

ELLIOT LAKE COMMISSION OF INQUIRY

DAY 22

April 08, 2013



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ELLIOT LAKE COMMISSION OF INQUIRY

--- This is Day 22 in the Inquiry proceedings held before the Honourable Justice P.R. Belang r, Commissioner, at the White Mountain Academy of the Arts, 99 Spine Road, Elliot Lake, Ontario, on the 8th day of April, 2013 commencing at 9:00 a.m.

REPORTED BY: Helen Martineau
Certified Shorthand Reporter

1 A P P E A R A N C E S:
2 NADIA AUTHIER, Ms.,
3 BRUCE CARR-HARRIS, Esq., Commission Counsel
4
5 ALEXANDRA CARR, Ms., ELMAC/SAGE
6 DOUG ELLIOTT, Esq., ELMAC/SAGE
7
8 DOUGLAS KEARNS, Esq., Elliot Lake Retirement
9 Living and NorDev
10
11 ROBERT MACRAE, Esq., Robert Wood
12
13 PAUL CASSAN, Esq., City of Elliot Lake
14
15 JOSEPH BISCEGLIA, Esq., Gregory Saunders
16
17
18 Also present:
19 JAMES HODGSON, Esq.,
20 JOHN PICONE, Esq., for Michael Buckley
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1 --- Upon commencing at 9:00 a.m. on
2 Monday, April 8, 2013.

3 Elliot Lake Commission of Inquiry.

4 THE COMMISSIONER: Morning, everyone.

5 MR. CARR-HARRIS: Morning, Mr.
6 Commissioner. This morning we are calling Mr.
7 Michael Buckley of the Halsall Engineering firm.
8 He is represented today by Mr. James Hodgson,
9 sitting to his immediate right, and Mr. John
10 Picone.

11 THE COMMISSIONER: Good morning.

12 Mr. Buckley, would you come forward and
13 be sworn, please. Michael Buckley, sworn.

14 EXAMINATION-IN-CHIEF BY MR. CARR-HARRIS:

15 Q. Good morning, Mr. Buckley.

16 A. Good morning.

17 Q. I want to get a bit of your
18 background and qualifications which I intend to
19 lead you through. You're a structural engineer?

20 A. Yes, I am.

21 Q. And you have a Masters Degree in
22 Engineering?

23 A. Yes.

24 Q. Received at the University of
25 Alberta?

1 A. No. That was my Bachelor's Degree.
2 My Masters is from the University of Toronto.

3 Q. Very good, thank you. And you
4 joined Halsall at some 25 years ago, which I make
5 out to be about 1988, is that right?

6 A. That seems to be about right, yes,
7 sir.

8 Q. And you're there still?

9 A. Yes.

10 Q. And you received your P.Eng.
11 designation about 24 years ago, so that makes it
12 1989 or thereabouts?

13 A. Or thereabouts, yes.

14 Q. And apart from your role at Halsall,
15 as a structural engineer, you are also a member,
16 I'm advised, of the Standing Committee on
17 Structural Design?

18 A. For the Standing Committee on
19 Structural Design for the National Building Code
20 of Canada, yes.

21 Q. Okay. And you're a member of the
22 Canadian Commission on Building and Fire Code
23 CCBFC, is that correct?

24 A. That is -- the standing committee is
25 a sub-committee of the -- what you just said.

1 Q. All right. So you belong to the
2 committee as well as the sub-committee?

3 A. No. I belong to the sub-committee.

4 Q. All right.

5 A. So there is -- perhaps there is a
6 sub-committee of -- there is the Canadian
7 Commission on Fire Codes and Safety.

8 Q. Yes.

9 A. There is a sub-committee called the
10 Standing Committee on Structural Design which I'm
11 a member of.

12 Q. And are you also a member of the
13 National Research Council committee regarding
14 the --

15 A. That is all part and parcel of the
16 same group.

17 Q. And is there anything else you would
18 like to add to what we've discussed?

19 A. No. I think that covered my
20 background fairly well.

21 Q. And can you give us a brief history
22 of your role at Halsall over the 25 years?

23 A. When I began working at Halsall, I
24 began working at Halsall I began with the
25 restoration group looking at buildings which

1 needed repair. After a period of time doing that
2 work, I began doing structural engineering and
3 design of buildings. And I maintain that as a
4 core focus of my activities with Halsall.

5 However, I do regularly consult with our
6 restoration group on certain failure mechanisms or
7 deterioration mechanisms in buildings that are
8 going on in observed conditions within buildings.

9 Q. The Commission heard from Mr. Celli
10 last week about some of the background here, so
11 we'll just -- we'll take shortcuts as much as we
12 can. Let me know if you disagree with anything I
13 say. Halsall, for the purpose of the retainer
14 which brings you here today, Halsall had been
15 retained by the architect, Nicholls Yallowega
16 Bélanger, which I'll refer to as NYB in future, to
17 provide a structural condition assessment of the
18 Algo Mall, that's the case?

19 A. In support of a due diligence review
20 of the purchase -- of the potential purchase of
21 the mall, yes.

22 Q. Thank you, that was exactly my next
23 point. The purpose was for a prepurchase
24 inspection.

25 Is there -- is there anything unique

1 about the prepurchase inspection different from
2 other types of condition assessments?

3 A. They are -- tend to be, just by the
4 nature of the time frames allowed for them, very
5 high level reviews of the condition of the
6 building.

7 Q. And NYB in effect, if not in name,
8 acted as sort of the prime consultant to get this
9 report condition assessment together. It went out
10 and retained a series of specialists to fill in
11 the pieces, and that's where Halsall came in as
12 the structural consultant, is that correct?

13 A. Correct.

14 THE COMMISSIONER: I'm not sure, sir,
15 what you mean by a very high level review. Would
16 you explain that in detail for me?

17 THE WITNESS: They tend to be very
18 visual in nature for the most part. We make
19 observations, we report on our observations. And
20 if we require follow-up work, we make -- would
21 make those recommendations in our initial reports.

22 THE COMMISSIONER: Thank you.

23 BY MR. CARR-HARRIS:

24 Q. And the recommendations would relate
25 to what you have identified through this initial

1 visual inspection?

2 A. Correct.

3 Q. Now, I gather that, Mr. Buckley,
4 that you were Halsall's project principal for this
5 retainer?

6 A. That's correct.

7 Q. And you supervised first to Mr.
8 Celli on the visual -- first visual inspection and
9 later Mr. Truman who prepared the second Halsall
10 report, which was the follow-up report to the
11 first one?

12 A. That's correct.

13 Q. And you did not go to the Algo Mall
14 yourself at any point, I gather? It was just Mr.
15 Celli and Mr. Truman who visited the site?

16 A. That's correct.

17 Q. And who was your contact at NYB?

18 A. It would -- my direct contact would
19 have been Blaine Nicholls who's the one who we
20 made -- I wrote my proposals to. There may have
21 been discussions with Mike Luciw as well.

22 Q. And did you at any point have any
23 direct contact with Retirement Living or the Algo
24 Central Properties?

25 A. No.

1 Q. Now, I take it that Mr. -- I should
2 ask you, did Mr. Celli and Mr. Truman draft the
3 reports, their respective reports for your review?

4 A. Yes.

5 Q. And you would have discussed with
6 them the contents of those reports?

7 A. Yes.

8 Q. And once you were satisfied with the
9 contents you then signed them?

10 A. Yes.

11 Q. And prior to this NYB retainer, had
12 you -- had you done any work on the Algo Mall as
13 Halsall or otherwise?

14 A. No, not that I have any -- no
15 knowledge of, and I don't believe we have, no.

16 Q. And how about for Algo Central
17 properties? Algoma Central Properties. Had you
18 ever worked for them before?

19 A. I don't know.

20 Q. You don't remember or you don't
21 know?

22 A. I don't know.

23 Q. You didn't personally.

24 A. I have not, no.

25 Q. And as far as you know, had Mr.

1 Celli or Mr. Truman?

2 A. Not to my knowledge as far as I
3 know.

4 Q. All right. And so would it be safe
5 to say that before Halsall received this retainer
6 and before Mr. Celli and Mr. Truman made their
7 site visits, Halsall really didn't know very much
8 about the property at all?

9 A. That's correct.

10 Q. And I take it that since your report
11 doesn't -- any of your reports mention them, I
12 take it that you did not receive copies of the
13 Trow reports?

14 A. No, we did not.

15 Q. And I'm referring of course to the
16 1991 and '94 and '95 Trow reports at -- which we
17 provided to you as Commission counsel when we
18 first met?

19 A. Correct.

20 Q. You had not seen them before that?

21 A. No, I had not.

22 Q. And to your knowledge, neither had
23 Mr. Celli nor Mr. Truman?

24 A. No, they had not.

25 Q. And do you -- do you know why

1 Halsall did not have access to the Trow reports?

2 A. I don't know why.

3 Q. Did you ask for them?

4 A. I didn't personally ask for them,
5 no.

6 Q. To your knowledge, did Mr. Celli or
7 Mr. Truman ask for them?

8 A. I don't know.

9 Q. Now, can I just take you briefly --
10 can I just refer you now briefly to the first
11 report, the 1998 report. It's Exhibit No. 66. I
12 think you have a tabbed binder with you or a
13 tabbed brief with you, Mr. Buckley?

14 A. I have one that was on the desk and
15 one I brought with me.

16 Q. All right. Does it have four tabs
17 in it -- five tabs in it?

18 A. Yes, it does.

19 Q. It's tab two then -- sorry, tab 1.
20 You should be looking at Exhibit No. 66.

21 A. Yes.

22 Q. Which is a November -- it says at
23 the front of tab -- Exhibit No. 66, Building
24 Condition Assessment for Elliot Lake Retirement
25 Living, Final Report, November 12, 1998. And if

1 you look at what is in that report, you'll have to
2 use the reference numbers, but it's page HA31.0 --
3 a number of zeroes, page 34 within the brief.
4 It's the beginning page of your report starting
5 with introduction. Do you have that in front of
6 you, Mr. Buckley?

7 A. Yes.

8 Q. And the survey method for this
9 report, it says:

10 "Albert Celli, P.Eng., Halsall Associates
11 Limited reviewed the building structure.
12 A visit to the site was made on September
13 17, 1998.

14 The survey consisted of visual inspections
15 of portions of the building including the
16 following components:

- 17 - Upper mall roof/parking deck
18 construction through the ceiling in tenant
19 spaces,
20 - Top surface condition of parking deck."

21 And do you agree with me and is it fair
22 to say, Mr. Buckley, that this survey was to make
23 observations based on a one-day visual inspection
24 of parts of the building?

25 A. Yes.

1 Q. And is it also fair and accurate to
2 say this -- it was not intended to be a
3 comprehensive survey, but rather to identify any
4 concerns and make recommendations for further
5 inspection and testing?

6 A. That was the outcome, yes.

7 Q. And that was the purpose of doing
8 this initially?

9 A. Yes.

10 Q. And Mr. Celli did his visual
11 inspection as he said on September 17th, and as a
12 result identified some concerns he found
13 warranting further inspection or study. Is that
14 correct?

15 A. He identified areas that he wanted
16 to have -- that we felt should be looked at
17 further, yes.

18 Q. Okay. And so then can I take you to
19 what is page 30 --

20 THE COMMISSIONER: Just before we do
21 that, Mr. Carr-Harris, can we go back to the front
22 page of this document? Now, this isn't your
23 report of course, sir. This is NYB's report. But
24 there's also reference to Leipziger Kaminker
25 Mitelman. Do you know what their role is?

1 THE WITNESS: They are mechanical/
2 electrical engineers. They would have looked at
3 mechanical/electrical systems in the building.

4 THE COMMISSIONER: Thank you. Go ahead,
5 Mr. Carr-Harris.

6 BY MR. CARR-HARRIS:

7 Q. So if I can get you just to look at
8 -- I just wanted to address Mr. Celli's identified
9 concerns starting at what is HA page 31.35, page
10 two of the report at the bottom under the heading:
11 Parking Deck Structure. Item two, Parking Deck
12 Structure. Last paragraph on the page begins,

13 "From the underside of the parking deck,
14 we observed some corrosion of the
15 structural steel beams and columns,
16 indicating past leaking of the deck. We
17 were unable to review the condition of the
18 underside of the precast concrete slab
19 panels as they were covered with foiled
20 insulation and wire mesh."

21 That was one of the concerns. When you
22 go over the next page at the top starting in the
23 first paragraph and I'll just read the starting
24 with the second sentence.

25 "We understand that there is no existing

1 waterproofing protection system. It is
2 our opinion there may be chloride
3 contamination in the precast parking deck
4 slabs."

5 That's another concern he identified,
6 correct?

7 A. He raised that as a potential, yes.

8 Q. And then thirdly, the second last
9 paragraph in that section beginning:

10 "At this time we cannot render an opinion
11 as to what the true state of the deck is,
12 nor what long term cost could be expected.
13 However, given the age of the structure,
14 deterioration of the concrete slabs may
15 begin to occur now or in the near future.
16 This could result in significant
17 maintenance costs for the remainder the of
18 the building life."

19 And then lastly over on page 4, under
20 section 2.2., Waterproofing Protection Systems, he
21 says or you say:

22 "Should the further testing of the parking
23 structure indicate that there is minimal
24 risk of deterioration of the structure due
25 to chlorides in the slab, then a more

1 positive form of protection of the slab
2 should be considered. A rubberized
3 membrane covered with an asphaltic wear
4 course could be installed above the
5 concrete topping. The existing concrete
6 topping should be sounded and repaired
7 prior to applying the rubberized
8 membrane."

9 So in that one, he's expressing a
10 concern that depending on the state of the
11 structure, due to chlorides in the slab, this may
12 affect this choice of repairing the roof making it
13 waterproof?

14 A. The level of contamination would
15 inform the decision about going forward, yes.

16 Q. Thank you. So the further studies
17 then, which if you go back a page to section 2.1
18 headed "Further Studies", what you see there are
19 essentially the recommendations that he made out
20 of his concerns. I should also have pointed out,
21 yes, the concerns I've just given you. And he's
22 listed the follow-up studies there he thinks that
23 should follow those concerns and in addressing
24 those concerns, is that correct?

25 A. Yes.

1 Q. And if you see them, read them they
2 are details of the study is -- bullet number one
3 is to:

4 "Drill or obtain powder samples at the
5 underside of the precast concrete slabs at
6 selective locations. The extent of the
7 chloride contamination will be determined
8 by the lab tests."

9 So this is from the underside of the
10 slab in effect internally in the overhead?

11 A. Yes.

12 Q. And then the second bullet is to
13 "Expose and visually inspect the precast concrete
14 slab prestressing strands at the selective
15 locations."

16 And the issue with the prestressing
17 strands is whether they are compromised by
18 corrosion, I take it, is that correct?

19 A. Yes.

20 Q. And then thirdly.

21 "Expose the top side of the precast
22 concrete panels by removing the concrete
23 topping and rigid insulation to assess
24 leakage along expansion joints,
25 longitudinal joints, the structural steel

1 girders and at previous concrete repairs."

2 And this is the openings that were
3 subsequently done in the subsequent report, Mr.
4 Buckley?

5 A. Yes.

6 Q. And then the fourth bullet is to
7 "Obtain samples of the concrete topping to
8 determine the depth of the chloride
9 contamination." And then lastly, the two,
10 "Inspect condition of the supporting
11 structural steel beam lateral restraint
12 connections to the precast slabs, and
13 Inspect condition of the beam and bracing
14 connections."

15 And these last two, I take it, are
16 driven in terms of follow-up studies by the
17 presence as he says of some corrosion of the
18 structural steel beams and columns, is that
19 correct?

20 A. Yes.

21 Q. Now, would you agree with me, Mr.
22 Buckley, that in terms of the structure of the
23 parking deck, it includes the steel beams and
24 columns and connections obviously, is that
25 correct?

1 A. Yes.

2 Q. And they are fundamental elements of
3 the structure and the integrity of the structure,
4 those elements I've just described?

5 A. They hold the whole structure up,
6 yes.

7 Q. And when you have a large deck like
8 this, how do you decide on a plan for inspecting
9 what columns and connections, beams, you're going
10 to inspect? In other words, where are they going
11 to be located on the site?

12 A. You would look for indications of
13 past problems. For example, on the top surface,
14 you would look at where areas that you saw that
15 seemed to be areas of previous repair or potential
16 leakage. On the undersides, you would look at
17 locations of where you observed indications of
18 corrosion.

19 You would use the conditions or the
20 present conditions of the site to try and inform
21 how you do your work.

22 Q. And would that include the traffic?
23 The extent of the -- the extent of the heavily
24 trafficked areas? Would they be areas of concern?

25 A. I can't answer that. I think what

1 we would do is look at the effects and of what and
2 the condition of the building is to determine
3 what's going on with it and to inform how we would
4 do our inspections.

5 Q. And you weren't there either, but
6 just -- I just want the benefit of your experience
7 on this in terms of planning this out. In both
8 reports, there's no indication of the precise
9 location where these tests and inspections were
10 conducted. And, first of all, do you agree with
11 that?

12 A. The locations aren't noted in the
13 report. The locations of the openings are noted
14 in our field notes.

15 Q. All right. And are they -- the
16 terms of the report, how does the recipient of the
17 report know where you tested?

18 A. Perhaps by asking a question. We
19 wrote -- provided a general assessment of what we
20 observed in the report.

21 Q. And in terms of the location -- in
22 terms of the numbers, for example, of the visual
23 review and the first report, how many, for
24 example, structural beams and columns would Mr.
25 Celli have looked at? Would you know that?

1 A. I don't know off the top of my head.
2 I wouldn't know.

3 Q. And similarly with Mr. Truman in his
4 subsequent follow-up studies. Again, do you know
5 how many steel columns and beams he looked at?

6 MR. HODGSON: Is he asking the witness
7 does he know today based on his recollection or
8 did he know at the time based on his report?

9 THE COMMISSIONER: He may wish to
10 clarify that.

11 BY MR. CARR-HARRIS:

12 Q. At the time.

13 A. At the time he would have discussed
14 where he had done his observations and I would
15 have had an understanding of the number of beams
16 and columns and connections that he would have
17 looked at, yes.

18 Q. All right. And did you have those
19 discussions with him?

20 A. I can't recall the specifics of the
21 discussions, but I'm sure we would have had those
22 conversations.

23 Q. And so in -- we'll get to this in a
24 moment. But when you -- going back to the --
25 going back to the '98 report, Mr. Celli had

1 indicated his concerns that led to the
2 requirement, among other things, of the
3 examination of the columns, beams and connections.
4 And I'm -- in terms of the Trow reports, are you
5 now familiar with the fact that the Trow reports
6 conducted corings to test the chloride
7 contamination in the precast slabs of the topping?

8 A. I am now, yes.

9 Q. And at the time, you were not aware
10 of that?

11 A. No, I was not.

12 Q. And given that these precast --
13 these -- given that the Trow reports indicated
14 that the chloride contamination had reached the
15 precast concrete slabs, and in their readings had
16 indicated that in one case at least. Do you not
17 think that might have been useful information to
18 have at the time you were doing your report?

19 A. I think the information that was in
20 Trow's reports was fairly consistent with what we
21 had found on our -- in our report. I don't think
22 it would have necessarily it would have changed
23 our conclusions.

24 Q. Okay. Well, let me just take you to
25 their 1994 report, which is at exhibit -- tab 66

1 in yours and my book, which is Exhibit No. 44.
2 Page 13.

3 A. I'm sorry, which?

4 Q. Page 13 of that report.

5 A. Which tab are we talking?

6 Q. Tab 66.

7 A. Exhibit No. 66?

8 Q. I'm sorry, you're going to have to
9 look at your screen. You don't have that in your
10 brief.

11 A. Okay.

12 Q. Page 13.

13 MR. CARR-HARRIS: And then if you go to
14 that last paragraph in that page please, Ms. Kuka.

15 BY MR. CARR-HARRIS:

16 Q. And you will see there I'm reading.

17 "Comparing the 1994 chloride ion test
18 results in the same general area to those
19 tested in 1991, the chloride ion content
20 in the concrete topping is generally
21 higher at core nos. 1 and 8 and lower at
22 core no. 4. The chloride ion content of
23 the precast slab concrete at core no. 9 is
24 generally the same as in 1991, below the
25 threshold value. The chloride ion content

1 at core no. 4 is higher than in the test
2 results in 1991".

3 Then if you go over to page 15 to the
4 conclusion section, the first two paragraphs I
5 want to just direct your attention to. Number
6 one, and this is it says:

7 "Based on the data obtained from the
8 survey, we were able to make the following
9 conclusions:

10 1. The high chloride ion content in the
11 concrete topping, coupled with the effect
12 of the freeze-thaw action, will likely
13 cause further deterioration to the
14 concrete topping wearing surface. Based
15 on the test results, it appears that the
16 chlorides have begun to contaminate the
17 precast slabs which could likely cause
18 rusting of the prestressing strands in the
19 slabs. This is most likely to occur at
20 areas of leakage.

21 2. The soffit of the precast hollow core
22 structural slab exhibits numerous signs of
23 leakage, mainly through the control joints
24 between the precast panels. Water and
25 salt penetration through joints will cause

1 deterioration of the concrete, prestressed
2 concrete steel beams, sprayed-on
3 fireproofing or steel beam, false ceiling
4 tiles and electrical conduits to
5 increase."

6 Now, I'll just take you to your
7 inspection report in May of 2010 -- May 1999,
8 which is at tab 4 in the brief. You should be
9 looking at what is section 5.4 of the May 10th,
10 1999 report, chloride content. And if you look at
11 the -- under the heading of assessments, sorry,
12 under the heading of "Observation" it says, "The
13 chloride contents are generally above the
14 threshold level thought necessary to initiate
15 corrosion."

16 And then it says under it assessments,
17 "The relatively low, uniform chloride
18 levels are consistent with the chloride
19 levels present in commonly used
20 aggregates. These are considered bound
21 and unavailable to the corrosion process."

22 So from -- just from a higher level
23 perspective, Trow says in its report in 1994 that
24 there is a high level of chloride content.

25 Halsall says in its report that the --

1 their assessment is that there is relatively low
2 uniform chloride levels are consistent with
3 chloride levels present in the aggregate.

4 One says they're high and the other says
5 they're low. Would this not have been useful
6 information to have at the time of your writing of
7 your reports?

8 A. Could we go back to what the Trow
9 report stated?

10 Q. We go back to -- do you have the
11 Trow report in front of you?

12 A. No, I don't.

13 Q. Pull it up again.

14 MR. CARR-HARRIS: It's -- Ms. Kuka, it's
15 Exhibit No. 44 page 13 -- sorry, page 15.

16 THE WITNESS: The Trow report says:
17 "Based on the results, it appears that the
18 chlorides have begun to contaminate the
19 precast slabs which could likely cause
20 rusting of the prestressing strands in the
21 slab. This is most likely to occur at
22 areas of leakage."

23 BY MR. CARR-HARRIS:

24 Q. Yes. And if you go -- and if you --
25 they say that the -- if you go to page 12 and look

1 at the actual results from the Trow testing, two
2 of which are in the precast slab and the others
3 are in the concrete topping, you'll agree with me
4 that the numbers are in some respects certainly
5 are different.

6 A. Yes. There has been an increase.

7 Q. And would it have been of interest
8 to you to know that and specifically to know where
9 they had done their corings so that you would have
10 that knowledge for the purpose of your report?

11 A. It would have been of interest, yes.

12 Q. And were you aware that in this
13 hearing we have heard from Trow that based on a
14 comparison of the leaks in the soffit from 1991 to
15 1994, three years later in the 1994 report, that
16 the leaks there had virtually doubled in those
17 three years?

18 A. I have read some transcripts that
19 indicate that that's an answer given by Trow, yes.

20 Q. And again, would that fact that the
21 leaking was increasing at that rate, would that
22 have been something of interest to you in your
23 approach to your reports?

24 A. It might have given us an indication
25 of other testing that we may have wanted to do. I

1 can't on the surface of what that question is
2 related to with Trow make a specific statement as
3 to how it would affect us unless we had time to
4 study it.

5 Q. Well, obviously Trow had spent much
6 more time on it than you did with your prepurchase
7 report, but I'm really interested in whether that
8 information they provided would have been useful
9 to you in assessing how you might approach going
10 about your surveys, for example?

11 A. It would be useful.

12 Q. Okay. And were you aware at the
13 time that the building itself now at the time
14 Halsall appeared, going on 20 years in existence,
15 that it had been leaking water and chloride laden
16 water since virtually its construction? In other
17 words, over almost 20 years.

18 A. No, we were not aware of.

19 Q. And when did you become aware of it?

20 A. Not until this Commission started.

21 Q. And would that have had any impact
22 on your approach?

23 A. Again it would have had an impact on
24 how we carried out our surveys.

25 Q. In what way?

1 A. We might have done more openings.
2 We might have done some flood testing. In looking
3 back at it, it's difficult to say exactly how it
4 would have affected our review, but I would be --
5 it would have had an impact on how we went about
6 doing our surveys, yes.

7 Q. And would it have included more --
8 looking at more connections?

9 A. I don't know.

10 Q. And in your reports, there are --
11 you'll agree with me that there is no specific
12 reference to any inspection by Halsall of
13 connections?

14 A. If we turn back to our report --
15 which report are you referring to, Mr.
16 Carr-Harris?

17 Q. Either one.

18 A. The report and the methodology
19 states, "Removal of insulation and spray-applied
20 fireproofing at the underside of parking deck for
21 visual review of steel structure in selected
22 locations."

23 Q. Yes. And what -- is that supposed
24 to be a message to the -- let me rephrase that.
25 The -- is that intended to be a message to the --

1 to the client that you're going to be looking at
2 connections?

3 A. That's a statement of -- that was a
4 statement of our methodology which is saying that
5 we've looked at -- in the methodology statement it
6 says that we've looked at the steel structure in
7 selective locations.

8 Q. And this is, sorry, which report are
9 you addressing?

10 A. It's the 1999 report, page 2. The
11 document references CEL_E, lots of zeros,
12 46545.006. It's up on the screen.

13 Q. Okay. So that's our review
14 consisted of, as you've read in the last bullet.
15 But where are the results of that inspection?
16 Where you looked -- what you looked at?

17 A. There are photographs in the files
18 that show several connections and other areas that
19 we looked at.

20 Q. In this report that the client got?

21 A. They're not in the report.

22 Q. And is there any specific mention in
23 this report of connections?

24 A. Not that I can recall.

25 Q. Now, as -- can I take you to the

1 March 9th, 1999 letter, which is at tab 1, sorry,
2 yeah, tab 1, page HA_EE00000031.56. Do you have
3 that open in front of you?

4 And you should be looking at a March 9th
5 letter from you, Mr. Buckley, to Mr. Nicholls. So
6 this is following the first report of November
7 1998 in which certain further studies were to be
8 undertaken. And you'll agree with me that the
9 list that you have put in there in the bullets
10 with the arrows are identical to the ones that
11 were in your 1998 report under the heading of
12 Further Studies?

13 A. Yes, I believe they are.

14 Q. And subsequently, you delivered that
15 report -- sorry, maybe you delivered that report,
16 but before I get to it, let me just take you back
17 two pages to page 54 of that same tab. And you
18 should be looking at a March 4th letter to Rhona
19 Guertin of the mall from Mr. Nicholls.

20 And in it he identifies a conversation
21 he had with her -- this is now a number of months
22 after the submission of your report. The report
23 was in November of '98, the first report?

24 A. Yes.

25 Q. And this letter is March 12, '99.

1 So there appears to have been a hiatus there of
2 some months?

3 A. Yes.

4 Q. Was there anything going on in terms
5 of discussions in that period, if you can
6 remember?

7 A. Not that I can recall, to.

8 Q. And they then came forward and
9 basically Mr. Nicholls in this letter is
10 confirming that you will prepared to proceed with
11 this -- with the -- you'll read in the first
12 paragraph.

13 "I am following up on our telephone
14 conversation of last week regarding the
15 Algo Centre Mall. You were interested in
16 proceeding with specific detailed
17 investigative studies that go beyond the
18 work that we had carried out to date. The
19 objective is to provide further 'due
20 diligence' analysis of 'life safety'
21 related issues for the building. From our
22 discussion, it was concluded that the
23 studies should be in the areas of:"

24 And one of them number 2 is structural
25 analysis of the parking deck.

1 And then down below he gives the quote
2 for that further study.

3 Then the next document is the May 10th
4 report itself which is at tab 4. It is Exhibit
5 No. 70. And then if you go to page 2 of the
6 report, the methodology is set out.

7 And it appears that the specific
8 references, as they appeared to inspecting the
9 beams and connections has been removed. The last
10 two bullets from both your letter and your earlier
11 report to inspect the condition of the supporting
12 structural steel beam lateral restraint
13 connections to precast slabs. And two, inspect
14 the condition of beam and bracing connections,
15 they simply disappeared from the list. Do you
16 know why?

17 A. No, not specifically.

18 Q. Did you have any discussions around
19 that at the time?

20 A. Not that I recall.

21 Q. Do you know if Mr. Celli or Mr.
22 Truman did?

23 A. I have no knowledge of that.

24 Q. Would you agree with me that the May
25 10th report has no pictures of connections or any

1 -- first of all, any pictures of connections?

2 A. There are no pictures of connections
3 on the underside of the parking structure.

4 Q. And would you agree with me that
5 there's no indication in that report where Mr.
6 Truman looked at the underside of the soffit of
7 the building? Again no locations of where his
8 inspection takes place.

9 A. They are not specifically referenced
10 in the report, as I can see.

11 Q. And again do you know why?

12 A. No, I don't know why.

13 Q. Now, if I can take you to the
14 options that were offered as a solution after the
15 second report. And you will find those at the --
16 the case of the first report, which is our tab 1
17 at pages 24 and 27 of the architect's report.

18 A. I'm sorry, page 26 and 27 of the
19 architect's, as opposed to the exhibit pages?

20 Q. Yes. It's in fact NYB's report at
21 page 31.26 and 27. And to make things even more
22 interesting, one of the pages is upside down.

23 A. Yes.

24 Q. So these -- Mr. Buckley, did Halsall
25 prepare these estimates for options one and two in

1 the first report?

2 A. I have no recollection of us
3 preparing these numbers, no.

4 Q. Seems a little odd since you were
5 suggesting further studies that you would be off
6 into with some kind of design to fix the roof, but
7 I just wanted to know whether you had been
8 involved in that process?

9 A. No.

10 Q. Then in any event, you'll notice
11 that it's both membranes that are suggested in
12 this case I gather by the architect?

13 A. Yes.

14 Q. And then if you go to the second
15 Halsall Report and its options, you'll find those
16 at -- they are discussed at pages 4 and 5 of the
17 report, and that's the report is Exhibit No. 70.
18 Page 4 and 5. Set out the options.

19 And just to summarize the -- did you --
20 first of all, were you involved in arriving at
21 these options in any discussions on these?

22 A. I don't recall specific discussions,
23 but I'm sure that I would have been involved at
24 arriving at these conclusions, yes, sir.

25 Q. And so option number one is rout and

1 seal all joints and cracks and then it lists the
2 price of 433,000. And then option two is a
3 waterproof membrane and asphalt topping and
4 Halsall is recommending option one, the rout and
5 seal all the joints.

6 And I'm just wondering in the -- was the
7 concern about the loads on the roof part of the
8 reason why the membrane was not pushed as the
9 first choice?

10 A. I don't believe that was one of the
11 main reasons, but there was, as we indicated in
12 the report, a concern about the capacity of the
13 roof at the time, that it may -- you would take
14 away -- depending on the membrane system you would
15 use, it might take away some of the live load
16 allowance.

17 Q. But that was not, in fact a feature
18 in you making your selection into which option was
19 preferable?

20 A. Not that I recall specifically, no.

21 Q. And were you aware that the
22 maintenance team at the mall had been using a
23 right form of rout and seal system for many years
24 up to this point?

25 A. Excuse me, I'm not sure I quite

1 understand that question.

2 Q. Were you aware at the mall the
3 maintenance team that had been repairing -- doing
4 repairs up to the times of the inspections by
5 Halsall had been doing a form of rout and seal
6 repair on the roof for many years?

7 A. They were doing a form of rout and
8 seal repairs, as I understand, yes.

9 Q. And it's I think Mr. Celli indicated
10 or Mr. Truman, one of them, that they weren't --
11 there were signs that it wasn't being done
12 properly?

13 A. That's correct.

14 Q. And were you aware at the time of
15 the '99 report, Mr. Buckley, that notwithstanding
16 the rout -- the rout and seal approach that the
17 mall maintenance staff had been employing, the
18 mall had continued to leak consistently for years?

19 A. We were aware that there had been an
20 issue with leakage in the past, after completion
21 of our reviews.

22 Q. Now, the system -- the waterproofing
23 system, the routing and sealing, Mr. Celli had
24 testified this will only succeed, if it will
25 succeed at all as long as --

1 MR. HODGSON: I don't remember Mr. Celli
2 saying if it will succeed at all in his evidence,
3 but I may be wrong.

4 THE COMMISSIONER: I have no specific
5 recollection. You may wish to rephrase it to some
6 extent, Mr. Carr-Harris, unless you want us to go
7 back to the transcripts.

8 MR. CARR-HARRIS: No.

9 Q. I'm -- my question is really Mr.
10 Celli was of the view that the rout and seal
11 system would only succeed if certified contractors
12 under appropriate qualified inspectors were there
13 to ensure it was done properly. Do you agree with
14 that?

15 A. The success of that system is very
16 dependent on a number -- a number of factors and
17 having an appropriate specification prepared,
18 drawings, contracts in place that require a
19 qualified contractor to engage qualified
20 individuals and use appropriate materials and
21 follow very specific protocols with respect to the
22 installation. And that is what is required to
23 make this kind of a system work.

24 Q. And why would you -- why would, for
25 example, why would an owner pick this system with

1 its higher maintenance requirements and careful
2 maintenance requirements over a membrane system?

3 A. It's a workable system if employed
4 properly in the way we set it. And their other
5 decision-making processes that are internal to
6 them. I would only be speculating as to why they
7 would do it.

8 Q. But the key is to make it work, you
9 have to have a qualified contractor applicator and
10 a qualified supervisor?

11 A. Yes.

12 Q. And the maintenance -- typical
13 maintenance staff would not be those people?

14 A. No.

15 Q. And particularly in this case
16 because there are already been signs that they
17 don't do it properly?

18 A. Yes.

19 Q. Now, can you show me in the report,
20 the 1990 report --

21 THE COMMISSIONER: The '99 report.

22 BY MR. CARR-HARRIS:

23 Q. The 1999 report.

24 A. If you turn to page I as in I, which
25 is CLE 004645.0002 and if you go down to the last

1 paragraph, we give opinion of costs associated
2 with this option. And we say,

3 "These costs include Contractor's
4 mobilization and site protection, 10% to
5 contingency, and engineering fees for
6 specification, tendering, construction
7 review, contract administration and
8 project management."

9 Q. Sorry, where are you reading from?

10 A. The last paragraph at page 0002.

11 THE COMMISSIONER: And, sir, if you are
12 reading from a document, would you -- I know it's
13 difficult, would you slow down because what you
14 say has to be of course stenographed in and it
15 also has to be translated in French.

16 THE WITNESS: I will do my best. Please
17 remind me if I begin to go too fast again.

18 THE COMMISSIONER: It's perfectly
19 understandable. Just bear in mind again.

20 THE WITNESS: Would you like me to read
21 that passage again?

22 BY MR. CARR-HARRIS:

23 Q. No, I've read it and I might ask you
24 to point out to me where it says you must use a
25 qualified contractor? All that section does is

1 say, here's the cost of the contractor and it's
2 added to the number. Where does it say that you
3 cannot do this unless you have a qualified
4 contractor?

5 A. I don't believe it states that in
6 the report.

7 MR. HODGSON: With great respect to my
8 friend, if I may, it says what it says. It talks
9 about contractors mobilization with great respect.
10 That's really not a fair question for the witness.

11 THE COMMISSIONER: Well, the witness is
12 not a neophyte neither and a gentleman with a
13 great deal of experience. I'm sure he can discern
14 understand the question and make the proper
15 nuances if these need to be made. But we have his
16 answer.

17 BY MR. CARR-HARRIS:

18 Q. So I take it, Mr. Buckley, with your
19 answer that you would assume from reading this
20 that the owner would know they had to use the
21 qualified contractor and not their maintenance
22 staff?

23 A. I believe that the report is quite
24 clear on the fact that there was an expectation of
25 the system and the option is that it's going to be

1 employed with the use of qualified contractors who
2 are doing work in accordance with the
3 specifications and the drawings and that there is
4 a constructional view and follow-up process with
5 respect to the implementation of the system.

6 Q. And why wouldn't an owner just say,
7 well rout and seal, we've been doing that for
8 years. Why don't we just take off the cost of the
9 contractor and it'll be 300,000 and we'll do it
10 ourselves?

11 MR. HODGSON: With great respect, that's
12 not a fair question, sir. How is he supposed to
13 comment as to what an owner may or may not do?
14 What may or may not be in an owner's mind.

15 THE COMMISSIONER: Okay. Response, Mr.
16 Carr-Harris?

17 MR. CARR-HARRIS: Your Honour, how the
18 owner interprets this report is a legitimate
19 question for this witness.

20 THE COMMISSIONER: I think it's a
21 perfectly fair question. We are not dealing with
22 a neophyte in terms of -- and if he can't answer
23 the question, he can't answer the question. And I
24 also remind you, of course, that you'll be given
25 an opportunity to question the witness at an

1 appropriate time.

2 MR. HODGSON: I do appreciate that,
3 thank you, sir.

4 THE WITNESS: If the report is meant to
5 be read in its entirety and I would, if you look
6 at the observations contained within the report it
7 is clear that what has been going on in the past
8 has not been done correctly.

9 BY MR. CARR-HARRIS:

10 Q. But what we're focusing on here is,
11 the key is, where is the warning in effect to the
12 owner, look, you can't do what you've been doing.
13 You're going to do the rout and seal with a
14 qualified contractor and inspector. Where is that
15 in the report?

16 A. I believe the report stands on its
17 own. If you read the report in its entirety, you
18 would conclude that the -- that what has been
19 going on on that deck has not been what should
20 have been going on on that deck.

21 Q. Now, I should tell you, and assuming
22 that we receive evidence from a person who is
23 involved in the mall subsequent to your report to
24 the effect that they assumed it was just requiring
25 continuation of what they were doing and they

1 could do it themselves, and then would continue to
2 do it as they have always done it. A fact that
3 was supported by Mr. Snow's evidence here the
4 other day, who was the maintenance man.

5 How would you explain that
6 interpretation by the owner if the report is so
7 clear?

8 A. I can't explain that interpretation.

9 Q. Do you think it's possible
10 interpretation given what I've told you?

11 A. I can't answer that question.

12 Q. All right. And lastly, Mr. Buckley,
13 if the -- if the repairs that Halsall had
14 indicated were inappropriate, whether option one
15 or option two, is it true that if they did not
16 stop the corrosion, that ultimately there would be
17 a critical situation for the mall in terms of its
18 structural integrity?

19 A. If they didn't carry out the
20 appropriate proper repairs, implement the proper
21 maintenance program after carrying out the proper
22 repairs and it continued to leak, one could only
23 conclude that it would continue to deteriorate,
24 which would then lead to a serious situation.

25 Q. And where is that warning in the

1 report?

2 A. In the report we made it clear that
3 there was deterioration at points of leakage. It
4 was obvious that there was corrosion happening
5 wherever it leaked. We said that it needed to be
6 fixed and we provided an option, a viable workable
7 option, two options, to control that leakage and
8 ultimately maintain the integrity of the
9 structure.

10 Q. Thank you. Those are my questions,
11 Mr. Commissioner.

12 THE COMMISSIONER: Thank you. Mr.
13 Hodgson, do you wish to introduce evidence in
14 chief through your -- you'll obviously be given an
15 opportunity to cross-examine after other counsel.

16 MR. HODGSON: Oh, I see, thank you. You
17 had me --

18 THE COMMISSIONER: Normally I would
19 permit counsel to adduce additional evidence in
20 chief to complement the evidence provided by
21 Commission counsel.

22 MR. HODGSON: Perhaps I might ask a
23 couple of questions, Mr. Buckley. Can I do it
24 from here.

25 THE COMMISSIONER: Do it from there, if

1 you would.

2 EXAMINATION-IN-CHIEF BY MR. HODGSON:

3 Q. Mr. Buckley, my friend asked you
4 about connections and whether or not Mr. Truman
5 inspected connections prior to the May 1999
6 report. Do you recall that, giving that evidence?

7 A. I recall answering a question of Mr.
8 Carr-Harris, yes.

9 Q. And have you reviewed the pictures
10 that Mr. Truman took when he attended at the mall?

11 A. Yes, I have.

12 Q. And do those pictures show pictures
13 of connections with beams?

14 A. Yes, they do.

15 Q. So, Mr. Truman, even though it's not
16 in the report, as far as you know Mr. Truman did
17 conduct that inspection?

18 A. Yes.

19 Q. My friend also referred to Mr.
20 Snow's' evidence. Do you recall that?

21 A. Yes.

22 Q. And did you review Mr. Snow's
23 evidence?

24 A. Yes.

25 Q. Are you able to comment on the types

1 of procedures that were being used by the
2 maintenance men at the mall to stop the leaking?

3 A. They were relatively -- they were
4 inconsistent with the way it should have been
5 done.

6 Q. All right. And I think Mr. Snow's
7 evidence makes reference to being able to pick up
8 caulking that had become totally debonded?

9 A. Yes.

10 Q. And is there any significance to
11 that from the point of view of how it was
12 installed?

13 A. To be able to lift it up and walk
14 along the deck and have it way the it is implied
15 in his testimony that it would just lift and fall,
16 it would be an indication that it wasn't installed
17 correctly in the first place.

18 Q. My friend Mr. Carr-Harris also
19 referred on a number of occasions to how would an
20 owner interpret? What would an owner think? Who
21 was your client? Who was Halsall's client in
22 this?

23 A. Nicholls Yallowega Belanger.

24 Q. So your client were dually qualified
25 architects?

1 A. Yes.

2 Q. And in your experience in dealing
3 with dually qualified architects, if they have
4 questions, do they ask them?

5 A. Yes.

6 MR. CARR-HARRIS: Your Honour, Mr.
7 Commissioner, with respect, my friend is really
8 conducting his cross-examination -- his
9 re-examination at the end of the evidence. If
10 there's something new in chief.

11 MR. HODGSON: I'm happy to split it up.
12 Maybe --

13 THE COMMISSIONER: Be easier for you I
14 would think.

15 MR. HODGSON: I have to confess, Mr.
16 Commissioner, I'm capable of trying to do it
17 twice, but I'm sure you won't let me do that.

18 MR. CARR-HARRIS: Excuse me, in
19 practical terms, it means he's at the end of the
20 day will be cross-examining on -- he'll get two
21 kicks at the cat.

22 MR. HODGSON: I thought that's what I
23 said. I'm happy to continue after everyone else
24 has asked their questions. Thank you, sir.

25 THE COMMISSIONER: Thank you, Mr.

1 Hodgson. We'll begin cross-examination then. Who
2 wants to go first?

3 MR. KEARNS: Mr. Commissioner, if I
4 might assist. I'm completely shocked by Mr.
5 Carr-Harris being finished at 10 after 10. I
6 assumed that I was going to complete my reasoned
7 approach to cross-examination over the lunch hour
8 and perhaps this evening.

9 MR. COMMISSIONER: Want me to take the
10 morning break a bit early? Would that be a value
11 to everyone? Let's do that.

12 --- Break taken at 10:13 a.m.

13 --- Upon resuming at 10:15 a.m.

14 CROSS-EXAMINATION BY MR. BISCEGLIA:

15 Q. Good morning, Mr. Buckley. My name
16 is Joe Bisceglia. I'm the lawyer for Greg
17 Saunders who's an engineer with Wright &
18 Associates at the time of this incident.

19 A. Good morning.

20 Q. I have very few questions of you
21 this morning. Firstly, with respect to the
22 process, my appreciation of your evidence is that
23 you did not come on site, but that you proceeded
24 to involve yourself in expressing an opinion based
25 upon what your fellow engineers reported back to

1 you, is that correct?

2 A. Yes.

3 Q. And it's my appreciation that within
4 the engineering profession and engineering firms,
5 the process whereby you have field workers going
6 to a site, taking whatever information that they
7 may receive, and then coming back to the office
8 and discussing it with a colleague or a fellow
9 engineer and coming to an opinion with the
10 engineer who was not on site participating and
11 signing off on that report or certificate, is not
12 an unusual process. That is the practice in the
13 profession, is that correct?

14 A. You had a lot of words in that
15 statement. I just wonder if you could --

16 Q. It's standard practice in the
17 engineering profession for an engineer who is in
18 the office to review with a fellow engineer
19 information and sign off on a report, is that
20 fair?

21 A. Yes.

22 Q. And even though you have not gone to
23 site, that doesn't preclude you from considering
24 the information for the purposes of coming to a
25 conclusion or expressing an opinion, is that

1 correct?

2 A. Yes.

3 Q. Thank you. And in this particular
4 case involving the Algo Mall, that's precisely
5 what took place. You didn't come to the site, but
6 relied on Mr. Celli and Mr. Truman, fair?

7 A. Yes.

8 Q. And I'm assuming that they came to
9 you because you had something to contribute to the
10 conclusion or opinion?

11 A. They came to me because I was the
12 project principal. I was responsible for the work
13 execution, yes.

14 Q. Thank you. A couple of things I
15 want to clarify. You said that this was a high
16 level investigation in response to a question put
17 to you by Mr. Bruce Carr-Harris. And then Mr.
18 Commissioner asked you about that. What does that
19 really mean? Does that mean intense? Does that
20 mean visual -- can you explain that a little more
21 for us, please?

22 A. The first -- the first report was
23 based solely on visual review of the conditions
24 that we saw -- observed.

25 Q. Is that what you referred to as a

1 high-level investigation?

2 A. That's one way of describing it,
3 yes.

4 Q. Well, is high level meaning from a
5 distance?

6 A. No. It means that we're not --
7 we're not necessarily taking samples of materials.
8 We're not making openings. We're fundamentally
9 doing a visual review, a walk-through. Just a
10 very -- hard to come up with the right words.

11 But it's -- fundamentally it's a visual
12 review to look for indications of areas that might
13 be indicative of a condition that you want to
14 identify in a report that may impact the ownership
15 down the road.

16 THE COMMISSIONER: Is the expression
17 high level one which is common in the profession?

18 THE WITNESS: I believe it is.

19 THE COMMISSIONER: That everybody would
20 understand that what you've just -- the words
21 you've used to define that expression are indeed
22 those understood by most practitioners?

23 THE WITNESS: I believe so, yes.

24 BY MR. BISCEGLIA:

25 Q. Thank you. So high level, in

1 essence, means visual and I gather the visual,
2 from your comments, means that you comment on
3 those things that you can see without having to
4 look behind anything or do any kind of forensic
5 analysis or destructive testing?

6 A. It means what we've observed
7 visually. We could observe things which are
8 behind certain elements or where there is access
9 to see something behind things. For example, in a
10 ceiling system, if there's tile missing or the
11 tile could be lifted to look at, it's still a
12 visual review.

13 Q. Now, in your reports or in your
14 review or investigation of buildings and leading
15 to a report, my friend asked you some questions as
16 to why you didn't mention the connections and so
17 forth, but I gather it's not uncommon to use the
18 expressions that you have used in your report
19 saying that you looked at the beams or you looked
20 at the parking structure, that would infer that
21 you looked at those parts that you could see?

22 A. Yes.

23 Q. Is that fair?

24 A. Yes.

25 Q. And when you went beyond the visual

1 inspection and you conducted some tests, would I
2 be fair in saying that in your second report, you
3 didn't look at every square inch of the parking
4 deck, first of all.

5 A. No.

6 Q. Secondly, you didn't look at every
7 square inch of the under structure or the beam or
8 the connections, is that correct?

9 A. No.

10 Q. Would it be reasonable for anyone to
11 think that an engineer or an engineering firm
12 would conduct a review or investigation of every
13 square inch of a structure when doing an
14 inspection of the kind that you did?

15 A. No, it wouldn't be reasonable.

16 Q. And would that be expected of any
17 engineer?

18 A. Not unless it was completely
19 documented that that's what you were going to do
20 as part of the contract. In these reports, that's
21 not usual.

22 Q. So even when you do a more intensive
23 investigation or review, beyond what you might
24 refer to as a visual, would you agree with me that
25 you used your judgment to focus in on those areas

1 that are likely to be a representative sample of
2 the structure?

3 A. Yes.

4 Q. And the areas that are intended to
5 give you a representative sample of the structure
6 would be those that seemed to have been more
7 likely than not to be exposed to the elements?

8 A. It depends on the circumstances that
9 you're looking for.

10 Q. Well, in this particular situation?

11 A. In this particular situation, yes.

12 Q. And my question is, where did you
13 get the information that permitted your firm, your
14 staff, to establish those areas that they would
15 look at? I guess, can you help us out on that if
16 you can?

17 A. My recollection is that and in
18 reading various notes and that sort of thing in
19 the files that there was perhaps discussion with
20 some of the maintenance staff on site that gave an
21 indication of certain things. There was also
22 other places checked too that weren't particularly
23 pointed out just to broaden the sample of what we
24 were looking at.

25 Q. Thank you very much, sir, those are

1 all my questions.

2 A. Thank you.

3 THE COMMISSIONER: Go ahead, sir.

4 MR. KEARNS: Thank you, Mr.

5 Commissioner.

6 CROSS-EXAMINATION BY MR. KEARNS:

7 Q. Mr. Buckley, my name's Doug Kearns.
8 I'm the lawyer for Retirement Living. I just want
9 to start off by being clear on what your role is
10 as the project manager. Can you tell me what your
11 relationship is with respect to the reports then
12 that Mr. Celli and Mr. Truman drafted?

13 A. Fundamentally they would do the
14 field observations, develop the drafts of the
15 reports, and we would discuss their observations
16 and the drafts. And I would review the reports
17 and recommendations with them and help develop
18 those reports and recommendations and then sign
19 off on the report.

20 Q. Okay. Now, why would it be
21 necessary for you to sign off on the report?
22 Aren't both -- weren't both Mr. Celli and Mr.
23 Truman professional engineers at the time that
24 they drafted these reports?

25 A. Yes.

1 Q. So why do they -- what do you bring
2 to the table that they don't?

3 A. Some more experience with buildings
4 than they may have had. I bring an understanding
5 of more -- perhaps a broader understanding of
6 mechanisms that are going on within the building
7 than they would have. And the -- the policy of
8 our company is that a report doesn't go out on the
9 basis of a single individual's statement. There's
10 a peer review process. And in this case, part of
11 what my role was as a peer review process.

12 Q. Good, thank you for that. That
13 makes that clear.

14 Now, is it the policy of Halsall when
15 preparing either the type of reports that you
16 prepared here to try to gather as much information
17 from the owner as possible as background
18 information, being particularly the drawings,
19 engineering reports, any other reports that the
20 owner would have. Is that your policy to get as
21 much information as possible?

22 A. We would make an attempt, yes.

23 Q. Did you make an attempt here?

24 A. I don't have a specific recollection
25 of making an attempt with the owner specifically.

1 Our -- you have to remember, our contract was with
2 the architect. They were the contact with --
3 well, at that time it was Retirement Living who
4 didn't own the property at the time.

5 Q. Okay. But your client is the
6 architect?

7 A. Yes.

8 Q. That's your direct line of contact.
9 You surely must ask him, then, to get the
10 information that you need which is the practice of
11 your corporation, is to get all of the information
12 you can. Did you ask Nicholls Yallowega Bélanger
13 to get this information?

14 A. I don't recall having specifically
15 asked. I couldn't tell you one way or the other
16 whether we asked or didn't ask.

17 Q. Okay. That sounds odd to me. It
18 sounds odd that you wouldn't do that. Do you have
19 an explanation for why this wasn't pursued?

20 A. I just said I don't recall whether
21 we pursued it or not. I can't say whether we did
22 or didn't ask.

23 Q. Okay. I'd like to show you a
24 picture.

25 MR. KEARNS: Exhibit No. 3007, Ms. Kuka,

1 It's the March 8th, 2013 NORR Report and page 93.
2 I'm sorry, page 93 of the report, yes, at the
3 bottom.

4 BY MR. KEARNS:

5 Q. They are not red on my page, but
6 they are certainly red here. I just want to show
7 you these circles here. We know that Trow in 1991
8 did 13 core samples and in '94, they did another
9 nine of them. I can't tell and I don't expect you
10 to tell whether these are Trow core samples, but
11 do these circles, and it's difficult because it's
12 --

13 A. They look like circles on concrete
14 to me.

15 Q. They look like circles on concrete.
16 Okay. I'll try this and on my copy they look like
17 holes that are drawn because they're not in
18 colour, but it may be just -- I'll just show my
19 friend what I'm looking at. But I may be able to
20 get that.

21 When you do a core sample, and I know
22 you don't know which one the kind that Trow did,
23 but the kind that you do in your business?

24 A. Yes.

25 Q. Is there a telltale mark that's left

1 that makes it fairly clear that this was a core
2 sample that was done?

3 A. Unless it's covered up with
4 something else, yes, it's visible usually.

5 Q. And is it circular?

6 A. Yes.

7 Q. Is it -- does it look like these
8 areas that are marked in red?

9 A. No.

10 Q. It won't -- is it bigger or smaller?

11 A. It would depend on how big the core
12 was taken.

13 Q. Okay. But you're going to see, if
14 they haven't been covered up with a topping or
15 cement, you're going to be able to see these
16 correct? Where you've been?

17 A. Yes.

18 Q. So we know from Mr. Celli's evidence
19 last week that he was only here for three hours on
20 the day that he came and he doesn't remember
21 seeing any of these. But I'm going to presume
22 that in the three days that Mr. Truman was here
23 that he would have found evidence that someone
24 else had been doing core sampling of this upper
25 deck. Did you have that discussion with him?

1 A. I don't recall.

2 Q. Would you normally, however, if you
3 had been doing it been able to ascertain from the
4 fact that 21 core samples had been done before
5 that someone, an engineer, had looked at this roof
6 deck before?

7 A. You might conclude that, yes.

8 Q. And if you concluded that, wouldn't
9 you, if you were the engineer doing this report,
10 be a darn good job to get a copy of what that guy
11 did so I can see what the results were from his
12 cores?

13 A. You might ask that question, yes.

14 Q. When did you learn that this
15 building had been leaking consistently since it
16 was built?

17 A. Only through review of documents put
18 together for this -- for this inquiry.

19 Q. So at the time that you sign off on
20 the '98 report and is the '99 report, you don't
21 know that this building has leaked consistently
22 since it was built?

23 A. All we knew that it -- there had
24 been issues with leakage in the past as we pointed
25 out in our reports.

1 Q. Okay. What -- if I'm hiring you on
2 two occasions to do a building assessment for me
3 and I'm the purchaser, is it not reasonable for me
4 to expect that in the course of your
5 investigation, you are going to learn that leaking
6 has been a long-term problem with this building
7 and tell me about it and tell me what I need to do
8 about it?

9 A. We noted that leaking had been going
10 on for -- in the past. We noted and we made
11 recommendations in our report. We connected that
12 leakage with deterioration, corrosion of the
13 structural steel, and we made recommendations that
14 it needed to be repaired.

15 Q. I understand what you did, but I
16 mean, my question is, as the person who's paying
17 you to tell me whether or not this building is a
18 good idea for me to buy --

19 THE COMMISSIONER: Well, of course his
20 client was not the owner of the building. His
21 client was the architectural firm.

22 MR. KEARNS: Yes, I understand that.

23 THE COMMISSIONER: The manner in which
24 you put your question presumes that the owner had
25 a direct contractual relationship with the Halsall

1 firm.

2 BY MR. KEARNS:

3 Q. Did you think that Halsall was going
4 to buy this building? Sorry, did you think
5 Nicholls Yallowega Bélanger was going to buy this
6 building?

7 A. No.

8 Q. Did you know that they were doing it
9 for someone who might be buying the building?

10 A. Yes.

11 Q. Did you realize, therefore, that
12 your report had to address the -- down the road,
13 down the line contractually, interests of
14 Bélanger's client?

15 A. Our report identified the leakage
16 and we gave recommendations for repairs. So it
17 did address those.

18 Q. Okay. If we could go to your report
19 which is the '99 report which is Exhibit No. 70.
20 Okay, I want to take it to page i right at the
21 start.

22 Okay. I'm going to start with the
23 recommendations for repair under option one.

24 A. I'm sorry, which -- that's in the
25 summary?

1 Q. It's in the summary, yes.

2 A. Yes.

3 THE COMMISSIONER: It's blown up on your
4 screen.

5 THE WITNESS: Yes.

6 BY MR. KEARNS:

7 Q. Okay. You can see there are
8 bullets, there are six bullets there. Number one
9 we'll talk about in a minute, rout and seal all
10 the joints. Number two, remove the sealant from
11 the underside of the joints in the walkways.

12 Number three, clean and paint all
13 structure -- exterior structural steel,
14 particularly the beams along the walkway.

15 Was that in any way associated with
16 keeping the leaks out of the building?

17 A. That was not, no. That has -- the
18 walkways in this building are very particular
19 circumstance. There's an exterior walkway that
20 would be subject to driving rains or whatever,
21 weather from the outside, that if it was leaked
22 onto the walkway it would not necessarily leak
23 into the building.

24 Q. The next one which is reinstate
25 spray-applied fireproofing to the structural

1 steel.

2 A. Hmm hmm.

3 Q. Does fireproofing retard rusting?

4 A. No.

5 Q. So would this have had any effect on
6 any deterioration to the steel from leaking?

7 A. No.

8 Q. The next one, I think that's fairly
9 clear that the corroded suspended ceiling hangers
10 don't have anything to do with problems. If you
11 don't do that, it's not going to cause more leaks,
12 correct?

13 A. It wouldn't have any effect on the
14 leaks, no.

15 Q. Right. And number five, now,
16 reinstating the batt insulation at the underside
17 of the parking deck. Would that have had any
18 effect on the leaks?

19 A. No.

20 Q. Now, I want to take you then through
21 the next paragraph which talks about the option of
22 costs.

23 And what is it that you -- if the owner,
24 eventual owner, had accepted your option number
25 one and they had retained you to provide them with

1 the approach and perhaps even a phased repair
2 approach, what is it that they would have done?

3 A. I'm sorry?

4 Q. If they had followed your option
5 number one, the eventual owner, let's say -- I
6 know you're not in a contract with Retirement
7 Living, but we've got your -- your
8 recommendations, and we say option one seems to be
9 a good idea and Halsall seem to be good people.
10 So let's get them together and do what they say.
11 And they contract with you to do what you say.
12 What is it that would have been done?

13 A. They would have entered into a
14 contract with a qualified contractor.

15 Q. Are you --

16 A. Maybe I'm misunderstanding the
17 question. Are you talking about with respect to
18 ongoing repair work?

19 Q. Well, is that what option one is?

20 A. Option one is about making -- option
21 one is about fixing the leaks in the building.

22 Q. It's about ongoing repair work or
23 you just do it right?

24 A. It's about -- it's about doing a
25 full-scale repair to the roof and then ongoing

1 maintenance, yes.

2 Q. So describe for me this full-scale
3 repair to the roof.

4 A. You would go, you would take out the
5 existing joint seals, you would re-apply the joint
6 seals following the appropriate specifications,
7 and the -- both for the installation of the
8 material as well as a -- the profiles. This would
9 be done by a contractor who would have experience,
10 who would have employees who would have
11 experience, who would be monitoring the quality of
12 the installation. It would also be provided -- he
13 would also have to provide a warranty for the work
14 that he has done which would be backed up by
15 performance bonds.

16 It would involve taking out any routing
17 and sealing with again the proper profiles and
18 bond breakers, any further cracks that have
19 developed that hadn't been previously repaired
20 properly. In fact, the intent of this was to do
21 the entire deck.

22 Q. So every single bit of sealant would
23 be taken out?

24 A. Yes.

25 Q. How long do you think that would

1 take with respect to this deck?

2 A. With the proper contractors, it
3 could be done within the scale of a summer period.
4 I've done larger decks than this in that same time
5 frame with the appropriate forces.

6 Q. Are you talk about closing the deck,
7 then, for the summer --

8 A. You don't have to close the deck.
9 You would close portions of the deck and manage
10 the traffic.

11 Q. And you're saying this would be a
12 summer project?

13 A. Yes.

14 Q. A number of months to do that?

15 A. Perhaps a couple of months, yes.

16 Q. Okay. Now, the -- I want to talk
17 about a term that you've -- that's been mentioned
18 a couple of times which is prequalified
19 contractors. What is -- what do you understand
20 that term prequalified to mean?

21 A. It's contractors who have displayed
22 and proven time after time an ability to do the
23 kind of work that is required with the quality.
24 To assure that the work is done right. They're
25 also trusted suppliers that if there is a problem

1 with their work, they come back and they honour
2 their warranties. There is not a lot of argument
3 about it. They may ask what is the cause, but
4 they generally will come back. So prequalified
5 contractors is a contractor who has shown over
6 time to be able to do the work properly and is
7 trusted in his business applications of how he
8 does his work.

9 Q. And who would qualify then? Is that
10 something that Halsall is doing? Is that
11 something Retirement Living's doing? Who is the
12 qualifier?

13 A. Typically we would prequalify. We'd
14 go through a process of prequalifying the
15 contractors.

16 Q. So Halsall would do that?

17 A. Yes.

18 Q. Okay. Another term that has come up
19 is certified tradesman or certified workmen. Is
20 there a certification that would attach to the
21 type of work that needs to be done here?

22 A. I don't know about a specific
23 certification. Perhaps some of the material
24 suppliers have training processes and certify
25 installers.

1 Q. But as far as you know, there's no
2 certified sealant replacement person?

3 A. I can't answer that. I don't know
4 that there is, no.

5 Q. I'm not sure it's your word. It's
6 just a word that's come up and I wanted to ask you
7 about it.

8 A. Yeah.

9 Q. So you're going to prepare the
10 engineering specs for this to be done. You're
11 going to say -- you're going to make sure with
12 this contractor that this is what needs to be
13 done, correct?

14 A. Yes.

15 Q. Okay. So the first part of that job
16 is going to be to take out all the old stuff. And
17 that I presume needs no engineering specs to do.
18 You just need some labour and somebody with, I
19 guess, some kind of an instrument to take this
20 stuff out?

21 A. The first part of which job?

22 Q. The -- you're now going to do the
23 full-scale joint replacement.

24 A. Okay.

25 Q. So somebody's got to take all of the

1 sealant out that's there now because that's how I
2 understand you're saying this is going to work.

3 A. Are you talking about the execution
4 of the repair program?

5 Q. Yes.

6 A. Okay. You wouldn't -- you wouldn't
7 do it point where you do a non-specification for
8 the removal of that. You would have a
9 specification for the removal and a specification
10 and -- and the same specifications would be the
11 replacement process.

12 Q. Okay. But what I'm saying is, job
13 number one, get the stuff out so we can do the new
14 one. You don't need a certified tradesman or a
15 prequalified contractor to rip that stuff out.
16 You just need some warm bodies and some good
17 workmen and some proper supervision. Would you
18 agree with me on that?

19 A. I think you need experienced workmen
20 under proper supervision to do the work.

21 Q. Well, we know that Retirement
22 Living, if they bought this building, were -- it
23 was their plan that they were going to continue
24 the employee of four gentlemen who had been
25 working on this deck for, some of them, for up to

1 10 years. So they would be, I think you would
2 agree, at least familiar with the process enough
3 to take the grout and the sealant out?

4 A. I don't think I can agree with that,
5 no.

6 Q. Okay. So tell me what that person
7 taking it out has got to know that these people
8 just don't know?

9 A. I think they need to know how to
10 remove it. I think they need to make observations
11 about what happens when they remove it. And
12 there's an oversimplification of what you're
13 suggesting that you just go and pick this stuff up
14 and pull it out or just go and cut it out. You
15 need to observe what happens to the concrete, the
16 edges of what happens to the concrete when you're
17 pulling it out or when you're cutting it out. So
18 that you could make an -- adapt the installation
19 appropriately for anything that may occur while
20 you're doing the removals.

21 Q. Okay. So the stuff's out.

22 A. Hmm hmm.

23 Q. It's time to put new stuff in.

24 A. Yes.

25 Q. What are the engineering specs that

1 you're going to need to make sure are properly
2 adhered to to make sure this stuff goes back
3 right?

4 A. In general, you would have to have
5 the appropriate temperatures, the appropriate
6 moisture contents of the slab, the appropriate
7 materials, the appropriate joint profiles, the
8 appropriate traffic control program so that you're
9 not opening the deck up to use too soon after the
10 installation. The installation has to consider
11 how the depth of installation so that it's not
12 subject to abuse from snowplows. That's fairly
13 broad statement of the requirements.

14 Q. Okay. I'm sorry, I should have been
15 writing those down and I didn't. I started at
16 traffic control. I know the joint profile. The
17 appropriate joint profile I understand is a V, is
18 that correct.

19 A. In this deck, the V's had been
20 precut during the original construction.

21 The correct profile is two horizontal to
22 one vertical installation of the joint.

23 Q. So that doesn't have to be a V. As
24 long as you have a two to one, that's fine?

25 A. Two to one is a profile that is

1 accepted that allows the joint sealant to expand
2 and contract under thermal movements.

3 Q. But if the -- if it's not a V and
4 it's just a two to one, and so you've got one
5 across the bottom, you've got to make sure that
6 the sealant doesn't touch the bottom or it's going
7 to adhere and you're going to have three-sided
8 adhesion, is that correct?

9 A. If you just pour the sealant into a
10 V, it will bond at the bottom of the V and that
11 creates a high stress concentration at the bottom
12 of the V and initiates failure of the seam and
13 potentially failure of the concrete surface to
14 which it's bonded to.

15 Q. So your evidence is that every
16 single joint, even a V-joint, needs to have a
17 backer rod in it?

18 A. It needs to have an appropriate --
19 what you could achieve in a number of ways.
20 Backer rod would help to produce a profile that is
21 a two to one, that two to one profile. And that
22 two to one profile would be in the upper part of
23 the joint.

24 Q. Okay. And what would you use if it
25 wasn't a V?

1 A. If it wasn't a V, you would -- if
2 you had a joint that was routed out that had a
3 flat bottom, you could use a bond breaker tape.

4 Q. Okay, I'm sorry?

5 A. A bond breaker tape.

6 Q. Okay, tape. Maybe that's me, but
7 that's the first time I've heard of a bond breaker
8 tape. Can you describe for me what that is?

9 A. It's a tape that you would lay down
10 in the element. It could be just about anything
11 that would break the bond of the sealant to the
12 concrete along the bottom surface of the joint.

13 Q. Okay. And then once you have the
14 stuff out, I gather that I'm going to oversimplify
15 this, but you prepare the joint by abrading it to
16 start with to get a fresh concrete?

17 A. It needs to be cleaned so it's
18 cleaned for the appropriate -- for the bond take
19 properly, yes.

20 Q. Okay. And then you would prime it?

21 A. Yes.

22 Q. You clean it rather. You'd abrade
23 it, you'd clean it, you'd bond it, and then you'd
24 put in the sealant, is that correct?

25 A. Yes. But you would also need to

1 make sure that the moisture content of the
2 concrete was at a point that it wasn't interfering
3 with the bond.

4 Q. How do you do that? How do you on
5 an ongoing day-to-day basis have a good read on
6 what the moisture base is of the concrete topping?

7 A. There are ways of doing moisture
8 tests. There are sort of methods that they do use
9 on site for testing moisture content and to --
10 more of an empirical method. But the world is
11 built on empirical methods. But you can take --
12 put poly-- clear poly on top of the concrete and
13 see what happens with respect to the amount of
14 moisture that is being collected on the underside
15 that would give you an indication as to how much
16 moisture might want to come out from that concrete
17 after you -- after you have put the sealant in.

18 Q. Okay. And I gather that once this
19 is done, there should be some logging and mapping
20 done of when the work was done and the age of the
21 sealant as it goes for periodic replacement?

22 A. When you do a full replacement, you
23 are starting with a point where you have said,
24 I've replaced everything from those further
25 conditions on. There would be a logging of what

1 was repaired, if it needed to be repaired, and
2 when, yes.

3 Q. What's your expectation of if you --
4 if under proper conditions everybody's, you know,
5 it's gone exactly as planned, which is difficult
6 of course because your weather variable and things
7 like that, but if things have gone well, what do
8 you foresee to be the repair requirement for this?
9 How often are you going to have to be working on
10 this?

11 A. I believe that there would be some
12 repairs have to be in every year. Whether it
13 would be a result of a warranty issue or some
14 other action, there would be some amount of
15 repairs and ongoing maintenance that would need to
16 go along with this program.

17 Q. How long do you think the sealant
18 that didn't need to be repaired that seemed to
19 hold up, how long is it going to last? When will
20 it need to be replaced?

21 A. We've had experience in
22 circumstances that we start to see failures, if
23 it's installed properly, we start to see the
24 beginning of failures in about five years in these
25 circumstances.

1 Q. And when you start to see failures
2 like that, is it necessary then to probably look
3 at doing the whole thing over again?

4 A. No. I think you can -- that when
5 you start to see failures, you begin to deal with
6 those areas that are failed. But at some point
7 you would start to do it. You would either -- you
8 would do it all over again.

9 Q. Mr. Celli yesterday, in my
10 recollection, or when he was here last week I
11 think said a number of different ages that the
12 sealant would last. At one point one year, three
13 years or five years. What's your evidence as to
14 how long this sealant, properly installed, could
15 last?

16 A. As I said, I think we've -- in our
17 experience we've started to see these materials
18 failing on the basis of their own ability to work,
19 and starting to fail in about a five-year time
20 frame.

21 Q. Okay. Mr. Celli indicated to us
22 last week, and you've said it I think as well,
23 Halsall has some experience with these type of
24 roof systems and that they're up and running and
25 the system seems to work, correct?

1 A. Yes.

2 Q. I didn't ask him -- I did ask him
3 whether those were in Northern Ontario and under
4 rain and snow and his answer to that was yes. Is
5 that your understanding as well? Are these roof
6 systems in place in Northern Ontario?

7 A. I'm going by what Mr. Celli said
8 because he is in the -- located in our Ottawa
9 office, which is I would consider similar kind of
10 circumstances. But they are all over -- different
11 places in Ontario where we've had this experience.

12 Q. Okay. And so you're -- the Peterson
13 System works then according to Halsall?

14 A. No. The Peterson System -- sorry,
15 the Peterson System that was put down on this deck
16 does not, in our opinion, work.

17 Q. Well, how is your approach that
18 you've just described for me different from the
19 Peterson System?

20 A. I'm going to have to go by looking
21 at the documents that I was presented by counsel,
22 Commission counsel, inquiry counsel. I'm not sure
23 of the right term, Mr. Commissioner, but the
24 Peterson System shows sealants going into a V
25 without the appropriate profile. They don't show

1 the -- they don't show that the profile that we
2 would use to achieve that kind of longevity of the
3 sealants. This is -- and it's been our experience
4 on past structures that have had this type of
5 composite topping and joint sealants that where we
6 have come across where as if you want to refer to
7 it as the Peterson System, I'm not sure that all
8 of these particular parking decks that Peterson
9 put the sealants in. But the V, the simple
10 V-joint does not last and very quickly fails and
11 causes problems with the joints.

12 Q. Okay. So is that the only issue
13 that you have with the Peterson System as you
14 understand it? Just the joint profile. And in
15 all other respects, the waterproofing system, that
16 doesn't have a membrane on a roof deck, over a
17 mall where people are, that's okay with Halsall?

18 A. In -- if -- if we were in designing
19 the building, it would not have been our first
20 choice of -- but we didn't design the building.
21 We were dealing with circumstances after the fact
22 and seeing how and what we could work with.

23 Q. Well, I understand that. But
24 eventually the end user of your product you give
25 two options to.

1 A. Hmm hmm.

2 Q. You could have said the only way to
3 do this is with a membrane and that's the only
4 thing that we recommend. And we certainly don't
5 recommend continuing what it is you're doing. You
6 could have recommended that?

7 A. I don't know why we'd recommend that
8 when we felt that there were two viable options
9 for the owner to consider.

10 Q. Well, we've heard a lot of evidence
11 that this is a system that needs a membrane in
12 order to keep the people below it safe. And as I
13 understand, your evidence now is that you don't
14 need a membrane to keep those people safe. You
15 just need a proper joint profile and otherwise the
16 Peterson thing works properly maintained?

17 MR. HODGSON: I'm sorry to interrupt,
18 Mr. Commissioner. My friend is really giving
19 evidence and quite frankly I'm not in a position
20 to know whether it's an accurate summary and I'm
21 fairly confident that the witness can't either.
22 I'm sure there's a way he can elicit the
23 information he's seeking without purporting to
24 give his own evidence.

25 THE COMMISSIONER: Well, I think Mr.

1 Kearns is putting a proposition to the witness.
2 That's the way I see it. The witness is free to
3 agree or disagree with it. I don't see it as
4 being particularly problematic. Again we're
5 dealing with the type of witness that we have
6 giving evidence.

7 MR. HODGSON: My point, sir, I'm sorry
8 if I've interrupted you is that the proposition
9 he's putting to him is based on an assumption. I
10 think he's said we've heard all kinds of evidence
11 to a certain effect. I'm not sure that that's
12 really fair to the witness. I don't know if the
13 witness is in a position to deal with the
14 assumption. Maybe -- and I don't want to suggest
15 an answer to him obviously, but I've made my point
16 and you've made your ruling. Thank you.

17 THE COMMISSIONER: My rulings are never
18 definitive. Not in an inquiry. Not in an inquiry
19 context and the object of which obviously is for
20 me to understand as much as I can of the situation
21 as it existed back then.

22 And perhaps some rephrasing, Mr. Kearns,
23 might be called for, without of necessity
24 referring to evidence that we've heard that the
25 witness hasn't heard. Perhaps the question could

1 be put in a different way.

2 BY MR. KEARNS:

3 Q. Why was the repair of approach
4 recommended by Halsall over a membrane approach?

5 A. I can't recall the specifics of why
6 we recommended option one over the membrane. The
7 fact of is that we recommended an option that
8 could work if it was done and executed properly.
9 And the -- if you want to refer to the report, the
10 membrane option would have required maintenance as
11 well and there would have been leakage associated
12 with that deck, even with the membrane, because of
13 the segmental nature of its construction. A
14 membrane would be challenged as well in terms of
15 its long-term performance.

16 THE COMMISSIONER: But don't you say as
17 well in the report that the membrane would have
18 been more expensive?

19 THE WITNESS: The membrane option was
20 more expensive, Mr. Commissioner, yes.

21 THE COMMISSIONER: I don't have that
22 specific passage before me at this point, but it
23 seems to me that at one stage you stated something
24 to the effect that a membrane would have been all
25 right, but that there were cost implications. I

1 don't have it. Perhaps counsel can assist me with
2 the document and the exhibit number and the
3 specific reference to membrane in the
4 recommendations made by Halsall.

5 MR. CARR-HARRIS: The costs are
6 referenced on page five of the 1991 Halsall
7 report. The comparison of costs are on the page
8 preceding it, last paragraph, as well.

9 THE WITNESS: That's the summary of
10 costs that is contained within the report.

11 BY MR. KEARNS:

12 Q. Okay. So now that you've looked at
13 that, I just wonder if I can return to this --

14 THE COMMISSIONER: Just hold on for just
15 a minute if you would, Mr. Kearns, be patient with
16 me. Come back a page. Just hold on. You say an
17 alternative, this is in penultimate paragraph you
18 say.

19 "An alternative to sealing joints in the
20 topping would be to provide a
21 waterproofing membrane, as noted in our
22 initial report, further referred to as
23 Option 2. A membrane will require a
24 protective concrete or asphalt topping,
25 increasing dead load on the structure."

1 And you say,

2 "Either method introduces maintenance
3 requirements in the form of crack ceiling.
4 Though the membrane can be expected to
5 provide at least twice the life of the
6 sealants, the savings in initial cost of
7 Option 1 over Option 2 may make it more
8 attractive."

9 So it seems to me in some significant
10 respect that you are discounting the membrane
11 option because of the potential costs, is that
12 correct?

13 THE WITNESS: I can't recall why the
14 phrase is like that to be honest with you, Mr.
15 Commissioner.

16 THE COMMISSIONER: All right. Go ahead,
17 Mr. Kearns.

18 BY MR. KEARNS:

19 Q. I'm just following up then. So
20 choosing option number one as opposed to the
21 membrane, are you saying was not to do with its
22 cost?

23 A. Why we recommended it?

24 Q. Yes.

25 A. I don't have -- to be honest with

1 you with the passage of 14 years, I can't tell you
2 explicitly why we recommended option one. It
3 was -- it was a viable option at a lower price.
4 And part of -- part of the process of providing
5 options to an owner, you examine those in those
6 circumstances.

7 Q. But essentially you are saying you
8 got two equally good options. You can choose
9 either one. You might want to take the repair one
10 because, you know what? It's cheaper.

11 A. Yeah. Again I'd have to qualify
12 that in the fact that if it was implemented
13 properly, it was -- it was a workable, viable
14 solution.

15 Q. At about half the cost? At about
16 half the cost?

17 A. A little bit, yeah, it appears.
18 It's more than half the cost, but it's 433 -- I
19 can't do the math in my head any more, but it's
20 slightly more than half.

21 Q. I'd like to take you to the -- in
22 the 1998 report that Mr. Celli drafts and that you
23 approve, there are a number of things that Halsall
24 says need to be done in order to take this report
25 from its high level to one much more valuable to

1 the owner.

2 And you've set those out and you recall
3 what those are?

4 A. Yes.

5 Q. Okay. I'm not going to ask you any
6 questions about them other than this. Is -- are
7 you aware that at any time that list was shortened
8 in any way? Was there is a request -- were you
9 ever advised that you're not to do any of those
10 things -- not any of them, but this one, this one
11 or that one because it's too expensive? Or was
12 that the list that you understood went forward
13 into the second report?

14 A. I don't have a recollection of being
15 asked to shorten the list in any way.

16 Q. I'll take you to the letter which is
17 Exhibit No. 71. This is the report to your client
18 that includes the structural condition report.

19 And just the second paragraph says.

20 "Though leakage through the parking deck
21 has been an ongoing problem, we have found
22 no evidence of structural deterioration
23 compromising the integrity of the
24 structure."

25 Should Nicholls Yallowega Belanger take

1 from that there's been water going through this
2 building for some time.

3 There have been a number of ongoing
4 leaks, but our complete report that does
5 everything that you'd asked us to, and we told you
6 to says, no problem, no evidence of structural
7 deterioration. That's what it says?

8 A. Yes.

9 Q. Yeah. So if I read that and that
10 letter eventually gets to the owner he's going --
11 could he not come to the conclusion that despite
12 the fact that this building has been leaking for
13 quite some time, those leaks have not in any way
14 affected the structural soundness of the building?

15 A. What it says is,
16 "Though leakage to the parking deck has
17 been an ongoing problem, we have found no
18 evidence of structural deterioration
19 compromising the integrity of the
20 structure."

21 We didn't observe a deterioration to the
22 point where there was -- the integrity of the
23 structure was affected.

24 Q. And that's -- I guess my question
25 with that this is water --

1 A. Yes.

2 Q. -- going through a steel building --

3 A. Yes.

4 Q. -- for a couple of decades?

5 A. Yes.

6 Q. Your report, as I read it, says
7 we're still okay. There's no deterioration as a
8 result of the water going through this building.

9 A. At the time of our report that was
10 the condition, yes.

11 Q. I'd like to take you back to the
12 Trow Report, the new one at -- which is Exhibit
13 No. 3007, it's page 45. And if you could blow up
14 paragraph B.

15 Now, have you had a chance, Mr. Buckley,
16 to read the March 2003 Trow Report?

17 A. Yes.

18 Q. Okay. NORR Report, I'm sorry, thank
19 you. It is the NORR Report, my apologies. And so
20 paragraph B, it comments -- I'll just read it to
21 you in its entirety so it's fair. It's only the
22 last part that I'm interested in.

23 "In the period of 1998-1999, Halsall
24 observed the corrosion which had likely
25 progressed in the five years since Trow's

1 inspection. Halsall measured a corrosion
2 product of 3 mm and correlated that with
3 less than 1 mm of section loss. This is
4 again within the corrosion scenario that
5 is hypothesized here."

6 Halsall -- that first statement about
7 your measure and -- of the corrosion and the loss
8 that that is to to cover, is that accurate?

9 A. At one location that was the, as I
10 recall looking through the files and the report,
11 that that was the worst case that we observed on
12 the site at the time of our report.

13 Q. So worst case that was accurate?

14 A. Yes.

15 Q. So next line:

16 "Halsall did not find 1 mm loss of section
17 as warranting more extensive inspection of
18 steel and they did not inspect connections
19 where corrosion would be more critical."

20 Is that accurate?

21 A. That we did not inspect connections,
22 no, it's not accurate.

23 Q. So what did they have wrong there?

24 A. Well, they said we did not inspect
25 connections and we in fact did look at

1 connections.

2 Q. I think what they're saying did not
3 inspect corrosion -- sorry, did not inspect
4 connections where corrosion would be more
5 critical. I'm going to presume that that last
6 part where corrosion would be more critical is a
7 description of the connections that they're
8 talking about.

9 MR. HODGSON: Well, I don't read it that
10 way, sir, and I'm not sure --

11 THE COMMISSIONER: Could be read either
12 way.

13 MR. HODGSON: Yeah.

14 BY MR. KEARNS:

15 Q. All right. I'll leave that. It's
16 actually the last couple that are important.

17 "Additionally, Halsall did not call for an
18 inspection program to be carried out
19 systematically until the leakage problem
20 is resolved."

21 Is that accurate?

22 A. We don't specifically lay out, in
23 our report, a call for an inspection program. We
24 layout a maintenance program or a maintenance
25 strategy which, when developed, would have

1 included ongoing review of the performance of the
2 work that was being done to repair the sealants
3 and review of impacts that would have or could
4 have taken place in areas where perhaps the repair
5 eventually failed.

6 Q. Okay. But your report doesn't
7 include that maintenance strategy, does it?

8 A. It has a high level maintenance
9 strategy, that's option one.

10 Q. How does option one tell me what --
11 at what -- how often -- what is the system for
12 inspection -- for the inspection program until the
13 leaking problem is resolved that is set out in
14 your report?

15 A. We weren't engaged to prepare the
16 actual maintenance plan. We provided a program --
17 a high-level -- we provided information on what
18 potential costs might be expected should they
19 purchase this -- this mall. We weren't engaged --
20 there was no follow up with us to prepare a
21 maintenance program for the mall -- for Elliot
22 Lake Retirement Living.

23 Q. I understand that.

24 MR. HODGSON: Well, with great respect
25 to my friend the statement has got the

1 qualification until the leakage problem is
2 resolved right into it.

3 BY MR. KEARNS:

4 Q. I'll read the whole thing again
5 then, "Additionally, Halsall did not call for an
6 inspection program to be carried out
7 systematically until the leakage problem is
8 resolved."

9 Listen to the question. Is that program
10 described in your report?

11 A. We describe a program which would
12 repair the leaks and solve, in a sense, the
13 leakage problem.

14 Q. But that's talking about until you
15 get the leaking problem fixed, if you ever do,
16 you've got to keep an eye on this thing because
17 it's starting to deteriorate. That's what Halsall
18 is saying you've got to put in place a systematic
19 review to make sure what the level of corrosion is
20 in that structure. You must understand that.

21 THE COMMISSIONER: That's what NORR
22 said.

23 MR. KEARNS: NORR, I'm sorry, thank you.

24 THE WITNESS: The expectation was and I
25 believe a reasonable examination was that we

1 provided the potential owner of the information of
2 what they needed to do to fix the cracks so that
3 the leaking was not an ongoing problem -- an
4 ongoing problem and a controlled -- it came under
5 control.

6 The -- it wasn't an expectation that
7 there would have had to have been a systematic
8 inspection program because of ongoing leakage
9 issues, because leakage issues would have been
10 resolved. There may have been a requirement for,
11 you know, additional inspection in areas where if
12 you happen to find a point where there was some
13 continued leakage.

14 BY MR. KEARNS:

15 Q. But the program that you have
16 proposed isn't a guarantee of no leaks, is it?

17 A. No, it's not.

18 Q. There are going to be leaks in that,
19 the same way as there were going to be leaks, I
20 think as you said, even in a membrane system?

21 A. There would be leaks and they needed
22 -- they would need to be managed and repaired.

23 Q. And there are going to be more leaks
24 in the Peterson System, if I can call it that,
25 than the membrane system, correct?

1 A. If you want to call it the Peterson
2 System -- I don't think that -- if you continue to
3 call it the Peterson System, I don't think it
4 adequately describes what we're talking about.
5 But there would be potentially -- potentially
6 there could be more leaks in that than in the
7 membrane system, yes.

8 Q. And shouldn't the report say, look,
9 what we're recommending is a good system. It's
10 much better than what you're doing now, but there
11 are still going to be ongoing leaks. It's not a
12 perfect system. You need to do the following the
13 systematic inspections to make sure that when the
14 water goes through this roof deck, as it's going
15 to, it's not affecting the structural integrity of
16 the building. Isn't that -- shouldn't that have
17 been in there? Because that is what I understand
18 they're asking.

19 A. Again, I have to -- I have to say
20 that we identified the leaks, we identified there
21 was corrosion associated with the leaks, and we
22 identified that it needed to be repaired. And if
23 it didn't, and as I testified this morning, if it
24 wasn't repaired and it continued to leak,
25 corrosion obviously would continue, which would

1 then potentially, as I -- as Mr. Carr-Harris asked
2 me, could lead to a structural stability or a
3 structural integrity issue.

4 Q. Which I think takes to us the next
5 one which is the final line which says:

6 "They did not adequately provide a
7 cautionary warning that future corrosion
8 could potentially lead to the development
9 of a critical condition if left
10 untreated."

11 I think that's exactly what you just
12 said.

13 If you leave this thing going, it's
14 going to continue to leak, it's going to continue
15 to rust and there's going to be a problem.
16 They're saying that you didn't include a
17 cautionary warning about that in your report,
18 isn't that true?

19 MR. HODGSON: Sorry, I'm sorry, is the
20 question they didn't -- that that's what they say
21 in their report or that that wasn't in Halsall's
22 report because there was two questions rolled into
23 one.

24 MR. KEARNS: Isn't it true was the
25 question. The question's a simple one.

1 THE COMMISSIONER: The question was was
2 there a cautionary warning in your report that
3 future corrosion could lead to the development of
4 a critical situation?

5 THE WITNESS: As specific as that, no,
6 there wasn't.

7 BY MR. KEARNS:

8 Q. Should there have been?

9 A. I don't believe there was a need for
10 it. Again we identified the leakage. We
11 identified the corrosion associated with the
12 leakage. And it was clearly obvious that if it
13 continued to leak, it would continue to
14 deteriorate.

15 Q. Now, I do recognize that Nicholls
16 Yallowega Belanger is your client. Did you have a
17 discussion with anybody there that you would have
18 expected to be passed onto the ultimate client,
19 because you didn't have any contact with
20 Retirement Living, that says, look, here's what's
21 going wrong with the system that they have now.
22 Here's what we're proposing to do. We need to
23 talk about this plan. Did you ever have a
24 discussion with Nicholls Yallowega that expanded
25 what it was that you were recommending in a way

1 that gave the details you have given us today?

2 A. I don't recall a specific
3 conversation about that, no.

4 Q. Okay. And would there normally have
5 been one? I mean, I could -- my client may say, I
6 looked at that and I didn't understand what he was
7 talking about. I didn't understand what this
8 option number one was all about. And I understand
9 your position is well, it's not my job to tell
10 him. He's not my client. Nicholls Yallowega is
11 my client. Did you have that talk with them,
12 though, to say, look, here is what we're
13 recommending to do with all of the specifics?

14 A. I'm not sure --

15 THE COMMISSIONER: I think he told you
16 he doesn't recall whether he had a conversation.

17 MR. KEARNS: Thank you. Those are all
18 my questions.

19 THE WITNESS: Thank you.

20 CROSS-EXAMINATION BY MS. CARR:

21 Q. Good morning, Mr. Commissioner.
22 Good morning, Mr. Buckley. My name is Alexandra
23 Carr and I'm one of the lawyers for two of the
24 community groups that are participating in this
25 inquiry.

1 A. Morning.

2 Q. I wanted to start by taking you -- I
3 don't know if I need to take you to the pages, but
4 if you'll remember in your first report you made a
5 recommendation that there be height restrictors
6 put on the path up towards the mall and that
7 signage be put to describe the weight of vehicles
8 that could be -- that could access the parking
9 deck. Do you remember that in the first report?
10 Do you want me to take you to it?

11 A. Well, if you don't mind. I would
12 like to see the wording.

13 Q. Sure, it's Exhibit No. 66, tab 1 in
14 your book.

15 MS. CARR: And page 38 of that exhibit,
16 Ms. Kuka.

17 THE WITNESS: You're talking about the
18 last paragraph?

19 BY MS. CARR:

20 Q. I think it actually starts in the
21 second last paragraph where you see the sentence
22 starting with furthermore?

23 A. Yes.

24 Q. We understand that --

25 THE COMMISSIONER: Hold on, I don't

1 think we have to right one. Oh, I see.

2 Furthermore we understand.

3 MS. CARR: Yes.

4 THE COMMISSIONER: Okay, I'm with you.

5 Thank you.

6 BY MS. CARR:

7 Q. So it says:

8 "Furthermore, we understand that heavy
9 front-end loaders and dump trucks are used
10 for snow removal on the parking deck in
11 the winter months which exceed the
12 existing live load allowance."

13 Did you have any conversations with Mr.
14 Celli about his observations with respect to this?

15 A. Well, I don't recall any specific
16 conversations about this, but he would not have
17 directly observed this because he was there in the
18 summer.

19 Q. Right. But you don't have any
20 recollection of any conversations with him about
21 this and about why the recommendation was made in
22 the last paragraph there with respect to the
23 signage and the height restrictor?

24 A. Well, the design of that parking
25 structure was fundamentally catered to cars. It's

1 not catered for heavy construction equipment or
2 front-end loaders to go up there and manage the
3 snow accumulation on it. So the reason why that
4 would be in is to advise the owner that they
5 should be careful or the purchaser that they
6 should be careful of what they do put on that
7 parking deck.

8 Q. Okay. And then if I can take you to
9 tab 4, this is the 1999 report on, page 4, sorry,
10 it's Exhibit No. 70.

11 In the second paragraph of that report,
12 you make the same recommendation. And I take it
13 you made that recommendation again because when
14 Mr. Truman went to the site, he didn't observe
15 that signage had been posted or that height
16 restrictors had been put in place, is that right?

17 A. I can't answer that question because
18 I don't know what Mr. Truman observed with respect
19 to that.

20 Q. Do you have any recollection of
21 conversations with Mr. Truman about what he
22 observed on the pathways up to the parking deck?

23 A. No, I don't.

24 Q. Okay. If we could go back to the
25 1998 report, Exhibit No. 66, tab 1 of your book on

1 page 37 of that exhibit. I'm looking at section
2 2.2, the waterproofing protection systems.

3 My understanding of these two
4 paragraphs, and you'll correct me if I'm wrong,
5 but my understanding is that you're presenting two
6 alternatives.

7 A. Hmm hmm.

8 Q. And that either alternative involves
9 a waterproofing membrane, is that correct?

10 A. Yes.

11 Q. Can you explain to me what changed
12 between this 1998 report and the 1999 report that
13 led you to suggest an option that didn't include a
14 waterproofing membrane?

15 A. Having done the openings on site, it
16 became apparent that the concrete topping was not
17 on top of insulation as we believed to be the case
18 when this report was initially written. It was in
19 fact bonded to the precast and that was its
20 fundamental difference in the construction of the
21 concrete surfaces that allowed us to look at
22 another option.

23 Q. Why would that affect whether or not
24 you needed a waterproofing membrane?

25 A. If the topping was on top of

1 insulation, any time you have a leak or a crack it
2 would -- the water could get in and go just about
3 anywhere. Being able to find how the leaks or
4 where the leaks are coming from would be very
5 difficult.

6 You know, you can -- if you can imagine,
7 it could leak here on through the surface up here
8 at some point and flow to another point and leak
9 out. So the ability to find leaks in that
10 circumstance would be very difficult.

11 Q. Okay, thank you. I'm going to start
12 now to ask you some questions about information
13 and knowledge that I'm going to be asking whether
14 you had it at the time that -- you or your team
15 had it at the time that you were preparing your
16 reports in 1998 and 1999.

17 First of all, were you aware that the
18 structural engineer that had designed the building
19 that he had had his license revoked subsequent to
20 the -- his design of the building?

21 A. I was not aware at the time, no.

22 Q. Would you normally check the status
23 of the structural engineer prior to examining --

24 A. Not normally, no.

25 Q. And would that have affected your

1 investigation at all?

2 A. I can't answer that question,
3 honestly.

4 Q. Okay. Did you have any knowledge or
5 information at the time about the waterproofing
6 system that was used on the parking deck?

7 A. At the time, all we knew was what
8 was implied during our site visits. We were told
9 that there was no waterproofing membrane
10 underneath the insulation as it was described to
11 us in the sandwiched construction as was described
12 to us or we had an understanding of what the
13 construction was at that time. That's in the 1998
14 report.

15 Q. Did anybody ever advise you or your
16 team that the waterproofing system that was used
17 was a novel waterproofing system?

18 A. No.

19 Q. Did you have any knowledge at the
20 time of the life expectancy of the waterproofing
21 system that was used --

22 A. No.

23 Q. -- during the construction? Did you
24 have any knowledge about any maintenance
25 instructions that were provided with the

1 waterproofing system?

2 A. No.

3 Q. Would that information, combined
4 with the fact that this was -- this roof had been
5 leaking for 20 years, had you known that at the
6 time, would have that have affected your
7 investigation at all?

8 A. I believe as I said with Mr.
9 Carr-Harris, it might inform how we go about doing
10 our review of the site, yes.

11 Q. You've given evidence today in
12 response to Mr. Kearns that in your opinion the
13 Peterson System didn't work. When did you form
14 that opinion?

15 A. Well, in the -- well, at the time of
16 the report, we didn't know it was, if I were to
17 use the words loosely, the Peterson System, but we
18 formed an opinion that whatever was there wasn't
19 working, was not installed appropriately to allow
20 it to work. And whatever maintenance that may or
21 may not have been going with it was not being done
22 appropriately to allow it to work.

23 Q. Thank you. Did you have any
24 knowledge at the time of your investigation in
25 1999 that -- of an anchoring system that was used

1 in the building -- in the construction of the
2 building?

3 A. No.

4 Q. Would you expect the owner of a
5 building which you were hired to investigate,
6 would you expect them to provide you with all
7 engineering reports that are relevant to the
8 investigation that you're conducting?

9 A. I think we were not working -- we
10 were not doing a report for the owner. We were
11 doing a report for the architect who was doing a
12 report for the due diligence or for the potential
13 purchaser.

14 I would expect that they would disclose
15 information that was made available to them.

16 Q. And typically when you do these
17 types of due diligence investigations, do owners
18 typically provide you with all of the relevant
19 information that they have?

20 A. Typically we receive a lot of
21 information on buildings, whether it be drawings,
22 past reports, yes.

23 Q. Thank you. Just for my
24 understanding, I don't see on either of your
25 engineering reports a seal. Is there any

1 significance to having an engineering seal on an
2 engineering report?

3 A. There's been a lot of discussion
4 within the professional engineering community
5 about what should be sealed, when and where. The
6 PEO and I'm not sure what the clarifications or
7 the ruling were around 1999, but the PEO has
8 basically stated that you should seal anything
9 that forms an engineering report. I couldn't
10 honestly tell you when they -- when they came out
11 with those clarifications.

12 It's typical for us to seal drawings.
13 It's typical for us to seal specifications. It's
14 typical for us to seal a lot of opinions if they
15 contain -- nowadays, if they contain an
16 engineering report.

17 That's a administrative requirement in
18 many ways. The reality of it is the way I
19 operate, if I put my name to something it has --
20 with the words P.Eng. after it, it's the same as
21 sealing it in my mind. I've made that
22 declaration. I've made an opinion and it comes as
23 the opinion of a professional engineer.

24 Q. Okay, thank you. Mr. Buckley, are
25 you familiar with the term scheduled maintenance?

1 A. Yes.

2 Q. Would that be the industry term for
3 the systematic inspection program that you were
4 discussing with Mr. Kearns earlier?

5 A. Are you talking about the specifics
6 of this property or in general? In the industry
7 in general?

8 Q. I'm talking -- you had a discussion
9 with Mr. Kearns earlier about based on the NORR
10 Report --

11 A. Yes.

12 Q. -- that we had up. And you were
13 discussing with him a systematic inspection
14 program?

15 A. Yes.

16 Q. Is the industry term for that
17 program, would it be scheduled maintenance?

18 A. Scheduled maintenance would include
19 inspection processes, yes.

20 Q. But in what types of circumstances
21 would you recommend a scheduled maintenance
22 system?

23 A. In circumstances where there is a
24 potential for deterioration. And in this specific
25 case, if you have a potential -- you know, a

1 system which is subject to the environmental loads
2 of, you know, the environmental impacts that it's
3 receiving that you would -- you would be prepared
4 to have an ongoing maintenance program.

5 Q. So if you had noticed leakage
6 throughout an extended period of time, would that
7 be an appropriate circumstance to recommend a
8 scheduled maintenance system?

9 A. Well, I'm sorry, I'm not sure I
10 understand the question.

11 Q. If you had observed leakage in a
12 building over a prolonged period of time, would
13 that be an appropriate circumstance in which to
14 recommend a scheduled maintenance system?

15 A. I think what -- if you observed
16 leakage over -- that had occurred over a long
17 period of time the first objective would be to
18 find out if that leakage was still continuing.
19 And if it was still continuing, you would put into
20 place a repair program to terminate or to stop
21 that leakage. And then you would follow up with
22 the regular maintenance programs that would need
23 to continue the ongoing performance that's
24 required for that particular building.

25 Q. I'm not sure if that's a yes or?

1 A. I don't think yes is the -- Mr.
2 Commissioner, I don't know how if I could -- I'm
3 having for -- the answer to the question is not
4 just a yes.

5 THE COMMISSIONER: It can't be answered
6 with a yes or no.

7 BY MS. CARR: Okay.

8 Q. Thank you very much. Those are my
9 questions.

10 A. Thank you.

11 THE COMMISSIONER: Mr. Cassan.

12 CROSS-EXAMINATION BY MR. CASSAN:

13 Q. Thank you, Mr. Commissioner. Mr.
14 Buckley, my name is Paul Cassan. I'm counsel for
15 the City of Elliot Lake. I just have a few
16 questions for you with respect to the
17 municipality. First of all, I understand that
18 neither your '98 nor '99 reports were provided to
19 the municipality. Do you understand that to be
20 correct?

21 A. I believe that's the case, yes.

22 Q. Did you have any discussions with
23 your client, Nicholls Yallowega, about the need to
24 provide that information the City?

25 A. Not that I recall, no.

1 Q. Did you have any discussions Mr.
2 Celli or Truman regarding reporting the condition
3 of this building to the City?

4 A. Not that I recall, no.

5 Q. Why would you not report the
6 conditions of the building to the City?

7 A. The circumstances didn't warrant it.

8 Q. Can you explain what you mean by the
9 circumstances didn't warrant it?

10 A. Well, if there was a situation where
11 public safety was of a concern, then that would
12 warrant it.

13 Q. And so was it your opinion in
14 talking with Mr. Celli in '98 and Mr. Truman in
15 '99 that you didn't have a situation like that?

16 A. That's correct.

17 Q. Thanks. Those are my questions.

18 THE COMMISSIONER: Mr. MacRae.

19 MR. MACRAE: Thank you, Mr.

20 Commissioner.

21 CROSS-EXAMINATION BY MR. MACRAE:

22 Q. Good morning. My name is Rob MacRae
23 and I'm counsel for Bob Wood who is a member of
24 the MRW.

25 And my questions don't deal so much,

1 subject to what your lawyer has to say, but my
2 questions don't deal so much with the report, but
3 rather with respect to some issues that are
4 important for the Commission to hear. And being
5 an experienced structural engineering, I believe
6 that your answers will be helpful to the
7 Commission. I would like to lay a foundation so
8 that you clearly understand the questions that I'm
9 asking and the manner how they relate to each
10 other.

11 So I wonder, Ms. Kuka, if I might --
12 there are going to be questions with respect to
13 the expansion joint, with respect to the core slab
14 being properly anchored to the beams to provide
15 lateral support and issues dealing with those two
16 areas.

17 A. Mr. Commissioner, I wonder if I
18 could have a minute.

19 THE COMMISSIONER: I'll give you five.

20 --- Break taken at 11:55 a.m.

21 --- Upon resuming at 12:00 p.m.

22 MR. MACRAE: Thank you, Mr.
23 Commissioner.

24 BY MR. MACRAE:

25 Q. Just to review what I was saying.

1 I'm going to take you through a series of drawings
2 that were done by Coreslab in 1979 and deal with
3 the requirement to properly anchor the core slabs
4 to the beams. And I will have some questions with
5 respect to that. Then also with respect to the
6 thermal expansion of the roof deck itself. And
7 while Ms. Kuka brings up the structural drawing
8 S4, it's Exhibit No. 1876.

9 I have a question for you with respect
10 to the description of this property to begin with.
11 It's been referenced as a parking deck, but it
12 actually has -- it's actually a roof. So is it
13 proper to call it a parking deck or is there a
14 name for a structure that's more of a hybrid?

15 A. I don't know that there is a
16 specific name for the hybrid. It's identified
17 here as a roof parking level framing plan and
18 that's probably -- you would see that or terms
19 like that in structural drawings.

20 Q. All right. We've also heard
21 evidence that when there's a level of requirement
22 for design that's different between two factors
23 such as if we take example here the -- a parking
24 deck or a roof that is intended to be a waterproof
25 structure for a commercial center below, that when

1 designing for those issues, the individuals
2 involved in the designing should use the most
3 onerous requirement from the Code. Does that make
4 sense to you?

5 A. Could you repeat that please?

6 Q. Sure. We've heard evidence here
7 that when there is not necessarily a conflict, but
8 two ways of describing something, where you could
9 describe this as a parking structure, but you
10 could also describe it as a roof.

11 A. Right.

12 Q. And in the Building Code, a roof is
13 described -- and the requirements with respect to
14 the components that go into that roof are set out
15 in areas in the Building Code.

16 A. Yes.

17 Q. So where there's a description --
18 there isn't a description of the parking structure
19 at the time this was constructed. So my question
20 is, do you agree with what I understand the
21 evidence already to be that when there are two
22 ways of describing a design, that the most onerous
23 with respect to the Building Code should properly
24 be used as the highest level of requirements from
25 the Building Code?

1 A. If the specifics of the Code lead
2 you to -- in that direction then, yes, it should.

3 Q. Thank you very much. Now, I don't
4 know whether you can see it close enough on the
5 board. My understanding is that there are three
6 expansion joints that are called for in the
7 construction of this rooftop parking level.
8 There's an expansion joint at line 10 and 10X.
9 There's an expansion joint at 16 and 17. And I
10 understand that those run, for the purpose of the
11 Commission found, an east to west direction. This
12 being north --

13 A. North.

14 Q. -- and this being south?

15 A. Yes. And depending on where you
16 start with your finger.

17 Q. Okay. They -- they travel -- they
18 traverse from east to west or west to east?

19 A. Yes.

20 Q. Okay. And there is also an
21 expansion joint at F and FX that travels in a
22 north and south direction?

23 A. Yes.

24 Q. So I believe I'm correct in my
25 understanding that there are three expansion

1 joints called for in the design of that building?

2 A. That's what the structural drawing
3 shows.

4 Q. Okay, thank you. Then if I might,
5 Ms. Kuka -- and at any time if you want me to take
6 you back to a design or a plan, please feel free
7 to ask.

8 MR. MACRAE: Ms. Kuka, if I could have
9 Exhibit No. 184, which is one of the shop drawings
10 from Coreslab and if I -- Ms. Kuka, if you could
11 focus in on the detail number.

12 BY MR. MACRAE:

13 Q. That's detail 15?

14 A. Yes.

15 Q. Which I'll refer to as being at 10
16 and 10X. If you could bring that down a bit. 10
17 and 10X, that's 15.

18 A. Hmm hmm.

19 Q. And I can deal with them one at time
20 and it probably would be easiest to deal with them
21 one at a time.

22 MR. MACRAE: And so if we could go to
23 Exhibit No. 186 please, Ms. Kuka.

24 BY MR. MACRAE:

25 Q. And am I correct that we'd be

1 looking for detail 15 to describe the core slab
2 engineering for that area?

3 A. The details of how it would connect
4 or be interfaced in that location, yes, with the
5 rest of the structure, yes.

6 Q. All right, thank you, Mr. Buckley.
7 Now, again this is the detail 15, and there's
8 identification of the number 4 tie, four foot
9 long, supplied and welded to the beam by Coreslab,
10 drawing here. And then another one here. Now,
11 Mr. Celli indicated that the hand drawn one
12 appears to come down between the core slabs in
13 article -- in detail 15, and then would be bent
14 underneath the top cord of the beam and welded?

15 A. Yes.

16 Q. Is that what you understand to be
17 called for in that drawing?

18 A. Well, the -- I would presume that at
19 the time that this drawing was done everything was
20 hand drawn. But there is rough in -- somebody's
21 overlaid a line which indicates a -- what a
22 discussion or a change of that bar coming down and
23 being connected to the underside of the flange.
24 Without that on there, it would show these bars
25 being welded to the top flange.

1 Q. Which may be difficult to achieve in
2 the field with the placement of slabs, I would
3 anticipate?

4 A. It would have some difficulties, I
5 would think, yes.

6 Q. You'd probably -- am I correct,
7 you'd probably have to have a welder on site to do
8 that as the slabs are placed?

9 A. Yes.

10 Q. So the one on the left which appears
11 to be a revision would be a more workable model,
12 but with you agree with me that it doesn't change
13 the purpose of that design?

14 A. I do agree that it doesn't change
15 the purpose, no.

16 Q. Are you able to indicate from a
17 structural engineer perspective what is the
18 requirement for that bar?

19 A. It's a mechanical anchorage that is
20 used to provide what is called bracing to the top
21 flange of the beam and it's done so to help
22 prevent under load what is the -- what's called
23 lateral torsional buckling of the beam. And which
24 is a phenomenon where the beam would go through a
25 deflection and a twist.

1 Q. A deflection and a twist?

2 A. Yes.

3 Q. And does the presence or absence of
4 that structural component change the ability or
5 the load carrying ability of the beam?

6 A. It would depend on a number of
7 factors. Certainly the weight of core slab
8 sitting on that element would provide some ability
9 to provide lateral support to the top, but the
10 practice would be to install those bars.

11 Q. In order to -- in order to ensure
12 that the beam is laterally supported?

13 A. Yes.

14 Q. And did you have the opportunity to
15 see, prior to the Commission being put into place,
16 did you have the opportunity to see any reports
17 from Paul Meyer, a consulting engineer who also
18 worked on the building?

19 A. I have had limited review of those
20 reports. I don't have a specific recollection of
21 reading anything in great detail.

22 Q. Just to be fair to you, I was
23 talking about the time during the time 1998 and
24 1999 when you prepared your report. Do you know
25 whether Halsall was in possession of any of those

1 reports?

2 A. Oh, no, at that time we had no
3 knowledge of those reports.

4 Q. Okay, I don't have any questions
5 about a them. I just wanted to make sure whether
6 you did or did not have them at the time?

7 A. No, we did not have them.

8 MR. MACRAE: All right. And then I
9 wonder if we might go back to Exhibit No. 1876.
10 And, Ms. Kuka, if you can focus in on grid line
11 16X and 17.

12 BY MR. MACRAE:

13 Q. This is a grid line that runs in an
14 east west or west east direction.

15 And this would be a full expansion
16 joint, am I correct? It would run from one side
17 of the building to the other? That's the design
18 --

19 A. It runs from the west side, I
20 believe, to the -- all the way down to the length
21 of what I believe was the hotel and then
22 terminates at the north-south expansion joint.

23 Q. Thank you. It runs right to the end
24 of the hotel, but as you've corrected me, it
25 doesn't run to the end of the building. It

1 terminates at the expansion joint that runs
2 north/south at FX and F, is that correct?

3 A. Yes.

4 Q. Thank you.

5 MR. MACRAE: Then I wonder, Ms. Kuka, if
6 you might return to -- or rather pull up Exhibit
7 No. 185.

8 BY MR. MACRAE:

9 Q. What we're bringing up now, Mr.
10 Buckley, is another detail from the Coreslab
11 drawings, shop drawings. This is line 16X and 17
12 and I wonder if you might focus in on the detail
13 so that we can identify that detail. So that
14 would be detail 13.

15 A. Hmm hmm.

16 MR. MACRAE: And then, Ms. Kuka, if you
17 could please return to Exhibit No. 186, and
18 specifically to detail 13.

19 BY MR. MACRAE:

20 Q. All right. And this would appear to
21 mirror in some way the requirement -- I'm showing
22 you detail 13. And this would appear to mirror in
23 some way there's only one beam here because
24 there's an elevation change at this particular
25 point. But would that bar be for the same

1 purpose?

2 A. Yes.

3 Q. Thank you. And then -- again I know
4 it's a lot of back and forth, but I want you to be
5 comfortable that the proper drawings are before
6 you. If we might return to Exhibit No. 185.

7 MR. MACRAE: And then, Ms. Kuka, if you
8 could focus in, please, on this area so that we
9 could get the detail number from there as well.

10 BY MR. MACRAE:

11 Q. I would anticipate that 16 is the
12 detail for that joint as well too?

13 A. Yes.

14 Q. Thank you.

15 MR. MACRAE: And then, Ms. Kuka, if we
16 could go back to the Exhibit No. 186 and specific
17 to detail number 16.

18 BY MR. MACRAE:

19 Q. Now, this is detail number 16 and
20 there's a change in the direction of the core
21 slab. And this would appear to me that there is a
22 core slab that runs at 90 degrees to the beam and
23 one that runs perpendicular to the beam?

24 A. Yes.

25 Q. Now, the one that is on the left

1 hand side shows a bar being tied into the beam.
2 But the one on the right doesn't show that.

3 A. Yes.

4 Q. Does that surprise you?

5 A. A little bit, yes.

6 Q. And why does that surprise you?

7 A. Typically you want to interconnect
8 the floor plates with the structure. In this
9 particular building, the bracing systems for the
10 building are integrated with the structural steel.
11 And in order to make the building work with
12 integrity, you need to make sure that there's --
13 so, for example, in the circumstances of lateral
14 load, forget the gravity load, the floor slabs are
15 connected to the steel structure which then will
16 be connected to the bracing of the building.

17 MR. MACRAE: Thank you. Now, Mr.
18 Commissioner, I'm going to ask Ms. Kuka to bring
19 up the NORR Report, but Mr. Elliott had asked that
20 we be sensitive with respect to a picture.
21 There's going to be a picture that's shown and I
22 just would like to advise you, Mr. Commissioner,
23 that it's going to be the area of the collapse
24 after the collapse at page 53 of the NORR Report.

25 THE COMMISSIONER: All right. Well,

1 there has been comment made previously about the
2 potential negative effect of seeing pictures of
3 the -- would you just move over just a bit, Ms.
4 Kuka, so I can see the photograph? I've been
5 advised that this may have a negative impact on
6 those in the room if a picture that we'll be
7 looking at is a picture of the collapsed beams and
8 of the material at the bottom. I don't see
9 anything else. However, if there are members who
10 might be affected, members of the public who might
11 be affected by seeing that picture, they can leave
12 now, otherwise that picture will come up as an
13 exhibit.

14 MR. MACRAE: Thank you, Mr.
15 Commissioner.

16 BY MR. MACRAE:

17 Q. I wonder if you might bring that
18 picture up. This is the area of the collapse and
19 I can indicate that this is north and this is the
20 expansion joint line that runs FX and F, I
21 believe, that runs north and south, the short
22 expansion. Would you like me to bring the
23 structural drawing back up for further clarity?

24 A. Not at the moment, no.

25 Q. This is -- we've learned this is the

1 beam that's collapsed. This is the section that
2 runs along and so for clarity with respect to -- I
3 would like to take you back to the Coreslab
4 drawings and take the Commissioner back to the
5 Coreslab drawings so that the Commission can
6 clearly understand that this is -- these are the
7 ends of the core slabs of the planks. These would
8 be the four foot ends and they would be running in
9 an east-west direction.

10 The slabs that collapsed were running in
11 a north-south direction.

12 So I'll take you back to the drawing
13 because what I'm going to suggest to you is that
14 this area all the way along here didn't have the
15 bracing that we had talked about in some of the
16 other details.

17 MR. MACRAE: So I wonder, Ms. Kuka, if
18 you might take us back to detail 16 on Exhibit No.
19 186.

20 BY MR. MACRAE:

21 Q. And my understanding of this detail
22 would be that -- now, I'm not clear and I'm going
23 to ask you that question, I'm not suggesting
24 something. I don't know whether these are running
25 north and south in this picture.

1 A. If you went back to the plan, we
2 could make that determination as to whether that
3 -- if I recall, this was at the south end of the
4 hotel. It's not at the same location that you're
5 talking about.

6 Q. Oh, oh, I believe it is. But sure
7 we'll go back to that.

8 A. It may very well be, but you showed
9 me that detail related to the south end of the
10 hotel.

11 Q. No. The more clear we can be and
12 the more certain, it's certainly very beneficial
13 to the Commission. It will be Exhibit No. 185.
14 That's detail number 16. This is the top of the
15 escalator.

16 A. Okay.

17 Q. Have you been able to locate it
18 yourself?

19 A. Yes, okay.

20 Q. So this is grid line or this is
21 detail 16.

22 A. Right, that's the expansion joint
23 along here.

24 Q. Running directly along.

25 MR. MACRAE: If I could having the grid

1 line over here, please. Grid line FX and F. And
2 then if you could bring this back in?

3 BY MR. MACRAE:

4 Q. My understanding of the picture,
5 before I go back to the picture, is that the doors
6 for the hotel are located along the expansion
7 joint here.

8 A. Okay.

9 Q. And when we're looking -- when we go
10 back to the picture, we'll be viewing it from the
11 south end looking north with the entranceways for
12 the hotel, the doors, being located approximately
13 here. And I'm showing you three core slabs in
14 from expansion joint FX and F. So if we might go
15 back to the picture?

16 So now that we've been able -- I trust
17 we've been able to locate ourselves. This would
18 be -- the core slabs would be running in a north,
19 south direction?

20 A. Yes.

21 Q. These core slabs would be running?

22 A. East-west.

23 Q. Right.

24 MR. MACRAE: So then if we could go back
25 to number 185 and detail number 16 or, rather,

1 Exhibit No. 186 and Exhibit No. 16 or, detail, 16
2 please, Ms. Kuka.

3 BY MR. MACRAE:

4 Q. So with that detail, are you able to
5 provide evidence today about what your
6 understanding would be? Would this be the
7 north-south slab?

8 A. I believe --

9 Q. I'm pointing --

10 A. Yes, I believe so, yes.

11 Q. I'm pointing to the core slab on the
12 right hand side of the detail 16. And that is the
13 one that doesn't call for any anchoring to the
14 support? To the beam that supports it, is that
15 correct?

16 A. Correct.

17 Q. Thank you very much for your
18 assistance with respect to those. And I would
19 like to move on now to deal with the issue of
20 thermal expansion and how that impacted or may
21 have impacted the mall over the course of time. I
22 wonder if we might have Exhibit No. 2142. And I
23 can tell you that that's a copy of the Building
24 Code that's going to be coming up. You'll see the
25 front page of the Building Code from the Ontario

1 Regulation 925/75 that it's my understanding that
2 that was the Building Code that would have been in
3 effect at the time that the building was designed.
4 I don't think you take any issue with that?

5 A. No.

6 Q. Okay. If we might go in then to the
7 next page and if you can go to where the arrow is,
8 please, Ms. Kuka, and blow that up.

9 Now, this is subsection 4.1.2, and the
10 heading is the Design Loads and Effects. And
11 subheading 4.1.2.1(1). And it's saying that,
12 "Except as provided for in article 4.1.2.2," and
13 I'd like to stop right there. It's a Code and so
14 it's usually difficult to read, but section -- if
15 we stop there and go to section 4.1.2.2 it reads:

16 "Where a building or a structural member
17 can be expected to be subjected to loads,
18 forces or other effects not listed in
19 Article 4.1.2.1., such effects shall be
20 taken into account in the design, based on
21 the most appropriate information
22 available."

23 So that's what it's subject to. And
24 I'll go back up to 4.1.2.1 sub (1) and continue to
25 read it. "The following loads, forces and effects

1 shall be considered in the design of a building
2 and its structural members and connections." And
3 the one that's highlighted there under "T" is for,
4 "contraction or expansion due to
5 temperature changes, shrinkage, moisture
6 changes, creep in component material,
7 movement due to differential settlement or
8 combination thereof."

9 And it's my understanding and I'm asking
10 you if I'm correct in my understanding that that
11 was a requirement for the architect or the
12 structural engineer to consider at the time of
13 construction of this -- or the design of the
14 building and the subsequent construction. Would
15 you agree with me?

16 A. Yes.

17 Q. While we're here, I wonder if you
18 might be able -- we've had a number of
19 descriptions under "T" for creep, creep and
20 component materials. And I wonder if you might
21 tell me of what your understanding as an
22 experienced structural engineer is what does creep
23 mean?

24 A. Creep is, to try and put it in the
25 simplest terms, is a phenomenon in concrete

1 specifically when we talk about designing
2 structures for the purposes of this statement, is
3 a phenomenon that when you put concrete under load
4 it -- it undergoes continuing strain. Which
5 means, as an example, if you were to put a column
6 into compression, you put a load on top of a
7 column, it will go through what's called an
8 initial elastic shortening. And then it will --
9 over time, it will creep. And mathematically the
10 creep continues forever. From a practical
11 standpoint, the creep is typically in the models
12 that we're given from the research, typically, for
13 practical purposes, stops after about five years.
14 So there are other forms of creep that could
15 occur. In beams you -- if you cast a beam, it
16 initially deflects under its initial dead load and
17 whatever superimposed loads.

18 And again over a period of time, that
19 deflection will decrease because of the creep
20 effect.

21 Q. Thank you very much for that.

22 If I might go on then to Exhibit No.
23 2141. Actually, in fairness, I should set out
24 where it's coming from for your assistance. So
25 that would be Exhibit No. 2140. Do you recognize

1 this cover of the book, I would imagine?

2 A. Yes.

3 Q. All right.

4 MR. MACRAE: So if I can take you to
5 Exhibit No. 2141, that's a component of -- and
6 it's commentary D, Effects of Deformations in
7 Building Components and then into the first page
8 please, Ms. Kuka.

9 BY MR. MACRAE:

10 Q. And I won't go through all of it,
11 but there's an interesting -- the structural
12 effects, if I could have that back down just a
13 bit, Ms. Kuka, thank you -- and it reads:

14 "When building materials expand and
15 contract due to temperature changes,
16 considerable forces may be produced in
17 restrained structural elements, i.e., in
18 those elements that are not free to expand
19 and contract with the changes in
20 temperature. Often these forces are
21 compounded with those produced by
22 shrinkage, by creep and by moisture
23 content changes and are therefore
24 difficult to analyze or predict."

25 Now, in the second paragraph it goes on

1 to say,

2 "In addition to expansion and contraction,
3 temperature changes may produce
4 differential deformation or warping of
5 materials as a result of the gradient in
6 temperature through the thickness of
7 materials or assemblies."

8 THE COMMISSIONER: I'm getting --

9 MR. MACRAE: Moving a little quickly?

10 THE COMMISSIONER: Moving much too
11 quickly for the interpreters.

12 MR. MACRAE: Fair enough. Sure, thank
13 you.

14 BY MR. MACRAE:

15 Q. The last sentence of that paragraph
16 reads:

17 "Again this may tend to complicate the
18 assessment of deformations or stresses,
19 but a rational judgment must be made in
20 design if building elements are to perform
21 in a satisfactory manner."

22 It goes on in the next paragraph to
23 read:

24 "If these forces are not properly
25 considered, the stresses resulting from

1 such forces can lead to serious failures
2 (usually cracking) in materials and
3 structural members. Failures occur when
4 clearances are insufficient, when
5 fasteners do not allow movement or
6 deformations, or, in the case of
7 restrained elements, when the elements are
8 not strong enough to withstand the
9 stresses induced."

10 Now, there's been evidence heard by the
11 Commission with respect to the expansion joint at
12 line 10 and 10X, that in 1996 the expansion joint
13 closed completely to the point that it was putting
14 stress and possibly even cracking the core slabs
15 at that expansion joint.

16 So my question is, as I understand
17 reading the reports, originally there was an
18 inability to determine whether in fact there was
19 insulation on top of the core slabs or insulation
20 below the core slabs in this particular structure.
21 Am I correct in that?

22 A. Well, we knew there was insulation
23 below the core slabs because we saw it in 1998,
24 all right? What we didn't know was what was the
25 construction of it for sure -- what the

1 construction was on the top.

2 Q. But you now know -- I assume you now
3 know attending here and giving evidence that there
4 was no insulation on top of the core slabs?

5 A. Correct.

6 Q. And so they would be subjected to a
7 substantial amount of thermal -- there would be a
8 substantial thermal effect on the core slabs
9 because they weren't part of the building envelope
10 and they were in fact exposed to the complete
11 climate changes that we have here in Elliot Lake?

12 A. They were outside of the insulation
13 area, yes. So they would go through a temperature
14 swing associated with the climatic changes, yes.

15 Q. And that change can come about, my
16 understanding is not just with respect -- looking
17 at the temperature change during the course of the
18 day doesn't necessarily reflect the actual
19 temperature change that building materials can go
20 through because of the heat absorption that can
21 occur as well too, am I correct?

22 A. That's correct.

23 Q. So in the design, going back to
24 1979, when the engineer or the architect designed
25 the structural steel in the core slabs, would it

1 be fair to say that they should have known exactly
2 where the insulation was going because of the
3 substantial difference that would occur if the
4 core slabs were not part of the building envelope?

5 A. I believe they should have been
6 aware of what was happening with respect to the
7 building and where the insulation was going, yes.

8 Q. When you say should have been aware,
9 why should they have been aware? What was the
10 potential for the distinction between the two?

11 A. It would -- might change how they
12 dealt with thermal -- thermal movements with
13 respect to the way the structure was designed.

14 Q. And in the design typically, if -- I
15 don't know that it's fair to take you back to
16 1979, but during the period of time or close to
17 the period of time when this would have been
18 designed, was there a mathematical calculation or
19 requirements that could be taken into
20 consideration with respect to the amount of
21 thermal expansion that could be anticipated to
22 occur on a building of this size?

23 A. There are formulas available to do
24 estimates of the amount of -- what we would call
25 thermal strain that would take place in a building

1 if you can determine the right assumptions to make
2 it do that calculation, yes.

3 Q. Does it surprise you -- when I told
4 you about the expansion joint closing, is that the
5 first time you heard about it or did you see that
6 in previous testimony?

7 A. I happened to observe Mr. Meyer's
8 testimony for a portion of the time and that was
9 the first time I heard of it, yes.

10 Q. Does it surprise you that this
11 expansion joint had closed up completely?

12 A. Yes.

13 MR. MACRAE: I wondered, Ms. Kuka, if we
14 might go back to core slab drawing or, rather,
15 structural steel drawing S4? Again that's 1876.

16 BY MR. MACRAE:

17 Q. Now, this is a general question, but
18 my understanding is that this drawing, again,
19 north is to my right, east is to my left or,
20 rather, west is to my left.

21 And these are the structural beams.
22 This is a drawing that sets out the actual
23 structural beams that are supporting the core
24 slabs, is that correct?

25 A. Yes.

1 Q. And the core slabs in this area,
2 according to the core slab design we've reviewed
3 and according to the details, will be running
4 north and south and resting upon the structural
5 beams that run west to east, or east to west, is
6 that correct?

7 A. Yes.

8 Q. Now, we've also heard evidence at
9 the Commission about there being tabs, steel tabs
10 that would be on top of those beams in order to
11 restrict the movement of core slabs. They would
12 be in the center, welded to the center of the
13 structural beam. And we've heard evidence that
14 would be done off site and they would arrive. And
15 my understanding of the purpose of those tabs,
16 they're steel tabs, are you familiar with those
17 tabs?

18 A. Yes.

19 Q. Okay. What is your understanding of
20 the requirement for them?

21 A. The requirement -- the reason those
22 tabs are put on top of the beam is to restrain the
23 top of the beam relative to the joint of the core
24 slabs. Not to restrain the core slabs themselves.

25 Q. So if the core slabs were moving?

1 A. Yes.

2 Q. What -- what -- from your experience
3 as a structural engineering, what would happen if
4 the core slabs are expanding and pushing against
5 those tabs?

6 A. Well, it depends on the condition
7 and where you're looking at it. If there's a tab,
8 it would mean that there was a core slab on both
9 sides and the core slab would expand and create a
10 compressive stress in the core slab over top of
11 where -- if it expanded enough that the end joints
12 closed, it would put a compressive stress on the
13 -- on those -- on the two core slabs sitting on
14 top of that beam.

15 Q. And could that -- that would then
16 naturally put stress onto the beam that is
17 supporting the core slab as well too, would it
18 not?

19 A. Not necessarily. If the compressive
20 stresses were balanced, which if the spans were
21 equal and the expansion was equal, it may very
22 well just be a cancelling force from one core slab
23 to the other.

24 Q. But say that they weren't equal and
25 that they were only able to move in one direction.

1 Would that impact on the structural integrity of
2 the beam that supports it?

3 A. If the core slab was expanding and
4 there was no -- and it was attached to the beam,
5 it could put -- potentially put a force on the top
6 of the beam, yes.

7 Q. Thank you.

8 MR. MACRAE: And I wonder if we might go
9 back, Ms. Kuka, to -- I don't know that we gave it
10 an exhibit. It's page 53 of the NORR Report, the
11 photo that we're looking at. I wonder, Mr.
12 Commissioner, I think it would be helpful if we
13 could make that picture itself an exhibit so that
14 we can refer to it easier today and also in the
15 future.

16 THE COMMISSIONER: Number, please?

17 EXHIBIT NO. 2326: Picture within NORR
18 Report.

19 MR. MACRAE: Now, Ms. Kuka, if you could
20 zoom in to the beam.

21 BY MR. MACRAE:

22 Q. I'd like to be able to see if we can
23 determine if that's -- I'm pointing out a piece of
24 metal on the top of this beam and a piece of metal
25 on the top of this beam. Does it make sense to

1 you that those are the steel tabs that would be
2 installed?

3 A. They appear to be at about the right
4 spacing that I would expect to see something like
5 that have, yes.

6 Q. Those are my questions. Thank you
7 very much, sir. Thank you, Mr. Commissioner.

8 THE COMMISSIONER: Thank you, Mr.
9 MacRae. Have we covered everybody in terms of
10 cross? Then re-examination.

11 MR. HODGSON: I have a couple of
12 questions.

13 THE COMMISSIONER: Sure.

14 MR. HODGSON: Thank you, sir.

15 RE-EXAMINATION BY MR. HODGSON:

16 Q. Mr. Buckley, when did you become
17 aware that Elliot Lake Retirement had in fact
18 purchased the Algo Mall?

19 A. Not until recently.

20 Q. Okay. And when did you become aware
21 that Elliot Lake Retirement had ignored both of
22 the options set out in your May 1999 report?

23 A. Not until recently.

24 Q. And in your report, I'll bring it up
25 if my friends require it, you used the words

1 "steel structure"?

2 A. Yes.

3 Q. What do you mean when you use the
4 words "steel structure"?

5 A. The components of the building that
6 are structural steel it would include the beams,
7 the columns, the connections, bracing, anchor
8 bolts, anchor plates.

9 Q. Okay.

10 MR. HODGSON: Thank you, Mr.
11 Commissioner. If I may have just one second.
12 Those are my questions, thank you.

13 THE COMMISSIONER: Thank you, Mr.
14 Hodgson? Mr. Carr-Harris.

15 MR. CARR-HARRIS: No re-examination.
16 Ms. Authier points out we have to check one point
17 before I say no re-examination.

18 THE COMMISSIONER: Can you do that
19 quickly so we can finish now with the witness?

20 MR. CARR-HARRIS: Yes, very quickly.

21 THE COMMISSIONER: Okay. Let's take
22 five minutes and I'll be available as soon as you
23 check.

24 --- Break taken at 12:40 p.m.

25 --- Upon resuming at 12:45 p.m.

1 MR. CARR-HARRIS: Thank you for the
2 indulgence, Mr. Commissioner. We have no
3 re-examination.

4 THE COMMISSIONER: All right. Thank you
5 very much, Mr. Buckley, I want to thank you
6 personally. Thank you for your assistance and
7 your Counsel as well, Messrs. Hodgson and Picone
8 as well, thank you. Okay, that's it for this
9 morning. Do you have another witness for this
10 afternoon?

11 MR. CASSAN: Before we break, Mr.
12 Commissioner, I wonder if I might address you.
13 I'm concerned that there may be a thought or
14 appearance that we're wasting time by breaking
15 early in the day, but it's important to understand
16 and explain what's going on behind the scenes, Mr.
17 Commissioner.

18 This morning at 10:00, we were provided
19 with an index of the compilation of City documents
20 that your counsel has prepared containing 1152
21 documents which are required to be compiled and
22 reviewed.

23 Additionally, as we were at the hearing
24 today, other members of your legal team were
25 interviewing witnesses of the City and they

1 continue to do that tomorrow, and witnesses for
2 other parties as well.

3 So I just wanted to indicate, Mr.
4 Commissioner, that we're very thankful that the
5 shorter days provide us for preparation. And we
6 hope that you understand, and that the community
7 understands, that these days where we break early
8 are certainly not being wasted and are being used
9 very productively.

10 THE COMMISSIONER: Thank you, Mr.
11 Cassan, this is an issue I specifically discussed
12 with counsel. Obviously there are competing
13 interests here. One, that we get on with the job
14 of the Commission as expeditiously as possible,
15 but on the other, I think that counsel for the
16 Commission are quite conscious of the huge
17 avalanche and the flood of documents that are
18 coming through eventually to you. A lot of these
19 documents obviously Commission Counsel only became
20 aware of in the very recent past. And I'm
21 certainly quite conscious that they have to be
22 digested if counsel for the various parties here
23 are to do their job properly.

24 And so we discussed this week in
25 particular and I thought the schedule was a bit

1 underloaded. Commission Counsel explained to me
2 that that fact would likely be of significant
3 advantage to all of the participants. And so I
4 didn't press them any harder in terms of
5 continuing.

6 That being said, do you have a witness
7 for this afternoon?

8 MR. CARR-HARRIS: No, we don't.

9 THE COMMISSIONER: Well, there you go.
10 That'll give you all afternoon to review these
11 1200 documents. That should be ample time.

12 MR. CASSAN: Thank you, Mr.
13 Commissioner.

14 THE COMMISSIONER: We'll rise then until
15 9:00 tomorrow morning.

16 --- Whereupon the inquiry was adjourned
17 at 12:50 p.m.

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REPORTER'S CERTIFICATE

I, HELEN MARTINEAU, CSR, Certified
Shorthand Reporter, certify;

That the foregoing proceedings were
taken before me at the time and place therein set
forth;

That the testimony of the witness and
all objections made at the time of the examination
were recorded stenographically by me and were
thereafter transcribed;

That the foregoing is a true and
accurate transcript of my shorthand notes so
taken.

Dated this 11th day of April, 2013.

Helen Martineau

PER: HELEN MARTINEAU
CERTIFIED SHORTHAND REPORTER

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