common,
14 used in the southern United States. Then it goes
15 on. This statement that it is not common ends up
16 being repeated and I want to address it with you.

17 Let me first ask the question,
18 is that something that you stated at the time,
19 that SMA is not common?

20 A. According to these notes,
21 yes.

22 Q. Okay. You're recorded
23 somewhere as saying it's experimental. Let's go,
24 please, Registrar, can you please go to MTO 53.
25 Thank you.

1 This is an MTO directive
2 dated August 6, 2003. If you go to image 2,
3 please, Registrar. You'll see in the middle of
4 the page that SMA is the recommended surface
5 course for high ESAL roads. Do you see that?

6 A. Sorry, I don't. I'm not
7 quite sure where you are.

8 Q. It's in the chart. Let's
9 go to the chart.

10 A. Okay, fine.

11 Q. Got it?

12 A. Yeah, I didn't see
13 recommended, but now I see what you mean.

14 Q. I take it you agree with
15 me that in 2003 the MTO directive is identifying
16 SMA asphalt as the appropriate asphalt to use for
17 high-traffic roads?

18 A. Yes, I can see that memo,
19 yes.

20 Q. Can we please, Registrar,
21 go to image 7. This is colour coded, and the SMA
22 is the brown. Registrar, can you make that a
23 little bit bigger.

24 So again, 2003, the MTO is
25 suggesting that or stating in its directive that

1 SMA is the appropriate asphalt to use for a number
2 roads, including the 401. Do you see that?

3 A. I do.

4 Q. Thank you. You can take
5 down that callout and we can get out of this
6 document. There's a period where SMA was not
7 used, and then it was -- in 2014 it was brought
8 back in. It's another MTO directive, December 12,
9 2014.

10 Registrar, can you please go
11 to Golder 3902. Let's just go directly to the
12 image at image 7. This is the map for the central
13 region. Again SMA is indicated in brown.

14 I think you'll agree with me
15 that not only is the 401 identified as a road for
16 which SMA is the preferred choice, but now you
17 also have portions of the 400, 410, 427, 403, QEW.
18 Do you see that?

19 A. Yes.

20 Q. So when you described SMA
21 as not common or experimental in Ontario, that's
22 not correct, is it?

23 A. I think the context is
24 probably incorrect. It certainly was not common
25 for the city of Hamilton and roadways that urban

1 municipalities were operating, was my
2 understanding. But I may be incorrect.

3 MR. PROVOST: This is
4 Mr. Provost. I don't think I see the word
5 "experimental" on the note of Mr. Boghosian at
6 page 231, 232.

7 MS. JENNIFER ROBERTS: You're
8 right, and that's in a different place, which I
9 can go to, but I think I've made my point,
10 Counsel, and I'll leave this topic.

11 Registrar, can you please go
12 to OD9A, page 233, image 233 and 234. Again,
13 these are not your notes, but this is record of a
14 telephone conversation that Mr. Sabo records.

15 And, Registrar, if you can
16 please call out page 233. There we go.

17 And counsel is -- Mr. Malone
18 is recorded in item 2, "road surface," "MSA," and
19 I take that to mean SMA, "not common in NA," North
20 America, and -- and then you're recorded -- you're
21 Brian. Can we go down, please, from that
22 Registrar. Not what I want. Take out the
23 callout, please. There we go. If you can call
24 out the whole page, Registrar, this time. Thank
25 you. There we go.

1 Here you are, Mr. Malone,
2 "Brian, somewhat experimental." Do you see that?

3 A. I do. I would highlight
4 the second and third line down saying not an
5 expert in materials.

6 Q. But you'll agree with me,
7 given the documents I've just taken you to, that
8 SMA is not experimental in 2018 in Ontario?

9 A. I'm not sure I'm capable
10 of giving an answer to that.

11 Q. Well, you're recorded as
12 giving an answer, Mr. Malone, so that's why I'm
13 asking you questions about it.

14 Registrar, thank you. You can
15 take out that callout. Could we please go to
16 HAM1642, image 23, just going back to the summary
17 of collision history. We went to it briefly, the
18 proportion of main line collisions and ramp
19 collisions. Can you please call out the overall
20 findings, Registrar. Thank you. We've gone to
21 it.

22 You've, I think, given
23 evidence that you understood that the main line of
24 the Red Hill was SMA asphalt. Were you aware that
25 the ramps were not?

1 A. I have come to
2 understand that at this point, yes.

3 Q. So when you make the --
4 there's a finding that 73 percent of -- sorry, the
5 wet surface collisions represent 73 percent of
6 collisions on ramps. That that would not be
7 explained by any of the theories of SMA that
8 you've identified, would it?

9 A. Yeah, I don't think we've
10 presented SMA as a theory in this report. We're
11 highlighting the percentage of collisions in wet
12 road conditions on the main line and the ramps.
13 We're not commenting on SMA or not SMA.

14 Q. No, I know you're not in
15 this report, but you have elsewhere, and what I'm
16 saying to you is that if it's not SMA on the
17 ramps, then your -- there's a whole in your
18 theory, isn't there?

19 A. Well, the theory hasn't
20 been presented here.

21 Q. Thank you. Registrar,
22 you can take out that callout, and I'm going to go
23 to a different document. You've given testimony
24 and I don't want to -- thank you. You can get out
25 of this document, Registrar. Thank you.

1 You've given testimony about
2 CIMA's recommendation not to change the speed on
3 the Red Hill, and I want to take you through the
4 speed study, and I think your evidence was that
5 you were aware of it, you weren't particularly
6 involved, and you read it and you agreed with it.
7 Do I have that -- is that fair?

8 A. That's accurate, yes.

9 Q. Registrar, can you please
10 go to CIMA 15106. Thank you.

11 If I understand this
12 engagement accurately, there's a number of
13 different theories -- sorry, different tools that
14 CIMA uses in order to try and assess what the
15 speed should be on the Red Hill.

16 A. There are a number of
17 different tools available in the industry to
18 contemplate a selection of a speed limit, and the
19 report reviewed a range of them, selected I think
20 it was three different methodologies, and then
21 completed an analysis using those three.

22 Q. One of those tools was
23 the guidance provided by TACC?

24 A. That's correct yes.

25 Q. Registrar, can you please

1 go to page 30, which I think is image 34. Call
2 out 531, "TACC Road Risk Method." This is an
3 outline. I'm just going to read it:

4 "As shown in table 3, this
5 method is heavily based on the
6 design speed as the starting
7 point for both LINC and the
8 Red Hill. The design speed is
9 110 kilometres per hour, with
10 an estimated total risk score
11 of 19 and 25 for the LINC and
12 RHVP, respectively."

13 Based on this calculated level
14 of risk, the posted speed of 110 kilometres per
15 hour was recommended from the TACC methodology.
16 Do you see that?

17 A. I do.

18 Q. I accept that in October
19 of 2018 when this report is finalized that you
20 don't have from City of Hamilton, despite having
21 asked for it and asked for it, you don't have the
22 design report that told you -- that the design
23 speed was 100.

24 My point to you is that when
25 this issue comes up as to what the speed should

1 be, do you go back to the City of Hamilton, say
2 the design speed relied upon in the speed study
3 was in fact not, correct?

4 A. I didn't -- I didn't
5 (indiscernible) the report, so no.

6 Q. But you've gone through
7 in the evidence that you had a number back and
8 forth discussions with Mr. Sabo and others where
9 they were looking to change the design speed and
10 you maintain it. Do you at any point tell the
11 City of Hamilton that the guidance in the speed
12 study is based on a false assumption?

13 A. Maybe I misheard the
14 question, but you talked about change the design
15 speed. I think they were talking about changing
16 posted speed.

17 Q. I know. But here we've
18 got a TACC road risk method that's based on what
19 the design speed is and it's identified as 110 and
20 that's not true.

21 So my question is when you
22 know the design speed 100 kilometres per hour, and
23 in fact one turn it should be 90, do you tell the
24 City of Hamilton that there's a wrong assumption
25 in the speed study?

1 A. I didn't complete the
2 report so, no, I didn't tell them. I guess your
3 question is a fair one as to whether the report
4 should have been revised based on that updated
5 information. Obviously it was not.

6 Q. Thank you. You can take
7 that down. I want to go back to the City of the
8 Tradewind and Golder data. Can we please though
9 go to Mr. Boghosian's opinion of February 4,
10 that's Hamilton 64331. Please turn to image 11.
11 Thank you.

12 Ms. Lawrence took you to this,
13 the second paragraph below item B, the City's
14 response to expert's findings:

15 "In our opinion the friction
16 testing in 2013 provided no
17 basis in and of itself for any
18 action to be taken partly
19 because Golder made no
20 recommendations to the City
21 about addressing the issue and
22 also because the 40 friction
23 number apparently has no basis
24 in industry standards
25 recognized in Ontario per our

1 conversation with Brian
2 Malone."

3 And I recognize that again
4 you're being questioned based on somebody else's
5 notes in here recorded in his opinion. I'll leave
6 the question of the Golder recommendations.

7 I want to address the
8 statement that 40 friction number has no basis in
9 industry standards. This is attributed to you.
10 Is that what you said?

11 A. I don't have a
12 recollection of the discussion. I don't know
13 precisely where that would be coming from. I
14 believe that there was discussion regarding the
15 absence of a clear threshold or investigatory
16 level in the manner that's shown in the Tradewind
17 report for the United Kingdom, but maybe that's
18 the context that he's responding.

19 Q. Let me just ask the
20 question. Is it your view that the 40 has no
21 basis in industry standards?

22 A. I'm not sure what the 40
23 refers to.

24 Q. Okay. Well, let's go
25 there first. So Registrar, can we please turn up

1 Golder 2981. Go to image 10.

2 So this is Golder's review of
3 the Tradewind friction testing data. And in the
4 paragraph below the chart there's a statement:

5 "Although the friction number
6 FN values are higher than when
7 measured in 2007 immediately
8 after construction they are
9 considered to be relatively
10 low and typically the FN
11 values should be at least
12 equal to or higher than 40 to
13 be considered adequate."

14 That's where the 40 is from,
15 sir.

16 A. Right. But I don't know
17 the pedigree of that value in terms of a Canadian
18 or Ontario standard. So I'm not disputing the
19 statement by Golder, and that's certainly a
20 professional opinion, but I don't understand or
21 know of the reference to which it's related.

22 The United Kingdom value is
23 noted, although I would highlight that Tradewind's
24 comment on dual carriageways as opposed to
25 motorways with the correct table the motorways

1 number is actually 41 not 48. But regardless the
2 40 is -- I had not been presented or have not
3 found a reference for that in the form of a --
4 what I'll call a North America standard.

5 Q. Okay. I get that. Let
6 me just cover off a point.

7 There's lots of statements
8 about the friction testing being inconclusive. I
9 take it, sir, that you are not of the view that
10 the friction testing data obtained by Tradewind is
11 inconclusive in any way?

12 A. No, I don't dispute the
13 data. I've made comments about the weather and
14 I've made comments about the memo, I made comments
15 with respect to the reference table that they
16 indicated is compared to what I understood to be
17 the more current one. But I'm not disputing the
18 -- assuming the weather issue is addressed or not
19 influencing the results. And no, I don't have a
20 dispute over the results. The table here lists
21 the average numbers and it was those that I
22 contemplated with respect to consideration to the
23 -- to measurement design standard friction values
24 from the TACC guide.

25 Q. You've recognized that

1 Transportation Association of Canada as being an
2 authoritative guide for a number of things. It
3 may just be useful here to go to the 1997 guide in
4 relation to friction. It's Golder 3936,
5 Registrar.

6 A. That's not the geometric
7 design guide.

8 Q. No, it's a different
9 guide.

10 A. I thought you were
11 referring to the geometric design.

12 Q. Pavement design and
13 management guide. Pavement. Registrar, can you
14 please go to image 2, page 66, just an extract.

15 What this guide says in the
16 middle paragraph is:

17 "A comprehensive actual
18 standard for surface friction
19 of roads was issued in
20 January 1988 by the British
21 Department of Transport. It
22 uses results of the SCRIM
23 surveys and provides for an
24 adjustment of surface friction
25 to a level appropriate to

1 accident risk as shown in
2 table 2.7."

3 It then goes on to describe
4 investigatory level is as shown in table 2.7.

5 Registrar, can you turn to
6 image 3. There you go.

7 I take it you're not disputing
8 the TACC is authoritative guide in relation to
9 pavement design as it is for roadway design?

10 A. I'm not disputing that,
11 no. But I see the reference to the British
12 documents as well.

13 Q. Right, and it's referred
14 to the British -- so it's -- the TACC is relying
15 on this British guidance and the chart is there.

16 You later -- you refer to the
17 U.K. PMS management system. So let me just pull
18 out, dual carriageway for SCRIM testing is -- item
19 B is 3.5. If we go to your February 4, 2019
20 pavement friction testing results review, which is
21 CIMA 17163, I think that's .0001.

22 Mr. Malone, you're identified
23 as the author of this memo and we've talked about
24 it. It also provides an analysis of the Golder --
25 a review of the Golder report. So if we go to

1 image 4 and image 5, please.

2 You're assessing the

3 Tradewinds in the bottom of image 4, you write:

4 "Tradewind reported that the
5 friction testing results were
6 below or well below the
7 investigatory level."

8 And you identify the U.K. PMS
9 table and said that you found that results were
10 closer to the threshold levels than indicated by
11 Tradewind. Do you see that?

12 A. I'm not sure I --

13 Q. Bottom of image 4. And
14 then you include the table. Do you see that?

15 A. I do, yes.

16 Q. I take it here, sir, that
17 what you are doing is providing an assessment of
18 the Tradewind data using this U.K. PMS guidance?

19 A. No, I'm highlighting that
20 the Tradewind report appears to have used a
21 version of this United Kingdom table which was
22 different what I understood to be the more current
23 one.

24 Q. And you say that this is
25 the current guidance?

1 A. That was my understanding
2 at the time, yes.

3 Q. You'll agree with me that
4 B, dual carriageway, is identified on that chart
5 as having the investigatory threshold as being at
6 .35 for FC, which I understand to be a SCRIM, and
7 .41 for a grip number. Do you see that?

8 A. Yeah, dual carriageway
9 appears to have both. My understanding is the Red
10 Hill would be considered motorway as opposed to
11 dual carriageway but....

12 Q. Okay. Just for clarity,
13 there's nothing inconclusive about the reference
14 to the U.K. standard, is there? This is clear
15 guidance.

16 A. It's guidance. My
17 understanding is it's not guidance that's commonly
18 utilized in North America, or at least that was my
19 understanding at the time.

20 Q. But you're not suggesting
21 it's inconclusive because it's a U.K. standard,
22 are you?

23 A. No, I don't think it's --
24 by inconclusive you mean cannot be interpreted.
25 It's one means of interpretation but -- of course

1 it presumably is also applied in the context of
2 some sort of policy application within that
3 jurisdiction.

4 Q. Thank you. You can take
5 out that document, thanks.

6 You were taken to
7 February 26th memo to Edward Soldo, the review of
8 the MTO testing and the extrapolation. Were you
9 aware that ARA conducted friction testing in May
10 of 2019?

11 A. I don't think I was at
12 the time that that extrapolation was carried out.

13 Q. So CIMA was never
14 provided an opportunity to assess whether its
15 extrapolation was consistent with the measured
16 data, was it?

17 A. We never did. I know we
18 recommended that friction testing be done prior to
19 repaving, which I understand now to be the ARA
20 testing. And we did the extrapolation for Mr.
21 Soldo's request using the MTO data which was --
22 did not include the ARA data.

23 But, yeah, I think your
24 statement is accurate, we didn't converge those
25 two or compare the two. We did that specifically

1 state in our memo that the extrapolation should be
2 compared to actual testing in order to validate
3 it. So the results were just that, an
4 extrapolation and could not be confirmed without
5 validation.

6 Q. Okay, thank you.

7 So I just want to go to a
8 different document. It's your May 2020 post
9 repaving CIMA report. Registrar, it's CIM22320,
10 image 7, please. Forgive me, page 7. So you're
11 going to have to go forward. Registrar, can you
12 please call out the last full paragraph before 5.2
13 in 2019 after pavement resurfacing was completed.

14 So you're right here in 2019
15 after pavement surfacing was completed. The
16 friction values increased, show an average
17 friction ranging from 40 to 44, and we know the
18 2019 values for new pavement are similar to an
19 average range, the values from 2008 with the
20 average friction numbers ranging from 28 to 41.
21 Do you see that?

22 A. Yes, I see it.

23 Q. In other words, if I'm
24 understanding correct, what you're saying is the
25 testing after the repaving in 2019 is pretty much

1 a similar result to the friction of the Red Hill
2 in 2008. Do I have that right?

3 A. No, I don't think so.
4 What I'm saying is the range, 40 to 44, is similar
5 to the range in 2019, a range of four points
6 similar to the range in 2008 which is from 38 to
7 41 which is three points. Below.

8 Q. Right. One of the things
9 you go on to recommend -- can we please go to
10 image 12 and 13. I've done it again, must be
11 page 12 and 13, forgive me. You can take out that
12 callout. Thanks, thanks, Registrar.

13 I just want to go to this
14 point because I think it's an important one, and
15 that is, Mr. Malone, that your recommendation in
16 this May 2020 report is to conduct continuing
17 friction testing on the Red Hill. That's the
18 case?

19 A. That was the conclusion
20 in the report, yes.

21 Q. Just one last point.

22 Mr. Malone, you are not an
23 author of either the speed study or the
24 illumination review, although I think the
25 illumination review is -- you're identified as

1 verifying it. Do you recall ever signing the
2 illumination review?

3 A. I would have to look at
4 it. If I'm listed as a verifier I should have
5 signed it, but I don't know, sometimes on the
6 electronic transfers there's -- physical
7 signatures don't get attached.

8 Q. Registrar, can you go to
9 19265 I think it is.

10 THE REGISTRAR: Is that a CIMA
11 document or?

12 MS. JENNIFER ROBERTS: CIM.

13 THE REGISTRAR: Thank you.

14 MS. JENNIFER ROBERTS: Can't
15 read my handwriting. CIMA19269. Okay, 000 --

16 THE REGISTRAR: There's also a
17 point one, road safety assessment?

18 MS. JENNIFER ROBERTS: No,
19 illumination review. 192690001. Not the right
20 reference? CIMA16288.

21 MS. RAMASWAMY: May I suggest
22 --

23 BY MS. JENNIFER ROBERTS:

24 Q. Thank you. Image 2,
25 please. You identify this as being the person who

1 verifies this report. I take it, sir, if it's not
2 signed that this is still a final report?

3 A. I would have to look at
4 the e-mail transmission. We use the numbering
5 system that's been described a couple of times.
6 If it's been delivered to the client with an E
7 something something number but no Vs behind it
8 then it would be an issued document from us and
9 effectively the same as being signed.

10 MS. JENNIFER ROBERTS: Thank
11 you. Those are my questions. Thank you very much
12 for your patience, Mr. Malone. Registrar, you can
13 take down this callout.

14 JUSTICE WILTON-SIEGEL: I
15 think we're running over, but I expect the
16 preference is to keep going until we're through
17 this afternoon. Is that correct? Okay.
18 Ms. Lawrence, who is next?

19 MS. JENNIFER ROBERTS: Ms.
20 Contractor.

21 EXAMINATION BY MS. CONTRACTOR:

22 Q. Good afternoon, I don't
23 expect to be very long.

24 Commission counsel asked you a
25 few questions about the scope of the roadside

1 safety assessment and specifically whether you
2 understood that the roadside safety assessment did
3 not include assessing whether interim measures
4 were required pending resurfacing.

5 And your response was that to
6 the best of your recollection the scope did not
7 call for that but CIMA did make some
8 recommendations, like oversize speed light and
9 feedback signs which would have been implemented
10 in conjunction with the construction or could have
11 been implemented prior to the construction. Do
12 you recall that from earlier today?

13 A. I don't remember which
14 day but I think so, yes.

15 Q. Fair enough. Certainly
16 you're right in that CIMA did not make any
17 recommendations regarding interim safety measures
18 in that report, and maybe we can just go to the
19 actual report. It's HAM12273. Perhaps we can go
20 to image 40. Could we call out the paragraph
21 above the bullets, please.

22 These are CIMA's
23 recommendations to reduce the collision frequency
24 and severity on the Red Hill based on the
25 collision review that's done. And, Mr. Registrar,

1 if you can pull up the bullets, please.

2 Mr. Malone, you'll see the

3 first bullet says:

4 "Ensure the pavement design
5 for the upcoming resurfacing
6 considers the history of wet
7 surface collisions and
8 investigates the need for
9 higher friction surface," and
10 then says "consider installing
11 oversight speed limit signs
12 and feedback signs and conduct
13 regular speed enforcement"
14 particularly at that vicinity
15 listed there.

16 So here what CIMA is
17 recommending is that the City consider installing
18 those signs and conduct regular enforcement, again
19 particularly at that location; is that right?

20 A. That's what it states,
21 yes.

22 Q. It doesn't state that the
23 City should install those signs immediately or at
24 some point prior to the resurfacing, but as I
25 understand your evidence is that it was open for

1 the City to consider doing that; is that right?

2 A. Yeah, I think that's
3 accurate, yes.

4 Q. Mr. Registrar, could we
5 please go to HAM54375. Mr. Malone, we spent some
6 time on this. This is the memo you provided
7 initially to Mr. Boghosian and then of course it
8 goes City council on February 4th, or the memo is
9 dated February 4, in response to the three
10 questions provided to you.

11 Could we go to image 3,
12 please, Mr. Registrar, and pull out the question.
13 Three of the responses. Pull that entire section
14 out.

15 A. Can I clarify which
16 version this is?

17 Q. Sure. So this is the
18 final version but it's the one addressed to
19 Mr. Boghosian.

20 A. Okay. So -- I think I'm
21 on the same page.

22 Q. Good. Mr. Malone, the
23 third question that was put to you is in light of
24 the information in the draft 2014 Golder report,
25 which had the Tradewind report appended to it,

1 whether in light of that information the Red Hill
2 should be closed to traffic in whole or in part.

3 Here CIMA's recommendation is
4 that the Red Hill should not be closed prior to
5 the resurfacing and, in part, that's based on
6 balancing the potential harm that would be
7 associated with such action; is that right?

8 A. Correct, yes.

9 Q. And that's because it
10 would increase traffic on alternative routes, such
11 as the LINC, which would decrease safety on those
12 alternative routes is that, right?

13 A. I'm not sure -- the end
14 of that is exactly correct. It would just result
15 in the exposure of traffic that would be using --
16 that is currently using the LINC. So if the LINC
17 is closed traffic diverts somewhere else. The
18 roads that it goes on to potentially have a poorer
19 safety performance than the LINC itself does, and
20 therefore there's a decrease in safety levels for
21 users of the Red Hill when they are diverted
22 elsewhere.

23 There's also detrimental
24 effect in that that increased traffic on those
25 alternate routes would result in increased

1 exposure of -- to potential hazard of pedestrians,
2 cyclists on the other routes who -- pedestrians
3 and cyclists are prohibited on the Red Hill.
4 Their traffic would be diverted through roadways
5 that have interactions, which potentially means
6 more right-angle crashes, traffic would be
7 diverted on to roadways which don't have a centre
8 median, which potentially results in more head-on
9 collisions, and traffic overall would increase so
10 the volume would go up potentially resulting in
11 increased congestion which potentially increases
12 things like (indiscernible).

13 So there's a whole lot of
14 negatives that come with closing the roadway and
15 diverting elsewhere. To be fair, the balance is
16 that the traffic safety for Red Hill is perfect
17 because there's no traffic on it. So it goes to
18 zero. But if the other number goes up by more
19 than what would have happened on LINC anyways then
20 you're worse off better than better off.

21 Q. That's understood, that's
22 helpful. So fair to say closing the roadway is
23 not a decision that should be entered into lightly
24 because it has some of these other consequences?

25 A. Yeah. I mean, the

1 simple, more straightforward response is you have
2 to consider both the benefits, which would come
3 from the closure, but also the drawbacks, which
4 comes from the diversion onto alternate routes.
5 And my conclusion fairly easily determined is that
6 there is greater drawback than there is benefit.

7 Q. So that was your opinion
8 at the time you provided the February 4th memo.
9 At this time CIMA had completed its roadside
10 safety assessment, right?

11 A. Yes, because it was
12 completed in late 2018 or the very beginning of
13 2019.

14 Q. I think that's right.
15 And certainly we saw earlier from your evidence
16 that by the end of November that there was a draft
17 of the roadside safety assessment which was
18 provided to the City, and I believe your evidence
19 is that you would have reviewed that draft at that
20 point. You'll recall that?

21 A. I believe so, yes.

22 Q. So Mr. Malone, I take it
23 if you were provided the 2014 draft report and --
24 the 2014 Golder report, by the end of November of
25 2018 and if you were asked the same question about

1 whether the Red Hill should be closed in light of
2 the draft Golder report, you would have provided
3 the same response as you did in the February 4th
4 opinion letter two months later; is that fair?

5 A. That's basically what I
6 said in my February 4th memo. The context of the
7 questions were just that: If you had received a
8 Tradewind would it have changed your previous
9 work. I think I broaden the response to not only
10 include the 2018 roadside safety report but also
11 the 2015 report and other work that we had done.
12 But yes, I think I'm agreeing with you.

13 Q. Thank you.

14 If we could, please,
15 Mr. Registrar, go to question 2 and pull that out
16 in the same way. Here, Mr. Malone, you're asked,
17 again in light of the information in the 2014
18 Golder report, whether there are any addition
19 safety measures recommended to the City, again
20 recognizing that the Red Hill is scheduled to be
21 resurfaced in the late spring of 2019. So I think
22 this is the question around interim measures.

23 The opinion you provide in the
24 February 4th memo is that recognizing the
25 resurfacing is taking place in the late spring

1 CIMA didn't have any recommendations other than
2 what was already included in the 2015 CIMA report,
3 and I think you say you'd modify the
4 recommendation for regular speed enforcement to
5 increased or enhanced speed enforcement.

6 So again, Mr. Malone, I take
7 it that if you were provided the 2014 draft Golder
8 report in November your response to that question
9 would have been the same as it was two months
10 later in February; is that fair?

11 A. Yeah, that's the context
12 in which the questions were answered, yes.

13 Q. If we could, please,
14 Mr. Registrar, go to image 2 and pull out the
15 question and answer to question 1. I think you
16 see where I'm going with this.

17 The first question that you
18 were asked was whether CIMA would make any changes
19 to the recommendations in the prior reports in
20 light of the information in the draft Golder
21 report. And I take it your answer to this that
22 you provide February 4th opinion would have been
23 the same if you were asked in November as well?

24 A. Yes, trying to be fully
25 open and honest here. The final version of the

1 memo does not include the last two paragraphs in
2 this image but --

3 Q. My apologies, I thought
4 it was the same one except for that. The gist of
5 your response would be the same; is that fair?

6 A. Yes. The questions were
7 answered in the context of, if you had the 2014
8 Golder report would there have been any changes to
9 your earlier reports, and I tried to answer in
10 that context the results are here.

11 Q. Mr. Registrar, could we
12 please HAM28108.

13 Mr. Malone, this is the
14 January 2019 collision rate analysis provided by
15 CIMA regarding the Red Hill. Commission counsel
16 took you through portions of this. Could we go
17 just to image 16 and call out section 5, please,
18 message boards, Registrar.

19 This section, Mr. Malone,
20 provides the provincial collision rates between
21 2010 and 2014 as provided in the Ontario road
22 safety annual reports. And you'll recall we spent
23 some time talking about these reports last time
24 when you attended at the hearing in the context of
25 the 2013 and 2015 CIMA report.

1 And this section provides an
2 important disclaimer. It states:
3 "It's important to note that
4 the ORSAR rates are calculated
5 for all roads within the
6 province, including two-lane,
7 undivided, rural highways,
8 urban, arterial and collector
9 roads, and included collision
10 that intersections the ORSAR
11 does not report on the
12 collision rates for specific
13 types of reports (divided or
14 undivided) in the province."

15 It goes on to state that:

16 "Direct comparison between
17 these roads and the Red Hill
18 and the LINC should be done
19 with caution."

20 Do you see that?

21 A. Yes.

22 Q. Am I correct that that is
23 because you would be comparing collision rates of
24 different kinds of roads with different
25 characteristics with each other?

1 A. Well, these numbers would
2 encompass all roads and the LINC and Red Hill
3 would -- and the comparative MTO segments would be
4 essentially a subset of these values. So the
5 caution is presented. Yeah, it's not an
6 appropriate comparison.

7 Q. Thank you. Would a more
8 appropriate comparison be to break down the Red
9 Hill into segments say based on curvature and then
10 compare the collision rates with roadways of those
11 segments with similar curvature? Would that give
12 you a more accurate comparator than the ORSAR
13 rates?

14 A. Well, not only curvature
15 but also overall design, having a median or not
16 having a median, numbers of lanes, speed limits
17 and/or design speed selected. And that was done
18 in at least the 2018 assessment and I believe in
19 the 2019 as well.

20 Q. You're referring to this
21 memo when you're saying the 2019?

22 A. Yeah, I can't remember if
23 this memo has the comparator to the -- comparison
24 to the MTO segments.

25 Q. Understood.

1 Mr. Commissioner, I think
2 those are all my questions but if I may have a
3 moment just to double check my notes.

4 JUSTICE WILTON-SIEGEL: Go
5 ahead.

6 MS. CONTRACTOR: Thanks very
7 much. Those are all my questions.

8 JUSTICE WILTON-SIEGEL: Ms.
9 McIvor?

10 MS. MCIVOR: Thank you. I can
11 confirm MTO has no questions for Mr. Malone.

12 JUSTICE WILTON-SIEGEL: Ms.
13 Lawrence, does that take us over to Mr. Provost?

14 MS. LAWRENCE: It takes us to
15 Mr. Buck, who is on the line, and I understand
16 he's already confirmed he has no questions.

17 JUSTICE WILTON-SIEGEL: Mr.
18 Buck?

19 MR. BUCK: Yes, I confirm I
20 have no questions.

21 JUSTICE WILTON-SIEGEL: Thank
22 you.

23 MS. LAWRENCE: Thank you,
24 Commissioner. As you know, should Mr. Provost
25 wish to examine Mr. Malone he needs to seek your

1 leave to do so.

2 JUSTICE WILTON-SIEGEL:

3 Mr. Provost?

4 MR. PROVOST: Thank you,
5 Commissioner. Thank you, everyone. Thank you for
6 making it in one day and extending the regular
7 hour. I have no questions for Mr. Malone.

8 JUSTICE WILTON-SIEGEL: Thank
9 you. Ms. Lawrence, anything by way of
10 re-examination?

11 MS. LAWRENCE: No, thank you.

12 JUSTICE WILTON-SIEGEL: Then
13 we're done. Mr. Malone, thank you again for
14 appearing, Mr. Provost as well, and we will now
15 adjourn until tomorrow morning at 9:30, if I
16 understand correctly.

17 MS. LAWRENCE: That's right.

18 MR. PROVOST: I have one
19 question. Do we know when Mr. Boghosian will
20 testify?

21 JUSTICE WILTON-SIEGEL: Ms.
22 Lawrence?

23 MS. LAWRENCE: I do. It's not
24 yet been posted on the website, but due to illness
25 his testimony that was scheduled for last Friday

1 had to be rescheduled and it's now scheduled for
2 Tuesday, November 4th -- November 3rd, Thursday.

3 JUSTICE WILTON-SIEGEL: Unless
4 there are any other questions, we'll stand
5 adjourned until 9:30 tomorrow morning. Thank you
6 very much very much.

7 --- Whereupon at 4:47 p.m. the proceedings were
8 adjourned until Tuesday, November 1, 2022 at
9 9:30 a.m.

10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25