

IN THE MATTER OF an application
by the City of London to establish
a sanitary Land-fill site in the
Township of Westminster, Ontario

DATE: August 1st, 1973

HELD AT: Lambeth, Ontario.

VOLUME 3

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ENVIRONMENTAL HEARING BOARD

1
2 IN THE MATTER OF an application
3 by the City of London to establish
4 a sanitary landfill site in the
5 Township of Westminster, Ontario.
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11 HEARD BEFORE:

12 John Root Chairman
13 D. Aubrey Moodie Vice-Chairman
14 H. E. Brown Member
15 H. Browne Technical Adviser
16 T. A. Murphy Secretary
17

18 Hearings held at Lambeth United
19 Church Auditorium, Lambeth, Ontario
20 on Wednesday, the 1st day of August, 1973.
21

22 APPEARANCES:

23 Geo. F. Plaxton, Q.C. For the Corporation
24 Roland J. Haines of the City of London
25 A. C. Wright The Westminster Anti-
26 J. W. Sifton Landfill Committee
27
28
29
30

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44 York Street,
Toronto 116, Ontario.



1 --- Upon commencing at 9:30 a.m.

2 THE CHAIRMAN: Will you come to order,
3 please.

4 MR. PLAXTON: The next witness for
5 the City of London is Mr. Jack Morgan, M-O-R-G-A-N.
6 JACK MORGAN, called:

7 MR. PLAXTON: Mr. Chairman, I believe
8 my learned friend has a few comments he wishes to make
9 at this time. MR. WRIGHT: It is a little embarrass-
10 ing, my assistants have not yet arrived. I don't know
11 why. It may be a little foggy and I am a little bit
12 embarrassed.

13 MR. PLAXTON: Shall we take a few
14 minutes?

15 THE CHAIRMAN: Is that agreeable?
16 Would they be here in about 10 minutes?

17
18 --- Recess

19 --- Upon resuming

20
21 MR. PLAXTON: We have a copy of the
22 latest traffic report and I wonder if we could
23 distribute it among the Board members so that they
24 will have a chance to look at it.

25 MR. WRIGHT: Mr. Chairman, they have
26 arrived. Thank you very much.

27 THE CHAIRMAN: Ladies and gentlemen,
28 we will now proceed.

29 EXAMINATION BY MR. PLAXTON:

30 Q. Are you a resident of the City



1 of London?

2 A. Yes.

3 Q. Employed by the City of London?

4 A. Yes. I am Traffic Director for
5 the city.

6 Q. Would you describe for the Board
7 your educational background and experience having
8 regard to your qualifications?

9 A. I completed grade 13 and I
10 attended a variety of courses in traffic control at
11 Northwestern University and several courses at the
12 University of Western Ontario in the same subject.

13 Q. How long have you been in your
14 present capacity with the city?

15 A. Since 1956.

16 Q. Did you cause your department
17 to take counts of traffic in relation to this site?

18 A. Yes, sir.

19 Q. What location or locations
20 were these counts taken in?

21 A. We actually took manual counts
22 at the intersection of the 7th Concession Road and
23 Wellington Road South on three occasions and there
24 were also counts taken at the city's existing land-
25 fill site on Clarke^{Side} Road north of Hamilton Road
26 on the same three occasions.

27 Q. Simultaneously two men were in
28 the field?

29 A. Yes.

30 Q. And they would be in the field,



1 one at the intersection of the Concession Road #7
2 and Wellington Road intersection manually taking
3 counts. Does that mean they actually watched the
4 traffic go by and noted down the movements of traffic?

5 A. Yes, actually they attended
6 the intersection for the entire period shown on
7 various Exhibits and all directional movements were
8 counted along with a separation of the passenger
9 vehicle movements and the commercial vehicle
10 movements.

11 Q. On what three days did this
12 occur?

13 A. The first count was taken on
14 June the 14th of this year for 11 hours between
15 7:00 a.m. in the morning and 6:00 p.m. in the
16 evening. The second count was taken on July the
17 18th of the same year which is a Wednesday. June
18 14th is a Thursday. The third count was taken on
19 July 19th, which again is a Thursday.

20 Q. Yes. And can you describe
21 the production of your report by reference
22 to the calculations made by your people in the
23 field?

24 A. Well, to begin with we felt we
25 should analyze this situation basically in three
26 ways, that is, to determine what the existing
27 traffic flows would be on Wellington Road south of
28 401 and north of the 7th Concession Road, so this
29 was done. We also felt that we should determine
30 the existing volumes on the 7th Concession Road to



1 the west of Wellington Road and then do a simulation
2 of the projected volumes in view of the landfill site.
3 This was done. Then, we did a complete review of
4 volumes at the intersection of the 7th and Wellington
5 basically in an attempt to project and assign
6 the traffic and compare that to our normal signal warrant
7 to see if this location did warrant a traffic signal.

8 Q. Would you care to refer to
9 the Exhibit dealing with the June 14th study done
10 at the 7th Concession and Wellington Road? This
11 Exhibit is marked with the Roman Numeral IIIA
12 annexed to your report and the following two sheets,
13 I gather, deal with it as well. Will you describe
14 those Exhibits for the benefit of the Board, please?

15 A. Exhibit IIIA, the typed first
16 copy is the combined traffic count at 7th and
17 Wellington Road and as you look across the Exhibit
18 at the top end you will notice it has four categories,
19 southbound on Wellington Road, northbound on Wellington
20 Road, eastbound on the 7th and westbound.
21 Immediately under that you will see the letters
22 LSR which means left turn, straight through or
23 right turn in each of those four directions. As
24 you look under that the figures shown under left,
25 straight and right by hourly totals except in the
26 a.m. and p.m. which are broken into half hour totals
27 is an actual count of the vehicles which did use the
28 intersection on that date. As an example, I think
29 it would be preferable to go to the 9:00 to 10:00
30 o'clock period which is the fifth line down. You



1 will notice in the 9:00 to 10:00 o'clock period
2 there were 189 vehicles recorded southbound on
3 Wellington, one right turn; going across to the
4 right on the page there were two left turns north-
5 bound to go westbound on the 7th, 169 straight
6 through to go north of the 7th and one right turn
7 to go east. East on the 7th, that is. The first
8 two categories are the south and northbound traffic
9 movements in that hour on Wellington with their
10 associated turn movements.

11 When you go over to the 7th Concession
12 you will notice eastbound there was one straight
13 through and two right turns in the eastbound
14 direction and there were only three ---

15 Q. The right-turn there would
16 take the vehicle where?

17 A. Right turn eastbound would
18 make it go through to the south on Wellington.

19 Q. Yes.

20 A. As you go to the last column
21 you will notice there were three left turns in the
22 hour westbound to again go south on Wellington.
23 That is a typical one hour review.

24 Q. Left going westbound on the
25 7th Concession would take the driver in what direct-
26 ion on Wellington Road?

27 A. South.

28 Q. And under the "S" column
29 there were two westbound on ---

30 A. In the 9:00 to 10:00 o'clock



1 period there were none straight through and no right
2 turns. There were a total of three cars in one hour.

3 Q. I was looking at the next line.
4 Perhaps we could look at that.

5 A. In clarification if you still
6 stay in that 9:00 to 10:00 o'clock hour and go over
7 to the extreme right, that is the total traffic
8 movement in that hour at the intersection.

9 Q. Then each individual character-
10 istic, a left, right or straight through turn is
11 totalled at the bottom for the whole day?

12 A. That is correct. The vertical
13 line totals ^{are} /at the bottom of the page and in each
14 you can see the total movement in whatever direct-
15 ion you are interested in.

16 Q. That is the full 11 hour
17 period?

18 A. Right. The extreme right-hand
19 lower corner is the total and you add vertically
20 or horizontally and the total will be the same.

21 Q. Looking at the bottom of
22 Exhibit IIIA, I see there is a box marked with an
23 "X" and titled "Combined". What is that count?

24 A. This is the combined count
25 which in fact includes all commercial vehicles
26 and all passenger vehicles. If you turn to the
27 second page of Exhibit IIIA you will see a sheet
28 marked "Passenger vehicles" and that indicates the
29 total number of passenger vehicles in the same way
30 that "Combined" does. If you turn to the last sheet,



1 | you will notice this indicates the heavy vehicles
2 | and in terms of heavy vehicles our counting pro-
3 | cedure, we use anything over the panel stationwagon,
4 | gravel trucks, small or extremely large trucks. It
5 | does not include stationwagons or panel trucks up
6 | to one ton.

7 | Q. Was this procedure continued
8 | in a similar manner on July 18th referring to
9 | Exhibit IIIB?

10 | A. Yes, it was.

11 | Q. The totals are set out accurately
12 | there?

13 | A. That is correct. Just a
14 | clarification point, the commercial vehicle count
15 | does not include the stationwagon or up to one ton
16 | truck, they are therefore included in the passenger
17 | vehicle count.

18 | Q. Yes. On July 19th a similar
19 | Exhibit is produced, Exhibit IIIC?

20 | A. That is correct.

21 | Q. And the passenger vehicles
22 | are separated from the heavy vehicles in the follow-
23 | ing pages?

24 | A. That is correct.

25 | Q. Now, I would ask you to refer
26 | to the reports taken as well at the site of the
27 | existing landfill site to show the traffic move-
28 | ments there.

29 | A. That Exhibit is marked Exhibit
30 | IIID in the report. It follows the last volume count.



1 Q. Yes. Here I take it you were
2 not dealing with an intersection in the way you
3 were at Wellington Road and the 7th Concession.
4 Is that correct?

5 A. That is correct. This locat-
6 ion, the point of access was confined to one single
7 in and out movement and the actual vehicles were
8 recorded manually again . on entry and exit.
9 They were classified into light and heavy vehicles
10 again on generally the same basis.

11 Q. So this report is not on one
12 of your standard printed forms for intersection
13 investigation. Rather, it is simply done in what
14 looks like a pencilled schedule?

15 A. That is right.

16 Q. Perhaps I can assist the Board
17 in reading this. Would you comment on Exhibit IIID,
18 please?

19 A. Reason for not using a standard
20 form on this is that we do not do too many of these
21 studies in terms of in and out at a garbage --
22 rather, a landfill site. In terms of the results
23 of this study I think it is significant to note
24 that on the three occasions that we did count this
25 location, the June 14th is approximately 100%
26 higher than the other two occasions on the 18th
27 and 19th. For that reason, because of the wide
28 gap in the two counts versus the 14th, in all our
29 calculations we have gone to the higher count of
30 June 14th in terms of the light vehicles. If you



39

1 look on the left side of the Exhibit, there are
2 three columns, June 14th, 18th and 19th counts
3 are shown there with the time of the count reported
4 in the left column and the actual number of in and
5 out movements under the date and the total at the
6 bottom. Dealing only with the light vehicle count
7 here you will see you have a fairly substantial
8 differential in the June 14th count over the others
9 on the 18th and 19th. Because of this we used the
10 higher count.

11 Q. Looking at the right-hand side
12 of that Exhibit under the heading "Combined total
13 using maximum values," can you give me an indication
14 of how you arrived at those totals? Did you pick
15 the maximum number of vehicles for that hour in
16 any day and carry them out to the right?

17 A. I have already stated that
18 we used the values under June 14th in the light
19 vehicles and we have marked that with an asterisk.
20 Under heavy vehicles there is not this inconsistency.
21 Generally speaking within a few movements the three
22 totals for the three days are acceptable and could
23 be used as an average, but here again we used the
24 July 18th count because it was the greater, so the
25 totals shown, 1,504 with an asterisk is the com-
26 bined counts of the June 14th light vehicles, 96,
27 and the heavy vehicles on July 18th, 518.

28 Q. You take the heaviest day for
29 light vehicles and a different day which was heaviest
30 for heavy vehicles and add those together?



1 A. That is correct.

2 Q. June 14th I believe was a
3 Wednesday?

4 A. Yes.

5 Q. Is there any reason in your mind
6 why Wednesday would be busier than any other days?

7 A. No. We had some fairly lengthy
8 discussions over this differential under light
9 vehicles and the only thing we could assume is that
10 the June period is a clean-up period where people
11 seem to find it more convenient to move their own
12 materials from their residence to the landfill site
13 area.

14 Q. Mr. Morgan, just to clarify
15 this can you indicate whether you counted the
16 movement of a vehicle in and the vehicle out as
17 representing two separate movements?

18 A. Yes. In all cases your hourly
19 totals there -- in the case of the June 14th light
20 vehicle 7:00 to 8:00, a total of 66, that represents
21 in and out and that is the same all through the
22 count.

23 Q. If those vehicles arrived at
24 the same hour and left at the same hour, that would
25 be 33 vehicles?

26 A. Yes.

27 Q. Fine.

28 THE CHAIRMAN: June 14th was a
29 Thursday, Mr. Plaxton.

30 MR. PLAXTON: Was June 14th a Thursday?



1 MR. WRIGHT: I think July 18th was.

2 THE WITNESS: Yes, it is.

3 MR. PLAXTON: I believe one of the
4 other days was a Wednesday.

5 Q. Which one was a Wednesday?

6 A. The 14th was a Thursday. The
7 July 18th count was a Wednesday.

8 Q. Referring to Exhibit No. I
9 of your report, entitled "Wellington Road Vehicle
10 Volume Summary," would you describe that for the
11 Board and enlarge on it, please?

12 A. This Exhibit has been marked
13 into two sections, A and B. Dealing with Section A,
14 this is an actual two-way volume count on Wellington
15 Road. It is using the counts that we previously
16 discussed and plotting the actual two-way traffic
17 movements on Wellington between the 401 and the
18 7th Concession which shows the hourly totals broken
19 into southbound, northbound and total. You have
20 across the top time of the hour, southbound move-
21 ment in the first example of 7:00 to 8:00 is 201
22 cars went southbound. Three hundred and forty-two
23 went northbound for a total of 543 in that one hour
24 period.

25 Q. Can we stop there for a moment
26 and refer again to Exhibit IIIB and show how the
27 hour between 7:00 o'clock and 8:00 o'clock on July
28 18th, the figure for southbound traffic of 201
29 shown on Exhibit I was added on to your field
30 sheet which is Exhibit IIIB?



1 A. With all due respect, I think
2 it would be easier to go to the 9:00 to 10:00 o'clock
3 which is a single hour. In our counting procedures
4 we count by half hours.

5 Q. Very good, let's do that.
6 Referring to 9:00 to 10:00?

7 A. Yes. If you go to Exhibit IIIB
8 and go to the 9:00 to 10:00 o'clock period it starts
9 out under L4 ---

10 Q. Exhibit I says, "Southbound
11 traffic on Wellington Road," in that hour represented
12 150 vehicles?

13 A. That is right. To arrive at
14 that total under 9:00 to 10:00 you would count --
15 we are trying to simulate -- not simulate, but
16 actually show the recorded movements. All south-
17 bound movements have come through the 401 so you
18 could add 4,146 ---

19 Q. This would make it 150 in total?

20 A. Right.

21 Q. Are there any questions about
22 that, Mr. Chairman, before we move on? We are
23 looking at Exhibit IIIB.

24 THE CHAIRMAN: IIIB?

25 MR. PLAXTON: IIIB. That is the
26 count for July 18th at the intersection. It is
27 between the hours of 9:00 and 10:00.

28 THE WITNESS: It is actually every-
29 thing arriving from the north at the 7th Concession
30 which must have come south on the 401.



1 MR. PLAXTON: Q. Yes. You are taking
2 southbound traffic on Wellington Road and totalling
3 that so that you have four groupings turning left
4 on Wellington Road, southbound and you also have
5 146 going straight through, so the total movement
6 in a southerly direction on Wellington Road is then
7 150. That 150 is shown on Exhibit I for that same
8 day and hour. Going back to Exhibit I, Mr. Chairman,
9 using between 9:00 and 10:00 o'clock under category
10 A on that Exhibit for southbound traffic on Well-
11 ington Road a total of 150 movements southbound. This
12 is a summary for the July 18th date. It was the
13 highest count on that day?

14 A. Yes, we used the highest count.

15 Q. You are using the worst example
16 you could find?

17 A. Of the three counts we took,
18 we used the highest.

19 Q. That is to say the worst is
20 the highest. You then calculate -- you go on to
21 describe then Exhibit I? You calculate the total
22 southbound movements ---

23 MR. WRIGHT: You are reading it so
24 quickly we don't understand. Could we have Mr.
25 Morgan go through the same exercise with the next
26 one, 184, and see how it relates?

27 MR. PLAXTON: Okay, all right. This
28 is the northbound between 9:00 and 10:00 o'clock?

29 MR. WRIGHT: Yes.

30 THE WITNESS: It might be an advantage ---



1 MR. PLAXTON: I take it there the
2 answer is you take the northbound of 180?

3 MR. WRIGHT: Yes.

4 MR. PLAXTON: The left-hand turn
5 going east. That is three movements you add. You
6 add again the right-hand turn going west which
7 again is a northbound movement and the total is
8 184.

9 MR. WRIGHT: Thank you.

10 THE WITNESS: This is the Wellington
11 and 7th intersection. The landfill site lies to
12 the west and north is up. On Exhibit IIIB we have
13 under the 9:00 to 10:00 o'clock total, we recorded
14 146 movements doing that (indicating) and we re-
15 corded four movements doing this (indicating).
16 Then as you come across the northbound (this
17 direction) we recorded 180 movements doing that
18 (indicating) and we recorded three movements moving
19 over -- that is all. There were no lefts or rights
20 in that hour. Moving over to the eastbound which
21 is coming out of the 7th away from the site, we
22 recorded three lefts and we recorded no other
23 movements in that direction.

24 Westbound, which is towards the site,
25 we recorded two lefts and we recorded one right. So,
26 as you look at the totals on the two-way, we were
27 able to arrive at -- we were looking for the two-
28 way traffic here, so obviously to get the south-
29 bound two-way you count these two totals going
30 straight through and four for 150.



1 MR. PLAXTON: Q. In what direction?

2 A. The four lefts that came out
3 of there and the 146^{throughs} give you a total of 157
4 southbound.

5 To get the northbound in that same
6 hour there were 180 went north of the intersection
7 and in the next eastbound movement which is this
8 one, three, which you have to add because it is
9 headed where we are counting, that is 183.

10 Westbound you had one right for 184
11 and the total shown is 184, so you count that one,
12 this 180 and that three to get the total of 184.

13 Q. Yes.

14 MR. PLAXTON: Is there any further
15 clarification you require, Mr. Chairman?

16 Q. Then you did a similar calculat-
17 ion for northbound on Wellington Road?

18 A. That is correct. Both the
19 southbound -- these are actual and are not simulated
20 counts under A.

21 Q. Then you have a grand total?

22 A. The bottom represents the two-
23 way traffic flow, 4,990 cars was the total two-way traffic
24 flow in that section of Wellington Road to the
25 north of the 7th.

26 Q. In the sense of the two directions,
27 north and south?

28 A. The other two totals that are under
29 southbound and northbound are fairly well balanced
30 and are fairly representative of southbound



1 and northbound flows in total.

2 Q. Looking at Exhibit I, Exhibit IB
3 on the same page, Wellington Road traffic flow, 1973,
4 existing landfill site traffic added, can you des-
5 cribe how you calculated these figures? I believe there is
6 reference here to Exhibit IIIB.

7 A. Actually in preparing Exhibit I
8 we used Exhibits IV -- I am sorry -- we used Exhibit
9 IIIB and IIID. What we have attempted to do here
10 is first of all, having counted the in and out
11 traffic to the landfill site existing on Clarke Side
12 Road and we made an assumption that all of this
13 traffic will use Wellington Road which I believe
14 is a fair assumption because if it doesn't, things
15 will get less of a problem then if it all does use
16 it. We have also made a basic assumption that all
17 of the traffic that will be using the landfill site
18 will come from the north and make a right turn onto
19 Concession 7. Having used the landfill site, it
20 will return eastbound on the 7th and become a left
21 turn to go north. In other words, traffic destined
22 to the site will come down and be added to the right
23 turn on the 7th and traffic leaving the site will
24 become a part of that left turn moving to go north.

25 Q. Yes.

26 A. Using ^{the} highest count on Exhibit
27 IIIB which we have just gone over generally ---

28 Q. That is the one that the land-
29 fill site is on?

30 A. Exhibit IIIB is the actual count



1 of the intersection there.

2 Q. B as in Bert?

3 A. B, yes. Using that count, the
4 highest of the three taken at the intersection, and
5 using the two totals from the landfill site with
6 the asterisks which are the June 14th light vehicles
7 and the July 18th heavy vehicle counts ---

8 Q. On Exhibit IIID as in dog?

9 A. Yes. We have simply added the
10 quantities into the traffic volume which gives us
11 a very substantial increased right turn eastbound
12 and substantial left turn eastbound out.

13 If you care to, I think we can run
14 through this. Looking at Exhibit IB for Bert under
15 the hour 7:00 to 8:00 you show a southbound total
16 of 243 under the projection which is 42
17 cars or units higher than the southbound total shown
18 under existing A part of that Exhibit. Where do the
19 42 cars come from? We took, going to Exhibit IIID
20 for Donald, we took the June 14th light vehicles
21 7:00 to 8:00 and took half of it, 33 vehicles,
22 because that is two-way, 66, the total shown, we
23 took half of that which is 33 and said they will
24 come south on Wellington and we took half of the
25 18 shown under July 18th which is nine and that is
26 32 -- 42. Forty-two added to the total gives you
27 your 43; 33 plus nine, 42, to simulate the intro-
28 duction of the traffic into that section of
29 Wellington Road.

30 Q. Yes. Is that clear, Mr. Chairman?



1 THE CHAIRMAN: Yes.

2 MR. PLAXTON: Q. Will you have a
3 simulated traffic flow on Wellington Road giving
4 effect to traffic at the landfill site, assuming
5 the same traffic conditions exist as at the present
6 landfill site?

7 A. That is correct. Part B of
8 Exhibit I indicates the projected Wellington Road
9 flows with the landfill site traffic in destined
10 to and from the site.

11 Q. Again, Exhibit II is done on
12 the same basis only this is dealing at this stage
13 with the 7th Concession Road. Is that correct?

14 A. That is right. Exhibit II
15 under heading "A" shows the existing two-way traffic
16 volumes on 7th west of Wellington. Exhibit II
17 part "B" introduces the traffic which would be
18 generated by the fill site both in a west and
19 eastbound direction and that is a projection.

20 Q. Yes. Looking at that Exhibit,
21 the total movements on the 7th Concession Road
22 both east and westbound, you have counted traffic
23 on the highest count day? Is that correct?

24 A. Yes. July 18th.

25 Q. That is 82?

26 A. Over the 11 hour period, 82
27 movements occurred on the 7th west of Wellington
28 in a two-way direction-- two directions.

29 Q. Looking at the projected
30 traffic flow for the same period, assuming the landfill



1 site was in operation there, what is the total?

2 A. The volumes then go to 1,586.

3 Q. Are you aware of the extent

4 to which the city is proposing to improve the 7th

5 Concession Road if this application is approved?

6 A. Yes, Mr. Chairman.

7 Q. Can you describe with reference

8 to an Exhibit the improvements that will be under-

9 taken?

10 A. First of all, the city is
11 prepared to reconstruct and pave where necessary
12 the 7th Concession Road from Wellington Road to
13 the entrance to the fill site which I believe is
14 located to the east end of the site. When I say
15 to the entrance, actually I mean beyond the entrance
16 far enough to make sure the paving job incorporates
17 the entrance. That paving and reconstruction,
18 where necessary, would involve the correction of
19 any vertical grade problems that might exist in
20 that section.

21 Q. You have a cross section of
22 the kind of road proposed to be constructed at this
23 point? This is referring to Exhibit IV.

24 A. Exhibit VI.

25 Q. I'm sorry.

26 A. That does show the cross section
27 and in general it involves placement of a 24-foot
28 paved asphalt roadway with 10-foot gravel shoulders.
29 This is taken right out of the recommended cross
30 section for this type of road in the Canadian Good



1 Roads Manual for Geometric Design.

2 Q. The construction therefore
3 would comply with those requirements?

4 A. Yes.

5 Q. Referring to Exhibit VII, can
6 you describe for the Board the nature of the improve-
7 ment there that is contemplated?

8 A. I hope the Board can spell
9 better than I do. This was done in a hurry. In
10 addition to the paving which I have already men-
11 tioned between Wellington and the entrance to the
12 site it is our intention to construct a three lane
13 throat at the intersection of the 7th and Wellington
14 Road and I could show this on the board if you like.

15 First we would be paving, as I
16 already indicated, from this point through beyond
17 the intersection. Then it would be intended, as
18 shown on the Exhibit, to widen this road out to
19 36 feet in order to allow for channelized left turn
20 movements which really involve the placement of
21 the left turn slot like this and there is a cut off
22 to the city and this becomes an exclusive left turn
23 slot. Entering traffic comes in here and the left
24 turn is/in its own slot and throughs and rights
25 take place out of the third lane. We also intend
26 to do that over here because it would not be geo-
27 metrically sound without both sides having that
28 treatment.

29 Q. What about the north part of
30 the intersection?



1 A. In addition, it is intended if
2 approval is given that the right turn deceleration
3 slot be constructed here which means that traffic
4 destined to the site, particularly a large vehicle,
5 will be able to drop off the main road into the
6 deceleration taper and slow right down for the
7 turn which minimizes interference to through traffic
8 southbound on Wellington Road. In summary, we would
9 pave, we would open up both throats on the 7th
10 Concession to provide three lanes and be prepared
11 to construct the deceleration right turn lane for
12 southbound right turns.

13 Q. Have you analyzed the warrant
14 for a light at this intersection, that is to say,
15 traffic lights? In that connection have you
16 detected in your earlier calculations a mis-
17 calculation based on an arithmetic error? Perhaps
18 you would explain first of all the error that did
19 occur? I gather this was referable to Exhibit V?
20 Is that correct?

21 A. Exhibit IV was used to pre-
22 pare Exhibit V and I think if the Board would take
23 each of these out it would probably be worthwhile
24 to remove the staples. In preparing Exhibit V
25 what we did was take the existing highest volume
26 count on the 18th, add to that volume count as
27 I have already described, the increased traffic
28 that would be drawn to and from the fill site, and
29 place it in the volume count and simulate the
30 conditions that would be there, should the site be



1 | there today. Using that information we have used
2 | our signal warrant or standard signal warrant
3 | evaluation procedure here. This is not only used
4 | in London but used in most larger cities and it is
5 | recommended by the Ministry of Transportation and
6 | Communications. We have applied the various values
7 | in that simulated count to a warrant seven. What
8 | happened was this: our warrants are run through
9 | a computer and we have a program arranged for it
10 | and this really goes to show ---

11 | Q. Perhaps, Mr. Morgan, you could
12 | go back. We were interrupted there for a moment.

13 | A. Right. If you look at Exhibit
14 | IV which is labelled "Traffic Volume
15 | Projections," this is in fact the actual count on
16 | Exhibit IIIB which is a traffic count taken on
17 | July the 18th and is the largest of the three. In
18 | addition, added to that count basically on right
19 | turns in and left turns out of the 7th you will
20 | notice we have added fill site traffic which then
21 | gives us a simulated intersection count for this
22 | location, assuming the fill site were there today.
23 | I think the evidence, if you are able to compare
24 | Exhibit IIIB with Exhibit IV, you will notice that
25 | the southbound right turns, if you get Exhibit IIIB
26 | and Exhibit IV, IIIB is the July 18th count combined
27 | -- that is B as in Bert -- if you look at southbound
28 | Wellington Road right turns, you will notice they
29 | are very, very small under Exhibit IIIB and if you
30 | look at Exhibit IV, you will see they have substantially



1 increased which represents the volume of traffic
2 attracted to the site on right turns. If you look
3 at Exhibit IIIB -- Bert again, you will see that
4 the eastbound left turns are extremely low on
5 Exhibit IIIB, the existing count. If you look at
6 Exhibit IV, you will see that the eastbound left
7 turns have now increased substantially which is the existing
8 movement of the traffic destined from the site to go
9 north on Wellington.

Q. Looking at those numbers again,
10 referring to the southbound on Wellington Road and
11 turning right, this would be the vehicles coming
12 from the city going to the site?

A. That is correct.

Q. You have taken Exhibit IIIB for
14 the count there, total of 11 hours which is 27. You
15 that number on Exhibit IV to 779 such movements?
16

A. No. Oh, I see, yes, right.
17 That is the grand total at the bottom. That is
18 for that same 11 hour period.
19

Q. So the highest count of traffic
20 at the landfill site in the one movement direction
21 for that same day has been produced?
22

A. That is right and the same
23 applies to the eastbound lefts.
24

Q. So taking the eastbound which
25 is the third column on Exhibit IIIB, looking at the
26 bottom of that, there were left-hand turns off the
27 eastbound south of Concession Road of 23?
28

A. And that goes to 775 on Exhibit
29 IV.
30



1 Q. Right. Let's look at Exhibit
2 IV. Would you explain why you have drawn a line
3 through three of the hours that appear, the figures
4 relating to three of the hours that appear on that
5 Exhibit?

6 A. Yes. In a signal light warrant
7 evaluation the recommended period of time is eight
8 hours and our counts are 11 hours. For that reason
9 we take out three of the lowest hourly totals in
10 the right-hand column. We just take out those
11 three lowest hours and use the other remaining
12 eight hours to apply for the warrant.

13 Q. Having dealt with that, is
14 there anything you would like to comment on? Is
15 there anything you would like to comment on in
16 connection with Exhibit IV before we turn to Exhibit
17 V?

18 A. Only that that count was used
19 in our computer evaluation of the need for signals.

20 Q. Can we now turn to Exhibit V
21 and will you describe it? Perhaps the calculation
22 of this calculation.

41

23 A. This warrant sheet under Exhibit
24 V is designed in five units and at the extreme left
25 is the heading "Warrant" and then there are the
26 figures 1 to 5. Under any one fulfillment of
27 any one of these warrants you will go progressively
28 from the top, minimum vehicle/^{volume}warrant which we apply
29 with the volumes to that which we do by computer
30 and if you get a warrant there a signal is warranted



1 but if you do not get one such as is the case here,
2 you go then to warrant number 2 and apply that and
3 if there is a warrant, of course, you don't go any
4 further. If there is not, you go progressively
5 down the page. What happened in our evaluation of
6 this is that we applied the proper figures through
7 the computer to minimum vehicle volume warrant number 1
8 and found there was not a warrant ---

9 Q. There was not a warrant on
10 the number 1?

11 A. Under number 1 no warrant
12 existed nor does it today. Under number 2 somebody
13 must have entered the wrong quantities under the second
14 section of it where under compliance is written 3, and
15 that total should be 80 and for that reason there
16 is a warrant under the number 2 delayed cross
17 traffic warrant.

18 Q. That should be eighty, 80?

19 A. The figure 3 in the column
20 marked "Numerical" under "Compliance" we have a tpta;
21 which
22 written in of 3/should be 80 as it is on the one
23 above. This then makes for a warrant at this
24 location.

25 Q. Your conclusion from that is
26 what?

27 A. That should approval be given
28 to the landfill site, a traffic signal should be
29 installed at this location.

30 Q. What jurisdiction has authority
over Wellington Road?



1 A. The county road has authority
2 here and as we stated at the beginning of our
3 submission all works we are discussing here would
4 only be undertaken with the approval of the effect-
5 ive jurisdictions and certainly with their concurrence.

6 Q. I believe that is the Suburban
7 Roads?

8 A. Suburban County Roads, same thing.

9 Q. Is there a full name for that?

10 A. I only know it as the Suburban
11 Roads Commission.

12 Q. Suburban Roads Commission. You
13 do not have a more accurate name. Does the Department
14 of Highways get involved in this?

15 A. Yes, no signal light is installed
16 without approval being obtained through the Ministry
17 of Transportation and Communications.

18 Q. Can you give us your views
19 as to the impact of traffic having regard to the
20 upgraded designs you have talked about? Will the
21 road designs you have talked about by way of these
22 improvements be able to carry this volume of
23 traffic? Can you comment as to whether there is
24 an additional capacity left over or not in connect-
25 ion with the road design?

26 A. In relation to the Wellington
27 Road section south of the 401, the volume clearly
28 indicates there that there would not be an over-
29 capacity condition arise in this section. I know
30 the same applies to the 7th Concession where we have



1 | graded the capacity of that road, assuming the
2 | design improvements, and again we would not anti-
3 | cipate any degree of congestion. I think this
4 | applies to Mr. Van Diepen when he was referring
5 | yesterday to the difficulty he might experience.
6 | Frankly, 1,500 vehicles on a roadway of the design
7 | standards we are talking about, he won't have any
8 | difficulty crossing the roadway and no difficulty
9 | entering the roadway. As an example to this,
10 | Wellington Road today is carrying, as we have
11 | shown, something near 5,000 vehicles two ways and
12 | while it takes some concentration, you can enter
13 | that highway with safety from the 7th Concession
14 | with no real difficulty. During our studies we
15 | did not observe more than two cars lined up. Of
16 | course there wasn't any quantity, but bascially I
17 | think in answer to Mr. Van Diepen's question, we
18 | may get into it further later with the Chairman,
19 | but we have many streets with 3,000 vehicles,
20 | double this amount of traffic in residential
21 | areas where we **don't** get complaints about diffi-
22 | culties crossing the street.

23 | Q. Can you comment on the way in
24 | which this traffic is integrated into existing
25 | traffic from the point of view of peaks and valleys
26 | and the usage of the roads having regard to various
27 | times of the day?

28 | A. Yes. We found in our analysis,
29 | and this verifies exactly what we know through our
30 | research in city volumes and so on, that the peak



1 hour traffic loads on Wellington Road are fairly
2 consistent with what are normally found to occur.
3 The information obtained from the landfill site in
4 existence on Clarke^{Side} Road indicates there is no
5 direct conflict with the peaks here. In other words,
6 the major volumes recorded at the landfill site on
7 Clarke^{Side} are not in conflict with those on the
8 roads. That is on page 4 of our report and you
9 will notice that the traffic volumes on streets
10 are peaking between 7:00 and 9:00 a.m. and 4:00
11 and 6:00 and that the volumes to the fill site are
12 peaking between 9:00 and 11:00 and 1:00 and 3:00.

13 Q. Are you aware of the number
14 of trips on the average taken by the city owned
15 garbage collection vehicles to and from the
16 existing landfill site to its collection beat?
17 Do you know what the number might be?

18 A. No. I think Mr. Robertson
19 will be the authority on that.

20 Q. Very good.

21 MR. PLAXTON: Thank you very much.
22 My friend will probably have some questions to ask
23 you.

24 THE CHAIRMAN: Would you like to ask
25 this witness some questions?

26 MR. WRIGHT: Yes, Mr. Chairman, if
27 I may.

28 EXAMINATION BY MR. WRIGHT:

29 Q. Mr. Morgan, on Exhibit No. IV,
30 the bottom column between 5:00 and 6:00 o'clock, am



1 I to understand that the total on the right-hand
2 side is an aggregate of all of the figures at that
3 level added across?

4 A. It should be.

5 Q. Would you add them up for us,
6 please?

7 A. You can see from here it isn't.

8 Q. Is that going to make any
9 difference as to whether or not you in fact cut
10 out the lowest?

11 A. It would appear that that total
12 is higher. I think the important aspect here is
13 that the review has been made that determines the
14 need for a light. I think that would only in-
15 crease it so you are going to need a light a little
16 more.

17 Q. I think maybe an important
18 aspect of it was that this report was thrown to-
19 gether pretty quickly?

20 A. Yes. You mean thrown to-
21 gether quickly?

22 Q. Yes.

23 A. Well, I don't think it was
24 thrown together quickly, but there is evidence
25 that there were some mistakes made which would
26 indicate somebody didn't take the time required
27 to do it properly.

28 Q. I'm in sympathy with you be-
29 cause I can understand. Suddenly you are told,
30 "Go forth and find figures," and you didn't have the



1 time required to do as thorough a study as you would
2 have liked to do. Since you produced this, we have
3 found one calculation in error and on your own mis-
4 calculation which you pointed out to us, contrary
5 to your recommendation that no light be put at
6 that intersection, now you say there is another
7 error that changes the picture. Now, I guess -- let
8 me ask you would you rather have produced this in
9 another two or three months with a few more traffic
10 counts and a little more time to think about it?

11 A. Not at all. Actually the
12 three counts we took at the intersection are
13 sufficient to establish the average conditions.
14 Thank goodness they were taken at the time of the
15 year they were because it is a known fact that
16 average volumes exist in May, June and October.
17 I'm quite satisfied that the materials used, the
18 data used to develop these was sufficient. I'm
19 not satisfied that some errors have been made.
20 Unfortunately, we were able to catch the major one.

21 Q. If May, June and October es-
22 tablish average traffic flows, I suppose that
23 Wednesdays and Thursdays are also traffic flow
24 averages?

25 A. Yes, they are. When you speak---

26 Q. That is based on your experience
27 in the City of London?

28 A. In the City of London and on
29 roads leading to and from the city where we have
30 done this type of research. Wellington Road is a



1 city street.

2 Q. We are talking about the
3 Township of Westminster now. Did you get a great
4 deal of co-operation from the Township of Westminster
5 in your studies?

6 A. We only inquired into our
7 rights to do them and we received approval to do
8 them.

9 Q. Did they have figures? Do you
10 suppose they would have figures?

11 A. I would not suppose that.

12 Q. Did you ask them for their figures?

13 A. No. We were not prepared to
14 accept any volume count data that had been taken.
15 We felt we should update whatever was available
16 and we didn't see any object in asking for them.

17 Q. I understand your experience
18 is in the City of London and you are inferring that
19 the figures that you have are in accordance with
20 what the City of London experience is, but you are
21 in no position to say if they are in accordance with
22 what the Township of Westminster traffic count is?

23 A. When you are speaking of this
24 you are speaking of averages and frankly the average
25 traffic fluctuations really range from 10% below and
26 10% over so you are talking on a maximum count here
27 of 50 vehicles.

28 MR. PLAXTON: My friend has inferred
29 that the township has records of traffic flow. If
30 they do, then I assume they are available. If he has



1 them, perhaps he should produce them.

2 MR. WRIGHT: My question didn't
3 imply that. It only asks if they knew whether or
4 not the figures existed and the answer to that was
5 no. I did not imply that the Township of Westminster
6 had any figures.

7 MR. PLAXTON: You asked the question
8 whether they exist. I am told there is no en-
9 department
10 gineering/in the Township of Westminster as such
11 to do things such as this. That is what you are
12 asking. You are trying to find that out.

13 MR. WRIGHT: Q. Mr. Morgan, what is
14 the accident count along this stretch of road from
15 Highway 401 to Wellington Road?

16 A. I do not have that information.
17 I understand it is being presented by someone else.
18 This accident data would be collected by the
19 police jurisdiction outside of London. We don't
20 record accidents on county roads. I understand
21 that information is being sought and will be pro-
22 duced later.

23 Q. Would a high traffic count
24 in your opinion warrant road widening in this case
25 all the way up Wellington?

26 A. The volumes we have projected
27 or existing?

28 Q. Given the accident count --
29 and I'm talking about volume now. Certainly in-
30 creased volume would increase the risk of accidents
31 if it is an accident-prone area?



1 A. You said it.

2 Q. Would it?

3 A. As far as I'm concerned with
4 the information we have on volumes and the lack of
5 having an accident experience to evaluate, I wouldn't
6 say road widening is required, if that is what you
7 are asking. Road widenings in themselves are not
8 cure-alls for accidents. It depends on what kinds
9 of accidents you have.

10 Q. Is it safe to say then that
11 whether or not there are accidents on this part-
12 icular road did enter into your consideration of
13 your report?

14 A. We have not included an acci-
15 dent review in our part of the report.

16 Q. You had no information about
17 it so it was not included?

18 A. We have not obtained any in-
19 formation.

42 20 Q. On your projections of traffic
21 flow on the 7th Concession, this would be on Exhibit
22 IIB you have a grand total of 1,586 vehicles per day. On an
23 hourly average -- let's talk about the number of
24 vehicles per minute on an average day which is going
25 to be something like two vehicles per minute.

26 A. In the highest hour which
27 appears to be 1:00 to 2:00, you have 229 move-
28 ments in the hour.

29 Q. That would be bordering on four?

30 A. That is right. Four vehicles per



1 minute.

2 Q. That is going to be virtually --
3 it is going to create some problems to somebody
4 trying to get onto that road, especially if they
5 want to make a left-hand turn onto that road?

6 A. The only problem it will create
7 is that you will look both ways and make sure there
8 is a gap in traffic.

9 --- (Laughter)

10 Q. Will there be that gap in the
11 traffic?

12 A. Yes, I think I've already said
13 that. Fifteen hundred vehicles a day -- 3,000
14 vehicles a day do not create conditions that make
15 it impossible to enter the highway or exit or cross.

16 Q. Your comment is based on city
17 experience, I gather?

18 A. Yes, generally.

19 Q. What is your experience with
20 tractors?

21 A. Tractors?

22 Q. Tractors.

23 A. Very little, if any.

24 Q. Well ---

25 A. I know they accelerate quickly
26 and are a little more awkward to drive than a
27 passenger vehicle.

28 Q. You are going to have a little
29 bit more problem with a tractor out in any of these
30 farm areas because of the awkwardness of travelling and you



1 may be hauling a fairly substantial piece of machinery
2 behind you?

3 A. What is your question?

4 Q. Your experience is based on the
5 City of London which hasn't taken into account the
6 fact that you might be hauling a fairly substantial
7 piece of equipment behind a tractor and you are
8 telling us you can get out with a city vehicle in
9 this kind of volume, but you don't seem to have
10 taken account of large farm equipment. I just want
11 to confirm if that is true?

12 A. We haven't really analyzed
13 the accelerating power of farm equipment and loads
14 and so on. We have looked very carefully at the
15 difficulties, if any, that vehicles might have
16 entering or exiting from the fill site. They have
17 the same characteristics of slow acceleration and
18 jumpy clutches and so on as a tractor. I would not
19 anticipate a problem entering this road with 1,500
20 vehicles on it.

21 Q. Your figures entering and
22 exiting that landfill site would all lead to the
23 west. The lanes I am concerned about and no doubt
24 Mr. Van Diepen will question you about this. Those
25 vehicles coming out of there making a left-hand
26 turn going back out to Wellington Road are not
27 going to have the problems of the farmers who are
28 trying to get out on the 7th Concession between
29 the fill site and Wellington Road because there is
30 going to be a constant flow of traffic in both



1 directions?

2 A. I think you are dealing in
3 matters of hearsay.

4 Q. Your whole report is hearsay.
5 You didn't actually make these figures, did you?

6 A. I have people under me responsible
7 for doing things for me.

8 Q. They are not here?

9 A. No.

10 Q. So this is hearsay?

11 A. As far as I'm concerned the
12 evidence I can give the hearing ---

13 MR. PLAXTON: Mr. Chairman, I really
14 do object if my friend is suggesting that this is
15 hearsay.

16 MR. WRIGHT: I am not challenging
17 Mr. Morgan. I am just pointing out ---

18 MR. PLAXTON: You challenged him by
19 referring to the word "hearsay".

20 MR. WRIGHT: The word "hearsay" was
21 thrown at me first.

22 MR. PLAXTON: If we are supposed to
23 be conducting this in this manner and that is to
24 bring people who have actually taken the count and
25 have them testify on the Bible that they have taken
26 the count, then we will do that, but, Mr. Chairman,
27 my understanding is that that is not the way these
28 hearings are conducted. My friend very well knows
29 that.

30 MR. WRIGHT: I'm not asking for that.



1 THE CHAIRMAN: You are asking for
2 his opinion?

3 MR. WRIGHT: Mr. Morgan was suggesting
4 what I was saying was based on hearsay and in refer-
5 ence to what my friend has said I don't think that
6 sort of thing should be heard here as we found out
7 in the last couple of days.

8 THE CHAIRMAN: I'm not sure what
9 you mean by that.

10 MR. WRIGHT: We found the nature of
11 the hearing was of a very easy-going nature so
12 everybody could be heard and I did not in any way
13 intend to raise a legal matter/^{except}insofar as pointing
14 out to the witness that the use of legal language
15 by him was inappropriate under the circumstances.

16 THE CHAIRMAN: Proceed, please.

17 MR. WRIGHT: Thank you.

18 Q. Mr. Morgan, you are employed
19 by the city?

20 A. Yes.

21 Q. You have told us -- and I take
22 it it is in the nature of another undertaking that
23 you have from the city that, if approval for this
24 is given, that this 7th Concession is going to be
25 paved in accordance with Schedule No. VI. You
26 are giving that undertaking to the Committee and
27 to the citizens of Westminster Township who are
28 concerned about these things?

29 MR. PLAXTON: I object. He is not
30 authorized to do so. Mr. Rowntree is and he will be



1 discussing the matter later.

2 THE CHAIRMAN: Is Mr. Rowntree going
3 to give evidence?

4 MR. PLAXTON: Yes.

5 MR. WRIGHT: Is Mr. Rowntree going
6 to give undertakings?

7 MR. PLAXTON: Yes.

8 MR. WRIGHT: Q. Just one further
9 question, Mr. Morgan: what is in your opinion the
10 effect of a slow moving tractor getting into one of
11 these traffic lanes on the 7th Concession? Will
12 this create congestion or was this taken into account
13 in your study?

14 A. You mean with the projected
15 volumes on the 7th?

16 Q. Yes, that taken together with
17 your view of what the road capacity is. You told
18 us the road is inadequate to handle the amount of
19 volume we are talking about. Would it not also be
20 implying a certain amount of -- travelling X miles
21 an hour and all this sort of thing? Did you take
22 into account the possibility that a slow moving
23 tractor might get into this area of traffic and
24 how much congestion it could cause?

25 A. Only to the extent that you
26 will notice on the cross section the shoulders
27 have been shown originally at five feet and are
28 now shown at 10. We would anticipate -- I would
29 not anticipate any difficulty with a piece of farm
30 equipment that is operating efficiently entering the



1 traffic stream with 1,500 vehicles and once having
2 entered the stream, obviously if it has the right
3 to and stays on the travelled portion, this is
4 going to slow traffic down. If it moves on the
5 shoulder areas where we have prepared the 10 foot
6 shoulders, I would not anticipate any problem.

7 MR. PLAXTON: Mr. Morgan, would you
8 see it as an advantage for the exit of vehicles
9 from a farm entering onto Concession Road #7
10 that a right-hand turn be simplified by enlarging
11 the pavement at that point to enable a small throat
12 to be -- to allow the tractor vehicle to gradually
13 introduce itself into the stream of traffic moving
14 in a right direction?

15 THE WITNESS: Acceleration lanes
16 or decelerations lanes you mean?

17 MR. PLAXTON: It would be like that
18 only it would be an acceleration lane I suppose
19 instead of a deceleration lane.

20 THE WITNESS: I don't believe I would
21 see any benefit to that. I had already assumed and
22 probably should have at least acknowledged it that
23 as the road is reconstructed and paved it is just
24 a routine that we would attempt to provide any
25 existing accesses to that road with good visibility
26 with the co-operation of the owner, of course, and
27 a design that will allow him to get in and off the
28 road into the stream and out, but as far as
29 acceleration lanes they are usually only used in
30 high speed movements and tractors certainly wouldn't



1 be that.

2 MR. WRIGHT: Q. I am sure Mr. Rowntree
3 will give us this information but is it Mr. Morgan's
4 understanding that all this road construction will
5 take place prior to the implementation of the land-
6 fill site?

7 A. That is my understanding and
8 Mr. Rowntree will clarify that.

9 MR. WRIGHT: I have no further questions.

10 THE CHAIRMAN: Does anyone have any
11 further questions?

12 MR. VAN DIEPEN: When you were talking
13 about 1,586 vehicles a day, it sounds to me, according
14 to what I heard yesterday it is kind of low because
15 according to what I heard the township and the
16 neighbouring townships will also be using the dump,
17 the new garbage landfill site. I don't think the
18 car count is too high. Do you figure that?

19 THE WITNESS: I think that is a
20 correct statement. I think we have been quite
21 forward with it but what we have done is just taken
22 the trips to the landfill site. If any other trips
23 are added by allowing other people to use it, the
24 number will increase. Again, I think I have to
25 emphasize that the capacity of the road we are
26 talking about after it is finished is far greater
27 than 3,000 vehicles over an 11 hour period. It is
28 a good point.

29 MR. VAN DIEPEN: Sometimes I have
30 to pull out the tractor with a wagon or two wagons



1 behind it and it is 60 or 65 feet. I realize I
2 am doing it illegally.

3 THE WITNESS: Not if you are crossing
4 from your own land.

5 MR. VAN DIEPEN: I am not allowed to
6 go on the road with anything that long, a piece of
7 equipment without special asking permission for it.
8 It is done and we don't ask permission and they
9 don't stop us. If I get that long a machine it
10 takes me a little while, especially if I have to
11 make a left turn. I would suggest if the landfill
12 site comes through, maybe they could put a sign up
13 from the road that traffic on the road stops. I
14 would say a stop sign. I know I have to stop when
15 I come off there. I know that, but also you are
16 pretty busy sometimes and you say there is no
17 problem. But it might take 10 minutes sometimes
18 to get across. Those city people don't give a guy the
19 chance to get out.

20 THE WITNESS: I think there is a
21 good point in the brief. We said the city would
22 be prepared to erect any signs that are required
23 to make the safe operation of traffic on the roads
24 and such signs as "Slow Moving Vehicle".

25 MR. VAN DIEPEN: "Farm Equipment"?

26 THE WITNESS: Not that, but on Richmond North
27 we have "Horses Crossing" signs.

28 THE CHAIRMAN: I wonder if you would
29 get a little closer to the mike? I didn't get the
30 joke.



1 THE WITNESS: He said he wondered
2 if we could put "Farmer Crossing" signs and I said
3 no, we would probably erect "Farm Equipment" and
4 on one occasion we have erected "Horses Crossing"
5 signs.

6 THE CHAIRMAN: So people could watch for
7 the farm equipment?

8 THE WITNESS: There are uniform
9 signs for this type of equipment and we would be
10 willing to make sure of this. You have regulations
11 that can be imposed such as lower speed limits in
12 the township and so on.

13 MR. VAN DIEPEN: One more thing.
14 The rate of fatality on this piece of road on
15 Wellington is very high. We all know that who
16 live in the neighbourhood. I don't know why it
17 is that high, even for that straight piece of road.

18 MR. PLAXTON: In this regard, Mr.
19 Chairman ---

20 THE CHAIRMAN: I didn't get the
21 question. You are backing away from the microphone.

22 MR. VAN DIEPEN: I'm sorry. The
23 traffic fatalities on this piece of road is very
24 high.

25 MR. PLAXTON: Mr. Chairman, my
26 suggestion . is to call Staff Sergeant Beeman of
27 the Ontario Provincial Police inquiring into this
28 intersection. His comment about this intersection
29 here is there is no major accident problem. That
30 is what he said, it is a non-accident prone area.



1 There have been two minor accidents in the last
2 six months. He did comment as well that he would
3 check his reports back and he does not have a list
4 except back for the last few weeks.

5 MR. VAN DIEPEN: No fatality the
6 last few weeks. In the course of a year quite a
7 few people die in accidents over there.

8 MR. PLAXTON: On the Wellington Road
9 or at the intersection?

10 MR. VAN DIEPEN: Only two fatalities
11 the last two years died in the intersection.

12 MR. PLAXTON: We can make further
13 enquiries. I would have thought if there had been
14 fatalities at the intersection Sergeant Beeman
15 would have been aware of it and told us. Can you
16 indicate when they happened?

17 MR. VAN DIEPEN: Mrs. Campbell about
18 two years ago I think. Her maiden name I think was
19 Campbell. I don't know the name exactly. It was
20 on a Saturday. Not one of those days of the traffic
21 count. On Saturday the traffic is pretty heavy. I
22 have been out on Wellington quite a few times.

23 THE CHAIRMAN: I wonder if there are
24 any questions you would like to ask. I think you
25 are already agreed that a right turn lane be
26 established on Wellington. Do you think a stop
27 light as well may help there?

28 THE WITNESS: I think there is every
29 indication a stop light would be installed. If
30 approval is given, we would have to go through various



1 authorities.

2 MR. VAN DIEPEN: But Wellington Road,
3 put it off -- you would put the light up or is it
4 a useless promise and that is it?

5 THE WITNESS: There is approval
6 required through the Ministry for a traffic signal
7 but that really involves equipment more than whether
8 it should be installed or not. They could not
9 refuse to let a jurisdiction install the signal but
10 they could refuse to subsidize it. They have never
11 in my experience said, "You cannot signal it."

12 MR. VAN DIEPEN: After all this
13 talk you might just forget it.

14 THE WITNESS: I think if the city
15 makes a commitment to a signal light through Mr.
16 Rowntree that we won't forget it. I don't think
17 you will let us.

18 MR. VAN DIEPEN: We will not let you
19 forget it.

20 THE CHAIRMAN: Anyone else?

21 MR. HANNAM: Peter Hannam from the
22 Ontario Federation of Agriculture.

23 In your calculations of projected
24 traffic volumes did you include future projections
25 to ensure increases in the traffic already on these
26 roads or increases in the number of vehicles going
27 to this landfill site?

28 THE WITNESS: No. I think I made
29 that clear originally that assuming it is there
30 today and no projections into the five or 10 year



1 periods have been made but obviously there will be
2 increases in both road traffic and fill site traffic
3 as the city grows.

4 MR. HANNAM: Did anyone in preparing
5 this presentation have an estimate of the increased
6 volumes of garbage and how much extra traffic this
7 might develop in 10 years?

8 THE WITNESS: Well, I probably am not the
9 most expert person in this field, but as far as on the
10 basis of what we have today, we have 1,600 trips being
11 generated, both trucks and cars being generated by
12 a population of 230-some odd thousand or 225,000.
13 So it looks to me like there is about a trip generation
14 of six to seven trips per thousand population. If you
15 base that on your annual increases, you might get that
16 number of trips increase. So, assuming that you had
17 a 7,000 population increase in one year, you would
18 probably get another 50 trips on the total.

19 MR. HANNAM: This would be also with
20 the increase in garbage per capita in the future?

21 THE WITNESS: No.

22 MR. HANNAM: Will this landfill site
23 be open on Saturday?

24 THE WITNESS: That information Mr.
25 Rowntree or Mr. Robertson could give, I believe. I
26 believe it is only open half a day on Saturday.

27 MR. PLAXTON: My information is it
28 would be open all day Saturday.

29 MR. HANNAM: Your traffic projections
30 did not include the present traffic on Saturdays or



1 the anticipated volume of traffic to the landfill
2 site on Saturdays?

3 THE WITNESS: No, we did not count
4 Saturdays.

5 MR. HANNAM: I had something else,
6 but I can't remember it.

7 MR. PLAXTON: I understand we can get
8 this from another witness but I can put it in now if
9 you wish.

10 The city's practice is to not utilize
11 its maximum fleet on Saturdays. There are a minimum
12 number of trips by city vehicles on Saturday. Most
13 trips generated by city equipment occur on Mondays
14 through Fridays. Principally there is some move-
15 ment on a Saturday, but it is very limited. That
16 is a reduction in the volume of traffic by the city
17 for Saturday.

18 MR. WRIGHT: The local individual
19 would be carrying more on Saturday.

20 MR. PLAXTON: There is something there
21 to offset it, that is my point.

22 THE CHAIRMAN: Any other questions?

23
24 MRS. SIFTON: Mr. Morgan, would you
25 tell me how you arrived at the figure of 80 on
26 Exhibit V?

27 THE WITNESS: Which 80?

28 MRS. SIFTON: In the "Compliance"
29 total column there, vehicle --

30 THE CHAIRMAN: Will you speak into the



1 mike?

2 MRS. SIFTON: I can't reach it. It
3 is under the "Compliance" column and across from
4 the vehicle volume along minor street per hour for
5 the same eight hours.

6 THE WITNESS: Is this the corrected
7 total, the one I said was in error or this one?

8 MRS. SIFTON: That one.

9 THE WITNESS: That is the vehicle
10 volume along the minor street per hour for the
11 same eight hours as the count was taken.

12 MRS. SIFTON: Can you tell me how
13 you got 80, please?

14 THE WITNESS: On that particular one?

15 MRS. SIFTON: Yes.

16 THE WITNESS: Turning to Exhibit IV --
17 I think it might be more significant to figure out
18 how we got the 80 here. It is the same 80, really.

19 MRS. SIFTON: Just show me the first one.

20 THE WITNESS: All right. The east-
21 bound traffic -- actually the way this is done, you
22 have to total the eight hours that we have left in
23 Exhibit IV and not crossed out. You take the three
24 hours we crossed out out. Then you have to go to
25 the eastbound and westbound columns of Exhibit IV
26 and you total under "eastbound" left and that will
27 give you 619 vehicles.

28 MRS. SIFTON: Okay.

29 THE WITNESS: Then you total straight
30 through and that will give you three vehicles. You



1 total right turns -- this is all eastbound -- which
2 will give you ten vehicles. Then you go to west-
3 bound and you total left turns which gives you six
4 straight through, four, and right turns 19. Now,
5 what you do is add 100% of 619, so you leave it in,
6 so you add all of the three. You add half of the
7 10. The reason for that is that is you can visualize
8 this in determining the warrant you are basically
9 attempting to establish how much delay is being
10 encountered by side street traffic when it en-
11 counters main, so a left turn across the main
12 traffic hits both directional flows and therefore
13 we count 100% of that, but a right turn only hits one
14 directional flow and therefore we only count 50%
15 of that turn. That is why you will find here we
16 are using in two cases in very modest amounts any-
17 way, going across we have a total of 10 under east-
18 bound and we use 50% of that which is five. We
19 then use 100% of the total of six under westbound
20 lefts. We then total straight through westbound
21 and use 100 which is four. We then take half of
22 the 19 which is right turns again and we have
23 used 10 in this case. If you add this all up
24 it comes to 647 and you divide by the eight hours
25 to give you the 80.

26 MRS. SIFTON: A second thing I want
27 to ask you is do you live on Wellington Road?

28 THE WITNESS: No.

29 MRS. SIFTON: Have you ever tried
30 to get out into a lane of traffic from a house?



1 THE WITNESS: At what part of
2 Wellington Road?

3 MRS. SIFTON: I live near the 6th
4 Concession. Because I sat there and waited 15
5 minutes.

6 THE WITNESS: I can't attest to that.
7 I have never done that.

8 MR. PLAXTON: Would the introduction
9 of traffic lights at this intersection tend to
10 assist that kind of movement.

11 MRS. SIFTON: I live on the 6th
12 Concession, not 7th.

13 MR. PLAXTON: You live on Wellington
14 Road?

15 MRS. SIFTON: Yes.

16 MR. PLAXTON: You live north of this
17 intersection and south of the Sixth Concession inter-
18 secting the Wellington Road? Correct?

19 MRS. SIFTON: That is correct.

20 MR. PLAXTON: You live on the west side
21 of the road so if you want to make a left-hand turn
22 to go to London that would probably be a difficult
23 move for you to make.

24 MRS. SIFTON: Lately.

25 MR. PLAXTON: So if you have traffic
26 slowed down and it stopped here at this inter-
27 to
28 section, I'm asking Mr. Morgan/what extent that
29 would assist in the making of a left-hand turn
30 from the driveway in question. Would there be
pauses in traffic generated by the stop light?

THE WITNESS: What is the distance be-



1 tween the 7th and the 6th?

2 MRS. SIFTON: Seven-eighths of a mile.

3 THE WITNESS: I don't think there
4 would be any significant improvement there if there
5 is a problem. Distribution of traffic after signal
6 occurs at about 1,500 feet. After that they are at random.

7 For the
/information of the Board, while I didn't personally
8 count these, I did attend the 18th count at the
9 peak p.m. period which happened to be one of the
10 higher periods and I have interviewed the individual
11 who made this count rather extensively as to his
12 opinions as to the problems of entry. He was not
13 able to detect any, nor was I when again I emphasize
14 it is not a highway you can drive out without using
15 caution. There is no quantity there that causes
16 massive lines of traffic that I am aware of. Mrs.
17 Sifton may have seen something I didn't.

18 MRS. SIFTON: I have seen a line of
19 traffic behind a slow moving vehicle or something
20 going along the road and there is at least 10 to
21 12 vehicles.

22 THE WITNESS: I think that could
23 occur under any set of circumstances. There are
24 occasions when something might disrupt and cause queu-
25 ing but on a normal basis I have not observed
26 it nor did the individual who made the count.

27 MRS. SIFTON: I'm referring to
28 slow moving vehicles. When I say I waited 15
29 minutes this is under normal circumstances.

30 THE CHAIRMAN: Have you any particular



1 questions you want to ask Mr. Morgan? You have
2 already indicated you have problems getting onto
3 the road sometimes. Have you any questions to ask
4 Mr. Morgan?

5 MRS. SIFTON: I want to know how an
6 additional 600 vehicles every day is going to improve
7 my chances of getting out of there?

8 THE WITNESS: The answer to that is
9 I don't really think it is going to make much differ-
10 ence one way or another. I don't think 600 vehicles
11 a day is going to make any difference, noticeable
12 difference.

13 MRS. SIFTON: I have two children
14 who cross Wellington Road every morning that school
15 is on. I have seen several vehicles go by this
16 school bus going in the opposite direction and not
17 stop, flashing lights going on the bus. How are you
18 going to police this to make sure that vehicles stop
19 when school buses are there?

20 THE WITNESS: I personally wouldn't
21 police it, but the Provincial Police are quite aware
22 of the need to enforce this type of legislation and
23 frankly we don't have that great an involvement in
24 school bus legislation in the city. The only
25 answer to that type of thing if violations are
26 occurring, is enforcement.

27 MRS. SIFTON: The traffic out there,
28 the city will not police it?

29 THE WITNESS: There is no way the
30 city would have to police it. The Provincial Police



1 have the capabilities of enforcing that law pro-
2 bably better than the city.

3 MRS. SIFTON: Thank you very much.

4 MR. PLAXTON: If there is a difficulty
5 on Wellington Road now, we were informed by Sergeant
6 Beeman that it is not serious. If he is in error --
7 by the way, Mr. Chairman, I am told by Sergeant
8 Beeman --we called again to find out if there were
9 any fatalities reported at this intersection in the
10 last two years and he says no. The reason he comments
11 only with respect to the last two years is he has not
12 been in the London area prior to that time.

13 Q. If there were difficulties on this
14 Wellington Road for north and southbound traffic,
15 would the fact of lights being placed at this inter-
16 section assist or not the incidence of accidents
17 arising on Wellington Road?

18 A. The accident experience at a
19 corner related to difficulty in entering would be
20 reduced and possibly eliminated all together. There
21 could be other accidents occur related to signal-
22 ization like rear-end collisions and so on, but
23 basically the accident picture should improve
24 substantially in terms of difficulties.

25 MRS. McDOUGALL: You told Mrs. Sifton
26 a light controls the traffic for approximately
27 1,500 feet. That is more or less a quarter of a
28 mile. Could you tell me how a set of lights at
29 the corner of the 7th Concession is going to help
30 regulate all these vehicles passing south on the



1 Wellington Road, namely, at the corner of the 5th
2 where there is an elementary school and eight school
3 buses crossing Wellington Road twice a day and also
4 how it is going to regulate the traffic as far as
5 coming over the crest of the hill going north into
6 London on the 6th coming up through there?

7 THE WITNESS: I think I have already
8 stated a signal light installed on the 7th would
9 have no influence on the 5th or the 6th.

10 MRS. McDOUGALL: Are you willing to
11 accept responsibility for regulating the traffic
12 at a corner where there is an elementary school?

13 THE WITNESS: I would suspect the
14 problem is there today. We are not adding to that
15 problem, the difficulty of elementary school children
16 crossing. We are adding some infinitesimal amount
17 of traffic to that type of stream. In terms of
18 Wellington Road we have recorded 5,000 trips in
19 the 7th Concession area. If I were to tell you
20 there were 22,000 trips on Commissioner's Road, you
21 could see the comparison.

22 MRS. McDOUGALL: Commissioner's
23 Road is regulated by more than one set of lights.

24 THE WITNESS: Commissioner's itself
25 has only one set of lights, but I think directly
26 to answer your question the fact that the city
27 is undertaking to put a landfill site on the 7th
28 is really only affecting the 5th and 6th by
29 adding a very small amount of traffic to 5,000
30 cars. I don't see that that would make the city



1 liable for any improvements to that corner.

2 MRS. McDOUGALL: You know, it is on
3 the County of Middlesex, is it not, because that
4 is a county road?

5 THE WITNESS: Assuming no landfill
6 site goes there and assuming traffic increases occur
7 each year, you have a problem there now.

8 MRS. McDOUGALL: We don't have
9 1,500 vehicles dropped in our laps right smack
10 down either.

11 THE WITNESS: It depends on the
12 context you are looking at 1,500 vehicles.

13 MRS. McDOUGALL: I'm looking at the
14 point of view of having to sit at the corner of
15 the 5th Concession twice a day with a school bus
16 and waiting maybe 10 minutes to find a break in
17 the traffic one way and not being able to get
18 across. Now you tell me there is going to be
19 approximately four more vehicles per minute so
20 that means I am going to sit there that much longer,
21 doesn't it?

22 THE WITNESS: Fractionally, yes.

23 MRS. McDOUGALL: And the traffic
24 is regulated at 1,500 feet you say, so buses are
25 crossing the road. There are trucks coming north-
26 ward on the Wellington Road. They come at a 50
27 mile per hour rate. What happens if a school bus
28 gets part way across? We can't go back, you know.

29 MR. PLAXTON: When do the school
30 buses arrive at the schools?



1 THE WITNESS: I don't know.

2 MRS. McDOUGALL: A quarter past eight
3 to five to nine in the morning.

4 MR. PLAXTON: When do you have the
5 greatest incidence of traffic?

6 THE WITNESS: It is outside of that 7:00
7 to 9:00 period. It is after 9:00 and before 11:00.

8 MR. PLAXTON: What time is it?

9 MR. WRIGHT: Perhaps we should have
10 the times for the afternoon too.

11 MRS. McDOUGALL: School is dismissed
12 at 3:25 p.m. and the buses run from 3:30 until
13 approximately -- they are crossing Wellington Road
14 until well after a quarter past four. They don't
15 just cross at the 5th either. They cross at the
16 4th, 5th, 6th, 7th and 8th.

17 THE WITNESS: The information I have
18 given the Board before was the peak hours traffic
19 loads occur 7:00 to 9:00 and 4:00 to 6:00 and the
20 landfill site traffic peaks during the period
21 9:00 to 11:00 and 1:00 to 3:00.

22 MRS. McDOUGALL: But they are coming
23 back from the landfill site after 3:00 o'clock, are
24 they not?

25 THE WITNESS: That is the two-way
26 trip recorded. I think really if there is a pro-
27 blem now at the intersection of the 6th or 5th and
28 Wellington and if there is one later, it won't be
29 as a direct result of a modest introduction of
30 this amount of traffic.



1 MRS. McDOUGALL: Mrs. Sifton also
2 raised a good point about policing of it and the
3 Provincial Police. You are from the city and you
4 are not likely aware that after 35 miles an hour
5 cars are required to stop, but there is a two lane,
6 as you know, they don't divide the traffic and they
7 go from a two lane into one going southward on that
8 hill going up toward the college. This, is this
9 going to be widened to four lanes in that particular
10 area?

11 THE WITNESS: Not that I'm aware of.

12 MRS. McDOUGALL: Where would the
13 widening take place, how many feet north and south
14 of the 7th Concession?

15 THE WITNESS: In the event the city
16 got into the widening of the Wellington Road inter-
17 section with the 7th in order to provide a left turn
18 slot there, and we have referred to that in our
19 report as we didn't feel it was necessary, but in
20 the event that it was widened, it probably would be
21 no more than 350 feet south and north of the inter-
22 section itself.

23 MRS. McDOUGALL: On both sides of the
24 road? Widened on both ends?

25 THE WITNESS: The total widening
26 actually would occur for less than 300 feet and
27 taper back to the existing roadway. You would have
28 to look at the designs. I think I could safely say
29 that the road construction, if we got into it,
30 would involve no more than 400 feet in both directions.



1 MRS. McDOUGALL: All I'm concerned
2 about is the statistic of school bus accidents and
3 cars passing them, there is an unbelievable in-
4 crease in multi-lanes rather than one. You know,
5 if the city is going to have these trucks, the
6 trucks are not going to want to stop behind the bus.

7 THE WITNESS: I wouldn't agree with
8 the trucks not wanting to stop. I happen to have
9 had nine years on the police force as well as in
10 the city, and truckdrivers will be a lot safer
11 than most motorists through their insurance rate
12 problems and everything else and driving instruction.

13 THE CHAIRMAN: Thank you very much.

14 Are there any more questions?

15 I'm now going to give the reporter
16 a 10 minute break.

17
18 --- Recess

19 --- Upon resuming

20
21 THE CHAIRMAN: Come to order, please.
22 I have just been advised that someone wanted to ask
23 Mr. Morgan some more questions at the back of the
24 hall. I didn't see their hand. Will you identify
25 yourself?

26 MR. BEAZER: Mr. John Beazer and I
27 live on the Wellington Road between the 5th and
28 6th Concessions.

29 You talked about problems on the
30 7th Concession, but there are a lot of farmers with



1 problems all around there added to the 7th
2 Concession. We have to go out with farm vehicles
3 and there is quite a bit of land where we have to
4 go on the roadway. I don't know how we will ever
5 get in and out. They toot the horn and you are not
6 even on the road. How are we going to get in and
7 out? I haven't the slightest idea. Certainly we
8 haven't got no time to take a lot of time every
9 time you want to get in or out. You can't fight
10 the traffic coming both ways. I have heard it
11 said that a good tractor driver will be able to get
12 out onto the shoulder but on these roads today no-
13 body can go with a tractor on the shoulder. You
14 have to go on the outside. It might upset or
15 something because it is so heavy. To turn in when
16 you get to your place, you can't even turn in. That
17 is what I want. If you make a four lane highway,
18 there might be a chance, but with a two lane, there
19 just isn't a chance. That is all there is to it.
20 Who cares? All the farmers have got this problem.

21 THE WITNESS: I think, Mr. Chairman,
22 in general I have answered the question before.
23 First of all, it has been indicated that there are
24 no engineering departments in terms of the county
25 or suburban roads. There certainly is a County
26 Engineers Department and I would suggest that they
27 are responsible and we would be prepared to co-
28 operate with them in undertaking any studies of
29 this type outside of the city. In other words,
30 the complaint has been made to the county engineers



45

1 now. Mr. Arnold I know has undertaken various
2 studies outside the city on complaints. If they
3 have been made, I wonder what the outcome of the
4 studies might have been. I'm sure if this gentleman
5 or any other person who is concerned with the safety
6 or convenience of a county road system were to en-
7 quire through Mr. Arnold that studies would be
8 undertaken and again I volunteer to assist wherever
9 we could in those studies, but I think I have to
10 say again that the introduction of 1,500 trips a
11 day, 750 one way and 750 the other, is not going
12 to add substantially to what problems might be
13 there today. I don't know whether that answers
14 the question or not, but there is a source that
15 can be sought to look into problems that are there
16 today and we would help if we were allowed to.

17 MR. BEAZER: The traffic for our
18 purposes is just at capacity now. Thank you.

19 MR. HANNAM: I would just like to
20 make one objection to what Mr. Morgan says that
21 the introduction of 1,500 vehicles would not make
22 any great increase in the traffic flow. Remembering
23 this witness' answers a few minutes ago that the
24 study that is now being presented as evidence is
25 a good indication of what happened during the
26 middle of the week last month or what would have
27 happened last month. This does not take into
28 account any projections of increased traffic flow,
29 increased garbage amounts or increases in existing
30 traffic on that road, so I object when he says there



1 is only going to be so many more vehicles. No one
2 can say what there is going to be in 10 years.

3 MR. PLAXTON: I think the evidence
4 basically is that while there is going to be an
5 increase in traffic there is no question -- we're
6 not sitting here saying there won't be. We are
7 saying that the traffic pattern will come at a
8 time of day when there is capacity there to handle
9 it in a way that evens out those peaks and valleys.
10 That is the evidence and I would like the audience
11 to bear that in mind. The introduction of this
12 traffic fits in reasonably well with what is going
13 on in there now, the time of day of the peaks and
14 valleys and the volume of traffic.

15 MR. CARROTHERS: I would like to ask
16 how they are going to control the drivers of pickups
17 and cars and stuff who come out Gloucester Road and
18 come on Southdale Road and Williams Road and also
19 these cars, how are they going to be controlled?
20 Going out Concession 7 ---

21 THE WITNESS: Was this cars and
22 trucks?

23 MR. CARROTHERS: Private cars and
24 pickup trucks and so on.

25 MR. PLAXTON: This will be in the
26 hands of the operation of the landfill site when
27 it comes into operation. It is the Engineering
28 Department. Mr. Robertson will be called along
29 with Mr. Rowntree and these two men are responsible
30 for the operation. Mr. Rowntree is the Chief Engineer



1 for the city and Mr. Robertson is the Engineer in
2 charge of waste disposal so that I would suggest
3 this question be directed to Mr. Robertson or Mr.
4 Rowntree.

5 THE CHAIRMAN: Mr. Rowntree will be
6 giving evidence?

7 MR. PLAXTON: Yes.

8 THE CHAIRMAN: Would you direct your
9 question to them?

10 THE WITNESS: I wonder if I might,
11 while I agree with what Mr. Plaxton says, there
12 is the one control which is a very rigid control
13 and that would apply to trucks. The city has a
14 truck road by-law which is enforced by the city
15 police department. In terms of the by-law, without
16 getting into a lot of complicated aspects, it re-
17 quires trucks to stay on designated truck routes
18 for as long as possible before leaving for a destin-
19 ation. A truck that might be on Southdale Road
20 and attempting to use the White Oak connection
21 through to the site would be in violation within the
22 city.

23 MR. CARROTHERS: Why have they got
24 no signs saying, "No empty trucks"? That is on
25 White Oak.

26 THE WITNESS: If the road is already
27 signed under half load limits or under by-laws
28 within the county or the city, this only re-
29 inforces what I have said. If it is not, it could
30 be.



1 MR. CARROTHERS: Half loads are
2 only two months of the year. What about the other
3 10?

4 THE WITNESS: If there is a truck
5 movement being made within the city, it can be
6 stopped by the police department. Let's say it
7 was on White Oak and the driver of the truck was
8 in the heavy vehicle category. I'm speaking mainly
9 of trucks not under the supervision of the city
10 because we have complete control there. In terms
11 of a private operator, he could be stopped and
12 the police could ask him where he is going. If
13 he is going to the fill site and is not doing it
14 over the shortest route, he could be charged under
15 our truck route by-law and the shortest route would
16 be to stay on Wellington as long as he can.

17 MR. CARROTHERS: These are the ones
18 I was concerned about. I know the garbage trucks
19 go out Wellington Road.

20 We had a study in the month of May
21 of all the roads and a traffic count on every block
22 and I don't believe that indicated anything.

23 MISS McDOUGALL: I would like to ask
24 if you have ever ridden on a school bus?

25 THE WITNESS: Yes, I have.

26 MISS McDOUGALL: Have you been out
27 in our area?

28 THE WITNESS: No. Where is your area?

29 MISS McDOUGALL: Right here where I
30 live.



1 THE WITNESS: My experience of being
2 on school buses was not out in this area.

3 MISS McDOUGALL: On the Wellington
4 Road for one week straight we had a motorcycle
5 policeman escorting us to school because the trucks
6 wouldn't stop. It is a 50 mile zone so they don't
7 have to because it is not under 35 and they don't
8 feel like it. That is the truth and we have had
9 so much trouble and we had two close calls where
10 we almost got hit and somebody could have been hurt.
11 I don't know -- 7th, or maybe it was even longer
12 ago on the 5th the little Johnson boy was only
13 five and he was hit by a truck that wouldn't stop.
14 That was only one lane and if you get more than
15 one lane people feel they can pass so they don't
16 stop.

17 THE CHAIRMAN: You say they won't
18 stop with the flashing lights on the bus?

19 MISS McDOUGALL: Even then they won't
20 stop and you can ask anybody here. That is the truth.

21 MR. PLAXTON: I thought that was a --
22 if they are not going over 35 miles an hour they
23 are breaking the law. The police officer accompanying
24 you should have arrested them.

25 MISS McDOUGALL: Before that they
26 wouldn't stop.

27 THE WITNESS: This matter of school
28 bus legislation, the law requires you to stop in
29 both directions for a school bus, on the highways
30 where the speed limit is 35 or over, which really is



1 40 up, divided or otherwise.

2 MISS McDOUGALL: That is true, but
3 it is usually the truckdriver who does it. That
4 is all I'm saying.

5 THE WITNESS: I couldn't verify
6 or dispute that.

7 MISS McDOUGALL: I can because I
8 go to school there on the bus every day and I saw
9 what happens. There are a lot of buses this way.
10 It's not just the elementary bus but high school
11 where we have that trouble.

12 THE WITNESS: For what it is worth,
13 the matter of school bus legislation is under re-
14 view now by the Province and many other jurisdictions.
15 There are those of us who don't even agree with the
16 present legislation. We won't get into that, but
17 basically if there is a law and it is being violated,
18 enforce it. That can be done very strictly.

19 MISS McDOUGALL: If you do get this
20 landfill site and people do go down and trucks go
21 down Wellington Road are you going to ask them to
22 put the speed down to 30 miles which is the normal
23 speed to go for trucks?

24 THE WITNESS: That would be a matter
25 for research and study. I am not sure the legislat-
26 ion allows the county to put the speed limit down
27 to 30. If speed were a factor in the problem, I
28 am sure someone would take the necessary action to
29 see that the speed limit was lowered if it could be.

30 MISS McDOUGALL: Would you take the



1 action?

2 THE WITNESS: I wouldn't have any
3 authority over the portions within the county, but
4 county authorities have all the procedures available
5 to them that we have in the municipality.

6 MR. PLAXTON: The Suburban Roads
7 Commission is made up of a number of representatives
8 within the county. Is that correct?

9 THE WITNESS: Yes.

10 MR. PLAXTON: Would there be two
11 representatives of the city on that commission?

12 THE WITNESS: Yes, the city is re-
13 presented.

14 MR. PLAXTON: So, could you not make
15 a direct submission in effect to your members of
16 the commission?

17 THE WITNESS: I believe we could, yes.

18 THE CHAIRMAN: Thank you.

19 If those are all the questions of
20 this witness, you may as well call your next witness,
21 Mr. Plaxton.

22 MR. PLAXTON: I call Mr. Andrew Roze.

23 ANDREW ROZE, called:

24 EXAMINATION BY MR. PLAXTON:

25 Q. Mr. Roze, you are employed by
26 James F. MacLaren Limited?

27 A. That is correct.

28 Q. In what capacity?

29 A. I am a planner with the firm,
30 planning division in the Toronto office.



1 Q. Can you outline your qualifications
2 as a planner to the Board?

3 A. Well, I'm a graduate of the
4 University of Toronto in 1962 in architecture and I
5 went for a master's degree in architectural design
6 and I've worked for seven and a half years in the
7 planning field in the City of Detroit for Oakland
8 County, Michigan; for a year and a half with James
9 F. MacLaren.

10 Q. Yes. I would like you ---

11 MR. PLAXTON: Mr. Chairman, this
12 witness has asked if he has the right to give his
13 views in his own way so, if you wouldn't mind?

14 THE WITNESS: Thank you.

15 THE CHAIRMAN: I wonder. It is a
16 little difficult to hear. Could you raise your
17 voice and get closer to the mike?

18 THE WITNESS: All right, I will try.

19 I would like to start off with a
20 general introduction saying that basically planning,
21 which I am here to testify on, is a process of
22 guiding growth of an area, a community. In the
23 process of this growth the need for various types
24 of land uses arises, some of which are land uses
25 that everybody really wants to have and some
26 are land uses that maybe some people don't like
27 to have. Unfortunately, a landfill site is one
28 of those.

29 On the one hand, there is an
30 absolute urgent need for a landfill site and there



1 is no way a community can grow and develop without
2 this service. On the other hand, nobody really truly
3 wants a landfill site in their backyard. Those are
4 the basic facts. But in the process of this growth
5 the planned uses must be integrated into an area. To do
6 this planning has been provided. For instance, for
7 Westminster Township which has foreseen the process,
8 this sort of eventuality.

9 On June 13th, 1972 Westminster Township
10 submitted a draft of an official plan for approval.
11 It has not been approved to this date, but the official
12 plan has been submitted and this official plan is
13 basically a statement of what the community wants to be
14 and how it wants to develop. I just want to refer to one
15 section of this official plan summation. It deals
16 just with land use --

17 MR. PLAXTON: Q. We have copies
18 of the section you intend to refer to and perhaps
19 we could distribute them to the Board.

20 A. I will read it. It is a section
21 of the official plan, the submitted official plan and
22 it deals with disposal of solid and liquid wastes. It
23 goes as follows: "Disposal of Solid and Liquid
24 Wastes
25 The use of land for the disposal
26 of solid and liquid waste in any
27 land use category may be permitted
28 by the passing of an implementing
29 zoning by-law after -
30 (1) proof that such operations will



1 not pollute soil, ground, water or
2 air and/or will otherwise not be
3 injurious to health or amenities;
4 (2) approval of the method of dis-
5 posal by -
6 (a) the Township of Westminster;
7 (b) the Medical Officer of Health;
8 (c) the Waste Management Branch of
9 the Department of Energy and Re-
10 sources;
11 (d) the Air Management Branch of
12 the Department of Energy and Re-
13 sources."

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14 This comes under the Ministry of the Environment
15 at this time. That is^{the} section that actually refers
16 to solid waste disposal. In other words, I think this
17 is -- I think this illustrates the point that I was
18 starting to say that even Westminster Township has
19 sort of
20 foreseen the possibility of this /land use occurring
21 is
22 and they are saying in effect /that' Provided you can
23 prove that it will not do these things, in other
24 words, pollute soil, adversely affect things out-
25 lined here, then we can take steps to modify, change
26 the zoning by-laws and make this sort of use." This
27 is in any land use category. There is the vehicle
28 provided in the official plan to have this sort of
29 land use in the township.

28 I think at this stage I will maybe
29 take a look at what else the official plan sort
30 of designates. It says -- the area where the landfill



1 site is located -- maybe I can just refer to one
2 of these Exhibits. This Exhibit shows the sort of
3 land use proposed in the official plan, draft
4 official plan. The white sections indicate that
5 this is to be a rural area.

6 Q. Before you do that, would you
7 indicate where the limits of the City of London lie?

8 A. The City of London limits are
9 just north and this is the township. This is the
10 site in question (indicating).

11 Q. And 401?

12 A. 401 is indicated here (indicating).
13 Some of the other land uses, the magenta is industrial,
14 commercial by orange, open space by green, this is
15 the Village of Lambeth and this is the area in-
16 dicated in the official plan just north of the site
17 and this is just south of it. This is the site and
18 the white area in the official plan indicates that--
19 that is, the township would like this whole area to
20 be rural in character, in designation. Generally
21 speaking, this official plan indicates the township
22 wants to remain basically as a rural area.

23 The land uses permitted in a rural
24 area would be basically farm and farm linked to
25 residential. Now, we have to sort of go back and
26 take consideration of the fact that a landfill
27 site has to be incorporated somehow in some area
28 and taking the fact that this landfill site has
29 been designed to try to conform as closely as
30 possible to the rural area, I refer to the restriction



1 that has been going on before. First of all, that
2 the design of the site, the eventual use of it will
3 be geared to the rural category. In other words,
4 the design of the use of land is such that it can be
5 taken for an interim use eventually reverting back
6 to an agricultural use. This is the design and the
7 intention of the landfill site. Whether this can
8 be accomplished or not is up to the experts who are
9 testifying here besides me. It is planned that the
10 land will revert to this. Even during while only
11 part of the site is being operated, agricultural
12 operations can go on on the rest of this site and
13 can be moved over onto the part of the site that has
14 been covered over. What I'm trying to say here is, this
15 particular landfill site, efforts are being made, the
16 best efforts possible at this stage to have it geared
17 to a rural area.

18 So, from the point of view of the
19 sort of design and the sort of testimony we have had
20 on the precautions being taken to prevent pollution
21 and other problems, I would have to say that, taking
22 these things into consideration, the landfill site does
23 not warrant a revision of the official plan designation.
24 Remember, the intent of the official plan is,
25 of course, there are prescribed conditions that we
26 were talking about before. I would like to talk
27 about another aspect of this which I don't think is
28 in the official plan which says amending basically the
29 impact on the environment from sort of a general
30 point of view. I don't think anybody can



1 deny that there will be some changes in the area
2 due to this land use. Some of these changes will
3 be real, some of these things will be imaginary or
4 psychological. I would like to touch on that be-
5 cause it is quite an important point.

6 I think really the major impact is
7 the psychological impact in terms that up to this
8 date I think all of us in this room, including
9 myself, including some of the witnesses, have a
10 sort of a psychological approach to landfill sites
11 and I will say here everybody slips up here some-
12 times and calls it a garbage dump. I think this
13 is a key thing to sort of remember. Whereas, the
14 expert witnesses have explained the sort of pre-
15 cautions they are taking, the designs, engineering
16 features that will be incorporated into the design
17 of the site. Everybody still thinks -- has the
18 sort of mentality that says garbage dump mentally..

19 I only have a sort of -- to go back
20 into the meaning of this, I think it has been
21 expertly testified what will happen, berm control
22 with the leachate, with litter control, dust, odour
23 and all those things have been mentioned and expertly
24 testified to. The only thing I can say is that under
25 normal operational conditions these things would be
26 taken care of. There is the possibility and I think
27 everybody will admit it that at some stage or other
28 some of these things may cause some problems. We
29 have gone into that. Also another area, the fear
30 of how this thing will look visually.



1 This again has been explained.
2 Precautions have been taken providing berms around
3 it, providing the fences, the tree line and the 300
4 foot set back, the sort of buffer strip around it.
5 It has been explained, the visual appearance from
6 the road will be screened. At the same time I don't
7 think anybody will deny that from a distance, from
8 some areas, surrounding areas people will see and
9 recognize that it is a sanitary landfill site. I
10 sort of go back on this idea about the psychological
11 thing that even though you see tractors working
12 off a mile away and you see a berm and things like
13 that, you register the idea that that is a sanitary
14 landfill site. Psychologically this an impact
15 on the residents I would say within sort of the
16 area, 2,000 feet from the site this could be a
17 problem which is a real problem in terms of psy-
18 chological, psychological impact of it.

19 Q. Mr. Roze, could you refer to
20 the display on your right? Does it designate the
21 area you referred to as being 2,000 feet away?

22 A. Yes.

23 THE CHAIRMAN: Could you turn it this
24 way?

25 THE WITNESS: On this plan we have
26 the existing land uses indicated as of today. The
27 site is indicated in red. The yellow areas are
28 residential areas surrounding it. This is a super-
29 imposition -- these lines would indicate the fences.
30 The first line is 1,000 feet, the second is 2,000



1 feet and the third line is a mile for purposes of
2 scale. There are five farm operations on the site.
3 There are six within 1,000 feet and some more within
4 2,000 feet. So the ones that would be coming back
5 will have about 17 (inaudible) that
6 is what I was referring to.

7 Now I would like to refer to another
8 impact that has been talked about here and I think
9 this is a real one. This is traffic to which we
10 just referred. As Mr. Morgan testified, there will
11 be an increase in traffic on Wellington Road and on
12 the side road. In all due fairness I, to gauge the
13 impact, would say the impact on Wellington Road is
14 minor because there is already traffic existing on
15 that road and this traffic is bound to increase
16 because it is ^{the} major connection between London
17 and St. Thomas and as these areas develop, this
18 traffic is bound to increase. To gauge this thing,
19 its increase is small. On the other hand, traffic
20 on the side road is due for a very major increase
21 and the environment of people living on the 7th
22 Concession Road will be changed. It is all a matter
23 of scale. These things are all ^{value} judgments, but I
24 believe the environment of these people will change to
25 some degree.

26 The major impact on the side road
27 is basically for two dwellings on this road where
28 the main traffic will go past those. I have to
29 agree that these people will have a major impact.

30 MR. PLAXTON: Q. Where are these two



1 dwellings? Where are these two dwellings on #7
2 Concession Road?
3 A. I am referring to these two
4 dwellings. Our friend who has testified already,
5 his house and the one across the street. This road
6 to the site. There is no doubt about it that these
7 people would have major traffic going by on their
8 street. I think it is a qualitative thing. What
9 this means, I could sort of almost make a parallel
10 with the city sort of situation where a residential area
11 exists and there is some construction, apartment
12 construction or whatever and traffic increases on
13 the road. If it is a very quiet street, it is
14 perceived as a major change. If there is a lot of
15 traffic or an incremental increase, it is not per-
16 ceived as a major change. What I'm saying is that,
17 although on Wellington Road there is a lot of traffic,
18 I don't think we perceive a major change but on the
19 side road, that is different.

47

20 I think I will bring my testimony
21 more or less to a close at this stage. There are
22 many things to be said about this I am sure. In
23 my opinion, looking at this and given the need for
24 a landfill site, given the nature of the operation,
25 the way it has been designed and the cares that
26 have been taken in the designing of it, given the
27 conditions of the official plan of the Township of
28 Westminster and given the ^{existing} type of land use in the
29 area, my opinion is that the site is suitable for a
30 landfill site and that no major planning problems



1 exist. Here I think this is where judgment comes
2 in, what is major, what is minor. In going
3 back to the original process of site selection, it
4 is a matter of comparison between many sites and
5 many types of areas that it goes into. I am sure
6 if a site were selected in another community or
7 another area, there would be different sets of
8 people objecting to it. I quite realize it is a
9 matter of degree. My opinion on this site is that
10 it presents no major planning problems.

11 MR. PLAXTON: Thank you very much.
12 I have no questions.

13 THE CHAIRMAN: Have you questions?

14 MR. WRIGHT: I have some.

15 EXAMINATION BY MR. WRIGHT:

16 Q. Mr. Roze, your opinion is
17 based on the use of this site after completion
18 as an agricultural use?

19 A. It is an element. There are
20 other ---

21 Q. Assuming that it can't be used
22 as proposed, how does your view change?

23 A. Can't be used completely as
24 agricultural?

25 Q. Yes. Would you have to turn
26 it into a baseball park or some other use that
27 isn't consistent with the agricultural land use
28 that is being proposed as being the dominant
29 characteristic of the Township of Westminster?

30 A. I think it is a matter of scale.



1 If definitely it can be used as agricultural, it
2 is a little better. If it can be used as a
3 as much
4 baseball park, it is not quite/in conformity with
5 the official plan. This is a very subjective area.
6 You could be in worse shape than if you could use
7 it for an agricultural operation. I would not say
8 that would be a major objection.

9 Q. You say this was objective
10 or subjective, did you say?

11 A. Which part?

12 Q. Your definition of the problems
13 that would be forthcoming.

14 A. From a planning point of view,
15 I said -- I referred to the sort of problems there
16 would be and their evaluation. Some are subjective
17 and some are objective, basically judgment factors.
18 It is not like a traffic count knowing how many
19 cars pass and you want to argue for awhile. On
20 the other hand, what is the impact of these cars?
21 It is an opinion based on the whole planning situation.

22 Q. Did you make any attempt to
23 ascertain the feelings of those people within a
24 mile of the site to determine what their feelings
25 would be to see if they were consistent with what
26 yours are?

27 A. No, I'm afraid we didn't.

28 Q. And you are from the City of
29 Toronto?

30 A. I personally am from the City
of Toronto. The planning of this thing was done in



1 the London office.

2 Q. It is your opinion -- your
3 opinion is based on an optimum set of circumstances?
4 You have been told that there will be no pollution
5 of soil, ground, water or air? You have been told
6 the site will be returned to agricultural use and
7 you have been told that the official plan is being
8 presently proposed and you have been told what the
9 existing land use is?

10 A. I have investigated it. I
11 have not walked over it. If you find indeed it
12 would pollute the water, there are other witnesses
13 to testify to that and I think this is a serious
14 occurrence. However, the best engineering we
15 have is going into this. We hope it does not
16 pollute the water.

17 Q. You spoke about the psycho-
18 logical impact within a matter of 1,000 or 2,000
19 feet and within a mile. You said this is psycho-
20 logical. You said there were really no -- what
21 was the phrase you used -- "real problems." We
22 have had testimony to the effect that the upper
23 ground water level runs for seven miles in all
24 directions, at least seven miles, so your planning
25 evaluation is a little short in terms of its real
26 potential problems. Is that not correct?

27 A. I may be misinterpreting the
28 word "real". When I talk about the impact, I am
29 trying to gauge the scale of the impact. The fact
30 that the water, if it is not polluted water, I can't



1 see that as a real problem.

2 Q. You admit the possibility
3 of this and this is based on normal operation. If
4 there is a possibility and if it is possible to
5 pollute the upper water level, we are talking
6 about 30 billion gallons of water. Is that
7 significant enough for you?

8 A. There are a lot of "ifs" in
9 there. If certain things occur, then, something
10 else obviously follows.

11 Q. But your hypothesis is based
12 on "if" and "if" and "if"? So we are back to a guess.

13 A. Yes.

14 Q. Has the Township of West-
15 minster given any indication that it is going to
16 rezone this area to allow for sanitary landfill?

17 A. No.

18 Q. That is a pretty big "if",
19 isn't it?

20 A. Yes.

21 MR. PLAXTON: My friend is well
22 aware of the fact that the Ontario Municipal Board
23 has the jurisdiction to pass such a by-law.

24 MR. WRIGHT: My friend knows the
25 Township of Westminster proposes to oppose that
26 application.

27 MR. PLAXTON: I have not heard that.
28 The township is not here today and I have never
29 heard the township intends -- there has been no
30 evidence to that effect, Mr. Chairman, and the fact



1 is as far as I am concerned they still are undecided.

2 MR. WRIGHT: I have a certified
3 resolution which I might put in. I do not have
4 copies of these. I will read them and I will
5 undertake to have copies provided to my friend at
6 the earliest opportunity. I will take them over
7 to my office and make copies overnight. I assumed
8 that my friend would recognize that these were in
9 existence. The first is a certified true copy under
10 the township seal, Charles Kirk, Clerk. This is a
11 minute from the Township Council meeting on April
12 22nd, 1973. The minute reads:
13 "...this Council not approve of the pro-
14 posed establishing, by the City of London,
15 of a sanitary landfill disposal area in
16 Lots 18 - 19 - 20 Concession 6, and that
17 no action be taken on the proposed agree-
18 ment submitted by the City Clerk, London,
19 related to this matter, and that no
20 action be taken on London City's request
21 that the Township amend its zoning by-
22 law and proposed official plan to permit
23 sanitary landfill on the said Lots 18 -
24 19 - 20 Concession 6. Carried unanimously."

25 There is a second resolution at a
26 Council meeting held, meeting of the Council of the
27 Township of Westminster on Monday the 23rd of July,
28 1973. At the end it is certified by Charles Kirk,
29 Clerk of the Township of Westminster and the relevant
30 part says:



1 "Council resumed. Moved by H. Hart,
2 seconded by C. MacPherson, that whereas
3 there is not sufficient time for Council
4 to have legal representation at the
5 Environmental Board hearing to be held
6 on July 30, 1973; that Council will
7 arrange to have the Township Solicitor
8 present at any hearing before the Ontario
9 Municipal Board in connection with zoning
10 changes and appropriation rights, which
11 may take place following the Environmental
12 hearing on July 30, the said Solicitor
13 to defend the rights of the Township and
14 its citizens."

15 MR. PLAXTON: There is no indication
16 of opposition in there as far as I can tell. This
17 resolution deals with no action being taken on the
18 proposal to reach mutual agreement on how this site
19 might work. We might get into that evidence with
20 Mr. Rowntree.

21 The other simply says to defend the
22 rights of the citizens of the township. I don't know
23 what that means. It may be a measure of support and
24 it may not. It doesn't make very clear their intent-
25 ion to oppose.

26 MR. WRIGHT: Mr. Chairman, I think
27 it's obvious that the Township of Westminster is not
28 welcoming this site with open arms.

29 THE CHAIRMAN: You will supply us with
30 this?



1
2 MR. WRIGHT: I don't think I will
3 be able to get them during the lunch break but I
4 will as soon as I can.

5 THE CHAIRMAN: I take it the opposition
6 to
7 will be /the change of zoning before the Municipal
8 Board?

9 MR. WRIGHT: To the extent my friend
10 raises the point as to defending the rights, I am
11 not sure those words are appropriate, but it is
12 my understanding from reading it that they will be
13 opposing it.

14 MR. PLAXTON: The minutes also include
15 a reference to the official plan we have already
16 talked about. The official plan would appear to
17 be one of the concerns as to whether or not the
18 water was polluted and so on. This will probably
19 be the subject matter of further review at the
20 Ontario Municipal Board level in order to satisfy
21 the requirements of the official plan. I want to
22 say on the strength of that resolution there has
23 not really been an intention described to either
24 oppose or otherwise the set up, but to defend the
25 rights of the township people, really that defense
26 could very well relate to the kind of land use you have
27 heard about in the official plan. I don't know.

28 THE CHAIRMAN: You brought this for-
29 ward for information purposes only? You are not
30 acting for the township?

MR. WRIGHT: That is correct. I thought



1 that should be brought to the Board's attention.

2 THE CHAIRMAN: Thank you.

3 MR. WRIGHT: Q. Mr. Roze, from a
4 planning consideration this proposal looks pretty
5 good for the City of London because it makes it no
6 longer necessary for them to have a landfill site within
7 the city.

A. Yes.

8 Q. We agree there is a necessity
9 for landfill sites, but we don't want them and we
10 are not planning for them.

11 A. I don't know what that means.

12 Q. You know the landfill site
13 would primarily serve the City of London?

14 A. Primarily, but I understand
15 it could serve the township as well.

16 Q. We have no information in
17 that area and so far as I know there have been no
18 provisions to share it with the township. I don't
19 know how you would be aware of those arrangements.
20 However, the people are trying to find out what
21 arrangements have been made and maybe you have an
22 inside track with the city. I don't know.

23 A. I don't have an inside track.

24 MR. PLAXTON: Mr. Chairman, I have
25 to take exception to that. We are here to deal
26 with the full story and there is nothing being held
27 back by the witness in this matter. Mr. Rowntree
28 will be talking to this and if my friend gives us
29 half a chance to get to it, my friend could direct
30 his questions to the appropriate witness. This witness



1 here is related to the issue of planning and not
2 matters of policy and the city dealings with the
3 Township of Westminster. Mr. Rowntree will deal
4 with the subject in due course.

5 THE CHAIRMAN: You will put a witness
6 on the stand who will present ---

7 MR. PLAXTON: ...direct evidence to
8 this and all of this can be reviewed.

9 MR. WRIGHT: The thrust of my question
10 goes to the validity of the assumption that landfill
11 sites are necessary. The City of London has said
12 in their planning scheme they are not necessary for
13 the City of London.

14 MR. PLAXTON: The official township
15 plan has been referred to as to the overall planning
16 of the township. It does contemplate ^a use of
17 this kind, provided certain conditions are met,
18 and we are seeking to do that.

19 MR. WRIGHT: I think there is some
20 similar provision in the plan of the City of London
21 too.

22 MR. PLAXTON: I have not been asked
23 to bring it so I don't have it on hand. I can't
24 tell you whether there is or isn't such a provision.
25 Are you asking?

26 MR. WRIGHT: All right, I will ask.
27 --- (Laughter)

28 MR. PLAXTON: We will bring whatever
29 we have. Perhaps you could ask this witness. I
30 understand he has discussed the matter with the city.



1 MR. WRIGHT: Q. You have discussed
2 the matter with the city?

3 A. I have looked at their official
4 plan.

5 Q. Do you have a copy? I didn't
6 understand what your answer was.

7 A. I have looked at the official
8 plan and there is a provision for sanitary landfill
9 disposal of solid waste in the industrial zone.

10 Q. So the same kind of provision
11 which would apply to the City of London presumably?

12 A. However the municipality de-
13 signates their zoning. They are in the process of
14 revising and adding these things to it.

15 MR. PLAXTON: They are at the same
16 level or stage in this official plan here in that
17 they have a draft amendment?

18 THE WITNESS: Yes.

19 MR. WRIGHT: Are you finished?

20 MR. PLAXTON: Yes.

21 MR. WRIGHT: Q. Would not planning
22 indicate that planning for a region, an official
23 plan should take account of all the needs for a
24 community?

25 A. Planning for a region?

26 Q. For a city.

27 A. A city has city planning pro-
28 blems. I think the regional planning body should be
29 looking at these things. They definitely should be.
30 I think a landfill site of this nature would serve a



1 regional area, although there isn't any regional
2 body existing at this time.

3 Q. We are only talking about the
4 City of London. What would the increase in traffic
5 be if it were to serve the whole region?

6 A. What I am referring to is the
7 is
8 present landfill site/not within the city and could serve
9 two communities.

9 Q. But this is strictly for the
10 City of London at this point. That is all I'm talking
11 about. We are talking about the City of London and
12 the City of London is the operator. You come here
13 to this Hearing Board and tell us that landfill sites
14 are necessary?

15 A. Yes.

16 Q. But the necessity has not been
17 met within the City of London. Shouldn't the City
18 of London say, "Gosh, we need a landfill site. Let's
19 see what we can find in the city"?

20 A. One of the witnesses was
21 talking about 46 sites and 23 sites in his testimony.
22 That is where we looked, you know.

23 Q. Two of the best sites with a
24 were
25 combined capacity of 27 years/across the road from
26 each other, the cost factor was better, ecological
27 factors better and yet the city says, "We don't
28 want them."

28 A. The Municipal Board decides that

29 MR. PLAXTON: I must take objection
30 to that. The evidence was that we would pollute water.



1 Now we are trying to find^{a site where} we don't pollute water.

2 MR. WRIGHT: Are you challenging
3 your witness now?

4 MR. PLAXTON: I'm saying the two
5 sites selected in the MacLaren report were in
6 gravel pits. The Ministry refused to allow these
7 gravel pits to be used and that is the evidence.
8 The evidence was also to the effect that the city
9 was proposing to put in some kind of membrane and
10 the provincial authorities felt that this would not
11 work, that it should not be risked.

12 MR. WRIGHT: I must confess I find
13 it most strange that you are now telling us that
14 report doesn't bring down the best sites because
15 your whole proposition is based on ---

16 MR. PLAXTON: Mr. Chairman, if my
17 friend is going through the evidence again at this
18 time we should adjourn.

19 MR. WRIGHT: I have no further
20 questions of this witness. There may be others
21 from the floor.

22 THE CHAIRMAN: It is now 12:30. Is
23 there anyone else who wants to question this witness?

24 MR. VAN DIEPEN: I want to question
25 but I want to eat.

26 A SPECTATOR: So do I.

27 THE CHAIRMAN: If there is only one
28 question, you may as well go ahead.

29 MR. VAN DIEPEN: Sir, in the be-
30 ginning of your testimony you were saying that this



1 landfill site was necessary?

2 THE WITNESS: Yes.

3 MR. VAN DIEPEN: Why?

4 THE WITNESS: I think I would have to
5 go back to the original report on the need for dis-
6 posing of garbage, waste.

7 MR. VAN DIEPEN: As far as I know,
8 sir, it is not an asset. To get rid of the garbage
9 there is a cheaper way to get rid of the garbage.
10 In this day and age we can burn the stuff. Isn't
11 this true?

12 THE WITNESS: I don't get when you
13 say we have to dispose of the garbage in some form
14 or other.

15 MR. VAN DIEPEN: We have garbage
16 and have to get rid of it.

17 THE WITNESS: That is what I say.

18 MR. VAN DIEPEN: You said we have
19 to have a landfill site?

20 THE WITNESS: I'm assuming a landfill
21 site is the best means in this day and age of dis-
22 posing of garbage.

23 MR. VAN DIEPEN: No, sir, the cheapest
24 way.

25 THE WITNESS: I'm not an expert on
26 the disposal of garbage. The whole testimony has
27 been on alternate ways of disposing of garbage.

28 MR. VAN DIEPEN: I'm not questioning
29 what you know or have experience. I am questioning
30 the way you said it is necessary to have a landfill



1 site.

2 THE WITNESS: It is necessary to
3 dispose of garbage. Maybe that would have been a
4 better term.

5 MR. VAN DIEPEN: That is all, sir.

6 Let's eat!

7 THE CHAIRMAN: Are those all the
8 questions of the witness?

9 We will adjourn now and come back
10 at 2:00.

11
12 --- Luncheon adjournment

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

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3 THE CHAIRMAN: Ladies and gentlemen,
4 may we come to order. It is now 2:00 o'clock.

5 Mr. Plaxton, will you kindly proceed?

6 MR. PLAXTON: Yes.

7 LEONARD R. WEBBER, called:

8 EXAMINATION BY MR. PLAXTON:

9 Q. Would you indicate to the Board
10 what your current office is, please?

11 A. I am a professor of soil
12 sciences at the University of Guelph.

13 Q. I think we will have to ask
14 you to lean toward the mike or pull the mike toward
15 you. The other one doesn't appear to be working
16 too well.

17 You are a professor of soil sciences
18 at the University of Guelph. Is that the answer?

19 A. That is correct.

20 Q. How long have you held that
21 post?

22 A. Since 1967.

23 Q. And can you provide the Board
24 with a short explanation of your educational back-
25 ground and experience in the soil sciences field
26 prior to that date?

27 A. A graduate of the Ontario
28 Agricultural College, University of Guelph with
29 post-graduate training at Cornell University in Kthaca,
30 New York with subsequent special leaves for study in



1 soil and related features.

2 Q. You have had occasion to write
3 articles on the subject of soil sciences?

4 A. Yes, sir.

5 Q. Would you indicate to some
6 extent the nature of the areas covered in those
7 articles?

8 A. The last five or six years
9 the area of specialty has been in the area of using
10 land for waste disposal, urban waste, industrial
11 waste of certain types and agricultural waste.
12 These publications have appeared in different re-
13 cognized technical and semi-technical journals.

14 Q. Would you indicate for the
15 Board the first time you became involved in the
16 subject application concerning this landfill site?

17 A. I believe it would be the
18 latter part of April by a telephone call from
19 James F. MacLaren's office. Then subsequently,
20 on May the 2nd a visit to the area and a visit to
21 the James F. MacLaren offices to discuss what was
22 required, what they were thinking.

23 Q. Yes. Were you asked to prepare
24 a report based on your study of the matter?

25 A. I did.

26 Q. And in fact you prepared such
27 a report and, Mr. Chairman, the report is dated
28 May 24, 1973. It is Appendix F to the brief.
29 That is the brief of the applicant.

30 You subsequently supplemented that



1 report with a further report dated June 25th, 1973?

2 A. I did.

3 Q. And this report, was it pre-
4 pared or were they prepared by you?

5 A. Yes.

6 MR. PLAXTON: Again, Mr. Chairman, Professor
7 Webber has asked that he present this evidence without
8 too much prompting and I think he wants to get into
9 it right now.

10 Q. It is up to you, Professor.

11 A. Mr. Chairman, ladies and
12 gentlemen, I have read portions of the brief as
13 submitted by the consulting engineers and I have sat
14 through several days of evidence concerning the
15 management and operation of this proposed site.
16 If those management practices and developments are
17 followed as projected in that evidence we have heard
18 and consideration is given to the recommendations we
19 have proposed, it is my opinion that this land,
20 once the site is completed, can be restored to an
21 agricultural area with some limitations which we
22 will develop as we proceed. My reason for forming
23 this opinion and stating this opinion is based upon
24 facts that occur in the literature, experience that
25 is common to most people and so on. For the normal
26 growth of a plant, whether that plant is agricultural
27 or not, I don't think we should restrict our state-
28 ments to agricultural crops. A certain depth of
29 soil is required for normal or better than normal
30 good crop yields. We know of instances where farmland



1 is less than two feet thick, there is less than
2 two feet of soil over the rock or some other layers
3 like that. We know in general as the soil increases
4 in depth up to something in the order of four or
5 five feet, something like that, crop yields generally
6 increase as the depth of the soil increases. There-
7 fore, that is my primary reasoning in stating the
8 opinion that, if the site is developed according to
9 the evidence I have heard, the refuse is to be
10 covered, the final covering is to include one layer
11 of intensely compacted clay and this compaction far
12 exceeds anything that a farm operation could achieve.
13 This then would be followed by something in the
14 order of three feet of local sub-soil that is moved
15 in by equipment, spread over this area and sub-
16 sequently worked down to a reasonable till for
17 pliability within that soil which can be done under
18 certain conditions, smoothed out and then the
19 original top soil which we understand has been laid
20 aside, is returned and placed in that area. We
21 believe that having this organic surface soil
22 which is a site of moisture retention for crops
23 and a site for holding the plant nutrients, that
24 the plant requires, plus the 2-1/2 to three feet
25 of sub-soil that is native to the area would be re-
26 turned in a looser, more pliable condition would pro-
27 vide an environment for crops that is quite conducive
28 to good crop growth.

29 I think that is primarily the point
30 that I wish to make, that the plant feeds, obtains



1 the majority of its nutrients, obtains the majority
2 of its soil moisture and moisture from this organic
3 layer and also acquires some nutrients and some
4 water from the sub-soil layer. On the basis of
5 that it is my opinion that we can bring this area
6 back to an agricultural production area.

7 Q. Can you describe the nature
8 of the soil that is reported in this area for the
9 Board, please?

10 A. At the present time and commenc-
11 ing I believe last year or maybe a year earlier the
12 Federal Government, in co-operation with the Pro-
13 vincial Government, Ministry of Agriculture and
14 Food did a detailed soil survey of Middlesex County.
15 This survey is proceeding at the present time with
16 a staff of men actually preparing this survey, a
17 soil map. The soil map of the area was included
18 in this report which was obtained from the senior
19 staff who it is my understanding that that map was
20 -- the area was surveyed this spring and it is my
21 understanding that he has checked the separations
22 and delineations there and to the best of his
23 knowledge, of course, they are correct. We have
24 heard evidence, sir, that this is a glaciated
25 country. The material underlying the glacier in
26 some places containing stone and grit, that is
27 intensely compacted by the enormous weight of
28 ice that was laid over this country.

29 Subsequent to glaciation, of course,
30 we had a sequence of events when vegetation came into



1 the country and we have the development of what we
2 call a soil profile. If you were to dig along the
3 side of the road you would see a sequence of layers
4 beginning with the surface layer and subsequent
5 layers on down.

6 It is that type of information, the
7 many characteristics related to those soil separat-
8 ions that they use to separate these. I have not
9 been on any of these farms in the proposed area,
10 which we call a Huron silty clay soil or Huron silty
11 loam or something like that. It is a similar
12 nomenclature to saying, "This is a Holstein cow."
13 You have different grades of Holstein cows. I
14 don't know whether I make that point clear but this
15 means something to people who are working in that
16 area.

17 The majority of the area is mapped
18 as well drained soil. There are associated with
19 the well drained soil smaller pockets of land that
20 are not perfectly drained. There are some small
21 areas in there that the boys have mapped as im-
22 perfectly drained, that is, the water does not go
23 through for suitable optimum crop production, the
24 widest range of crops. It will grow certain crops
25 very well, but there are other crops which the
26 farmers might want to use which they are unable to.

27 Q. What would the agricultural
28 capability classification of the soil generally in
29 this area be? I understand soils are classified?

30 A. Yes. I believe in the Canada



1 Land Inventory this would be classified as Class
2 1A. This is subject to revision and based upon
3 the information the detailed information that comes
4 up there may be some characteristics in this soil
5 that they might consider dropping the evaluation
6 one class, but as of now it is listed as Class 1A.

7 Q. What are some of the consider-
8 ations which would be taken into account in moving
9 the class from Class 1 to Class 2?

10 A. The primary one would be the
11 drainage situation, the percentage of a given area
12 of land or piece of land, what percentage of that
13 land is well drained. If it is all well drained,
14 there would be no change in the classification.
15 If you go to the other side and you have within a
16 given area of land a dominance of poorly drained
17 land plus associated amounts of imperfectly drained,
18 along with well drained, it would tend to scale
19 down somewhat. There is one other limitation that
20 applies in this series of soils in Huron and its
21 associated members which is the relatively slow
22 permeability of that soil down through the depths
23 of soil that agricultural crops are mostly concerned
24 with. It is something in the order of four to five
25 feet. It is the opinion of the survey ^{field} crew that
26 this is a slowly drained soil. That is one limitation
27 that would tend to change their opinion on it.

28 Q. With respect to classification,
29 is that what you're saying?

30 A. With respect to classification,



1 | yes.

2 | Q. I see your report refers to
3 | two other series of soils and you referred to the
4 | Huron series already. To what extent do you find
5 | this land categorized as Perth series soil?

6 | A. The Perth series is the im-
7 | perfectly drained member or associate of the Huron,
8 | that is the top soils are ^{similar,} but not the same type
9 | of material which has a topographic position,
10 | natural drainage outlets or something like that.
11 | The water just does not move out of that soil as
12 | rapidly as it does in the Huron series. I will
13 | anticipate your next question and the next one
14 | will be the ^{Berkshire} series which will be the
15 | poorly drained soil. There is the well drained
16 | Huron, the imperfectly drained Perth and the
17 | poorly drained Berkshire.

18 | Q. All of which are a silty
19 | clay loam I think you said?

20 | A. Yes, that is correct.

21 | Q. They have less permeability
22 | than most other soils, is that correct?

23 | A. They have less permeability
24 | than other soils, yes.

25 | Q. In all cases?

26 | A. Yes.

27 | Q. Would the clay be mostly im-
28 | permeable?

29 | A. Generally as the clay content
30 | of the soil increases and as the compaction of soil



1 increases, permeability decreases.

2 Q. Could you describe to the Board
3 the nature of the recommendations you have made to
4 the City of London through its consultants, MacLaren
5 and Associates, and to the more precise matter --
6 you have mentioned it generally, but more precisely
7 now the steps the city would be asked to take, re re-
8 quired to take to put this land into agricultural
9 use which they are hoping to achieve?

10 A. We would start in this generat-
11 ion with the compacted clay there, approximately to a
12 one foot depth to be placed above the soil and then
13 by mechanical means this sub-soil will be trucked in
14 by carryall and broken down to large massive chunks
15 of soil.

16 Q. That is the next layer on top
17 of the compacted layer?

18 A. Yes. On top of the compacted
19 layer they would move in this native sub-soil, work
20 it down with the equipment that is available. If
21 necessary, we are depending upon the time of year,
22 it could be worked down by agricultural machinery
23 as you approach the upper layer of this trucked in
24 soil. It has to be worked more and more to come
25 back to what is good soil till for a good farm to
26 get the soil ready. Having achieved that to the
27 satisfaction of your agricultural advisers, then
28 we would bring in the top soil which could be re-
29 turned and spread. Naturally, Mr. Chairman, the
30 greater the depth of top soil, the chances of better



1 crop yield and seed establishment increases with
2 your top soil depth, the better chances of obtaining
3 a satisfactory crop standard. Something in the order
4 of six to eight inches and not less than six. I
5 normally would believe in agricultural soils the
6 depth would be something in the order of six to
7 seven inches, depending upon what the farmer plans
8 to plant.

9 Q. The sub soil line above the
10 compacted or sealer layer of one foot, you have
11 sub soil on top of that. How deep would you re-
12 commend that layer of sub-soil be?

13 A. I believe the evidence has
14 indicated that we are talking in the order of three
15 to four feet of all materials when completed, so we
16 have the compacted impermeable clay on top of the
17 refuse plus eight inches of surface soil, that
18 leaves 20 inches to be used which would be something
19 in the order of 28 or 30 inches of this native sub-
20 soil.

21 Q. Yes. You have indicated in
22 your report some recommendations with respect to
23 the slopes of these fields for drainage purposes.
24 Would you describe what that recommendation was?

25 A. There is a considerable
26 acreage of land as it exists out there based on what
27 I have seen driving around the area and on the slope,
28 the contour measurements that the government crew
29 have made and recorded on this map, there is a
30 significant area of land that to all intents and purposes



1 is almost level. It has a gradient of 02%. It is
2 very smooth land. That is a recommendation that we
3 made in the report that there be attempts made to
4 obtain fine grades by cutting into the sub-soil,
5 replacing the top soil, to achieve slopes of 0 to 2%
6 or something of what exists on the better types of
7 land out there at the present time. The slope
8 should occur in a generally southerly direction.
9 I believe that we go along with the natural water-
10 shed and natural drainage.

11 Q. You are saying that the contour
12 of land has slope of approximately one to two per
13 cent in a southerly direction?

14 A. Yes.

15 Q. You would try to adhere to
16 that same slope or about the same slope when the
17 landfill is completed?

18 A. Yes.

19 Q. Have you made any recommend-
20 ations with respect to the treatment, that is to
21 say, the provision for escaping gas from the under-
22 lying landfill site?

23 A. There is written into the
24 report a statement to the effect that it should be
25 recognized as a potential. Personally I am not
26 terribly concerned about it, but I think we must
27 recognize that it is a possibility and provisions
28 should be made to accommodate it and the evidence
29 as given yesterday has indicated how it could be
30 done, relatively simply, by using a type of coarse



1 rubble, material that comes from the city garbage
2 type of thing could be used to create a trench that
3 is quite porous through which this gas could flow.
4 This trench could be topped off with soil if necessary
5 and you could then take this gas that collects,
6 carbon dioxide with some methane, take it to a
7 central point or several points and vent it there.
8 When I say "vent", just above the ground, a stand-
9 pipe of three or four feet or 10 feet in the air,
10 whatever is decided by the experts. I think we
11 should get back to one point and that is the final
12 surfacing of this area and that would be that while
13 the overall slope, we would like to see in the order of
14 0 to 2%, but essentially it is a little bit complicated,
15 so that we will have very long slopes of land
16 there and it is a well known and proven fact that
17 as the length of a slope increases the velocity
18 of water increases, the power almost doubles.
19 Hence the growth of power of the water would increase
20 accordingly and our recommendation suggests that
21 the administration study the installation of what
22 we call interception terraces, a standard device in some
23 parts of this country which I recommend personally
24 and some are still in existence which were used to, as
25 we say, break up a long slope. These grass terraces
26 will collect any surface run-off that occurs and
27 direct it safely to a grass channel where erosion
28 would be essentially zero.

28 Q. Yes. And the recommendation
29 I believe also on page 3, item 5 at the bottom
30 refers to these slopes not exceeding 200 feet in



1 length. Is that correct?

2 A. That is the spacing between
3 these terraces, something in that order. The manage-
4 ment and the subsequent farm operation, that could
5 be changed, but the objective there is_a to make it
6 straight and not to think of following/contour. Make
7 it straight so that you have a relatively long terrace.

8 Q. Yes. Would these terraces tend
9 to cross the land from east to west?

10 A. That is our proposal.

11 Q. To break up the escape of water
12 along the surface of the soil from north to south
13 with the slope?

14 A. That is right.

15 Q. So the fields would then run
16 in and east-west direction?

17 A. Generally so.

18 Q. You have made some recommend-
19 ations I believe as to the initial crop which you
20 would recommend putting in as a measure toward
21 making this an agricultural use and to introduce
22 that I believe you have talked about an initial
23 crop. What crop do you recommend?

24 A. Mr. Chairman, it is a well
25 known fact that when soil of this nature is trucked
26 into a place there is going to be some settlement in
27 consolidation. It is also a well known fact that
28 the action of crops freezing/ ^{and thawing} it is conceivable
29 you might get breaking of clay but the action of thawing and
30 freezing would disintegrate this clay and break it



1 down into its more natural granular structure. We
2 have suggested to whoever operates this that, instead
3 of attempting to have a crop immediately with a high value
4 cash crop, that they consider hay pasturage of some
5 type for a period of two years or something of that
6 nature to give this soil a chance to stabilize and
7 come back to a equilibrium point. If it has been in
8 sod for two years, then there are several alter-
9 natives open to the management of this area as an
10 agricultural enterprise. It could be retained as
11 a hay pasture ^{mixture} / as a pasture area or it can be, shall
12 we say, plowed up and turned to corn or you could
13 combine the two with this acreage. You have the
14 possibility of growing a good acreage of corn plus
15 a good acreage of pasture. This then gives the
16 farm operator a complete supply of food for the
17 livestock, for a dairy operation or a wheat
18 operation. Those are three ordinary, elementary
19 principal or types of farming that could take place
20 there.

21 Q. I understand that certain crops
22 have a tendency to go lower in the ground, that is
23 to say, the root structure of various plants may
24 tend to go quite low and other root structures stay
25 up closer to the surface. Would you care to comment
26 on the selection of crops having regard to that
27 characteristic? That is crops that would be suit-
28 able for the use of this land.

29 A. It is my opinion, Mr. Chairman,
30 that we should avoid what is commonly known as deep



1 rooted tap legumes. The prime tap root legume
2 being alfalfa. We should not encourage the growth
3 of alfalfa in this hay pasture mixture because it
4 has these deep rooted characteristics. On the
5 other hand, we would concentrate on the fibrous
6 types or crop such as corn, the cereal grains and
7 the standard recommended highly productive hay
8 grasses and legumes.
9 pasture mixture of/If a farmer wants this type of legume
10 pasture for livestock or silage or hay, any sort
11 of legume there could be very well raised in
12 place of the alfalfa. There are many replacements
13 that could be used. I should say that we are not
14 going to a deep tap legume.

14 Q. Yes. Have you also made any
15 recommendation concerning or would you be prepared
16 to make a recommendation concerning the testing of
17 the soil before the final layers are put on?
18 Perhaps I should ask that of Mr. Irving.

19 A. Am I to assume that you mean by
20 testing for nutrient or fertilizer values?

21 Q. Yes.

22 A. The -- in terms of crop pro-
23 duction we would not institute any testing program
24 for fertilizer or plant nutrients on sub-soil, but
25 it would be a standard practice to monitor the level
26 of plant nutrients in the surface. Many good farmers
27 do have this soil tested and they adjust the plant
28 nutrients based on the recommendation. The PH of
29 the soil which is a measure of the alkalinity in
30 the soil is normally neutral or slightly above. This



1 soil is normally well supplied with calcium. It
2 tends to be an alkaline soil. I believe the surface
3 of this soil is near neutral, whereas the sub-soil
4 would be somewhat higher between / or something of
5 that nature. It is not usually/^{recommended} met on these soils.

6 Q. Have you considered the intro-
7 duction of,^{for example,} of sewage sludge, a mixture of
8 that with compost and soil to bring that last six
9 inches into place?

10 A. The use of sewage sludge on
11 agricultural land has been practised for many, many
12 years. In the older European countries and parts of
13 Ontario here it has been the practice for some time.
14 The City of Guelph have trucked sludge and deposited
15 it on the farms for perhaps 30 years. This has to
16 be regulated. This has to be controlled. The con-
17 trol on this type of practice involves knowing what
18 is contained in the sludge, knowing what type/^{of} soil
19 it is going on and when it is going on the soil.
20 That is to say, you would not apply sludge neither
21 anerobically ^{sewage} digested/sludge which would be in
22 the order of 90% moisture, nor would you apply
23 maximum dried sludge which might be 70% moisture
24 on land early in the spring and leave it in that,
25 position. I think it would be safe to say that
26 when sludge is applied to land, it should be in-
27 corporated immediately. In fact we have in the
28 Department of Agriculture a little booklet called
29 "Guidelines for Animal Waste Disposal" and that
30 is one of the suggestions made there and I think the



1 time is 48 hours to avoid development of odours and
2 to avoid the hazard of potential erosion and run-
3 off if you get a rain very shortly after. These
4 are ordinary, common sense provisions that do not
5 impose any hardship on anyone. It takes a little
6 planning.

7 The addition of these kinds of wastes
8 to soil is beneficial because the wastes contain all
9 of the nutrients that are known for normal crop pro-
10 duction. In some cases in adequate amounts. I'm
11 thinking of perhaps potash which you need for wheat.
12 The point of the recommendation, the guidelines to
13 be followed to know what is going on there.
14 Waste analysis are available from any sanitation
15 engineer. You have to know what you are putting
16 on, to put it on the right crop at the right time.
17 That is one of the better times to put it on just
18 before a week or so and incorporate it before
19 (inaudible) and on grass soil prior to turning
20 it under or something like that.

21 Q. If this were something that
22 people felt was going to be a sensible practice,
23 notwithstanding its value from an agricultural
24 point of view, would you regard the introduction
25 of sludge as a necessity or as an elective measure,
26 whether it should be introduced or not?

27 A. It would be elective and in
28 this case it could be very beneficial.

29 Q. So you are not making it a
30 mandatory thing, but you are suggesting it is a good



1 thing from the standpoint of agricultural practice?

2 A. Mr. Chairman, you are well
3 aware of the situation Ontario is in regarding the
4 disposal of sludge. I think the Province of Ontario
5 can come up with guidelines that meet the require-
6 ments of different parts of the land where disposable
7 sludge is a practice that should be encouraged to
8 prevent lake pollution and that story I am sure you
9 are all familiar with.

10 Q. Your report deals with crop
11 production hazards and I would ask you to outline
12 what the essence of your report comes to in that
13 regard? What do you say about hazards?

14 A. I haven't got a report open.
15 Could you show me what are the headings?

16 Q. It is just one heading with
17 a number of points and I could give you a copy.

18 A. We have recovered one.

19 Q. You have the report?

20 A. On page 5, "Crop Production
21 Hazards"?

22 Q. Page 5.

23 A. Number 1 is the reference to
24 the gases, carbon dioxide and methane, and that
25 provision has been made which I believe in my
26 opinion is satisfactory and adequate to collect and
27 disperse and diffuse these gases. We know from
28 our research and our reading of no instance where
29 it was shown that methane was toxic per se to a
30 crop, but it is natural to deduce that if methane is



1 produced in such quantities that it excludes the
2 natural environment around the plant's roots that
3 the plant will suffocate. In any case, you have
4 to say it has a toxic effect but it is incorrect.
5 We have a plan for the dispersal of these gases.

6 Q. I am wondering if you could
7 refer to the Board or refer the Board to, rather,
8 your experience with the plowing in of garbage into
9 the land? I believe you have done a recent article
10 on the subject.

11 A. In that connection ---

12 MR. PLAXTON: Mr. Chairman, this is
13 just by the way. It is not something we propose
14 here.

15 Q. Do you agree with that?

16 A. Yes. We have done some re-
17 search that was funded by the National Research
18 Council and the objective of the research was to
19 dispose of two urban wastes on land, that is, the
20 domestic solid waste and the sludge. We proceeded
21 to acquire a large quantity of pulverized or milled
22 or shredded garbage, material that goes into a very
23 powerful grinder and trucked it to Guelph. We
24 applied it on a sod field at two rates of 125 tons
25 of ~~shredded~~ garbage per acre plus a double rate of
26 250 tons per acre. The 250 tons, when it was spread
27 out before applying, was something like 15 inches
28 thick, a layer of garbage 15 inches thick over the
29 soil. The boys then plowed this under about eight
30 inches deep, smoothed it off with normal farm equipment



1 and added about an equal weight of the sludge or
2 in effect 1.8 inches of liquid sludge to 250 tons
3 of garbage per acre. This was done in late July.
4 It was left in that condition^{undisturbed} until late
5 September and at that time we planted a crop of
6 winter rye for two reasons: to keep our waste at
7 home so we would have no run-off or erosion and
8 secondly, to get a crop in there that would utilize
9 the product of decomposition and give us material
10 for analysis as to the toxicity in^{the soil.} our crops were
11 exceptionally good, over 100 bushels an acre except
12 the very high grade where it was 250 tons per acre.
13 We believe that in that case we just ran out of
14 nitrogen, the supply of nitrogen to assist the
15 bacterial breakdown of the crop. The 25 tons
16 of garbage and eight-tenths of an inch of sewage
17 sludge made excellent top soil.

18 Q. Going on to your next point
19 in the report, I think you deal with erosion control.
20 I think you touched on that already to a degree. Is
21 there anything else you would like to add in regard
22 to that?

23 A. Only to emphasize, Mr. Chairman,
24 and to reassure the people that our concern is that
25 there are reasonable means to control erosion (a)
26 by reducing the amount of water that flows off your
27 piece of land which normally you cannot do. (b)
28 to change the configuration of that land to reduce
29 the velocity at which the water moves over the land.
30 That is the purpose of coming down to low, slow gradients.



1 You reduce the gradient and the carrying capacity
2 of that water of sediment. (c) by keeping the
3 area vegetated as much of the year as possible with
4 the use of winter cover crops when the area is not
5 being used or when the area is being developed.

6 Q. Yes.

7 MR. PLAXTON: Mr. Chairman, I am now
8 turning to the report of Professor Webber in June
9 of this year which was the supplement I referred to
10 earlier. It is in the brief as well.

11 Q. You are referring to farming
12 systems in this report. How would you visualize
13 completed
14 the/site being divided into various elements to
15 make up a working farm system? Recognizing that
16 part of the site would not be in the fields we
17 discussed because there is something like 310
18 acres of the site would be used for that purpose
19 and there remains some other acreage as well. The
20 areas where equipment sheds, dwellings and so on
21 are there now may be used by the city during the
22 course of this construction. When it is all through
23 it will be available as more or less land in its
24 current state. Perhaps you could comment on how
25 you would see this completed 405 acres being
utilized as a farm system?

26 A. Mr. Chairman, the operation as
27 proposed, proceeds and advances as I understand it,
28 by 20 acres per year or something of that order. It
29 would seem reasonable to me that that would be a unit
30 on which to start to work with after the 20 acres has



1 been brought up to its level of refuse, that a crop
2 -- again I come to the grass pasture mixture be
3 established on this 20 acres. That area will be
4 used as a test to check on for improvements. We
5 will proceed by steps or increments of 20 acres at
6 a time until you get to the one where you have what
7 might be considered a viable unit. In the meantime,
8 until you get enough land to make a viable unit
9 for farming, some consideration could be given to
10 renting this land out. I'm not suggesting the --
11 the city might be generous if they are the operators
12 -- rent the land out to be used as a pasture mixture,
13 a pasture for beef cattle, dairy cattle and as the
14 area becomes viable and larger, then consider going
15 into a corn operation or what^{ever} type of farming you
16 wish in the area.

17 Q. Is there anything else you
18 would care to comment on? We have --with refer-
19 ence to fresh water ponds, in your second report,
20 do you want to refer to that?

21 A. That was my idea, sir. I
22 don't really know, but I think it is under consider-
23 ation. It was my idea that we have these terraces,
24 these grass terraces which are designed to collect
25 relatively/^{clean}water. If the ~~area~~ is covered with ^{carried}
26 sod, there is essentially a minimum amount of sediment /
27 in that water. I asked the people to consider putting
28 in fresh water ponds to collect this mill water that
29 comes off with the snow and everything every year
30 which could be used for a variety of uses on a farming



1 operation itself, to provide water for cattle and
2 that type of thing. If the ponds were large enough,
3 they could act as a surge point to augment the
4 downstream flow during high water weather and things
5 like that.

6 Q. What about irrigation, do you
7 see it as a possible use for that purpose?

8 A. It could be.

9 MR. PLAXTON: Thank you very much,
10 Professor Webber. That is all I have.

11 EXAMINATION BY MR. WRIGHT:

12 THE CHAIRMAN: The ponds filled with
13 water, would these be on the landfill site?

14 THE WITNESS: It certainly would
15 not be in the garbage fill area, Mr. Chairman, but
16 rather it is permissible and I don't know what the
17 rules and regulations are, but I see no reason why
18 it could not go in the 300-foot buffer strip, adjoining
19 that area. I think if you picture it, it could be
20 quite attractive as a fresh water pond. Provision
21 should be made in my opinion, sir, in the development of the
22 of land to retain some area and set it up as a centre of
23 operations. Equipment has to be stored. There have
24 to be offices and so on, so if the area of land were
25 taken up for buildings and operations headquarters,
26 that type of thing, maybe land would be available
27 there to develop a fresh water pond.

28 MR. WRIGHT: Q. Dr. Webber, this
29 rehabilitation sounds like you were planning to
30 return this thing to exactly the same position or



1 perhaps as you suggested better. Is that what you
2 hope to do? Turn it back into prime land or at
3 least number two land?

4 A. Yes, sir.

5 Q. Would I be correct in saying
6 that if for some reason any of this leachate
7 percolates out of the side of your slopes, then
8 the whole picture would change quite substantially?

9 A. No, sir.

10 Q. If the leachate comes out and
11 gets into one of these fresh water ponds, are we
12 not going to be in trouble?

13 A. The area is so designed that
14 that could not happen.

15 --- (Laughter)

16 A SPECTATOR: Oh!

17 MR. WRIGHT: Q. I'm putting the
18 possibility to you, if that were to happen, then the whole
19 scheme breaks down?

20 A. A portion of the scheme will
21 break down because if the leachate were to come
22 out -- you are talking about the slope -- if
23 leachate were to work out there, it would not affect
24 what is going on in the other 300 and some odd acres.

25 Q. Have you been approached on an
26 informal basis or any other basis to supervise the
27 returning of this farmland back into the kind of
28 land you hope to turn it into or is the city going
29 to do that?

30 A. Did I give the impression I was



1 involved?

2 Q. Yes.

3 A. No. Someone said that was 20
4 hence
5 years/and I won't be here by that time and secondly,
6 you have within the City of London expert advisers
7 who can do this who are able to advise properly for
8 that purpose.

9 Q. This is the first 20 acre
10 chunk we are talking about and that is in 20 years
11 nevertheless because this is something that is
12 based on your knowledge in this field and I was
13 wondering if the city had thought of using your
14 expertise in this area to assist in trying to re-
15 habilitate this area or if they were going to try
16 and do it on their own?

17 A. I have not been approached on
18 that. But I can assure you, sir, I shall follow
19 it with great interest.

20 MR. PLAXTON: The city has retained
21 Professor Webber for the purposes he has mentioned.
22 If it comes to the point where we are approved and
23 this system is implemented and Professor Webber is
24 still available, we will be delighted to have him.
25 Perhaps you could direct that question to him.

26 MR. WRIGHT: Are you finished?

27 THE CHAIRMAN: I think one point
28 should be clear. The presentation -- I don't like
29 to see him interrupting you in your line of question-
30 ing, but if he is in a position to get a better
answer from the witness, it is best to be brought to



1 our attention.

2 MR. WRIGHT: It is just that I find
3 his interruptions are getting to be more and more and
4 sometimes I'm not sure who I'm questioning, Mr.
5 Plaxton ---

6 THE CHAIRMAN: I appreciate your
7 concern and I will advise him to keep it to a minimum,
8 but if it gets a better answer for the record, we have
9 to go back over this and read it all later.

10 MR. WRIGHT: Thank you, sir.

11 Q. Doctor Webber, the matter of
12 the gas escape, that problem has been spoken of by
13 you but nonetheless we are making provision to
14 gather up whatever possible gases might seep out
15 from this disposal site. You are talking about
16 putting collection areas, rubble in. As I recall
17 from what Mr. Morris told us, these would be geared
18 in such a way that they would straddle two of the
19 top cells of garbage. That is going to be filled
20 with rubble of some sort so that it will leave air
21 spaces or spaces for the gas to be retained. I am
22 unclear as to how far below the surface those
23 rubble piles are going to be. Perhaps you could
24 assist me?

25 A. The depth below the surface,
26 I am not so sure is critical. You could go deeper
27 if you wanted to have a place to hold them or you
28 could leave them virtually open so there is a
29 trench type of thing, a cavity where the gas is
30 going to accumulate or some kind of a trench arrangement.



1 Personally I am not worried about the collection
2 of toxic gases, but ^{I am} taking cognizance of the fact
3 that this is possible.

4 Q. What I am concerned about and
5 what I am sure the people who will be working the
6 farm will be concerned about will be having a trench
7 of rubble right on the surface. The whole proposition
8 is based on having this solid compacted clay 12 inches
9 over the last cell and then having your two feet or
10 so of clay that has been worked up to give you a sub-
11 soil and then your top soil. I'm wondering what
12 layer in that order of things this rubble is going
13 to be piled in. If it is going to be right on the
14 surface, aren't we going to be breaking up the
15 agricultural production at the surface?

16 A. Yes. It is a handicap. It
17 is an interference, a damned annoyance, but I think
18 until such time as the engineers can demonstrate
19 that gas is not being produced, incidentally, the
20 literature indicates the majority of the gas we
21 are concerned with is evolved in perhaps the first
22 two years or so. Putting them in there will in-
23 convenience the operation maybe so, but they can
24 be changed. It is a precautionary step.

25 Q. Yes. Those rubble trenches
26 are going to collect water as well -- water that
27 comes down -- as well as gas that comes up?

28 A. Yes.

29 Q. I am assuming there is going to
30 be some depth to the rubble trench -- I don't know.



1 Maybe you can tell me. I would have thought from
2 the picture we saw that it was going to be in the
3 order of maybe four feet in depth and it was going
4 to have access directly into the first cell.

5 A. No, sir.

6 Q. Oh. I must have misunderstood
7 Mr. Morris' diagram.

8 A. Yes. My understanding is that
9 they are of the order of 18 inches or something like
10 that. They are not going to that great a depth.

11 Q. If they are going ---

12 MR. PLAXTON: I'm sorry to interrupt
13 again, but this is an engineering matter we didn't
14 touch on with perhaps Mr. Morris. He hasn't answered
15 to
as/how he perceived it as going on and I'm wondering
16 -- I know it is irregular, but could we ask Mr.
17 Morris from an engineering standpoint?

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18 MR. WRIGHT: I would agree because
19 I think it is very important.

20 MR. PLAXTON: Yes.

21 THE CHAIRMAN: I appreciate your
22 concern so that we get it clear on the record.

23 VICTOR MORRIS, recalled:

24 FURTHER EXAMINATION BY MR. WRIGHT:

25 THE WITNESS: As I tried to explain
rubble
26 yesterday, we envisage this/trench occurring at the
27 junction of two lips. It would be approximately
28 two feet deep built of rubble. The idea of occurring
29 at the two lips is so that we can increase the spacing
30 of these trenches and still get gas from each of the



1 lips. It is envisaged that the 12 inch seal there
2 that is being discussed will be placed over that
3 trench and that the subsequent two feet-odd of the
4 looser clay will be placed on top and then the top
5 soil. This is where we got into the discussion of
6 the vent pipes which will then be required for the
7 rubble area.

8 MR. WRIGHT: Q. So it will be necessary
9 to have vent pipes to get the gas out of that thickly
10 packed first foot of clay?

11 A. Yes.

12 Q. And there are going to be no
13 trenches that are going to be running on the surface
14 or the top soil?

15 A. That is my intention. I thought
16 I had explained this better than I did. We were
17 concerned -- Dr. Webber is talking about gas escaping
18 and the provisions for that. We were concerned about
19 the possibility of leakage or this rubble transferring
20 this and opening to the surface to inconvenience the
21 farming operation.

22 MR. WRIGHT: I think that answers my
23 question, Mr. Chairman.

24 Q. Perhaps, Mr. Morris, before you
25 go would you indicate the number of locations of the
26 vent pipes that would be necessary on the site?

27 A. We figure on the basis of the
28 travel between the trenches being 200 feet and we
29 would start off initially with these vent pipes
30 every 200 feet. I don't have any assurance that these



1 will be adequate for the type of gases we are likely
2 to get but we will have to find out in the first
3 place and put in a manhole and we may extend the
4 spacing, but not so much as to inconvenience the
5 farming operations.

6 Q. We are talking about the field
7 being spotted with stand pipes every 200 feet the
8 width of the daily cell?

9 A. It would be a good 200 feet.

10 MR. WRIGHT: Okay.

11 LEONARD R. WEBBER, recalled:

12 FURTHER EXAMINATION BY MR. WRIGHT:

13 Q. Doctor Webber, given a grid
14 of stand pipes sticking up above the ground every
15 200 feet, from your experience with the operation
16 of farm equipment how is that going to affect the
17 ability to maneuver a tractor or equipment and
18 also how is it going to affect the working of the
19 land?

20 A. It is a handicap.

21 --- (Laughter)

22 It is not an insurmountable one. It
23 doesn't take up the amount of land that a fence row
24 does.

25 Q. It is just that, while I think
26 the plan you are proposing has a great deal of
27 potential and should be pursued on an experimental
28 basis on perhaps a smaller amount of land, I wonder
29 if these sorts of problems should be thought out
30 because I am sure that you are going to virtually



1 find it impossible to work this land with all these
2 stand pipes coming out of the ground and I think even
3 to try to pasture it you are going to have the risk
4 of animals tripping over these things when they are
5 that densely located. I think this is -- I think
6 that really creates a serious problem with this
7 proposal. In any event, I don't say that as a state-
8 ment -- don't continue to experiment, because I think
9 this sort of thing is necessary in the future if it
10 becomes necessary to have landfill sites, but I think
11 maybe it should be worked out on an experimental basis
12 in the same way as your experiments in Guelph with
13 garbage and ^{sewage} sludge are essential. If it is the
14 sort of thing we are eventually going to have to use,
15 then I think it should be attempted on an experimental
16 basis before we get into 400 acres.

17 Q If you are going to be pasturing --
18 assuming these problems can be overcome and assuming
19 you are going to be pasturing on 20 acre parcels
20 as you go along, how are you going to get -- how
21 would you propose that the water be brought up for
22 whatever kind of livestock would be pastured there?
23 You are going to be 40 feet up and except for the
24 water pond which I gather comes as a result of the
25 final crop which is near the top, somewhere along
26 the edge, do you contemplate having to pump water
27 up to the top of this plateau as you are using the
28 20 acre parcels until you get a viable unit going?

29 A. That would be one solution.
30 There must be existing wells that could be used.



1 Q. Not on the plateau which is
2 immediately above ---

3 A. There should be wells in there
4 somewhere that could be retained.

5 Q. Possibly, but I don't think there
6 is anything on the strip. I think any of the well
7 sites we have got indicate there are neither shallow
8 or deep wells on this particular site. We may have
9 to bore one. I'm not suggesting that is not
10 possible. It is a question of pumping it up.

11 Also on the finished product -- and
12 I didn't mean to say that in any kind of derogatory
13 way -- in the farm that is being proposed, all around
14 the outside these 200 foot terraces slope up to
15 the plateau which is going to be rehabilitated. They
16 are all going to be covered in grass I understand?

17 A. You are talking about the outer
18 sloping edge?

19 Q. Yes, the 300 foot buffer and
20 then we start going up about 200 feet.

21 A. A gradient of one to six.

22 Q. Up ^{to} what I call the plateau, 30 or
23 40 feet at the top of the pile of garbage. That
24 200 foot slope is all going to be maintained in
25 grass?

26 A. That is the proposal that was
27 presented.

28 Q. I just want to make sure it all
29 stays in place and there is no erosion.

30 A. Absolutely.



1 Q. Aside from pasture, that can't
2 on your recommendation be used for any kind of crop pro-
3 duction?

4 A. It must be retained in grass
5 all the time in my opinion.

6 Q. So that is lost to farm production
7 except insofar as it can be used for pasture?

8 A. That is right. Pasture plays
9 a vital part in any farm operation.

10 Q. I'm not disputing it can be used
11 for pasture. It would be used as pasture, no doubt,
12 when you are developing these first 20 acre sites
13 from year to year, but if you were going to use it
14 as pasture after you get to the plateau, you are
15 going to have to run a fence along the top of the
16 plateau, are you not?

17 A. It is conceivable.

18 Q. You would have to run a fence
19 or don't pasture because the livestock which you would
20 hope to graze on this slope is inevitably going to get
21 into whatever is going to be produced on this plateau
22 unless it is?

23 A. I am not that familiar with
24 the eating habits of livestock.

25 --- (Laughter)

26 Q. Let's leave it at that.

27 Who would you envisage operating this
28 farm as a finished product? Let me put it bluntly:
29 would you expect the City of London to try to operate
30 this farm?



1 A. I don't think it is fair to
2 ask me that question. It involves so many things
3 that it is beyond my ability to try to answer that
4 question.

5 Q. Let me put the question a
6 different way: would the operation and management
7 of the site require the skill of an expert or could
8 any farmer who has worked in this area who is
9 familiar with the soil conditions be capable of
10 operating this site?

11 A. I am sure any of the local
12 farmers, very capable as I'm sure they are, they
13 could handle it.

14 Q. Without any special expertise
15 or advice?

16 A. I cannot think of any serious
17 problems that they might anticipate. These people
18 are quite knowledgeable, sir.

19 Q. Doctor Webber, there is one
20 last matter to cover and that is the ability of
21 this soil to bear the weight of the machinery that
22 will be used on a farm. We have been told by Mr.
23 Morris that all around the outside edge of this,
24 both sides, there is going to be what is called a
25 leachate drain. We have also been told that that
26 whole eight foot level, up to the eight foot level
27 which is basically the top of the excavation, is
28 not going to be drained of leachate but is going
29 to be maintained as leachate saturated garbage.
30 Now, assuming that around the edges we can expect



1 | this whole site to be a little on the moist side,
2 | with a certain amount of resiliency, how much give
3 | will this covering material that you are proposing,
4 | how much give will that take before it breaks through
5 | and sink down into this very liquid muck, if I can
6 | use that word?

7 | A. Based on your assumptions that
8 | you are making, I can't envision that situation
9 | occurring. The bearing capacity of the soil is
10 | tremendous and if you are talking about the surface,
11 | cultivation area, I don't anticipate any problems
12 | because this has been demonstrated many times. Soil
13 | can be refilled and brought back into agricultural
14 | production. There are many more difficult situations
15 | of earth moving than there are here.

16 | MR. WRIGHT: Those are all the questions
17 | I have, Doctor Webber, thank you.

18 | THE CHAIRMAN: Are there others who
19 | want to ask Doctor Webber questions?

20 | Is it Doctor Webber or Professor Webber?

21 | THE WITNESS: Professor. I do not
22 | have a doctorate degree, but I thank you, sir, for
23 | your honorary degree.

24 | MR. VANNESTE: Dr. Webber, after you
25 | have your landfill site established, in your
26 | opinion will the natural rainfall which we have
27 | penetrate this approximately four feet soil layer,
28 | compacted soil layer, the natural rainfall will it
29 | penetrate fairly well this four foot layer?

30 | THE WITNESS: The major compaction is



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1 not severe. The compaction we propose and as evidence
2 has been given is to simply break up the large chunks
3 of clay to the depth that we will get. It is a force-
4 ful type of breakup and not designed to pack the soil.
5 It would not be -- as such the operation would not
6 be conducted when the soil is wet at which time you
7 get maximum compaction. I cannot agree with your
8 supposition that it is going to be compacted. It
9 will be loose and pliable but will settle with time.
10 To answer your other question, yes, the rainfall
11 will penetrate that because I don't see any mech-
12 anism or physical process there that would hinder
13 this penetration.

14 MR. VANNESTE: We can go on and say
15 you don't -- you think the water will reach it. I
16 as a practical farmer have seen pipelines going
17 through a farm that have left a tremendous compact-
18 ion ten years after the pipelines were put in.
19 Drainage was nil in these areas. So in your opinion
20 you say that the drainage of the natural rainfall
21 will penetrate and that eliminates the need for tile
22 drainage? Do you say it will penetrate the ground
23 and it eliminates the need for tile drainage? Do
24 you agree with that?

25 THE WITNESS: Yes.

26 MR. VANNESTE: If it takes the
27 natural rainfall through, your next problem would
28 be to drain the excess of water away. This in my
29 opinion is something we will have to foresee in the
30 time to come.



1 THE WITNESS: It is foreseeable.
my

2 MR. VANNESTE: From experience with
3 excavations in dry weather I am advised that the
4 water line comes through our farm and I know what
5 I'm talking about, so in other words you will have
6 to see if they don't have to install tile drainage
7 on this site.

8 THE WITNESS: Could I suggest --
9 could you advise me on this: in the construction
10 to which you refer were there many passovers of
11 this heavy equipment? Could you envisage in bring-
12 ing this sub-soil into this site that it would be
13 brought in, dropped and not gone over many, many
14 times such as you would with machinery?

15 MR. VANNESTE: The top soil was
16 brought in with the tile beside it. Naturally the
17 top soil was put to one side. After the cement
18 pipes were laid, so that the back end, top soil
19 was spread on and it was closed. Naturally you
20 say you are only going to work in dry weather and
21 not work -- if you say you are going to work only
22 in dry weather, you are not going to work very much.
23 In the winter you will be working under wet conditions.

24 THE WITNESS: Yes, but I think the
25 evidence has been given that it is not necessary
26 that the operation would be, this entire site would
27 be covered to the required depth at a given time of
28 the year. I explained to you that with your farm
29 experience you know that time is always in your
30 favour and that freezing and thawing change many things



1 in our soil structure.

2 MR. VANNESTE: I agree it does.

3 Another point as a practical farmer that I dispute

4 a little bit is not to grow alfalfa on that soil.

5 I think alfalfa is the greatest crop to loosen soil

6 up, to bring soil back into a natural state. If you

7 look at the picture here from the United States on

8 landfill sites it shows a picture of a man picking

9 alfalfa on top of a landfill site. I do not agree

10 with your statement there. You must agree with me

11 that alfalfa is the greatest crop to loosen soil?

12 THE WITNESS: I appreciate your

13 opinion and I am sticking with mine.

14 MR. VANNESTE: Do you still believe

15 that we shouldn't grow alfalfa on that soil? For

16 what reason? It is the greatest protein provider.

17 THE WITNESS: The production of pro-

18 tein from alfalfa is significantly greater than the

19 production from clover? If compaction is a problem,

20 then we have alternative means. You have heard the

21 evidence and the suggestion made by learned counsel

22 that this probably should be experimented with. I

23 can't agree with him more because, sir, this is the

24 first and it is going to be watched.

25 MR. VANNESTE: I don't know if it is

26 a proper comment to say it is a first for a landfill

27 site. I suggest we start another place in another

28 site with our garbage.

29 --- (Applause)

30 MR. VANNESTE: This is just garbage.



1 --- (Applause)

2 THE CHAIRMAN: Order, please!

3 Any other questions, please?

4 MR. WRIGHT: May I ask a question?

5 FURTHER EXAMINATION BY MR. WRIGHT:

6 Q. It is my understanding,
7 Professor Webber, that this rainfall onto this site
8 was going to be run off. Did I understand you to
9 say that all of the rainfall was going to seep
10 through the soil and down into the site?

11 A. No, sir. The soil has a certain
12 capacity to store a certain amount of water. When
13 that capacity to store water is reached, then the
14 rest is available for run-off. The rest avail-
15 able for run-off. We are talking then of a moisture
16 zone of the order of three feet of moisture storage
17 and, considering that you could get to the order of
18 two inches or more of water storage in this soil, it
19 is something worth thinking of. Yes, moisture will
20 be stored in it.

21 MR. WRIGHT: Thank you.

22 MR. PLAXTON: You are dealing there
23 with the sub-soil as distinct from the sealer layer
24 of compacted clay?

25 THE WITNESS: Yes, sir.

26 THE CHAIRMAN: Any further questions
27 of this witness?

28 MR. VAN DIEPEN: Professor, I heard
29 you say this is a first. It is not through yet,
30 Professor. We have not decided yet. Then there is



1 a question. You are talking about growing hay for
2 the first couple of years. Is the hay crop or any
3 crop ever analyzed off a site or a dump or whatever
4 you want to call it?

5 THE WITNESS: Yes. Sir, in all of
6 this research and experimental works we can produce
7 a good crop, shall we say, but that is a small
8 fraction of the story. What use is it to produce
9 a good crop if livestock should not eat it and if
10 you should not eat the livestock? Therefore, it is
11 a backward approach.

12 Now to answer your question: yes,
13 this material has been analyzed. The rye to which
14 I referred was analyzed in November. It grew from
15 September to November on this garbage and on the
16 sludge mixture. It was analyzed then and, as you
17 know, the winter rye -- if you understand what I
18 mean?

19 MR. VAN DIEPEN: I am a farmer.

20 THE WITNESS: It comes in winter
21 and then it comes out green again and clippings
22 were taken off that. Based on our analysis of this
23 rye in the fall there was one possibility that this
24 rye should not be fed to livestock without some other
25 source of food. That is to say, we believe that
26 cattle should not be allowed to pasture unrestricted
27 on the rye that we grew because of the high nitrogen base
28 in it. That condition changed when we sampled it
29 in the wintertime. Can you picture the amount of
30 nitrogen that we added to this soil in terms of the



1 garbage and the sludge combined which was something
2 in the order of 3,000 pounds of nitrogen.

3 MR. VAN DIEPEN: It wasn't specifically
4 for nitrogen, sir. I was going for ---

5 THE WITNESS: I don't want to lead
6 you or put things in your mind but what type of
7 poison were you thinking of? Were you thinking of
8 heavy metal?

9 MR. VAN DIEPEN: No, sir, I was
10 actually not thinking about any special poison. I
11 have a magazine at home -- it is in Dutch -- you
12 may not be able to read it. They bring out reports
13 down in Holland and they are afraid of the DDT. They
14 don't use it anymore, but they used to. Apparently
15 they can't use the milk from the cows no more.

16 THE WITNESS: That would be correct.
17 That is conceivable. You have indicated the use of
18 DDT is virtually cut out?

19 MR. VAN DIEPEN: That is true. I
20 was wondering could there be any poison or anything
21 like that that a plant takes up and goes through the
22 cow?

23 THE WITNESS: Mr. Van Diepen, for
24 your information I have indicated our concern for
25 high nitrates. There is a high concern for high
26 nitrates in the water you feed livestock and the
27 nitrates that you drink, so-called potable water.
28 The other types of poisons that could get into a
29 plant from growing this plant on sewage -- this is
30 what we did -- and the very high amount that we did



1 is in the area of what we call heavy metals. If
2 the court so desires, we can go into that area.
3 Except for the nitrogen in the early fall after our
4 crops came in, I think you realize the evidence of
5 that, we did not find anything that was at all
6 toxic or poisonous.

7 MR. VAN DIEPEN: No mercury?

8 THE WITNESS: No.

9 MR. VAN DIEPEN: I heard a lot about
10 mercury and I was just wondering.

11 THE WITNESS: I appreciate that.
12 The mercury in many cases would be chemically fixed
13 and attached to a stalk. Mercury will not occur in
14 the soil as the quick silver as you may know it.

15 MR. VAN DIEPEN: I know what the
16 stuff looks like.

17 THE WITNESS: It does not occur in
18 that form.

19 MR. VAN DIEPEN: That is all. Thank
20 you.

21 MR. PLAXTON: You referred to a size-
22 able number of bushels of corn. Did you measure that
23 in bushels or tonnage? That is per acre. In any
24 case, my question is where did the corn go, how
25 was it used?

26 THE WITNESS: The yeild of corn is
27 usually expressed in shell grains or bushels per
28 acre, whereas the acreage is in tonnage per acre.
29 We had adequate sampling techniques to get sampling
30 for laboratory analysis and the boys made chemical



1 analyses.

2 MR. PLAXTON: In the college silo?

3 Did you have any complaints about
4 dead rats or any concerns in that area?

5 THE WITNESS: No.

6 MR. KEN McDOUGALL: As a soil
7 scientist could you tell me what per cent of farm-
8 land in Ontario of the total land in Ontario would
9 be productive for (inaudible).

55

10 THE WITNESS: No, sir. If you have
11 library
12 access to a/ or something like that, I think your
13 best bet should be a publication called "Challenge
14 of Abundance." It is the proceedings of a confer-
15 ence held some years ago in which the food and
16 animal production specialists looked at this area.

17 MR. McDOUGALL: Will you agree that a
18 relatively small amount of Ontario is blessed with
19 ideal or almost ideal soil and climatic conditions
20 for crop production? Would you agree with that?

21 THE WITNESS: Yes.

22 MR. McDOUGALL: And in this time we
23 are wrapped up in food shortages and other things,
24 I truly believe that doing the best for Ontario
25 and if we don't produce ourselves the world will
26 come and get it. Do you feel that there has been
27 enough work done on this project to take 250 acres
28 out of production in the Golden Horseshoe area? Do
29 you think it is a big enough risk or we should
30 possibly be trying this on a smaller scale?

THE WITNESS: Sir, I would not be here



1 appearing for anyone if I was not convinced that
2 this would work. I am convinced that this will
3 work and that is why I am here today.

4 MR. McDOUGALL: What about the --
5 we are an agricultural community. Is this land
6 going to be that much better than it was before or
7 granted it could be better now -- will it be better
8 with these advanced agricultural practices that we
9 will have in the future?

10 THE WITNESS: I would submit to you
11 that, even though it is good farmland, there are
12 various ways it could be improved.

13 MR. McDOUGALL: Do you think that by
14 digging up a farm and putting in 20 feet of garbage
15 you are going to achieve greater productivity on
16 that land?

17 THE WITNESS: We can only speculate,
18 sir. We use the best knowledge we have at the pre-
19 sent time and that is it. What you read about and
20 what the research^{is} in that type of thing, I don't
21 know the answer but I am convinced enough that it
22 can be done that I am here in this capacity.

23 MR. McDOUGALL: Still it hasn't
24 been proven and we are experimenting with a very
25 large area. Would you not have to agree with that
26 in a time where people are becoming concerned about
27 food shortages?

28 I guess that is all.

29 THE CHAIRMAN: Any others before we
30 have a break?



1 Q. Can you speak a little closer
2 to the mike, please?

3 A. Sanitation and pollution control
4 engineer for the City of London.

5 Q. Can you indicate to the Board
6 the nature of your educational background and
7 experience in that field?

8 A. I'm a graduate of the Royal
9 Technical College of Glasgow in 1953. A registered
10 professional engineer in the Province of Ontario.
11 Prior to coming to Canada I was qualified in civil
12 engineering for a construction company. Since coming
13 to Canada I have been employed by the City of
14 Toronto, (inaudible) Consulting
15 Engineers, before coming to London I was an engineer
16 for (Inaudible).

17 Q. Over what period of years have
18 you been a graduate engineer?

19 A. Approximately 20 years.

20 Q. For how long have you been in
21 charge of the waste disposal operation for the
22 City of London?

23 A. Five years.

24 Q. Mr. Robertson, I would like you
25 to briefly describe for the benefit of the Board the
26 way the city disposal system would work in the
27 event the approval which is sought here is granted
28 for the landfill operations on this site?

29 A. Mr. Chairman, we presently
30 now have 23 collection beats. We have 25 packers



1 to operate with six spare packers in case of break-
2 downs and so on. Of the 23 beats 17 are residential.
3 Three are commercial and three are ---

4 THE CHAIRMAN: Did you get that?

5 ALL THE SPECTATORS: No!

6 THE CHAIRMAN: They can't hear.

7 Would you pull the microphone closer?

8 THE WITNESS: Yes.

9 On the average the packers make two
10 or three trips ---

11 MR. PLAXTON: Q. Before you do that
12 perhaps you might repeat the beginning of your answer.
13 You dealt with 23 collection routes or beats as you
14 call them throughout the city, that is, garbage
15 collection beats undertaken by city owned vehicles.
16 Perhaps you could describe the kind of vehicles that
17 are in use?

18 A. We use closed garbage packers with
19 mainly 25 cubic yard capacity.

20 Q. Yes. And the 23 beats, they
21 break down in what way?

22 A. Seventeen residential beats,
23 three commercial and three apartment beats.

24 Q. And you have how many vehicles are
25 either on the beats or standby vehicles in total?
26 How many do you have?

27 A. Twenty-three on the beats and
28 six standby for a total of 29 packers.

29 Q. How many pickups do you have
30 per week of garbage along these routes?



1 A. These residential beats we have
2 one per week and on the apartment and commercial beats
3 anything from one to eight a week. Most collections
4 being two a week with a charge for anything over two
5 collections a week or three.

6 Q. Up to two collections in certain
7 areas, one collection in residential areas in effect are
8 paid for by the city and then additional collections
9 as required in the apartment areas and commercial
10 areas are charged for?

11 A. That is correct.

12 Q. And there could be up to eight
13 of those in the very intensive areas of the city?

14 A. That is right.

15 Q. In one week?

16 A. Yes.

17 Q. How many trips would each of
18 these vehicles make on the average of city owned
19 vehicles to and from the site each day?

20 A. They make between two and three
21 trips to the site each day.

22 Q. And would that depend in part
23 upon how far the beat might be located from the land-
24 fill site?

25 A. It depends on distance and the
26 type of garbage that can vary from day to day and
27 from week to week.

28 Q. What is the carrying capacity
29 of the vehicles fully loaded?

30 A. The majority of the packers are



1 25 cubic yard packers.

2 Q. Expressed in average weight
3 of garbage?

4 A. This of course varies, but the
5 maximum weights we get of garbage would be up to
6 10 tons and in some cases it would be half that.

7 Q. What route would these city
8 owned vehicles take to arrive at the site?

9 A. To the proposed site they
10 would go out Wellington Road, along the 7th
11 Concession west to the site.

12 Q. Yes. So that if the garbage
13 packer operating, let us say, in the far western
14 area of the city, say, in Byron was to travel to
15 the site, what route would you envisage that packer
16 to take?

17 A. The packer would have to take
18 the same route, Wellington Road and the 7th Concession
19 to the fill site.

20 Q. This would be a regulation?

21 A. This would be a regulation, yes.

22 Q. And your drivers would all be
23 informed of that?

24 A. They would be.

25 Q. And again if it was out in the
26 east end of the city, can you envisage how he might
27 get to the site?

28 A. The same thing. He would have
29 to proceed to the site down Wellington Road and by
30 the 7th Concession.



1 Q. How would he get to Wellington
2 Road?

3 A. The southeast, he would come
4 along Hamilton Road. From there on up the highway
5 or Commissioner's Road.

6 Q. So that the point of collection
7 of the vehicles or where they would gravitate to
8 would be Wellington Road?

9 A. Wellington Road.

10 Q. Within the city limits?

11 A. Yes.

12 Q. And from that point to the 7th
13 Concession and over to the site?

14 A. Yes.

15 Q. Can you describe the vehicles?
16 I think you said they were fully covered vehicles?

17 A. Our packers are fully covered
18 in the rear
19 and they load the garbage/and there is a sweep placed
20 there and it completely encloses the packer itself.

21 Q. The cover is a sheet of steel?

22 A. Right.

23 Q. None of the garbage, therefore,
24 from these vehicles would be exposed to the air in
25 travelling?

26 A. No.

27 Q. With respect to the approach
28 then, perhaps we could deal at this stage with other
29 types of vehicles in addition to city owned vehicles.
30 What is your estimate as to an average perhaps
visitation to this site by a vehicle?



1 A. The total vehicles we get at
2 the present averages out about five hundred vehicles
3 a day through the week which is roughly half this
4 amount on Saturdays and holidays.

5 Q. Are there commercial carriers
6 of waste who operate independently of the city but
7 who contract with the city for the use of the land-
8 fill site and who operate out of London?

9 A. There are commercial disposal
10 companies in London who do have packers of various
11 types. They do use our present site. They would
12 be included in the five hundred vehicles per day.

13 Q. That is for a charge?

14 A. Yes.

15 Q. Let's assume somebody comes up
16 with a small amount of garbage in the trunk of his
17 car. Would you charge him?

18 A. There is no charge for a private
19 car with or without a trailer behind. There is no
20 charge for a small vehicle, a pickup truck or some-
21 thing like that. Anything 7,000 pounds or less there
22 is no charge.

23 Q. Anything higher in weight is
24 charged?

25 A. Anything higher than that must
26 pass over a weigh scale and is charged in accordance
27 with the weight.

28 Q. I would like you, if you could,
29 to give us some kind of word picture, if you might,
30 as to the way in which you envisage the operation,



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1 assuming the vehicle would be travelling along the
2 7th Concession Road coming up to the site. Perhaps
3 you could describe the nature of the site as he
4 would see it in its fully developed state and
5 operational. That is the system right through to
6 if
7 the point where/it is a heavy vehicle, where he
8 would go and if it is a light vehicle, where that
9 vehicle would be expected to go and take us right
10 through the operations?

11 A. I think the system of ^{internal} access
12 roads within the site has been pretty well ex-
13 plained in previous testimony so when a truck
14 enters the site through the entrance gate to the
15 site there would only be one access, one entrance
16 to and from the site. The truck carrying the waste,
17 would go to the weigh scale and the gross weight of
18 the truck would be taken and he would take it to
19 the working face of the site where he would dump his
20 load.

21 Q. You are going a little fast.
22 I wonder if you could describe what you see as you
23 go? For example, travelling along the Concession
24 Road going west, it is a paved road at that point,
25 paved up to the point of the entrance. Will you
26 take us through the entrance and tell us what it looks
27 like and what the weigh scale is like, where it is
28 located in reference to the berms and so on?

29 A. The entrance gate to the site
30 will be a long metal gate in between pillars. You pass



1 through the entrance gate on the road that you are
2 on which is a paved road. The road then veers off
3 to the left and you proceed about 250 feet. You go
4 to the weigh scale building, one for traffic entering
5 the site and one for traffic leaving the site.

6 Q. Would there be kind of a weigh
7 scale shack or building?

8 A. There will eventually be a
9 building but the weigh scale building will be screened
10 from the temporary roads by the protective berms. It
11 is a relatively small structure with a man in there
12 to operate the scales.

13 Q. Yes. If it is a light vehicle,
14 or someone with garbage in the trunk, where would he
15 be directed?

16 A. As ^{at} the present site there would
17 be signs on site W-12A directing private cars and
18 so on to pass the weigh scale and they would stop.
19 Trucks would pass over the weigh scale. Once they
20 are weighed and the weigh master sees what is on them,
21 they would proceed along the access road until they
22 get to the siding of the access road onto the gravel
23 road which leads to the working face of the site.

24 Q. Yes. We had some fairly
25 extensive information about the working face.
26 Would you describe how long you envisage that face
27 to be?

28 A. The one working face at the
29 present site does vary. It can vary from 100 to
30 150 feet, depending on the amount of garbage coming



1 in at any one time. We do work to a minimum face
2 at all times, but at the same time you have to expand
3 the face slightly to accommodate the traffic coming
4 in.

5 Q. Then ---

6 A. I would like to go on about the
7 private cars.

8 Q. As a private car comes in,
9 where is he directed to go?

10 A. At the present fill site the
11 private car would proceed along the same route as
12 trucks and so forth and the private cars will go
13 along the face and the heavy vehicles at the top.
14 We do find that private cars and small pickups,
15 especially during the busy periods at the site, any
16 new site we get we would place containers, 50 or 60
17 gallons or thereabouts and private care or small
18 pickup trucks would dump their loads in those con-
19 tainers which, as required, would be collected by
20 heavy vehicles and taken to the face for dumping.
21 This is an improvement on our present method.

22 Q. Would they be dumped at least
23 once a day?

24 A. We don't really know how much
25 they would be bringing in. We are estimating but
26 we do feel we should have eventually two 50 yard
27 roll-on containers.

28 Q. And they would be dumped once
29 a day?

30 A. They may be dumped once a day when



1 they are full. That is when they would be dumped.
2 I imagine one a day would possibly be a fair estimate
3 of that.

4 Q. If a driver was to, a driver of
5 the city was detected driving a city vehicle along
6 an unauthorized route to gain access to the site,
7 what would the action be, if any?

8 A. For a city driver doing a thing
9 like that he would be disciplined and I imagine it
10 could involve a suspension for the man. He would
11 certainly be disciplined.

12 Q. Dealing with a commercial chap
13 who has a contract with others to move garbage
14 commercially, how would you handle him?

15 A. The commercial vehicles at the
16 site, if they went by an unauthorized route and it
17 came to our attention, the company that owns that
18 particular vehicle would be contacted and they would
19 be told, reminded of the regulations and instructed
20 that the next time one of their vehicles came to the
21 site along an unauthorized route we would not accept
22 it.

23 Q. Dealing with the occasional
24 passenger car that came the wrong way, how do you
25 handle that?

26 A. The passenger car, I think
27 what we would do there would be to -- there is no
28 problem at the site but I think the way it would be
29 handled there would be to talk to the driver,
30 explain the situation to him and explain the access



1 routes to the area. If it was noticed that he had
2 done it again, he would receive the same treatment
3 as a commercial driver.

4 Q. Yes. The next point is the
5 interior roads. Would you indicate to the Board to
6 what extent they would be asphalted initially as the
7 job progresses?

8 A. They would be asphalted initially
9 from the entrance to the weigh scale, beyond the
10 weigh scale and beyond the gravel access road into
11 the working face. As the site progressed, the as-
12 phalt road would be extended along to ensure that
13 the traffic entering the site was travelling on a
14 paved access road.

15 Q. Are you referring to the road
16 going along the south limits of the 310 acres
17 roughly?

18 A. Yes.

19 Q. And ultimately it would go along
20 the whole length of that dimension --

21 A. Yes.

22 Q. ...with gravel roads working
23 north from the paved road?

24 A. That is right.

25 Q. And these would be used tem-
26 porarily as the area was worked. New gravel roads
27 would be created further west working north and
28 south again?

29 A. Yes, until we finished one
30 section of the site and then, of course, where the



1 gravel road is, starting north it would travel with
2 the garbage and so forth and would be brought up to
3 the higher elevation. We would be preparing the
4 next access road.

5 Q. And how would you treat the
6 gravel roads against the incidence of dust? What
7 equipment would you have at the site for this purpose
8 and how would that be accomplished?

9 A. At the present site we have a
10 water truck with a ^{sprayer} behind and in addition to
11 that we have a thing where we treat the gravel
12 roads in the site and on the road allowance.

13 Q. We have heard a description
14 of the security fence, the concession road, the
15 berm, the ditch and the interior roads and the line
16 of trees. Is there anything else contained in that
17 buffer strip? The access road is within that buffer
18 strip?

19 A. Right.

20 Q. And the weigh scale would be
21 within the buffer?

22 A. Yes.

23 Q. You are taking the gravel
24 road going north to the working face and you say
25 you arrive at a working face which has been des-
26 cribed earlier. Can you give us some brief des-
27 cription for those who may not have heard it
28 earlier of the way the daily garbage is dealt with
29 and just very, very briefly describe the process
30 of the cells?



1 A. On the site we would have two
2 heavy bulldozers equal to or equivalent to the
3 caterpillar D8 which is very fine. These would
4 be spreading garbage in two different layers and
5 in eventually/the eight and nine foot excavations, they
6 would work garbage from the top^{down} and maintain the
7 grading of the slope.

8 Q. Would you have somebody there
9 to direct the vehicles arriving at the working face
10 to a particular point in the face?

11 A. We do have at the present
12 site and we will have spotters at the new site.

13 Q. How many spotters would you
14 have?

15 A. A minimum of one. It depends
16 on how much traffic we have and if we have trouble
17 with the traffic and new drivers coming in there
18 and mixing it up a bit, then we might need more
19 than one. We would have one of the spotters there
20 to keep traffic moving.

21 Q. Following the dumping of the
22 garbage at the working face, would you describe
23 that operation? I'm sorry I interrupted you.

24 A. As I say, we would have two
25 heavy bulldozers for spreading heavy garbage and
26 also in the evening again,^{after} the day's operation,
27 spreading back at night the cover material which
28 would be placed over the cells. If they had a
29 chance to move a working face, if they completed
30 a full day's operation, the face would be covered.



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1 Q. Referring to earlier testimony,
2 the cells were going to a depth of eight feet?

3 A. Yes.

4 Q. Do you throw a thickness of
5 eight feet of garbage in at one time or how do you
6 do that?

7 A. As I explained that, we plant
8 garbage in two foot layers.

9 Q. Is there any earth-moving
10 going on during the day as you proceed to this
11 working face?

12 A. We have a self loading strip
13 along the side which we call an (inaudible) outside
14 the cell and, as I say, at the face if moving from
15 one face, one working face to another working face,
16 the face that was completed would be covered no
17 matter what time of day it was. There would be
18 enough cover material to contain that and it would
19 be covered.

20 Q. Is it fair to say the covering
21 goes on during the day and at the end of the day
22 as well?

23 A. Yes.

24 Q. At the end of that process, what
25 do you see at the working face?

26 A. Well, at the end of the pro-
27 cess all you see is the cover material itself, the
28 clay.

29 Q. This is clean clay from the
30 site' --



1 A. Yes.
2 Q. ...put back on the garbage?
3 A. Yes.
4 Q. To what depth would you put that
5 clay?

6 A. The cover material is nine
7 inches compacted.

8 Q. In this whole process during
9 the day how many employees or labourers of the city
10 would be working at the site and in what capacity?

11 A. At the site we will -- it will
12 be under the direction of a qualified foreman and
13 at the site would be five heavy equipment operators,
14 seven labourers, a tanker driver, a truckdriver,
15 five weigh scale operators and three watchmen.

16 Q. Referring to the labourers,
17 would one or two of them be devoting their time to
18 spotter activity?

19 A. Yes.

20 Q. What would the other ones be
21 doing?

22 A. The two labourers, a minimum
23 of two labourers would be available for site clean
24 up. There always is maintenance needed on a site.
25 You have leachate drains and so on in there and
26 there is plenty for them to do.

27 Q. This portion of the site we
28 are talking about which is being worked over in
29 effect is how large in relation to the whole site?
30 Can you give the dimension^s?



1 A. I think it is 400 by 500 foot
2 cells, according to Mr. Morris, the area of the cells.

3 Q. That is the active working area?

4 A. Yes.

5 Q. Fine. Around that active working
6 area what is your policy with respect to the erection
7 of fencing?

8 A. The policy at the present site
9 is that we erect snow fencing around the ^{working} area itself.
10 At the present site this has been fairly successful,
11 unless there is a heavy wind which causes some
12 problem, but basically it has been fairly successful.
13 I think to cover the problem more completely that
14 higher portable fences would be used. We have some
15 information that in Toronto they are using those
16 net type of fences and somebody -- and I would like
17 to go through there and see how they operate and
18 so forth. We are thinking of increasing the height
19 of the fencing to control blowing paper.

20 Q. Dealing with the equipment,
21 you described it briefly and perhaps you could just
22 get into each kind of item of equipment, how much
23 you have there and what its function is? You said
24 two heavy bulldozers?

25 A. Two heavy bulldozers, some of
26 the machines would be to spread and compact the
27 garbage. In addition to that, we will have a tracked
28 front-end loader which will be used mainly to assist
29 the heavy bulldozers. We also have a front end loader
30 a rubber tired front-end loader to carry out maintenance



1 around the site and on the roads. Also a tank truck
2 to haul leachate, a water truck to use for dust
3 control and a pump truck for leachate pumping and
4 a pickup truck.

5 Q. What would the function of the
6 pickup truck be again?

7 A. The pickup truck is for fetching
8 emergency equipment which can be used for the main
9 yard for the city and the pickup truck comes in
10 there to drain out the bath. If somebody was injured
11 and required an ambulance, we could take him to the
12 hospital. There is also work for it to clean up on
13 the site and the truck would be there for three hours
14 a day. It wouldn't be required all the time.

15 Q. You would envisage what, just
16 driving around the perimeter of the site?

17 A. Driving around the perimeter
18 of the site and looking at the garbage. Sometimes
19 you have to go up the road (inaudible)

20 Q. In the event that any of this
21 equipment broke down, does the City of London have
22 a pool of other equipment available to replace this
23 equipment you have described?

24 A. It does.

25 Q. Where would this pool be and
26 under what department?

27 A. It is under the City Engineers
28 Department. It is in several bases around the
29 city, but ^{mainly} at the Bathurst yard.

30 Q. But what facilities would you



1 have for city personnel?

2 A. Well, we would use one of the
3 existing houses for city personnel. We also would
4 have an equipment building for the storage and
5 maintenance of equipment on the site, a barn or
6 something. We might construct a building for this
7 function.

8 Q. There has been some concern
9 expressed about the operation in the wintertime or
10 at times when the weather may be particularly in-
11 clement or in freezing weather. Perhaps you could
12 describe what you will do to get around that
13 difficulty, if it does exist?

14 A. It would be mainly in the
15 spring thaw, assuming a heavy rain which can make
16 it difficult for people getting to the working face,
17 if the working face happens to be right at the north
18 end of the site. To avoid any problems there, we
19 will keep available a cell immediately adjacent to
20 the access road coming into the site and if they
21 have difficulties in the north end of the site, they
22 can fling their garbage into this area.

23 Q. So you would characterize that
24 as what, a wet weather area?

25 A. A wet weather area.

26 Q. It would be constructed in what
27 way?

28 A. It would be constructed in
29 the same way as the other cells on the site. There
30 would be the access road -- the access road would be



1 constructed in dry weather and would be in use in
2 wet weather.

3 Q. Is there any other step you
4 would take to stockpile material or something like
5 the use of straw to keep stockpiled material free
6 of frost or relatively free of frost?

7 A. So far we have had no problem.
8 So far we haven't, but if we get a situation where
9 the ground becomes frozen and it is impossible to
10 get your cover material out, we would take measures.
11 We do go out to the site and (inaudible).

12 Q. What type of control regulations
13 would be adopted by the city or practices?

14 A. At the present site we do have
15 a city person, two men employed who have control
16 from the city. They have established a practice on the
17 present site and each Monday they go out and in-
18 spect the weigh stations and find out the volume of
19 refuse coming in and so on. They do this on a
20 regular basis, you see.

21
22 Q. Has the medical officer of
23 health reviewed your present program and commented
24 thereon?

25 A. The Health Department are in
26 touch with us at all times on pest control in the
27 city, including the operation of a fill site and
28 they are satisfied with the precautions we are
29 taking.

30 Q. Have you personally ever seen



1 a rat at one of these sites in the city?

2 A. I have not seen one personally.

3 Q. To what extent do your in-
4 spectors report or have you ever asked them to
5 indicate how often they see evidence of rodents
6 in the area?

7 A. The last time I remember one being
8 reported was on the Commissioner's Road site and
9 this would be about four years ago. There was a
10 report there of rats and this was investigated
11 quite extensively and they tried to trap the rats
12 but they found at the site they were muskrats from
13 the creek which was adjacent to the site.

14 Q. Have your operators indicated
15 the frequency with which they have seen rats or
16 other vermin?

17 A. That is not a problem that
18 we are aware of. I have asked them about this and some-
19 one will say, "I will see one every two weeks,"
20 and somebody else will say, "I see one every two
21 months." They do see them occasionally running from the
22 garbage that is brought into the site and try to kill
23 them.

24 Q. I didn't hear that.

25 A. Usually they try to kill them.

26 Q. There has been concern expressed
27 about the extent of odours emanating from a land-
28 fill site. Can you comment on that, please?

29 A. I think odours from a landfill
30 site is something from the past. Our old Commissioner's
Road site was awful. There used to be trucks that



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1 collected septic tank waste and they were allowed
2 to dump there up until a few years ago. Now that
3 that has been omitted on the present site and I
4 think Commissioner's Road^{smells} the way people imagine
5 all garbage dumps must smell. This is not true.
6 On the present fill site which is surrounded pretty
7 well on three sides with homes, not packed close
8 together, but they are there, there was only one
9 complaint of odours and that was on an experiment
10 we had tried out which wasn't successful.

11 My theory is that the heavy odours
12 on the site dissipate before the boundaries of the
13 site are reached and they do not get outside the
14 site.

15 Q. What comment do you have
16 in light of the fact that the garbage is covered ---

17 A. Covering the garbage is one ---

18 Q. ...by the end of the day?

19 A. Covering the garbage is one
20 of the solutions to eliminating odours. No doubt
21 about it.

22 Q. Some concern is always ex-
23 pressed when you talk about the disposal of garbage
24 with regard to fire. What is your experience in
25 regard to fire? How often does it occur?

26 A. On the Clarke Road site since
27 we moved in there in December of 1971, we had one
28 minor fire on the garbage disposal site itself.
29 On the site, of course, it is pretty well set up
30 to handle fires. We have the water truck there and



1 a lot of heavy equipment and help would be available.
2 If there was a problem, that could be taken care of.
3 We have never had a problem with fires.

4 Q. Do you have personnel there
5 24 hours a day, night watchmen?

6 A. Yes, seven days a week.

7 Q. Is one of his duties to inspect
8 the working face from time to time?

9 A. Yes.

10 Q. If a fire arose, would he be
11 able to detect it?

12 A. Yes. He would be able to detect
13 the fire. He has one of those little radio things
14 and when he goes out away from the site, the radio
15 receiver is -- can call into the Bathurst yard. He
16 can report in then.

17 Q. Mr. Morris has described the
18 manner in which the site will be surrounded by
19 leachate drains comprised of perforated pipes lying
20 in gravel or loose granular material at strategic
21 points around the periphery of the dump and certain
22 manholes placed at a regular distance for maintenance
23 purposes. What in fact would be the maintenance that
24 you would see going on to maintain this system?

25 A. Well, I think the first thing
26 is that the leachate would be removed from the
27 leachate system. I would say that at the new site
28 we would have no facilities to store the leachate.
29 At the present site ^{they} /are blasting for the storage
30 capacity for leachate. In addition to that, there



1 would be periodic checks of the leachate pipes them-
2 selves to ensure that there was no blockage, the
3 same as we do with the sewer systems.

4 Q. When is that procedure used,
5 how would that work?

6 A. The leachate drain by itself,
7 you can do a visual inspection. You can go down in
8 the manholes and change the direction. Somebody
9 else goes into the next one and you shine a light
10 down and if you see a light, it gives an indication
11 that the leachate drain is clear.

12 Q. And if it wasn't?

13 A. You unplug it with a rod the
14 same as you do an ordinary sewer.

15 Q. You have to get up close and
16 push it through?

17 A. I think in a leachate drain
18 we would use the rods. You have seen them in the
19 sewer where you keep pushing them up in the back
20 until it reaches the obstruction.

21 Q. Then you described the collect-
22 ion process, that is to say, Mr. Morris also described
23 the manholes which were characterized as collection
24 manholes and you are saying there that there would
25 be a cache area?

26 A. That is what I understand.
27 They would pump the leachate into this storage
28 area. Depending on the length of the life of the
29 leachate, you would have intermediate manholes
30 available in the system. The ones Mr. Morris was



1 talking about were the main manholes to take this out
2 for the collection and removal of leachate that is
3 formed in the facilities.

4 Q. How is that done? I gather
5 it is done by a hand truck?

6 A. We have a siphon truck with
7 a movable pump with a suction hose which can reach
8 down into the manhole to the leachate and it pumps
9 it up into the tank.

10 Q. This is a fully enclosed
11 vehicle?

12 A. It is fully enclosed, naturally.

13 Q. And then it would be driven
14 where?

15 A. It would probably be driven
16 down to Watson's Creek. There is an area we have
17 there where there is a 33 inch sewer line through
18 there. We have that presently set up for septic
19 tank waste and so forth and it would be put in that
20 line.

21 Q. Can you now get into perhaps
22 a slightly different subject and deal with the
23 nature of the waste that would be accepted by the
24 city at this location and what kind of waste would
25 not be accepted?

26 A. Well, under the provincial
27 regulations as to what wastes are and are not
28 acceptable, I think I have some notes here. The
29 provincial regulations prohibit that wastes are
30 (1) (inaudible) (2) agricultural waste be



1 (inaudible) hauled and industrial waste, raw
2 sewage, (6) hazardous waste.

3 Q. That deals with raw sewage.
4 Therefore, that is prohibited. Did I understand
5 you to say it is the practice that it is not per-
6 mitted under the law to bring some kind of treated
7 sewage here? Would you describe what that is and
8 exactly where it comes from?

9 A. It comes from the filtering
10 plant, the treatment plant.

11 Q. This is the digested sludge?

12 A. No, sludge is in the tanks
13 and we process it and filter it. Dr. Webber
14 described how in some areas they take it down
15 after the sludge has settled and strain it after
16 the sludge is settled. The City of London, the
17 sludge is treated and filtered and then we get it
18 in a cake and this cake is disposed of under the
19 regulations of the Solid Waste Management Branch.

20 Q. What about sheet iron or other
21 scrap metal?

22 A. There are some items in the
23 city regulations that the site won't accept and
24 that includes dead animals larger than a dog, any
25 liquid waste, sheet iron, scrap metal, larger
26 things than four feet long and ten inches in
27 diameter, building materials.

28 Q. What is your policy with
29 respect to clean fill, so-called clean fill? Can
30 you tell me what is clean fill?



1 A. Clean fill is fill that is
2 taken out of an excavation for a building.

3 Q. Where is that dealt with? Is
4 it taken to the same working face as the garbage?

5 A. We have a long-standing
6 arrangement with the London Construction Association
7 and at our present site we will accept clay type
8 clean fill material because at the present site
9 what we have in abundance is gravel. On the site
10 made of clay of course, what we would be looking for
11 at that site would be granular material and not clay,
12 so then we apply to the Sanitation Division for all
13 this fill and so on. We do -- the obvious thing
14 is, of course, it is expensive to establish a land-
15 fill site but there are no regulations binding the
16 disposal of clean fill.

17 Q. Unless it is in a flood control
18 time?

19 A. Yes.

20 Q. I would like to ask you a number
21 of questions about the existing or pre-existing
22 operations of the city, dealing firstly with your
23 comments concerning the Commissioner's Road site.
24 Firstly here I would like to know is there more
25 than one location at the Commissioner's Road site?

26 A. Well, there are two sites
27 really. There was a site between Commissioner's
28 Road itself and the railroad tracks. I think that
29 one ceased operating in 1955 or thereabouts pretty
30 well. That essentially was a dump, rather than a



1 landfill site.

2 The second Commissioner's
3 Road site is on the other side of the LPS tracks and,
4 as I say, the operation of that site was where refuse
5 was brought into the site and simply dumped.

6 Q. Yes. Can you tell me, is the
7 first site referred to which was the one between the
8 EPS Railway and Commissioner's Road which was used
9 back in 1955, you said it was a dump?

10 A. Yes.

11 Q. And it was not therefore
12 engineered for the removal of leachate?

13 A. No. We have a problem with
14 that every year, perhaps more than that with the
15 leachate coming off of that site, to move in there
16 and use clay plugs and things like that to stop
17 the leachate from coming in.

18 Q. That is a continuing problem
19 from a maintenance point of view?

20 A. Yes.

21 Q. So on the other side of the
22 street where the other Commissioner's Road site
23 is located, can you comment as to whether that was
24 an open dump, a landfill site, an engineered land-
25 fill site? Can you tell us about that?

26 A. That was a landfill site,
27 but it wasn't an engineered landfill site in that
28 somebody designed the site. It was a landfill site
29 and those materials were used and there wasn't
30 leachate there but there was a clay berm constructed



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1 adjacent to the Watson's Creek.

2 It was fairly successful.

3 Q. Moving from there to the
4 existing city site known as the southeast site
5 on River Road, can you describe what category of
6 site this falls into?

7 A. That was an engineered landfill
8 site.

9 Q. We have had evidence as to the
10 nature of the surrounding uses before you came in.
11 That is to say, the city came into the use of
12 using it for landfill. I wonder if you could refer
13 to the pictures just behind the board, perhaps
14 moving it from that location at the easel and
15 going through each of these pictures or photographs.
16 For the purpose of the record these are the aerial
17 photographs referring to the site. Would you des-
18 cribe where they are located?

19 A. The first one here is the
20 landfill site. This is the first phase of the
21 thing. Commissioner's Road is here (indicating).
22 The railway track is running along here.

23 Q. The first stage is right about
24 in the middle of that picture?

25 A. Right, this section here
26 (indicating). This is the second phase of the
27 Commissioner's Road landfill site which started
28 on this section last year. What we see here is
29 placing of the top soil which is currently being
30 done.



1 This is what was the Greenway land-
2 fill site.

3 Q. How long ago was that in use
4 by the city?

5 A. That was one of the ones in
6 1955 or 1960. It is quite a nice area now.

7 Q. The lower left picture of the
8 four that are on the top is what?

9 A. This one?

10 Q. The lower left one.

11 A. This is the present fill site.

12 A SPECTATOR: We can't see the pictures.
13 You are standing right in front of them.

14 THE WITNESS: Is that any better?

15 A SPECTATOR: You can't see it back
16 here.

17 MR. PLAXTON: I would suggest that
18 you move forward so you can see it better.

19 Q. You stand to one side.

20 A. This is the present fill site.

21 The garbage cell will start along here, cut along
22 up here, along here (indicating) and back to here.
23 You will see this section of the site right now, the
24 leachate and drainage ditch run -- they have just
25 completed this section of it.

26 Q. The site was accepted by the
27 city or taken up by the city with that use there
28 before or not?

29 A. Yes. That was an existing
30 use. This area over here to this area (indicating).



1 That basically is essentially what is going on there
2 right now in the area. This is where they are working
3 on it at present, this area right here. This section
4 adjacent to the side road is finished with dumping
5 the garbage in that area. Next month the first
6 section of the landscaping will be done here on
7 this site.

8 This is the ---

9 Q. This is the lower right picture?

10 A. Yes. This in here on the site is
11 completely fill from building materials in this area.

12 This here is a view of the proposed
13 site for the landfill operation.

14 Q. Mr. Robertson, you have been
15 here throughout the whole of this hearing, have you
16 not?

17 A. Yes, I have.

18 Q. Were you here -- you must have
19 been when the various pictures were shown taken by
20 Mrs. Sifton or her husband?

21 A. Yes.

22 Q. I would like you to comment
23 on a number of those pictures. They will be pro-
24 duced, I gather, later in evidence, but can you
25 speak from recollection of each of the slides or
26 those that you can recall and comment upon them?

27 A. Of course I don't know where
28 all the slides were taken. Some of them I have a
29 pretty good idea. I'm referring to the slides
30 taken on the Commissioner's Road site. It occurs to



1 me that the slides showing the leachate bubbling
2 out are pictures taken in this area of the
3 Commissioner's Road site (indicating photograph).

4 Q. You are referring to the older
5 area as opposed to the more recent area of that site?

6 A. That is right.

7 Q. I see.

8 A. We are aware of that leachate
9 problem.

10 MR. WRIGHT: Would it be of any
11 assistance if we put these pictures up on the screen?

12 MR. PLAXTON: I just simply want to
13 -- you can put them up later if you like, but what
14 I would like to do, frankly, is try and close the
15 city's case. It has been a long hearing and we
16 would like to shorten the evidence if we can.

17 MR. WRIGHT: I'm certainly in
18 sympathy with that, getting the city's case closed
19 and proceeding with the hearing the other half.
20 I think it is perhaps dangerous to have speculation
21 as to where these pictures were taken. We can
22 produce these pictures now.

23 MR. PLAXTON: Perhaps you could prove
24 them later and we will deal with that later. We
25 are listening to Mr. Robertson's comments at the
26 moment. If there are difficulties about it, you
27 may cross-examine.

28 MR. WRIGHT: I don't want him
29 speculating as to where these pictures were taken.
30 I think that is bad practice.



1 MR. PLAXTON: Mr. Chairman, I would
2 like to shorten this. It has been a long, hot and
3 heavy hearing and this will just introduce -- prolong
4 the discussion. Perhaps we will wait for the pictures
5 to go in and ask if Mr. Robertson can comment on them
6 at the same time or following the comments of Mrs.
7 Sifton.

8 Let's move on.

9 Q. Mr. Robertson, I would like you
10 to in your own way, express your own view as to
11 the problem of the city with respect to waste dis-
12 posal, how this site would fit in to answer that
13 problem, what other areas you as a city engineer
14 will be looking into from time to time and the policy
15 generally of the city with respect to this question
16 of waste disposal, realizing that the city engineer
17 will follow you so I don't want you to be too long
18 on this because -- you have your own opinions on
19 this?

20 A. Well, I think the time spent
21 in talking of waste disposal is that so many people,
22 when you speak of sanitary waste disposal or garbage
23 disposal or whatever you want to call it, visualize
24 the old garbage dump. When you refer to dumping
25 garbage in there, that is what they think of. When
26 you bank and put the garbage in the bank and they
27 think of overflowing paper and contamination of
28 water and seepage and people will argue for quite
29 some time that the fill site in London that we have
30 is
operated as landfill site/just a dump We have the



1 eastside site and the old Clarke site and the
2 Commissioner's Street site, they are all sites.
3 The kids go down there with their dogs and throw
4 balls around in the summertime. I think there is
5 a difference between a garbage dump and a landfill
6 site. The site we are operating right now, one of
7 the advantages of it is it is an engineered landfill
8 site and it will become a useful piece of land.

9 Q. Thank you very much.

10 THE CHAIRMAN: Is that the end?

11 MR. PLAXTON: Yes, Mr. Chairman.

12 THE CHAIRMAN: Do you wish to ask some
13 questions?

14 MR. WRIGHT: Yes, I have a few questions,
15 Mr. Chairman.

16 EXAMINATION BY MR. WRIGHT:

17 Q. Mr. Robertson, just for the
18 record and to clarify for all concerned when you
19 say, "When we get finished we will have a useful
20 piece of land," there was no inference this land
21 which is being proposed now is useless now?

22 A. No. The landfill sites that
23 people have completed in the past were semi-abandoned
24 gravel pits. I'm speaking of the previous ones.

25 Q. You spoke about the present
26 operation at the Clarke Side Road site and you said
27 the big trucks go to the top and private trucks go
28 to the bottom. Is that a practice which is going
29 to continue?

30 A. No. On the first phase of the new



1 site we will be dumping from the top, the first eight
2 feet. We will excavate eight or nine feet down and
3 build that up and dump from the top below the
4 existing ground level. Later on we will use that
5 method down below, but when we come up on to the
6 level ground we would go to the method of dumping
7 from the bottom and sloping it up. To facilitate
8 this one reason -- that is one of the reasons we
9 are taking private cars and pickups out of the actual
10 dumping place itself and having them dump in con-
11 tainers because, as you know, private cars and
12 small pickup trucks go into the site and they don't just
13 dump the load. They hand unload the thing.

14 Q. I'm just concerned about you
15 dumping from the top because Mr. Morris explained
16 in some detail that that was a much less efficient
17 way of packing this garbage and we do have -- we
18 are going to have a rather serious leachate problem
19 in this whole bottom/of eight feet. Am I correct in
20 assuming that this lack of -- this more inefficient
21 way of packing is going to aggravate the problem?

22 A. The main regard -- if you take
23 a good load of waste ^{of} ^{tons} /five and take it uphill and
24 downhill, you are going to have five tons on that
25 piece of ground, but if you compact from the top,
26 it is harder on the machine. Rather, pushing up
27 a hill makes it easier on the machine and if you
28 start going down the grade, you reverse in your
29 tracks and the compaction is there and (inaudible).
30 In addition, we are speaking of doing this with a



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1 lower lift on the filled side and this will be done
2 to preserve the movement of the traffic to the
3 face itself.

4 Q. The buildings and weigh scales
5 and one thing and another that you speak of being
6 screened by berms from the township road, it is my
7 understanding that berm is going to be used as cover.
8 Shortly after you get your site completed and away
9 from that first corner all these berms are going
10 to be used and the buildings are going to be in
11 full view of anyone driving down the township road?

12 A. Not necessarily. You will take
13 the top soil off. You don't need that, so you can
14 top the berm with the material when you excavate.
15 However, when we move into the next stage, you skim
16 the top soil off there too. You don't need that.
17 You can use that top soil if you are ready for it.
18 I think the idea is on this site, as Dr. Webber
19 explained, that when you finish a side you wouldn't
20 slop on four feet of cover right away and then the
21 top soil. There would be a delay of two years or
22 something like that. In any case, even if you did
23 want to or were ready for the covering of the first
24 cell, you take the top soil off the second cell and
25 put it back in.

26 Q. I am just concerned because
27 you say this berm is going to be at one spot and
28 then we have been told the berm is going to move
29 down the township road.

30 A. The working area, the berm will



1 screen the working area.

2 Q. Which berms are we talking
3 about, around the building, the weigh station?

4 A. That is the one there (indicating).

5 MR. PLAXTON: I have had some
6 confirm -- the berm itself will be built in the area
7 where the work is going on and as time went on it
8 would be built along the sides of the area in question
9 so that the berm would be built in the areas where
10 no view would be had through it of the working face.

11 MR. WRIGHT: Mr. Chairman, my under-
12 standing is that this will move down as the working
13 face moves down to the township road.

14 MR. PLAXTON: The weigh scale apparently
15 remains where it is so that is where it must remain.
16 Beyond that I think you are right.

17 THE WITNESS: The working berms do
18 move around.

19 MR. WRIGHT: Q. You talk about these
20 gravel roads and now you talk about dumping from the
21 top. If the gravel road is going to run at the
22 first interval of 550 feet from the edge of the
23 excavation and then every thousand -- 100 feet
24 thereafter, is that going to be built on the first
25 cell?

26 A. That would be built between
27 the first two cells.

28 Q. But is it being built on the
29 bottom of the excavation or on the first level?

30 A. It is being built on the bottom



1 of the excavation.

2 Q. You just told us that there is
3 going to be top loading?

4 A. That is right. The trucks will
5 come in -- if this is the hole here, the trucks will
6 come in and dump and spread that on and the next
7 trucks will come in and dump and your berm is like
8 that, along the side (indicating).

9 Q. This gravel road is at the
10 bottom level, not at the top?

11 A. Once you finish your top level,
12 then you get into your cell system of dumping at
13 the bottom of the slope and pushing up.

14 Q. So why wouldn't you be getting
15 down in the road in the first place if it is going
16 to be on the base of the excavation? You go down
17 into the excavation along the road and along the
18 bottom. I don't understand how they are going to
19 dump at the top if they are driving along the road
20 that is on the bottom.

21 MR. PLAXTON: I think there needs to
22 be some clarification there.

23 MR. WRIGHT: Yes.

24 MR. PLAXTON: If you don't mind, Mr.
25 Morris can talk about this because I am afraid the
26 witness is in error.

27 MR. WRIGHT: May I just ask for Mr.
28 Morris to clarify this? Is Mr. Robertson the one
29 who is going to be responsible for operating this
30 site? If so, is he going to get further instructions



1 from Mr. Morris in the future?

2 THE WITNESS: The one who will be
3 operating the site will be the city engineer.

4 MR. WRIGHT: Q. You are holding
5 yourself out to be the person responsible for
6 operating this and at the moment you don't know
7 how it is going to be operated.

8 MR. PLAXTON: I think the operation
9 has the same design. Mr. Morris could clarify that
10 and perhaps we could clarify that.

11 MR. WRIGHT: I would like to hear
12 about this and I would also hope that we would have
13 a person tomorrow who would be able to give the
14 correct details under cross-examination.

15 VICTOR MORRIS, recalled:

16 THE WITNESS: Mr. Chairman, I think
17 really there is a misunderstanding between top and
18 bottom. As I indicated on one of the drawings ---

19 MR. WRIGHT: You are near the black-
20 board. Will you use the blackboard?

21 THE CHAIRMAN: At one time we hoped
22 we could complete the presentation by today. We
23 thought we might have some -- apparently the way
24 the questions are going and the presentation is
25 going it is going to make a very long day. I think
26 we are going to have to break it off until an appro-
27 priate time. Do you want to go on now?

28 MR. WRIGHT: If I could have an
29 answer to the questions I have raised of Mr. Morris
30 at this time, then we could adjourn to an appropriate



1 time.

2 MR. PLAXTON: I might remind you, Mr.
3 Morris, to ask you to do it in a way that might be
4 reflected in the record.

5 THE WITNESS: I think the confusion
6 arose between where the elevation of this gravel road
7 is in relation to the access road and the final top
8 fill.

9 FURTHER EXAMINATION BY MR. WRIGHT:

10 Q. You made the statement that in
11 the initial excavation the dumping was going to be
12 done from the top?

13 A. Yes. I thought I had stated
14 that it would be done from the top but I think it
15 was in the film where they stressed that this is
16 the best operation. I don't think I said that,
17 but I agree it isn't the best operation. For that
18 particular depth of site, it is the most preferable
19 way to do it. As Mr. Robertson has said, you can
20 find out what effect it will have on the machinery
21 that is poor.

22 We mentioned that this is the existing
23 ground level and we carry out this initial eight feet
24 of excavation. We reached the area -- this is on
25 cell A and cell B is this one (indicating). When
26 I was drawing sections yesterday, they were running
27 from north to south. This cross section is running
28 from east to west. When we have covered 550 feet
29 in this direction, we reach the area where the gravel
30 road is, which is the main north-south access and that



1 is shown on the drawings and is constructed on the
2 original material which is left up here. The next
3 cell will be like this (indicating) with no inter-
4 mediate road between this one and the next one. It
5 is the next one again that has it. The filling of
6 both cells A and B is done basically from this
7 lateral road which is a properly constructed gravel
8 road with eight inches of sub-base and eight inches
9 of granular^{type} material at the top.

10 This is built up into the first lift
11 through filling off here and constructing the cells
12 in this manner (indicating). That gets us up to
13 ground level. To travel from here out to, say,
14 the far cell, the -- under dry conditions there is
15 no problem. It is dry over the existing piece of
16 cover material. It is recognized in very wet
17 weather that it would be necessary to truck
18 in gravel to give a grip for the trucks on the top.
19 This is where the stockpiled material would be used
20 and so on. As the area is extended for a length of
21 two or three lifts as shown in one of the other
22 cross sections, taking the cross section in the
23 other direction, it is built up this first layer
24 running the other way and then they do the same
25 thing to build up the next lift. They can start
26 building this and this is the stage where they can
27 get the most efficient method for the operation by
28 building this and by dumping here and loading into
29 two foot layers in this direction. This would be
30 built up so and these extended and these brought along



1 in successive lifts like that.

2 Q. The nine inch cover of clay,
3 basically the trucks are going to have to drive
4 over that?

5 A. That is correct, over this clay
6 here (indicating).

7 Q. In wet weather that is going
8 to create a real problem?

9 A. That is correct. That is
10 where we would have to bring in the gravel material,
11 either stockpile it on the site -- there would be
12 enough stockpiled to cope with conditions like that
13 and, if there was nothing available on the site, then it
14 would be brought in.

15 Q. How many inches of rain would
16 constitute wet weather for nine inches of clay?

17 A. Well, we are keeping the private
18 cars off here. Heavy trucks can handle most of the
19 rainfalls we get. I would say getting up to between
20 three-quarters and one inch of rainfall they would
21 require gravel.

22 Q. I didn't realize the trucks
23 were going to be driving over this.

24 A. I thought I had made that clear.
25 I probably should have explained this is the use of
26 the stockpiled gravel we were talking about. There
27 would also be a cell, as Mr. Robertson mentioned,
28 there, close to the site, close to the roadway for
29 wet weather conditions. This can either be here on
30 this site, cell B, just at the opening of cell B on



1 that end, or else leaving a cell further up ahead --
2 in other words, if it became wet weather and they
3 couldn't get across there, these lifts would be
4 developed here close to the roadway.

5 Q. Was this recommended in your
6 report? I don't ever recall seeing anything like
7 this before. I am wondering.

8 A. We haven't included everything
9 in the report, as you can understand. These are
10 sort of standard operating procedures that are
11 recognized. This is the sort of thing we have to
12 do under normal site operations. You are concerned
13 about whether Mr. Robertson would know all this. I'm
14 sure he does know this already, but it would all be
15 spelled out and included in the final design of the
16 operation of the site, before the site is actually
17 commenced.

18 Q. And before approval is given for
19 the site?

20 A. Well, frankly, we have never
21 had to submit that type of description to the --
22 for administrative approval because they recognize
23 that these are the things that have to be done. In
24 this case, they might require us to bring it up. It
25 would mean producing it again.

26 MR. WRIGHT: Thank you very much,
27 Mr. Morris.

28 This would be an appropriate time to
29 adjourn.

30 THE CHAIRMAN: Is this an appropriate



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1 time to adjourn?

2 I think what I'm going to do is adjourn
3 until 9:30 tomorrow morning.

4 I have about 15 names on this petition.

5 Some have made some comments and I know there are a
6 number of people that -- I hope the Federation can
7 finish tomorrow and they will present their brief.

8 Even if we can finish up tomorrow night, there is
9 a possibility we will be working on Friday. We
10 will adjourn until 9:30 tomorrow morning.

11 --- Upon adjourning

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