

ML - Morris County Fair Housing Council  
v. Boonton

Feb. 21, 1980

Transcript of Deposition of Charles K. Agle

pg. 105

ML 000936S

SUPERIOR COURT OF NEW JERSEY  
MORRIS COUNTY - LAW DIVISION  
DOCKET NO. L-60001-78 P.W.

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IN THE MATTER OF:	:	
	:	
MORRIS COUNTY FAIR	:	
HOUSING COUNCIL, et al.,	:	
	:	
Plaintiffs,	:	
	:	<u>DEPOSITION OF:</u>
- v -	:	
	:	CHARLES K. AGLE
BOONTON TOWNSHIP, et al.,	:	
	:	
Defendants.	:	

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T R A N S C R I P T of the proceedings  
taken in the above-entitled matter by ANNA MARIE  
SANFORD, a Certified Shorthand Reporter and Notary  
Public of the State of New Jersey, at 10 Nassau  
Street, Princeton, New Jersey, on Thursday,  
February 21, 1980, commencing at 3:00 p.m.

A P P E A R A N C E S:

JOHN J. DEGNAN, ATTORNEY GENERAL FOR THE  
STATE OF NEW JERSEY  
BY: KEITH A. ONSDOREF, DEPUTY ATTORNEY  
GENERAL  
For the Plaintiffs

MESSRS. SHANLEY & FISHER  
BY: CHARLES A. REID, III, ESQUIRE  
For the Defendant, Harding Township

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WITNESS

PAGE

CHARLES K. AGLE

by: Mr. Onsdorff

3

E X H I B I T S

NUMBER

DESCRIPTION

PAGE

CAH-1	Three-page resume of Charles Agle	4
CAH-2	16-page document, "Evaluation of Harding Twp. Zoning Ordinance" by Charles K. Agle dtd. 1/80	33
CAH-3	Map of Twp. of Harding dtd. 1979, "Existing Land Use and Physical Conditions,"	39
CAH-4(a)	Geographic overlay	62
CAH-4(b)	Base map sheet 25	62

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1           C H A R L E S   K.   A G L E,    after having first  
2                    been duly sworn, testified as follows:

3  
4           EXAMINATION

5           BY MR. ONSDORFF:

6           Q       Mr. Agle, as you know, I'm Mr. Onsdorff,  
7                    counsel for plaintiffs in the litigation which  
8                    we are going to discuss in this deposition.

9                    And I'm going to ask you a series of  
10                    questions and if at any time a question is not  
11                    clear to you, please so indicate and I'll attempt  
12                    to clarify it or rephrase it, so that we both  
13                    understand exactly what we are talking about.

14                    If at any time your counsel interposes  
15                    an objection, please refrain from answering until  
16                    that objection is resolved.

17                    Is that all understandable?

18           A.       Yes.

19           Q       Have you ever been deposed before?

20           A.       Yes.

21           Q       Now, I have here a copy of a document,  
22                    which I believe is your resume. Could you examine  
23                    that and just identify that for the record?

24           A.       Yes.   This is an abbreviated resume. I  
25                    have other more detailed background things, but

1 this is my resume.

2 Q As far as your abbreviated resume, this  
3 is the latest one, the latest updated addition?

4 A That's right.

5 MR. ONSDORFF: I would suggest  
6 that we mark this for identification  
7 as CAH-1.

8 (Whereupon a three-page resume of  
9 Charles Agle was received and marked  
10 as CAH-1.)

11 Q Now, it appears that you graduated from  
12 Princeton University in 1929, is that correct?

13 A That's right.

14 Q What were your major courses of study  
15 while at Princeton University?

16 A Architecture.

17 Q And what were the scientific disciplines  
18 which were required in the major of architecture  
19 at that time?

20 A The matter of analyzing a program, that is  
21 a need for what kind of shelter, what purpose of  
22 shelter.

23 Secondly, the engineering considerations  
24 of how buildings are related to each other.

25 Third, the engineering considerations of how

1 to build a building so it doesn't fall down.

2 Q Okay. And then you also received a  
3 graduate degree from Princeton University, is  
4 that correct?

5 A. That's right.

6 Q And what was your graduate degree in?

7 A. In architecture. Actually, an M.F.A., which  
8 stands for Master of Fine Arts. It's a little  
9 broader than a straight architecture degree.

10 Q In addition to these degrees, have  
11 you pursued any other academic studies?

12 A. I have spent a summer in the American School  
13 at Fontainebleau, France and, independently, I  
14 have worked in three foreign countries and done  
15 my own independent study of **city** planning and  
16 architecture in the places in which I have  
17 been working.

18 Q Now, in terms of your professional  
19 experience, could you briefly elaborate those  
20 professional experiences that you have had over  
21 your career?

22 MR. REID: Now, wait a minute.

23 You have got an abbreviated resume  
24 that, I think, runs three pages. I'm  
25 sure you don't want him to tell you

1 every professional experience that  
2 he has had in the last 50 years. I  
3 wonder if you could refine that question  
4 a little more specific.

5 MR. ONSDORFF: Well, I would be  
6 happy to.

7 BY MR. ONSDORFF:

8 Q Well, in those areas which you have  
9 professionally worked in regards to land use  
10 planning, say, in the State of New Jersey.

11 A Well, roughly, that covers the entire range  
12 because ever since 1932, the year after I  
13 graduated, I have worked in some form of city  
14 planning and large scale housing, not only in  
15 the State of New Jersey, but also up and down  
16 the Atlantic seaboard, and then I was an  
17 executive for 10 years in the Public Housing  
18 Program in Washington.

19 Q Now, in your work with housing, at  
20 any time did you do any projects dealing with  
21 environmental impacts of housing types?

22 A This was a matter of built-in consideration  
23 which I realized in the work in which I did.  
24 In other words, as part of the consideration of  
25 either siting a housing project, that is proving

1 a site for a public housing project or in designing  
2 one, in which I have had experience as an  
3 architect, it is of primary importance to find  
4 out where the water comes from, where the sewage  
5 goes to, what the runoff is and what this does  
6 to the environment.

7 Q Were your experiences in both urban  
8 and nonurban environments during this period?

9 A Yes. I have been responsible for projects  
10 in New York City, as well as in Princeton Township  
11 and other townships and smaller communities, in  
12 Connecticut and as far south as Virginia, in  
13 which I did a lot of work.

14 Q And what was the nature of your work  
15 in Princeton Township?

16 A I had two considerations in Princeton Township.  
17 First, I drafted a zoning ordinance in 1956 and  
18 then, more recently, let's say three years ago,  
19 I was the chief architect on a housing project  
20 of 240 dwelling units built for the Princeton  
21 Community Housing Association, which was financed  
22 by the Housing Finance Agency in Trenton.

23 Q And these 240 units, dwelling units,  
24 what type of structures are they?

25 A They are two-story wood frame for the two,



1 three and four bedroom units and mid-height,  
2 six-story building taking care of all the one-  
3 bedroom units.

4 Q Are they --

5 A The mid-height was the fireproof, wood  
6 brick facing. It added elevators.

7 Q Are they townhouses or attached dwellings?

8 A The two-story structures are townhouses.  
9 They are attached townhouses with a plane party  
10 wall on either side of the unit.

11 The six-story building with one-bedroom  
12 units was an apartment, in which there was a  
13 central hallway.

14 Q And where precisely in Princeton Township  
15 is this project located?

16 A On Bunn Drive, which is roughly two miles  
17 away from the center of the borough in the  
18 direction of Somerville, maybe a quarter of a mile  
19 or half a mile south of Route 206.

20 Q And what provisions were made in designing  
21 this development for runoff from the project?

22 A We had two large retention ponds.

23 Q Do you recall the density of the units,  
24 as far as the number of units per acre?

25 A Yes. There were 240 units on 35 acres of land.

1 That works out to be about 6.8 dwelling units  
2 per acre.

3 Q Do you recall the topography of the  
4 site prior to its development?

5 A It was general topography on the top and  
6 on the edge of the site it became somewhat more  
7 steep.

8 Q Were any structures placed on sloping  
9 ground in, say, excess of 12 percent?

10 A Not that I recall. We stayed on the top  
11 pretty well.

12 Q What are the provisions for water and  
13 sewage at this project?

14 A Public water and sewage.

15 MR. REID: Note my objection to the  
16 relevancy of this line of questioning,  
17 but you can answer it.

18 A I'm sorry?

19 THE WITNESS: Should I pause some  
20 more for you to object?

21 MR. REID: I have stated my  
22 objection. I'm sorry to interrupt.

23 A It's public water and public sewer.

24 BY MR. ONSDORFF:

25 Q Now, you also, I believe, mentioned working

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1 on housing projects in Connecticut and Virginia.  
2 Would any of those units in which you worked on  
3 in either of those two states be in an area or  
4 an environment which you would feel would be  
5 comparable to Harding Township?

6 MR. REID: First of all, let me  
7 object. First of all, I don't think he  
8 said he worked on housing projects in  
9 Connecticut and Virginia, and I also  
10 object because when you say "comparable,"  
11 I think you have to be specific.

12 There are many ways one town can compare  
13 to another. And I think you have to  
14 specify things, in my opinion, and I  
15 think you should identify things.

16 And I think your question is based on  
17 an improper predicate because I don't  
18 think he said he worked on housing  
19 projects in those states. I may be  
20 incorrect. Tell me if I am.

21 A. I consulted on housing projects in both  
22 areas.

23 BY MR. ONGSDORFF:

24 Q. Is that similar to working on them?

25 A. Yes.

1 Q In Connecticut, your consulting project,  
2 what community was that in?

3 A In Bridgeport. And I would have to get out  
4 the map. There were several. At the time I was  
5 working at Harrison, Ballard & Allen in New York.

6 Q Would you classify Bridgeport as an  
7 urban area or --

8 A Bridgeport is an urban area.

9 Off the record.

10 (Whereupon a discussion was held

11 off the record.)

12 A A couple of them were in Stamford. And then  
13 one I did consult on was in Bridgeport.

14 Q And your consulting work in Virginia,  
15 what municipalities did you consult on in that  
16 state?

17 A My largest work was in Norfolk, but I also  
18 consulted in Richmond and Lynchburg.

19 Q Do you know the population of Lunchburg,  
20 Virginia?

21 A I have forgotten it. I think it is somewhere  
22 around 100,000.

23 MR. REID: Note my objection, since  
24 you can get that from a more reliable  
25 source, I'm sure.

1 A. I don't remember. Maybe it's 50,000.

2 MR. REID: Don't guess. If you  
3 don't know, say so.

4 A. I don't know.

5 Q Now, your resume indicates that you  
6 have given expert testimony before the Superior  
7 Court of New Jersey in seven cases?

8 A. Yes.

9 Q Can you give me the dates and the names  
10 of those cases?

11 MR. REID: Do you want to look at  
12 your resume?

13 Are they on there?

14 MR. ONSDORFF: Not that I am aware  
15 of.

16 MR. REID: Go ahead.

17 A. I have it around somewhere. This extends  
18 over a period from 1953 to the present.

19 BY MR. ONSDORFF:

20 Q I wouldn't want you to call on memory  
21 if you have a list.

22 MR. ONSDORFF: I would be happy  
23 to have him provide a list of the  
24 cases that he has testified on. That would  
25 be more convenient.

1 A. I will provide a list. I know the more  
2 recent ones, of course, but the names of the  
3 earlier ones --

4 MR. REID: We will get you a list.

5 MR. ONSDORFF: Thank you.

6 Q Could you characterize the issues that  
7 you testified on in these cases? Do they deal  
8 with housing issues or architectural issues?

9 A. No. General city planning issues in the  
10 State of New Jersey.

11 Q What was the most recent case that you  
12 testified on?

13 A. Readington Township.

14 Q What was the subject matter of that  
15 litigation in Readington Township?

16 A. Readington Township was accused by the  
17 plaintiff of not being consistent with Mount  
18 Laurel and also creating exaggerated hardships  
19 in the sparse use of steep slopes.

20 Q And your testimony was on behalf of  
21 what party to that litigation?

22 A. I was helping the defendant, Readington.

23 Q Did you provide any written expert report  
24 in that litigation?

25 A. No. My testimony was verbal.

1 MR. REID: Hold on. I think you  
2 are asking him if he wrote a report  
3 for the litigation?

4 MR. ONSDORFF: That's correct.

5 BY MR. ONSDORFF:

6 Q Prior to giving your oral testimony,  
7 did you submit a written expert report similar  
8 to the one provided to Harding Township in this  
9 litigation?

10 A Well, I have been a consultant for Readington  
11 over a period of years.

12 MR. REID: He is asking you if you  
13 wrote a report for the litigation  
14 specifically.

15 A Specifically for the litigation, no, but --

16 MR. REID: Okay. You have answered  
17 it.

18 Q Now, you indicated you have been a  
19 consultant over the years for Readington. What  
20 type of consulting services have you provided  
21 for that municipality?

22 A I first started out working as a state  
23 representative in the early 701 Program, in which  
24 the state provided consultation to smaller  
25 municipalities. That had to do with the master

1 plan, zoning ordinance and subdivision regulations.  
2 And then this later was repeated. So I have been  
3 a general planning consultant for the community  
4 for 20 years or so.

5 Q Have you provided any consulting services  
6 for municipalities in Morris County?

7 A May I make a correction? You asked if any  
8 report had been prepared specifically for the  
9 litigation?

10 Q That's correct.

11 A The thing has gone on for so many years, I  
12 forgot that I did prepare a report for the  
13 litigation.

14 Q You were indicating before you made  
15 your correction as to any consulting services you  
16 may have provided for any municipality in Morris  
17 County.

18 A No, none, other than Harding.

19 Q On the first page of your resume, a  
20 number of publications are listed. In some  
21 instances it appears, however, that the actual  
22 publication they appeared in is not indicated,  
23 the first couple, is that correct?

24 A All right. The first one, "Future Residential  
25 Housing," was in the, "New Jersey Federation of



1 Planning Officials."

2 "Housing Density and Land Cost," had a  
3 private distribution. That was offered and  
4 accepted for publication, but was never published  
5 by anyone.

6 "The Energy Crisis and Community Planning,"  
7 was also in the, "New Jersey Federation of Planning  
8 Officials."

9 "Planned Residential Neighborhoods," was  
10 also in the same, "New Jersey Federation of  
11 Planning Officials."

12 "Community Appearance," the same.

13 "Family Sizes and Building Types" -- actually,  
14 the, "Family Sizes and Building Types," was prepared  
15 for a client, but then was published by the  
16 Somerset County Planning Board and distributed to  
17 all the -- the rest, I guess, of the publications.

18 Q Okay. Now, in addition to your testimonial  
19 experience in trial courts, have you given any  
20 testimony before any other public agencies or bodies  
21 in the State of New Jersey?

22 A Not directly for the legislature, but I have  
23 been on the Governor's committees --

24 MR. REID: He is asking about  
25 testimony. If he wants to know about

1 the Governor's committees, he will ask  
2 about Governor's committees.

3 I'm sorry to interrupt. Go ahead.

4 BY MR. ONSDORFF:

5 Q No testimony before any other public  
6 bodies, is that correct? Is that your answer?

7 MR. REID: Would that include  
8 municipal zoning boards and that sort  
9 of thing?

10 MR. ONSDORFF: That's correct.

11 A Well, I have given plenty of testimony before  
12 all my client boards, planning boards in public  
13 hearings. At any time any one of my clients had  
14 a master plan or a zoning ordinance, I would  
15 explain it in public, testify to it.

16 BY MR. ONSDORFF:

17 Q Now, within the last, say, five years,  
18 since 1975, what master plans or zoning ordinances  
19 have you consulted on in the State of New Jersey?

20 A In the last five years? May I answer this  
21 in a slightly different way?

22 My clients have been Phillipsburg, Readington,  
23 Bedminster, Far Hills, Bernards and Harding.

24 In Phillipsburg, there is not -- I have done  
25 some incidental consultation there, but they do

1 not have a new master plan or a zoning ordinance.

2           Readington has amended the zoning ordinance  
3 several times and is now on the verge of preparing  
4 a new master plan.

5           Bedminster has been in litigation and a  
6 zoning ordinance there is going to be modified  
7 by a court order. I conferred on amendments within  
8 the last five years.

9           In Bernards I am no longer active and Harding  
10 is in a state of suspense.

11           Q.     How is Harding in a state of suspense?

12           A.     As far as I know -- and I do not know  
13 everything -- they are waiting for the conclusion  
14 of the litigation before doing any more planning  
15 work.

16                     MR. REID: Again, if you don't  
17 know, don't guess.

18           A.     All right. I don't know.

19           Q.     Now, you referred to Bedminster being  
20 in litigation. Did you do any of the work which  
21 was the subject of that litigation or consult on  
22 the master plan or the zoning ordinance?

23           A.     Yes.

24                     MR. REID: What do you mean by the  
25 work that was the subject of that litigation?

1 Do you mean the ordinance challenged?

2 MR. ONSDORFF: That's correct.

3 A. Yes.

4 Q Did you testify on behalf of Bedminster  
5 in that litigation?

6 A. Yes.

7 Q Do you recall if you prepared an expert  
8 report prior to giving your testimony in that case?

9 MR. REID: That would, again, be  
10 a written report for the litigation?

11 MR. ONSDORFF: That's correct.

12 A. No.

13 Q Now, what had been the professional  
14 services that you have performed on behalf of  
15 Harding Township?

16 A. In Harding Township, I have been on call for  
17 spot jobs, rather than for the overall rewriting  
18 of the zoning ordinance or the master plan.

19 Q Since what date have you had a professional  
20 relationship with Harding?

21 A. I believe since 1976.

22 Q Could you be more specific than spot jobs?  
23 What type of work have you performed in that  
24 municipality?

25 A. I have examined the problems that they asked

1 me to look into and made recommendations on those  
2 particular items which they wanted studied.

3 Q Can you give me some examples of  
4 particular items that you were requested to  
5 examine?

6 A Yes. Principally, having to do with the  
7 land use on Route 202, both adjacent to the  
8 Bernards Township line and close to the Morris  
9 Township line.

10 Q In any of these spot jobs which you  
11 performed for Harding, did you submit to the  
12 township written reports?

13 A Yes.

14 Q How many written reports have you  
15 submitted to Harding since 1976?

16 A Well, there would be two principal reports  
17 and there may have been other briefer memorandum,  
18 but there were two principal jobs that I was  
19 concerned with.

20 Q Are copies of those available that  
21 we might be able to take a look at sometime that  
22 would be convenient?

23 MR. REID: I think that is my role.

24 If copies are available, whether they  
25 are discoverable or not is a different

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question.

MR. ONSDORFF: Have you considered this before my asking you or is this something that you haven't reviewed and would like the opportunity to examine, or are you not prepared to give an answer at this time?

MR. REID: I have reviewed what is there. I don't believe -- I think you are going to have to ask further what is there, what you want, then we can determine whether or not you are entitled to it.

Let me be more specific. If there is something that he enacted into law that is in a public document, that you are obviously entitled to. If not, that is a different question.

MR. ONSDORFF: Well, I think any reports that he did for a municipality not in furtherance of municipality litigation is not work product. I can't imagine the basis to be that they are confidential and would not be available to the public, generally. These materials

1 are certainly available.

2 MR. REID: That depends on what  
3 the materials are.

4 MR. ONSDORFF: Reports on land use  
5 in Harding Township, what possible basis  
6 could there be for that information being  
7 confidential?

8 MR. REID: If they are rendered to  
9 an attorney or if they are rendered to  
10 consultation for something that wasn't  
11 adopted. For example, those two categories.  
12 There may be others.

13 BY MR. ONSDORFF:

14 Q Now, you mentioned an examination of  
15 land use, Mr. Agle, on lands on Route 202 adjacent  
16 to Bernards Township, is that correct?

17 A. That's right.

18 Q Did one of your principal written  
19 reports apply to that subject of inquiry?

20 A. It applied to a discussion of the intensity  
21 of use at that end of 202, yes.

22 Q And do you recall the person that you  
23 submitted this report to?

24 A. All the reports were submitted to the  
25 planning board.

1 Q Now, the second principal report, do  
2 you recall the subject of that one?

3 A Yes. This had to do with the land use and  
4 the zoning of the triangle of land between 202  
5 and 287 in the northeastern end of the township.

6 Q Now, were either of these reports  
7 prepared in the context of any specific development  
8 proposal?

9 A Yes. There was a discussion as to what the  
10 development of proposals should be considered and  
11 should not be considered and the owners of the land  
12 in both cases were seeking direction from the  
13 township as to what would be favorably considered  
14 or received.

15 MR. REID: That was a yes or no  
16 question.

17 A Oh, now, I have forgotten whether I have to  
18 say yes or no. May I have the question again?

19 MR. REID: I think you answered  
20 the question, Mr. Agle.

21 MR. ONSDORFF: We will move on.

22 BY MR. ONSDORFF:

23 Q Now, in the land on 202 adjacent to  
24 Bernards, did you make certain recommendations as  
25 to the appropriate intensity of the land use at



1 that location?

2 A. Yes.

3 Q. Do you recall what those recommendations  
4 were?

5 MR. REID: Well, I'm going to object  
6 to that. That is not part of his  
7 testimony in this case. If you have  
8 got his expert report, you can question  
9 him about that. Whether you are going  
10 to get any other reports that were done  
11 for the town in connection with other  
12 things, I think we are going to have to  
13 take under advisement, but I don't  
14 think that is the subject of discovery  
15 in this case.

16 MR. ONSDORFF: I think you are  
17 saying the balance as to the ability  
18 to determine whether these are relevant,  
19 as indicated before, we would have to  
20 explore what the context was in the  
21 preparation of these reports and the  
22 matters that were delved into to determine  
23 whether or not they will be.

24 MR. REID: Well, you have got the  
25 subject matter. You are asking him to

1 set forth what was in the report. And  
2 we don't have the report here and I'm  
3 not certain you are entitled to that  
4 report, but I think's it unfair to  
5 question him about that. What it is,  
6 you know the general subject matter and  
7 you can make any application that you  
8 think is necessary.

9 MR. ONSDORFF: Are you going to  
10 instruct him not to answer the question?

11 MR. REID: May I have the question?  
12 I forgot what it is.

13 (Whereupon the requested information  
14 was read back by the Reporter.)

15 MR. REID: Yes, I will instruct him  
16 not to answer that question.

17 MR. ONSDORFF: Whether he remembers  
18 or not. I didn't ask him to set forth  
19 what it is.

20 MR. REID: Okay. He can answer that  
21 one. You are correct.

22 Do you recall?

23 THE WITNESS: Yes.

24 MR. REID: You don't have to ask the  
25 next question. I'll instruct him not to

1 answer that.

2 MR. ONSDORFF: I realize that.

3 BY MR. ONSDORFF:

4 Q Did the planning board act in any  
5 official capacity on the recommendations that  
6 you submitted to it?

7 MR. REID: This is with the Bernards  
8 Township 202?

9 MR. ONSDORFF: That's correct.

10 A Ultimately, yes.

11 BY MR. ONSDORFF:

12 Q What was the action that the planning  
13 board took?

14 A They acted not entirely, but modified their  
15 actions somewhat according to my recommendations.  
16 In other words, they did not do what I recommended.

17 Again, I'm trying to hold my answer to one  
18 question, which I always like to do.

19 Q Do you recall what the proposal was  
20 by the land owner for the development of this  
21 property along 202 adjacent to Bernards Township?

22 A Yes.

23 Q What was that development plan?

24 A It was for rather intensive commercial use.

25 Q Could you be more specific as to the

1 intensity of the use?

2 A. As I recall, it covered almost the entire  
3 area of the site with building and with parking.

4 Q. Now, in the case of the triangle of  
5 land between 202 and 237, I believe you indicated  
6 in the northern end of the township, what was the  
7 development proposal at that location?

8 A. Multiple housing.

9 Q. When you say "multiple housing," was  
10 this multi-family housing?

11 A. Multi-family housing, yes.

12 Q. And could you be more specific as to  
13 the type of multi-family and the density of the  
14 proposal?

15 A. I have forgotten the precise density, but  
16 the concept followed was my concept of the  
17 planned residential neighborhood, which is one  
18 of the papers I have discussed -- or published.

19 Q. And you made certain recommendations  
20 to the planning board as to the appropriateness  
21 of the density at this location proposed by the  
22 land owners?

23 MR. REID: I object to the form.

24 A. Yes.

25 Q. And did the planning board act in an

1 official capacity upon the recommendations that  
2 you made?

3 A. Yes. They recommended an amendment to the  
4 zoning ordinance.

5 Q Do you recall the amendment that the  
6 planning board made as far as what the changes  
7 should be in the zoning ordinance?

8 MR. REID: Well, the changes were  
9 made. So I guess it's not what they  
10 should be.

11 A. I would have to refer to the zoning ordinances  
12 to answer your question in detail. Yes, they  
13 followed my recommendations.

14 Q The planning board made the recommendations  
15 and they were ultimately adopted then?

16 A. That's right.

17 Q Has any development gone forward at  
18 this site as a result of the zoning change?

19 A. Yes.

20 Q What was the year that this took place,  
21 do you recall?

22 MR. REID: What, the zoning change  
23 or the development?

24 MR. ONSDORFF: The zoning change.

25 A. I believe it was 1976 or 1977.

1 MR. REED: Again, it's a matter of  
2 public record.

3 A. It started and it's still continuing.

4 Q I'm sorry?

5 A. I think it started in either 1976 or 1977  
6 and the development is continuing.

7 Q Now, you mentioned certain briefer  
8 memorandum. Did any of these shorter writings  
9 that you submitted deal with residential development  
10 of land in Harding Township?

11 MR. REID: I'm not sure that he  
12 did mention briefer memorandum, but  
13 correct me if I'm wrong.

14 A. Yes, I did mention briefer memorandum.

15 No. As I recall, these were with respect  
16 to specific lot developments for nonresidential  
17 use up and down 202.

18 BY MR. ONSDORFF:

19 Q What were the inquiries that you were  
20 asked to address in these commercial development  
21 proposals on specific lots up and down 202?

22 MR. REID: You want each one? I  
23 think he told you in general what they  
24 were. Are you asking about each one?

25 MR. ONSDORFF: Yes.

1 MR. REID: Do you remember each one?

2 THE WITNESS: I may not remember  
3 each one, but I can give examples.

4 One example was an abandoned swimming  
5 pool which was proposed to be converted  
6 to a tennis club, a commercial tennis  
7 club.

8 Another consideration was the  
9 extention of a parking lot for the use  
10 of a business which was in a multi-use  
11 residential structure.

12 I think a third had to do with  
13 the possible increase of -- increase of  
14 commercial use in another converted  
15 residential structure.

16 There may be others of that character,  
17 but that is all that I remember specifically.

18 BY MR. ONSDORFF:

19 Q Now, in doing these briefer analyses,  
20 did the scope of your inquiry incorporate or  
21 include the impacts of any of these requested  
22 changes in land use on the environmental resources  
23 of Harding Township?

24 A Yes.

25 Q In any of these examples which you have

1 just related, did the planning board take official  
2 action in response to the recommendations that  
3 you had submitted?

4 MR. REID: Let me object to the  
5 form, here, assuming that their action  
6 was taken in response to a recommendation.  
7 I don't object if you will rephrase it  
8 to say, Did they take any action with  
9 respect to these proposals, because I  
10 think you would have to ask the planning  
11 board if they relied on Mr. Agle or  
12 didn't rely. If you rephrase it, I  
13 will have no objection.

14 MR. ONSDORFF: I will rephrase it.

15 BY MR. ONSDORFF:

16 Q Did the planning board take any action  
17 after you had submitted your recommendations in  
18 any of these cases which you just testified  
19 concerning?

20 A Yes.

21 Q Do you recall which ones they acted  
22 upon?

23 A I believe they approved the tennis court,  
24 but I do not believe the tennis court was ever  
25 built.



1 With respect to the other two, I do not  
2 know whether they did act for the extention of  
3 either the parking lot or the commercial use.

4 Q In the case of the extention of the  
5 parking lot, do you recall the specific property  
6 that was involved?

7 A No, I do not.

8 Q Do you recall the year that that brief  
9 memorandum was submitted to the planning board?

10 A No, but it must have been either '77 or '78.

11 Q Now, have you retained copies of all  
12 these reports you submitted to Harding Township  
13 since 1975?

14 A It may be around somewhere, yes.

15 Q Now, in regards to the present litigation,  
16 what professional services have you rendered on  
17 behalf of Harding Township?

18 A I have made a study of the intensity of  
19 residential land use.

20 Q Now, in doing this study of the intensity  
21 of residential land use in Harding, what are the  
22 specific areas of expertise which you have brought  
23 to bear on that question?

24 A As a city planner, the expertise necessary  
25 is a comprehensive one in which I consider all the

1 various different items bearing upon the usability  
2 of land and the ability of the land to support  
3 population.

4 So that even though I may not be an  
5 engineer, I have to understand engineering  
6 considerations. Even though I may not be the  
7 greatest specialist on ecology, I have to  
8 consider matters of ecology. I have to consider  
9 the need for certain land uses, the possibility  
10 of their being used for one type of development  
11 or another type of development. So the expertise  
12 is that of a comprehensive city and urban  
13 planner.

14 Q Now, I show you this document and ask  
15 if you can identify it?

16 A Yes. This is labeled, "The evaluation of  
17 Harding Township Zoning Ordinance."

18 MR. ONSDORFF: Let's have that  
19 marked as CAH-2.

20 (Whereupon a 16-page document  
21 entitled, "Evaluation of Harding Township  
22 Zoning Ordinance," by Charles K. Agle  
23 dated January, 1980 was received and  
24 marked as CAH-2 for identification.)

25 BY MR. ONSDORFF:

1 Q Now, does CAH-2 constitute the product  
2 of your study of the intensity of residential  
3 land use in Harding Township?

4 A Yes.

5 Q Over what period of time did you perform  
6 this study which is represented by this work  
7 product, CAH-2?

8 A Roughly the last three or four months.

9 Q And over this three or four month  
10 period, briefly, what did you do in preparing  
11 this report?

12 A I consulted with and reviewed the Guide Plan  
13 of the Tri-State Regional Planning Commission,  
14 the Guide Plan -- they have slightly different  
15 titles -- of the New Jersey Department of Community  
16 Affairs. I conferred briefly and reviewed in  
17 detail the Morris County Master Plan, especially  
18 the land use element, the transportation and  
19 other elements in that of importance. And,  
20 previously, I had reviewed the ordinances of  
21 all the surrounding townships and had made notes  
22 as to the zoning for the land use adjacent to  
23 the Harding Township boundaries. Previously,  
24 also, I had prepared a comprehensive detailed  
25 map showing the existing land use and characteristics

1 in Harding Township, itself. I also by analogy  
2 reviewed reports prepared by other experts in  
3 Readington Township.

4 Q Now --

5 A And, also, the findings of other courts  
6 on the matter of the intensity of land use in  
7 relation to the ecology of the land.

8 Q Now, over the last three or four months,  
9 did you perform any field inspections or other  
10 on-site reviews of the land in Harding Township?

11 A Merely in passing by. I did not examine any  
12 of the soils, nor did I get out of the car and  
13 examine the water table.

14 Q Did you perform any tests or analyses  
15 of water in Harding Township?

16 A No.

17 Q Did you consult the Master Plan of  
18 Harding Township which, I believe, was published  
19 in 1972?

20 A I had that in my possession for many years.  
21 I did not review that Master Plan, though, with  
22 respect to my own findings on the justice for  
23 having one family on three acres.

24 Q Did you review the Natural Resource  
25 Inventory or Natural Resource Inventory Report of

1 Harding Township as part of your preparation  
2 of CAH-2?

3 A. I had reviewed that previously. However,  
4 I did not make an additional review at this time  
5 because of the fact that I had already entered  
6 the major findings of that report on the land  
7 use map.

8 Q Now, in terms of the Master Plan of  
9 1972, does that Master Plan agree with the  
10 recommendations or conclusions that you have  
11 reached in your report, CAH-2?

12 MR. REID: I am going to object.  
13 and instruct the witness not to answer  
14 because the Master Plan and the report  
15 speak for themselves and your conclusion  
16 as to whether it agrees or not is as  
17 good as anybody's. You are asking him  
18 to characterize somebody else's document.

19 MR. ONSDORFF: I submit that is  
20 not what I am doing, but since you have  
21 instructed him not to answer I won't  
22 pursue it.

23 BY MR. ONSDORFF:

24 Q Did you review any of the other expert  
25 reports prepared by other experts retained by

1 Harding in this present litigation with the  
2 Morris County Fair Housing Council?

3 A. No.

4 Q. Have you prepared any other reports,  
5 exhibits or other documents as part of your  
6 work product on behalf of Harding Township in  
7 this present litigation?

8 A. No.

9 Q. Except for those exhibits which are  
10 referenced in CAH-2?

11 A. That's correct.

12 MR. REID: I assume that does not  
13 include his own work notes and so on  
14 which he uses when he prepares his work?

15 MR. ONSDORFF: I'm not referring  
16 to work notes.

17 MR. REID: You are talking about  
18 product of Harding Township or Shanley  
19 and Fisher?

20 MR. ONSDORFF: That's correct.

21 BY MR. ONSDORFF:

22 Q. Now, in reviewing CAH-2, there are a  
23 number of other documents which you refer to that  
24 you consulted.

25 What portions of this report constitute

1 your own independent analysis, as opposed to your  
2 adoption of conclusions and studies of other  
3 experts in the field?

4 MR. REID: I object to the form  
5 of that question. I think it's unfairly  
6 phrased. If he quotes from another  
7 document, that may be a product of his  
8 analysis to choose to do so. And I  
9 think your question raises an unfair  
10 implication, perhaps not intentionally  
11 so. I'll direct him not to answer that  
12 question. I think you can rephrase it.

13 BY MR. ONSDORFF:

14 Q Now, based upon work that you have  
15 performed yourself, as opposed to the work of  
16 others which you have analyzed, what portions of  
17 this report constitute your own primary research?

18 MR. REID: I object to the form  
19 for the reasons previously stated.

20 I will allow him to attempt to answer  
21 it if he can.

22 A I have drawn conclusions from a synthesis  
23 of all of the exhibits. However, of the exhibits,  
24 the only one that I prepared personally from my  
25 own guidance was Exhibit C, the existing land

1 use, and even that base map had the help of  
2 other people.

3 Q Is Exhibit C with us today?

4 MR. REID: That's this.

5 MR. ONSDORFF: Can I have the  
6 opportunity to examine it?

7 (Handing.)

8 THE WITNESS: I think all three  
9 pieces are the same, here.

10 MR. ONSDORFF: Why don't we have  
11 this marked as CAH-3.

12 (Whereupon a map of the Township  
13 of Harding dated 1979 entitled, "Existing  
14 Land Use and Physical Conditions," was  
15 received and marked as CAH-3. )

16 BY MR. ONSDORFF:

17 Q Mr. Agle, I believe your testimony was  
18 that you personally prepared portions of this and  
19 its final preparation was completed with the aid  
20 of others, is that correct?

21 MR. REID: I don't think that was  
22 his testimony.

23 MR. ONSDORFF: That's why I asked.

24 A No. I have identified the source and some of  
25 the material in the lower right-hand corner. It was



1 a base that I got from somebody else and this  
2 has been added to by various property lines which  
3 have taken place since the date of the original  
4 base.

5 The flood plains and the water courses  
6 actually were drafted on the tracing by the  
7 township engineer.

8 Most of the building locations I traced  
9 from an aerial photograph and certain structures  
10 have been verified by the -- by people in Harding  
11 using the assessment cards as the authoritative  
12 basis as to whether a house existed on a certain  
13 lot or not.

14 So while I'm principally responsible for  
15 this map, I drew it from other positive information.  
16 The contour lines, for instance, are from a  
17 blow-up of the U.S.G.S. maps. I did not do the  
18 surveying myself.

19 Q Now, I believe you just indicated that  
20 the township engineer did the flood delineations  
21 which appear on this CAH-3?

22 A That's right.

23 Q And the aerial photograph was used  
24 for plotting the location of certain buildings,  
25 is that correct?

1 A That's right.

2 Q What was the aerial photograph that  
3 was used?

4 A That was one of a series I secured from the  
5 county.

6 Q Do you know the date of it?

7 A It is fairly recent. I think within the  
8 last two years.

9 Q And was it a specific or particular  
10 agency from which you secured this from?

11 A The planning board, although that is  
12 superseded by the assessment cards. So the  
13 base isn't quite exactly up to date. It's  
14 during the year of 1979.

15 Q Okay. Now, I believe the legend on  
16 CAH-3 indicates certain land areas within  
17 Harding Township as being designated as public  
18 lands, is that correct?

19 A That's right.

20 Q And do you know in what manner those  
21 areas that are public lands have been delineated?

22 A Yes. I put the designation on myself.

23 The designation of the Great Swamp Wild Life

24 Refuge was used in a zip which indicates swamps.

25 The area which has an excessive slope that is

1 in excess of 15 percent is indicated in a  
2 tree pattern.

3 Q Now, you indicated that there was  
4 a certain indication of excessive slope appearing  
5 on this map, is that correct?

6 A That's right. The proximity of the contours  
7 indicates that and that's the reason I put the  
8 contours on.

9 Q The legend, also, indicates, "Septic  
10 Constraints." What is meant by that category?

11 A That is taken from the Natural Resources  
12 Inventory and indicates a condition in which the  
13 septic tanks have extreme constraints, usually  
14 because of high water table, in one case, the  
15 proximity to bedrock with a small amount of  
16 overflow on top and, third, soil which does not  
17 absorb effluents readily.

18 Q Did you not prepare the Natural Resource  
19 Inventory?

20 A No.

21 Q Now, referring to Page ii of your report,  
22 you speak of, towards the middle of the first  
23 paragraph -- and I quote -- "Existing development  
24 is so extensive, but also so scattered, that there  
25 is no feasible opportunity for a collective sewage

1 system."

2 You are not a sanitary engineer, is  
3 that correct?

4 A. That's right.

5 Q. Have you ever designed a sanitary  
6 sewage system?

7 A. I have consulted on them. I haven't designed  
8 the engineering details.

9 Q. What were the consulting services that  
10 you have performed in regards to sanitary sewage  
11 systems?

12 A. In a discussion of whether or not there were  
13 enough people who were generating enough effluent  
14 to make the construction of a plant worthwhile,  
15 whether the population was so scattered that the  
16 cost of the mains would be exorbitant getting  
17 to the plant and a general need and feasibility  
18 of the public use of sewers.

19 Q. Were these consulting services rendered  
20 on behalf of a governmental entity in the State  
21 of New Jersey?

22 A. Yes.

23 Q. Which one was that?

24 A. Well, the question arose in Readington  
25 Township as to how far the sewage mains should be

1 extended. The question also came up in West  
2 Windsor. I have already referred to the  
3 consideration in Princeton Township many years  
4 ago. And there were probably a few others where  
5 the matter came up for discussion, but those are  
6 the most specific ones.

7 Q Now, in the --

8 A Oh, of course, and Bedminster.

9 Q Now, in the next sentence, you state,  
10 "Because of the miniscule size of streams,  
11 there appears no chance of their being able to  
12 accept and dilute the effluent from even the  
13 most sophisticated tertiary treatment plant."

14 What are the sizes of these streams  
15 that you refer to in that statement?

16 A During the dry season of June and July  
17 and August, I have been told that some of them  
18 almost dry up.

19 Q Have you observed any of these streams  
20 personally during the months of June and July?

21 A I have never seen any of them dry up, but  
22 I have seen them very small.

23 Q Can you quantify that in any more  
24 terms than very small?

25 A In terms of gallons per minute, no.

1           Q       Now, if the streams are not large  
2 enough to dilute tertiary effluent, what would  
3 be the consequences of discharge of sewage into  
4 them?

5           A       Because of the absence of dilution, the  
6 concentration of the nitrates and phosphates  
7 would be such that there would be an exaggerated  
8 growth of algae and even other plants because  
9 of the excessive fertilization of what water there  
10 is there and what soils there are adjacent.

11           Q       Now, is it possible to place special  
12 equipment on sewage treatment plants for nitrate  
13 removal?

14           A       The most sophisticated plant I know of in  
15 the state is the one that was built in Bedminster,  
16 which is a very expensive tertiary plant. And  
17 I have been informed by the people that run the  
18 plant that the chemical treatment is exceedingly  
19 expensive and may not be totally successful.

20           I also discussed sewage treatment plants  
21 abroad. Indeed, I have drank water out of the  
22 end of one in Sweden, but that was a five-stage  
23 plant instead of a three-stage plant. I still  
24 survived the water. And in that case, the water  
25 is again purified. The solids even after the five

1 stages are taken out and sold as fertilizer.

2 So that my personal experiences in these  
3 two cases leads to my doubt here that even a  
4 tertiary plant is satisfactory in an area where  
5 there is meager dilution downstream.

6 Q Now, you mentioned the sophisticated  
7 tertiary plant in Bedminster. Was that specially  
8 designed to remove excess nitrates?

9 A Yes.

10 Q You mentioned this was a very expensive  
11 treatment. Do you know what the cost was?

12 A In terms of dollars, no.

13 Q In other relative costs of the additional  
14 components of the treatment system for the  
15 nitrate removal?

16 A No.

17 MR. REID: I'll object to the  
18 form of that question, belatedly, because  
19 I don't know what "relative" means,  
20 except more. I assume they cost more.

21 Q In comparison to the overall cost of  
22 the plant, whether there was a degree of magnitude  
23 on the additional treatment required for nitrates.  
24 That was the context of the relation between the  
25 nitrate treatment and the other elements of the

1 treatment plant.

2 Would you be able to put that into a  
3 context of the relationship of the nitrate  
4 treatment to the rest of the treatment cost?

5 A. Not in terms of dollars. I have, however,  
6 heard the adjective "horrendous" used.

7 Q In your opinion then, what is the  
8 minimum stream size that would be required for  
9 adequate dilution of tertiary sewage effluent  
10 in Harding Township?

11 A. I have no personal opinion because, as I  
12 explained earlier, I'm not an expert. The only  
13 thing I have heard the engineers talk about is  
14 a ten times dilution of the seven driest days  
15 of the year.

16 Q Now, in the sentence I quoted before,  
17 you speak of extensive, but scattered development.  
18 Does this statement reflect your opinion that  
19 Harding has experienced some substantial growth  
20 since, say, World War II?

21 MR. REED: I object to the form of  
22 that question. That is just totally  
23 leading without any basis in fact.  
24 I will direct him not to answer that  
25 question. That is totally improper.



1           Q        Could you elaborate on what the nature  
2 of this extensive development has been in Harding  
3 Township?

4                   MR. REID: I object to that question  
5 -- wait a minute. Hold on. Withdrawn.

6                   MR. ONSDORFF: I believe there is  
7 a question pending.

8                   MR. REID: Would you repeat the  
9 question?

10                   (Whereupon the requested information  
11 was read back by the Reporter.)

12                   THE WITNESS: May I answer that?

13                   MR. REID: Yes.

14           A.        Yes. I believe my map speaks for itself.

15           BY MR. ONSDORFF:

16                   Q        What does it say?

17           A.        It shows where all the structures are  
18 located?

19                   Q        By "extensive," does this refer to  
20 geographical spread?

21                   I mean I'm trying to understand the  
22 context of that statement.

23                   MR. REID: Hold on just a second.

24                   I think he said -- and correct me if

25                   I'm wrong -- did you refer to extensive

1 development since World War II in your  
2 question?

3 THE WITNESS: That was the earlier  
4 question which I didn't answer.

5 MR. REID: Okay. Just so the  
6 record is clear, there is nothing in  
7 the report about extensive development  
8 since World War II and I didn't understand  
9 the pending question to refer to it.

10 MR. ONSDORFF: It didn't.

11 MR. REID: Fine.

12 BY MR. ONSDORFF:

13 Q Are you referring to a geographic  
14 extent of development in that sentence?

15 A Yes.

16 Q Based upon your analysis of this  
17 extensive and scattered development in Harding  
18 Township, is there any relation between that  
19 development pattern and the environmentally  
20 critical or sensitive land areas within Harding  
21 Township?

22 A Yes. The development which has taken place  
23 can be supported by the land. However -- now,  
24 I'm volunteering. Ask me another question.

25 Q What did you want to say further in

1 answer to my last question?

2 No. I withdraw that.

3 Now, moving right along to Page 1 of your  
4 report, the sentence appearing in the first  
5 paragraph says, "Harding Township is so handicapped  
6 by topography and geology that it has not been  
7 attractive to any intense development worth  
8 noticing."

9 Has Harding Township been attractive  
10 to intense development whether worth noticing or  
11 not?

12 A. No.

13 Q Are you familiar with all the proposals  
14 brought before the planning board in Harding  
15 Township, say, over the last 20 years?

16 A. No. I don't know how many have been brought  
17 before them.

18 Q So in what sense have you -- or what  
19 basis do you have for the conclusion that Harding  
20 Township has not been attractive to any intense  
21 development?

22 A. Again, by the evidence on my map. There is  
23 no intense development on the map.

24 Q So your conclusion is based upon what  
25 actually has been developed in Harding Township,

1 is that right?

2 A. That's right.

3 Q. Are you familiar with a townhouse  
4 development which is being developed along Route 202  
5 near the boundary of Harding Township and Morris  
6 Township?

7 A. That's the one I talked about before that I  
8 was responsible for making zoning recommendations  
9 for.

10 Q. Prior to that development at that  
11 location, do you know what the area was zoned for?

12 A. My recollection is that it was zoned for  
13 something like half-acre lots, individual single-  
14 family houses.

15 MR. REID: Again, note my objection.

16 There is obviously a document which  
17 sets that forth.

18 Q. Do you know in what manner this township  
19 project will be served with water and sewer?

20 A. Yes, public water and public sewer.

21 Q. Do you know what the ground coverage  
22 for this development will be, as far as impervious  
23 surfaces, either building or parking areas?

24 A. Not exactly. It will be in the neighborhood  
25 of, oh, 20 or 25 percent, perhaps less.

1 Q And what is the amount of land that  
2 this is going to cover 20 to 25 percent of? What  
3 is the total site size?

4 A I don't remember.

5 MR. REID: You are referring to that  
6 particular development?

7 MR. ONSDORFF: That's correct.

8 A You are referring to Harding Green?

9 Q If that is the name of it, I am.

10 A Yes. I have reviewed the site plan. The  
11 information you want is on the site plan which  
12 was approved by the people in Harding.

13 Q Now, was this the initial request by  
14 the developer which was approved or was this  
15 modified during its period of pending review  
16 before the planning board?

17 MR. REID: If you know.

18 MR. ONSDORFF: Of course.

19 A I don't know. My recollection is they were  
20 about the same.

21 Q Now, are you familiar with a recent  
22 office complex development being built between  
23 Routes 202 and 287 in the southern portion of  
24 Harding Township?

25 A I have seen the structure, yes. I have not

1 reviewed the details.

2 Q You have seen the structure, but have  
3 you performed any professional services on behalf  
4 of Harding in the context of that project being  
5 before the planning board?

6 A No.

7 Q Do you know what the land coverage will  
8 be in the case of this office complex, as far as  
9 impervious surfaces, either building or parking  
10 areas or streets?

11 A No.

12 Q Do you know the number of employees  
13 that will be retained by this office?

14 A No.

15 Q As far as your opinion of what constitutes  
16 intense development of lands, how do you define  
17 that concept?

18 A You are asking me for a general characterization,  
19 so I will give you a general characterization back.  
20 I would say intense land development is that which  
21 requires outside infrastructure as a support.  
22 In other words, it is where the development of  
23 the land is such that the land, itself, cannot  
24 sustain the development.

25 Q Now, in the case of this townhouse

1 development which we discussed, along 202,  
2 is that going to require such outside infrastructure?

3 A. It was a condition of its approval.

4 Q. What provisions are made for handling  
5 of any runoff generated by this townhouse?

6 A. I have not examined the bond in detail, but  
7 there is a retention pond for the storm water  
8 runoff. The sanitary effluent is connected to  
9 the Morris Township plant.

10 Q. So in this instance, are there going  
11 to be any adverse environmental impacts to the  
12 environmental resources of Harding Township as  
13 a result of this townhouse development?

14 A. No, because it's connected to the Morris  
15 Township Sewage Treatment Plant. Without that  
16 connection to that sewage treatment plant, there  
17 would, indeed, be adverse impacts.

18 Q. What would be those adverse impacts  
19 if the development was not connected to a public  
20 sewer?

21 A. It would further pollute all the drinking  
22 water, all the wells within that particular  
23 area of the township, instead of concentrating  
24 the treatment of the sewage in a plant. Whether  
25 the plant is totally effective or not, the plant

1 is certainly better than dumping it on the ground.

2 Q Would you say that Route 287 constitutes  
3 an intensive development of lands within Harding  
4 Township?

5 A Well, yes.

6 MR. REID: You mean the highway,  
7 itself?

8 MR. ONSDORFF: That's right.

9 A The highway, itself, is its own self-serving  
10 infrastructure.

11 Q In what manner is it its own self-serving  
12 infrastructure?

13 A Well, the land without that improvement  
14 certainly couldn't support that traffic.  
15 In other words, it would be quite a mud hole.

16 Q Are there any environmental impacts as  
17 a result of the existence of that interstate  
18 highway through Harding Township?

19 MR. REID: Note my objection, unless  
20 he has made an analysis of the  
21 environmental impacts of that highway.  
22 If he has, I have no objection to the  
23 question, but I don't think that you  
24 asked him if he did.

25 MR. ONSDORFF: Well, if he has an



1 opinion, I can certainly inquire as to  
2 that and if he has a basis for it,  
3 he can certainly state where he obtained  
4 his data base for any opinion he has.

5 MR. REID: Note my objection.

6 A. This is an interstate highway. The engineers  
7 for interstate highways have tried to be careful  
8 about the storm water runoff being led to streams  
9 which can accept them. They have tried to be  
10 careful about erosion. The extent to which this  
11 is successful at Harding will require some years  
12 to find out. So the matter of erosion control  
13 is a major concern, but only the lapse of a few  
14 years will see whether or not this has been  
15 adequately taken care of.

16 There are others who believe that the air  
17 pollution occasioned by large volumes of traffic  
18 is hazardous to the adjacent green growth. There  
19 are certain trees which can sustain growth in  
20 spite of the carbon monoxide and other things  
21 that are concentrated on the highway. This, again,  
22 will require years to examine.

23 Hopefully, there is enough breeze blowing in  
24 Harding Township so that all the bad things will  
25 be blown over to New York.

1 BY MR. ONSDORFF:

2 Q As far as any precipitation runoff from  
3 Route 287, do you know where these waters flow  
4 towards or to?

5 A They all flow downhill, which is generally  
6 in the northeasternly direction. All of Harding  
7 is in the Passaic River Basin. All of Harding  
8 drains into the Great Swamp.

9 Q Do you know what the most intense  
10 development of land use in Harding Township is  
11 presently?

12 A Well, the highway, of course.

13 Q As far as structures, buildings.

14 MR. REID: Don't guess.

15 Q Well, I can tell you the area. I  
16 can't tell you the exact buildings. In the  
17 southeast side of 202, generally southwest of  
18 Glen Alpin Road.

19 Q And what are the developments found  
20 at this location?

21 A Small residential supporting structures,  
22 such as residences, minor food store. There is  
23 also a gas station. There is nothing substantial.

24 The two larger developments are adjacent to  
25 the southwest end. One belongs to the Public

1 Service Electric and Gas and the other is another  
2 utility there, and then maybe the office structure  
3 which is under construction. Those three would  
4 probably be the largest individual structures.

5 Q Now, this residential area on the south-  
6 east side of 202, do you know what the environmental  
7 impacts are which are generated by these structures  
8 and land coverage?

9 A No, because immediately to the southeast  
10 direction of these major structures there is  
11 principally vacant land. There is also the  
12 existence of 287, which sort of mixes up the  
13 impact. Everything on the southeast side of 202  
14 would have to impact across the highway before  
15 it gets into the vacant land over on the other  
16 side of 287. So the answer to your question  
17 should have been no.

18 Q Now, as far as the pollution, if any,  
19 being generated by the current development in  
20 Harding Township, have you done any analysis of  
21 levels of pollutants entering the ambient  
22 environment as a result of the existing development  
23 in Harding Township?

24 A No.

25 Q Does Harding Township, to your knowledge,

1 have any codes or other governmental controls  
2 regarding the prevention of adverse environmental  
3 impacts from any future development which may  
4 take place within the township?

5 A. It has a general intent as expressed in the  
6 zoning ordinance. More particularly, it has the  
7 Board of Health that is concerned with the matter  
8 of the effluent.

9 For example, I have been told, but have not  
10 seen the order, that the Board of Health actually  
11 interrupted the construction of that office  
12 building for a while because of the fact that  
13 the area in which a septic tank was supposed to  
14 work did not prove out. I haven't heard anything  
15 recently, so I don't know whether that is true  
16 or not, but the Board of Health clearly is active.

17 Q. You mentioned that an intent is  
18 expressed in the ordinance. Could you be more  
19 specific as to --

20 A. Well, this is implicit in the level of  
21 development and the low intensity of residential  
22 development.

23 Q. The density controls?

24 A. The density controls.

25 Q. Are you aware of any pollution control

1 techniques which may be imposed upon future  
2 development that are unrelated to reliance upon  
3 density controls to prevent unreasonable harm  
4 to environmental resources?

5 A. No.

6 Q Now, in the second paragraph of Page 1  
7 of CAH-2, the second sentence in that paragraph,  
8 I believe you described the topography as being  
9 irregular and precipitous in the northwest sector  
10 of town, is that correct?

11 A. Yes.

12 Q Could you elaborate on what is meant  
13 by irregular and precipitous topography?

14 A. Yes. The land has steep and irregular hills  
15 and this is read by professionals in the proximity  
16 of contour lines and the shape of the contour  
17 lines. It is the language of professionals to  
18 examine contours. A contour line indicates the  
19 degree in which the land slopes, runs up and down  
20 and curves back and forth.

21 Q Now, further on down in the same  
22 paragraph, you indicate an Exhibit B, geologic  
23 map of New Jersey, which, I believe, indicates  
24 that the northwest area beyond 202 is gneiss, is  
25 that correct?

1 A. That's right.

2 Q. I believe that is the discussion we  
3 had before or is that --

4 MR. REID: We have that one.

5 I think the one I forgot is Exhibit A.

6 MR. ONSDORFF: Okay.

7 A. Outlined on the base sheet, which is  
8 Sheet 25 of the State Geologic Topographic Series,  
9 there is the geologic overlay for Sheet 25.  
10 On the base, I have traced the boundaries of  
11 Harding Township with a magic marker so it can  
12 be more easily seen.

13 And this map at scale, indeed, shows the  
14 irregularity of the land in the township and  
15 the overlay shows it in detail.

16 So you can see here, tracing through the  
17 overlay, this has the township line coming up  
18 here, going down around there. All of this runs --

19 Q. I'm sorry. Let me interrupt because  
20 you have a problem with the record if you are  
21 indicating without reference to where it is.

22 A. The bulk of the township on the geologic  
23 overlay to Sheet 25 is indicated by a symbol that  
24 looks like TRB, which in the legend to the side  
25 indicates the Brunswick formation. The center

1 part of town is the TRB, which is basalt flows  
2 and the area indicated by HQA is more gneiss.

3 Of these three geologic formations, the  
4 Brunswick shale formation is the most receptive  
5 to development, even though it is bad. Both  
6 the basalt and the gneiss are worse than the  
7 Brunswick shale.

8 So that, still, sparcer use of the land would  
9 be justified on the other two areas. These areas,  
10 however, remain small within the township boundaries  
11 compared to the Brunswick shale.

12 Q. Why don't we interrupt for a second  
13 and mark your geologic overlay and base map  
14 Sheet 25.

15 MR. ONSDORFF: I think it would  
16 be appropriate to mark these as CAH-4(a)  
17 and 4(b).

18 MR. REID: Fine.

19 (Whereupon the geographic overlay  
20 was received and marked as CAH-4(a) for  
21 identification.)

22 (Whereupon the base map Sheet 25  
23 was received and marked as CAH-4(b) for  
24 identification.)

25 BY MR. ONSDORFF:

1           Q     In your report, Mr. Agle, further  
2           down in the second paragraph on Page 1, you make  
3           reference to a small section of Border Conglomerate,  
4           is that correct?

5           A     Yes.

6           Q     Is that reflected on CAH-4?

7           A     This is the TRB -- no -- TRC is a small  
8           section of Border Conglomerate.

9           Q     Now, in the case of the Brunswick shale,  
10          what are the physical characteristics of this  
11          geologic formation?

12          A     It's a relatively soft but compact stratified  
13          stone which is very common to this part of New  
14          Jersey, including Princeton and in Readington,  
15          Bedminster, Hopewell.

16          Q     And what are the characteristics, the  
17          geologic characteristics of the basalt flow  
18          formation?

19          A     The basalt and the gneiss and the others,  
20          including diabase or granite, have come up from  
21          the center of the earth in a liquid form. In  
22          other words, they are rocks which have actually  
23          flowed. They are similar to lava, but are hard  
24          as they all get out. And they are what are  
25          commonly used for road bases now. Granite is



1 popularly thought to be the hardest one, but  
2 basalt is slightly harder than granite, and all  
3 of them are impervious, totally impervious.

4 Q Now, you have offered certain opinions  
5 as to the development potential of lands with  
6 these geologic formations.

7 What is the basis for your opinion as  
8 to the limitations for structures being placed  
9 on lands having geologic formations?

10 A Well, these stones, from my personal  
11 examination, from having seen them, having hit  
12 them with a hammer and so on, hit them with a  
13 geologic axe -- and I am not a geologist, but  
14 I have taken courses in geology -- is that  
15 they cannot absorb any water. The absorption  
16 depends entirely upon what can go in the  
17 cracks inbetween them. It is not a porous formation  
18 at all.

19 So that what has to happen is that the  
20 thin topsoil holds the water enough for it to  
21 **be disposed** of by transpiration, evaporating in  
22 the air, or the runoff has to follow the courses  
23 of the rock and pollute somebody else farther  
24 away.

25 So that even though it may not be polluting

1 in the immediate lot, it may pollute everything  
2 at some distance because of the fact that nothing  
3 can be absorbed and held long enough for the  
4 soil bacteria to eat up all the bad bacteria.

5 Q Now, have you determined the depth of the  
6 topsoil in Harding Township in the open areas of  
7 that municipality?

8 MR. REID: What do you mean by  
9 "open areas of that municipality"?

10 MR. ONSDORFF: Areas that are not  
11 covered by a structure.

12 A. Personally, no. I followed the work of the  
13 Natural Resources Inventory people, who have  
14 various exhibits showing depths to bedrock and  
15 so on.

16 BY MR. ONSDORFF:

17 Q Do you know how that determination was  
18 made, which is reflected in the work of the  
19 Natural Resource Inventory, as to depth of the  
20 bedrock?

21 A. I believe that the U. S. Soil Conservation  
22 Service went around and made various tests.

23 Q The U. S. Conservation Service, though,  
24 did not prepare the Natural Resource Inventory.  
25 This was something which was examined by the

1 preparators of that document, is that your  
2 understanding?

3 A. That is my understanding.

4 In other words, the Natural Resources Inventory  
5 in Harding, as well as in other townships, now  
6 customarily is a putting together of all the  
7 information which can be secured from other  
8 sources.

9 Q Do you know where the nearest interchange  
10 on Route 287 is that provides road access to  
11 Harding Township?

12 A. The nearest one is probably at Maple Avenue  
13 in Bernards Township.

14 Q Now, I believe you mentioned that the  
15 nearest interchange was Maple Avenue in Bernards  
16 Township, is that correct?

17 A. That's correct.

18 Q Does Maple Avenue traverse, also,  
19 Harding Township?

20 A. No.

21 Q Do you know what roadway it connects  
22 with that does traverse Harding Township?

23 A. Route 202.

24 Q After this Maple Avenue interchange,  
25 do you know the second closest interchange on

1 Route 287 providing access?

2 A. Harding Road in Morris Township.

3 Q. And via what road does that provide  
4 road access to Harding Township?

5 A. A minor road called James Street.

6 I might add that the interchange -- that  
7 interchange is only partial.

8 Q. And by that, you mean it has an exit  
9 or an entrance, but not a complete interchange?

10 A. It doesn't have four full clover leafs.

11 MR. REID: I think you can get a  
12 road map that will give that information.

13 Q. Have you prepared any transportation  
14 plans for municipalities in the State of New  
15 Jersey?

16 A. Yes.

17 Q. Can you give me any examples of  
18 transportation plans you have prepared?

19 A. The realignment of Route 523 in the  
20 middle of Hunterdon County going through Readington,  
21 where 523 crosses Route 22. I have prepared a  
22 loop road plan around the area of Princeton which  
23 has partially survived after 20 years.

24 Q. Why do you say -- I'm sorry. I thought  
25 you were done.

1 A. Most of it is still on the Master Plan and  
2 part of it, I think, has been removed from the  
3 Master Plan.

4 The road plan in West Windsor Township is  
5 one I prepared and has been partially executed.

6 The entire road scheme and modification in  
7 Phillipsburg was -- has been partially executed.

8 Q. That's enough examples, I think.

9 A. All right.

10 Q. The realignment of Route 523 in  
11 Hunterdon County, has that been acted upon?

12 A. The road has not been built, but the inter-  
13 cepting water main from Round Valley to Rockaway  
14 Creek has been put along the alignment that I  
15 suggested.

16 Q. What were the planning considerations  
17 then that went into that realignment?

18 A. There is an offset in Route 523 from Route 22  
19 north to the interchange in Tewksbury Township.  
20 In other words, it does not line up. Route 523  
21 coming from the south intersects Route 22 maybe  
22 a little bit more than a quarter of a mile east  
23 of the intersection of 523 from Route 22 north.

24 So the realignment is to bypass the Village  
25 of Whitehouse Station and to facilitate the smooth

1 flow of traffic. So that there is an "X" inter-  
2 section which can be controlled by one light,  
3 instead of two "T" intersections which ultimately  
4 would require two lights and, also, will do damage  
5 to Whitehouse Station, itself.

6 Q Have any of your transportation plans  
7 involved considerations of providing adequate  
8 traffic flow for future residential development  
9 along the corridor to be served by the highways  
10 that you consulted on plans?

11 A Oh, yes. As part of every Master Plan, there  
12 is a transportation element and this consists of  
13 designating those major streets which should be  
14 widened and which driveway frontage should be  
15 avoided. That's one element.

16 The second element is that where there are  
17 offset "T" intersections along lines where there  
18 should be a through major road, it's a matter  
19 of curing the two "T's" by having either an  
20 "S" curve or a change of alignment so the  
21 alignments match.

22 This is a part of any Master Plan that is  
23 properly considered.

24 Q Now, what would be the nature of a  
25 future development for Harding Township that would

1 be sufficiently sized or involve sufficient  
2 number of people, to your mind, that would  
3 attract mass transportation services to Harding  
4 Township?

5 A. With the scatteration of the existing  
6 development at the present time, the improbability  
7 of there being an intense singular development  
8 anywhere in the area -- I can't either see or  
9 recommend any major township road improvements  
10 within Harding Township. I see neither the  
11 necessity for it, nor the justification.

12 Q. Let me try to rephrase the question.

13 What I am concerned with is have you  
14 identified any level of population increase or  
15 population density or other factors connected  
16 with the density of land use for residential  
17 purposes that would be sufficient to attract  
18 mass transportation services to Harding Township?

19 A. No.

20 Q. All right. Once again referring to  
21 your Exhibit C, I realize we have been over that  
22 before, so maybe you don't have to get it out,  
23 but I just have one other question here from  
24 my notes.

25 You list on Page 2 of your report

1 the various delineations that appear on Exhibit C  
2 listed 1 through 3, is that correct?

3 A That's right.

4 Q I believe we discussed most of them.  
5 However, I note here that No. 3, "Flood Plains,"  
6 also includes, "Unbuildable wet lands," is that  
7 correct?

8 A That's correct.

9 Q Do you recall in what manner unbuildable  
10 wet lands are delineated on Exhibit C?

11 A There is only one designation for both.  
12 This is what was put on the map for me by the  
13 township engineer. These are the official lines  
14 taken, I think, from the HUD survey and the  
15 State Survey of what lands are.

16 Q But you would defer to him since that  
17 was his work?

18 A That's right.

19 Q By the way, do you know that gentleman's  
20 name?

21 A Bob Fox.

22 Q Directing your attention now to Page 3  
23 of your report, you discuss in the second paragraph  
24 the sewage treatment plant, I believe, in Morris  
25 Township on the Loantaka Brook and the sewage



1 treatment plant in Bernards Township on the  
2 Dead River, is that correct?

3 A. That's right.

4 Q. Do either of these sewage treatment  
5 plants provide sewage services to lands found  
6 within Harding Township?

7 A. The one in Morris Township takes care of  
8 the Harding Green Development that we discussed  
9 earlier between 287 and 292 in the extreme north-  
10 east corner of the township.

11 Q. Is that the full extent of the services  
12 provided?

13 A. To my knowledge, yes. I don't know of any  
14 other service.

15 Q. And the plant in Bernards Township,  
16 does that provide any sewer services?

17 A. No.

18 Q. Are you aware of whether the potential  
19 exists for expanding the service areas of these  
20 two plants into other areas of Harding Township?

21 A. I am not aware of the potential. I have  
22 been told by others that there is a very small  
23 change.

24 Q. But you haven't done any individual  
25 analysis of the feasibility of extending these sewer

1 services in Harding Township?

2 A. I urged all the officials in Harding to see  
3 what they could do with getting the service from  
4 these other two plants. How successful they have  
5 been I do not know.

6 Q. And when did you urge the municipality  
7 officials to obtain additional services from  
8 these plants?

9 A. Sometime in the last two years.

10 Q. What was the basis for that recommendation?

11 A. Especially because of the development on 202  
12 adjacent to Bernard's in which I now understand  
13 subsequently the septic tank doesn't work and  
14 the Board of Health stopped construction. Whether  
15 they have resolved that problem I do not know.

16 Q. Have you done any analysis of the  
17 levels of treatment being provided by either  
18 of these two sewage treatment plants?

19 A. No.

20 Q. Do you know their design capacity as  
21 far as the amount of sewage effluent they are  
22 capable of treating?

23 A. No.

24 Q. Do you know the present daily flows,  
25 average daily flows at either of these two

1 sewage treatment plants?

2 A. Some years ago, I believe the flow into the  
3 Bernards Dead River Plant was like 1,200,000. I  
4 do not know the capacity of the Morris Township  
5 Plant.

6 Q. Would the discharges from either of  
7 these sewage treatment plants of treated effluent  
8 influence the impact on Harding Township?

9 A. Yes, because they flow into the Great Swamp  
10 and the Great Swamp is in Harding Township and  
11 this, naturally, has a peripheral effect on the  
12 environment of Harding Township.

13 Q. Do you know what the impact presently  
14 of these plants' discharge is on the Great Swamp?

15 A. No.

16 Q. Now, in the third paragraph on Page 3,  
17 you indicate that very large lot zoning is  
18 reasonable in Harding Township -- is reasonable  
19 planning in light of applicable law, is that  
20 correct?

21 A. Yes.

22 Q. What are the planning considerations  
23 which lead you to this conclusion?

24 A. Well, I might first refer to applicable law,  
25 this being the consistency with the zoning and

1 planning of the surrounding townships, the  
2 county Master Plan, the State Guide Plan and the  
3 Tri-State Regional Guide Plan or Development Plan.  
4 That is with respect to the law.

5 There are other laws, preambles of which  
6 I don't know by heart, concerning the 1972 Safe  
7 Water Drinking Act of the federal government  
8 and the preambles and the purpose of the New  
9 Jersey Department of Environmental Protection.

10 But all of these influence the land use  
11 in Harding Township, which if other than the  
12 three acres, would violate the applicable law.

13 Furthermore, from the planning point of view,  
14 other than the law point of view, as a matter  
15 of common sense, the railroads avoid Harding  
16 Township like the plague.

17 As though the Great Swamp scattered all the  
18 town development of Harding Township because  
19 one railroad goes off that way and one railroad  
20 goes off this way. So there is no possibility  
21 of any rail transportation into the middle of  
22 Harding Township.

23 We also have the total unlikelihood -- and  
24 like the weather forecast, I will forecast 100  
25 percent snow tomorrow and then we have dry weather

1 for three weeks. But we have, I would say, zero  
2 possibility of duplicating 202 in the image of  
3 287.

4 So that with the surrounding transportation  
5 areas, the consistency with all the surrounding  
6 things which are required by the municipal land  
7 use laws, I believe this paragraph is justified.

8 Q In light of applicable law, of indicating  
9 a number of things that the zoning is consistent  
10 with in adjacent and surrounding areas, did you  
11 evaluate the principles of the Mount Laurel  
12 decision by the Supreme Court in viewing what  
13 you constitute to be the applicable law?

14 A Oh, of course.

15 Q And did you reach any conclusion in  
16 regards to compliance and consistency with the  
17 Mount Laurel principles?

18 A Yes. The Mount Laurel principle I don't  
19 read as homogenizing each of the 567 municipalities  
20 in the state.

21 In other words, there are places where  
22 intense site development of least cost housing,  
23 as it was phrased in the Madison decision, not  
24 the Mount Laurel decision, is well justified.  
25 But in light of both Mount Laurel and in light

1 of Madison, it's my opinion that this treatment  
2 in Harding is proper.

3 Q Now, directing your attention to Page 12,  
4 in the first paragraph on Page 12, you list a  
5 series of environmental abuses that you are aware  
6 of.

7 You don't indicate any current environ-  
8 mental abuses ongoing in Harding Township, is  
9 that correct?

10 MR. REID: Wait a minute. You are  
11 talking about examples that he sets forth  
12 and I think the record is clear that there  
13 are no examples set forth from Harding  
14 in that paragraph. Is that what you  
15 are asking?

16 MR. ONSDORFF: That was my question.

17 MR. REID: That does not mean there  
18 are no abuses in the township, that is  
19 all I want to make clear.

20 MR. ONSDORFF: That is why I'm  
21 endeavoring into it.

22 A. I have not died of any clams that I have  
23 eaten that were grown in Harding Township.

24 Q Have you had any clams that were grown  
25 in Harding Township?

1 A. No.

2 Q. Does this reflect your opinion that  
3 there are no abuses of the environment presently  
4 in Harding Township?

5 MR. REID: I didn't think that that  
6 was his opinion, but you can ask him.

7 MR. ONSDOREFF: That is what I am  
8 endeavoring to do.

9 A. No, I did not say there are no abuses in  
10 Harding Township.

11 Q. Are there, to your knowledge, any current  
12 environmental abuses ongoing in Harding Township?

13 A. No, but I believe there would be if the  
14 town is planned more intensively without proper  
15 sewage treatment plants.

16 Q. But, presently, there are no environmental  
17 abuses in Harding Township, is that correct?

18 MR. REID: I object to the form.

19 You can ask him if he is aware of any.

20 Q. To your knowledge.

21 A. Maybe -- could I confer with my attorney for  
22 just a minute off the record?

23 (Whereupon a discussion was held  
24 off the record.)

25 A. No.

1           Q       You make reference in the second  
2 paragraph on Page 12 to an Act of 1972. Could  
3 you more specifically identify what piece of  
4 legislation you are referring to there?

5           A       Since I am not an attorney, I don't have  
6 the Act here.

7           I believe that the Federal Act which I  
8 refer there set up three programs, the 303, the  
9 202 and the 201, programs which are being pursued  
10 by the state at the present time. I think all  
11 of those Water Acts flow from that federal  
12 statute.

13          Q       Okay. Now, you refer to in the next  
14 paragraph certain matters having been fully  
15 litigated and recently affirmatively upheld in  
16 Bedminster. Could you more specifically identify  
17 what matters have been litigated and affirmatively  
18 upheld in Bedminster?

19                   THE WITNESS: Shall I reach for  
20 the opinion?

21                   MR. REID: No, unless you need it  
22 to tell him --

23                   THE WITNESS: No. There is a  
24 specific paragraph. I'm sorry I did not  
25 note the page number in the opinion.



1 BY MR. ONSDORFF:

2 Q If there is a specific reference that  
3 you can find quickly, I would certainly acquiesce  
4 to your referring to the opinion of the Court.

5 A I thought I made a page reference.

6 All right. Page 15 of Judge Leahy's decision  
7 dated December 13th, 1979, the Allan Deane  
8 Corporation versus the Town of Bedminster.  
9 There appears the following paragraph, this  
10 being Paragraph No. 4 on Page 15:

11 "The zoning ordinance under review also  
12 provides that the overwhelming bulk of the  
13 township shall remain in very low density single-  
14 family use. Based on the proofs submitted as to  
15 the ecological sensitivity of that area as a  
16 major watershed site with relatively impervious  
17 geological subsoil conditions and accepting  
18 the testimony that it is inadvisable to introduce  
19 a sewer system into that area to encourage  
20 development, when other areas in the county and  
21 region should more logically be developed sooner,  
22 as provided in the county Master Plan and the  
23 Tri-State Regional Planning Commission Regional  
24 Development Guide 1977-2000, this Court accepts  
25 the decision of the municipal officials as to the

1 provisions, location and extent of the R-3  
2 zone."

3 I add that is all on Brunswick shale.

4 Q Now, you make the same conclusion in  
5 regards to the litigation in Readington. Is  
6 that --

7 A Yes. That is supported by the two other  
8 references as exhibits, which I have listed here,  
9 that is the report of Robert M. Hordon and a  
10 report of Walter A. Jones.

11 Q Are the Readington decisions then the  
12 same considerations of a major watershed site  
13 and the geologic subsurface geology of the  
14 Brunswick shale?

15 A It's the Brunswick shale. One goes into  
16 the north branch of the Raritan River. The  
17 other goes into the south branch of the Raritan  
18 River. And both have the same geologic and  
19 hydrologic characteristics.

20 Q That are found in Harding Township?

21 A Yes, the headwaters of the stream and on  
22 Brunswick shale.

23 Q Now, on Page 13 of your report, you  
24 make certain comparisons as to the unfavorability  
25 of the bedrock of Brunswick shale, and this is in

1 the first paragraph on Page 13. You additionally  
2 indicate that the basalt and diabase are considered  
3 to be worse.

4 A. Yes.

5 Q. And what was the basis for those  
6 comparisons as to the Brunswick shale being  
7 preferable than these other two?

8 A. The Brunswick shale has more faults and  
9 more space between the places where the various  
10 strata are superimposed on top of each other.

11 A fault is a vertical rubbing together of  
12 certain stratum; whereas the stratification is  
13 horizontal.

14 So the Brunswick shale does have voids  
15 in the area; whereas the diabase and the basalt  
16 being the igneous rocks, including gneiss, are  
17 liquid when they are coming up through a slot  
18 in the earth and have no faults and no stratifica-  
19 tion and it's entirely accidental where you can  
20 find any void to put a drop of water in those  
21 two.

22 Q. Then in the case of the Brunswick  
23 shale, since it is a geologic formation that does  
24 not have a homogeneous characteristic, is it  
25 possible that you might have a site over a large

1 void or fault that would be quite porous to water?

2 A. Not a large area. This can be found in  
3 small areas and the evidence which I have sited  
4 pertains to Brunswick shale which supports three  
5 acres.

6 So what I am saying is the other two  
7 geologic formations in these various townships  
8 is still worse. In other words, I have already  
9 deplored the Brunswick shale as being useable  
10 and the other two are even worse.

11 Q Well, you have indicated that in the  
12 Brunswick shale there may be small areas where  
13 there is a void or a fault in the bedrock. Would  
14 that small area be larger than several acres?

15 A. Oh, no, no. A fault is something that is  
16 ground together and is on a line and the voids  
17 are in terms of inches.

18 Q As far as the Brunswick shale's ability  
19 to absorb water, pass water into the aquifer or  
20 ground water system, are you aware of any studies  
21 which have quantified the amounts of water bearing  
22 capacity of this geologic formation?

23 A. Oh, yes. This is implicit in the studies I  
24 have quoted.

25 Q Now, I believe you refer to the Douglas-

1 Trela Model. Is that model applicable to the  
2 Border Conglomerate geologic formations found  
3 in Harding?

4 MR. REID: You are just referring  
5 to the Border Conglomerate, as opposed  
6 to --

7 MR. ONSDORFF: (Continuing) -- the  
8 other geologic formations we discussed.

9 A. In order to answer that question, I would have  
10 to read the text of the report which is attached  
11 to my report because the dilution model applies  
12 to still other geologic formations than has been  
13 projected onto the Brunswick shale by Mr. Hordon  
14 and it is implicit that projecting that model  
15 under the still least favorable geologic formations  
16 would create still more severe constraints.

17 Q. Now, you have a statement on Page 13  
18 that, "On Brunswick Shale, lot sizes of less  
19 than three acres for single family dwellings  
20 should never be permitted without public water  
21 supply and sewage disposal."

22 Is that based upon this Hordon work  
23 on the Douglas-Trela Model?

24 A. That Hordon report is the most recent one  
25 of all of the reports that I have heard and all

1 the education I have had, as I have sat patiently  
2 through the lectures and made notes that the  
3 other experts have held forth.

4 Q Have you done any independent research  
5 on the applicability of the Douglas-Trela  
6 Nutrient Dilution Model?

7 A No.

8 Q Now, directing your attention to  
9 Page 14 of CAH-2, in the first paragraph, the  
10 statement appears, the last sentence in that  
11 paragraph, "The model was originally developed  
12 for application to the sandy soils of the Coastal  
13 Plain in New Jersey..."

14 Is Harding Township situated in this  
15 Coastal Plain of New Jersey?

16 A No. This is a quote from Mr. Hordon's report.  
17 And the rest of the sentence should not be  
18 permitted.

19 Q I was not omitting it, but for the  
20 moment, I assure you.

21 Do you know, in fact, whether or not  
22 this nutrient dilution model was originally done  
23 for application in an area of New Jersey known as  
24 the Pine Barrens?

25 A His earlier report, which I have somewhere

1 in the office, was, I believe, done for other  
2 areas.

3           However, I don't know -- I don't have that  
4 piece of paper before me, but, anyway, he has been  
5 working in different areas and the earlier report,  
6 which is not on the Pine Barrens, was still more  
7 severe as to the required lot size.

8           However, I am giving hearsay evidence at  
9 the present time. If necessary, I have that  
10 paper. I saw it yesterday or today.

11           Q       I'm just interested in your own personal  
12 knowledge. That's the context of all our  
13 questions.

14           A       As I explained, I do have a geologic hammer;  
15 I do go out and bust things up occasionally, but  
16 I am not a geologist.

17           Q       Now, how would you compare the sandy  
18 soils of the Coastal Plain in New Jersey to the  
19 geologic material underlying Harding Township?

20                   MR. REID: In what respect?

21                   There are many ways you can.

22                   MR. ONSDORFF: In comparison to  
23 their capacity for water absorption.

24           A       Strange enough, they are similar because of  
25 the fact that the water flow is so fast through

1 both of them. In other words, the sand does  
2 not retain the water flow long enough for any of  
3 the ground bacteria to absorb the evil things  
4 that come with effluent, nor is the water retained  
5 long enough for the plants to get much out of  
6 the ground by transpiration. That is the reason  
7 we have such poor growth in Pine Barrens. I mean,  
8 if you have traveled through the Pine Barrens,  
9 you know this is a very poor place to grow trees.

10 The same thing is true with the Brunswick  
11 shale, in which what water is absorbed goes through  
12 the crevices, through the faults and then through  
13 the crevices between the strata quite rapidly  
14 without being absorbed either by the local  
15 bacteria or by the transpiration.

16 Q Then to complete that sentence, in which  
17 you were interested that I do before, why is it  
18 necessary to make modifications, or is it  
19 necessary to make modifications to apply the  
20 Douglas-Trela Nutrient Dilution Model to Harding  
21 Township?

22 A It is my understanding of the model which is  
23 described in this report that the numbers may  
24 come out slightly differently because of the  
25 different sizes of voids between the otherwise



1 impervious elements. So that I presume that  
2 anybody who wants to look far enough can find  
3 out the difference for the numbers, depending upon  
4 the size of the voids.

5 Q When you say "this report," is that a  
6 reference to the Hordon Report?

7 A That's right. That's where the sentence  
8 came from.

9 Q Which was done for Readington Township,  
10 not Harding Township, is that correct?

11 A That's correct.

12 Q Now, again, referring to Page 13 of  
13 your report, CAH-2, in the second paragraph, you  
14 state, "Jones, Whipple, and others have shown  
15 that non-point pollution (including everything  
16 from the debris cars shed in garages or parking  
17 spaces to the nitrate in lawn fertilizer and  
18 animal droppings) may be as deleterious as the  
19 human point source pollution and require as much  
20 absorbing area."

21 Do you know how Jones has shown that  
22 non-point pollution may be as deleterious as  
23 human point source pollution?

24 A That is in his report.

25 I might add a little more personal experience

1 on this, which I am sorry I didn't list. I was  
2 born and raised in Illinois, in which there is  
3 topsoil 20 and 30 feet deep pushed down by the  
4 glaciers of Canada. Four years ago there was not  
5 one live stream in the State of Illinois. The  
6 State of Illinois is sparcely populated, but  
7 all the streams were killed by the agriculture  
8 fertilizer.

9 So that I have this direct personal  
10 experience and knowledge of the effect of non-  
11 point pollution. In other words, point pollution  
12 is what comes out of the tail end of the septic  
13 tank; whereas non-point pollution is the spread  
14 of fertilizers over acres of land.

15 Q Now, as far as any studies of non-point  
16 pollution in New Jersey, have you performed any?

17 A No.

18 Q Have you performed any study of non-  
19 point pollution in Harding Township?

20 A No.

21 Q Did either Jones or Whipple study the  
22 sources of non-point pollution found in Harding  
23 Township?

24 A Not that I know of, no.

25 Q Now, you give several examples as to

1 sources of non-point pollution in that sentence I  
2 just quoted. And in regards to, I believe, debris  
3 cars shed, would you know who generally owns more  
4 automobiles, people who earn more than \$30,000  
5 per year or people earning less than \$10,000 to  
6 \$12,000 per year?

7 A. Per family per capita there is a slightly  
8 greater ownership of automobiles among the wealthy  
9 people who may live on larger lots.

10 However, in a location such as Harding  
11 Township, the number of cars per family would  
12 have to remain about a constant because of the  
13 fact that there is no employment that one can  
14 walk to and no possibility of collecting a vanful  
15 of people for this area.

16 So that your question really does not apply.  
17 It's the question of the number of automobiles  
18 per acre of land, rather than what kinds of  
19 families own most automobiles.

20 Q And automobile ownership is not directly  
21 related to the density of dwelling units on an  
22 acre of land, is that correct?

23 A. It is less than it used to be. And in  
24 areas in which there is no mass transportation,  
25 the same necessity for traveling from home to work

1 is a constant, regardless of family sizes and  
2 family incomes.

3 Q So alternative means of transportation,  
4 either mass transportation publicly provided or  
5 whatever vans an employer might make available to  
6 employees, would be the determining factor on  
7 the number of automobiles that people living in  
8 Harding would have to have at their disposal,  
9 is that your testimony?

10 MR. REID: I object to the form.

11 You can answer it.

12 A No. This is another way of asking the  
13 question which I answered earlier. Mass transporta-  
14 tion, whether it be by rail or whether it be by  
15 bus or whether it be by van, depends upon the  
16 ability of that one and single carrier to pick up  
17 a load without running all over several square miles  
18 and making numerous stops. In other words,  
19 collective transportation in order to be effective  
20 depends upon a denser population.

21 And I see no way in which Harding can or  
22 will develop anything which would attract a van  
23 pool or, for that matter, maybe a couple car pools,  
24 but that is about the extent of it.

25 Q In other words, in order to provide for

1 these mass transportation services, you have to  
2 congregate a large number of people at one pickup  
3 location?

4 A. That's right.

5 Q. Have you done any analysis as to how  
6 many people would have to be situated in one area  
7 of Harding Township in order to make that type of  
8 mass transportation feasible for Harding Township?

9 MR. REID: Objection. Asked and  
10 answered.

11 You can answer that one again.

12 I think he said before he didn't.

13 A. No, I have not made an analysis, but I have  
14 read numerous studies that have been made on this  
15 that Harding Township is nowhere near the minimum.

16 Q. What is that minimum?

17 A. I would have to refer to the study. A study  
18 was made, oh, a couple of years ago by the Tri-  
19 State Regional Planning Commission.

20 Q. Do you recall --

21 A. This is something in the neighborhood of,  
22 oh, more than five dwelling units per acre.  
23 I'm reaching now just to give that general grasp  
24 of the magnitude, and I don't know. So let the  
25 record say that I deny that I know.

1           Q       Just one thing I would be concerned  
2           about. Do you have the reference that you can  
3           provide us as to this particular Tri-State  
4           Regional Planning Commission document that you  
5           have referred to?

6           A       No. It goes roughly from there to there.

7                       MR. REID: Indicating about 10 feet  
8           of shelves.

9           Q       Now, your next example as to sources  
10          of non-point pollution concerns nitrate in lawn  
11          fertilizer, is that correct?

12          A       Yes.

13          Q       Do you see any relation between the use of  
14          lawn fertilizers and family income?

15          A       In the small amounts which I have seen quoted  
16          in studies, I don't see much. In other words, one  
17          bag of fertilizer is supposed to equal one family.

18          Q       As far as the propensity for use,  
19          has there been any study showing that persons  
20          or families with incomes in excess of \$30,000  
21          use more fertilizer than families in the \$10,000  
22          and \$12,000 average income levels?

23          A       No.

24          Q       And your last example is animal droppings.  
25          Are you aware of animals being owned by people in

1 income categories above \$30,000 more than families  
2 say, in the average income of \$10,000 to \$12,000?

3 A. This is a reasonable presumption, but I do  
4 not know.

5 Q. In these latter two cases, the lawn  
6 fertilizer and animals, I guess, do you know of  
7 any direct relationship between the application  
8 of lawn fertilizers and ownership of animals  
9 relating to the density of housing units placed  
10 on an acre of land?

11 A. No. However, since I do quote other people  
12 who have made studies on this and since General  
13 Whipple is the pioneer in this area, I have heard  
14 him say that the increased urbanization of areas  
15 and the increase of density has a propensity to  
16 increase the non-point pollution.

17 So that the examples, illustrious examples  
18 I have given here are not to be taken as scientific  
19 studies that I have or have not made. I am merely  
20 illustrating and quoting a generality which I have  
21 heard from the pioneer.

22 Q. General Whipple?

23 A. That's right.

24 Q. Now, also, on Page 13, you again refer to  
25 HOrdon as proving that two acres is a minimum for

1 point source pollution and, yet, your recommendation  
2 is for three acres for a single family dwelling.

3 How is it that you add an additional acre  
4 to Hordon's minimum of two acres per single family  
5 dwelling unit?

6 A. I believe this is explained earlier in this  
7 deposition. I referred to the fact that the non-  
8 point pollution is supposed to be as deleterious  
9 as the point pollution, and this would require a  
10 minimum lot size of four acres per family.

11 On Brunswick shale, however, being a conserva-  
12 tive fellow, that is not willing to leap all the  
13 way on evidence which is not yet hard, I suggest  
14 going halfway to three instead of going all the  
15 way to four.

16 Q Are you aware of any other control  
17 techniques for non-point source pollution which  
18 are unrelated to density development?

19 A. I have heard it said that it is conceivable  
20 to double the size of every sewage treatment  
21 plant and to have an intercepting swale on all  
22 farm land so that the effluent from farm lands  
23 is entreated by a sewage treatment plant.

24 However, that speculation has also been  
25 greeted by the fact that there is a reductio ad



1 absurdum.

2 Q Are you aware of any active farms  
3 in Harding Township presently?

4 A I have seen things growing there. I have  
5 not identified them as being operating farms.  
6 I have not discussed the matter with the farmers.  
7 I believe there is a substantial number of farms  
8 which are under the Farm Land Assessment Act.

9 Q Would you have an opinion as to whether  
10 or not the level of non-point source pollution  
11 emanating from active farm lands would be greater  
12 than the level of non-point source pollution  
13 that would be generated by, say, garden apartments  
14 at 12 units an acre in Harding Township?

15 A Yes, it is my understanding from what I  
16 have heard in these other testimonies, but this  
17 is my source of information, that the garden  
18 apartment will be much worse than farm land.

19 Q And what is the basis for that under-  
20 standing?

21 A The impressions that I have from General  
22 Whipple's testimony. In other words, in his  
23 studies, he has commented on the effect of  
24 urbanization.

25 Q What would be the environmental

1 consequences of a garden apartment development  
2 in Harding Township at 12 units to the acre as  
3 far as these environmental resources which you  
4 have identified as being significant in Harding?

5 A. It would overload the sewage treatment plants.  
6 It would overload the absorptive and dilutive  
7 capacity of the streams which are at the headwaters  
8 of the Passaic. It would change the character of  
9 the Great Swamp and jeopardize the quality of  
10 the drinking water from the Great Swamp downstream.

11 Q Are there any dwelling units presently  
12 located in Harding Township on lots smaller than  
13 two acres?

14 A Yes.

15 Q Do you know where these are?

16 A These are roughly in the location of New  
17 Vernon. There are some smaller lots there.  
18 And there are other small lots around the Mount  
19 Kemble Lake area. The Mount Kemble Lake area  
20 has its own package plant, but I have not tested  
21 the effluent from that package plant.

22 Q So you have no personal knowledge as  
23 to the levels of treatment being achieved at  
24 that package treatment plant serving the Mount  
25 Kemble Lake area?

1 A. No, I have not checked it, but I have discussed  
2 it with the township engineer.

3 Q. Do you know the manner in which the  
4 sewage is handled in the New Vernon neighborhood  
5 which you testified --

6 A. I think it's by septic tanks, some of which  
7 don't work -- wait a minute. You said Mount  
8 Kemble Lake?

9 Q. New Vernon.

10 A. That's right.

11 Q. How have you determined that some of  
12 the septic systems in the New Vernon area do not work?

13 A. This is hearsay that I have been told by  
14 others, including the township engineer.

15 Q. Are you aware of any commercial properties  
16 in Harding Township which are on septic systems?

17 A. I believe they all are.

18 Q. As far as ground coverage, what would be  
19 the largest commercial development in Harding  
20 Township with impervious surfaces, either buildings  
21 or parking areas?

22 A. I believe that it is one of the two immediately  
23 adjacent to the boundary of Bernards Township,  
24 adjacent to the Passaic River or at the headwaters  
25 of the Passaic River there.

1           Q       Do you know what the size of that  
2 development is?

3           A       It's a matter of an acre or so or maybe a  
4 few acres. I could only judge by vague recollection  
5 of the tax map and also by the fact that I have  
6 seen an awful lot of pavement when I fly over it.  
7 I fly an airplane.

8           Q       Do you know the manner in which the  
9 runoff is handled from that site?

10          A       No.

11          Q       Now, your conclusion as to the minimum  
12 lot sizes on Page 13 of your report, would that  
13 minimum lot size determination or recommendation  
14 be altered by the availability of, say, a package  
15 treatment plant to service a development?

16          A       No.  
17           Q       Why would that not change your opinion?

18          A       For two reasons, which is implicit all the way  
19 through.

20                 First, a package treatment plant is difficult  
21 to manage. It's difficult to police. It's  
22 expensive because you have to have a licensed  
23 operator who has to be an advanced technician.  
24 The smaller the plant, the less sophisticated it  
25 is in its treatment, so that we end up with an  
imperfect effluent coming out of the plant and

1       damaging the surrounding territory, the streams,  
2       the Great Swamp and the drinking water downstream,  
3       and there is no -- it's worse, from my way of  
4       thinking, than having a lot which is large enough  
5       to have some of the treatment done by the soil,  
6       itself.

7                In other words, the absorption of the evils  
8       of the effluent by nature, I think, is much  
9       better than concentration and then with an  
10      imperfect technical kind of treatment.

11             Q       If I understand your answer correctly,  
12      you have related your perceptions of operational  
13      failures at package sewage treatment plants, as  
14      opposed to the inadequacy of the design of such  
15      facilities, is that correct?

16             A       That's right.

17                   MR. REID: I object to the form.

18                   He has also indicated they are  
19      difficult to manage and police and they  
20      are expensive and the smaller they are,  
21      the less sufficient they are.

22                   MR. ONSDORFF: Which I would  
23      characterize, as I did, as operational,  
24      and I asked the witness if he agreed with  
25      that characterization.

1 MR. REID: That's your characteriza-  
2 tion.

3 MR. ONSDORFF: I was asking the  
4 witness.

5 A. I think they are impractical and unuseable.

6 Q. Now, how many package treatment plants  
7 have you studied, as far as their operational  
8 record?

9 A. Oh, maybe four or five, half a dozen.

10 Q. Any of these in New Jersey?

11 A. Yes. One is on a piece of land I developed  
12 outside of Princeton.

13 Q. When you say "outside of Princeton,"  
14 where specifically is this package plant?

15 A. In Princeton Township.

16 Q. What has been the operational record of  
17 that package treatment plant?

18 A. They have had problems. They do the best  
19 they can.

20 Q. Now, to your knowledge, is the Douglas-  
21 Trela Nutrient Dilution Model applicable to  
22 housing which is serviced by sewage treatment  
23 plants?

24 A. Yes, I think it's directly applicable.

25 In other words, this model has to do with the

1 effluent that goes downstream. And I'll have  
2 to say I don't know, because I would have to reread  
3 the report, but what is generated in the way of  
4 effluent and what is absorbed before it goes down-  
5 stream and into the water that somebody else  
6 is going to have to drink remains sort of a  
7 constant. I'm only guessing, but I can conceive  
8 that it is worse coming out of a package treatment  
9 plant than out of a septic tank on a large lot.

10 Q My question was directed towards any  
11 treatment sewage plant in this case, as opposed  
12 to a package plant, as far as the applicability  
13 of the model.

14 A Again, I'm not an expert in this. It's my  
15 impression from what I have heard from people that  
16 I know that a package treatment plant is an  
17 undesirable solution. In fact, although the state  
18 has not come out with a flat statement, No, we  
19 won't approve any package treatment plants, I  
20 have heard them groan whenever anyone was  
21 discussing one.

22 Q I would submit the grounds are not  
23 admissible, but we will move on.

24 A Agreed.

25 Q Do you know whether the Douglas-Trela

1 Model is relevant to a determination of aggregate  
2 densities or is it applicable to the appropriateness  
3 of individual lot sizes?

4 A I don't know.

5 MR. ONSDORFF: The only other thing  
6 I would want to do before we terminate  
7 my portion of the deposition would be  
8 to get a list for the record of what  
9 exhibits this witness has which were,  
10 in essence, those I just identified.  
11 I would just like the opportunity to  
12 take a quick look at them is what I am  
13 saying.

14 MR. REID: I think, for the record,  
15 we produced everything but Exhibit A,  
16 which I think you indicated you probably  
17 have in your office anyway.

18 The Morris County Master Plan,  
19 Exhibit F, you have seen.

20 Exhibit G, the State Development  
21 Guide, I'm sure you have. Exhibit H is  
22 the same thing. Exhibit I is a reported  
23 opinion, which I think you have. And  
24 Exhibit J is the Hordon paper and Exhibit  
25 K is the Jones paper.



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MR. ONSDORFF: Those are the two I would like to get copies of, if that would be possible, since I don't have those.

MR. REID: Sure.

BY MR. ONSDORFF:

Q Then my only other question would be are there any other maps or exhibits which you were responsible for as far as preparation for this trial?

A No. The only one is Exhibit C, which was not even prepared directly for this trial, but it's one that has all the information on it.

MR. ONSDORFF: Okay. Then I would have no further questions.

MR. REID: Fine. I have no questions.

(Whereupon the deposition was concluded at 6 o'clock p.m.)

\* \* \* \* \*

C E R T I F I C A T E

1  
2  
3 I, ANNA MARIE SANFORD, a Notary Public  
4 and Certified Shorthand Reporter of the State of  
5 New Jersey, do hereby certify that prior to the  
6 commencement of the examination, CHARLES K. AGLE  
7 was duly sworn by me to testify the truth, the  
8 whole truth and nothing but the truth.

9 I DO FURTHER CERTIFY that the foregoing  
10 is a true and accurate transcript of the testimony  
11 as taken stenographically by and before me at the  
12 time, place and on the date hereinbefore ~~set forth~~  
13 to the best of my ability.

14 I DO FURTHER CERTIFY that I am neither  
15 a relative nor employee nor attorney nor counsel  
16 of any of the parties to this action, and that I  
17 am neither a relative nor employee of such attorney  
18 or counsel, and that I am not financially interested  
19 in the action.

20  
21 Anna Marie Sanford  
Notary Public of the State of New Jersey

22  
23  
24 DATED: 3/25/80  
25

PENGAD CO., BAYONNE, N.J. 07002 - FORM 2046