

RED HILL VALLEY PARKWAY INQUIRY

TRANSCRIPT OF PROCEEDINGS
HEARD BEFORE THE HONOURABLE J. WILTON-SIEGEL
held via Arbitration Place Virtual
on Wednesday, May 18, 2022 at 9:30 a.m.

VOLUME 15

REVISED TRANSCRIPT

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1 Arbitration Place Virtual

2 --- Upon resuming on Wednesday, May 18, 2022

3 at 9:30 a.m.

4 MR. LEWIS: Good morning,
5 Commissioner, counsel, Mr. Raymond. May I
6 proceed, Commissioner?

7 JUSTICE WILTON-SIEGEL: Please
8 proceed.

9 MR. LEWIS: Thank you.

10 CHRIS RAYMOND; RESUMED

11 CONTINUED EXAMINATION BY MR. LEWIS:

12 Q. Good morning,
13 Mr. Raymond. We left off yesterday talking about
14 the arrangements being made for the MTO skid
15 testing on the Red Hill Valley Parkway, which we
16 know did take place on October 16, 2007.

17 So, now if we could go to,
18 Registrar, overview document 4, image 60, please.
19 And in paragraph 137, if you could call that out,
20 please, on October 17, the day following the
21 testing, Mr. Marciello e-mailed you and Ms. Lane
22 the friction test results of the Red Hill. And
23 you can read what he said there.

24 First of all, they only tested
25 in the two southbound lanes and he attached the

1 results and then we'll get to the results in a
2 minute, but in the third paragraph, he says:

3 "Dufferin and Philips
4 Engineering and Andro
5 Delos Reyes are eager for
6 the results."

7 Do you know if the results
8 were provided to Dufferin or Philips?

9 A. I do not. I did not
10 include them in my e-mail where I shared the
11 results with Ludomir Uzarowski and I don't really
12 have -- you know, it's never a commitment to
13 provide the information to Dufferin or Philips
14 Engineering. This is really the first time that
15 it had come up, you know, and I didn't take too
16 much notice of it because I wasn't intending to
17 share the results with them. But that would be
18 left up to Ludomir Uzarowski and/or the City after
19 the information was shared with them from Ludomir
20 Uzarowski.

21 Q. So you didn't share it
22 with them and you're not aware of it having been
23 shared with them. Is that right?

24 A. That's correct.

25 Q. And, in the last

1 paragraph, Mr. Marciello wrote:

2 "No friction numbers
3 below 30 were collected
4 in areas situated
5 directly under overhead
6 structures (least likely
7 to get weathered)."

8 Do you recall what you made of
9 that statement?

10 A. Yeah, and it's something
11 that we had seen in other early SMA friction
12 testing on MTO projects, is that directly under a
13 bridge, that the numbers didn't rise as quickly.
14 And I can't speak to, you know, if being under a
15 bridge impacts long-term friction results because
16 I wasn't really extensively involved in reviewing
17 long-term friction information.

18 And just to come back to the
19 theory, and I know that a lot of it is a lot of
20 the increase in friction related to early age SMA
21 is wearing of the asphalt film off the surface
22 from tires and, you know, that's a lot of the
23 discussion. But there's also -- it's understood
24 that you will also get weathering of that
25 asphalt's film on the surface over time, and I

1 think anyone that's seen a brand new paved
2 roadway, and it doesn't have to be SMA, it's quite
3 black at the start and then if you go over it a
4 year later, it's very likely to be grey or
5 specifically the colour of a lot of the aggregates
6 that were used in that pavement. And, again, that
7 can be largely from weathering, especially outside
8 of the wheel paths.

9 Q. Okay. So, if I've
10 understood you correctly, that that correlation,
11 if we can call it, had been observed on prior SMA
12 projects where there had been lower friction
13 number results located underneath overhead
14 structures. Is that right?

15 A. That's correct. It had
16 been flagged or noted on some previous MTO
17 projects.

18 Q. Okay. And am I correct
19 in understanding that, although it had been noted,
20 there hadn't been study done or any investigations
21 into that correlation. Is that right?

22 A. That's right. It was
23 more of a noted aspect. And appreciate, too, that
24 the numbers are lower but, you know, only a few
25 friction numbers lower.

1 Q. Okay. And then do you
2 recall was any more rigorous study done
3 subsequently on that issue or no?

4 A. No, not that I'm aware
5 of.

6 Q. Okay.

7 A. And there wasn't -- I
8 mean, it's noted here, but really not much was
9 ever taken or -- I'm not aware of anything being
10 pursued to investigate that. It wasn't a concern.
11 It was just a noted aspect that gives some
12 explanation on why some individual numbers under
13 structures might be a little bit different or
14 lower from, sort of, the main of what you're
15 getting. I think we touched yesterday a little
16 bit, you know, you look at the main but you also
17 look at some of the variability as well.

18 Q. Right. Okay. And,
19 Registrar, if we take that down and go to the
20 results themselves, which are at images 61 and 62.
21 I wonder, could you expand both of those charts so
22 they're a little more visible? Great. Thank you.

23 And so, on the left-hand side,
24 we've got southbound lane 1, and on the right,
25 southbound lane 2. And do you recall at the time

1 reviewing the results themselves rather than just
2 his e-mail?

3 A. So, when I received the
4 results, I looked at the results, I reviewed the
5 results, but it was never the intention that we
6 would provide anything more than the results to
7 Ludomir Uzarowski. We do not provide an
8 interpretation of those results, although I will
9 note that I did note the lower friction numbers
10 under the structure, but, you know, that's not
11 what I consider to be an interpretation. It's
12 more of just a supplemental explanation of some of
13 the results.

14 Q. We'll get to your e-mail
15 when we get there, but you're saying yes, you did
16 review the actual --

17 A. I reviewed it internally
18 for internal purposes, yes.

19 Q. Okay. And what was your
20 view of them at the time? What did you think?

21 A. I thought they were good.
22 I didn't have any concerns with them. In fact,
23 the numbers were quite a bit higher than we were
24 typically seeing on MTO projects.

25 Q. And from that, I take it

1 you mean MTO new SMA projects?

2 A. Absolutely.

3 Q. And when you say that the
4 results were good, do I understand you correctly
5 that you mean they were good in the context of it
6 being a new SMA placement?

7 A. Yeah, absolutely. Yes.

8 Q. Okay. And you have
9 spoken about it, the issue, more generally about
10 the readings below, FN30, and you just briefly
11 mentioned it. There are five of them in total
12 that are below FN30 with the minimum being in lane
13 1 of 28.1 and the minimum in lane 2 being 28.4, as
14 described there.

15 So, if you can just describe
16 what your thought was about those results
17 specifically?

18 A. Well, some of them, you
19 know, tied into the fact that they were under
20 bridges. I guess all of them, the results also
21 tie into the fact that, you know, whenever you
22 have a group of statistical data like this, you're
23 going to have some on the high side, some on the
24 low side, and then you're going to have your mean.

25 Other than them noting the

1 bridge portion of things, the results, you know,
2 there's none of those results that give me a lot
3 of concern or much. Yeah, there are, you
4 mentioned, five under 30, but, you know, they're
5 not significantly under 30 to worry me the same
6 way as if they were in the low 20s.

7 Q. Right. And just to cover
8 something before, you discussed an issue, for
9 example, of the Highway 401 placement and the
10 testing around the same time and the pause on SMA.
11 And did the pause have anything to do with the Red
12 Hill results?

13 A. It did not. I mean, the
14 pause had to do quite a bit with that Woodstock
15 project, but it also had to do with our complete
16 database of SMA projects, which this, the Red
17 Hill, now came into that database but it wasn't --
18 it was unique in the sense that it had an
19 aggregate that wasn't on the MTO's Designated
20 Sources for Materials.

21 And, you know, I would say
22 it's also worth noting that the numbers that were
23 achieved were not concerning in the same way as
24 some of our other MTO projects, which were below
25 30 as an average.

1 Q. Okay.

2 A. There is the difference
3 here that this, I believe, was tested at 90. I
4 can't see it in the headers, but -- yeah, there it
5 is. The testing speed was 90 versus 100.

6 Q. That's right. And so,
7 the significance of that being that you would
8 expect, at a lower speed, that the friction number
9 that's returned would be higher than at a higher
10 speed?

11 A. That's correct.

12 Q. And if we could go to --
13 take those down, please, Registrar, and go to
14 paragraph 139 there at the bottom of image 62, and
15 if you could call that out, please.

16 So, the next day, October 18,
17 you e-mailed the results to Dr. Uzarowski and
18 Andro Delos Reyes at Golder that we were just
19 discussing. And we see what you wrote. You
20 attached the results and said:

21 "Please pass the results
22 on to those involved with
23 the project."

24 And you made note of, as you
25 indicated before, that you may wish to note that

1 some of the friction numbers less than 30
2 correlate with being located under a structure:

3 "Should you have any
4 questions regarding the
5 results, please do not
6 hesitate to contact us."

7 And then, you know, we'll
8 leave this up, but Dr. Uzarowski replied thanking
9 you and saying he would discuss the results with
10 the City, and that's at paragraph 140, just for
11 the record.

12 So, do you recall, before or
13 after sending this, whether you had any oral
14 discussions with Dr. Uzarowski or Mr. Delos Reyes
15 about the results?

16 A. As far as I can remember,
17 I had no discussion with Dr. Uzarowski, and the
18 same for Mr. Delos Reyes. I don't think I've ever
19 spoken to Mr. Delos Reyes.

20 Q. Okay. And without being
21 asked to, would you have volunteered any further
22 information about it?

23 A. If he called up to ask
24 me, you know, information about the test results,
25 I would provide him clarification on what's in the

1 test results, but I would not walk him through an
2 interpretation or give him an interpretation, if
3 that makes sense. Right? If he's talking about
4 the, you know -- so, if he had a question about,
5 you know, just what, I don't know, what the
6 information as provided, whether or not this was a
7 ribbed tire or a smooth tire or if he asked what
8 speed it was done, I know it's on there but
9 sometimes you don't -- I had to take a second to
10 look at it to find out where it was on there and
11 that sort of stuff.

12 Q. And so, the particulars
13 of the chart and what the data said, if I'm
14 understanding you correctly, as opposed to an
15 interpretation of what it meant. Is that --

16 A. That's right. And I was
17 always very cognizant that we do not want to
18 provide an interpretation of the results.

19 Q. Do you mean generally or
20 in this circumstance?

21 A. I haven't done it a lot,
22 but certainly in this circumstance and I think,
23 again, generally. You know, it all depends on
24 what the, sort of, relationship of why we're
25 providing services to an external entity, you

1 know, if there's some sort of inherent agreement
2 that we would also provide interpretation. But,
3 you know, providing results is one thing.
4 Providing results and interpretation is quite a
5 different thing and, you know, we certainly are
6 aware of that separation.

7 Q. Okay. And why that
8 separation? Could you describe why that is, why
9 you would not typically provide an interpretation
10 of the results?

11 A. That's what I've always
12 understood, as a Ministry position. I assume it
13 relates to the legalities of them being
14 responsible for how data is interpreted, and
15 there's always a lot of judgment that can go into
16 interpretation. And that goes through, you know,
17 a lot more than just friction results.

18 Again, it's as simple as you
19 putting out a contract, we provide bore hole
20 information but not bore hole interpretation of
21 what that means and sort of stuff. We leave that
22 typically for the bidders to make their own
23 interpretation based on information provided.

24 Q. Okay. And it just
25 strikes me, and you tell me if I'm wrong, but one

1 concern would be, you know, you, the MTO, haven't
2 done an analysis of the road itself. You haven't
3 looked at the road itself. You haven't looked at
4 the things that can go into whether or not any
5 particular result might be concerning, like the
6 geometry of it, or traffic patterns, collision
7 history, and that sort of thing.

8 And given what you have
9 described about the approach to friction numbers
10 and friction number results, that in the absence
11 of that information, providing an interpretation
12 is a difficult thing to do. Is that fair?

13 A. Well, that is correct,
14 that it is difficult to make a full interpretation
15 of safety on things because we don't know all the
16 information. But, you know, even, you know, it's
17 just -- I think from just a legal liability, it's
18 not something we would provide an interpretation
19 on. Right? And I think it does tie into the
20 reason that you mentioned there.

21 Q. So, if we could pull that
22 down for a moment and go to image 65 of overview
23 document 4, and it's paragraph 146.

24 And so, the next day,
25 October 19, Dr. Uzarowski e-mails you,

1 Mr. Delos Reyes, about British pendulum testing on
2 the Red Hill and he writes:

3 "Chris, I talked to the
4 City of Hamilton today.
5 You can go ahead with the
6 British pendulum testing
7 on the SMA on the Red
8 Hill Valley Parkway
9 before it is open to
10 traffic. Please let
11 Andro Delos Reyes from
12 Golder know when you'll
13 be doing the testing."

14 And then:

15 "Andro, when you get the
16 information from Chris,
17 please let Marco, Walter
18 and James know."

19 So, in there, would this
20 suggest to you that you had a discussion with
21 Dr. Uzarowski following your sending him the
22 friction test results? It suggests there must
23 have been a prior conversation you had with him
24 about British pendulum testing, I assume?

25 A. I assume. I don't know

1 where this came up from. I wasn't directly
2 involved so much in the British pendulum testing.
3 That was Joseph Ponniah that was involved in that.
4 And I hadn't seen much for British pendulum test
5 results to really, you know, make an
6 interpretation of those results and we didn't
7 typically do British pendulum testing on a lot
8 of -- on our MTO highways.

9 I think we were getting some
10 cores that may have been sampled in the lab, so
11 maybe I should let Joseph Ponniah speak to that,
12 because I really wasn't involved in the British
13 pendulum testing and don't remember seeing much
14 for British pendulum testing results.

15 Q. Okay. Well, that's fine,
16 but you nonetheless were talking here, in writing
17 to Dr. Uzarowski, about it. So, putting aside for
18 the moment your overall involvement with British
19 pendulum testing at the MTO, I want to know about
20 in this instance.

21 Would you agree with me that
22 you must have had a discussion? There's nothing
23 prior to this about British pendulum testing, but
24 you must have had a discussion with Dr. Uzarowski
25 about it in order for him to send you this e-mail.

1 He wouldn't just send it to you out of the blue,
2 presumably?

3 A. I had some communication
4 with him. It could have been verbal. Yes. Since
5 we don't have a record of any e-mail, it was
6 likely verbal or it may have come from somebody
7 else to him and then he was coming back to me on
8 it, but it would more likely have come from me.

9 Q. And, again, though,
10 presumably if you got this out of the blue and you
11 hadn't spoken with him or someone else about it in
12 relation to the Red Hill, you would have been
13 surprised by it and said, what are you talking
14 about? Isn't that fair?

15 A. Well, I was aware that
16 Joseph Ponniah was doing British pendulum testing
17 and I believe Chris Rogers was involved in that,
18 and so there may have been internal MTO
19 discussions about wanting to pursue that testing.

20 Q. Okay. So, you think,
21 then, are you saying you think that the idea for
22 British pendulum testing on the Red Hill probably
23 came from the MTO rather than Dr. Uzarowski or the
24 City?

25 A. I think there's a good

1 likelihood of that. I will be right upfront with
2 you and tell you that I just don't recall. But,
3 you know, MTO was doing both the skid testing as
4 well as the British pendulum testing. I'm not
5 sure what Dr. Uzarowski would require British
6 pendulum testing for to supplement the skid
7 testing information that we already had.

8 I believe -- well, I should
9 let Joseph Ponniah and Chris Rogers speak to the
10 purpose of the British pendulum testing, but one
11 of the purposes that I believe that it was for is
12 that it allowed you to take a core of that
13 pavement and ship it to the lab and do testing, do
14 the British pendulum testing, which can be done in
15 the lab or it can be done in the field, versus the
16 skid trailer, which has to be coordinated.

17 And I believe that Frank
18 Marciello, he did a great job accommodating the
19 priority for early age friction testing, but he
20 said, you know, I've got a list of other friction
21 testing on other pavements that, you know, I like
22 to schedule and, you know, I do them any time I
23 want or schedule them in appropriately for the
24 year and, you know, you're asking me to go out,
25 you know, basically with a week's notice to go out

1 and do this stuff.

2 So, it complicated his
3 schedule and there were times where if he was up
4 in Northern Ontario, you know, he can't
5 necessarily come down and do testing on Woodstock
6 for early age friction, which has some time
7 sensitivity. So, if you could take a core, ship
8 it to the lab and then you've got the ability to
9 get a measurement of friction through a different
10 means that has more flexibility in terms of
11 timing.

12 It also would, I believe, tie
13 into the fact that, you know, when you do a mix
14 design or laboratory testing, before you start
15 your paving, you then get a laboratory sample of
16 that mix that you can do British pendulum testing
17 on, which of course you cannot do skid testing on
18 because you only have that sample that's made up
19 in that the laboratory.

20 Q. When you talk about
21 British pendulum testing on a mix, I mean, at that
22 point it hasn't solidified, if I can put it. It
23 hasn't been placed. Are you talking about doing
24 the British pendulum testing as part of a polished
25 stone value testing on the aggregates themselves

1 after they've been extracted? Is that what you're
2 referring to?

3 A. No. So, let me back up.
4 You know, so if you place a mix, you can go and
5 take a core of that mix and ship it down and then
6 that's asphalt mix. But before you place any
7 asphalt mix, you have to do the engineering to
8 basically proportion your asphalt cement, your
9 aggregate gradations and stuff like that. So, you
10 do that on paper.

11 And then you will also mix up
12 a small sample of it in the laboratory where you
13 mix the aggregates and the asphalt cement. You
14 will then -- so, you'll mix it up and then you'll
15 compact it to a standard compaction and it's
16 largely your proportions are based a lot on
17 volumetrics. So, again, depending on how that
18 compacts, that will get you your optimal amount of
19 asphalt cement.

20 So, you'll have a hardened --
21 it's called a briquette, but it's similar to an
22 actual core, and that is of the mix and you can do
23 British pendulum on that mix. Nobody typically
24 does that unless you wanted to get an indication
25 of what you would be getting for early age SMA

1 friction because, you know, you're going to have a
2 totally unweathered surface on that laboratory
3 briquette.

4 The other thing that you need
5 to consider is the whole laboratory mix procedure
6 is a good simulation of what will happen mixing
7 your asphalt and aggregates through an asphalt
8 plant and then trucking them to the project,
9 running them through your paver and your rolling
10 operation to get your finished product. But as
11 much as it is a good simulation, it is not a
12 perfect simulation. But, again, that's what the
13 laboratory procedure does. It's, you know, the
14 best laboratory simulation that you can have to
15 determine that information.

16 Q. Okay. So, if I've
17 understood you correctly, you don't have a
18 specific recollection of the discussions, of any
19 discussion that you had, about the British
20 pendulum testing, but you agree that it is likely
21 you did have some discussion with Dr. Uzarowski
22 prior to this e-mail, although you don't have any
23 specific recollection of it, and you don't know
24 but potentially you gave a couple of reasons why
25 Golder was asking for it. Sorry, why the MTO

1 might have wanted it to be done, although again
2 you don't have a specific recollection. Is that
3 fair?

4 A. That is fair. I do have
5 a recollection that MTO was doing some British
6 pendulum testing on samples.

7 Q. Yes. No, I get that.
8 Okay. Thank you. Now, Dr. Uzarowski testified
9 that he thought, his recollection was that, the
10 MTO wanted to do it, the British pendulum testing,
11 that he believes it was because the MTO wanted to
12 use the data to compare and correlate between skid
13 testing and British pendulum testing. Does that
14 ring any bell with you or no?

15 A. It does not ring a bell
16 with me, but it seems logical. And, you know, I
17 come back to my earlier statement that I don't --
18 I know that we were doing British pendulum and,
19 you know, I believe the reason was to try and
20 correlate between the two and then, with that
21 correlation, you would have the opportunity to
22 measure mixes before they're placed as well as
23 cores that are placed.

24 Probably, you know, in
25 thinking about it more, probably the better use

1 for your British pendulum testing is that you can
2 do laboratory mixes on various mix variations and
3 then evaluate the different friction levels from
4 your British pendulum. Right?

5 We've explained or I've
6 explained that, you know, for a laboratory mix
7 sample, British pendulum testing is the -- you
8 know, you can't do the skid trailer.

9 Q. Of course. You can't
10 drive on a lab sample?

11 A. You can't drive a -- it's
12 a six-inch core, so you would have to hit that
13 spot pretty good.

14 Q. Got it. Just then coming
15 back, though, if it's likely that you had a
16 discussion with Dr. Uzarowski -- and this is on
17 October 19 you're talking about, sorry, he's
18 talking about having spoken to the City of
19 Hamilton about the British pendulum testing.

20 In light of that, though, am I
21 correct you don't recall having any corollary
22 discussion with him about the skid test results.
23 Is that right?

24 A. That is correct.

25 Q. Okay. Now, when talking

1 about the skid test results several minutes ago,
2 you explained about the general approach and about
3 not interpreting the skid test results when
4 dealing with a third party and you've explained
5 why that was. And I appreciate that you thought
6 that these results were, as you described, good in
7 the context of early age friction.

8 What if you were, from the
9 results, not these results but from any results
10 involving a third party, from those skid test
11 results, were aware of or suspected a safety issue
12 arising from the results, what would you do then?

13 A. That's an excellent
14 question. I think certainly one of the things
15 would be to consult with some other people in the
16 Ministry. You know, it would be -- you know,
17 obviously sharing the results and asking, in this
18 case, Dr. Uzarowski what his interpretation is and
19 what his action is going to be in response to
20 them. Right?

21 And if we're satisfied with
22 that being an appropriate action to mitigate the
23 situation, then I believe that would alleviate our
24 concerns of being aware of a safety situation that
25 needs to be addressed and that is being addressed

1 satisfactorily, so then we don't have to go in and
2 wave the flag that there's a concern and, you
3 know, again, if, you know, it's not -- you know,
4 we would tend to not direct others on how best to
5 alleviate a concern as long as we're satisfied
6 that they're taking appropriate action or are
7 appropriately aware of the situation.

8 Q. Okay. And so, if I
9 understood you from that example, and I appreciate
10 that wasn't the case in this particular instance,
11 but if you had provided the results and they
12 caused you concern and you gave it to them and
13 then the person you were providing them to says,
14 whoa, those look really low, we've got to do
15 something about this, we're going to lower the
16 speed limit, we're going to have a look at things,
17 we're going to investigate and figure it out, if
18 I'm interpreting what you're saying correctly,
19 your point of view is that would likely satisfy
20 you that they understood the gravity of the
21 situation and therefore there was nothing else
22 that the MTO needed to do. Is that fair from what
23 you've just described?

24 A. I think in the overall
25 picture. I would add that, you know, I would not

1 make that conclusion that everything is now fine
2 on my own. It would be in consultation with other
3 people in the Ministry and perhaps as well some
4 legal perspective to make sure that, you know, now
5 that this has occurred, that, you know, whether,
6 you know, whether we fulfil a duty to the public
7 or a duty to ensure that things have been
8 sufficiently resolved.

9 Q. Right. It wouldn't have
10 been just your -- you certainly would have talked
11 to others, potentially the legal department, but
12 certainly others and decided what to do. That's
13 understandable.

14 But as a professional engineer
15 as well, if there was a safety issue and you were
16 quite clear on that, am I correct that if, you
17 know, you weren't satisfied that it was understood
18 by the recipient of the information, that you
19 would feel that you needed to take some sort of
20 not action meaning physically on the road, but to
21 advise them that there are at least concerns. Is
22 that fair?

23 A. That is fair. I'm well
24 aware of my obligation as a professional engineer
25 to ensure that any safety issue that I become

1 aware of is adequately addressed.

2 Q. Okay. And then just
3 because we have that example, if it was a
4 third-party road that got the results from the 407
5 at Woodstock, sorry, 401 at Woodstock around the
6 same time that you discussed yesterday and a
7 little bit today with numbers in the low 20s, and
8 is that something where, again, you would feel at
9 that point that you need to highlight this with
10 them and say that they need to look at it? I'm
11 just wondering at what point it might cross that
12 threshold.

13 A. Yeah, and I think that's
14 a hypothetical question that --

15 Q. It is.

16 A. You know? And, again,
17 you know, I believe that my actions would involve
18 seeking peer advice from others in the Ministry
19 and, again, more legal advice to ensure that, you
20 know, both my responsibility as a professional
21 engineer as well as the Ministry's responsibility
22 as an agency that now is also aware of the
23 situation and how we basically cover off our
24 responsibilities and ensure that they are
25 fulfilled in this.

1 Q. I understand that. I'm
2 not asking you to try to figure out what the legal
3 advice would be, but I just suggest to you that if
4 you got the results that were, at the very at
5 least in the low 20s, when the MTO did take
6 measures to deal with it in the early age friction
7 context, that you would have at least advised a
8 third party that they ought to at least think
9 about taking some measures because the results are
10 concerning?

11 MR. BOURRIER: Commissioner,
12 sorry to interrupt. I think Mr. Raymond has
13 answered this question as best he can. It is a
14 hypothetical situation that's being asked of him
15 to comment on, so I think he's answered this
16 question already.

17 JUSTICE WILTON-SIEGEL: Sorry,
18 I was muted there. I think, Mr. Lewis, we've had
19 the question put a couple of times and we've got
20 the answer.

21 MR. LEWIS: Okay. Thank you.

22 BY MR. LEWIS:

23 Q. It appears, just with
24 respect coming back briefly to the British
25 pendulum testing, if we could go to overview

1 document 4, image 70, and 157, we may come back to
2 this for another purpose about Blastrac, which
3 we're going to get to in a minute, but in the last
4 sentence of an e-mail on November 2, 2007 from you
5 to Dr. Uzarowski, you state:

6 "I think that the
7 pendulum testing of the
8 SMA will not happen."

9 Do you have any recollection
10 of why it will not happen and our understanding is
11 it didn't happen? Do you recall why?

12 A. I don't recall, you know,
13 and I wasn't directly involved with that, with the
14 pendulum testing. That was, sort of, a subgroup
15 of the early friction SMA and I think the question
16 would be better answered by Joseph Ponniah or
17 Chris Rogers. I suspect that, you know, they
18 probably were unable to schedule going out there
19 or may not have seen a need for that pendulum
20 testing. I can't speak to the reasons why.

21 Q. You just don't recall at
22 this point?

23 A. I just don't recall.

24 Q. Okay. You can take that
25 down, Registrar. Thank you. And if we could go

1 to image 81, and in paragraphs 185 and 186 there's
2 some e-mails between Ms. Lane and Mr. Kazmierowski
3 about the Red Hill friction test results that we
4 were just discussing. And Ms. Lane is asked by
5 Mr. Kazmierowski about who they have been shared
6 with and she says:

7 "Not sure if Mr. Raymond
8 shared them with the MTO
9 task group members."

10 And then she sends the results
11 to Mr. Tam, Mr. Rogers and Mr. Billings, who are
12 all on the SMA task group at that time.

13 And do you recall if there was
14 any discussion amongst the SMA task group about
15 the SMA results? Sorry, the SMA results. The Red
16 Hill SMA results?

17 A. I don't recall. A lot of
18 times the SMA task group would look at more
19 summary information of results rather than
20 individual results, and individual results would
21 be looked at by myself and a couple other key
22 people and then, sort of, incorporated into the
23 larger database of information that would then go
24 forward to the task group.

25 Q. And there is no mention,

1 I can tell you, in the task group minutes of those
2 results specifically. So, in talking with other
3 members specifically of the task group, do you
4 recall if you had any discussions about the Red
5 Hill results with Dennis Billings specifically?

6 A. I doubt that I would have
7 had discussions with Dennis Billings, no. I doubt
8 that that would have happened and I doubt that I
9 would have -- you know, the discussion that would
10 have happened regarding the individual results,
11 you know, we would do a smaller group review of it
12 and then that would go into, sort of, a larger
13 database that then would go forward to the task
14 group typically.

15 Q. No, I understand that.
16 But I take it you don't recall any discussions
17 with Mr. Billings?

18 A. I do not nor do I of the
19 task group members specifically. I don't think
20 Bob Gorman was part of the group and Becca Lane
21 and I guess -- and I can't remember if
22 Mr. Kazmierowski was, but I believe those are the
23 people that would have participated with me in the
24 review.

25 Oh, I think I've lost sound.

1 Q. No, that was me just not
2 talking. I'm looking for the next topic. If we
3 could, Registrar, go to image 65 in overview
4 document 4. And this is about an issue that you
5 raised yesterday and then we parked it, so to
6 speak, to talk about today because of the timing
7 in which it arose.

8 So, in paragraph 147, on
9 October 22, so now we're six days after the skid
10 testing on the Red Hill, Dr. Uzarowski sent an
11 e-mail to you with the subject line "Pavement Shot
12 Blasting" and then he wrote what's indicated in
13 that e-mail, if you could call that up. He
14 provides the name of the company, Blastrac, and
15 the website and a little bit of information about
16 it and that he can give you a contact for it.

17 And so, Blastrac, as I
18 understand it, that's a company that does the
19 surface treatment to improve surface friction. Is
20 that correct?

21 A. They are a company that
22 does essentially shot blasting of a pavement
23 surface to restore friction, yes.

24 Q. Okay. And did this issue
25 have anything to do with the Red Hill?

1 A. It did not. The
2 discussion came up when Dr. Uzarowski had
3 contacted me and asked me about the rumour of
4 early age SMA or I don't know if it was a rumour
5 or whether it was -- or if he was aware that we
6 were having concerns with early age friction on
7 SMA.

8 And during that discussion, I
9 had given him an overview of the early age SMA
10 issue and some of the work that MTO was doing to,
11 sort of, resolve the issue and I'm sure it would
12 have got into the aggregate side of things and,
13 you know, had mentioned that, you know, we were
14 looking at treatments as well.

15 And he, I believe, was the one
16 that mentioned, well, have you tried -- I don't
17 know if he called it Blastrac, but, you know, have
18 you tried basically the shot blasting? And I
19 think, because I believe the typical use and I
20 believe he flagged it, you know, Blastrac is used
21 at airports to remove the rubber tire accumulation
22 that happens from airplanes landing.

23 So, he had asked if we brought
24 that up and I said I wasn't aware of it and that
25 he was going to give me the information of the

1 company and a contact name. So, this is kind of
2 the first part of that and it was to fit in with
3 the MTO's review of, sort of, treatment options
4 that could be done.

5 Q. Okay. So, are you
6 saying, because when you first started your answer
7 you indicated the discussion came up when
8 Dr. Uzarowski contacted me and asked me about a
9 rumour about early age SMA or if he was aware we
10 were having concerns with early age friction on
11 SMA, are you talking about this issue specifically
12 having been raised in your conversation with him
13 on July 31, 2007 or are you talking about some
14 later date?

15 A. I can't say specifically
16 which of those two dates it was, but it did come
17 up from him and it's something that I asked him
18 for further information for MTO to look at as one
19 of our options for resolving the problem.

20 Q. Okay. If we could go to
21 image 74 and 75, and in paragraph 167 and 168
22 there's some e-mails back and forth between you
23 and Mr. Bowers on November 16, 2007 about -- and
24 that's Greg Bowers of Blastrac and you're on the
25 subject of Enquiry Regarding Blastrac Technology.

1 Then he responds with some information about it.

2 Have you had a chance to look
3 at that?

4 A. Yes.

5 Q. Okay. Thank you. And
6 then if you take that down, Registrar and pull up
7 170 and 171, actually maybe -- sorry, I meant the
8 paragraphs. If we could go back to 75 and 76,
9 images 75 and 76. It's actually 170 and 171, so
10 both those paragraphs. Thank you.

11 So, in these paragraphs, on
12 November 21, 2007, Mr. Bowers e-mails you and
13 Ms. Lane a budget and a quote to provide a
14 demonstration, and you e-mail him back on the
15 22nd. You're talking about a trial and you
16 indicate that:

17 "The pavement you were
18 proposing will no longer
19 work for the
20 demonstration because
21 it's being opened to
22 traffic this week and
23 winter has arrived."

24 Do you recall what highway you
25 were talking about?

1 A. I do not and I don't
2 recall if I actually had a highway at this time in
3 mind. Appreciate that I'm pretty sure Greg Bowers
4 was located in Atlanta and I believe there is one
5 Blastrac machine that would work throughout North
6 America, and so it's really getting an indication
7 of when that machine might be available to come to
8 Ontario for, you know, quite a small, you know,
9 one day or one night trial. Right? So, you know,
10 we're kind of fitting into their schedule.

11 And then, you know, after he
12 was going to come back to me and tell me when it
13 was available, you know, we've got SMA projects
14 going, you know, pretty consistently at the
15 Ministry. It's easy then to see if we've got --
16 to fit it into an existing project, provided we're
17 not into December where projects are no longer
18 going. As you can appreciate, if this was July it
19 would likely be, that's great, and then I could
20 reach out to the one, two or three SMA projects
21 that we might have had going at that time and then
22 try to facilitate a demonstration of their product
23 to see if it was in fact capable of providing us
24 the results that we were looking for.

25 Q. Registrar, could you take

1 that down and could we go to MT01413. And these
2 are e-mails involving you and Mr. Marciello, is
3 the first one at the bottom where he sends, on
4 November 15, 2007, results from -- the subject
5 line is "Friction on SMA and Contract 2007-2131
6 with Reduced AC Trial," indicating that it's in
7 the middle of the Rouge River structure in Ajax,
8 so somewhere in the Durham region, Rouge River to
9 Ajax. And then there's a further e-mail above
10 from you to someone named Sadar Singh on the
11 issue, so that's going around the same time.

12 Is that the pavement that you
13 were suggesting that you were thinking of doing
14 the Blastrac trial on?

15 A. It may have been. Again,
16 I can't remember if I had a project in mind at the
17 time or if in fact I was seeing when they were
18 available and then would reach out and see what
19 projects we had going.

20 Q. If we could make that an
21 exhibit, Commissioner. It would be Exhibit 49.

22 THE REGISTRAR: Noted,
23 counsel.

24 EXHIBIT NO. 49: E-mail
25 from Mr. Bowers to

1 Mr. Raymond, dated
2 November 15, 2007.

3 MR. LEWIS: Thank you. Okay.

4 BY MR. LEWIS:

5 Q. You can take that down
6 and go to MT013349. These are the minutes from
7 the SMA main task group on April 14, 2008, so
8 jumping ahead, and it indicates that you were one
9 of the people present at that meeting, that there
10 were eight people present.

11 And then in number 3, if you
12 could call up that paragraph, please, Registrar,
13 there's a reference at that meeting to Blastrac
14 technology and your conclusions. Do you recall
15 this?

16 A. I don't recall the
17 meeting specifically, but this would be consistent
18 with what would have happened at a meeting and,
19 you know, that we were continuing to evaluate
20 various technologies and that, for the Blastrac
21 technology, we continued to have concerns with the
22 shot pellets, you know, as they would hit that
23 rich asphalt surface, that they would gum up with
24 asphalt cement and then, you know, they get
25 recycled back in, I believe, and then, you know,

1 you've got a shot pellet coated with excess AC
2 after a couple cycles through and then it's going
3 to lose its effectiveness to remove additional
4 asphalt cement, so essentially gumming up the shot
5 pellets.

6 Q. Thank you. You can take
7 that down, please. And, sorry, you can take that
8 document away.

9 So, in 2008 you were the, at
10 that point, the senior pavement design engineer.
11 Right? That's the position you occupied from
12 June 2007 to July 2009?

13 A. I don't have my résumé in
14 front of me, but I believe you. That's about the
15 right time.

16 Q. That's what your CV says.

17 A. Yeah, and that would be
18 about the right time, yes, and my CV would be
19 correct.

20 Q. All right. If we could
21 go to image 84 in overview document 4, please.
22 And as you'll see in paragraphs 193 and 194, 194,
23 Mr. Marciello conducted skid testing on the Red
24 Hill on June 12, 2008 and then he e-mailed --
25 sorry, this is just in 193. And then he e-mailed

1 the results to Mr. Bob Gorman, to you and Joseph
2 Ponniah on June 18, 2008.

3 And so, at that point, given
4 the role that you were in, do you know why you
5 were receiving those results?

6 A. I believe I was receiving
7 them because I had been involved with the Red Hill
8 test results, the initial set of testing on them,
9 and so he assumed that I was still involved from
10 that sense. I believe I was still a member of the
11 task group, although Mr. Joseph Ponniah was, I
12 believe, the project manager at this time.

13 Q. On the task group?

14 A. On the task group.

15 Q. Right. So, when you say
16 you believe you were receiving them because you
17 had previously been involved and maybe because of
18 the task group, do you know that you were
19 receiving them for those reasons or is that just
20 what you, at this point, speculate?

21 A. It's what I speculate. I
22 don't know why Frank Marciello e-mailed me on
23 them. I don't recall, nor do I think that I was
24 ever involved in any follow-up testing for the Red
25 Hill. I can speculate that it had to do something

1 with the aggregate source and being involved in
2 inclusion on the Designated Sources for Materials,
3 which would explain Bob Gorman's name on that
4 list. You know, I'm assuming that myself from the
5 initial involvement, and Joseph Ponniah because he
6 was involved as a project manager, I believe, at
7 that time now for the early age SMA task group.

8 In terms of the relation, it
9 is useful information to help understand that the
10 friction growth that occurs over time with early
11 age friction, but it wasn't -- it was never a
12 request that I had made to have that followup
13 done. Again, there were no concerns with the
14 initial testing done, so there's no need to -- no
15 need or no reason to believe that it would be
16 anything, you know, that the early age SMA issue
17 was not a concern for the Red Hill Valley Parkway
18 and there was no -- never an understanding that we
19 would be doing long-term commitment as far as I
20 was aware.

21 Q. Okay. So, we've heard
22 and we're going to hear that the testing in 2008
23 and subsequently was for the purpose of the
24 Designated Sources for Materials application, so I
25 was just wondering why you were receiving them and

1 you've answered that.

2 Do you recall whether you
3 reviewed the results at the time?

4 A. I cannot say for sure,
5 but I think I opened them up out of a curiosity.
6 Again, you know, I'm on the e-mail but, you know,
7 Bob Gorman would have been looking at it from the
8 DSM side of it, and in terms of, you know,
9 updating the database of early SMA projects, I
10 believe Joseph Ponniah was the project manager at
11 that time and that would have been his role, and I
12 don't believe I did anything more than open them
13 up. I may not have even done that, but I believe
14 I just opened them up just out of a curiosity and
15 I believe that they had, as one would expect --
16 well, I'm assuming you're going to take me to
17 those results at some point, so --

18 Q. Well, I'm wondering how
19 you -- we can absolutely go to them. Do you
20 recall what you thought about them at the time?

21 A. I think it would help my
22 memory if we -- I don't remember how I thought
23 about them at the time, but if you bring them up,
24 I can tell you how I think I would have thought
25 about them at that time.

1 Q. We'll bring up two at a
2 time. So, Registrar, if you could bring up MTO --
3 we might as well do this in the native format --
4 MTO24002 and 24003. There we go. Thank you.

5 Okay. So, they're a little
6 out of order. This is, on the left, southbound
7 lane 2, and on the right, northbound lane 1 with
8 average FN of 38.2 and 41.2 respectively. Let me
9 know when you have looked at it and then we can
10 just pull up the other two.

11 A. Yeah, I've had a quick
12 look here.

13 Q. Thank you. And,
14 Registrar, if you could do the same thing with
15 24004 and 24005. Thank you.

16 And then we see our averages
17 of, in northbound lane 2, an average of 38.7, and
18 in southbound lane 1, an average FN of 40.3. So,
19 just let me know when you have --

20 A. I've had a look at them.
21 It's not a detailed look, but I think from what
22 I've seen here, it probably would have -- you
23 know, I don't think I would have given it too much
24 more of a look back at the time, since it was more
25 a look out of curiosity.

1 Q. Right. And the numbers
2 have increased since 2007. If you could go to the
3 chart tab on both of those, Registrar. The one on
4 the left only has the results from 2008, but you
5 can see the comparison from the one on the right
6 from 2007 having gone up as an average from 33 to
7 40.

8 So, are these the kind of
9 results that you would have expected to see based
10 on early age SMA low friction a year later?

11 A. These are good results.
12 I mean, you know, appreciating we didn't -- in
13 2007, we only did the southbound lanes, so we
14 didn't have anything from the northbound lanes.
15 But, you know, you've got quite a nice increase in
16 friction, so basically your early age SMA masking
17 of the aggregate is, that asphalt film, has worn
18 off and you've achieved quite a good friction
19 level.

20 When you're talking 38s, 39s,
21 40s, that's not something that I would look at too
22 much. I would say that it might even be a little
23 bit better at that point what we were typically
24 getting on some of our MTO projects, to which an
25 explanation might be the 90 kilometres an hour

1 test speed.

2 Q. So, that's a longer
3 answer, but my question was: Is it what you would
4 have expected to see after a year or, actually,
5 less than a year because this is in June 2008 and
6 the prior testing was in October of 2007, so is
7 that sort of increase in line with what you would
8 have expected based upon your experience with new
9 SMA placements?

10 A. Yeah, this would be in
11 line with my expectations.

12 Q. Okay. You can take those
13 down, please, Registrar. Thank you.

14 And we know that the MTO
15 conducted skid testing in each year from 2009 to
16 2012 and then again in 2014. Were you involved in
17 any way in the skid testing in those years?

18 A. I was not and I only
19 became aware that such testing was done last
20 summer through the start of this inquiry.

21 Q. Thank you. The last
22 thing I want to ask you about is skid testing on
23 the QEW and Red Hill interchange in 2009. So, if
24 we could go to overview document 4, images 118 and
25 119.

1 Paragraph 284 and 285 just
2 have some background about it and that Dufferin
3 was the paving contractor for that project,
4 contract 2005-2008 at the QEW Red Hill
5 interchange, which was an MTO project, and
6 friction testing was conducted on July 29, 2009.

7 And in paragraph 286 -- and
8 you didn't receive this e-mail. It's the next one
9 I'll take you to. I just want to place it for
10 you. If you see at the top of page 119, there's:

11 "Preliminary results
12 indicate average friction
13 numbers throughout all
14 lanes range from 32 to
15 36."

16 And then if you go to the next
17 image, Registrar, paragraph 289, if you can expand
18 that, please. Mr. Marciello e-mailed Ms. Lane,
19 Joseph Della Mora and you with the test results on
20 that trial placed on the QEW at the Red Hill
21 interchange and indicates:

22 "Early friction appears
23 to be improving."

24 And the results show the
25 average in each of the five lanes tested ranging

1 between 33 and 35.4.

2 Do you recall this project and
3 your receiving these results?

4 A. I don't recall it
5 specifically, but I don't doubt that I received
6 them.

7 Q. Okay. But you don't have
8 any specific recollection of your involvement in
9 this?

10 A. I do not. Well, I would
11 have -- it looks like I would have been involved
12 to some degree. I just don't recall what that
13 was.

14 Q. Okay. I don't have any
15 further questions, Commissioner. Subject to any
16 questions you have at this time, I would turn it
17 over to counsel for the participants. And I
18 haven't this morning canvassed order, the order of
19 questioning. If counsel could advise who would
20 like to go first or if anyone has no questions,
21 you can advise that and then we can sort that out.

22 MS. JENNIFER ROBERTS:
23 Commissioner, I just have a short series of
24 questions.

25 JUSTICE WILTON-SIEGEL: Okay.

1 MS. JENNIFER ROBERTS: But I'm
2 indifferent as to order.

3 MR. LEWIS: Ms. Laurion, will
4 you have any questions?

5 MS. LAURION: I have no
6 questions. Thank you, Commissioner. Thank you,
7 Mr. Lewis.

8 MR. LEWIS: Ms. Jenene
9 Roberts?

10 MS. JENENE ROBERTS: We just
11 have a handful of questions. Our estimate has
12 gone down since yesterday. I'm happy to have
13 Ms. Jennifer Roberts go first.

14 JUSTICE WILTON-SIEGEL: Okay.
15 Then let's turn the podium over to Jennifer
16 Roberts.

17 MS. JENNIFER ROBERTS: Thank
18 you.

19 EXAMINATION BY MS. JENNIFER ROBERTS:

20 Q. Mr. Raymond, hello. I'm
21 Jennifer Roberts, counsel for Golder.

22 Commissioner, may I begin?

23 JUSTICE WILTON-SIEGEL: Please
24 proceed.

25 BY MS. JENNIFER ROBERTS:

1 Q. So, Mr. Raymond, I just
2 want to take you back to some testimony you gave
3 earlier this morning. This is on the hypothetical
4 issue of if the numbers on the Red Hill had been
5 so low as to raise a safety concern, what would
6 you have done? Do you remember that?

7 A. Yeah.

8 Q. Okay. And in your
9 answer, if I caught it right, you said you would
10 consult with others within the Ministry, share the
11 results and speak with Dr. Uzarowski and find out
12 what his interpretation was and what action would
13 be in response.

14 And I just want to follow up
15 on that thought. You're not suggesting in your
16 answer that Dr. Uzarowski had authority to make a
17 decision about a response on behalf of the City of
18 Hamilton, are you?

19 A. No, I'm not. I would --
20 and maybe if I can go back and clarify, you know,
21 the first thing I would do is reach out internally
22 within the Ministry and we would brainstorm the
23 appropriate action, you know, that fulfils my duty
24 as well as the Ministry's duty. We would not -- I
25 cannot see us withholding the information. We

1 would reach out to Dr. Uzarowski.

2 And I'm speculating or
3 hypothesizing that, you know, one way would be to
4 ask him what collectively for the project the
5 response was going to be, but to answer your --
6 and then assuming that for the project team
7 overall was doing something that satisfies things,
8 that would very likely satisfy my responsibilities
9 and the Ministry's responsibilities.

10 But to answer your question
11 directly, I did not in any way interpret that
12 Dr. Uzarowski has full authority for the project
13 and I very much would be of the understanding that
14 he is working for the City.

15 Q. So, if I'm understanding
16 your answer, your view is you would contact
17 Dr. Uzarowski because that's a conduit for
18 communications with the City of Hamilton. Do I
19 have that right?

20 A. You do. That was the
21 conduit that I was using for that project,
22 including the City, yes.

23 Q. But ultimately your
24 responsibility as a professional engineer is to
25 ensure that concern, this hypothetical concern,

1 actually gets delivered to a decision-maker for
2 the City of Hamilton, is it not?

3 A. I would have to look at
4 my obligations to that specific nuance, but, you
5 know, I'm not saying that had there been a
6 specific concern, that I would have not ensured
7 that it went to the City of Hamilton as well.

8 I also appreciate that
9 Dr. Uzarowski is also a professional engineer with
10 the similar obligations that I have as a
11 professional engineer, but that does not alleviate
12 myself or the City -- sorry, not the City, the
13 Ministry, of our obligations.

14 Q. Right. So, ultimately
15 the responsibility would be to ensure that the
16 information had been reported to the City of
17 Hamilton?

18 A. Again, that would be a
19 clarification that I would seek through the
20 internal discussions within MTO.

21 Q. Okay. Thank you. Those
22 are my questions.

23 MR. LEWIS: Ms. Jenene
24 Roberts.

25 MS. JENENE ROBERTS: Thank

1 you, commission counsel.

2 EXAMINATION BY MS. JENENE ROBERTS:

3 Q. Mr. Raymond, I'm counsel
4 for the City of Hamilton and I just have a few
5 questions following up on your testimony earlier
6 this morning and yesterday.

7 The first, with respect to the
8 2007 friction results on the Red Hill, am I right
9 that, to your knowledge, no one else at the MTO
10 who received the results had any concerns with
11 respect to the friction levels?

12 A. That is correct. I was
13 never aware of any concerns related to that from
14 anyone at the Ministry.

15 Q. Okay. And then for the
16 2008 results, I know you've told us you weren't
17 quite as intimately involved in that testing or,
18 you know, the dissemination of the results or
19 anything, but to your knowledge, no one else at
20 the MTO who received the 2008 friction results had
21 any concerns?

22 A. That is correct. And, as
23 far as I know, I never discussed the 2008 results
24 within the Ministry.

25 Q. Okay. And going back now

1 a little bit in time, I want to ask just a few
2 questions about the joint MTO industry SMA task
3 group.

4 Am I right that there were no
5 representatives from the City of Hamilton that
6 were included in that task group?

7 A. That's correct, for both
8 task groups. There was the initial task group and
9 then task group two that is when I joined in as,
10 sort of, task -- it was task group two. We were
11 doing similar stuff, but yeah, there were -- and
12 there was no representatives from the City of
13 Hamilton.

14 Q. Okay. Great. And then
15 sort of related to that, I take it, then, that the
16 City of Hamilton would not have been and was not
17 in fact informed of any of the investigations or
18 the findings of either task group one or task
19 group two?

20 A. I'm not aware of any such
21 communications. I'm aware that -- I'm not aware
22 of any -- I doubt that it happened. I can't speak
23 for all the people within the Ministry and in
24 terms of the City of Hamilton, you know, I don't
25 know which people within the Ministry they have

1 communications with and how frequently.

2 Q. Okay. That's fine. Just
3 for your awareness, you certainly did not and
4 you're not aware of anyone else from the MTO
5 contacting the City of Hamilton with respect to
6 the meetings or the investigations or the findings
7 of the SMA task groups?

8 A. That's correct, and I'm
9 not aware of any municipal outreach from that
10 greater task group.

11 Q. Okay. Thank you. A
12 slightly different topic now. And you talked
13 yesterday about the request that was made by
14 Dr. Uzarowski to have the friction testing done in
15 2007 and, if I understand it correctly, your
16 belief was that the City did not want to provide a
17 written request for that testing. Is that right?

18 A. That's correct.

19 Q. And the source of your
20 information there was Dr. Uzarowski?

21 A. Sorry, I missed your
22 question.

23 Q. I said the source of your
24 information there was Dr. Uzarowski?

25 A. Yes, entirely. Yes.

1 Q. Okay. And I take it that
2 you didn't actually speak to anyone at the City of
3 Hamilton and ask them directly to make a written
4 request for that testing?

5 A. I had no discussions with
6 anyone with the City of Hamilton at any time
7 throughout -- through any time any time. I don't
8 think I've ever had any contacts. But certainly
9 in the time periods of the SMA task group and
10 through to the testing on the Red Hill in 2007 and
11 even 2008, I had no contact with anyone within the
12 City.

13 I do know Gary Moore. I've
14 met him at technical seminars and maybe a Canadian
15 Technical Asphalt Association, but no discussions
16 related to the Red Hill or anything really, you
17 know, technical that I can recall.

18 Q. Okay. Thank you,
19 Mr. Raymond. Mr. Commissioner, those are all my
20 questions.

21 MR. LEWIS: And then
22 Mr. Bourrier for the MTO.

23 MR. BOURRIER: Commissioner, I
24 don't have any questions for Mr. Raymond.

25 JUSTICE WILTON-SIEGEL: So,

1 Mr. Raymond, I think I should thank you first of
2 all for appearing before the inquiry yesterday and
3 today. You're excused, there being no further
4 questions.

5 THE WITNESS: Well, thank you.

6 JUSTICE WILTON-SIEGEL: Okay.

7 Thank you very much. Mr. Lewis, it's 11:00 now.
8 Would this be an appropriate time to take a
9 15-minute break and then we'll start with the next
10 witness?

11 MR. LEWIS: Yes. So, the next
12 witness is Tom Kazmierowski. I should ask
13 Mr. Bourrier, is he ready to go after the break?

14 MR. BOURRIER: He's in the
15 building. I was wondering if we could maybe take
16 a slightly longer break to get him set up so he's
17 ready to go after the break?

18 JUSTICE WILTON-SIEGEL: What
19 do you think you need?

20 MR. BOURRIER: Maybe
21 20 minutes, 25 minutes.

22 JUSTICE WILTON-SIEGEL: Why
23 don't we return at, let's say, 25 past 11:00.

24 MR. BOURRIER: Thank you.

25 JUSTICE WILTON-SIEGEL: We

1 stand adjourned until then.

2 --- Recess taken at 11:03 a.m.

3 --- Upon resuming at 11:26 a.m.

4 TOM KAZMIEROWSKI; AFFIRMED

5 EXAMINATION BY MR. LEWIS:

6 Q. Good morning,
7 Mr. Kazmierowski. Thank you for coming.

8 A. Good morning.

9 Q. I would like to first
10 briefly go through your educational background and
11 work history.

12 I understand that you were
13 employed by the MTO from May 1976 until you
14 retired from public service on December 31, 2012.
15 Is that correct?

16 A. That's correct.

17 Q. And did you join the MTO
18 back in 1976 straight out of university?

19 A. Yes, I did.

20 Q. And your education at U
21 of T was in -- was it geological engineering?

22 A. I graduated the
23 geological engineering program, that's correct.

24 Q. Okay. And I understand
25 that's a combination of geological and civil

1 engineering. Is that right?

2 A. It is. It's a rather
3 unique program at U of T.

4 Q. And are you still a
5 practicing engineer?

6 A. Yes, I am.

7 Q. And we don't need to
8 cover your whole career trajectory at the MTO, but
9 if we could cover the last couple of positions.

10 I understand that you were the
11 manager of the pavement and foundations section
12 from 1994 to March 2007. Is that right?

13 A. I believe that's correct.
14 I don't have my résumé in front of me, but I
15 believe that's correct.

16 Q. And you were the acting
17 senior manager of MERO, the materials engineering
18 and research office, from April 2007 to
19 October 2007?

20 A. That's correct.

21 Q. Okay. And you were then
22 the manager of MERO in a permanent capacity
23 therefore from November 2007 until your retirement
24 at the end of 2012. Is that right?

25 A. That's correct.

1 Q. Okay. And I understand
2 you're currently at Golder. Is that right?

3 A. Yes. I'm currently
4 working part time at Golder.

5 Q. And you've been there
6 since 2013?

7 A. I believe it was March of
8 2013, yes.

9 Q. And so, you're part time
10 and what's your role there?

11 A. Senior consultant and
12 materials and pavement engineering, mainly doing
13 final technical review of reports, quality control
14 and I get involved in some special projects.

15 Q. Okay. And am I correct
16 your work at Golder doesn't touch on the matters
17 at issue in this inquiry. Is that correct?

18 A. Not at all.

19 Q. Okay. And perhaps you
20 could briefly describe first your role as the
21 manager of pavement and foundations, particularly
22 in the 2000s up to when you left that role in
23 around March 2007, and then as the manager of MERO
24 until your retirement?

25 A. Yeah. As manager of

1 pavements and foundation, I provided technical
2 leadership and management to two distinct groups
3 within the section. One was the pavements group,
4 responsible for pavement design and pavement
5 evaluation and pavement management. And then
6 there was the foundations group. And in both
7 cases, you've got both engineers and technicians
8 working in various positions.

9 With the foundations group,
10 they also had a lab component associated with it,
11 so we had a lab group or a component within the
12 section.

13 Q. Okay. And then when you
14 were the manager of MERO?

15 A. Basically that's the next
16 step up in the chain of command there. I provided
17 basically leadership and management to five
18 distinct materials areas for the Ministry and each
19 of those areas, well, four of the five, had their
20 own laboratory.

21 Q. And you were also, for a
22 period of time, on the SMA joint task group. And
23 going from the minutes of the task group, you
24 appear that you were on the second iteration of
25 it, task group two, beginning in March 2008 and

1 then attended a number of meetings in April --
2 sorry, March 2007 and April 2007, but not towards
3 the end of April or the end of the year. And I
4 note that that seems to coincide with your moving
5 into the manager of MERO role that you're no
6 longer appearing on the minutes.

7 Was there a relationship
8 between your promotion to the MERO manager and no
9 longer being on the task group?

10 A. I think that was a major
11 factor in that. The other thing is that task
12 group was created to provide specific bituminous
13 expertise to address a problem going on in the
14 Ministry, as you're aware, at the time. And my
15 background, I'm not a bituminous engineer. I
16 never spent any time in the bituminous area, so my
17 involvement in the proceedings was fairly limited.

18 Q. Right. So, put it that
19 way, you're more of a rock person than a
20 bituminous person. Is that right?

21 A. I have more of a
22 geotechnical background than certainly a
23 bituminous background. And we're now talking
24 about mix design and laboratory testing of
25 bituminous materials.

1 Q. When you're talking about
2 the SMA task group?

3 A. Yes.

4 Q. Okay. Then we'll come
5 back briefly. I can tell you we've already heard
6 quite a lot about the SMA task group and some
7 other matters, but I do need to touch on a few
8 things with you as background about MTO approaches
9 to things and then some specific information.

10 We've already heard from Becca
11 Lane, who I know reported to you in a couple
12 different capacities, and also from Chris Raymond,
13 who as well did at certain times.

14 So, the first thing I would
15 like to ask you about is we've heard that the MTO
16 didn't have a published standard on friction
17 performance evaluation. Do you agree with that?

18 A. That's correct.

19 Q. And from your
20 perspective, why is that?

21 A. There was internal
22 guidelines and I think you've heard them presented
23 already, but --

24 Q. This is the number FN30?

25 A. Based on numbers above 30

1 and above and 30 and below, there were guidelines,
2 yes.

3 Q. Okay.

4 A. There was never --

5 Q. So, the first question
6 is: It didn't have a published standard. And
7 then what was the MTO's use of FN30 again, from
8 your perspective?

9 A. It was as a guideline.

10 It was basically one of the many attributes that
11 are looked at when you're investigating a pavement
12 surface or condition of a pavement surface and the
13 friction number is one component that you look at.
14 Basically, the guideline said if you had
15 numbers -- and the FN number, as you're aware, is
16 based on the brake-force trailer and we at the
17 Ministry operated at the posted speed when it did
18 the testing and typically the guidelines would be
19 30 and above were acceptable, from below 30 to 25
20 required monitoring and perhaps investigation, and
21 then below that, certainly investigation and
22 action would be warranted.

23 Q. And when you talk about
24 the other components, what are the other
25 components that you're looking at, aside from the

1 friction number itself?

2 A. When you're decisioning
3 the condition of a pavement surface and its
4 frictional performance, you're looking at the type
5 of aggregates that are in the surface, very
6 critical to both long- and short-term frictional
7 performance. You're looking at mix design, what
8 type of mix design was used. You're looking at
9 construction techniques, the quality of
10 construction, what kind of testing was done during
11 that.

12 And then you have to look at
13 all the other factors, including geometrics,
14 environmental conditions, condition of the
15 vehicles, drivers' expectation for friction on
16 that road, so it's quite a multidisciplinary area
17 for attributes that you look at.

18 Q. Okay. And, as you
19 indicated, the MTO conducted its skid testing
20 using the lock-wheel skid tester and my
21 understanding is that while you were the manager
22 of pavements and foundations, the operator of the
23 skid tester, Frank Marciello, reported to you
24 during that time. Is that correct?

25 A. That's correct.

1 Q. And then once you moved
2 into the manager MERO role, again, would continue
3 to report to the person who was in your former
4 position as the manager of pavements and
5 foundations?

6 A. That's correct.

7 Q. And now, you've talked
8 about the guidelines of FN30 and then you also
9 mentioned FN25. So, what's the source of those,
10 from your long experience in the Ministry? What's
11 the source of that guideline?

12 A. Well, the source of the
13 guidelines was based on the geometric design
14 standards for highways and the minimum need for
15 the friction component. And you have to also
16 remember the Ministry was doing friction testing
17 on its highways for -- I'm not sure when we got
18 the first friction trailer. I'm sure it was
19 probably the early 1980s, so it was gathering
20 information for a long time on various roadways.

21 Q. Right. And when you talk
22 about the geometric design standards, you're
23 talking about from the MTO's design guide?

24 A. That's correct.

25 Q. And the use of the

1 friction coefficient to calculate stopping
2 distances?

3 A. As I understand it, yes.

4 Q. Okay. And when you say
5 "as I understand it," it's something that's not
6 really your area, but that's your understanding of
7 the source. Is that a fair characterization?

8 A. Yes, it is.

9 Q. Thank you. What about
10 the number 25? We talk about the 30. What about
11 the number 25? And you described it as being -- I
12 don't want to mischaracterize it, but you said
13 below 30 to 25 requiring monitoring and perhaps
14 investigation and then below that certainly
15 investigation and action would be warranted.

16 So, the number 25 is, I think,
17 something that we see less frequently in e-mails
18 and so forth. Could you describe a bit about
19 that, about the number 25 and the significance of
20 it?

21 A. All I can say is very
22 rarely would we encounter numbers that low, for
23 the most part. You know, as I had indicated a bit
24 earlier, that the roads, provincial roads are
25 built with quality aggregates, quality design and

1 quality construction techniques, and that ensures
2 for the vast majority of cases that we did not
3 encounter any concerns regarding frictional
4 performance.

5 When conditions warrant, i.e.,
6 there's a concern perhaps with wet weather
7 collisions or frequency that's reported by the
8 regions, within the regions we have pavement
9 evaluation officers that are responsible for
10 various sections of the road, we have maintenance
11 personnel that are responsible for various
12 sections of the road. If there's an indication of
13 some concerns, as part of the evaluation, the
14 friction trailer would be asked to go out and do
15 some testing, but it's very rare circumstances
16 that that occurred.

17 Q. And I think what you're
18 characterizing is essentially that the first
19 level, below 30, when you say monitoring and
20 perhaps investigation, we've heard described as an
21 investigation level. It's, like, let's see
22 whether or not there's actually an issue here
23 after you see results that are below 30. You need
24 to look at it and see if there's an issue and
25 perhaps do more skid testing to determine whether

1 in fact the original results were borne out. Is
2 that right?

3 A. Well, it's not just more
4 skid testing. I think you would initiate,
5 depending on the situation and the warrants, some
6 other types of investigation as well, looking at
7 the materials and doing some other tests.

8 Q. I appreciate that. It
9 was just the use of the term monitoring along with
10 investigation, so I was wondering if by monitoring
11 you were referring to potentially further skid
12 testing as well as investigations?

13 A. Certainly that would be
14 part of it, sure. If there was some concern,
15 there may be a request to monitor it on an annual
16 basis or perhaps even more frequently if there is
17 a significant concern.

18 Q. Okay. And you talked
19 about the people in the regions who -- and, as I
20 understand it, the regions typically would bring
21 issues. If they thought there was a concern with
22 a road potentially, then they would request the
23 skid testing occur. Is that right?

24 A. Yes, they would, as well
25 as other types of evaluation.

1 Q. Sure. And, from your
2 perspective, we know that skid testing takes
3 readings over whatever distance it's doing the
4 testing and it produces individual results when
5 the wheel is locked and the readings are taken at
6 periodic intervals and produces an average FN from
7 all of that as well as low and high numbers, and
8 we've seen those kind of graphs showing the
9 results.

10 From your perspective, is it
11 the average that's looked at? Is it individual
12 results? Is it a combination of the two, in your
13 experience?

14 A. I think you're looking at
15 a combination of the two. Certainly the average
16 is your starting point and then if there's any
17 significant deviation, you would probably be
18 interested in that. Of course, that would be
19 indicative of perhaps field conditions, something
20 that would have to be observed in the field.

21 Q. And so, when you refer to
22 indicative of field conditions, you mean that
23 there could be results which are not reliable. Is
24 that when you say indicative of field conditions?

25 A. There's always a

1 possibility of error in testing procedure. I
2 think we find that in any type of testing, but I'm
3 referring to actual conditions in the field. For
4 example, you might be looking at, you know, a
5 patch or multiple patches on a section of road
6 that would give a different reading as compared to
7 the majority of the road.

8 There may be conditions
9 associated with additional wear and tear. You may
10 have, for example, an access to a quarry on that
11 road that would certainly result in a different
12 wear condition on the pavement surface and result
13 in localized different numbers. So, you really
14 have to go out and take a look at the road. And
15 the FN number by itself is not particularly
16 helpful from that point of view.

17 Q. It's an indicator of
18 where you need to look at something to determine
19 if there really is an issue?

20 A. It's an indicator. It's
21 one of the attributes. I can give you an analogy,
22 but I don't know if that's appropriate or not.

23 Q. You certainly can.
24 Sometimes it's good for lay people to hear an
25 analogy.

1 A. Well, I relate it to
2 prostate cancer and doing a PSA test. The PSA
3 test is an indicator. It's not an absolute
4 result, but it's an indicator.

5 Q. And could you describe
6 what the MTO's approach was to sharing its use and
7 practices with respect to the guideline that
8 you've described?

9 A. Mainly when you say
10 sharing, I assume --

11 Q. Externally.

12 A. Externally, there was
13 very little. There was very little external use
14 of that information. I think you have to -- you
15 should realize that there was only the one device
16 and only the one technician who operated the
17 device, and I believe it may have been one of the
18 only devices. Certainly going back now more
19 during my involvement with the Ministry, one of
20 the only devices in Canada. I think that
21 Transport Canada may have had one for the air
22 fields. I'm not aware of any other provincial
23 agency that offered it, but I could be -- you
24 know, I stand to be corrected. More so --

25 Q. Go ahead.

1 A. More so I think you would
2 see state agencies down in the States using them,
3 the state DOTs. I think it was far more common
4 for them.

5 Q. And I realize in your
6 answer to my question that I phrased it wrongly
7 because I think you took it as being --

8 A. Sorry.

9 Q. No, it was my fault. I
10 think you took it as being actually sharing the
11 use of the machine, actually letting third parties
12 use the machine or testing for third parties. Is
13 that what you took my question as meaning?

14 A. No, not so much. If
15 people aren't familiar with the device, there
16 isn't much point in sharing the data, you know,
17 the individual data. I think what you would see
18 typically shown is interpretation of the data, you
19 know, from -- and the overall assessment of the
20 pavement surface.

21 Q. Okay. So, what then I'm
22 wondering is specifically with the MTO's use of
23 FN30 as a guideline, am I correct in understanding
24 that it was not the MTO's practice to communicate
25 that number to third parties. Is that fair?

1 A. I think that's a fair
2 assessment. And it had to do more with, as I
3 said, people not being familiar with the device.

4 Q. And if we could go to --
5 I'll just give a specific example of it --
6 overview document 4, Registrar, image 126. You're
7 probably aware of this, Mr. Kazmierowski, but this
8 is our overview document that we have which
9 summarizes evidence and describes and excerpts
10 from various documents over time. If at any point
11 I take you to this and you want to see the
12 underlying document instead, you just let me know
13 and we can do that. Okay?

14 And so, looking at
15 paragraph 305, it's referring to a media enquiry
16 in 2011. And I just raise this as an example of
17 the approach to sharing information. And the
18 media enquiry is about the QEW and the use of SMA
19 generally, skid resistance and the pause on use of
20 SMA from a gentleman at the Equipment Journal.
21 So, he was asking for information on this and you
22 write:

23 "I'm concerned with these
24 types of media
25 conversations regarding

1 frictional resistance and
2 safety of our highway
3 surfaces. I would prefer
4 we avoid any discussions
5 of actual skid
6 numbers/values/thresholds
7 and keep the conversation
8 on a more generic level.
9 The sensitivity
10 associated with this
11 issue is high."

12 And is this consistent with
13 the general approach that we were just discussing?

14 A. Yeah. I feel that that
15 more reflects the Ministry's perspective with
16 regards to discussions on frictional resistance.

17 Q. Okay. And in the last
18 sentence:

19 "The sensitivity
20 associated with this
21 issue is high."

22 Is there a specific issue that
23 you're talking about or is it generally about skid
24 numbers?

25 A. Well, I think when we

1 look at the sensitivity associated with this issue
2 is high, it's very easy to misinterpret the data,
3 especially if you're not knowledgeable, and, you
4 know, if you throw out a few numbers, it's very
5 easy to go down the wrong rabbit hole with that.

6 If you look at the actual -- I
7 think the query made in this case, if you look at
8 the questions, I don't believe that -- they were
9 fairly general or vague in nature and, as I
10 mentioned here, this would be the response that
11 you would expect.

12 These type of responses always
13 go up the chain of command and get addressed. And
14 over the years -- sorry.

15 Q. No, you go ahead.

16 A. No. That's fine. I'm
17 done.

18 Q. I think it would be
19 worthwhile to take you to the specific e-mail.
20 Registrar, it's MTO26567.

21 You see at the bottom there,
22 June 16, 2011, Mr. Metcalfe is writing to Anil
23 Virani and he introduces himself and is talking
24 about the SMA being applied to the QEW and then he
25 lists questions below and then that results in the

1 e-mail of yours above, which we just discussed.

2 If you could go to the next
3 image, Registrar, it sets out his questions. Can
4 you read that all right or should we blow that up?

5 A. No. I think it's pretty
6 good.

7 Q. And so, you know, he asks
8 a number of questions about SMA for the most part,
9 including life expectancy and so forth, and about
10 gritting, which we know is one thing at that point
11 in time the joint SMA task group was looking at as
12 one of the solutions to the early age SMA problem.

13 But then he says in the fourth
14 last paragraph:

15 "What reference
16 number does asphalt have
17 to meet or exceed in
18 order to be used in
19 Ontario highways?"

20 And then at the end he talks
21 about, in the last paragraph:

22 "The way in which
23 resistance is measured is
24 through the use of a skid
25 test."

1 He got this from an interview
2 with someone else. So, he is asking -- you're
3 right. He's not stating specifically, we know
4 that you used this number, FN30, and asking a
5 question about that, but he's asking generally
6 what's the reference you use for asphalt and makes
7 reference to the skid testing machine.

8 And then your response is, as
9 we've looked at, that you prefer to avoid any
10 discussion of actual skid numbers. And then my
11 question was about the sensitivity, and I'm
12 wondering if the sensitivity was specific to the
13 skid numbers or if it was related to the early age
14 SMA issue that you were dealing with at that time
15 or a combination?

16 A. Yeah. I would think --
17 what's the date on this, by the way?

18 Q. This is June 16, 2011.

19 A. Okay, yeah, so this is
20 after the moratorium or the hold on SMA was in
21 place, if I'm not mistaken.

22 Q. It was still in place at
23 that time, but there was still -- and there were
24 many, as we've heard, efforts being taken,
25 investigation about how best to deal with the

1 early age issue.

2 A. So, I think you're
3 correct in questioning whether or asking me
4 whether it was a combination of both. And it
5 probably was a combination of both. But, again,
6 these questions, you know, what reference
7 number does asphalt have to meet or exceed in
8 order to be used on Ontario highways? I'm not
9 sure what that's referring to.

10 Q. But clearly you -- since
11 the question about the early age low friction,
12 friction is part of this request. Right?

13 A. At the end it raises the
14 issue about the skid test.

15 Q. Yeah. And then you, in
16 your e-mail to Mr. Raymond, talk about
17 specifically not -- to avoid discussion of actual
18 skid numbers, values and thresholds and keep it on
19 a more generic level, so you seem to have
20 appreciated the request as being looking for or at
21 least one that could give rise to answers relating
22 to the FN30 that we were just talking about. Am I
23 right?

24 A. I don't know if it's
25 reflecting FN30. I think my response is that, you

1 know, I didn't see the need to get into the weeds
2 in responding to this. And by the weeds, I mean
3 the details. I see that as being somewhat, you
4 know, more of an overview request and the
5 response, I believe, was in that vein.

6 Q. Okay. And, if I
7 understood you correctly, your point is that given
8 the nature of the request, it is a nuanced issue.
9 It isn't just a number and there are all the other
10 factors and considerations that you need to look
11 at when you're evaluating the friction test
12 results. Is that fair?

13 A. I think that's a fair
14 statement.

15 Q. You can take that down,
16 Registrar. Thank you. And I don't want to spend
17 much time on it, but we have heard from Ms. Lane
18 and Mr. Raymond and there's quite a number of --
19 there's a lot in the overview document about a
20 debate that went over years on using friction
21 numbers in lieu of or in addition to the
22 Designated Sources for Materials pre-approved list
23 of aggregates in paving contracts. And, you know,
24 it went on for years and, from the documents,
25 apparently at least 2005 and 2015, including after

1 you left the MTO. And, of course, we're aware
2 that, you know, historically and up to the
3 present, the MTO has managed, in part, pavement
4 friction by pre-qualifying aggregates for use in
5 surface courses via the Designated Sources for
6 Materials list.

7 And so, I just want, from your
8 perspective, up to your departure, to describe the
9 issue as you understood it between using
10 performance-based contracts, including friction
11 numbers, for warranty and so forth versus the use
12 of the DSM in ensuring good friction on highways.
13 Just if you could give us your view of that
14 debate, perhaps?

15 A. You're certainly correct
16 in stating that this discussion went on for
17 several years. A little bit of context: The
18 Ministry was trying to reengineer itself to try
19 and cut down on costs associated with
20 construction, to try and encourage innovation by
21 contractors and, you know, the costs associated
22 with construction are not just the material costs
23 and placement costs, but it's the oversight costs,
24 the testing costs associated with the use of the
25 materials to make sure you get the right

1 materials, you know, the materials that are
2 associated with the Designated Sources for
3 Materials list, all the oversight costs, the man
4 hours involved in that, et cetera.

5 And one of the proposed
6 solutions as we moved towards a performance-based
7 type of contract was to eliminate all the
8 requirements for materials, the long-term
9 performance of these materials, you know, the
10 testing requirements, et cetera, and just go with
11 the friction number. That was proposed by certain
12 groups within the Ministry. It led to a lot of
13 discussion. And this had to do with the
14 introduction of, I think, three different types of
15 warranty contracts, performance-based contracts,
16 MINO [ph] contracts, seven-year warranty contracts
17 and there was also the idea of these area-term
18 contracts. I know on the MINO contracts and the
19 seven-year warranty contracts, I believe there
20 were several contracts that were awarded based on
21 that.

22 So, what's my perspective is
23 being a materials engineer and a pavements
24 engineer who is looking for long-term performance,
25 quality pavement, I certainly was not in favour of

1 moving to basically trashing all the material
2 specifications and just saying that a friction
3 number will solve all your problems.

4 Q. And in the contracts, at
5 least in some of them, that did include a friction
6 number, am I correct that the FN30 was the
7 number that was used?

8 A. I believe FN30 was used
9 as a failure criteria on these roads, keeping in
10 mind that measurement was done by the Ministry
11 and, again, it's a question of could the Ministry
12 even be able to go out and measure on these jobs
13 that are accumulating and providing that data,
14 considering there was only one device and one
15 technician who was operating the device.

16 Q. Right. As you let more
17 of these contracts out, then the obligation to
18 test to ensure the warranty or the failure
19 criteria has not been fallen below is then going
20 to fall on the operator of the skid tester. Is
21 that right?

22 A. If you don't test at an
23 appropriate time, as in any specification, if you
24 don't enforce the specification, then, you know,
25 you're a victim of the results.

1 Q. Okay. So, I want to move
2 on earlier in time to when you were the manager of
3 pavements and foundations or the head of pavements
4 and foundations, which, as you discussed, was from
5 1994 to March 2007.

6 And am I correct that during
7 that time period, that requests for the use of the
8 skid trailer and testing by Mr. Marciello would
9 come through you and had to be authorized by you?
10 Is that right?

11 A. No, that's not quite
12 correct. The request did not necessarily come
13 directly to me. They may have gone to the senior
14 engineer in the section. They may have gone to
15 Frank. They were all added to a work plan. That
16 work plan, I would certainly have an opportunity
17 to look at that work plan, but it included input
18 from various sections within MERO, from other head
19 office sections, as well as, you know, from the
20 regions. The majority of the work also comes from
21 the regions. So, yeah, it did not come directly
22 to me and then I would pass on to Frank, no.

23 Q. So, we know that requests
24 would come in from the soils and aggregates
25 section for DSM application and maintenance

1 testing purposes. Is that right? That's one
2 source?

3 A. Yes, yes. That's
4 definitely a source.

5 Q. Okay. And, as you said,
6 the regions, if they had pavements that they
7 wanted to be tested for whatever the reason was,
8 that that would be the other major source. Is
9 that right?

10 A. That's correct.

11 Q. Okay. And then, as I
12 understand it, if non-MTO sources, non-MTO
13 parties, had a request, that it would come in
14 through whoever their contact was but ultimately
15 would have to be approved by -- as part of the
16 work plan or at least approved by the head of
17 pavements. Is that right?

18 A. Yes. You have to realize
19 it was the regions that were predominantly dealing
20 with the municipalities. We had no direct role
21 with the municipalities. When I say "we," I'm
22 talking about the section, the pavements and
23 foundations section. So, the request would
24 probably come in through the regions.

25 What we did also get

1 occasionally, and they could come through the
2 regions or occasionally they came directly in,
3 were enforcement issues, that the OPP would like
4 to have a section of the road tested, but those
5 were few and far between.

6 Q. Is it fair to say
7 generally third-party, meaning non-MTO requests,
8 whichever they were, the municipal, police and so
9 forth, those were generally not frequent? Is that
10 right?

11 A. Not frequent, that's
12 correct.

13 Q. Okay. So, if we could go
14 to, Registrar, overview document 3, not 4, 3,
15 image 12 and 13.

16 You'll see paragraph 19 at the
17 bottom of the left-hand image there and then the
18 subparagraphs on the top of the right-hand image,
19 and this is in October 1999, Hamilton placed SMA
20 on Burlington Street between Victoria Avenue and
21 Wellington Street in Hamilton. And then there's a
22 2002 CTAA paper, which Gary Moore of the City, as
23 it indicates there, of the City of Hamilton, was
24 one of the three authors listed as the third
25 author in it.

1 It stated -- look at paragraph
2 A -- it was to evaluate, the purpose of it was to
3 evaluate the use of SMA, to mitigate rutting in
4 high traffic areas and to assess the potential of
5 SMA for use on a proposed multilane expressway.

6 And then B:

7 "The MTO performed skid
8 resistance testing on
9 this SMA placement using
10 its ASTM E274 brake-force
11 unit containing average
12 measurements by lane
13 between FN44 and FN51 in
14 November 1999 and
15 May 2000."

16 And if we could go, then,
17 Registrar, to the paper itself, this is at
18 GOL1567. So, there's the usual CTAA front of
19 their proceedings for their annual conference.
20 You're probably familiar with that look, as I've
21 gathered from people within the industry. If you
22 go to the second image, I'm not sure if it's the
23 second or third, so this in Calgary, Alberta, and
24 then the third image is the article itself, the
25 paper itself.

1 And, you know, if you could go
2 back to the prior image, please, and if you could
3 call out the acknowledgements, you'll see the
4 authors are Paul Anderson and Keith MacInnis,
5 along with Mr. Moore. Then in the
6 acknowledgements, it lists a number of people the
7 authors wish to express their thanks to. And in
8 the second last line, it says:

9 "...and Tom Kazmierowski,
10 MTO, for the pavement
11 friction surveys
12 conducted on the
13 Burlington Street SMA
14 site."

15 The other authors being Paul
16 Anderson at Landtek and Keith MacInnis at Canadian
17 Asphalt Industries. So, you were the head of
18 pavements and foundations at that time. Right?

19 A. That's correct.

20 Q. Okay. Do you have any
21 recollection of this project, of this testing,
22 taking place?

23 A. Well, I didn't until I
24 saw the paper.

25 Q. Okay. So, you can read

1 the paper and see that it happened?

2 A. I read the paper and I
3 saw that it happened, that's correct. But I think
4 what I'm referring to more is the fact that Paul
5 Anderson was the principal author of this paper.

6 Q. Yes?

7 A. This is a bit of
8 background. I was chair of the Ontario Provincial
9 Standards pavements committee for, I believe it
10 was over 20 years, and the OPS pavements committee
11 was a committee responsible for developing and
12 revising, updating, specifications and standards
13 in the Province of Ontario for, in my case,
14 pavements and the use of materials, et cetera. As
15 I said, I was there, I believe I chaired it for
16 23 years, if I'm not mistaken.

17 Paul Anderson was the
18 consultant representative on that committee.
19 Typically on that committee you would have
20 representatives from the Ministry, myself, you
21 would have a representative from the consulting
22 engineers of Ontario, you would have three
23 representatives from municipal, you would have
24 three representatives from the Municipal Engineers
25 Association and a contractor, of course. How

1 could I miss a contractor?

2 And Paul Anderson was probably
3 the member of that committee who was on there
4 almost as long as I was, quite a while, so I knew
5 Paul quite well. Paul knew our capabilities
6 within the Ministry and the fact that we did do
7 skid testing. Obviously over the years we would
8 have some discussions and issues. And I surmise,
9 I believe, the situation was that he would have
10 approached me and said they were doing this --
11 they were using this new material, this stone
12 mastic asphalt on this road in Hamilton. We would
13 very much like to get some skid data on it.

14 I see they did, I think,
15 British pendulum testing, if I'm not mistaken. I
16 think that was the next bullet point below --

17 Q. They did do --

18 A. So, they did that and I
19 would imagine he was wondering if we would be able
20 to do that testing. And I would, because this is
21 a job that would have interested us, it's new
22 material, new development, we're always trying to
23 increase our database of performance results, so
24 this would have been of interest to the Ministry
25 and I would have taken that up the chain of

1 command to get approval to have the testing done
2 and provided that to Paul and, in this case, the
3 City. But I did not have any, to the best of my
4 knowledge, any communications with the City on
5 this.

6 Q. Okay. So, a few things
7 there. I think you said "I surmise" and "I would
8 have" and so forth. So, is this a recollection
9 that you have that you can now, having seen this
10 article, looking back and saying, yes, I recall
11 doing that, or is this what, given the
12 relationship you had with Mr. Anderson and the
13 MTO's interest in new technologies at the time,
14 that you surmise or you believe would have been
15 the line of communication and how this arose?

16 A. I would go with your
17 second option there. I think it's important to
18 realize that being cited in a paper, I've probably
19 been cited in many papers, I've co-authored and
20 authored in excess of 100 papers myself over my
21 career and I would have trouble recalling many of
22 the papers that I've authored or co-authored.

23 Q. So, I think your comment
24 is aimed at if you have trouble remembering the
25 papers that you authored, you would have more

1 trouble remembering papers that you're
2 acknowledged in?

3 A. Exactly. Thank you for
4 that clarification.

5 Q. And if we could go to
6 image 9, after, I think on the preceding page,
7 setting out some of the results, if you could then
8 highlight the top of the left-hand page, the lines
9 of text there.

10 And this is where it states,
11 after talking about British pendulum numbers, it
12 says:

13 "However, skid trailer
14 friction numbers (at 50
15 kilometres per hour) of
16 45 to 51 are regarded by
17 the MTO to be consistent
18 with mixes having
19 excellent skid resistance
20 properties."

21 And do you think that likely
22 this is a view that you would have expressed to
23 Mr. Anderson and that he then reflected in the
24 paper?

25 A. I have difficulty using

1 words like "excellent." It just seems a bit over
2 the top. But I probably would have said that the
3 numbers were very good, they were, you know,
4 acceptable, et cetera.

5 Q. Okay. So, fair to say
6 that if you were evaluating friction numbers as a
7 general practice, you would be reticent to use
8 that term "excellent" in any circumstance. Is
9 that what you're saying?

10 A. Well, I hesitate using
11 that frequently.

12 Q. Just generally speaking?

13 A. Yes.

14 Q. Okay. Is it fair to
15 characterize it as sort of a conservative
16 engineering approach when expressing your views?

17 A. Yeah. I mean, when I
18 review papers, I have difficulty giving a paper a
19 10 out of 10. I think that that's -- I mean,
20 there are times that I do it, but it has to be
21 worthy.

22 Q. Okay.

23 A. So, a conservative
24 approach is correct, yes.

25 Q. All right. It's testing

1 at 50 kilometres an hour and we appreciate that
2 the testing speed has an effect. The faster you
3 go, the lower the friction number obtained tends
4 to be.

5 But would you, you know,
6 today, characterize 45 to 51 at 50 kilometres an
7 hour obtained by the MTO skid tester as being
8 excellent or simply adequate?

9 A. Well, I should say I
10 haven't been in the interpretation business of
11 friction data for well over ten years now, so --

12 Q. I'm talking about at the
13 time while you were working there. You have all
14 of your experience --

15 A. I would certainly
16 classify it as being acceptable, yes.

17 Q. Okay. And it's certainly
18 well above FN30. Right?

19 A. It's above FN30, yes.

20 Q. Okay. And did I
21 understand you correctly to say that you do not
22 think that you would have had direct
23 communications yourself with the City of Hamilton
24 about the skid testing results. Is that right?

25 A. Yes. I don't believe I

1 had any discussion with the City of Hamilton
2 regarding this project.

3 Q. And just to close that
4 off, why do you have a level of certainty on that
5 point when not having a specific recollection of
6 where you likely obtained -- where the request
7 likely came from and so forth?

8 A. I just -- when you say
9 the City of Hamilton, I assume you're talking
10 about the author on this paper?

11 Q. Most likely, yes. It
12 could be anyone, but Gary Moore was the author and
13 we've heard from him that he was certainly the
14 lead on this project.

15 A. Yeah. I have no
16 recollection at all of ever talking to Gary Moore
17 about this.

18 Q. And did you know Gary
19 Moore?

20 A. No, I don't. No, unless
21 I met him at a symposium or a conference or some
22 workshop or something, but --

23 Q. And that would be in
24 passing?

25 A. Yes. I have no formal --

1 to the best of my knowledge, I have had no formal
2 communication with Mr. Moore.

3 Q. Okay. You can take that
4 down, please. Thank you. And the paper as well.

5 And, just in terms of the
6 MTO's interest, we've heard that by that point in
7 time, SMA had been placed by the MTO on the 401 in
8 a trial near Milton. Do you recall that?

9 A. I believe that's one of
10 the first jobs that was carried out using SMA.

11 Q. And we heard a bit from
12 Ms. Lane about it. If we could go back to
13 overview document 4, images 21 and 22, please.
14 You'll see at paragraph 43 at the bottom of the
15 left-hand image, this is now in 2006 and you're
16 sending an e-mail to Mr. Cautillo, Mr. Tam,
17 Mr. Rogers, Mr. Billings and Ms. Lane, all
18 internal at the MTO, respecting a ten years
19 comparative friction testing, SMA versus DFC,
20 Highway 401 contract 96-50, Milton, and attaching
21 the test results and you're just indicating that:

22 "Here is the results from
23 ten years of friction
24 testing."

25 And there appears to be no

1 advantage to the SMA surface compared, I think, to
2 the dense friction course over the ten-year
3 period. Do you recall this?

4 A. Seeing that it's in
5 writing in front of me, I don't specifically
6 recall it, but I accept that it's correct.

7 Q. Okay. Again, just coming
8 back to the Burlington Street project, is that one
9 of the reasons you had this ongoing -- you had
10 this placement in 1996 that was being evaluated
11 going forward from a comparative basis. Is that
12 perhaps one of the reasons why you were interested
13 at that point, the MTO was interested at that
14 point, in the Burlington Street SMA project?

15 A. Well, as I with said, you
16 know, the use of SMA was in its infancy and we're
17 very interested in gathering data on its
18 performance in Ontario. Now, it's always an issue
19 when you see performance results from other
20 states, other countries, even other provinces, but
21 it's not the same environment as we have in
22 Ontario, so the same traffic conditions, et
23 cetera, so we're always interested in gathering
24 information on performance in Ontario.

25 Q. Now, then to move

1 specifically to the Red Hill Valley Parkway --
2 actually, leave the overview document up,
3 Registrar, we'll come back to it shortly. Do you
4 recall in spring of 2007 -- and I'll take you to
5 some of the documents -- offering skid testing to
6 the City of Hamilton or having discussions with
7 the City of Hamilton, specifically Gary Moore but
8 potentially anyone else, in spring of 2007?

9 A. Not at all. I do not
10 recall having that discussion with the City of
11 Hamilton or any of the City of Hamilton's
12 representatives.

13 Q. Okay. So, if we could go
14 to image 41 and I think it would be worthwhile to
15 go to the e-mail itself, but this paragraph 86 in
16 the overview document is indicating that, just to
17 place it:

18 "On May 10, 2007,

19 Mr. Politano -- "

20 So, that's Lou Politano of the
21 MTO. You're familiar with him?

22 A. Of course.

23 Q.

24 " -- advised Mr. Chaput
25 that (1) Hamilton was

1 using a perpetual
2 pavement design for the
3 RHVP; (2) that Hamilton
4 was planning on
5 instrumenting and
6 monitoring pavement
7 performance; (3) that
8 Hamilton had asked
9 whether the MTO would be
10 interested in
11 participating
12 financially; and (4) the
13 total cost and that
14 OHMPA, the Ontario Hot
15 Mix Producers
16 Association, was
17 contributing \$10,000."

18 And then there's an e-mail
19 exchange between the three of you about that. And
20 then in the course of that, you indicated:

21 "I have already offered
22 to do skid testing on the
23 SMA surface of Red Hill
24 creek perpetual
25 pavement."

1 And I think it would be
2 worthwhile to go to the e-mail, because I think
3 there's more to your e-mail so I think, in
4 fairness, we should go to the whole thing.
5 Registrar, this is MT056.

6 So, this is the first
7 image and there's further discussions on May 10
8 and Ms. Lane is brought into it. So, if we could
9 go to images 2 and 3, please. And the e-mail just
10 read to you is the one at the bottom of the
11 left-hand image and I think it's really the first
12 paragraph. The rest of it seems to be on a
13 different issue and you say it's on another note.
14 So, if we could just expand the first paragraph of
15 the e-mail at the bottom. Yes. That's fine.

16 So, the first sentence is what
17 we excerpted in the overview document, but then
18 you indicate:

19 "We can also provide
20 annual ARAN monitoring of
21 surface conditions. This
22 would be considered
23 services in kind, no
24 additional costs and
25 would provide the City

1 would be interested in the results. So, I think
2 that's basically what I'm referring to.

3 Q. Okay. And then Gerry is
4 Gerry Chaput, who is the one --

5 A. That's correct,
6 Gerry Chaput, who I believe is director at that
7 time.

8 Q. Okay. And then,
9 Registrar, if we could go to overview document 4,
10 image 43. And so, at paragraph 90 -- you can
11 expand that, thank you. And so, on May 15, it's
12 five days later, Gary Moore from Hamilton
13 forwarded Lou Politano of the MTO a proposal from
14 Dr. Uzarowski to install the pavement monitoring
15 instrumentation on the Red Hill.

16 And then in his May 15 e-mail
17 forwarding Mr. Gary Moore's e-mail and the Golder
18 proposal, Mr. Politano stated:

19 "I spoke with Gary
20 (Hamilton) and advised
21 him we are interested in
22 participating in this
23 initiative but I did not
24 give him a dollar number.
25 You had previously

1 suggested a \$10K MTO
2 contribution toward this.
3 Please review this
4 proposal and confirm that
5 the \$10K is still
6 appropriate or whether it
7 should move up or down
8 and be prepared to
9 discuss our contribution
10 with Hamilton. I will
11 respond to Gary and ask
12 him to contact Tom
13 directly to discuss this
14 further. It appears that
15 Gary is away for the rest
16 of this week."

17 He says at the end he will
18 phone Gary and ask him to contact Tom directly.
19 Is that you?

20 A. I don't know. I assume.
21 It's hard to say.

22 Q. Okay. And you don't have
23 any specific recollections, though, on this
24 e-mail. Is that right?

25 A. None whatsoever. To the

1 best of my knowledge, I don't believe that Gary
2 Moore ever contacted or attempted to contact me.

3 Q. Okay. If we could go to
4 the e-mail itself, it's MTO20408. And just the
5 top e-mail, there's the whole thing on May 15 from
6 Lou and he sends it to Gerry Chaput and to you,
7 copying Roger Hanmer at the MTO as well.

8 And so, I think looking at
9 that, since he sent it to you, the Tom must be you
10 in that instance. Is that fair?

11 A. That's correct. It's
12 always an issue when you just pull out a segment
13 of something and there's no reference to it, but
14 in this case definitely, yes.

15 Q. Yeah, no. I understand
16 from the reference before. That's why I took you
17 to it specifically. And so, in any event, am I
18 correct that you don't have any recollection of
19 Mr. Moore contacting you or you contacting him
20 about this issue? Is that right?

21 A. None whatsoever, no.

22 Q. Okay. And did you ever
23 visit the Red Hill Valley Parkway during
24 construction or thereafter?

25 A. No. I think I had

1 mentioned in our previous interview that the only
2 time I've driven the Red Hill Valley Parkway was
3 more recently. More recently, I'm referring to
4 within the last perhaps three or four years where
5 I got detoured off the QEW and I had to go up the
6 RHVP and then cross on the LINC and then back down
7 on the 403.

8 Q. That's probably the MTO
9 requiring the detour?

10 A. Actually, I think because
11 of, for whatever reason, the Burlington Skyway was
12 out, so there was a lot of traffic going up Red
13 Hill creek.

14 Q. You can take that down,
15 Registrar. Thank you. Okay. Then jumping
16 forward to September 2007, Registrar, if we could
17 go to overview document 4, image 52 and 53.

18 And so, this is on
19 September 27 and 28, 2007 and there's e-mails
20 between Mr. Raymond and Ms. Lane and then looping
21 you in about a request from Ludomir Uzarowski of
22 Golder for skid testing, friction testing, on the
23 Red Hill and that the City of Hamilton has not
24 made a request.

25 And at paragraph 118 in the

1 middle of the left-hand image, Ms. Lane forwards
2 Mr. Raymond's e-mail to you and asks:

3 "Hi, Tom. I seem to
4 remember we offered some
5 monitoring of the Red
6 Hill Valley Parkway creek
7 expressly perpetual
8 pavement. Did that not
9 include friction
10 testing?"

11 And you respond in 119:

12 "Yes, but we should have
13 Ludomir instruct the City
14 to either request the
15 testing or at least
16 approve Ludomir's request
17 for testing and give
18 permission for us to test
19 on their facility."

20 And you're responding yes to
21 her question about previously the monitoring
22 having been offered that included friction testing
23 and you're responding affirmatively to that. So,
24 do you know what you were talking about at that
25 time?

1 A. I assume I'm referring to
2 the internal discussions that we had, that I had
3 offered to do friction testing on that facility in
4 response to the conversations between Lou Politano
5 and the City of Hamilton for that instrumentation
6 program.

7 Q. Okay. And there is
8 discussion about reticence apparently on the part
9 of the City to make a request directly to the MTO
10 and so forth, and you indicate in 119 that:

11 "You should have Ludomir
12 instruct the City to
13 either request the
14 testing or at least
15 approve Ludomir's request
16 for testing and give
17 permission to test on
18 their facility."

19 What was your reasoning for
20 that, for wanting that to happen?

21 A. I think it's just, you
22 know, from my perspective, I felt it was fairly
23 obvious that if we're going to test on some other
24 owner's property, that we should get approval to
25 do that testing. This is not something that we do

1 very frequently and I thought that that would be,
2 you know, a very logical request.

3 Q. Sorry, what's not being
4 done very frequently is the testing on someone
5 else's property. It's typically done on MTO
6 roads. Right?

7 A. Exactly, yes.

8 Q. All right. And we know
9 that the MTO did conduct the Red Hill skid testing
10 on October 16, 2007. And if we could jump
11 forward, Registrar, to image 80 of overview
12 document 4. And this is on December 13, this is
13 paragraph 183.

14 On December 13, 2007, Ms. Lane
15 e-mailed the RHVP October 16, 2007 friction test
16 results to Mr. Kazmierowski with the subject line
17 "Friction Results on Demix Aggregate and SMA in
18 Hamilton," and setting out the averages or sort of
19 the bottom line that says:

20 "FN90 equals 34, min
21 equals 28 and max equals
22 37."

23 And then you replied in 184:

24 "Not great results, but
25 still consistently

1 acceptable even at 90
2 KPH. Have you shared
3 these results with our
4 MTO task group members?"

5 And so, just to frame it, at
6 this point, in late 2007, you're the manager of
7 MERO. Right?

8 A. That's correct.

9 Q. And Ms. Lane is the head
10 of pavements and foundations, occupying your prior
11 position?

12 A. That's correct.

13 Q. Okay. And I think, as we
14 discussed earlier, you were not involved in the
15 SMA task group yourself at that point. You were
16 not part of that task group?

17 A. I had been removed and
18 replaced.

19 Q. Right. And do you recall
20 if you reviewed the actual results attached to her
21 e-mail or was your response based on, sort of, the
22 bottom line that she sent? Do you know?

23 A. I would probably -- I
24 mean, I can't recollect specifically, but I
25 certainly would think that I would have reviewed

1 the results, the detailed results. I would not
2 just look at her three numbers there and make a
3 statement like that.

4 Q. And you said still
5 consistently acceptable. That's likely not
6 something that you would say unless you could see
7 what the consistency was. Is that fair?

8 A. Exactly.

9 Q. Okay. And do you know
10 why you were receiving those at the time? Do you
11 recall?

12 A. Well, I thought that
13 Becca is just closing the loop, seeing that my
14 involvement was, you know, earlier that year.
15 Although limited, I had some involvement and she
16 was just closing the loop and providing me with,
17 sort of, the results of that. Although, keep in
18 mind I believe this happened two months after the
19 actual test results --

20 Q. Yes, that's correct. And
21 just to place this in time, it followed an
22 application for inclusion on the DSM by the
23 aggregate producer in due time.

24 If we could go to the next two
25 images. Actually, no, sorry, that's wrong. I

1 should look at the results themselves. Give me
2 one moment. Images 61 and 62, please. And if you
3 could expand both of them, like you did before.
4 Thank you.

5 So, if you could just describe
6 having -- and if you need to take a minute to look
7 at it, please do, but if not, describe how you
8 arrived at your view as expressed in your e-mail
9 to Ms. Lane?

10 A. Okay. So, these are the
11 actual -- these are the actual test details that
12 was carried out on October 16. The one on the
13 left is a southbound lane 1 and the one on the
14 right is southbound lane 2. If you go down the
15 chart, you can see the total distance that was
16 covered, the speed that it was done at,
17 approximately 90 kilometres an hour. I think the
18 average speed is 91.9, and then the average
19 friction numbers for each of the tests. And then
20 you see landmark issues associated with where the
21 test was done and similarly for the right side.

22 So, the average FN is 33.9 in
23 the southbound lane 1 and 33.8 In southbound lane
24 2. You got a minimum value, a maximum value,
25 standard deviation and then the number of tests

1 that were done in the field. I believe that shows
2 20 on the left side and 23 on the right side, if
3 I'm not mistaken.

4 And you're asking me what led
5 me to my conclusion that it's consistently
6 acceptable, is the numbers as shown for the most
7 part.

8 Q. You said not great
9 results, but still consistently acceptable, even
10 at 90.

11 A. Right. And by not great
12 results, you know, if I were to say they were
13 great results, I would be expecting numbers in the
14 high 40s, I guess. That's not the case here, but
15 the numbers are acceptable and there's a fairly
16 uniform distribution throughout all the numbers
17 there. There are a couple of inconsistencies,
18 outliers, if you want to call them, 28.7, 28.1,
19 did I miss one, on the southbound lane 1, and on
20 southbound lane 2, 29.6, 28.4, 28.6, 29.7. But
21 overall, I have no concern with these results.

22 Q. Okay. And you were
23 aware, of course, that it was SMA and that it was
24 newly placed SMA. Right?

25 A. Yes, I was. Yes.

1 Q. And that's why you asked
2 if Ms. Lane had provided it to the task group
3 members presumably?

4 A. Yes. The whole intention
5 here was to add that to our database of
6 information.

7 Q. Okay. And, at the time,
8 there was quite a bit going on with respect to the
9 MTO's roads and SMA placements as well.

10 And if we could take those
11 down, Registrar, and if I could take you to
12 overview document 4, image 58. Actually, 58 and
13 59.

14 And right around the same time
15 that the Red Hill testing had taken place, in
16 October, there was also skid testing done by
17 Mr. Marciello on Highway 401 near Woodstock in
18 contract 2005-3030 and this is an e-mail from
19 Mr. Raymond on October 16 about low friction on
20 Highway 401 at Woodstock contract 2005-3030 to
21 Mr. Tam, Ms. Lane, Mr. Rogers and you.

22 And if you need to take a
23 moment to review that, please do so, but if you
24 have already done that, let me know.

25 A. Yes, I have looked at

1 this document prior.

2 Q. Okay. Do you recall the
3 issue from around that point about the 401
4 results?

5 A. Yes, I do.

6 Q. And when you're looking
7 at the Red Hill results, are you comparing it to
8 the results that you're getting from the MTO's SMA
9 placements?

10 A. Yeah. I'm not quite sure
11 the timing between the two documents, but --

12 Q. Sorry, I'll tell you.
13 This is October 16 and you get the Red Hill
14 results on December 13, so as you pointed out, it
15 was a couple months later.

16 A. Yeah. Thank you for that
17 clarification. Yeah. This caused quite a
18 commotion internally because of, you know, this
19 task group had been working on trying to address
20 some of the early friction performance issues
21 associated with SMA. They specifically put
22 together this contract using different aggregates
23 and blending aggregates, as I recall, to try and
24 come up with, you know, a product that will
25 address this early age friction. And, lo and

1 behold, the numbers were surprisingly low.

2 I believe, and again I'm just
3 going by memory here, I think in one lane that was
4 not open to traffic that Frank couldn't test, I
5 think there were numbers below 20, if I'm not
6 mistaken.

7 Q. On this particular
8 project?

9 A. I believe so, yes.

10 Q. Okay.

11 A. I stand to be corrected,
12 but I know numbers were surprisingly low,
13 particularly on a 401 freeway facility.

14 Q. And we've heard and we're
15 aware that the pause that was placed on use of SMA
16 was imposed in early November 2007, so in between
17 the testing both of this 401 stretch and the Red
18 Hill and then you receiving the Red Hill results
19 in December.

20 And so, from your perspective,
21 and you're the head of MERO at the time, you were
22 of course aware of and involved in the decisions
23 about the SMA pause. Is that fair?

24 A. I would think, to be
25 fair, the recommendation came out of the task

1 group. The task group had been working on this
2 for some time. They now have the results. Their
3 recommendation up to senior management, who would
4 either accept or perhaps modify or reject the
5 recommendations or some of the components of the
6 recommendation, it came up through me because I am
7 the manager, I was the manager, of MERO at the
8 time. This was a decision, recommendations,
9 through the task force.

10 Q. Right. I appreciate it
11 didn't originate with you, but given your
12 position, you were aware of it and involved with
13 it. Is that fair?

14 A. That's correct. And one
15 clarification I would like to make here is the
16 fact that we're talking about aggregates that are
17 off the Designated Sources for Materials list for
18 aggregates, whereas the Red Hill Valley Parkway,
19 the aggregates used on that were not on the
20 Designated Sources for Materials list.

21 Q. Right. Is that something
22 you were aware of at the time? Do you recall?

23 A. Good question. I don't
24 know. I can't answer that.

25 Q. All right. Okay. So,

1 given your involvement in the -- and we've heard
2 what you said about where it percolated up from
3 and who made the final decision about the pause.
4 But was the MTO's pause on SMA related in any way
5 to the skid test results taken from the Red Hill
6 Valley Parkway?

7 A. Not at all. It had
8 nothing to do with the Red Hill Valley Parkway.

9 Q. And did you have a sense
10 prior to the pause being implemented in 2007 when,
11 of course, it became broadly known in the industry
12 because there was a pause on its use, about how
13 widely known the early age low friction issue was
14 in the industry beyond the task group and those
15 within the MTO that were involved?

16 A. I think most of the
17 general information with regards to that would
18 have probably come out through the members of the
19 task group. So, you had, you know, contractors
20 and I believe consultants on that task group and
21 that information probably would have been
22 disseminated.

23 I'm not sure of the timing,
24 whether there was any public statements made at
25 the time. I don't think so. I think that would

1 have come out in presentations to the Ontario Road
2 Builders' and to OHMPA, which would have attracted
3 some media attention, I think.

4 Q. Once the pause was
5 implemented, you mean?

6 A. Yes.

7 Q. The last part of what you
8 said?

9 A. Exactly.

10 Q. And we know that the MTO
11 conducted further skid testing in 2008, 2009,
12 2010, 2011, 2012 and 2014 at the request of the
13 soils and aggregates section in relation to the
14 application for DSM listing by Demix aggregates,
15 which is what was used on the Red Hill surface
16 course SMA.

17 Appreciating you left at the
18 end of 2012, were you aware of that testing being
19 done at the time?

20 A. No, I was not.

21 Q. And generally speaking,
22 given your role, is that surprising or is that
23 what you would expect, given your position as MERO
24 senior manager?

25 A. I think it's what you

1 of not being aware of the testing occurring, would
2 you have expected, in your role, that Hamilton or
3 its representatives would be advised of the
4 testing, of testing that was being done at the
5 request of soils and aggregates or for whatever
6 purpose?

7 A. Could you repeat that
8 question, please?

9 Q. I badly phrased it.
10 Accepting that you weren't aware that the testing
11 was occurring, but nevertheless, would you have
12 expected that the MTO would advise the City of
13 Hamilton of the subsequent testing being done on
14 the Red Hill?

15 A. I would think that
16 somebody would have advised the City of Hamilton.
17 Keep in mind that this was an initiative that was
18 brought forward by the operators of the quarry,
19 the owners of the quarry. They're the ones that
20 proposed to use this test section. It would seem
21 that if they're proposing to use a test section
22 that's on a City of Hamilton road, that they may
23 have gotten permission to do that, but I don't
24 know the background.

25 Q. Right. So that would be

1 your expectation, but you don't know one way or
2 the other whether that was the case?

3 A. I don't know whether that
4 was the case or not. There was a set routine for
5 this. This certainly, being a test section on an
6 existing road, is not the norm, but it's how it
7 ended up working out.

8 I assume -- I don't know. Was
9 there a request made to the City that the tests
10 being done? I'm not aware of it.

11 Q. Right. That's all I'm
12 asking, is your awareness. Thank you.

13 Commissioner, I do not have
14 any further questions. It is three minutes to
15 1:00, which is our usual lunch break. I don't
16 know what participants' counsel, what time they
17 want. I'm wondering your direction. We can
18 either have that discussion and come back after
19 lunch or we could have a discussion, if you wanted
20 to, to push through, depending on the length of
21 time participants' counsel want.

22 JUSTICE WILTON-SIEGEL: Why
23 don't we adjourn for five minutes, have you and
24 participants' counsel move to a breakout room
25 where you can get that information, and then come

1 back and advise us?

2 MR. LEWIS: Great. Thank you.

3 We'll do that. Registrar, if you could send us to
4 the breakout room, please. And, Mr. Kazmierowski,
5 we'll be back shortly.

6 --- Recess taken at 12:58 p.m.

7 --- Upon resuming at 1:07 p.m.

8 MR. LEWIS: We're back from
9 break. Commissioner, I can advise that there is
10 just some short questions from counsel for the
11 City and counsel from the MTO, not any other
12 participants.

13 JUSTICE WILTON-SIEGEL: Fine.

14 MR. LEWIS: First it would be
15 Mr. Chen for the City.

16 MR. CHEN: Thank you,
17 Mr. Lewis. And good afternoon, Mr. Commissioner,
18 and Mr. Kazmierowski.

19 EXAMINATION BY MR. CHEN:

20 Q. As we indicated before, I
21 will not be keeping you too long from lunch, just
22 a couple of minutes.

23 In your evidence today you
24 testified about the 2007 friction testing results
25 and I understand your view was that those test

1 results were acceptable and not concerning. Is
2 that right?

3 A. That's correct.

4 Q. To your knowledge, no one
5 else at the MTO who received those 2007 results
6 had any concerns either, safety or otherwise. Is
7 that fair?

8 A. To the best of my
9 knowledge, that's correct.

10 Q. Okay. And I take it that
11 at the MTO, the Ministry of Transportation, if
12 someone had developed a safety concern after
13 conducting the friction testing for a
14 municipality, you would expect that concern to be
15 raised internally to the appropriate person or
16 team at the MTO?

17 A. If there was a concern
18 that was raised, yes, it would have been brought
19 forward. I believe that's correct.

20 Q. Okay. And, similarly, if
21 someone at the MTO had a concern with the friction
22 testing results, you would expect that the concern
23 would also be communicated to the municipality.
24 Is that fair?

25 A. That's a bit of an open

1 question. I don't want to hedge my response. I
2 guess it depends on what service was requested.
3 You know, I'm not quite -- did you want to
4 rephrase your question?

5 Q. No. It's similar to the
6 one I asked before where, if there was a safety
7 concern that was formed after performance friction
8 testing for the municipality, and my earlier
9 question was, you know, you would expect that the
10 concern would be raised firstly internally.

11 So, my next question is:
12 Would the concern also then be communicated to the
13 municipality or the third party who had requested
14 the friction testing?

15 A. Yes, if it's a valid
16 concern.

17 Q. Right. Okay. You're not
18 aware of the MTO having a policy that says, you
19 know, if someone at the MTO knows about a safety
20 concern from testing, to then not to disclose it
21 to the appropriate entity or representative of
22 that entity?

23 A. I'm not aware of any
24 policy such as that.

25 Q. You also had a brief

1 discussion with Mr. Lewis about whether the City
2 had requested -- whether the City of Hamilton had
3 requested friction testing in 2007 or at least
4 whether they approved it. Do you remember that?

5 A. Yes, I recall that
6 conversation.

7 Q. And I won't ask for the
8 e-mail to be brought up unless you need it. I'm
9 hoping you don't. I take it that what is
10 ultimately important in that context is that if
11 friction testing is to take place on the Red Hill
12 Valley Parkway, the City should at least approve
13 it because they are the owner of the road. Is
14 that fair?

15 A. I think that would be a
16 fair assumption, yes.

17 Q. Okay. And beyond just
18 getting permission from the City, in that case the
19 City would then also have notice that the testing
20 is taking place. Is that fair?

21 A. I guess so, yeah. I
22 believe so.

23 Q. Okay. Well --

24 A. Are we referring to the
25 same testing here, the testing that was done?

1 Yes.

2 Q. Yes. I'm referring to
3 the same testing --

4 A. The initial skid testing?

5 Q. Yes, correct.

6 A. Okay.

7 Q. Right. And my final
8 question is: You know, if the MTO doesn't provide
9 notice to the City that testing is taking place,
10 and so this is kind of moving into the context of
11 testing that happens subsequently, if the MTO
12 doesn't provide notice to the City that testing is
13 taking place, the City realistically could not
14 know that the friction testing was taking place.
15 Right?

16 A. I guess what your -- your
17 logic is if they don't know about it, then they
18 don't know about it. Was there a question there?

19 Q. No. It was more to see
20 if you agree with that statement. My logic could
21 be flawed, but I think we're in agreement that
22 it's not. Is that fair?

23 A. I think it's fair, yeah.

24 Q. Thank you. Those are my
25 questions.

1 MR. LEWIS: Mr. Bourrier for
2 the MTO.

3 EXAMINATION BY MR. BOURRIER:

4 Q. Hello, Mr. Kazmierowski.
5 I have a few follow-up questions to the discussion
6 that you had with Mr. Lewis this morning about the
7 MTO's use of FN30. Do you remember that
8 discussion with him?

9 A. Yes, I do.

10 Q. If you have friction
11 testing numbers that are over 30, is it fair to
12 say that indicates the friction is not likely an
13 issue on a particular roadway?

14 A. Not necessarily. It's an
15 indication, but again, you have to look at all the
16 other attributes and issues that are associated
17 with it. If somebody asked for friction testing
18 on a facility that they had a concern with or
19 identified an issue and the friction testing comes
20 above 30, that doesn't mean that necessarily it's
21 correct, similarly to the fact that if the numbers
22 are below 30 doesn't mean that it's suddenly a
23 friction issue. It's all dependent on the other
24 attributes, what exactly is going on out there.
25 It could be a geometric problem. It could be, you

1 know, all kinds of issues.

2 Q. That brings me to my next
3 question. You said this morning that you have
4 numbers that are under 30, that may require
5 further investigation, and that investigation
6 includes looking at other intervening factors and
7 attributes. Is that correct?

8 A. That's correct.

9 Q. I want to also clarify
10 the context behind when you say "investigating."
11 Am I right that when you talk about investigating,
12 are you talking about a road that has already been
13 identified as potentially problematic by, say, the
14 region and then referred to central pavement and
15 foundations unit for friction testing. Is that
16 right?

17 A. That's correct. They may
18 have already carried out the investigation. They
19 may have already did a site investigation or a
20 site visit and came up with an evaluation and, you
21 know, one of the actions they decided on was to do
22 some friction testing.

23 Q. Thank you. Those are my
24 questions, Commissioner.

25 JUSTICE WILTON-SIEGEL: Okay.

1 Well, Mr. Kazmierowski, thank you very much for
2 appearing today at the inquiry. You're excused,
3 if you wish to go.

4 My understanding is that the
5 next witness is travelling in from out of town and
6 is not available this afternoon. Is that still
7 correct?

8 MR. LEWIS: Yes.

9 JUSTICE WILTON-SIEGEL: So,
10 that means that we will stand adjourned until
11 tomorrow morning at 9:30, when we will hear that
12 witness. So, if there's nothing further we have
13 to deal with at the present time, we are adjourned
14 until 9:30 tomorrow morning.

15 --- Whereupon the proceedings adjourned at
16 1:16 p.m. until Thursday, May 19, 2022 at 9:30
17 a.m.

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