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STATE OF NEW JERSEY  
COUNTY OF MORRIS  
TOWNSHIP OF CHATHAM  
SPECIAL MEETING

IN THE MATTER OF  
The Application of:

TRANSCRIPT OF  
PROCEEDINGS

NEW CINGULAR WIRELESS PCS LLC  
(AT&T) 63 BUXTON ROAD, BLOCK: 62,  
LOT: 105 APPLICATION NO.:  
13-62-105,

----- X  
TOWNSHIP OF CHATHAM MUNICIPAL BUILDING  
401 Southern Boulevard  
Chatham, New Jersey 07928  
April 9th, 2014  
7:30 p.m.

B E F O R E:  
BOARD OF ADJUSTMENT  
TONY VIVONA, CHAIRMAN  
KATE KENNY, VICE CHAIR  
JON WESTON, BOARD MEMBER  
GLEN L. NELSON, BOARD MEMBER  
WILLIAM STYPLE, BOARD MEMBER  
THOMAS V. POLISE, BOARD MEMBER  
STEPHEN H. SHAW, ESQ., BOARD ATTORNEY  
JOHN K. RUSCHKE, P.E., BOARD ENGINEER  
ROBERT MICHAELS, P.P., BOARD PLANNER  
BRUCE A. EISENSTEIN, CONSULTING ENGINEER  
NORMAN R. DOTTI, ACOUSTIC ENGINEER  
KALI TSIMBOUKIS, BOARD SECRETARY

A P P E A R A N C E S:  
PINILIS, HALPERN, LLP  
ATTORNEYS FOR THE APPLICANT  
BY: JUDITH A. FAIRWEATHER, ESQ.

GINA M. LAMM, CCR/RPR

Job No. CS1834768

1 CHAIR VIVONA: All right. Next  
2 calendar would be 13-62-105. New Cingular  
3 Wireless, 63 Buxton Road.

4 Last meeting we spoke with your  
5 sound engineer, and we entertained questions from  
6 the public.

7 Does he have more testimony for us?

8 MR. SHAW: Well, I think, perhaps at  
9 this point, what would be good, is, the board  
10 retained a professional acoustics expert to  
11 evaluate and review the issues that were presented  
12 here, to make certain that all the I's and T's got  
13 crossed on something which is now involving a  
14 noise barrier proposal.

15 So, Norm Dotti is a acoustic  
16 engineer, who has previously appeared before this  
17 board, is well qualified, and he has issued a  
18 written report to the board, with some  
19 recommendations. He has also reviewed that report  
20 with the applicant's engineer. But, perhaps, if  
21 we could just briefly put on the record what the  
22 report recommendations and what your observations  
23 were.

24 MS. FAIRWEATHER: Can I just  
25 interject here for one second, for the change that

1 you and I discussed. Because that might impact  
2 what the two of them say, and the board has no  
3 idea.

4 MR. SHAW: Oh, okay.

5 MS. FAIRWEATHER: After the last  
6 meeting we understood that, especially the  
7 homeowners next to the water tank, had concerns  
8 about the equipment being right there by their  
9 swing set. We went -- the very next day we went  
10 to New Jersey American Water, and it took them  
11 awhile to get back to us, until today. And that's  
12 why you didn't have it ahead of time. But they  
13 agreed that we could change where the equipment  
14 was located. So, instead of at the corner right  
15 there where the swing set is, we can slide it all  
16 the way to the back, which is over 60 feet away.  
17 And I just think you needed to know that, as one  
18 of the possibilities, as they start talking about  
19 noise. Because what we did, as soon as I got the  
20 sketch this afternoon, I asked Mat to please  
21 forward it to your noise expert, because I didn't  
22 want, all of a sudden, us to talk about something  
23 tonight that he didn't have a chance to take a  
24 look at.

25 So, with that little preamble now

1 I'll sit down.

2 MR. SHAW: Okay.

3 CHAIR VIVONA: Okay. Does Mr. Dotti  
4 need to be sworn in?

5 MR. SHAW: I don't think in this --  
6 this -- well --

7 CHAIR VIVONA: He's not offering  
8 testimony.

9 MR. SHAW: He's not offering  
10 testimony. He's offering recommendations and  
11 comments for the board, in which the applicant is  
12 going to address.

13 CHAIR VIVONA: All right. Well,  
14 just introduce yourself. You can get all the  
15 stuff on the record and qualifications.

16 MR. DOTTI: I'm Norman Dotti. I'm  
17 an acoustics licensed professional engineer. This  
18 is my 43rd year working as a consultant and  
19 acoustical engineer. I have a bachelor's degree  
20 from Stevens Institute of Technology. A Master's  
21 from NJIT. I developed and taught the advanced  
22 noise control course for Bruel and Kjaer  
23 Instruments. I taught that for 10 years. I was a  
24 consultant for the OSHA Training Institute,  
25 developed and taught their noise control course.

1 My clients include; municipalities, applicants. I  
2 have -- I've worked on cell phone applications.  
3 I've done classified work in acoustics for the  
4 Department of Defense. My profession is  
5 acoustical engineer, and I have testified in front  
6 of this board, on an application from a couple of  
7 years ago.

8 CHAIR VIVONA: Okay. Thank you.

9 MR. DOTTI: You're welcome. I was  
10 asked to examine the transcript, which I did get.  
11 And, thank you for sending that to me, for the  
12 last hearing; almost 200 pages of it. I have a  
13 report, that I believe Mr. Morello issued, after  
14 the hearing, summarizing his testimony. I did  
15 receive, today, some documents showing the  
16 relocated -- proposed new location of the cell  
17 phone equipment enclosure, moving it away from the  
18 playground equipment. It goes from, I guess it  
19 would be described as the northwest corner to the  
20 southwest corner. So, instead of being about my  
21 arm span from the property line, where the  
22 playground equipment is, it's back about 60 feet  
23 away.

24 Having reviewed all this, except for  
25 today's information, which I've looked at, but

1 when I wrote my letter, which I believe the board  
2 has, it's dated April 8th, I was addressing, what  
3 I knew at that point in time.

4 The -- today's information changes  
5 the results. I don't know that it substantially  
6 changes my thoughts and questions on the thing. I  
7 address several things: As a acoustical engineer  
8 I need to know things about the sound sources,  
9 location, things, et cetera. I can't really do an  
10 engineering review of what's been presented here  
11 in testimony, or in the footprint letter, if I can  
12 call it that, because there's just a whole bunch  
13 of stuff I don't know.

14 I don't know the acoustical data on  
15 the equipment. And I mentioned that. So, I got  
16 some dimensions on things, but there's no way for  
17 me to do even a quick crosscheck to see whether I  
18 agree with Mr. Morello's calculations or not.

19 I did discuss how things were done,  
20 with him, and the basic approach, I would agree  
21 with. I have some concerns because everything is  
22 so close here, that some assumptions, can make, I  
23 think, a big difference.

24 Yes, an acoustical barrier works --  
25 can work. It is placed between a sound source, in

1 this case, the electrical equipment and the  
2 receiver. In this case the property line.  
3 Although I might add that, although the report and  
4 testimony very strongly sticks to the property  
5 line, I remind everybody, as I mentioned in the  
6 report, that the noise standard applies to the  
7 entire receiving property.

8 That includes, for example, second  
9 story bedroom window. And there was testimony  
10 about that. I don't want to miss -- I don't want  
11 to put words in his mouth, but my impression, from  
12 his testimony, was that it was his opinion,  
13 Mr. Morello's opinion, that things would be okay  
14 at the second floor bedroom window level.

15 Personally, I would have done  
16 calculations. But I don't know that that was  
17 done.

18 MR. SHAW: So, just so I understand  
19 it, calculations can be done to identify where  
20 noises would be located, and how they would be  
21 identified at various receiving points?

22 MR. DOTTI: Yes. And I think that's  
23 what he did, but for a very specialized set of  
24 conditions. As I understand what we've discussed  
25 this morning, you have a series of sound sources

1 located behind this sound wall, different pieces  
2 of equipment that put out different sounds. Well,  
3 they have different distances from the barrier.

4 The geometry, the way things work,  
5 is, you look at the distance from the sound source  
6 to the barrier, and then the barrier to the  
7 receiver, and those things, along with some other  
8 factors, get figured into how much sound reduction  
9 can we expect out of the barrier. Well, if the  
10 sound source is close to the barrier, you're going  
11 to get more benefit out of the barrier than if  
12 it's further back from the barrier wall.

13 As I understand it, and they can  
14 correct the record if I'm misstating things here,  
15 is, he took an average number. I think he did  
16 that because he was -- my impression in what he  
17 said, was that, you know, he was brought in on  
18 this thing at the last minute. And, so, I don't  
19 fault him for that. I just think that those kind  
20 of things ought to be spelled out, so someone else  
21 who allegedly knows what he's doing, can look at  
22 this and stop and say, "this makes sense. This  
23 doesn't make sense, or, gee, I have a lot of  
24 questions about it." Because we're close on some  
25 of these things. And, so, some minor things can

1 make a difference.

2           The calculated levels from the  
3 equipment at the property lines rely on the  
4 barrier, producing -- depending on which of the  
5 two locations you talk about, 16 DBA reduction, or  
6 18 DBA reduction. And I said to Mr. Morello  
7 today, that's a lot of sound reduction out of a  
8 barrier.

9           It's theoretically possible. I  
10 think it's pushing the envelope as to what you can  
11 get. Now, if he has data that says, "hey, I've  
12 done these kinds of things, these cell phone  
13 things, this kind of barrier might in deed, the  
14 theory works." I'm just saying that that's really  
15 getting a lot of sound reduction out of the  
16 barrier.

17           Why is that significant; because the  
18 resulting sound level that he talks about, which  
19 is nominally 42 DBA, which is, just so we're clear  
20 on this, is below the state nighttime standard of  
21 50 DBA. So, violation of the NJAC7:29 wouldn't  
22 appear to be an issue. In any case they have to  
23 comply with that. But at the ambient, which they  
24 measured, which is at a height of around 42, and  
25 the sound from the enclosed equipment, or blocked

1 equipment, is around 42 -- well, whether it's 40  
2 or 42 or 45, starts to make a difference right  
3 there, as to what you're going to hear. Because  
4 your standard talks about a more subjective kind  
5 of thing of, "what do you hear, is the sound  
6 objectionable"; things like that. And,  
7 unfortunately, I don't have a meter that measures  
8 objectionableness to a sound.

9 I tell people, "My ex likes opera  
10 and I like country music. And we can't stand each  
11 other's music." So, what you like and what is a  
12 good sound to you, could be a bad sound to  
13 somebody else.

14 I did mention in my report that  
15 although the thrust of the conversation in the  
16 testimony and the report for good friend is about  
17 DBA. If you look at the data back in the figures,  
18 I point out that at the lower frequency, 63 hertz  
19 and 125 hertz, those are low frequencies, 125  
20 hertz band, which is a range, is the location, if  
21 you will, of where a lot of electrical equipment  
22 hums. Electrical equipment, which operates at 60  
23 cycles per second or 60 hertz, tends to make a hum  
24 that is twice that, or 120 hertz. Well, if you  
25 look at the data, comparing the expected sounds

1 from the equipment, at 125 hertz compared to the  
2 ambient measure, it's about 7 or 8 decibels, "it"  
3 being the equipment sound, about 7 or 8 decibels  
4 above the ambient at that frequency. And I think  
5 somebody standing, sitting, I'm not sure how far  
6 back they would have been, I think somebody  
7 standing there is going to hear the equipment.  
8 Now, is that bad; I don't know. But I think it's  
9 a little more than -- well, the ambient 42 DBA and  
10 equipment is 42 DBA so you won't really notice  
11 anything. I think it will be noticeable. But it  
12 will be pretty quiet. 42 DBA, or its equivalent  
13 in bands is pretty quiet. Some of this is based  
14 on the ambient measurements.

15 The ambient measurements were  
16 measured, and let's just say late at night. I  
17 pointed out one part of the report says roughly  
18 10:30, and the other part of the report says  
19 11:30. I split the difference and said 11 o'clock  
20 at night. Late night is when the ambient was  
21 measured. My personal experience, from just 43  
22 years, is that it's more typically quieter around  
23 2, 3, sometimes 4 o'clock in the morning is when  
24 the ambience is the lowest, if it's a traffic type  
25 noise. And that's -- I have done work in this

1 area, and I think that's what it is.

2 So, if you really wanted to dot all  
3 the I's and cross all your T's, I think I would  
4 have measured it, at least all night long. It  
5 doesn't have to be a 24-hour study necessarily,  
6 but I suspect that ambient sound is lower at 2 to  
7 3 o'clock in the morning than it is nominally 11  
8 o'clock at night, which would mean that a lower  
9 ambient, you still have the sound from the  
10 equipment at 42. So, maybe the spread now is not  
11 42 and 42, but 42 for the equipment and I'll pick  
12 a number, 38. I don't know. But nobody knows  
13 because it hasn't been measured.

14 I think I talked about the receiver  
15 locations more than just the property line. The  
16 state regulation I think is very clear on that.  
17 It's a subject of great discussion within the  
18 state noise control council, of which I'm a  
19 member, and was just reappointed by the governor  
20 for another term, that the idea, it's not just at  
21 the property line that you have to deal with it.  
22 It is back on the property. And when you have a  
23 two-story house, you have a two-story bedroom  
24 window, for example. Mr. Morello and I discussed  
25 that. It's further back. But it's also higher

1 up. So, you don't get as much shielding from the  
2 barrier that way, and very well could turn out to  
3 be, certainly would be acceptable under the state  
4 standard. It may in fact be not noticeable.

5 But there's just a lot -- a fair  
6 amount of stuff in here that I can't do much more  
7 with than what I've really commented on. I just  
8 don't know. The data has not been presented. Low  
9 heights haven't been presented. There is just a  
10 whole bunch of stuff we don't know.

11 I am concerned that the barrier  
12 calculation didn't consider the effects of the  
13 multiple sides of barrier boxing in this  
14 equipment. It's not just like a highway barrier  
15 where you have a road on one side, houses on the  
16 other, and a barrier in between. You also have a  
17 back side of this barrier, sides of this barrier.  
18 So, you're containing the sound's energy. Sound  
19 is acoustical energy.

20 Being an engineer, conservation  
21 energy applied, if it doesn't go out that way, you  
22 box it in from going one way, it's going to come  
23 back the other way. So, when you start boxing  
24 things in with barriers on multiple sides, it  
25 suddenly gets a little more complicated. That

1 energy has to go somewhere. I don't think that  
2 that was looked at. I believe I would have looked  
3 at it. The answer may turn out to be, it's not a  
4 factor. But we don't know. And I certainly have  
5 seen enough instances where these reflections are  
6 a factor.

7 So, I apologize if I'm being a bit  
8 vague on some of these things. It's just a lot I  
9 don't know. It's not obvious to me that it's  
10 going to be silent, it will be no sound, that  
11 people won't hear anything in the vicinity of the  
12 unit; whether that's an important criteria, you're  
13 going to have to decide that. I am confident that  
14 this thing can be made to comply with the state  
15 nighttime noise standard though.

16 CHAIR VIVONA: Okay. Do we have any  
17 questions for Mr. Dotti?

18 MR. POLISE: Noise is subjective,  
19 you know, I understand that. I was reading a  
20 book, 'Why Noise Matters.' I don't know if you're  
21 familiar with the book. But it does say in the  
22 book, and, again, we're dealing with numbers, and  
23 it's hard to put a value on numbers when it's so  
24 subjective. You know, noise is a variable  
25 concept. But it says, at night people start to

1 get annoyed when the noise averages out to be 30  
2 DB. Now, to me, 40DB, and if we're right at 40  
3 DB, and you're sitting in your house, and you're  
4 above this acoustic envelope that they're creating  
5 around it, you're going to hear it. I mean just  
6 from everything I've heard, it sounds like you're  
7 going to hear it. And whether or not it's  
8 annoying, is a term for them to decide. But we  
9 can just conclude that they're going to hear it.

10 MR. DOTTI: I have to assume that  
11 what you just said is exactly what's in the book.  
12 When they talk about; does it say DB or DBA?

13 MR. POLISE: It says DB.

14 MR. DOTTI: There's so many  
15 different ways to measure sound, and DBA is just  
16 one of -- I mean there are probably hundreds of  
17 different ways to measure sound. If you have a  
18 particular sound, how audible it is, depends on a  
19 bunch of things, and one of the things it depends  
20 on, is, just what is all the other sound around  
21 it.

22 MR. POLISE: Well, we're talking  
23 about at night, it's quiet, and your windows are  
24 open.

25 MR. DOTTI: There is sound at night.

1 Unless this is an incredibly unusual place in the  
2 country, the world, there is sound there at night.  
3 That's what they measured, right or wrong time, 11  
4 o'clock at night, they measured a level of around  
5 roughly 42 DBA. So, there's existing sounds out  
6 there.

7 Just because the sound is 42 DBA  
8 doesn't mean all sounds that are 42 DBA sound the  
9 same. You can have -- I mean it's almost a staple  
10 of basic acoustic sources. You can have two  
11 sounds with the same DBA level sound completely  
12 different. So, if I have a sound in the presence  
13 of a general ambient is 42 DBA, and I have another  
14 sound, and it's about the same level, maybe a  
15 little louder, maybe a little quieter, if it's of  
16 the same nature, the same kinds of sound, the same  
17 frequency distribution, the same fluctuations over  
18 time, I'm probably not going to notice it. But if  
19 it's a whistle or a hum --

20 I do a lot of work with helicopters.  
21 Whether you like them or not, a helicopter has a  
22 distinctive sound. It really often isn't as loud  
23 as people make it out to be, but it has a  
24 distinctive sound. So, it stands out. So, that's  
25 why a hum, for example, and that's why I asked the

1 question in my letter, whether anything had been  
2 done; and there are methods for looking at sounds  
3 like hums, tones, if you will, and assessing their  
4 relative loudness.

5 A tone at some sound level sounds  
6 louder to your ear than it measures, because the  
7 tonal nature of things.

8 So, the basis of these sounds at 42  
9 DBA, for example, the state nighttime limit of 50  
10 DBA is predicated on, if you go back and look, how  
11 did they pick 50. They just didn't roll dice.  
12 Fifty is predicated on sleep disturbance. And if  
13 it isn't outside, what is it inside.

14 MR. POLISE: We're not trying to  
15 establish what the regulation is. We're trying to  
16 establish what's there now, and what's going  
17 there. It's going to be different. We're not  
18 saying anything about 50. But it's going to be at  
19 42 or worse. Day 1 it will be 42. Day 2, a year  
20 later, when the cabinet gets loose and the fans  
21 get, you know, start vibrating, it's going to be  
22 43, 44. I mean the noise is only going to go up.  
23 It's not going to get better over time. So, on a  
24 calculated basis we're right at the threshold of  
25 whether or not we're going to be able to hear it.

1 I just want to know, from our standpoint, are we  
2 going to hear it? Are we not going to hear it?  
3 It sounds like we're going to hear it.

4 MR. DOTTI: If you look at it on  
5 just the DBA basis, someone would say, "no, you  
6 probably won't hear it". But if you consider the  
7 nature of the sound, the hum, and as the data  
8 shows, with that hum, the frequency at which the  
9 hum occurs, 120 hertz, that's, as I said, 7 to 8  
10 DBA over the ambient. So, I've said, I think, at  
11 least in the vicinity, that you would probably  
12 hear it.

13 MR. POLISE: Does it matter which  
14 way the wind is blowing, what's happening?

15 MR. DOTTI: No, the wind really  
16 won't have an effect on it at those distances.

17 MR. POLISE: I mean we need to make  
18 a decision; Are we going to hear it or not going  
19 to hear it?

20 MR. DOTTI: In the backyard I  
21 think -- I think you'll hear it. Inside of the  
22 house, with the -- I'd like to see calculations  
23 before I make a comment.

24 MR. SHAW: No, among the things that  
25 you requested, was discussing with the applicant's

1 engineer, was perhaps some additional  
2 calculations, that you thought you might be --  
3 they might be willing to provide.

4 MR. DOTTI: I suggested that they  
5 consider making a calculation back at the house,  
6 the second floor bedroom window, which would have  
7 the ambient sound, and look at what the sound  
8 level would be, as projected to be from the  
9 equipment, with the barrier around it, projected  
10 out, at the larger distance.

11 MS. KENNEY: I just had a question.  
12 There was some discussion at the last meeting  
13 about -- we were, I think -- well, I was surprised  
14 that the 42 is so close to the 50, which is the  
15 state standard. And there was some discussion  
16 about, you know, it's a fairly quiet neighborhood.  
17 What would be like super in the middle of the  
18 woods, no sound at all. And it was higher, you  
19 know, it wasn't like 7. I think it was like 30 or  
20 something. I was just wondering if you could sort  
21 of explain that whole concept to us. How quiet so  
22 we can't hear anything is still registering high  
23 on that DBA scale.

24 Do you know what I'm saying? Like  
25 I'm thinking if you're in the city, you got to be

1 way over 50. They're not meeting the standard,  
2 you know, let's say Newark, downtown Newark or  
3 something, with cars and people talking. So, how  
4 is the state standard only at 50?

5 MR. DOTTI: Well, the state standard  
6 50 number, is, again, predicated on sleep  
7 disturbance inside of a house. So, they're  
8 assuming that they will get a reduction of about  
9 15 DBA through the house, and even an open window  
10 has attenuation. So, if it's 42 outside, it's  
11 going to be 32 or quieter inside of the house,  
12 typically. That's really quiet. Forty-two is a  
13 background sound. Like if you were talking about  
14 an office, phones ringing, or photocopiers. I  
15 used to say typewriters. But nobody uses  
16 typewriters anymore. This is a background; air  
17 conditioning. 42 DBA is pretty quiet.

18 Now, do other sounds come along and  
19 disturb, interestingly enough, people say, well,  
20 sounds wake you up when they happen. That's true.  
21 But also the absence of sound, if you lose power,  
22 your refrigerator shuts off, things like that,  
23 that wakes people up too. So, it's more of a  
24 change that wakes people up, rather than just --  
25 it's always sound wakes people up. The absence of

1 sound can wake people up as well. 42 is quite  
2 quiet.

3 You can hear what they call a  
4 threshold of hearing; 0 decibels is not no sound.  
5 A decibel is a relative scale. So, it just means  
6 that it's 0. The amount of sound, there is the  
7 minimum sound that the average person can hear.  
8 The minimum sound. So, it's just, 0, you've never  
9 encountered 0 unless you have been in a research  
10 lab.

11 I was in a facility once, and we  
12 were doing some work, and the guy said, "Everybody  
13 be quiet for a minute. Listen". It was very,  
14 very quiet. And we heard this "click, click,  
15 click, click" It was the ball valve of his heart,  
16 his artificial valve, which you could hear  
17 clicking. So --

18 MS. KENNEY: Okay, so, 42 is very  
19 quiet?

20 MR. DOTTI: 42 is quiet. It's not  
21 silent, but it is very quiet.

22 MR. SHAW: And in terms of  
23 identifying other properties, or whatever, that  
24 might be impacted, is there any kind of a  
25 standard, distance that you would suggest going

1 out, to determine where the impacts could be?

2 MR. DOTTI: Well, the primary -- in  
3 my mind, the primary thing here, is, nighttime.  
4 Not daytime. So, I would look at the bedroom  
5 window height of nearby properties. And if it's  
6 okay there, then the next row of houses out, it's  
7 certainly going to be okay there. And compare  
8 what those levels are to the ambient level, and  
9 see how it comes. The ambient is really not going  
10 to change very much as you move from house to  
11 house. It's the overall, all persuasive sources  
12 in the area, the highways and things like that.

13 Now, sure, if a car goes down the  
14 street then it's going to be much louder. If  
15 somebody decides to mow their lawn at 2 o'clock in  
16 the morning, that's going to raise it up. But on  
17 any given moment of time the ambient is not going  
18 to change very much. And as you move around the  
19 area it's not going to change very much.

20 So, the ambient will stay what it  
21 is. As you get away from the sound source then  
22 that sound component of things will get less and  
23 less. Not counting what the barrier does. As you  
24 get higher too, the effect of the barrier is less.  
25 So, there is some trade-off's in there.

1                   And you can certainly have  
2 situations, as one of the examples we use in the  
3 noise control council, where somebody puts up a  
4 sound barrier, and you stand at the property line,  
5 the barrier right in front of you, and you take a  
6 measurement, and you say, "oh, everything is okay  
7 here". Well, you go back 100 feet up from the  
8 second story bedroom window, and you can  
9 actually -- and you say, "well, you're further  
10 away so it ought to be quieter." But you're also  
11 higher up. The effect of the barrier is less.  
12 So, it can actually be louder.

13                   You can have a violation at the  
14 second floor bedroom window level, when you're  
15 okay closer down at the property line right behind  
16 the barrier. It absolutely happens.

17                   MR. WESTON: I have a few questions.  
18 In light of the option of relocating the equipment  
19 to whatever part of this site, and you're  
20 requesting data to produce the information in the  
21 report that you received, and you reviewed, if the  
22 equipment is located to another portion of the  
23 site, would the measurement work -- would the  
24 calculation work have to be redone? Would that be  
25 a significant difference from the existing data

1 that was used?

2 MR. DOTTI: The sound data could  
3 certainly be used again. The geometry has changed  
4 a little bit. My understanding of why it was  
5 moved, was principally because it was right next  
6 to playground equipment, and people were raising  
7 some questions about that. I have been out to the  
8 site. I looked at the site. I looked at the  
9 playground equipment, and I thought to myself, why  
10 did they put it here. Why not over in that  
11 corner. I guess great minds think alike because  
12 its proposed to moving it.

13 Really wont change the sound as it  
14 relates to the property line, or at a house  
15 substantially. Those are just distances. I'm  
16 assuming that Good Friends Associates has this  
17 plugged into his spreadsheet and they go to change  
18 a few numbers. And that's how I would do it.  
19 Change some distances, things like that, and, you  
20 know, in a second the new calculations are there.

21 MR. WESTON: Okay. Would you be in  
22 a position, absent the data -- at our last meeting  
23 it was testified to that sound barriers 3 to 4  
24 inches thick, and 9 1/2 feet high, would, under  
25 the conditions they did, bring it into code, or

1 meet requirement. Would that be something that  
2 would have to be revisited as well?

3 MR. DOTTI: No. Any real world  
4 barrier, and I'm familiar with at least one of the  
5 ones that he listed there; limiting factors, what  
6 goes over the top or around the sides, but this  
7 doesn't have sides. So, it's not what goes  
8 through the barrier. Once the barrier is hefty  
9 enough, then it's simply what's going over the  
10 top. Making it thicker, making it more massive,  
11 if you don't change the geometry, does not help  
12 the acoustics at all.

13 MR. WESTON: Is the fact that the  
14 barrier is four walls with no roof on top of it,  
15 is that something that needs attention, special  
16 attention review, in this situation? At the last  
17 meeting I had asked, using the analogy of the  
18 sound barriers adjacent to highways, where next to  
19 the highway it's quiet, two blocks away they're  
20 hearing highway noise. Is this something that  
21 would be a legitimate concern or a significant  
22 concern in this context?

23 MR. DOTTI: Well, from my standpoint  
24 there's two different questions there, which,  
25 you're correct, that as you move away from the

1 barrier, as I said, the geometry, how close the  
2 source is to the barrier and how close the  
3 receiver is to the barrier effect, those are  
4 factors in the calculation. Further back from the  
5 barrier, everything else being the same, the  
6 barrier is less effective. But, you also, the  
7 other side, is, you're also getting further away.  
8 So, it's quieter from a distance thing. There is  
9 a tradeoff. So, you're getting quieter because  
10 you're further away. The barrier is less  
11 effective. So, what comes over the top is a  
12 little more. When it all comes out in the wash,  
13 it's probably quieter out there, certainly then if  
14 there was no barrier. The barrier helps. It  
15 doesn't hurt. That's the second question.

16 The first question is; and I  
17 expressed concern about, is, if you start boxing  
18 things in. It's a barrier. The only reason it's  
19 not an enclosure, doesn't have a top on it. So,  
20 then you really box things in. But now you have a  
21 barrier on the noise source. You're the receiver  
22 who put a barrier in between. Okay. But that  
23 assumes that all the other sound goes other  
24 places. It doesn't somehow curve around and come  
25 back at you. Well, now I put a barrier up behind

1 me, or it happens if you put a piece of equipment  
2 next to a wall, the sound that used to go that  
3 way, now because there is a wall there, guess  
4 where it goes; it goes that way. You box it in on  
5 the sides, the sound that used to go that way and  
6 that way, now it can't go that way and that way.  
7 It sits there and bounces around inside of some  
8 hard surfaces. So, it's got to go somewhere. So,  
9 it's going to come out of there. I have some  
10 concern. I don't know that that was looked at,  
11 other than from experiencing -- well, based on the  
12 size here, and maybe we have taken some  
13 measurements that we don't think that's really a  
14 factor in there. I would have calculated it. So,  
15 that when somebody asked me that question I would  
16 have the answer. It may not be much, but it's  
17 something. And I expressed some concern about it.

18 MR. WESTON: Okay. That's it.

19 MS. KENNEY: We did ask that  
20 question about why it doesn't have a top on it.  
21 It has four sides. And I believe the answer was,  
22 it wouldn't help at all. Would you say that's  
23 true? I mean I may be misstating it. But that's  
24 my recollection, when somebody said, like why is  
25 there not a top on it. Would that help, if it

1 had a top on it?

2 MR. DOTTI: It would help if you had  
3 a building around the equipment, is really what  
4 you're asking. That's what it becomes, four sides  
5 and a top, and a roof is a building. Certainly it  
6 would help. But, now, again, good old engineering  
7 conservation of energy gets you, you got that heat  
8 in there. You've got to do something with it.  
9 So, you're going to have to have movers  
10 potentially, or air conditioning units, or  
11 something like that in there. I'm sure you heard  
12 the expression, "There's no free lunch".

13 MS. KENNEY: Yeah. Okay.

14 MR. POLISE: Would you be -- oh, I'm  
15 sorry --

16 MS. FAIRWEATHER: I was just going  
17 to say, Mr. Chair, the calculations that Mr. Dotti  
18 asked Mat to do, whenever you want to hear, he did  
19 some work.

20 CHAIR VIVONA: Okay.

21 MR. POLISE: One quick, quick  
22 question. Would you be at all concerned, you  
23 know, with the tank right there, and sound  
24 bouncing off that tank and back into the  
25 neighborhood?

1 MR. DOTTI: I'll give you my surest  
2 answer of the night; "yes". For the same reasons.  
3 I'm not saying that it is an issue. But it's a  
4 big reflecting surface right out back there.  
5 Sound that goes that way isn't going to go that  
6 way; bounce.

7 MR. POLISE: And how would you  
8 calculate that?

9 MR. DOTTI: Oh, it can be calculated  
10 just like it can off the walls.

11 MR. POLISE: Were those taken into  
12 account in calculations you saw, the tank?

13 MR. DOTTI: From what I discussed  
14 with Mr. Morello, I don't believe -- if I -- I do  
15 not believe that was taken into account. I think,  
16 but, again, I don't want to put words in his  
17 mouth, we'll let him do that, but I think he's of  
18 the opinion that it's not significant. I  
19 personally would have calculated it. It's not a  
20 hard calculation to do.

21 MR. NELSON: But it's not a flat  
22 surface that will bounce off of the water tower?

23 MR. DOTTI: Well, it never  
24 bounces -- it's not like a ricocheting bullet or  
25 something like that. The way things -- the way

1 sound energy reflects is quite complicated. It  
2 comes in a wave, comes in one way, scatters off,  
3 and it can get wonderfully complicated, nice long  
4 equations, and all that stuff that us engineers  
5 like.

6 MR. SHAW: But you guys can do all  
7 those equations, right?

8 MR. DOTTI: I'm confident that  
9 Mr. Morello knows how to do it.

10 CHAIR VIVONA: My main, not concern,  
11 but you did all your calculations from the  
12 property line, originally, correct?

13 MR. MORELLO: Yes.

14 CHAIR VIVONA: And I think the  
15 original numbers were without the sound barrier,  
16 and they were --

17 MR. MORELLO: Just for the record,  
18 that answer was by Mr. Morello because there is a  
19 lot of voices.

20 The original calculations we did,  
21 yes, were at the property line, with the noise  
22 barrier, in the previous location, which was the  
23 northwest corner.

24 This exhibit has not been entered  
25 yet. Okay.

1 MS. FAIRWEATHER: We can talk about  
2 this.

3 MR. MORELLO: As a result of the  
4 concerns by the board, and members of the  
5 township, I then, when I put my report together,  
6 also added in the report the calculations of the  
7 sound level without the barrier. And that was in  
8 response to several questions specifically, were,  
9 well, what kind of effect does the noise barrier  
10 have, and then there was one line of questioning,  
11 and I apologize, I don't remember the resident's  
12 name, about what would happen if we were looking  
13 over the noise barrier. So, I felt it would be  
14 responsive to put that in the report.

15 So, in the report we do -- I did  
16 predict what the sound levels would be at the  
17 property line without the noise barrier. But,  
18 again, the barrier is proposed.

19 If there are no more questions of  
20 Mr. Dotti I have done, and based upon our  
21 conversation this morning, which he has summarized  
22 quite succinctly, additional calculations, which I  
23 think will respond to all of his questions.

24 CHAIR VIVONA: Okay.

25 MR. MORELLO: Okay.

1 MS. KENNEY: Can I just ask a  
2 question before we go on?

3 MR. MORELLO: Sure.

4 MS. KENNEY: Can you point and  
5 describe on the map exactly where the new location  
6 of the equipment will be?

7 MR. SHAW: Yeah, why don't we do  
8 that at this point.

9 MR. MORELLO: Should we enter this?

10 MR. SHAW: Yeah, why don't we do  
11 that at this point.

12 MS. FAIRWEATHER: A-39.

13 MR. SHAW: Well, we've been busy.  
14 We're up to A-42.

15 MR. MORELLO: Is today the 9th?

16 MR. SHAW: Yes.

17 MS. FAIRWEATHER: Should we also, no  
18 offense, Mat, but while we're entering this,  
19 should we enter in the report from Mr. Dotti?

20 MR. SHAW: We entered that in as  
21 part of administrative record both for Mr. Dotti.

22 MS. FAIRWEATHER: That's how you got  
23 to 42.

24 MR. SHAW: That's what happens when  
25 you send things and we keep putting them into the

1 record. Your noise evaluation report is A-40, for  
2 your records. And Mr. Dotti's report is --

3 MS. FAIRWEATHER: 41.

4 MR. SHAW: A-41.

5 MS. FAIRWEATHER: Gotcha. Okay.

6 MR. MORELLO: Okay. Ms. Kenny,  
7 Exhibit A-42, for the record, this is sheet No.  
8 SK-1, site plan and site detail. The new revised  
9 date on this, per comments, is 4/9/14, prepared,  
10 not by me, Black and Veech, the site engineer.

11 So, again, we see the site here on  
12 the right-hand side of this sketch. The water  
13 tank is the circular object here in the lower  
14 right-hand part of the overall site. The original  
15 design was having equipment in this upper  
16 left-hand corner. North is up. So, that would be  
17 the northwest corner. We've now shifted that  
18 equipment down to the lower left or the southwest  
19 corner of the site. The dimensions to the  
20 property line are basically the same. The  
21 dimension from the fence to the west property line  
22 remains at about 5 feet. And, now, instead of  
23 being 5 or 6 feet from the north property line, it  
24 is now 5 or 6 feet. I now have the actual  
25 dimensions so we can get that testimony from the

1 south property line.

2 MS. KENNEY: So, I'm just asking;  
3 why did it get moved there and not closer on the  
4 other side, more towards the southeastern end  
5 towards block 62, lot 104?

6 MR. MORELLO: I don't have an answer  
7 for that. Maybe the engineer can testify to that.  
8 But I do know that this move was specific because  
9 of the concerns by a resident, that we were close  
10 to a play area on the adjacent west lot.

11 MS. KENNEY: Well, I'm just looking  
12 at it thinking, you're still adjacent to their  
13 property line, whereas the other property owner,  
14 the one that's letting the utility company park in  
15 their driveway, that maybe they would care less  
16 that the equipment is there. So, I would think  
17 that might be a better solution. Get, you know,  
18 completely away, and on the other side. So,  
19 someone could answer that question for me later?

20 MS. FAIRWEATHER: The person who  
21 dealt with JCPL, or New Jersey American Water, is  
22 not here. I don't know if our engineer can or  
23 not. But the next hearing.

24 MS. KENNEY: Next time. All right.  
25 Thank you.

1 CHAIR VIVONA: If I might just say,  
2 I think by putting it in that new position, it is  
3 less likely to be seen from more angles. If you  
4 put it in the corner, you were talking about, I  
5 think you would definitely see that big enclosure  
6 from the road and from several more houses.

7 MS. KENNEY: Oh, I'm talking about  
8 the part that's on the cliff. I thought --

9 CHAIR VIVONA: Yeah, that is on the  
10 cliff. Where they moved it is on the cliff side.

11 MR. MORELLO: This is on the cliff  
12 side. If you're at the site, the cliff side, the  
13 south, that's what this bottom property line is.

14 MS. KENNEY: Right.

15 MR. MORELLO: So, again, you're  
16 talking the cliff side.

17 MS. KENNEY: I don't know, you would  
18 have to go there and look and see, because it's  
19 pretty far away from the road.

20 MR. MORELLO: From Buxton Road or  
21 from the roadway down here?

22 MS. KENNEY: Buxton. Is that what  
23 you're saying you'll see it from Buxton Road?

24 CHAIR VIVONA: Not where it is now.  
25 I thought you meant putting it on the front side

1 of the water tower, close to the driveway where  
2 the people are not allowed to access.

3 MS. KENNEY: I'm trying to listen to  
4 the neighbors, and I still think, if this one  
5 neighbor could care less about any of this that's  
6 going on, why not move it there.

7 CHAIR VIVONA: I don't know if they  
8 could care less.

9 MS. KENNEY: Well, they have not  
10 come to a meeting, and they are letting them park  
11 in their driveway to do maintenance. So, I am  
12 making suppositions. I apologize. But, anyway,  
13 it's just a question that I would like answered at  
14 some point.

15 MR. MORELLO: We will. Just not me.

16 MS. KENNEY: Yeah, and maybe the  
17 answer will be, more people can see it from there,  
18 that would be fine. But I'm just wondering.

19 MR. MORELLO: We will have an answer  
20 at the next meeting.

21 MS. KENNEY: Okay. Thank you.

22 MR. WESTON: I have a number of  
23 questions, some of which are specific to your  
24 testimony.

25 MR. MORELLO: Sure. I'll stand --

1 We talked about this last time, I don't want to be  
2 rude, and have you look at the back of the  
3 terminals. So, go ahead.

4 MS. KENNEY: We're going to move his  
5 seat next time.

6 MR. WESTON: I have a -- the  
7 question is: At the last hearing when I  
8 questioned the height of the 9 1/2 foot barrier  
9 sticking up over, what appears to be 8-foot in one  
10 part, and 6-foot in other parts, fence, it was,  
11 from the transcript, it was stated that the fence  
12 around the entire property was going to be raised  
13 to 9 1/2 feet, and that the application was going  
14 to be amended to reflect that fact. Is that still  
15 the case?

16 MS. FAIRWEATHER: Well, no. What  
17 was said, and maybe it wasn't clear-clear, is that  
18 if the board wanted us to match the fences all  
19 around, we could easily do that, and just amend  
20 the application. That's not on the plans. But  
21 there was discussion, last time, about this fence  
22 would stick up, and there would be another fence,  
23 and you would have two fence heights. And I  
24 believe that I was the one that said it. I said,  
25 "We can match it all the way around if you would

1 like, and we can amend the application". It's  
2 what -- honestly, it's whatever the board wants.  
3 We will do whatever you want. If you want it all  
4 the same height, we'll do it if you want. If you  
5 want two separate heights, we'll do it. If you  
6 want us to -- whatever you want us to do, we'll  
7 do.

8 MR. WESTON: You know what would be  
9 very helpful to me, I'm a little uncomfortable,  
10 mildly irritated, by the -- one of the luxuries of  
11 being a board member, is that I get drawings.  
12 They stick them in my mailbox on my driveway, and  
13 I get to study this. And this is the second  
14 hearing in a row, where new information has been  
15 brought to me, while I'm sitting here. I'm  
16 sitting here looking at drawings. I have been  
17 trying to scale off drawings that say, "Not to  
18 scale." Use my imagination. I have a drawing of  
19 a park with a barrier in it. We have photo shop.  
20 We've have had other people -- when we have people  
21 doing -- other applicants coming before us, to do,  
22 not so complex work at their homes, they photo  
23 shop. We get a rendering. I didn't need a park.

24 I would like to know what it's going  
25 to look like on Buxton Road with the fence at 8

1 1/2 feet or 8 feet. As it now is proposed at 9  
2 1/2 feet, as it's being proposed, about with it  
3 sticking up over the 8 foot fence. It's very  
4 difficult to work, because I mean you've got a  
5 whole battery of experts with you. I'm doing  
6 this, as we are -- new fax, new drawing, new  
7 report, may be in the mail next week. I haven't  
8 gotten a new set of drawings since March -- that  
9 are dated since March 7th. It's a little  
10 uncomfortable for me. Because I do have a  
11 moderate technical background. And, I'm like,  
12 "hey, new fax will be brought to you at some  
13 point". I'm not really comfortable with the  
14 information I have to go on. You know, the D-03  
15 drawing shows, you know, scales out the water  
16 tower with an 8 foot fence. Now, I know that in  
17 grad school we were taught, as in planning, that  
18 if you want to see what something looks like, you  
19 should look up. Because no one does. What's it  
20 look like at ground level. You know, D-03 has got  
21 a tower on the drawing, and a little bit of tiny  
22 fence at the bottom. That doesn't tell me  
23 anything. I know what it doesn't tell me. It  
24 tells me that it's not going to be pretty if we  
25 put in -- you know, as somebody walking down the

1 street, or driving down the street, I'd like to  
2 see that. I think it would be helpful -- I know  
3 it would be helpful to me. I can't speak for the  
4 others, but it sure would be helpful to them.

5 MS. FAIRWEATHER: And we understand  
6 that. We have a planner who is doing photo  
7 simulations, because photo simulations were done  
8 in the -- because of when we filed the  
9 application, winter, it was done without leaves  
10 and trees. And that was wintertime. And that's  
11 what he's doing. He's not scheduled to testify  
12 until next month. And we will make sure you have  
13 them well before the hearing.

14 And I am sorry about the New Jersey  
15 American Water. We asked the day after, and we  
16 literally got it today. And I didn't want the  
17 noise expert to come and testify on something that  
18 might have been different. As soon as we got it,  
19 we sent it to him, and brought it here tonight.  
20 And I'm sorry, we'll bring our engineer back. He  
21 can testify next month. If you would rather that,  
22 that would be okay. That's fine. However you  
23 want to do it, is fine.

24 MR. WESTON: I just know that  
25 knowing when things are broken into their little

1 constituent pieces, when all those constituent  
2 pieces are part of a whole. I do get the feeling  
3 that I'm looking out the back of the train. And  
4 I'm missing -- I'm not getting what's coming. I  
5 know where I've been, but it's too late. I'd like  
6 to look out the front of the train a little bit  
7 now.

8 MS. FAIRWEATHER: That's fine. And  
9 if you want, I can skip my engineer this evening,  
10 make sure you have all the plans, go on to my  
11 appraiser, and then bring him next month. If  
12 that's how you would like, we can do that. And I  
13 completely understand how you feel and I'm sorry.

14 MR. WESTON: That proposal works for  
15 me. I can't speak for the rest.

16 CHAIR VIVONA: Well, I think it  
17 would definitely help the board members and the  
18 public to see what he's talking about. And I  
19 think that might be a good way to go.

20 MS. FAIRWEATHER: Okay.

21 CHAIR VIVONA: Because we can still  
22 use Mr. Dotti, if you have any more questions.  
23 And this way you have visual aids that help back  
24 up your testimony.

25 MS. FAIRWEATHER: Sure. I think

1 that some of the calculations he did regarding the  
2 bedroom window.

3 CHAIR VIVONA: I would like to hear  
4 that.

5 MR. MORELLO: I can still respond to  
6 those questions.

7 MS. FAIRWEATHER: And then we can go  
8 on to the appraiser and then next month we'll  
9 start with the engineer and make sure --

10 MR. MORELLO: Mr. Weston did I  
11 answer your question?

12 MR. WESTON: Yes.

13 MR. MORELLO: Okay. Then I will sit  
14 back down.

15 So, based upon the conversation I  
16 had with Mr. Dotti this morning, and in response  
17 to his letter dated April, we did our calculations  
18 and included, not only the property line. Now,  
19 the evaluation we did at the property line before,  
20 is consistent to what we did in this case.

21 Because the distances from the equipment to the  
22 property line are the same; plus or minus a foot.  
23 And the changes in what I've testified to at the  
24 last meeting are really negligible. But what I  
25 did do, based upon Mr. Dotti's questions, and they

1 were very, very good, was, did a couple more  
2 things into my calculations.

3           The first is: Mr. Dotti's questions  
4 about where we got our data. The manufacturers  
5 for this piece of equipment had given us that the  
6 sound levels from individual pieces of equipment  
7 were between 64 and 65 DBA. And that's what the  
8 manufacturers gave us. In order to get the  
9 frequency, the octave bands that Mr. Dotti  
10 referred to, that are shown in my figures 2 and 3  
11 in my report, we have done our own independent  
12 measurements of this equipment on other sites.  
13 So, what I did, is, I took the octave band  
14 measurements for similar equipment, at other cell  
15 sites, and scaled it to meet the manufacturer's  
16 published levels for this particular -- this  
17 particular pieces of equipment. That's how we  
18 arrived at the octave band sound pressure level.

19           Mr. Dotti is correct, when I  
20 testified last time, my testimony was limited to  
21 overall sound or DBA. However, my conclusions  
22 were, and the analysis we did, all of the barrier  
23 attenuation, the attenuation, the reduction in  
24 noise for distance and topography, we did those in  
25 all the various frequencies. It's just a little

1 easier to speak in terms of one number as opposed  
2 to nine numbers simultaneously. And that's  
3 reflected in my 27 March report. So, that's a  
4 summary of some of the information Mr. Dotti and I  
5 discussed this morning as far as where we got our  
6 numbers.

7           The other thing, is, about the  
8 calculation of the reduction in noise from the  
9 barrier. And Mr. Dotti's description of how we  
10 calculate reduction in noise, from a solid  
11 structure between a source -- excuse me, and a  
12 receiver, is absolutely accurate. We figure out  
13 what -- we calculate what the height is of the  
14 source, and the height of the receiver. And then  
15 we decide what that barrier is. In this case we  
16 are 9 1/2 feet tall. When we did our calculations  
17 for the source type, we used the top of the  
18 cabinet, which varies between 5 1/2 feet and  
19 6 feet off of the ground. The reality is, the  
20 only thing that really makes noise on these, are  
21 the air conditioning -- or the cooling fans, which  
22 we have talked about at length. The way that  
23 these cabinets are designed, they want to have  
24 free-flowing air through the cabinet. Most of  
25 these cabinets have their fans in the mid point or

1 to the bottom of the cabinet. And they blow the  
2 air up through the top so that they can get that  
3 hot air. Because hot air rises, out to the top of  
4 the cabinet, and they get that natural  
5 circulation. So, our calculation of the barrier  
6 attenuation, our noise source, was a lot higher  
7 than they really are. The fans are much lower to  
8 the ground than the 5 and 6 feet. They're  
9 probably 3 feet to 2 feet. So, my numbers -- and,  
10 yes, they are high, in terms of the theoretical  
11 limit of what a barrier can do; I believe are  
12 accurate.

13 And we have -- we have made  
14 measurements of other sites that we have done,  
15 this exact type of analysis before, one of which  
16 happens to be the photo that Mr. Weston referred  
17 to. I testified to, that I shot that picture at  
18 that site, in Hanover. I am testifying on the  
19 record again, there is no photo shop, even the  
20 deer that's in that picture is absolutely correct.  
21 I shot that picture. That is an actual Hoover  
22 treated wood barrier at approximately 9 feet above  
23 the concrete pad. The reason I presented that,  
24 is, because that is what we are proposing here,  
25 with an additional 6 inches on the top. So, that

1 barrier, the barrier itself, is what we are  
2 proposing here. Four-sided wooden barrier of that  
3 product, which is why I brought that picture last  
4 time.

5 But to amend my testimony, we did  
6 two additional calculations. The first of which,  
7 and, again, going back to Exhibit A-42, this new  
8 sketch, the playground is now approximately 60  
9 feet away from the equipment. So, what I did with  
10 the new location, is, I also calculated what the  
11 octave band sound pressure level, and the A  
12 weighted sound level. And I'll just testify to  
13 DBA. And we can go into the detail, if you want  
14 to, would be at 12 feet off the ground. So, I  
15 believe one of the gentleman said, if I stood on  
16 top of the playground, he would be about 6 feet,  
17 plus 6 feet, about 12 feet off the air. At 60  
18 feet away, and, yes, the barrier attenuation is  
19 significantly less at 12 feet off the ground. But  
20 he's 60 feet away from the equipment. And that  
21 tradeoff results in a sound level that we've  
22 predicted to be at or below 35 DBA. The octave  
23 bands are all within 2 decibels of the nighttime  
24 ambient that we measured. I don't have a chart.  
25 Because I just did it this afternoon. So, at or

1 below the nighttime ambient, in the vicinity of  
2 what we measured, and just to clarify, the  
3 measurements were done at 10:30 p.m. It is a  
4 typographical error in the chart because it does  
5 says 11:30 p.m. My bad. But at 10:30 p.m. that's  
6 what we measured, 40 DBA, on the southern property  
7 line, at that playground higher up.

8           What that means, is, to put it in  
9 subjective terms; at night, if you're on top of  
10 the playground, standing, looking down, you're  
11 going to experience sound levels that will be at  
12 or below what we measured at 10:30 p.m. Mr. Dotti  
13 is correct, if we were to do a 24 hour  
14 measurement, it might get quieter. I don't expect  
15 it to get significantly quieter, because between  
16 the middle of the day, I believe it was 10 o'clock  
17 in the morning, 10:05 a.m. to 10:30 p.m. the  
18 ambient only changed by 2 DBA. And if you look at  
19 the figures, you can see, they really track each  
20 other quite nicely. Yes, at 4 o'clock or 3  
21 o'clock in the morning it will be quieter. I  
22 don't expect it to be 30DBA. I could be wrong.  
23 But, based upon my experience, and Mr. Dotti can  
24 comment if he'd like, I don't expect it to be  
25 significantly quieter than 40 DBA. But we expect

1 35 DBA at the playground.

2 The other important piece of  
3 information that we have tonight, is, I also  
4 calculated, at Mr. Dotti's request, what the  
5 expected sound level would be at the closest house  
6 to the west. Now, I don't have exact dimensions,  
7 and I wasn't able to go out and use a laser, but  
8 estimated, based upon Google Earth and other  
9 things, that we're talking about 100 feet from the  
10 edge of this property to that actual structure of  
11 the house. I assumed that the ground is flat. I  
12 believe there was some testimony from residents  
13 that it actually goes down slightly. But that's  
14 okay. Because it actually makes my numbers more  
15 conservative. I calculated what the sound would  
16 be at about 100 feet from this equipment, to the  
17 west, on the second story window, 12 feet above  
18 grade, assuming everything is flat. And that  
19 sound level was about 30 DBA. Now, you're never  
20 going to be able to measure 30 DBA, because the  
21 ambient takes over, as Mr. Dotti said. You can't  
22 get below the acoustic floor per se. The ambient  
23 that exists out there. So, if we were to run out  
24 and make the measurement outside of the window,  
25 we're not going to measure 30 with this equipment.

1 It will be whatever the ambient is. But when I  
2 compare the octave band sound pressure levels, as  
3 Mr. Dotti said, the hum, in the low frequencies,  
4 those sound levels were all below what we measured  
5 at 10:30 p.m. on the site.

6 So, that's the responses that I have  
7 to Mr. Dotti's and I conversation today, about  
8 calculating at other locations. Absolutely  
9 correct. We brought that here tonight. I also  
10 believe that in response to Mr. Dotti's question  
11 about the reflecting surfaces off of the barrier.  
12 The way we can calculate what we expect, You can  
13 do it two ways. One is to do a complicated  
14 computer model, which we really didn't have to  
15 time to do, where we can do noise contours and  
16 fancy pictures and so forth, but we really don't  
17 have time to do that. But what we did, is, we  
18 said, let's create a virtual noise source. So, if  
19 we think that a noise is going to reflect off of a  
20 surface, what we do, is, we take the same exact  
21 noise source, and we project it to where it would  
22 be if it reflected off that wall. So, you have a  
23 energy that reflects off of a surface, and then  
24 comes back at you. To calculate what that  
25 reflection would be, we mirror the noise source on

1 the opposite side of that reflective surface, and  
2 then pretend like that is going to reflect as a  
3 new noise source, and add the two together. It's  
4 a pretty accepted method to do this in a spread  
5 sheet, which is pretty much how we do this. And  
6 we added that to the numbers I've already  
7 testified to. And it didn't change anything I've  
8 testified to in any octave band by more than 1DBA.  
9 And I believe that's consistent with my testimony  
10 because our calculations are conservative. We  
11 don't take into consideration wind and air  
12 absorption, and any attenuation from trees and  
13 foliage and things like that. It's negligible.  
14 But we've also validated this methodology numerous  
15 times. The most recent of which, a cell tower  
16 application, the one I presented the photograph  
17 of, where we actually went out and made  
18 measurements after the application was granted.  
19 And we went out and made measurements of the  
20 property line, and presented a letter to the town,  
21 and our calculated levels were within 1 decibel of  
22 what we expected, when we adjusted the ambient.  
23 So, it validates the methodology we have. We did  
24 the additional calculations at the house and at  
25 the playground at the higher elevations to the

1 barrier, and accounted for any reflection.

2 The last comment I'll make about  
3 this additional data, was, Mr. Dotti's statement  
4 that he believes there might be some discreet  
5 reflections off of the actual tower; I don't agree  
6 with that in this case. Simply because the  
7 barrier itself is 9 1/2 feet tall, and very close  
8 to the equipment. We're talking within a foot on  
9 the closest sides, closest to the tower. The  
10 noise source on these are 3 feet or lower.

11 Because that's where the fans are. So, we have a  
12 noise source that is 3 feet off the ground. A 9  
13 1/2 foot high wall. The angle that the noise  
14 would have to take to reflect off of the tower  
15 would be just utterly ridiculous. I mean it would  
16 have to be almost straight up. And I accounted  
17 for that when I looked at any reflection that  
18 might occur off of the sound wall. And that  
19 wasn't negligible. So, I don't believe there will  
20 be any additional reflection, any additional --  
21 any amplification of what we projected due to any  
22 reflection off the tower in this particular case.

23 MR. SHAW: You could calculate it  
24 though, couldn't you?

25 MR. MORELLO: I could. But it's

1 going to be certainly -- anything would be  
2 negligible compared to what any reflection we  
3 calculated off of the wall. Because it's so close  
4 to the wall. It would be akin to this water  
5 carafe that's down underneath the dais. That's a  
6 basically -- and saying that where you're sitting,  
7 you're going to have any additional attenuation --  
8 you're going to have any -- any reflection off of  
9 that, which you can't even see, because it's only  
10 about 16 inches off the ground. And you're about  
11 5 feet in the air. That's basically what we're  
12 talking about here. It's right up against that --  
13 the dais. This is right up against our noise  
14 barrier.

15 So, that's in summary to the  
16 additional evaluations we did in response to  
17 Mr. Dotti's letter.

18 MR. SHAW: And were you going to  
19 make all of the equipment information available to  
20 Mr. Dotti, to review and confirm what you're --

21 MR. MORELLO: If Mr. Dotti requests,  
22 I would be happy to give him the source data I  
23 received.

24 MR. DOTTI: If you want me to do  
25 calculations then I need information. Actually,

1     how I'd like to respond, I mean Mr. Morello and I  
2     both know the equations. We could probably quote  
3     them right here and now. I think the easiest  
4     thing to do is give me your spread sheet.

5             MR. MORELLO: If the board requests,  
6     I could provide my calculations for Mr. Dotti for  
7     review.

8             CHAIR VIVONA: Please.

9             MR. MORELLO: Certainly.

10            CHAIR VIVONA: One quick question  
11     about the wall and the sound reflection. The new  
12     location is basically right on the edge of the  
13     hill.

14            MR. MORELLO: The southern property  
15     line, yes.

16            CHAIR VIVONA: Right. Would it make  
17     any difference if that wall that faces, that's  
18     closest to the cliff part --

19            MR. MORELLO: The southern wall  
20     here?

21            CHAIR VIVONA: Yeah. If that was  
22     slightly lower than the other's, to sort of  
23     channel any sound waves out, reflections, or it  
24     doesn't really do that much --

25            MR. MORELLO: It really wouldn't do

1 anything, to be completely honest with you. I  
2 mean the sound isn't going to, you know, bend  
3 around the bottom. It's the pebble in the lake.  
4 You drop it, it propagates spherically in every  
5 direction. The reality is, in terms of impact,  
6 there really is no impact on the south property  
7 line. There is a hill. No one is going to -- I  
8 won't say no one, but extremely unlikely that  
9 anyone would be on that hill during the nighttime  
10 hours, enjoying the hill. So, the barrier is not  
11 necessarily -- not necessary to be there. But I  
12 think, for consistency purposes, leaving it the  
13 way it is would make sense. If we were to drop it  
14 to, I don't know, say 4 feet, it doesn't mean like  
15 you're going to open a dam and all the water is  
16 going to go to the south, where all the sound is  
17 suddenly going to go south. Unfortunately it  
18 doesn't work that way. But if the board wants us  
19 to look at reducing the height, I don't see that  
20 as a visual impact. And it's certainly not going  
21 to affect the acoustics.

22 CHAIR VIVONA: Well, I think by  
23 moving it to that corner eliminates a lot -- my  
24 big concern of where it was, I mean I didn't like  
25 where the equipment was before, and then you say

1 we're going to have a 9-foot, 9 1/2 foot tall wall  
2 --

3 MR. MORELLO: Understood.

4 CHAIR VIVONA: -- right next to  
5 where these people live. That was almost like a  
6 deal breaker. And it's not a very pretty thing  
7 either.

8 MR. MORELLO: Well, keeping in mind  
9 that, Ms. Fairweather, has testified that if the  
10 board requests, we could increase the height of  
11 the property fence, although it would not be the  
12 same material. It would not be this 3 inch and so  
13 forth. It would be a board-on-board or something  
14 of the board's request. So, there wouldn't be a  
15 low fence and a high fence, if the board requests.  
16 Granted there really is no acoustical benefit to  
17 the additional fence, the property line fence. It  
18 would be merely visible.

19 CHAIR VIVONA: Right.

20 MS. FAIRWEATHER: So, one of the  
21 things you would want him to look at, I'm hearing,  
22 is the lowering of the acoustical fence?

23 CHAIR VIVONA: No. I was just  
24 asking a question.

25 MS. FAIRWEATHER: Oh, all right.

1           CHAIR VIVONA: If you could channel  
2 it, that would be one thing, but since the fans  
3 are all down below already.

4           MR. MORELLO: Yeah, if I could  
5 figure out how to channel environmental noise in a  
6 single direction, I would be living on a boat in  
7 the Bahamas somewhere. I mean you really can't do  
8 it that way in an environmental noise area. You  
9 know, in an enclosed systems, like HVAC duct work,  
10 you can play with that. But it doesn't really  
11 work outside too well.

12          CHAIR VIVONA: Right. And then when  
13 spring and summer when there's more foliage that's  
14 open that also helps block sound. But it also  
15 creates ambient sound cause the wind rustles the  
16 leaves so --

17          MR. MORELLO: Yeah. It's not going  
18 to hurt. It honestly, at these distances, I'll  
19 agree with what Mr. Dotti said, winter  
20 temperature, foliage and so forth, really has a  
21 negligible affect; winter versus summer. We're  
22 talking about 60 to 100 feet to the house, or 11,  
23 12 feet to the property line. You're not going to  
24 get anything additional from summer versus winter.  
25 But, yes, if you have wind through the leaves, it

1 does make more noise than wind through no leaves.  
2 Wind is wind though.

3 MR. SHAW: You're also going to  
4 provide to Mr. Dotti with the calculations you  
5 used to determine what the noise volumes would be  
6 to the nearest residences?

7 MR. MORELLO: I sure will. I'll  
8 give him three sets of calculations. The first  
9 one will be at the western property line. The  
10 second will be at a 12-foot high elevation,  
11 approximately 60 feet to the playground, which is  
12 northwest of the location. And then at 100 feet  
13 to the nearest house to the west. I'll provide  
14 him with those calculations.

15 MS. KENNEY: And what about the  
16 point Mr. Dotti made about measuring the sound  
17 levels at the 2 to 4:00 a.m. time frame, rather  
18 than 10:31?

19 MR. MORELLO: Sure. I believe I  
20 touched on it, but I apologize if I went quick.  
21 We did our measurement at about 10:30 at night.  
22 Yes, Mr. Dotti is correct, if we were to make a  
23 measurement for the whole night, let's say 8 p.m.  
24 to 8 a.m. the sound level at 2 to 4 in the morning  
25 would likely be lower. And we could provide that,

1 if the board wants. But I believe that we've  
2 calculated sound levels at the nearest dwelling,  
3 the nearest house, of below 30. At 60 feet away,  
4 we've calculated sound levels of 35 DBA or below.  
5 I would be surprised if we had sound levels much  
6 below 30 to 35. Actually I would be shocked. If  
7 we had sound levels 30 to 35 DBA, at any hour of  
8 the day in this area of New Jersey. So, if the  
9 board would like, we could provide that. We could  
10 do those measurements. We could provide that  
11 data. I don't think it's going to show anything  
12 new, other than we actually went out and did  
13 additional measurements. It certainly won't  
14 change my conclusions.

15 And one of the things -- and you  
16 jogged my memory, just to clarify the record, I  
17 want to be clear, if you are in the vicinity of  
18 this property, if you are within 50 feet let's  
19 say, roughly speaking, of the equipment, yeah, you  
20 might hear a hum at night. But as you back  
21 further away of outside of say that 50 foot  
22 radius, the ambient will take over. And I do not  
23 believe you'll hear anything from this property  
24 beyond the existing sound levels. And the only  
25 thing you might hear, at the fence line, would be

1 fans or fan hum noise at the 60 to 100 megahertz.  
2 That hum. There'll be no whists. There'll be no  
3 pops or cracks. No snaps. Bangs, things like  
4 that. The objectionable noise, that Mr. Dotti  
5 referred to, the most objectionable noise, is, for  
6 instance, a backup alarm on a car or a truck.  
7 That beeping is designed specifically to drive  
8 people ears bonkers. And that's designed for that  
9 reason, because you would like to be able to hear  
10 the truck backing up in your direction. There are  
11 no sources on this site that are proposing any  
12 types of noises like that. Most of the noise in  
13 these particular fans and hums, are going to be  
14 these hums, these low frequency hums. And even in  
15 the worst case, which would be right up against  
16 the fence line, we calculate -- we expect sound  
17 levels to be only 6 or 7 decibels above the  
18 measured background level in those octave bands.  
19 Now, if we look at the audibility of those, in  
20 those frequencies, and I testified to last time,  
21 and Mr. Dotti alluded to it, the ear doesn't hear  
22 things the same in all frequencies. If you've  
23 ever listened to music in your home in the old  
24 days when we had actual equalizers and you could  
25 slide those little things up and down until it

1       sounded right, what you're doing, is, you're  
2       compensating for the fact that your ear can't hear  
3       low frequencies sounds that well. And the reason  
4       I say that, is, because in the lower frequencies,  
5       the frequencies that this equipment produces the  
6       majority of its noise. A 7 or 8 decibel increase  
7       over the background, is an audible amount of  
8       sound, but it's certainly not an appreciable  
9       amount of noise, because the ear does not hear  
10      sounds as well at low frequencies as it does in  
11      the mid to high frequencies.

12                 So, again, to clarify, I do believe  
13      that along the fence, along the southern and  
14      western corner of this site, this equipment will  
15      be audible. But it will be nothing more than a  
16      low hum over the background. Once you get to the  
17      playground, 50 feet and further, I don't believe  
18      this equipment will be audible unless there is a  
19      brief period of extreme silence that happens,  
20      where there is nothing happening for a short  
21      period of time. No wind. No one is walking. No  
22      cars, no planes, no nothing. And you say, oh,  
23      okay, I might be able to hear that now. And that  
24      was just to clarify my statement from last time,  
25      in response to Mr. Dotti's questions.

1 MR. POLISE: Do we have a printout  
2 if the fans run continuously, or whether they're  
3 thermostatically controlled?

4 MR. MORELLO: They are temperature  
5 driven.

6 MR. POLISE: They do go on and off?

7 MR. MORELLO: Yes. And, again, the  
8 data that I'm provided by the manufacturer, is,  
9 they're all running at once.

10 MR. POLISE: Right. But I guess my  
11 point is the change in sound is what you're going  
12 to notice as opposed to a constant sound, and I  
13 think we even said that earlier, right?

14 MR. MORELLO: I think it would be  
15 unlikely if they all turned off and then they all  
16 turned on. Keep in my mind there is four  
17 different boxes here. But it would be unlikely.  
18 Yes, that is -- you'll get the delta, but I don't  
19 expect it to be a, you know, significant  
20 difference.

21 MR. POLISE: They do go on and off?

22 MR. MORELLO: They do go on and off,  
23 yes.

24 MS. FAIRWEATHER: And I think that  
25 what the engineer will testify to next week, is,

1 that the fans are set so they gradually go on and  
2 gradually come off, so you don't have sudden  
3 sounds. Because those are issues. But we'll ask  
4 the engineer that next week.

5 MS. KENNEY: Could I just -- I  
6 wonder if Mr. Dotti could just speak to what  
7 you've heard from the testimony, if you had  
8 anything to add, or if there is any other  
9 information you would find useful?

10 MR. DOTTI: I would like to reserve  
11 thinking about if there is any other reasonable  
12 information. The explanation of what he did,  
13 makes sense to me. The explanation about the  
14 reflection off the back, and then talking about  
15 the virtual backside, I get that. That's the way  
16 it's done, short of a full blown model, which does  
17 the same thing any way, although a computer puts a  
18 stamp of approval on it instead of a human being.  
19 If the levels, indeed are, say over perhaps 30, on  
20 the order of 30DBA from this unit, as a compared  
21 to the ambient then people at the house aren't  
22 going to hear it. People standing near the unit,  
23 potentially, as he says, I'm not surprised you  
24 might hear a faint hum.

25 I mean I live in a quiet area. If

1 the wind isn't blowing I could stand at the end of  
2 my driveway and I can hear the transformer on the  
3 utility pole as a faint hum. But I would not  
4 characterize it as annoying. Sure as dickens  
5 doesn't disturb my sleep. Remember, we are  
6 talking here about nighttime. So, if somebody is  
7 out there at 10 p.m., which they have every right  
8 to do, or 4 in the morning, whatever, they're out  
9 near there, then they will hear a faint hum from  
10 the unit. It's not inaudible. But over at the  
11 house, I think is the most important thing.

12 If his numbers are correct, and the  
13 methodology certainly makes sense to me, then at  
14 the house, I am of the opinion, right now, subject  
15 to checking some arithmetic, that they wouldn't  
16 hear it in the house.

17 MS. KENNEY: I'm just thinking we  
18 have a 50 foot rear yard setback. So, if they did  
19 a renovation to their house and went to the limit  
20 then maybe they would.

21 MR. DOTTI: I'm sorry, what was the  
22 setback again?

23 MS. KENNEY: Fifty feet rear yard.  
24 And I think that's what he's saying, after that  
25 you would not hear, you're saying within 50 feet

1 you may hear it, correct?

2 MR. MORELLO: Yes. Again, that's  
3 outside the house. One of the things that  
4 Mr. Dotti testified, I'll absolutely agree,  
5 typically, even with windows open, you can expect  
6 a 10 to 15 decibel drop, between outside and  
7 inside, just because, you know, if you think about  
8 water hitting a flat surface, and then there's  
9 only a hole in it, and only a certain portion of  
10 it goes through, and it goes through with a  
11 reduction in that energy. If we have -- if we  
12 have 30 to 35 DBA on the outside of the house,  
13 you're going to have sound levels that are going  
14 to be below normal household sounds. The  
15 Refrigerator, the air conditioner, the humidifier,  
16 the dehumidifier, depending upon the time of year,  
17 inside your house. So, even if the house was  
18 picked up and moved 50 feet to the east, or an  
19 addition was put on, I still don't think, unless  
20 you stick your head outside the window, it's going  
21 to be any audible.

22 MS. KENNEY: Well, I just the patio  
23 would be.

24 MR. MORELLO: But that's also on the  
25 ground.

1 MS. KENNEY: Oh, okay.

2 MR. MORELLO: So, I did my numbers  
3 up at 12 feet.

4 MS. KENNEY: Okay. Anything else?

5 MR. DOTTI: No. That's -- I'll get  
6 to see it this and see if he did his math right.

7 MR. MORELLO: Oh, boy. Better check  
8 my typos.

9 MR. DOTTI: So, you know, you're  
10 holding them to the grindstone, on not just a  
11 compliance issue. It's what do they hear. We can  
12 argue whether it should just be in compliance with  
13 the state noise regulation, or not hear it, or how  
14 much is too much.

15 CHAIR VIVONA: Right. Well, I mean  
16 obviously it all has to be in compliance with  
17 state regulations. And having this stuff put in  
18 this neighborhood, who obviously don't want it  
19 there, we want to make it where, if it were to go  
20 through, it wouldn't be noticed.

21 MR. DOTTI: Clearly just looking at  
22 the site, if you didn't know all this was going  
23 on, and all that sort of stuff, take one look at  
24 the site, again, I worked on cell sites, solar  
25 farms make sound, for example, and you know that

1 the equipment does. And I looked at it and I did  
2 the mental equivalent of what the heck is this. I  
3 think it's very reasonable to ask questions. It's  
4 reasonable for the neighbors to ask questions.  
5 Because it's right -- it's really right in your  
6 backyard. But there are things that can be done,  
7 are being done, to address it.

8 CHAIR VIVONA: Right.

9 MR. DOTTI: And it makes sense.  
10 Again, I want to check the math, but I expect it  
11 to turn out okay. But it makes sense.

12 MR. MORELLO: Mr. Chairman, I just  
13 want to clarify one other thing. I apologize. I  
14 did have it in my notes. Ms. Kenny, I believe you  
15 asked the question about putting a roof on. And  
16 Mr. Dotti responded to that. I just want to  
17 clarify for the record, that I believe my  
18 testimony was, it's not -- it was not that it  
19 won't do any more. It was what Mr. Dotti had  
20 inferred from this, which was, that if we enclose  
21 the equipment, it will heat up, which will cause  
22 us to have to put ventilation, air conditioning  
23 equipment on the outside. So, it's not that if we  
24 put a box over it, it won't work. It will just  
25 have to create more noise, which we don't want to

1 do. And I apologize, that was just one more thing  
2 I wanted to bring up. Thank you, Mr. Chairman.

3 CHAIR VIVONA: Okay. Anybody else  
4 on the board have any questions for either of  
5 these two gentlemen?

6 MR. POLISE: I have a question. The  
7 equipment that goes up on the tower, does that  
8 antenna itself, does that make any noise at all?

9 MR. MORELLO: Not in my experience.  
10 It has no moving parts.

11 MR. POLISE: Is there any auxillary  
12 equipment to this, that could make noise, like a  
13 transformer or the electrical --

14 MR. MORELLO: Everything that is  
15 going to make noise at a permanent level at this  
16 site is inside this barrier.

17 MR. POLISE: Even the electrical  
18 service for it?

19 MR. MORELLO: It's all underground.  
20 The wires and everything are underground.

21 MR. POLISE: No, but do we need  
22 another utility transformer? I mean how are we  
23 getting power to this thing? I don't know.

24 MS. FAIRWEATHER: Just putting in a  
25 new meter. My civil engineer will tell you that

1 it will have a new meter.

2 MR. POLISE: Just making sure  
3 there's nothing we haven't overlooked.

4 MR. MORELLO: No, it's a good  
5 question.

6 MS. FAIRWEATHER: I like the fact  
7 that the attorney is telling you where the  
8 electric is going to go. That's scary.

9 CHAIR VIVONA: Okay. At this point  
10 the public is welcome to ask any question of  
11 either of these two witnesses. But, please keep  
12 it only to the testimony that was given, and make  
13 sure it's a question. At the end of this process  
14 there will be a time to comment and everything  
15 else.

16 MS. MESSING: Thank you.

17 CHAIR VIVONA: And I'm sorry, please  
18 state your name and address for the record,  
19 please.

20 MS. MESSING: Katie Messing, 60  
21 Buxton Road. Regardless of what the sound level  
22 is, I'm confused. You said that at the second  
23 floor window there could be sound. So, the sound  
24 is traveling. How does that mean that the sound  
25 wouldn't travel in the direction of the tower, and

1 hit the tower to reflect sound? If you were  
2 saying the sound equipment is down low, so that is  
3 why it wouldn't hit the tower, but yet at the  
4 second floor window, why wouldn't it go into the,  
5 you know --

6 MR. MORELLO: Well, it's not that  
7 it's not going to go to the second floor window,  
8 or it's not going to go to the tower, what I'm  
9 trying to say, is that we have accounted for any  
10 of those reflections inasmuch that the major  
11 reflection, if at all, is going to be off of the  
12 noise barrier, because it is so close to the  
13 equipment. There isn't going to be a second  
14 reflection that gets over the wall and onto the  
15 tower. It's just the geometry of it isn't going  
16 to work.

17 MS. MESSING: Okay. The gentleman  
18 on the board asked -- was discussing that --

19 MR. SHAW: Can you get closer to the  
20 mic., please.

21 MS. MESSING: Sure. When you were  
22 talking about the sound barriers -- when you were  
23 talking about the sound barriers by highways, and  
24 you're saying that sometimes you're right next to  
25 the barrier, but you don't hear the noise, but the

1 noise can travel, you're talking about only  
2 measuring the sound right around the property is  
3 like 100 feet out, but how about the sound  
4 traveling down the hill to the houses on Kincaid  
5 or, you know, across the street, or other areas?

6 MR. MORELLO: I know I testified to  
7 that last time, but I will go from memory, that  
8 the sound level -- what I calculated, and what  
9 I've testified to tonight, the additional numbers  
10 that we've presented, at approximately 100 feet,  
11 which is the second story window of the closest  
12 house; those sound levels were about 30 DBA.  
13 Okay, which is below -- below the background. Not  
14 audible. I'll agree with Mr. Dotti, inside that  
15 house you're not going to hear anything. Down on  
16 Kincaid, further away, you're talking about sound  
17 levels that are going to be even below that, and  
18 it's only theoretical. Anything further away than  
19 what I've testified to tonight is going to be less  
20 than what I've predicted.

21 MS. MESSING: Okay. So, there's not  
22 an environment that can make sounds magnified, you  
23 know, --

24 MR. MORELLO: Not mechanical, like a  
25 speaker or something of that nature. If we were

1 to cut a hole in the wall on the south, or make  
2 that barrier lower, it's not going to make all the  
3 noise going down towards Kincaid and make that  
4 louder. That just doesn't work that way.

5 CHAIR VIVONA: I think also you need  
6 the mention that the barriers on the highways, the  
7 noise you hear is tractor trailers hitting pot  
8 holes, it's exhaust, it's horns. It's not -- I  
9 mean those are noises you're going to hear a  
10 100 feet away. We're talking about a very low  
11 level humming sound. That's what the testimony  
12 is.

13 MS. MESSING: Well, last month  
14 people also talked about the quality of sound.  
15 When you're talking about the ambient sound  
16 outside, it's not a consistent 42, it hits 42, and  
17 it could be leaves, you know, the trees, or birds,  
18 but this is a mechanical hum. This isn't a  
19 natural hum. It's not something you want to hear.  
20 You don't sleep next to a refrigerator. You don't  
21 want to hear that refrigerator humming. You don't  
22 want to sit outside on a beautiful night looking  
23 at the stars and hear a mechanical humming. You  
24 know, this is a very quiet dead end street. There  
25 is, you know -- there isn't noise like that. So,

1 I think this will be loud at 2 in the morning. We  
2 will notice it.

3 And the other thing, is, you know,  
4 from what I understand, the sound, when you're  
5 talking 40 decibels to 42 decibels, it's not just  
6 adding it. It's like multiples. I remember  
7 reading something that said, when you go to 40 to  
8 50, it's multiplying it 10 times the amount. So,  
9 it's actually a greater difference. It's much  
10 noisier going from 40 to 50 than just going 10.  
11 You know, if you can help me, I'm not a scientist  
12 who understands how it goes. But it jumps up a  
13 lot, is that correct, Mr. Dotti?

14 MR. DOTTI: Decibels are what is  
15 called a logarithmic function. If you look at it  
16 from a physics standpoint, a sound source that  
17 generates 50 decibels at some distance, as  
18 compared to 40 decibels at some distance, the 50  
19 decibel one is 10 times the sound of energy.  
20 Except you don't hear it that way. You hear it,  
21 10 decibel change, the general rule of thumb is  
22 that 10 decibel change, plus or minus, is doubling  
23 of perceived loudness. You can't hear the  
24 difference between 40 and 42 DBA. Three decibel  
25 change, which, by physics, is a doubling of the

1 energy. That's oh, my gosh, sounds like a lot.  
2 It's barely perceptible. You can hear a 5 decibel  
3 change. A 10 decibel change is a doubling of the  
4 loudness, which is different than the energy.

5 I reviewed something the other day  
6 that said Briggs and Stratton has come out with  
7 this new engine for lawnmowers, and things like  
8 that, that is something like 67 percent less  
9 sound. And, let the record show Mr. Morello is  
10 laughing, because you can't do percents like that.  
11 That's very misleading. If it's on an energy  
12 basis, that's like maybe 5 decibel change, you can  
13 hear it. But it's not like people, I think are  
14 gonna say, wow, this lawn mower is more than half  
15 quieter. Well, no, it will be a little quieter.  
16 It doesn't work that way.

17 MS. MESSING: But it is a doubling  
18 you said?

19 MR. DOTTI: Well, you gotta be  
20 careful. It's a doubling of the energy. A 3  
21 decibel change is a doubling of the energy. You  
22 don't hear it as quite loud. You can barely --  
23 under controlled conditions you might be able to  
24 hear a 3 decibel change.

25 MS. MESSING: Okay. And what about

1 their generator that's --

2 MR. DOTTI: Ahhhh the generator.

3 MS. MESSING: The generator.

4 MR. DOTTI: Actually what they've  
5 done, is really quite clever. By having a battery  
6 backup in there, that's silent, for all intents  
7 and purposes.

8 MS. MESSING: That's only six hours.

9 MR. DOTTI: Six or twelve. I  
10 forget.

11 MR. MORELLO: It's somewhere in that  
12 ballpark, yes.

13 MR. DOTTI: Yes. Now, let's go back  
14 to the state noise regulation. If they have to  
15 bring in an emergency generator, I don't know what  
16 the size is. I do a lot of work with emergency  
17 generators. In an emergency, use of a generator,  
18 it's an emergency, so, it is exempt.

19 MS. MESSING: I know it's exempt.  
20 But we still hear it. I mean last year we lost  
21 our power for over 10 days. The year before we  
22 lost our power for nearly 10 days. We have an  
23 issue with electricity on our block. We have  
24 surges and power outages. They're not doing  
25 anything to increase the supply. So, if we have

1 this generator it will definitely be above the 60.

2 MR. DOTTI: I have a generator at my  
3 house. I have a lot of trees. I lose my power.  
4 My freezer thaws and all that sort of thing.

5 MS. MESSING: It doesn't sound like  
6 a good thing, this whole thing in having it in a  
7 residential neighborhood. If there was another  
8 alternative.

9 MR. DOTTI: I can't address the  
10 cellular access. I understand. I live in  
11 Northern Morris County. It's very rocky and  
12 hilly, lousy cell phone service, and even  
13 nowadays. So, you want better cell phone service,  
14 you have to put in more --

15 MS. MESSING: We actually have good  
16 cell phone service. That's not the question for  
17 now.

18 MR. DOTTI: So, yeah, the generator  
19 is acceptable with the standards.

20 MS. MESSING: But noisy.

21 CHAIR VIVONA: No, he doesn't know  
22 that. He doesn't what type of generator. He  
23 doesn't know where it's going to be located.

24 MS. MESSING: Well, he already said  
25 it's above the 50, which is the state minimum. He

1 knows that.

2 CHAIR VIVONA: Well, if that area  
3 lost power for 10 days, I'm sure half the houses  
4 up there have generators also.

5 MS. MESSING: I don't have a  
6 generator.

7 CHAIR VIVONA: Well, I'm sure other  
8 ones do. I'm sure most of Chatham has generators.  
9 Now it's part of their lifestyle.

10 MS. MESSING: Okay. Well, Buxton --

11 MS. FAIRWEATHER: Wait, can  
12 I interrupt here. This is supposed to be  
13 questions about -- they didn't talk about  
14 generators. Can we please --

15 CHAIR VIVONA: Yeah, let's keep it  
16 to the testimony. We didn't talk about  
17 generators. Let's just -- I apologize for getting  
18 sidetracked into that. Any other questions for  
19 these two gentlemen?

20 MR. WEIGERBER: I have. 11 Heron  
21 Drive. The name is Brad Weigerber,  
22 W-E-I-G-E-R-B-E-R. And from what I understand  
23 about the new proposal, you are moving the  
24 electrical equipment down to the other corner.  
25 However, we still do share a property line. And

1 it appears, according with the new drawings, it is  
2 still going to be two feet from our property line.  
3 And my question is: There is a structure, it's  
4 not a swing set. There is a structure right on  
5 the other side of that fence. It can be used as a  
6 children's playhouse. Our backyard is fenced in.  
7 Our children will probably eventually camp out in  
8 our backyard. And I'm not worried so much about  
9 hearing the noise in my bedroom with the window  
10 closed. I'm worried about hearing the noise in my  
11 backyard; period. And, as you stated, you don't,  
12 you know, tractor trailers, cars driving down the  
13 highway, we certainly don't hear that. But we  
14 also don't hear a constant hum 24/7, 365 days a  
15 year. We entertain people in our back patio. We  
16 entertain people in our backyard. Certainly  
17 within 50 feet of where you're proposing to put  
18 the equipment. And I'm just curious, did you  
19 testify that you won't be able to hear it from 50  
20 feet away at 12 feet high? Or we will be able to  
21 hear it within 50 feet at ground level? Will we  
22 be able to hear the humming?

23 MR. MORELLO: I believe the answer  
24 to both of your questions is "yes". I said, what  
25 I calculated was the additional sound level at

1 about 60 feet, which is what we scaled the  
2 distance, from the playground to the new location.  
3 At that distance I calculate a sound level of 35  
4 DBA. That's not something you're going to be able  
5 to hear unless the ambient, in the middle of the  
6 night, early morning, somehow drops to below 35  
7 DBA, which I just don't see that happening. In  
8 terms of on your patio, again, that's about  
9 100 feet away. Same conditions exist. I expect  
10 the sound level will be below the ambient, in all  
11 scenarios, outside of your property; on your  
12 patio, in your house, at that 100-foot. If you  
13 are within that 50 foot radius that I talked  
14 about, yes, I believe you will hear a dull hum.  
15 Mr. Dotti was talking about the distance between  
16 40 and 3 decibels higher or lower. To put it in  
17 terms that we've talked about here, we predict, at  
18 the fence line, 42 DBA. The lowest ambient we  
19 measured, taking out airplanes and cars and  
20 trucks, just the lowest hum of Chatham was 40 DBA.  
21 Factoring out all the other transient noise  
22 sources, which I testified to extensively at the  
23 last meeting. So, we expect, if we really were to  
24 compare apples to apples, the new hum, to what we  
25 had measured out there at 10:30 at night, of the

1 hum, we expect that to be a 2 decibel increase at  
2 the closest location along the fence. And I agree  
3 with Mr. Dotti, anything under a 3 decibel  
4 increase or decrease is a smallest amount you're  
5 going to be able to perceive. Will you be able to  
6 hear a faint hum, yes, I agree with that  
7 vernacular that Mr. Dotti used, a faint hum.  
8 That's what I think you're going to be able to  
9 hear. And that's within that, you know, I'm just  
10 approximating 50 foot radius of equipment. Beyond  
11 that, I think it's going to be far below the  
12 ambient in all scenarios.

13 MR. WEIGERBER: Okay. And that  
14 faint hum will be elevated, depending on the fans,  
15 I know you said they don't go on --

16 MR. MORELLO: They ramp up back and  
17 forth depending on the load inside the cabinets.  
18 So, it won't get any higher than that. That  
19 number is with all the fans running. All the  
20 electrical equipment running full steam. If  
21 anything it will be slightly lower if there is one  
22 fan running or no fans running in each cabinet.

23 MR. WEIGERBER: Oh, okay. So, just  
24 to clarify, the lowest reading you got at 10:30  
25 p.m. was?

1 MR. MORELLO: Forty DBA.

2 MR. WEIGERBER: Forty. Okay. All  
3 right.

4 MR. MORELLO: Thank you.

5 MR. DRYFUSS: David Dryfuss, 29  
6 Heron Drive. I thought, from what Mr. Dotti said,  
7 in terms of where the -- the way sound bounces,  
8 that the dimensions of the noise barrier, that you  
9 were talking about installing, would be relevant  
10 or could be relevant. And I thought last time you  
11 had testified you didn't know what the dimensions  
12 of the noise barrier would be, other than that it  
13 would be 9 1/2 feet high.

14 MR. MORELLO: Oh, you're talking  
15 about like length, the length of the barrier?

16 MR. DRYFUSS: Length and width.

17 MR. MORELLO: Yeah, I thought from  
18 Mr. Dotti, we were talking about height. The  
19 height of the barrier.

20 MR. DRYFUSS: Height. I don't know  
21 if Mr. Dotti can answer. I thought maybe length  
22 and width. Because if you're talking about noise  
23 bouncing, I would think it's not just height, but  
24 maybe I'm wrong.

25 MR. DOTTI: Well, the back side of

1 the barrier, that's another story.

2 MR. DRYFUSS: Oh, I'm sorry.

3 MR. DOTTI: The distance of the back  
4 wall compared to the front wall, is a factor. As  
5 are the side walls. But I believe, my  
6 understanding of what Mr. Morello said, was when  
7 you talk about -- the virtual source and folding  
8 it around, which actually I do understand, yes,  
9 that distance would figure into it. So, if you  
10 had -- if it was a much shorter distance between  
11 the front of wall and back of wall, that would  
12 have different geometry. Therefore, different  
13 reflections than would be if this were further  
14 back. The calculations should have taken that  
15 into account. I will know that when I look at the  
16 spread sheets.

17 MR. DRYFUSS: Okay. But my  
18 understanding is, he doesn't know what the  
19 dimensions are.

20 MR. MORELLO: Well, that's not true.  
21 As I said, the barrier is 9 1/2 feet tall. The  
22 approximate dimensions of the enclosure are  
23 10-foot by 17 feet. And that's shown on the  
24 drawings.

25 MR. DRYFUSS: Okay. That's what I

1 was asking for.

2 MR. MORELLO: My apologies. I hope  
3 I clarified it.

4 MR. DRYFUSS: Okay. Thank you very  
5 much.

6 MR. YOUNG: John Young, 30 Buxton  
7 Road. Mr. Morello, you've made a lot of objective  
8 statements, a couple subjective. But a lot of it  
9 seems to be based on ambient background. And you  
10 said the observation was at 10:30 at night, is  
11 that correct?

12 MR. MORELLO: The existing sound  
13 level measurements I made, which were objective,  
14 not subjective, were starting at about 10:30 at  
15 night, yes.

16 MR. YOUNG: And how many of those  
17 did you measure? Over what period of time?

18 MR. MORELLO: We did one, for about  
19 a half an hour.

20 MR. YOUNG: Just one?

21 MR. MORELLO: Could I finish?

22 MR. YOUNG: Go ahead. Sure.

23 MR. MORELLO: One measurement, yes,  
24 for about 30 minutes.

25 MR. YOUNG: And what day was that?

1 MR. MORELLO: I testified to this  
2 last time.

3 MR. YOUNG: Sorry. I wasn't here.

4 MR. MORELLO: That's okay. My  
5 apologies. But I have to go back to get the  
6 number again. The measurements were performed on  
7 Thursday, February 27th, 2014.

8 MR. YOUNG: Okay. That's one  
9 measurement. You obviously meant that as a  
10 shortfall that you didn't do other times during  
11 the night, maybe 2 in the morning, 3 in the  
12 morning.

13 MS. FAIRWEATHER: He's already  
14 testified that he didn't do that.

15 MR. YOUNG: Okay. Scientifically,  
16 wouldn't you think that your observations don't  
17 meet the threshold, or you then subjectively said,  
18 no matter what other measurements I had it  
19 wouldn't change my mind on the outcome?

20 MR. MORELLO: No. Because I think I  
21 have a fair representation.

22 MR. YOUNG: By one observation?

23 MR. MORELLO: One set of  
24 measurements.

25 MR. YOUNG: One day? One time?

1 MR. MORELLO: Sir, Mr. Young, you  
2 can ask me over and over again. This is the way I  
3 presented this data. I did give an option to the  
4 board, if the board would like us to do a set of  
5 measurements through a 12 hour period or a 24 hour  
6 period, I would be happy to present that data.  
7 But based upon my experience of having done this  
8 for almost 20 years, in this time of year, and  
9 this area of the state, I believe it's a fairly  
10 consistent -- consistent measurement.

11 MR. YOUNG: So, Buxton Road is  
12 typical of every street, is that correct?

13 MS. FAIRWEATHER: Sir, he's answered  
14 your question, and it is what it is.

15 MR. YOUNG: All right. My  
16 observation is I think you're scientific method is  
17 flawed.

18 MR. MORELLO: Thank you.

19 CHAIR VIVONA: Mr. Morello, I think  
20 the board would like to request a more extended  
21 time frame for your testing. I think it would  
22 eliminate your statements, and might bring some  
23 comfort to the residents over there to make sure  
24 that we have covered as many bases as possible.

25 MR. MORELLO: And my only question

1 is, and I'm not trying to stretch this out any  
2 further, is a one 24 hour period, during the  
3 weekday, acceptable? Or is that not enough data  
4 still?

5 CHAIR VIVONA: I would think so. I  
6 think that that area has normal traffic patterns,  
7 it has rush hour, it has non rush hour. It's  
8 extremely quiet at night. Very little traffic.  
9 There are busier roads near there. So, you will  
10 get some other sound waives, but I think we owe it  
11 to the residents to have as much -- as big a  
12 window as possible.

13 MR. MORELLO: I will also -- I  
14 assume you want me to provide that data to  
15 Mr. Dotti as well.

16 CHAIR VIVONA: Yes, sir.

17 MR. MORELLO: Not a problem. I will  
18 perform a 24 hour set of measurements. Typical in  
19 the industry, unless Mr. Dotti disagrees, we  
20 summarize that data. We measure every second.  
21 And you certainly don't want one second's worth of  
22 data for 24 hours.

23 MR. DOTTI: 86,400 is the number.

24 MR. MORELLO: Thank you. You beat  
25 me to it. We summarize it on hourly intervals.

1 So, we say the statistical data during this hour  
2 is from 8 to 9, or this 9 to 10, and we provide  
3 the statistical data highest to lowest. That's  
4 how we do it.

5 CHAIR VIVONA: If that's a standard,  
6 that's fine with us.

7 MR. MORELLO: It is. I'll be happy  
8 to do that, and I'll give it to Mr. Dotti and the  
9 board as well.

10 CHAIR VIVONA: Thank you.

11 MR. MORELLO: Thank you.

12 MR. DOTTI: Are you going to put L90  
13 in there and L10?

14 MR. MORELLO: I will give you L90,  
15 L10, and LEQ, unless you want more than that.

16 MR. DOTTI: Min and max.

17 MR. MORELLO: Min and max, 90-50-10,  
18 LEQ, unless you want more than that.

19 MR. DOTTI: I'm good with those.

20 MR. MORELLO: Not a problem. I'll  
21 give you those.

22 CHAIR VIVONA: Okay, ma'am.

23 MS. PANDIRI: My name is Sue Johnson  
24 Pandiri, P-A-N-D-I-R-I. You were saying that the  
25 new position for the equipment is now on the south

1 property line.

2 MR. MORELLO: Southwest.

3 MS. PANDIRI: Is that going to be  
4 seen from Kincaid?

5 MR. MORELLO: That's on the bottom  
6 of the hill?

7 MS. PANDIRI: Yes.

8 MS. FAIRWEATHER: That will have to  
9 ask the planner. He's the wrong guy to see it.  
10 That would be the wrong guy.

11 MS. PANDIRI: Okay. So, my question  
12 relates to that. Because all our homes on Kincaid  
13 have conservation areas and on all our properties,  
14 and putting equipment right there on our property  
15 line just counters, you know, that concept of  
16 conservation areas.

17 CHAIR VIVONA: If I can interrupt.  
18 But I don't think that's a question for him. And  
19 I don't think the water tower area, per se, is a  
20 conservation area. But we would ask the planner  
21 for that one so you get an accurate answer.

22 MS. PANDIRI: Yeah. I mean it's our  
23 street, it's completely surrounded by conservation  
24 areas. And, so, for us to have, you know,  
25 equipment right there, that we can see, totally

1 counters that.

2 CHAIR VIVONA: Right. That's --  
3 you're welcome to have that opinion, but we are  
4 just talking about the sound right now. And  
5 you're welcome to ask that question when we have  
6 the right person up here.

7 MS. PANDIRI: Okay.

8 MS. SHAPIRO: Ms. Shapiro, 67 Buxton  
9 Road. I have a question about dog barking noise.  
10 And if that is considered normal ambient noise, do  
11 you make note of that as exceptional noise when  
12 you do your testing?

13 MR. MORELLO: Yes. Any type of  
14 noise that's intermittent when we're doing ambient  
15 measurements like this, we factor it out. So, a  
16 dog barking, an airplane going over, a large -- a  
17 large, excuse me, it's getting late. A loud  
18 motorcycle or truck that goes by, we factor that  
19 out by using a statistical analysis. And Mr.  
20 Dotti and I were just bantering back and forth  
21 about statistics. The data I presented is what is  
22 referred to as L90, or the 90th percentile. The  
23 lowest sound level, the continuous sound level  
24 that we measure out there, factoring out dogs.  
25 Because the reality is, if I was to take all that

1 into consideration, the background sound would be  
2 numerically significantly high. As a matter of  
3 fact, I believe I have here, my notes. The sound  
4 level at night, at night varied from 40 to 49 DBA.  
5 And that's L90, the lowest to the average or the  
6 median sound level. It actually got even higher  
7 than that. So, the answer to your question, the  
8 short answer, and I apologize for elaborating so  
9 much. No, we factor that out.

10 THE WITNESS: So, the 40 is without  
11 the nextdoor neighbor's dog nonstop barking?

12 MR. MORELLO: Yeah, no, no dogs. I  
13 love dogs too but they make too much noise.

14 MR. MESSING: Jay Messing, 60 Buxton  
15 Road. I have a question about dogs barking. No,  
16 I actually do. It may sound like a silly  
17 question, but you said that, you know, the change  
18 in noise might not impact humans, might this  
19 impact dogs or other animals and start -- make  
20 dogs start to bark and we get, you know, I think  
21 they hear higher pitches than we do.

22 MR. MORELLO: Significantly higher.

23 MR. MESSING: So, it's not an issue,  
24 barking?

25 MR. MORELLO: Nope.

1 MR. MESSING: Thank you.

2 MR. SARYL: George Saryl, 18 Kincaid  
3 Lane. My question is, what type of equipment do  
4 you use to make these measurements? And do you  
5 have a read out on this or is it just what you  
6 read and then you write it down or --

7 MR. MORELLO: I think we touched --  
8 did you ask him a question about the measurements  
9 the last time. I apologize. Actually there was a  
10 lot of questions. We use a precision or type I  
11 sound pressure level L analyzer. Okay. It has a  
12 microphone, preamplifier, and a, for lack of a  
13 better, a computer inside.

14 MR. SARYL: Sorry to interrupt. I  
15 know you told us the type of equipment. But do  
16 you get a readout then substantiate it? Is it  
17 stamped with a time?

18 MR. MORELLO: Yep. It gives us the  
19 date -- no, I didn't just look at the meter, and  
20 go, okay, write the low, high and then just take  
21 the meter, turn it off, put it back in the box.  
22 It actually records the data 8 times a second, and  
23 then we measure that, and then download all that  
24 data, all the statistics, all the octave bands,  
25 and we dump it into a spreadsheet. But we have --

1 yes, we have all that data as well. And part of  
2 the ambiance that I'll be providing Mr. Dotti,  
3 will be that information as well.

4 MR. SARYL: The question was asked  
5 of you last time, whether or not sound would  
6 travel down the hill, and what effect for somebody  
7 who is down, would have, if somebody heard more  
8 from high above coming down. What is the -- you  
9 said you would research that.

10 MR. MORELLO: No, I think I answered  
11 it. But I'll answer it again. Sound travels the  
12 same in every direction. It doesn't go faster  
13 down, or faster up. It travels the same speed of  
14 sound, regardless of any environmental conditions,  
15 or topographical changes.

16 MR. SARYL: Because my patio sits  
17 down below. And I know you talked about moving it  
18 down. And, you know, I do have the concern to  
19 come out at night to hear a noise like that.

20 MR. MORELLO: I apologize. I didn't  
21 get your address. Are you to the south?

22 MR. SARYL: Yes. Kincaid.

23 MR. MORELLO: Okay. You are several  
24 hundreds of feet away from this equipment. And I  
25 did testify to that the closest house is

1 approximately 100 feet. And just to refresh my  
2 testimony from this evening, at 100 feet, I expect  
3 there be no -- this equipment should not be  
4 audible over the background sound level. So,  
5 certainly at further than 100 feet it will be, if  
6 possible, less than audible. Really, really not  
7 audible.

8 MR. SARYL: And I just got an  
9 overall impression. Very often in your testimony  
10 you said, you believe. I would think you would  
11 have these things down pat. I would think many of  
12 these that you've done.

13 MS. FAIRWEATHER: I'm going to  
14 object here. He is attacking my witness.

15 MR. SARYL: No, I would just think  
16 that you have done so many of these. You would  
17 think that you would have this down, this is what  
18 I'm going to hear, this is what you're going to  
19 hear. That would be my impression. So, I'm kind  
20 of disappointed. We are rehashing this over and  
21 over.

22 CHAIR VIVONA: Well, he's going by  
23 statistical data. The stuff is not there. So, he  
24 get exact measurements. The physical stuff is not  
25 there.

1           MR. SARYL: But the equipment they  
2 must have used many times, and you would get the  
3 same sound. I think that there is a lot of  
4 glossing over reality here, with the phrase I  
5 believe.

6           MR. SHAW: I think that's more a  
7 question of how he expresses himself. But in any  
8 event.

9           MS. FAIRWEATHER: Don't ever use the  
10 word believe.

11          MS. STAGGERT: Hi, I'm Tracy  
12 Staggert, 12 Buxton. I just had one question.  
13 With the new location, you were trying to  
14 accommodate the people who have the property right  
15 next to it. You're still going to be butting up  
16 to their property. So, my question is: Not  
17 necessarily them, but down the road they sell  
18 their house, a new buyer says, I want to put a  
19 play structure in this far corner. Are they then,  
20 I know you've accommodated the situation now, but  
21 in their future how would that happen? Cause it's  
22 still next to their property. That's my question.

23          MR. MORELLO: It will be audible up  
24 against the fence.

25          MS. STAGGERT: Okay. Thank you.

1 MR. MORELLO: Thank you.

2 CHAIR VIVONA: Any other questions?

3 None. Okay.

4 MS. KENNEY: Can I ask one more  
5 question? Sorry. Just for Mr. Dotti. Just  
6 thinking there was some, at the last meeting, some  
7 talk about, well you're projecting at the -- the  
8 decibels are going to be such and such level. In  
9 your experience, do they ever have, sort of  
10 include, you know, for one or two years you go out  
11 and measure it, and make sure it's not beyond? Or  
12 is it usually, once it's testified to, that this  
13 is what the level is projected to be, that that's  
14 sort of what it's accepted to be?

15 MR. DOTTI: Well, perhaps you're  
16 asking me: Does the board ever make, as a  
17 condition of approval, that post installation  
18 sound tests be made.

19 MS. KENNEY: That's it.

20 MR. DOTTI: Yes. Not every time,  
21 but it certainly. It's not a 1 percent thing  
22 either. It's a fair amount of times.

23 MS. KENNEY: Now, why is that?  
24 Because I think it was testified that these are  
25 projected to be this and it's not going to deviate

1 form that. So, in those situations where they  
2 choose to do that, is that just for their own  
3 comfort to make sure, or is there occasionally it  
4 comes out higher or lower than what the projected  
5 estimate was?

6 MR. DOTTI: Well, certainly it could  
7 be if somebody blows his math, or something  
8 changed. I had a situation where a pharmaceutical  
9 operation, where we designed, we looked at fans,  
10 and all that sort of equipment going in, in a  
11 nearby residential area, that I've done work for  
12 these people multiple times. We predicated a  
13 sound level out of the thing. After it was built  
14 they started getting complaints in the  
15 neighborhood. And I went out there and, they  
16 said, Norm, come measure this. I measured it. It  
17 was 5 decibels, higher than what I expected it to  
18 be. And I said, something is going on here.  
19 Bottom line is that they ordered different fans  
20 for the roof than they had designed originally.  
21 So, they had to truck in cranes and bring the  
22 silencers up so they could manage to delete, et  
23 cetera, et cetera, et cetera, to get it back down.  
24 So, stuff certainly can happen. Start swapping  
25 out equipment, things change.

1 MS. KENNEY: So, maybe six months  
2 after installation? Or how often would you do it  
3 if you wanted --

4 MR. DOTTI: Or would there be like a  
5 C/O issued for this?

6 MS. FAIRWEATHER: Yes.

7 MR. SHAW: Everything we get is C/O  
8 at some point, yes.

9 MR. DOTTI: So, you could make it  
10 that within "X" period of time, after its  
11 installed and operating, that some, I'm not  
12 testifying how, that some sound level measurements  
13 be taken to confirm that what they said is going  
14 to happen to within a reasonable degree of  
15 engineering certainty is happening.

16 MS. KENNEY: Okay. Thank you.

17 MR. DOTTI: I have had instances  
18 where, you know, they might require it over time.  
19 Not forever. You don't want to do this forever.  
20 Certainly, I would say, if all of a sudden this  
21 things gets, you hear the sound as the question  
22 you were talking about, maintenance, certainly  
23 have I would expect mosts acoustical engineers run  
24 into situations where everything is fine and then  
25 a bearing goes bad on a fan or something like

1 that. These are small fans. I'm talking about  
2 the big stuff. And, you know, most cases the  
3 manufacturer wants to know. And, so, it can  
4 change over time. But the best metric of that,  
5 is, if a neighbor suddenly hears this sound out of  
6 the thing, it wasn't there before, I'm sure that  
7 the owner would love to be told that it's making  
8 noise so they can go fix the darn thing. If  
9 they're monitoring the system, all these things  
10 I've ever seen have computer monitors on them, and  
11 they can tell you the phases of the moon and  
12 everything else about what's going on in these  
13 things. They might even spot it ahead of time  
14 nowadays. But back to your basic question, yes,  
15 fairly frequently a post installation operational  
16 sound test is ordered up, when sound is an issue.

17 MS. KENNEY: Okay.

18 MR. DOTTI: I'm sure Mr. Morello  
19 would like it anyway because it gets him to get  
20 some more data points. I do.

21 MR. POLISE: To that point, is there  
22 anyway that the final drawing could have in  
23 tabulate form what the design levels are, for the  
24 equipment that's going into the shed, the  
25 projected sound levels coming out of it?

1 MR. MORELLO: On the drawing? It is  
2 outlined in my report.

3 MR. POLISE: Well, the drawings  
4 abide the report, right?

5 MR. MORELLO: The report is a matter  
6 of the record. We submitted it as part of the  
7 record. But if the board would like the sound  
8 levels -- the predicated sound levels on the  
9 drawing, I suppose we could probably do that.

10 MR. POLISE: We could put it in a  
11 resolution too.

12 MR. SHAW: It would be more  
13 effective in the resolution.

14 MR. DOTTI: You want to define where  
15 we're talking about, and elevation. So, I was  
16 saying, from the drawing standpoint, you have a  
17 few locations. You don't have to do it every foot  
18 or anything like that. But pick a few key  
19 locations, say at this point at an elevation of X  
20 feet above grade, then the predicted sound level  
21 is such and such.

22 MR. POLISE: And that's all  
23 predicated on the equipment going in the  
24 enclosure. So, if that equipment is different  
25 than what's on the drawing or in the document,

1 they'd know that they ordered equipment that was  
2 over --

3 MR. DOTTI: You can put anything you  
4 want on the drawings. I really don't care what  
5 the sound levels are from the equipment after the  
6 fact. I care what's the sound levels out in the  
7 middle of the yard and the house. That sort of  
8 stuff. I don't personally like having, you know,  
9 saying, this is the equipment that you must use.  
10 Because now, you know, technology changes, and  
11 suddenly you need to go back in front of the board  
12 to get approval to change the make and model of  
13 the equipment. Again, it's a -- I'm a performance  
14 person. What matters is what you're putting in  
15 there, as quiet or quieter than what was --

16 MR. POLISE: Just have a baseline of  
17 the equipment. When they procure the equipment at  
18 least we'll have a reference point to go to.

19 MS. FAIRWEATHER: I would -- AT&T  
20 will go to sound levels and things like that.  
21 They're not going to tell you the equipment and  
22 computers that they put in there. Trust us. I  
23 mean they'll give noise. They'll give cut sheets  
24 for noise and things like that. But this is an  
25 industry. We don't make public records of what

1 computers and equipments and things we use,  
2 especially with competitors and things like that.

3 MR. POLISE: I didn't mean the  
4 equipment. Just the sound levels.

5 MS. FAIRWEATHER: Oh, sound levels  
6 are fine. I'm sorry. I thought you were talking  
7 about if you get a baseline of equipment.

8 MR. POLISE: No, the sound level of  
9 the equipment. You're basing this whole enclosure  
10 on a piece of equipment generates so many DBA of  
11 noise. So, if that's documented somewhere.

12 MS. FAIRWEATHER: Understand though,  
13 that under the New Jersey -- and I understand that  
14 was condescending. Of course you understand. The  
15 New Jersey law is 50 DB. We are lower than that.  
16 And we're making sure that we stay lower than  
17 that. So --

18 MR. POLISE: You're not lower than  
19 that. We're saying we're not going to hear it.

20 MS. FAIRWEATHER: Right. Okay.  
21 You're not going to hear it at the window or if  
22 you're standing at the property line, it has been  
23 testified to you can't hear it.

24 MR. POLISE: The testimony is we're  
25 not going to hear it at the house or 50 feet away?

1 MR. SHAW: And that's dependent upon  
2 the decibel --

3 MS. FAIRWEATHER: -- levels coming  
4 out of it --

5 MR. SHAW: -- levels coming out of  
6 it.

7 MS. FAIRWEATHER: And putting it in  
8 the resolution is the perfect place. Okay.

9 MR. DOTTI: I was just adding, when  
10 you do this in the resolution, make sure you  
11 specify the necessary things to nail it down.  
12 Position and the elevation above grade.

13 MR. SHAW: I will make sure that  
14 we're in touch.

15 MR. DOTTI: Okay. However you want  
16 to do that, yes.

17 MR. MESSING: Jay Messing again, 60  
18 Buxton Road. So, my question is: When the ball  
19 bearing breaks what is your agreement with the  
20 American Water Company, how quickly you can get in  
21 to repair that? Because we've seen how responsive  
22 they have been so far.

23 MS. FAIRWEATHER: This is the noise  
24 expert. You're going to have to ask that question  
25 to the civil engineer who knows the gives and

1 takes and relationships and disrepair and things  
2 like that. Wrong question. Sorry. Wrong person.

3 MR. MESSING: Thank you.

4 CHAIR VIVONA: No other questions  
5 maybe we'll take a five minute break.

6 MR. MORELLO: Thank you,  
7 Mr. Chairman.

8 CHAIR VIVONA: Thank you.

9 (A recess was taken.)

10 CHAIR VIVONA: We have about 45  
11 minutes left. We would like to finish up by 11.  
12 So, let's carry on.

13 MS. FAIRWEATHER: Yes, my next  
14 witness, can you please state your name and raise  
15 your right hand.

16 MR. SHAW: Do you swear to tell the  
17 truth, the whole truth and nothing but the truth  
18 so help you God?

19 MR. TINDER: I do.

20 MR. SHAW: Please state your name  
21 and your qualifications.

22 MR. TINDER: My name is Mark Tinder.  
23 My company is Mark Tinder Appraisals in  
24 Somerville. I'm a state certified general real  
25 estate appraiser. I've been a real estate

1 appraiser for 28 years. I've been licensed by the  
2 State of New Jersey since licensing was instituted  
3 in the early 1990's. I've been qualified as an  
4 expert before the Superior Court, several  
5 different tax boards, in several counties, over 50  
6 zoning boards of adjustment in the State of New  
7 Jersey, in 17 different counties.

8 CHAIR VIVONA: Okay. Thank you.

9 MS. FAIRWEATHER: Mark, I sent you  
10 what we filed with the board, correct?

11 MR. TINDER: Yes.

12 MS. FAIRWEATHER: And asked you --  
13 told you at one of the hearings, that there was an  
14 issue of whether or not placing an antenna on the  
15 existing water tank would have an effect on the  
16 properties and decrease property values. And I  
17 also asked you to look at that issue in regards to  
18 this site.

19 MR. TINDER: Yes.

20 MS. FAIRWEATHER: So, can you please  
21 tell us what you did, and your findings.

22 MR. TINDER: Sure. Just as a brief  
23 overview, and I don't want to be too repetitive  
24 with testimony you've already heard. Especially  
25 at such a late hour. But just to refresh, what

1 we're talking about, is essentially the use being  
2 a new communications installation, consisting, of  
3 course, the existing 105-foot high water tank,  
4 which is used to be in the support for the  
5 proposed installation of cellular antennas.  
6 Ground level equipment, that you've heard  
7 discussed, on a 10 X 17 concrete pad, and fencing  
8 to shield that equipment, as has been discussed,  
9 obviously.

10 To go to the property itself, and  
11 that's, I believe that's been described amply as  
12 far as the size of the lot. Again, the existing  
13 use, the improved parcel is an existing water  
14 company facility with the water tank.

15 The immediate subject neighborhood,  
16 and the locale in general, is uniformly  
17 residential in character. I think that's quite  
18 obvious. And its been discussed at length.  
19 Consisting of single family residential  
20 development nearly consistently.

21 The subject property is located  
22 within the R-3 residence district of the township,  
23 as are all the adjoining properties to the north,  
24 east and west. And into the immediate south the  
25 zoning is the R-1(A) residence. So, again,

1 uniformly residential throughout the area. And  
2 the nearest existing single family residence, is,  
3 again, has been discussed on Buxton Road, Heron  
4 Drive and Kincaid Lane, down the slope to the  
5 south of the subject location.

6 In a discussion of any -- any  
7 discussion of potential impacts, for any proposed  
8 use, a potential for impacts are related to a  
9 number of things. One would be the character of  
10 use that's being proposed. And what is being  
11 proposed here, is properly characterized, in my  
12 opinion, as a passive use. There are no odors  
13 that are associated with the use obviously. No  
14 significant traffic other than the periodic  
15 maintenance visit by one technician in a car, no  
16 lights, no burden upon the municipal services, and  
17 no significant noise, as has been testified at  
18 great length by the prior witness. Another  
19 potential impact, again, as far as any potential  
20 use that's proposed, would be the character of the  
21 existing use and the topography and vegetation of  
22 the site and the neighborhood. In other words, is  
23 what's being proposed represent -- doesn't  
24 represent a very significant change to the  
25 character of the existing uses in the area, to the

1 topography and vegetation. And, again, as has  
2 been testified, at length, there is no change in  
3 existing vegetation or topography of the subject  
4 property that's proposed, obviously. So, we're  
5 not talking about removing significant trees, et  
6 cetera, of that nature. Plus, the subject use, as  
7 a water storage tank, obviously is a long  
8 established use of the site, which quite obviously  
9 will remain. Furthermore, the proposed  
10 installation of cellular antennas on the face of  
11 the existing water tower, which in fact currently  
12 contains existing whip antennas that extend above  
13 the top of the existing tank, represent, in my  
14 opinion, a nominal physical change to the subject  
15 property itself. And the installation of those  
16 cellular antennas on the face of the tank itself  
17 would not perceptibly change the visual impact of  
18 that existing water tower. Again, the water tank  
19 that's there is obviously an existing factor in  
20 the neighborhood. It does exist. It can be seen.  
21 And will continue to be, obviously.

22 A third potential impact, or point  
23 of discussion would be, the existing character of  
24 uses in the area and their locations proximate to  
25 the subject site. And I think it's very obvious

1 that there's no change in character to the  
2 surrounding area that's represented by the  
3 proposed use, because the area will continue to  
4 consist of single family residential development.  
5 But obviously we're not talking about bringing in a  
6 nonconforming type of commercial or industrial  
7 use, for example. The neighborhood itself will  
8 continue to be, as it has existed for many years,  
9 as single family residential. And the homes that  
10 are in the immediate area are already situated  
11 within relatively close proximity to the existing  
12 water storage structure. Again, that is an  
13 ongoing fact of the neighborhood. It does exist.  
14 And that obviously it's not going to be changed.

15 The fourth and final point that I  
16 would make as far as looking at potential for any  
17 impact would be what I would put under the general  
18 heading of the reality of the marketplace. How  
19 does the marketplace react, if at all, to these  
20 installations to cell sites in general. And based  
21 upon my field observations of the site and the  
22 neighborhood, as well as the review of the  
23 proposed site plan, based on my ongoing work as a  
24 real estate appraiser, especially within the field  
25 of relocation work, I do quite a lot of relocation

1 appraisal, as well as my own studies of other  
2 neighborhoods throughout the state with respect to  
3 cellular installation, it would be my conclusion  
4 that there's no reasonable potential value impact  
5 that could be associated with this proposed use.

6 CHAIR VIVONA: Okay.

7 MS. FAIRWEATHER: He is not going to  
8 stop there. He's going to give reasons why he has  
9 this opinion.

10 MR. TINDER: Now, and I've mentioned  
11 studies that I've done. And I have been -- I have  
12 been studying this issue as far as cellular or  
13 cell sites, in general, within proximity to  
14 residential neighborhoods for probably, going on  
15 20 years now. And I've looked at locations  
16 throughout the State of New Jersey, to determine  
17 whether or not there is, in general, a so-called  
18 tower affect, if you will, or if cell towers or  
19 cell installations, in general, are having a  
20 persistent or consistent measurable impact on the  
21 residential marketplace in New Jersey. And I have  
22 not found that to be the case throughout the state  
23 in a number of different locations.

24 And I have a number of different  
25 studies I would like to present. Obviously, not

1 just have you take my word for it. I will say  
2 that in doing this type of analysis, the challenge  
3 with this particular type of installation, or  
4 proposal, is to try to find a suitable study area  
5 that could show me a potential impact of homes  
6 near a water tank with cellular, versus other  
7 homes nearby. And I have attempted to do that  
8 type of study, and found it to be quite  
9 problematic, because the challenge, and the thing  
10 that I haven't been able to overcome, is, even if,  
11 in theory I could find a location where I have  
12 suitable data of sales within a neighborhood near  
13 a water tank with cell equipment, in theory, if I  
14 found such a neighborhood where there was a fair  
15 indication of a value differential, I would  
16 think -- I believe it would be virtually  
17 impossible to isolate the value of the impact from  
18 the tank itself, versus the fact that the tank may  
19 have some cellular panels on it. So, what I do  
20 have for you, is, some of the studies I've done  
21 regarding cell towers and monopole locations,  
22 which I believe are a much more impactful and  
23 dramatic, if you will, condition as what's  
24 proposed here. But before I get into those too,  
25 I'd like to point out that I do have some

1 anecdotal evidence. It's not what I would  
2 characterize, by any means, as a true market  
3 study.

4           But I was curious to see in Florham  
5 Park for example, there is Florham Park Water  
6 Company -- or water commission, water company, I  
7 guess, which is run by the borough itself. They  
8 have a 130 foot water tank just south of Columbia  
9 Turnpike. And it's in a neighborhood of homes,  
10 million dollars plus. And a brand new subdivision  
11 was built. It's called Beacon Hill or Beacon Hill  
12 Drive is the street. And literally it goes right  
13 up towards that water tank. And the history of  
14 the sales within that new development, were,  
15 according to the broker who handled the sales,  
16 were not at all affected by the existence of the  
17 tank, which had cellular panels on it at the time.  
18 And in fact the home that's literally next to the  
19 water company site, in that location, which  
20 actually shares a common boundary with that, very  
21 similar, in fact, interestingly enough, as to  
22 what's proposed here, because it's a small 100 X  
23 100 lot, I believe, with a water tank right in the  
24 middle, and abutting a home.

25           I have -- again, I do have an

1 exhibit about that particular location. And I  
2 would like to share that with you before I get  
3 into some of the other things.

4 MS. FAIRWEATHER: And that will be  
5 Exhibit A-43. I will pass it out while you talk.  
6 Call it Florham Park appraisal.

7 MR. TINDER: No, I would rather not  
8 portray it as an appraisal.

9 MS. FAIRWEATHER: Oh, I'm sorry.  
10 The Florham Park --

11 MR. TINDER: Exhibit.

12 MS. FAIRWEATHER: -- exhibit.

13 CHAIR VIVONA: If you have a few  
14 extra you can pass them out to the public.

15 MS. FAIRWEATHER: Sure.

16 MR. TINDER: Now -- and -- well,  
17 it's probably pretty self explanatory, but I'll go  
18 through it. The second page, or after the cover  
19 page, again, it shows neighborhood tax map. And  
20 it shows you the location of that particular water  
21 tank/cell site. It is, again, 100 X -- well, a  
22 very similar small postage stamp lot, if you will,  
23 similar to what we have here in Chatham Township.  
24 And it's a taller tank. Obviously the Chatham  
25 Township tank is 105 feet, I believe its been

1 testified. This one in Florham Park is 130. It's  
2 a little taller. But you can see on the next  
3 page, Beacon Hill Florham Park Borough, this is a  
4 list of the new home sale prices within that  
5 development that took place. And what I did, was,  
6 I just basically presented that in a statistical  
7 fashion showing the price per square foot, new  
8 home sale prices of all those, those seven homes.

9 Before somebody asks me, I'll bring  
10 it up, bring it to your attention. You may  
11 notice, if you look at the neighborhood tax map  
12 for Beacon Hill Road, there are actually ten new  
13 homes that were built in there. But I'm only  
14 showing you seven sales. And there's a very good  
15 reason for that. One of the sales, you can see on  
16 the tax map, is Lot 21. It has extensive frontage  
17 along Columbia Turnpike. And that particular home  
18 did sell at a steep discount. And the realtor  
19 acknowledges that home was impacted substantially  
20 by the fact that it was along that busy county  
21 road. Access to the property, of course, is from  
22 the new subdivision street. But it is right along  
23 that busy count road. And rather than skew the  
24 numbers downward, which would of, if anything,  
25 indicated a premium for the home near the tank,

1     which clearly is not the case. I took that one  
2     out. I also took out lot 61, because the initial  
3     sale of that -- of that home was actually from the  
4     builder to a family member. And, again, was at an  
5     extreme discount. Was not at all a market -- it  
6     was not an arms-length-transaction. And, finally,  
7     the last sale within the development, lot No. 63,  
8     was a sale by a trustee in foreclosure. So, that  
9     was, again, not at all remotely a usable sale.  
10    So -- but the seven sales that did occur at market  
11    arms-length-transactions, by the builder to  
12    buyers, are detailed on that next page. And you  
13    can see that the average price per square foot  
14    within the whole development was about \$294  
15    dollars per square foot. And the home that backs  
16    up to the water tank, and is in closest proximity,  
17    and in fact shares a boundary with it, sold right  
18    about that average. So, again, I would caution  
19    that this is not an extensive market study by any  
20    means, but it is very interesting anecdotal  
21    evidence in my opinion, because it does show  
22    clearly a neighborhood that was marketed within  
23    direct proximity to a water tank, which has cell  
24    panels on it. And you can certainly see those,  
25    the cellular that are on the tank, through the

1 pictures.

2                   What's interesting too, though, is  
3 the final two pages actually are pictures of a new  
4 development that's going in right behind it. And  
5 if you -- sorry to lead you back and forth on the  
6 exhibit, but if you go back to the nearest tax map  
7 page, you'll see, coming off of Summit Road,  
8 there's an extension of that road that's a brand  
9 new cul-de-sac street. And that's a brand new  
10 development that's going in right now. When I  
11 took the pictures, well, a few weeks ago, maybe a  
12 couple of months ago. You saw the rough cut of  
13 the road was in, and in fact that foundation that  
14 you see was from within the development. And I  
15 was looking at, that was a brand new home, which  
16 is being built, I've been told what it's under  
17 contract for. Obviously there's no recorded deed  
18 on it yet. So, I'm not sure if you're interested  
19 to know what the sales are reportedly under  
20 contract for within that new development.

21                   MS. FAIRWEATHER: Okay. So, this  
22 A-44 would be the Hanover report.

23                   THE PUBLIC: May I interrupt and ask  
24 a question about the previous testimony?

25                   CHAIR VIVONA: Let's wait until he

1 finishes everything maybe he will answer your  
2 questions. But you're welcome to when he's done.

3 MR. TINDER: This one is much the  
4 same type of exhibit. It's residential  
5 neighborhood. A new subdivision in Hanover.  
6 Coincidentally I think it may -- I believe it may  
7 even be the tank that was referenced earlier by  
8 the prior witness. Well, last week I guess he was  
9 talking about the fence and the deer and the  
10 picture and stuff. I believe it may even be this  
11 particular location. You'll see again what  
12 follows. There's a subdivision map that shows  
13 phase I of this particular neighborhood, which is  
14 known as Forest Hill. Forest Hill neighborhood in  
15 Hanover Township. And, again, showing -- the  
16 information I got from the brokers involved in the  
17 sales was that the water tank itself and/or the  
18 fact that there are cellular panels on that tank  
19 was not -- was not an inhibiting factor. Was not  
20 a discounting factor, if you will, for the new  
21 home sales that took place in that neighborhood.  
22 This tank I believe is larger than the other one  
23 in Florham Park. Although, to be honest with you,  
24 I don't know the exact height of it. Apparently  
25 the southeast Morris County Municipal Utilities

1 Authority treats it as a state secret. So, I  
2 don't know. As opposed to Florham Park where the  
3 man called me back and said, yeah, it's 130 feet.  
4 But in any event, obviously, it's a tall tank.  
5 Obviously there are cellular panels on it, which  
6 are at the top of the tank. And, again, looking  
7 at the same type of statistical analysis, just  
8 simply new home sales price per square foot. I  
9 looked at the homes that backed directly towards  
10 that tank, and then compared it to the rest of  
11 that phase of development, and found really no  
12 statistical difference. Now, granted that the  
13 sales prices within the development range up and  
14 down and that's usually -- that's almost always a  
15 function of options and extras. So, again, I  
16 would caution, this is not necessarily a true  
17 appraisal as such, but I believe it's interesting  
18 anecdotal evidence that shows sales activity  
19 residential sales activity within proximity to a  
20 very similar installation.

21 And, again, going through this, the  
22 second phase of development that's detailed there.  
23 I didn't -- I didn't bother to chart the third  
24 phase of development because the third phase is  
25 furthest removed from the tank and all of the

1 sales in there, all of the homes in there are  
2 physically removed from the tank. Everybody in  
3 the neighborhood can see the tank at a distance,  
4 but nobody in the third phase is either right  
5 across the street from the tank, or backing right  
6 up to the tank. But I can tell you, just  
7 coincidentally, the third phase of development,  
8 again, all the homes sold at a set price based  
9 upon a model. And my understanding, it had  
10 nothing to do with proximity to the tank, which,  
11 in any case, again, in the third phase of  
12 development everybody was further removed from it.

13 MS. FAIRWEATHER: So, A-45, what do  
14 we call it?

15 MR. TINDER: Now -- and I reference  
16 to you, cell tower neighborhoods or neighborhoods  
17 near cell towers that I've done studies on. And  
18 one in particular that I've looked at, over the  
19 years, over and over again, in fact I've looked at  
20 sales that have gone on in the Mt. Freedom area of  
21 Randolph, again, here in Morris County. In  
22 Randolph Township in Mt. Freedom area there is a  
23 457 foot double lattice tower. It's actually two  
24 towers that are next to each other, both are the  
25 same height. They're connected by a couple of

1 lattice bridges, which obviously stabilize them  
2 and connect them one to the other. And also  
3 they're stabilized by guy wires, which, again,  
4 radiate down from different locations on the  
5 towers to provide support down to the ground  
6 obviously. It's an interesting location in my  
7 opinion because it's very clear that there is a  
8 tower there. In fact, it's, again, a double tower  
9 that's there.

10 This is -- obviously this is a much  
11 more dramatic or severe, if you will, scenario  
12 than what is proposed here in Chatham Township.  
13 But I would characterize this almost as a  
14 virtually a worse case scenario, in a way.  
15 Because, again, 457 foot tower, two towers, which  
16 are lit, obviously at that height there has to be  
17 lights on there from FAA's standpoint, I believe.  
18 And what this shows, and, again, you can see the  
19 particular property here is 82 Musiker Avenue in  
20 Randolph Township. You'll see a view of that  
21 particular property itself and the tower directly  
22 behind it. The cover page lays out, obviously the  
23 facts of the matter; 82 Musiker Avenue in Randolph  
24 Township. I scaled it out at approximately 585  
25 feet to that 457 foot tower. So, it's a less than

1 2 to 1 ratio of height versus distance. So,  
2 clearly within the proximity to the potential  
3 impact zone, if you will, of that huge tower.

4 The home listed at \$689,900 and  
5 ended up selling at \$699,000. So, there were  
6 multiple offers on it. It did sell over list  
7 price. This is a sale back from 2012. And on the  
8 front you see the range of adjusted values from  
9 \$668,000 to \$696,500, for example. That  
10 references the comparable sales grid, which is on  
11 the fourth page. And what that grid is, this is  
12 the same type of grid you would see on any  
13 residential appraisal really, where you have a  
14 subject property, for example, your own home, if  
15 you're doing a refinance or relocation appraisal.  
16 Your home is being compared to sales of competing  
17 properties. And adjustments are made to those  
18 sales to equate them to one another. So,  
19 obviously, for example, if a sale property is  
20 superior to your subject, you make a negative  
21 adjustment to bring it in line with the subject.  
22 Conversely if the sale property is inferior, for  
23 some aspect, whether it has to do with gross  
24 living area, site area, et cetera, then a positive  
25 adjustment is made in order to equate the sale to

1 the subject.

2 So, you see on the grid the five  
3 different sales that I used. Again, that process  
4 was done, typical for any residential appraisal,  
5 and after adjustments, the range of adjusted  
6 values was from \$668,500 to \$696,500. The average  
7 of those values was about \$680,000, which was 2  
8 percent or so less than what the home actually did  
9 sell for, the one at 82 Musiker Avenue.

10 The conclusion I draw from this, and  
11 based upon, also, my conversation with the  
12 realtors involved with this particular sale, was  
13 that the nearby tower, although it is very  
14 ubiquitous in the neighborhood, it certainly is  
15 very visible and is well known to be there, it had  
16 no impact on the marketing or value sale price of  
17 that particular home.

18 And that is something that I've seen  
19 in that particular neighborhood over and over  
20 again over the years. I've studied that  
21 neighborhood going back to 1980's anyway. Maybe  
22 late '80's -- or, well, these homes were built in  
23 the '80's. So, probably the first resale. So,  
24 late '80's, early '90's. And I, periodically I go  
25 back to that neighborhood and look for sales that

1 occurred to see if there's been any change or any  
2 pattern of any value differential that has  
3 occurred. And, so far at least, again, you know,  
4 I'm not seeing any type of impact whatsoever in  
5 that location, based upon those two huge towers.  
6 Notwithstanding the fact that they do exist and  
7 can be seen.

8 I do have several more. I mean I'm  
9 not sure how much you would like me to belabor it.  
10 But I'd be glad to go through as many studies I  
11 have, as you'd like.

12 CHAIR VIVONA: Well, what do you  
13 think? More or --

14 MS. KENNEY: Well, this doesn't  
15 speak to me. This one doesn't speak as much as  
16 the previous one, just because the tower is  
17 further away than the situation on Buxton, and it  
18 also looks completely different.

19 MR. TINDER: It's true. But in --  
20 and as I've indicated, it's a much more severe,  
21 much more dramatic potential impact. Yes, it is  
22 farther away, but it's also much, much taller.  
23 So, we're talking about, granted a home that's 585  
24 feet away, but to a 457 foot lit tower, which is  
25 clearly a tower, it's not -- we're not talking

1 about adding antennas to a structure that's  
2 already there. We're talking about what somebody  
3 coming into the neighborhood, for example, as a  
4 potential homebuyer, looking at it, saying, you  
5 know, is that a deal breaker for me, would I not  
6 want to buy on Musiker Avenue because of that.

7 MS. KENNEY: But you feel like this,  
8 visually -- like to me, visually, this is less of  
9 an impact than the water tower with antenna on it,  
10 in the previous two examples. Because it's so  
11 thin and there's a space in between. Do you not  
12 agree with --

13 MR. TINDER: I don't agree in the  
14 sense that -- I mean do I agree that a water tank  
15 in close proximity is maybe more of a dramatic  
16 visual than a big tower in the distance. I might.  
17 I don't necessarily agree or disagree with that.

18 MS. KENNEY: A taller tower. Not a  
19 bigger tower.

20 MR. TINDER: Right. But what we're  
21 talking about here, of course, is not comparing a  
22 new water tank to a tower. We're talking about a  
23 tank that's already there, and just be very  
24 nominal de minimus addition of some cell panels,  
25 which will be on the face of the tank, and I

1 believe will be painted the same color as the  
2 tank. So, essentially I don't foresee that people  
3 will see them, especially if you're not looking  
4 for them. But, clearly, the change in the visual  
5 of that existing tank, before, and then the  
6 existing tank afterwards, with some cellular  
7 panels on the face, is so marginal, that I believe  
8 it's -- well, I'll leave it at that. I'll say  
9 it's marginal.

10 MR. MICHAELS: Mr. Chairman, I have  
11 a question. Do you have any examples of values of  
12 properties in proximity to a water tank from  
13 before and after antennas were placed on it?

14 MR. TINDER: No, I don't. And,  
15 again, that's another problem as far as finding  
16 the data and having the marketplace line up in a  
17 way that would be useful to me. I mean the  
18 perfect example, really would be, as you're  
19 describing it, before and after study. And I have  
20 been asked that question regarding cell towers or  
21 monopoles as well. Unfortunately, the marketplace  
22 itself doesn't really line up in a convenient way  
23 for me that I could do that. It's not from lack  
24 of trying. I could tell you that. Because to  
25 find a sale of a home just prior to, and then the

1 resale of that same home afterwards, in theory  
2 would be an ideal type of study. The problem  
3 though, is that the lead time from when -- for  
4 example, a cell tower or cellular installation of  
5 this nature, is proposed, and then it's actually  
6 built out, ends up being so long, and then the  
7 sales occurring just before and then just after.  
8 I just haven't found the marketplace lining up in  
9 that way that's convenient in that manner  
10 unfortunately.

11 MR. MICHAELS: Even with -- even  
12 with an installation of a new tower, not just a  
13 water tank that has --

14 MR. TINDER: Right. Same issue.  
15 Because, again, for example, when a monopole is  
16 proposed let's say, and depending upon where it's  
17 proposed, and whether it's "controversial" or not,  
18 it becomes part of the general consciousness. So,  
19 ideally, the ideal comparison of a before and  
20 after would be, just before -- a sale just before  
21 a tower, for example, or monopole was proposed,  
22 and then a sale just afterwards. But,  
23 unfortunately, as we can all see, the lead time  
24 between proposal and installation can drag on  
25 quite awhile. And finding sales that line up just

1 before and just after, it could be difficult. I  
2 have done some before and after studies of that  
3 nature before, but the sampling has been so small  
4 that I don't really afford it much weight.

5 But I had, for example, in Bergen  
6 County, I had an application where the board  
7 insisted, well, you know, notwithstanding the  
8 fact that it's difficult for you, Mr. Tinder, we  
9 want you to do one. So, I said, well, I'll do the  
10 best I can. And I found a location in Rivervale,  
11 which is a town in Bergen County, where  
12 coincidentally, a monopole was put on the  
13 municipal -- or, no, the police station next to  
14 the municipal building. And I did find a couple  
15 of sales that were before and after in a nearby  
16 neighborhood. But then I had to compare them to  
17 the whole town in general to see what the change  
18 in value had been over that time. And the  
19 sampling was so small, I didn't think it was  
20 really that useful. But I did present it to them.  
21 And it did show the change in prices for those two  
22 homes that I was able to find, matched fairly well  
23 of what the general market had done in that town  
24 over that same time frame. We're talking about a  
25 time frame of a couple of years, I believe.

1 MR. POLISE: When you did your  
2 analysis on this, did you have, the newer plans  
3 with the 9 1/1 foot -- or the shorter one?

4 MR. TINDER: Yes. It was my  
5 understanding that that would be done. And that's  
6 an interesting question too, is that because --

7 MR. POLISE: I didn't understand the  
8 answer. You had the shorter plans or the bigger  
9 plans?

10 MR. TINDER: I was -- I was given --  
11 yeah, I was told that -- you're talking about  
12 the --

13 MR. POLISE: The original drawing  
14 shows the structure at about what 6 feet or 7-foot  
15 8 foot load -- the original one was with the chain  
16 link fence.

17 MR. TINDER: Oh, as far as the new  
18 fence to try -- barrier rather.

19 MR. POLISE: Now, it's 9 --

20 MR. TINDER: Yeah, well, I looked at  
21 it both ways. And in my opinion my answer is  
22 still the same. I don't believe that this  
23 application, if it is approved as proposed would  
24 have any potential value impact on any nearby  
25 residential property value.

1 MR. POLISE: I mean do you sell  
2 houses or do you just do appraisals?

3 MR. TINDER: I'm an appraiser.

4 MR. POLISE: So, if you brought  
5 somebody there one week and there was nothing  
6 there, and then the next week they came back and  
7 there was a 9 1/2 foot box, and things on the  
8 tank, you don't think it would have an impact on  
9 the sale of the house?

10 MR. TINDER: I don't believe the  
11 market in New Jersey is reacting in any measurable  
12 way to these installations. Now, that's not to  
13 say that there aren't some people who are so  
14 predisposed against it that they wouldn't choose  
15 differently. But, again, the marketplace itself  
16 is the final arbiter of value. It determines what  
17 value is. It's not me or my preferences, or you  
18 or anybody's opinion. It's really hard data.  
19 People -- people vote with their money  
20 so-to-speak. They say, "I'm going to pay X amount  
21 of money for this particular house, and compared  
22 to its competition in the same market, it suggests  
23 that they paid market value. Notwithstanding the  
24 fact that there is a tower nearby, or cellular  
25 installation.

1 MR. POLISE: Well, considering you  
2 don't have any data on before and after, with the  
3 tank and the tower, I don't know how you make that  
4 statement.

5 MR. TINDER: Because the market --  
6 because the buyer -- because to the particular  
7 buyer coming in, looking at a location, it's brand  
8 new as far as they're concerned. So, the buyer  
9 looking at a home, for example, in Randolph on  
10 Musiker Avenue, to take that as a -- as an --

11 MR. POLISE: That's a bad example.  
12 The tower is so far away. The other tower is  
13 right there and the structure is going to be right  
14 on the property line.

15 MR. TINDER: With all due respect, I  
16 disagree with the idea that the tower is so far  
17 away, because it is so tall, and is so dominant on  
18 the landscape, that it is very obviously part of  
19 the neighborhood. And it's right there in the  
20 neighborhood.

21 MR. POLISE: Okay. But in this  
22 instance the box is going right on the property  
23 line, literally. I mean so right on the  
24 property -- well, 10 feet, whatever it is, it's  
25 going to be a 9 1/2 foot box at grade level that's

1 visual and apparent. And I don't know how you can  
2 say that doesn't have any impact on the value.

3 MR. TINDER: Well, that's my  
4 opinion. I don't believe that it would.

5 MR. POLISE: Okay.

6 MR. WESTON: In looking at these  
7 three examples that have been given so far, I am  
8 seeing what I would consider green field  
9 development with new homes going to raw land where  
10 an activity is up, and people are making a  
11 decision. That being a Chatham booster. Chatham  
12 is developed. As far as I know there's no land  
13 here. And, you know, looking at some of the  
14 prices I'm seeing here, these are incredible  
15 discounts for new construction at these prices  
16 with building -- with homes of these square  
17 footages, 4,000, give or take a few hundred square  
18 feet. These are things that are almost  
19 unrelatable to in this community. So, I'm not  
20 saying the analysis is not valid for where they  
21 were done. I'm just trying to understand what  
22 conclusions I personally should draw from them in  
23 connection with Chatham Township. I mean these  
24 are all brownfields -- greenfields. That's a  
25 whole different animal from a developed community.

1 MR. TINDER: I'm not sure I  
2 understand what you mean by they're greenfield.

3 MR. WESTON: Greenfield is a large  
4 piece of land. You can build it. You can build  
5 houses one after the other, and it's a  
6 development. And then you could, you know, open  
7 for business. The homes are for sale, and who  
8 wants to buy it. In Chatham we don't have this  
9 kind of situation. So, I'm not saying the  
10 analysis itself is not valid for the locations  
11 where they are done. My question, again, is:  
12 What is my take away from the analysis? What am I  
13 supposed to learn from this? The question before  
14 the appraiser, I know that when people buy homes  
15 they go where is the school, where is the  
16 supermarket, where is the train station. Do  
17 people say, will I have a cell tower nearby?

18 MR. TINDER: Well, again, the  
19 premise is still the same though, that as far as  
20 whatever -- the mechanics of a sale, for example,  
21 virtually anywhere in New Jersey are the same. I  
22 mean a home is listed for sale. There are  
23 showings. And then eventually there's a meeting  
24 of the mind between the seller and the buyer. And  
25 a price is -- a deal is consummated and a closing

1 occurs.

2           If in fact the water tank, for  
3 example, in Florham Park, with the cell panels  
4 that are on it, had an impact on value, and had  
5 such an impact that the marketplace would show it,  
6 then the data would show it. And yet it doesn't.  
7 Now, that's, again, that's one specific point.  
8 You're correct. It's one particular location.  
9 Hanover is another location. Randolph is another  
10 location. Other locations that I had studies of,  
11 I can show you are other locations. At some point  
12 I believe that the marketplace itself is showing,  
13 for whatever reason, and I make no value judgment  
14 about why or how it comes to be, but I believe  
15 that the market is showing no measurable value  
16 impact or preference against these installations  
17 of these structures.

18           I have to believe that there very  
19 well may be some people who are so predisposed  
20 against them that they wouldn't buy a home near  
21 these structures, or would only do so at a  
22 discount. But apparently the percentage of people  
23 who feel that way is not so great as to have any  
24 measurable impact on the residential marketplace  
25 in New Jersey.

1                   And, so, based upon just the market  
2 data, I have to conclude that there's nothing to  
3 suggest the marketplace is reacting in this way.  
4 Now, to your point about new versus existing  
5 construction. I would point out, No. 1, Florham  
6 Park, for example, if you reference the second  
7 page of pictures, coincidentally the top picture  
8 you see, where you're looking towards the water  
9 tank in the distance, directly to my left, was an  
10 existing home that was, I believe 15 to 20  
11 years-old, which also sold over a million dollars  
12 very recently -- well, within the last year and a  
13 half. Fairly recent. And the realtor involved in  
14 that, you know, I asked her, I said, you know,  
15 obviously that home has a view of that water tank  
16 with the cell panels. Not tower. Cell panels on  
17 it. And she said, it does not have any impact on  
18 value or the marketing of the home.

19                   Again, that's one location, one  
20 sale, and one location. But after you look at all  
21 these sales and all of the patterns, you know, the  
22 overriding take-away that I have from this, is  
23 that the marketplace in New Jersey is not  
24 reacting, again, in any measurable to these  
25 installations.

1 MR. WESTON: I got to say, it may  
2 take a little while to sink in here, but it seems  
3 counter intuitive to me to look at -- if I were in  
4 the market game, which I'm not, and seeing a house  
5 with a cell tower or the water tower sticking up  
6 over the back, and if I were to look at that very  
7 same house without that there, then I would go  
8 "Whoa, whoa, you gotta move fast I want the water  
9 tower." It just doesn't seem --

10 MR. TINDER: No, in fact I -- and I  
11 don't believe the records will show anywhere that  
12 I made any such claim.

13 MR. WESTON: Then, again, to my  
14 previous question; third time: What conclusions  
15 am I supposed to draw from this? I'm not getting  
16 it. It's just not getting the appraisal point.  
17 I'm playing here under the counter with my  
18 calculator trying to do square foot things. I'm  
19 trying to do this. I'm just not getting it. It's  
20 not working for me. I just don't see why  
21 something like this would not have an impact on  
22 the market when -- something is wrong somewhere.

23 MR. TINDER: With all due respect --

24 MR. WESTON: With or without why  
25 would you take this. Someone is paying a

1 discount. It just screams, someone is paying a  
2 discount.

3 MR. TINDER: So, if I understand you  
4 correctly, you're saying, notwithstanding what  
5 the market evidence may be, you believe it, and,  
6 therefore --

7 MR. WESTON: No, no, I'm not falling  
8 for that one. Whoa. I have done this from both  
9 sides of the dais. No, that doesn't work. That's  
10 not good.

11 MR. TINDER: I agree.

12 MR. WESTON: I don't believe -- I  
13 don't believe you have presented data that  
14 supports your contentions. And I remain open to  
15 the idea to have data presented to me, which  
16 supports your contentions.

17 MR. TINDER: Okay.

18 MR. WESTON: On the other hand, my  
19 original, my question of, with or without, why  
20 should I pay that. Why would I pay a premium for  
21 that. Why would I pay market for that when I have  
22 the same thing available without that. It's, like  
23 I said, counter intuitive.

24 MR. TINDER: Well, is that just a  
25 rhetorical or is that a question for me?

1 MR. WESTON: Oh, sure it's  
2 rhetorical, but go for it.

3 MR. TINDER: Well, no, I don't mind.  
4 I'm not being sarcastic at all. I want to know,  
5 seriously, if you want me to answer that question.  
6 Because you're asking me to get into your mind as  
7 to why you would do something. You're asking me  
8 to explain why --

9 MR. WESTON: My mind is crowded  
10 enough.

11 MR. TINDER: Is there room in there,  
12 no?

13 MS. KENNEY: I'll jump in there and  
14 say I sort of feel the same way, and let's hear  
15 testimony. And I expected to hear different  
16 testimony. I thought I would hear a neighborhood  
17 with a water tank has slightly lower values than  
18 the exact same neighborhood without a water tank.  
19 And sort of the argument being, what difference  
20 would the panels make. And I didn't hear that. I  
21 thought maybe you say the value would be the same,  
22 but it would take longer to sell. But I have to  
23 agree, I'm not really hearing anything that's  
24 substantiating what you're saying, from what you  
25 presented.

1 MR. TINDER: Well, with all due  
2 respect again, you expected me to say that there  
3 would be an impact from a water tank. And I'm  
4 telling you that, at least from what I'm seeing in  
5 these particular locations, there wasn't.

6 MS. KENNEY: Well, I'm just saying  
7 as someone who has looked at houses and when  
8 you're shown houses that have power lines going  
9 through our town --

10 MR. TINDER: It's a different thing  
11 entirely.

12 MS. KENNEY: Oh, so, power lines are  
13 different than cell --

14 MR. TINDER: They can be, yeah. And  
15 I do know of locations where having a power line,  
16 especially if the easement itself runs through  
17 your own property, it has had an impact on value.  
18 But I don't equate with this a power line.

19 MS. KENNEY: Okay. So, cell  
20 monopoles are -- do not in your -- that's what  
21 you're testifying to, do not impact --

22 MR. TINDER: Right. Everywhere that  
23 -- now, I'm not saying that there's no place  
24 anywhere in the state where a cell tower has an  
25 impact on value. Because I haven't studied every

1 single place in New Jersey that has cell towers.  
2 I've studied dozens of them. And the  
3 preponderance of evidence tells me that the  
4 marketplace is not reacting to them.

5 THE PUBLIC: May I please ask a  
6 question?

7 MR. SHAW: Excuse me, you're not  
8 allowed to ask a question at this point. This is  
9 the point where the applicant is presenting its  
10 case.

11 THE PUBLIC: Will you tell me when I  
12 can ask a question? I am getting weak in the  
13 knees standing.

14 MR. SHAW: Yes. After they get done  
15 with their case.

16 MS. FAIRWEATHER: It might be better  
17 for the people waiting, is, you plan on stopping  
18 at 11, and there's no way that Mark is going to be  
19 done at 11. He'll be back next week so --

20 THE PUBLIC: I would encourage that  
21 we keep going here because there's questions that  
22 people want to ask, and I think we could all spare  
23 another 30 minutes.

24 MS. KENNEY: Can I just follow-up.  
25 My thinking is, for example, houses on busy

1 streets. We have houses on Southern Boulevard.  
2 It's way discounted. So, that's, I think what  
3 we're trying to get at. Is there any -- can you  
4 speak to that at all, any kind of discounts?

5 MR. TINDER: Yes. Well, you're  
6 asking me, do I believe there is such a thing as  
7 external obsolescence. And that's the appraisal  
8 terminology; external obsolescence, which is  
9 defined as something outside of the property  
10 itself which has some impact on value. So, yes,  
11 absolutely. In fact, I told you right at the  
12 beginning, the property that was at the corner of  
13 busy Columbia Turnpike, certainly was impacted by  
14 its location along that busy county road. There  
15 is such a thing as external obsolescence. I  
16 agree. But the marketplace itself makes it  
17 evident. So, the home that is at the corner of  
18 the busy county road, Columbia Turnpike, it sold  
19 for less. And the developer recognized that he  
20 had to discount that home just to be able to sell  
21 it. He recognized that, and he took a hit on that  
22 one and went on with the rest of the development.

23 Likewise, as referenced before, high  
24 tension power lines, can, and sometimes do, have  
25 an impact on value. There are other things that

1 certainly can. Being down at the shore.  
2 Obviously having a ocean front is a big premium  
3 versus having a bay front, which can be a smaller  
4 premium versus being inside, is no premium at all.  
5 There are positive and negative external factors  
6 that can influence value. But, again, it's the  
7 marketplace that determines that. And researching  
8 the marketplace and seeing what the sales tell me,  
9 I'm not seeing, again, within the New Jersey  
10 residential marketplace, for whatever reason, and  
11 I make no judgment as to why or how, that these  
12 installations are having any measurable impact on  
13 value.

14 MS. KENNEY: So, am I correct in  
15 saying, you would think that a house that is  
16 backing up and has the strong visual view of a  
17 water tower would have the same sales value as a  
18 house four doors down in the same neighborhood  
19 that doesn't have --

20 MR. TINDER: No. Let me back up a  
21 little bit. Because my point was not to try to  
22 demonstrate value impact, or lack thereof, of a  
23 water tank. Because that's not the issue here  
24 anyway, in my opinion. Because we have a tank  
25 already. And the tank is there. So, whether --

1 if the homes immediately adjacent to it may sell  
2 for a little less than the ones further down the  
3 cul-de-sac, or whatever. That's really not the  
4 issue I'm trying to address here. And I'm  
5 sorry --

6 MS. KENNEY: It's helpful to us on  
7 the board to learn about value of houses in terms  
8 of what you said about power lines, what you said  
9 about water tanks. So, maybe it's not, per se, a  
10 cell panel. But it does help, I think in terms of  
11 educating those of us, and getting familiar with  
12 appraisals, and the differences between cell  
13 towers versus a monopole, versus a flat panel on a  
14 cell pole, versus a huge tower, versus two held by  
15 lattice. All that to me is very important. And  
16 it's information I would like to have when I'm  
17 deciding these types of things. I'm just sharing  
18 with you, that that's useful information for me.

19 MR. TINDER: Understand, in my  
20 opinion, a study that might show an impact from  
21 high tension power lines, for example, would be  
22 irrelevant to this -- to this application, in my  
23 opinion. We might agree or disagree, that, yes,  
24 high tension powers lines may have an impact on  
25 value. Being located on very busy county road

1 may, and probably quite likely, does have an  
2 impact on value. I don't think those are at all  
3 relevant issues here. The reason why I am dealing  
4 with cellular specifically, it's not just visual.  
5 It's the use, the nature of the use. And I have  
6 been in enough of these hearings to know that  
7 people are concerned, not just with visual, but  
8 possibly the use, et cetera. The fact that it's a  
9 cellular wireless communications antenna. So, to  
10 that end, you know, my studies I believe address  
11 that particular issue. The use as well as the  
12 visual. It's not a direct comparison. I will  
13 grant you that. I don't know if I could find a  
14 direct one-to-one correlation. In attempting to,  
15 you know, and maybe I may have hurt myself more  
16 than helped, as far as showing you those two water  
17 tanks with cell sites on them. But I felt it was  
18 interesting corollary data, if you will, of  
19 ironically two towns here in Morris County where  
20 there are water tanks with cellular on them and  
21 apparently the new subdivision that went in next  
22 to then were not impacted by the cellular use. If  
23 in fact even the water tanks.

24 MS. KENNEY: Right. So, you can't  
25 really differentiate between the cell antennas or

1 the water tank in terms of the value. You're  
2 saying, broadly, it was affected neither from the  
3 tank or the antenna.

4 MR. TINDER: Right. At least in  
5 those two locations, the fact of the tank and the  
6 fact that they had cellular antennas attached to  
7 it, was irrelevant to the sales prices that  
8 occurred.

9 MS. KENNEY: Okay.

10 CHAIR VIVONA: All right. Any other  
11 questions from the board for right now? We're not  
12 going to entertain any questions from the public  
13 because it's too late to start questions and they  
14 will be here until the next meeting. We have more  
15 time and answer all the questions you want.

16 MS. FAIRWEATHER: And Mr. Chair,  
17 just so you know, he wasn't quite done with his  
18 testimony anyway. So now he still has more.

19 CHAIR VIVONA: Right. So sorry to  
20 disappoint you, but it's getting too late. He's  
21 not done with his testimony. So, you wouldn't be  
22 able to ask questions.

23 MR. SHAW: So, for everyone that's  
24 here, this matter is going to be carried to the  
25 next board meeting, which is May 22nd. There will

1 not be any further advertisements or further  
2 notices. We carry it from meeting to meeting  
3 here. So -- and I assume you will send us a  
4 little note extending time for action?

5 MS. FAIRWEATHER: Yes, I will.

6 CHAIR VIVONA: Motion to adjourn.

7 THE BOARD: Aye.

8 (Meeting adjourned.)  
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C E R T I F I C A T E

I, GINA MARIE VERDEROSA-LAMM, a Certified Shorthand Reporter and Notary Public of the State of New Jersey, certify that the foregoing is a true and accurate transcript of the deposition of said witness(es) who were first duly sworn by me, on the date and place hereinbefore set forth.

I FURTHER CERTIFY that I am neither attorney, nor counsel for, nor related to or employed by, any of the parties to the action in which this deposition was taken, and further that I am not a relative or employee of any attorney or counsel employed in this action, nor am I financially interested in this case.

\_\_\_\_\_

GINA MARIE VERDEROSA-LAMM, C.S.R.  
LICENSE NO. XI2043

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