WARREN TOWNSHIP ZONING BOARD OF ADJUSTMENT
MEETING MINUTES NOVEMBER 5, 2018
APPROVED

CALL TO ORDER: The meeting was called to order at 7:05

ROLL CALL:

Mr. John Villani
Mr. George Dealaman
Mr. Richard Hewson
Mr. Fernando Castanheira
Mr. Frank Rica
Mr. Donald Huber
Mr. Foster Cooper
Mr. Scott Bowen, Alt. #1
Mr. Michael Galbraith, Alt. #2
Steven Warner, Esq.

ANNOUNCEMENT:

Adequate notice of this meeting has been provided by posting Public Notice on the Municipal Bulletin Board on the main floor of the Municipal Building, sending a copy to the Courier News and Echoes Sentinel, and filing a copy with the Municipal Clerk, all on January 15, 2018.

FLAG SALUTE:

MINUTES:

The minutes of the September 17, 2018 meetings were forwarded to members for review. Mr. Warner had some minor changes to the minutes that were noted.

Motion to approve was made by Mr. Villani, seconded by Mr. Galbraith. All in favor.

COMMUNICATIONS:

None.

PRIVILEGE OF THE FLOOR PORTION OF THE MEETING:

Does any member of the public wish to make a statement, which is unrelated to tonight's agenda?

Seeing no one come forward, Mr. Cooper closed this portion of the meeting.

Mr. Cooper made an announcement that RETS application BA 18-05, for block 92 lot 1, 833 Mountain Blvd was asking to withdraw their application without prejudice. The case was not heard

MEMORIALIZATION OF RESOLUTIONS:

CASE No. BA18-07 Naz Realty LLC
Block 90 lot 16
20 Mountain Blvd
FAR variance and bulk variances (carried from July 2, 2018 and August 6) approved September 17, 2018

Motion was made by Mr. Huber, seconded by Mr. Bowen to adopt the resolution.

Roll Call

For: Mr. Villani, Mr. Dealaman, Mr. Castanheira, Mr. Rica, Mr. Huber, Mr. Cooper, and Mr. Bowen.
Against: None.

CASE No. BA18-09 Kenneth and Renee Burkert
Block 107 lot 16
44 Fairfield Avenue
FAR and Undersized lot.

Approved September 17, 2018

Motion was made by Mr. Galbraith, seconded by Mr. Castanheira to adopt the resolution.

Roll Call

For: Mr. Villani, Mr. Dealaman, Mr. Castanheira, Mr. Rica, Mr. Huber, Mr. Cooper, and Mr. Bowen.
Against: None.

AGENDA CASE APPLICATIONS:

CASE BA 18-10 Verizon/ATT 35 Old Smalleytown Cell Tower
Block 211 lot 11

The transcript of the hearing for the Verizon/ATT application portion of the meeting is attached to the minutes.

The hearing for Verizon/ATT will carry to December 3 and the applicant agreed to an extension through December 2018.

CASE No BA18-08 Henrique Rocha
Block 61 Lot 2.06
2 Meyers Lane
Exceeds Maximum coverage by building

Mr. Ricardo J. Monteiro came forward as the attorney for the applicant. He also introduced Mr. Rui Amaral, the architect, for the applicant. Mr. Amaral was sworn in and was accepted.

Mr. Amaral went over the applicant, a pool house with patio area behind the existing house. A swimming pool is under construction and they would like a pool house. The pool house proposed is 36 x 36 feet, with half of that will be a covered area and half will be indoor area. The indoor area will have a bathroom with a shower. There will also be some storage area and a play area, and a washer and dryer. The outdoor area will have a kitchen and most of it is covered.

The property is on the corner of Myers Lane and Midvale, the variance is due to maximizing the footprint of the house and it is existing undersized lot (by about 200 ft). The footprint of the house is 4767SF and it is a ranch and has a three-car garage. There is a building coverage variance but not for lot coverage. The shed on the plans has been removed.

Mr. Monteiro asked about the benefits and detriments. Mr. Amaral stated they have friends and family that get together it is a benefit. He did not see any detriment to the neighborhood. It is a landscaped property. It is only 14.5 high. There will be air conditioning.

There will be a sewer line for the building and only a construction permit is needed. Mr. Cooper felt that the backyard could be exposed and suggested more landscaping. The applicant agreed to landscaping conditions to the approval of the Township Planner.

Mr. Bowen asked if there would be any chance of using the game room as a bedroom. There is only an outdoor kitchen. The applicant agrees it would not be used as a dwelling for living.

Mr. Warner brought up that if it was a conforming lot, the proposal would still be over the coverage. It is a c(2) variance.

Mr. Cooper asked if anyone from the public had questions on the testimony given. Seeing none, he closed that portion. Mr. Chadwick asked about the building and asked if the review of the look of the building be subject to approval of the planner.

Sal Miklowcic came forward as the surveyor for the applicant. He was accepted as a licensed surveyor. Mr. Miklowcic designed the drainage for the proposal. He stated the system was designed at 16 ft x 11 ft wide by 6 ft deep and what was built was 21 ft. x 12 ft x 7ft because

there was an issue with the engineer and he wanted to make sure there was enough volume to hold the rain water. The system installed will be able to handle the runoff from the structure. Mr. Christian Kastrud, the township engineer, stated that the soil movement for the building should include what is proposed, what is built, and calculations from the runoff of the adjoining house.

The applicant agreed to all conditions in Mr. Kastrud's report that was submitted for the meeting. Mr. Warner asked if the applicant will stipulate to the Health Department memo from June 20, 2018. They agree, although there was a note about a well and not having a record of sewer. There is no well and the house is connected to sewer. The applicant will clear that up with Health and Sewer. They have proof from the sewerage authority that there is sewer.

The applicant is proposing a salt water pool and there is less chemicals needed.

Mr. Cooper asked if there was anyone from the public that had questions for the witness. Seeing no public, this portion of the meeting was closed.

Mr. Monteiro gave a summary that the applicant wants to create a substantial improvement to his home. There is no detriment and Mr. Rocha is friendly with all his neighbors.

Mr. Warner went over the application with a bulk variance of maximum building coverage at 9.4 % proposed vs. 7.5% maximum. It is a flexible c variance, benefits outweigh the detriments.

The board deliberated and all agreed it was a good application. Mr. Bowen mentioned a deed restriction for the building to not be living area. Mr. Chadwick will look at the finish of the building and landscaping.

A motion was made by Mr. Hewson to approve, seconded by Mr. Cooper.

Roll Call

For: Mr. Villani, Mr. Dealaman, Mr. Hewson, Mr. Castanheira, Mr. Rica, Mr. Huber, and Mr. Cooper.

Against: None.

NEXT MEETING: December 3, 2018

MEETING ADJOURNED: 9:10 P.M.

TOWNSHIP OF WARREN
ZONING BOARD OF ADJUSTMENT

IN THE MATTER OF:	
BA 18-10, VERIZON/AT&T, 35 OLD SMALLEYTOWN ROAD, BLOCK 211, LOT 11	TRANSCRIPT OF PROCEEDINGS

Monday, November 5, 2018
Municipal Building
46 Mountain Boulevard
Warren, New Jersey
Commencing at 7:12 p.m.

BOARD MEMBERS PRESENT:

FOSTER COOPER, Chairman
JOHN VILLANI
GEORGE DEALAMAN
RICHARD HEWSON
FERNANDO CASTANHEIRA
FRANK RICA
DONALD HUBER
SCOTT BOWEN
MICHAEL GALBRAITH

ALSO PRESENT:

LISA SAMMARTINO, Secretary
JOHN CHADWICK, P.E., Engineer

ALISON GULINO, CCR, RPR
CERTIFIED COURT REPORTER

QUICK COURT REPORTING, LLC
47 BRIAN ROAD
WEST CALDWELL, NEW JERSEY 07006
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A P P E A R A N C E S:

STEVEN WARNER, ESQ.
Counsel for the Board

PINILIS HALPERN, LLP
160 Morris Street
Morristown, New Jersey 07960
BY: CHRISTOPHER QUINN, ESQ.
Counsel for the Applicant

I N D E X

EXHIBITS MARKED INTO EVIDENCE

NUMBER	DESCRIPTION	PAGE
	(None marked)	

MR. QUINN: For the record, my name is Christopher Quinn, a partner with the firm Pinilis Halpern, on behalf of the applicant, New Cingular Wireless PCS, LLC, which is known in the marketplace as AT&T, and Cellco Partnership, which does business as Verizon Wireless.

The property in question here is Block 211, Lot 11, 35 Old Smalleytown Road in the R20B residential district. Currently on the property is a single-family home and an existing transmission tower that supports Verizon Wireless' telecommunication facility. That was approved back in 2004. It was constructed shortly after that.

What AT&T is looking to do is to seek approval to install a new telecommunications facility on this property, and in order to do that, they are required to construct a replacement transmission tower with related equipment that would look like a barn like Verizon's equipment near the base of the tower, and then, relocate Verizon over to that new tower as well so you would have Verizon and AT&T on the new tower and the old tower would be removed.

CHAIRMAN COOPER: For clarification, is this -- are you replacing entire existing structure?

MR. QUINN: Yes.

CHAIRMAN COOPER: The power lines as well?

MR. QUINN: The power lines would be attached to the new tower and the old tower would be removed. The new tower would be constructed to replace the existing lattice transmission tower. What you may have seen throughout the area, and just by way of an example, as you saw, whenever I drive through Scotch Plains, Watchung, Livingston, Fanwood, all those areas, a few years ago, PSE&G replaced the lattice towers you see with the new monopole type transmission towers. That's effectively what this is, in terms of, it would be a new transmission tower in the place of the prior lattice transmission tower. It's done because of the code requirements which are more stringent.

CHAIRMAN COOPER: Is that entire strip of power lines being done or just this particular tower?

MR. QUINN: Just this particular tower and it's done because that's the only way it could accommodate AT&T's antennas here.

In any event, what we will talk about is, because of the new structure and because of the new requirements from the utility company, the tower has to be taller and the antennas can no longer go below;

they have to go on top and have adequate separation distances dictated by the utility company. Our engineer can talk about that, but in any event, that's where this project is. We are replacing the existing transmission tower with a new tower. It would be a net gain of no towers. There is one tower there now; there would be one tower to replace it at the end of the day.

The use is not permitted here. Your ordinance does say to go to these types of utility structures. We are seeking use variance relief because it is not permitted in this zone. There's a height and setback variance and we are seeking site plan approval.

We have four witness. Our first is our professional engineer, Colleen Connolly, to talk about the site layout. We have a representative from the utility company's agent, Melissa Cooke. We have our radio frequency engineer and we have a planner as well.

MR. CASTANHEIRA: Why do you need a new tower?

MR. QUINN: That will be our first witness. Okay?

If there's no other questions, I will

call her right up and we can start getting right into it.

MR. WARNER: Mr. Chairman, let the record reflect, I reviewed the content of the notice and found it to be sufficient. The Board has jurisdiction to proceed and hear the application this evening.

If everybody can raise their right hand...

C O L L E E N C O N N O L L Y, first having been duly sworn, testified as follows:

M E L I S S A C O O K E, first having been duly sworn, testified as follows:

D A N I E L P E N E S S O, first having been duly sworn, testified as follows:

MR. WARNER: We already know where our Board professionals work and live. You can give addresses and -- name and address, sequentially, when each witness testifies.

MR. QUINN: Okay.

First, we will start with our civil engineer.

MS. CONNOLLY: Hi. My name is Colleen Connolly. I'm with Scherer Design Group. Our address is 53 Frontage Road in Hampton, New Jersey. I'm a principle at Scherer Design Group and these plans were

done under my direct supervision.

MR. QUINN: Can you give the Board your credentials?

MS. CONNOLLY: I have a Bachelor's of Engineering in civil engineering and I'm a licensed professional engineer in the State of New Jersey. I have been practicing civil engineering for approximately 25 years. Most of that has been in support of the telecommunications industry and involved with designs very similar to this. In addition, I have been accepted as a witness before numerous Boards throughout the state.

CHAIRMAN COOPER: Any locally?

MS. CONNOLLY: Oh, yes. I have been in Hunterdon County. I have been before Flemington and Raritan Township. I don't know about this county.

CHAIRMAN COOPER: Okay. Great. We are good.

DIRECT EXAMINATION OF COLLEEN CONNOLLY BY MR. QUINN:

Q. You prepared the plans that were submitted as part of this application?

A. Yes.

Q. You have a set of plans that were submitted, right?

A. Correct.

Q. Any changes to them?

A. No.

Q. What I will ask you to do is to describe for the Board the property, what is being proposed and you heard the question already, the million-dollar question, why are we proposing to replace this tower?

A. Okay.

So this application is on Block 211, Lot 11. There is an existing First Energy transmission line right of way that goes through this property and there are, as we already had stated, electrical transmission lines that go through the property. There is an existing 118-foot-high lattice transmission tower. That transmission tower supports not only the electrical lines but also has Verizon Wireless. Their antennas are on top of the tower with an approximate height to the top of Verizon of 127 feet.

Now, Verizon's antennas are not in compliance with the current First Energy ruling for the separation distance required between the top line, the static line, of the tower itself and the bottom of the antennas, so the tower, if we adjusted for that by raising Verizon's antennas and also added AT&T's antennas to that, it would not be structurally

adequate to support that additional loading.
MR. BOWEN: What's a static line?
MS. CONNOLLY: The top line of the conductors.
MR. BOWEN: What's the conductors? I'm not an engineer so, you know?
MS. CONNOLLY: The electric lines.
MR. BOWEN: The things that carry, like, the power?
MS. CONNOLLY: Exactly, yes.
A. So what we are proposing is to put in a new pole, a new transmission tower, which will be in the monopole type design, so one single pole versus the lattice, the truss-like structure that you see out there now.
In order to get the -- maintain the required clearances as per the National Electrical Safety Code, the conductors or the transmission lines, the electric lines that are on the tower will need to get raised in elevation by 7 feet and that's just because of current standards versus standards when the old tower was put in place and, also, because we are shifting the new tower by about 28 feet to the north. With that increase, that would mean that the top of the top electrical line that will be on the tower will

be at 125 feet above the ground.
CHAIRMAN COOPER: Versus -- what is it?
MS. CONNOLLY: Versus, right now, it's at 118 so an increase of 17.
A. Now, that increase, as I said, was dictated by the electric lines themselves.
MR. BOWEN: What does that mean? Who are the electric lines? The electric lines don't dictate, right? So who is that?
MS. CONNOLLY: They were dictated by the design of what clearance is allowable as per the National Electrical Safety Code.
MR. BOWEN: That's code now. You have to go to that height for that type of electrical line?
MS. CONNOLLY: Yes. Because of the separation from that tower to the next tower. So in order to maintain the clearances that are required, it will need to be raised up.
MR. CASTANHEIRA: You are confusing me. Is that electrical code or is that cell tower code?
MS. CONNOLLY: Electrical.
MR. CASTANHEIRA: If there was no electrical tower or wire running there, probably you wouldn't have to do any of this.
MS. CONNOLLY: If it was not supporting

electrical lines, you would not have to go to that height, correct.
MR. CASTANHEIRA: So the electrical lines are right next to this?
MS. CONNOLLY: The electrical lines will be connected to the new tower.
MR. CASTANHEIRA: It's a shared tower?
MS. CONNOLLY: Exactly. They are connected to the existing tower, and once the new tower is put in place, they would be connected to the new tower.
MR. CASTANHEIRA: So AT&T owns the tower instead of the electrical company?
MS. CONNOLLY: No. First Energy will be the one owning the tower. AT&T will just be putting their antennas on it.
MR. CASTANHEIRA: Why aren't they here instead of you guys?
MR. QUINN: We have a representative from them here who will be one of our next witnesses.
MR. CASTANHEIRA: Because they are the tower owners.
MR. QUINN: They have given us consent as part of the application and their representative is here tonight.

MR. CASTANHEIRA: So you are going from 118, it looks like, to 152; is that right?
MS. CONNOLLY: Yes.
Q. The first part, what you are testifying to --
A. Yeah. The piece that I'm discussing --
MR. CASTANHEIRA: Yeah. Because --
MR. QUINN: We are getting there.
MR. CASTANHEIRA: We're an excited Board here.
MS. CONNOLLY: I'm building you up to that point.
MR. GALBRAITH: Is this one of these new poles that they put down by Sears?
MR. QUINN: I think those were done by PSE&G so it's a similar type monopole type structure.
MR. GALBRAITH: It's not a cell tower; it's something the wires are going on?
MS. CONNOLLY: Exactly.
MR. GALBRAITH: How come you only put one and go back to the old ones? Because this isn't high enough; is that why it is? In other words, down there, they continuously ran them.
MS. CONNOLLY: Exactly. We need a new pole in order to structurally support both Verizon and

AT&T and provide --
MR. GALBRAITH: Their antennas and all?
MS. CONNOLLY: Exactly.
MR. QUINN: That project that happened by PSE&G five years or so ago, that was done as part of their way to upgrade all their utility lines throughout that entire line. It ran from Metuchen through Essex County, Union County.
MR. GALBRAITH: So that's what the pole looks like.
MR. QUINN: I don't think it's the same pole. It's a different utility company but it's that style.
MS. CONNOLLY: It's similar in style.
MR. GALBRAITH: You will go back to the old poles after that one?
MS. CONNOLLY: Correct.
MR. CASTANHEIRA: Another clarifying question. If it wasn't for the additional carrier, in this case, Verizon, you would still need the same structure, the same height and everything?
MS. CONNOLLY: The --
MR. CASTANHEIRA: In other words, you are saying what's driving this requirement is the new regulations around wires. You just said before that,

because of an additional tenant, in this case, Verizon, we need to build something bigger.
MS. CONNOLLY: Yes. Correct. The reason why the pole is being replaced or needs to be replaced is because AT&T is going to be collocating on it.
MR. CASTANHEIRA: Okay.
MS. CONNOLLY: Once we started looking, now, we are putting in a new pole; we need to design that new pole or that new pole has to be designed to all the current standards and that's driving an increase in the pole itself, an increase in where those electric lines need to be connected to it.
MR. CASTANHEIRA: So that's the requirement so why does AT&T need another tower?
MR. QUINN: That's another witness. That's our radio frequency engineer, who, if you have heard these types of applications before --
MR. CASTANHEIRA: I'm just trying to be thorough in what's driving the requirement. It sounds like it's more like AT&T needs to be collocated on this tower than anything else.
MR. QUINN: AT&T is proposing to collocate on this tower because it's needed for its network.
MR. CASTANHEIRA: So that's the

requirement.
MR. QUINN: That is the reason why the application is being filed. As a result of the requirements of the utility company, as a result of the requirements of this new separation requirement, the new structural code requirements which are more stringent, that is dictating why this tower has to replace the existing tower.
MR. CASTANHEIRA: Can you be clearer, though? If there is no additional tenant, are you still required to build a new tower?
MR. QUINN: If nothing was changing whatsoever?
MR. CASTANHEIRA: Right.
MS. CONNOLLY: If nothing was changing, what's there now, as I said, although Verizon does not have the separation required, it's grandfathered in so it would not need to be replaced except for the fact that AT&T is going on there.
MR. CASTANHEIRA: That's what's driving it.
MS. CONNOLLY: Yes. Correct.
MR. QUINN: That's today. That is not to say, if Verizon didn't need to change or upgrade their system, they wouldn't have to go back.

MR. CASTANHEIRA: We are only here for the today.
MR. QUINN: Also, that's not to say that next year or five years from now that First Energy can come and do exactly what Verizon did.
MR. CASTANHEIRA: We can only deal with what's in front of us now.
MS. CONNOLLY: Correct. The reason I'm explaining the change in code is because that is what's driving why the new tower needs to be taller than the existing.
MR. WARNER: If I may, am I correct in my understanding that you have standing as an existing lessee on the tower and on the site and a prospective lessee on the prospective tower?
MR. QUINN: Yes. So Verizon is an existing tenant, lessee, on the property. They have an existing facility. Their reason for having to be part of this application is because their antennas will be moved onto the new tower as part of the application, so therefore, since their facility is being changed, an increase in height, they're part of the application as well as AT&T because they are a new tenant that would be on this property.
MR. WARNER: You would need AT&T involved

and you would need the owner of the property's consent, which you also have, correct?

MR. QUINN: That's correct.

MR. WARNER: Thank you.

MR. HUBER: So I guess, logically, the old tower would stay there until the new tower is up if this project goes through. At what point after the new tower is tentatively constructed and replaced to functional would the old tower come down?

MS. CONNOLLY: It would get removed almost immediately. As soon as everything has been switched over to the new tower, then the old one would be taken down.

MR. WARNER: Would there be able to be a stipulation as to the time frame within which that could be removed if the application is granted and the Board so desired a time frame?

MR. QUINN: Yeah. I think so and I think our First Energy representative would be the person that would be able to give an appropriate time frame.

MR. WARNER: Thank you.

MR. GALBRAITH: Does this thing get decorated to look like a tree or anything?

MS. CONNOLLY: Because it's carrying the electrical transmission lines, we cannot use that type

of camouflaging like you would see on a monopole that just had carriers on it.

A. I'll go through -- I went through that we are going to be raising this tower itself for the electrical lines attached it to 125 feet. Then, Verizon Wireless' antennas would come next on the pole. As I stated before, we need a 10-foot separation from that top electrical line to the bottom of Verizon's antennas. That's going to put the center of Verizon's antennas at 139 feet. We require a 10-foot separation in between the two carriers. That would put AT&T with a center of 149 feet, which is also coincident with the top of the tower itself, and then, that would be 152 feet to the top of the antennas so that will be the highest of the new structure.

Q. Can you talk about the property itself and what else is on the property, the access, the site plan itself, as well?

A. Oh. Okay.

The property itself has an existing single-family home which is towards the front of the property which fronts on Old Smalleytown Road. There is an existing gravel driveway that has access off of Old Smalleytown that accesses the single-family home

itself and then also has an extension back that provides access to the existing tower that's there now for Verizon's use there.

It was noted that the existing driveway currently does go off of the property line in one location off of the property line and outside of First Energy's right of way so we are proposing to relocate that driveway to ensure that it's entirely on this property. The relocation is approximately 110 feet of the driveway itself.

MR. WARNER: As relocated, it will, in and of itself, service both the single-family dwelling and any maintenance required of the tower?

MS. CONNOLLY: Correct. The portion that is getting relocated does not really serve the residence itself. It's kind of beyond the point where it splits off towards the tower but that new relocated would be for the tower and also for First Energy's access.

MR. WARNER: Perfect. And no change in impervious coverage overall?

MS. CONNOLLY: There will be a slight change in impervious. The driveway, because we are removing gravel and replacing gravel, will not be an increase but there will be a minor increase for the

footprint for the sheds themselves.

MR. WARNER: And not the driveway.

Thank you.

A. As we said before, there's an existing lattice tower on the property. There is also Verizon Wireless' equipment shed to support their antennas.

Q. Why don't you talk about where the proposed AT&T equipment, where it's located, its setbacks and you could show them on the plan, if you need to, and why that location was chosen?

A. Okay.

What we are proposing for AT&T is two sections of an equipment shed or shelter. The shed itself will be finished very similarly to the way that Verizon Wireless is, which is a painted red, kind of, wooden clapboard siding on it and then also white trim to give it sort of a barn-like appearance and it will have a sloped, a peaked roof, again, very much like Verizon.

There will be one section of the equipment shed that will be 18 foot 4 inches by 9 foot 10 inches. That is where the equipment itself would be housed for AT&T. That will be cooled by two 5-ton AC units. There will be a second section that will be 7 foot 10 inches by 12 foot 11 inches that will be

finished in the same manner and will house a 30-kilowatt backup diesel generator. Each section of the AT&T equipment will have its own access door to allow the two sections to be separated from each other.

Q. Again, the goal is to appear like a barn-like structure similar to the Verizon equipment?

A. Correct.

Q. In terms of the generator itself, it will be located inside of the building?

A. It will be located inside of the building, yeah.

Q. So it won't be visible whatsoever?

A. It will not be visible. There will be some louver type vents in order for it to get the proper ventilation and the exhaust itself will come out through the roof of the shelter.

MR. WARNER: How about noise from this generator? Any abatement?

MS. CONNOLLY: We will do noise abatement. The louvres will be an acoustic dampening louver in order to decrease the sound so that we will meet the New Jersey sound ordinance.

MR. WARNER: Also, for the record -- my apologies -- when you referred to the plans earlier, you were referring to what was last revised

October 16, 2018?

MS. CONNOLLY: That's correct.

MR. WARNER: They were submitted more than ten days in advance so we need not mark them as exhibits.

Thank you.

MR. BOWEN: What's the limit for the sound? Give me an example, a freight train, an automobile, how far it travels.

MS. CONNOLLY: The sound limit is 60 decibels at the property line and we are going by the daytime noise ordinance because the -- during -- when it's actually running, it would be during an emergency situation when there's no power available that it's running. The testing of the generator will be done once a week and during normal business daytime hours.

MR. WARNER: That will be a condition of approval, correct?

MR. QUINN: Yes.

MR. WARNER: If it's an emergency that it's operating in, which it would be, that is an exception to the state noise regulations, correct?

MR. QUINN: Yes.

MR. WARNER: Usual decibel levels for daytime and nighttime.

MR. QUINN: Effectively, when a generator runs on any property, as an emergency perspective, it's exempt from the noise standards but the concern is always the regular testing that has to happen and that has to comply with all noise standards. For that reason, we have to meet the daytime running hours and the generator --

Q. As you testified, the generator will always be running for testing purposes during business hours during a weekday?

A. Yes.

Q. So it would be within the daytime standards for noise at the property line?

A. Correct. That's set to run automatically to make sure that the generator is running properly.

MR. BOWEN: What's 60 dB equal to? Automobile? 18-wheeler? Freight train?

MS. CONNOLLY: It's very variable to the distance that you are away from it but it will be very similar to Verizon's installation that they have there now.

CHAIRMAN COOPER: Is it similar to a lawn mower or a motorcycle without a muffler? What is 60 dB; that is what the question is. I'm trying to get a comparison.

MS. CONNOLLY: I understand what you are looking for.

MR. BOWEN: Should I Google it?

CHAIRMAN COOPER: That's fine. Go ahead.

MR. WARNER: I take it that, when Verizon's generators could be tested, it's not going to be the same time AT&T's is tested and vice versa so you would not have a level that would exceed the requirements?

MS. CONNOLLY: Yeah. We can coordinate that.

MR. WARNER: I think the Board will appreciate the stipulation, nonetheless.

MR. QUINN: That's fine.

CHAIRMAN COOPER: Okay. Let's keep moving.

Q. With respect to in terms of the diesel, the fuel would be delivered in the same way it's delivered to -- anyone accessing the site, up the driveway?

A. Correct. And Verizon also has as diesel generator. It would be 109-gallon tank, which is of double-hull construction and meets the required DEP containment.

MR. DEALAMAN: Is this tank above ground?

MS. CONNOLLY: Correct. It also sits directly below the generator itself and it would be inside of the shed.

Q. So let's talk about the location of the shed where we need setback relief variance for this, correct?

A. Correct.

Q. Can you describe why we are proposing the equipment barn in this location as opposed to being within the required setback? Is there a reason why the equipment can't be located right next to the pole?

A. There are several requirements that First Energy has for where we can site equipment. The first is that we must have all of our equipment at least 3 feet from the horizontal separation from the plane of the overhead lines, so if you take the electric lines, take that down to the ground, we have to be at least 3- foot horizontal separation from that and that's just to allow First Energy to have the required access that they need to get to the lines and to service them.

They also require a 15-foot separation from the lines to any generator so we need to push the generator further away from the lines than the equipment shed itself can be.

I will just note that Verizon's -- you can see by looking at the plans, Verizon's equipment currently violates that. That was grandfathered in. What we have to do is design by the current First Energy standards for separation.

Q. So First Energy changed the requirements and that's why we have to adhere to that?

A. Yes.

Q. In terms of the Verizon equipment, is there any changes proposed to Verizon's equipment building?

A. No. There will be no change to the equipment building. The only change to the installation is that their antennas would be moved to the new tower, and in addition, their cables, which are going to the existing tower, would be translated over to the new tower also.

CHAIRMAN COOPER: So you said that the new tower is going to be 28 feet further north than the existing tower; is that correct?

MS. CONNOLLY: Correct. So it will be closer to Verizon.

CHAIRMAN COOPER: So it will be what?

MS. CONNOLLY: Closer to Verizon.

CHAIRMAN COOPER: Okay.

MS. CONNOLLY: Their cables will go shorter, not longer.

Q. So if you are on Old Smalleytown Road, it will be 28 feet further away from the street?

A. Correct. You will be further from the street.

Q. In terms of the setback, there's other natural constraints and restrictions that limit where we can locate our equipment?

A. Correct. The area just to the north of Verizon is all Wetlands area so we can't put the proposed AT&T equipment shed to the north of Verizon's shed because we would be in a Wetlands area.

In addition, there is a Texas Eastern Gas easement which runs from approximately 5 or 10 feet to the west of where the center line of the towers are now and extends over to the other side of the easement so we are restricted from putting our equipment within that area because that's encumbered by the gas easements.

Q. So we are really stricken where we can go?

A. Yeah. We are very tied into, really, this location. We are pushing it as close as we can to the overhead lines in order to increase the

distance from the property line as much as we can.

Q. But again, even though we are within the required setback, the site will still comply with all applicable noise standards here?

A. Correct.

Q. Now, with respect to the landscaping being proposed, there's no landscaping being proposed as part of this application?

A. Currently, there is not.

Q. Why is that?

A. Again, First Energy and also the New Jersey Board of Public Utilities does restrict the height of landscaping that we can propose within the right of way so we are not allowed to propose any landscaping within 15 feet of the tower itself in order to give First Energy access to the tower and then from a discuss that is 15 feet out from the overhead lines. So take the lines, go out 15 feet in either direction, in that swath or that "wire zone," as they call it, we can't have any landscaping that's higher than 3 feet at maturity from the outside of that, so 15 feet beyond the lines and out to the edge of the right of way, we can propose anything that's up to 10 feet high at maturity so those are our restrictions as far as what we can propose.

Q. So at this point, there's nothing that would really screen this equipment?

A. Not really. A 3-foot-high shrub wouldn't offer a lot of screening.

Q. Especially, we are proposing this to be in a barn structure, like a garage that will conceal it to make it not look like it's cell equipment.

A. Correct. And once we get to a point where we are beyond the 15 feet from the overhead lines, we could put in something that's up to 10 feet but that is sort of getting more into the portion of the property where there is existing tree coverage.

Q. There is tree coverage going up and down the right of way in this area?

A. Correct. More towards the outside of the right of way.

Q. Okay. Does the project require any provision of water or sewer service?

A. No, it does not.

Q. Any lighting being proposed by the applicant on the tower?

A. None on the tower.

Q. What about the equipment? Any changes to the Verizon?

A. There will be no changes to any lighting

at Verizon. As far as the lighting for AT&T, there will be a light at each one of the doors to the two pieces of the shelter, the two parts of the shelter. They will be aimed to the ground to limit the light footprint and they won't be on a motion detector. They would have a switched timer, so if a technician comes to the site at night, they would turn the timer on and it would go off automatically so no one could accidently leave the light on.

Q. There would be no situation where a deer would turn the light on by accident?

A. No. You would have to turn the switch to turn the light on.

MR. WARNER: Is there not an FAA requirement with respect to lighting on towers?

MS. CONNOLLY: There is, but due to the height of this, it's not required for this.

Q. Typically, it's a height restriction or if you are right in the landing zone, correct? We don't meet either of those requirements so we are not required to light this tower?

A. No, we are not.

MR. WARNER: You are not tall enough to require it?

MS. CONNOLLY: Correct.

MR. WARNER: Even at the proposed new taller height?

MR. CONROY: It doesn't meet the criteria, correct.

Q. It's 200 feet, the height?

A. It depends on where you are in relation to an airport but it is close to that 200-foot limit.

MR. WARNER: Thank you.

Q. In terms of maintenance visits from a technician, how often does that occur?

A. That can vary. We typically say it's approximately monthly that a technician would need to come to the site. Standardly, they would come to the site in a regular type passenger vehicle, a truck or an SUV, but nothing more significant than that unless there was some kind of equipment failure or something like that.

MR. CASTANHEIRA: One for each company?

MS. CONNOLLY: Yes. Verizon and AT&T would have separate technicians.

Q. So you are taking about, with Verizon and AT&T both, you are looking at approximately two vehicles per month?

A. Yeah. Again, that can vary if there's an issue that they need to troubleshoot but on average.

Q. Standard maintenance, we are talking about, a technician would come once a month per carrier less than an hour during daytime hours?

A. It depends what the specific issue is but that's a standard.

Q. But again, for a typical maintenance visit, they would just be someone driving to the site with equipment; they can do their diagnostic test and leave?

A. Correct.

MR. WARNER: For all standard maintenance, that would be a condition of approval? We can use the term "approximate."

MR. QUINN: Yes.

MR. WARNER: Thank you.

Q. The site and the facility and the proposed tower will meet all code requirements as you mentioned before?

A. Correct.

MR. QUINN: I have no further direct questions. We can go through some of the review letters. I know a lot of them had engineering, civil engineering questions.

CHAIRMAN COOPER: Do that, and then, we will see if any members of the Board have any

questions before I go to the public.

MR. QUINN: Okay.

Q. Mr. Chadwick's letter, the September 26th memorandum by Mr. Chadwick, talks about waivers from the plans, the scale is appropriate and the waiver being proposed for the landscaping, which, I think, you already testified to?

A. Uh-huh.

Q. We talked about the increase of height, Number 3.

Number 4, we talked about the side yard setback variance for the new equipment.

Number 5, the existing tower is to be removed by others. The time table, we said we would have our representative but it would be shortly after the tower would be constructed?

A. Correct.

Q. 6 and 7 are informational only.

8 would be an item talked about by the planner.

9, the stormwater runoff, do you have any comments about the stormwater runoff with the amount of disturbance being proposed?

A. Because we don't have a large increase in the impervious area and because of the drainage

pattern of the property itself, where the water is currently, under existing and proposed conditions, would be draining away from the property line and more into the center of the property. There wouldn't be any impact to the storm water.

Q. Number 10 talks about the architecture of the shed, that it be similar to the existing, which you already testified it would be?

A. Correct. Similar to Verizon's.

Q. What about the fencing around the equipment itself, can you talk to that? Number 12, the border fence has been revised.

A. We are not proposing any fencing around AT&T's equipment. Now that it is in a shed, we are not putting any fencing around it. I think that was from a previous plan iteration.

Q. Okay.

Next, we will go to the engineering memorandum dated September 22, 2018. Have you had a chance to review that?

A. Yes.

Q. I'll let you run through these comments.

A. Okay.

Q. Number 1 is explanatory. Start with Number 2.

A. So the overhead wires, as I discussed earlier, the overhead electrical wires would be supported by the new tower and taken off the old one and placed onto the new one.

Q. Number 3 talks about why this tower is not a viable alternative. We will talk about that with our next witness. We will talk about the other transmission tower that's located to the north of this site. I believe it has Sprint and T-Mobile on it. That will be the next witness.

A. The Number 4 is related to the generator. The generator that we are proposing is within the shelter itself.

Q. Okay. Number 5 is informational.

Number 6 is asking for a survey, which we will submit?

A. Yes. A survey has been done of the property. We will submit that.

Q. Number 7 is about the lighting for security. We talked about the lighting already.

A. That would be a timer, correct. We discussed the visibility of it.

Q. And in terms of the zoning signs, lighting and landscaping, it was deferred to Mr. Chadwick?

A. Yes.

MR. WARNER: No signage, correct?

MS. CONNOLLY: The only signage at the site would be what's required by the FCC, certain warning signings that need to be posted on the shelter itself.

MR. CHADWICK: Is there a telephone number on the sign now?

MS. CONNOLLY: Yes. The sign will give an identifying number, information on the site and who you can call.

Q. That's on the Verizon one already?

A. Correct.

MR. QUINN: The other review letters from the town offices and professionals did not generate any other substantive comments.

MR. CHADWICK: All the fencing you had originally planned is a barn?

MS. CONNOLLY: Correct.

MR. QUINN: Okay. I guess we can open to questions from the Board or anyone from the public.

CHAIRMAN COOPER: Any Board members or professionals?

MR. CHADWICK: I have no questions.

CHAIRMAN COOPER: Anyone from the Board?

(No response)

CHAIRMAN COOPER: Any members of the public have questions of this witness based upon the testimony that was given?

(No response)

CHAIRMAN COOPER: Seeing none, I will close this portion.

MR. QUINN: Next, I will ask Melissa Cooke; she's a representative of our landlord that can answer questions with respect to what was asked and also about the project, about the timeline in terms of that and the like.

You were sworn in already.

DIRECT EXAMINATION OF MELISSA COOKE BY MR. QUINN:

Q. Can you state your name for the record and give a business address, please?

A. Melissa Cooke, C-O-O-K-E, Diamond Communications. We are located at 820 Morris Turnpike, Suite 104 in Short Hills, New Jersey 07078.

Q. Can you state how Diamond is related to the utility company that you are an agent of, First Energy?

A. Correct. In 2009, Diamond Communications entered into an agreement with First Energy to market and manage all wireless collocations on First Energy's

assets.

Q. So you oversee -- you help Diamond oversee and work with First Energy in terms of any of the applications or projects by a carrier on this type of utility structure?

A. That is correct. Any time a carrier has an interest in placing equipment on a transmission tower, a distribution pole, a substation, that would all go through us.

Q. You are familiar with this particular site and the project and the site selection process and the proposed pole replacement?

A. I am, yes.

Q. Can you talk, again, about why we have to propose a pole in the place of the existing transmission tower that's there now for AT&T?

A. I would be happy to.

The transmission tower, as Colleen had stated, First Energy does have certain requirements about new installations. Whenever we install a new carrier on a transmission tower, we do have to meet certain clearance requirements, that being the 10 feet above the -- from the top of the tower to the bottom of the first carrier's antennas. By increasing the height of this transmission tower of the carrier's

equipment, the transmission tower would no longer be able to structurally hold that extra weight.

Q. So as a result of that, that is why we are proposing the new tower?

A. Correct.

Q. In terms of time line that was mentioned before, about how long would it be appropriate from the completion of construction of the new tower to the removal of the old tower?

A. It will happen in a matter of days, if that long. Once the new tower goes up, they will transfer the transmission lines over to the -- from the old tower to the new tower. This old tower will come down right away. The construction work all has to be done within a certain outage period so we do have a limited time frame in which to get it done.

MR. WARNER: Would there be a reasonable maximum that the Board could impose a time frame for you to -- for someone to remove the existing tower when the new tower is constructed? And if it's reasonable, the Board doesn't have to impose it. You could just stipulate to it.

MS. COOKE: I would say the old tower could come down with a week or two. I would add the caveat: If anything were to happen, this is still an

electrical transmission tower and First Energy would have the right to change that timeline depending on what might happen, whether there's weather implications...

Q. So would you say 30 days is appropriate?

A. Yeah, yes.

Q. Just to be overly conservative in terms of any condition. It would, most likely, be much quicker, though?

A. Yes.

CHAIRMAN COOPER: Does that include the removal of the footings in the ground? Do they remain in the ground when the tower comes down?

MS. COOKE: They are usually removed a few feet below grade.

Q. Another question was raised about why -- it seems like AT&T, because they are proposing a site on this particular tower, is really -- it's changing this entire structure. Could it go to the tower to the north, as was suggested with -- it already has two other carriers on it. Is that a feasible location for that -- for this project for AT&T?

A. T-Mobile and Sprint are installed on the tower to the north. There is no -- that structure would not be able to accommodate a third carrier

without being replaced, and unfortunately, that is located in somebody's front yard. There's really no place to put either a new tower or AT&T's equipment.

Q. Again, you are talking about with the same type of structure but even being even taller?

A. Correct.

Q. It would have three carriers instead of two?

A. Correct.

Q. As you go to the south, the property starts dipping in elevation and having Wetlands issues too, correct, for the towers that are located on those properties?

A. It is definitely lower in elevation.

MR. QUINN: I think that's the questions that I had in terms of the concerns about First Energy. If there's any the Board may have, I will make her available.

MR. CASTANHEIRA: Who's going to speak about the reason why AT&T needs it?

MR. QUINN: That's our next witness, the radio frequency. That's the coverage and the plots that you typically see.

CHAIRMAN COOPER: All the documentation that I see, everything from Somerset County Planning

Board references a new 125-foot cellular transmission tower when there was testimony given before that is about 139 feet.

MR. QUINN: So the tower itself will be 125 feet for just the transmission tower itself?

MS. COOKE: Correct.

MR. QUINN: The replacement tower by itself will be only at 125 feet. AT&T and Verizon, as directed by the utility company, has to go above that so it would not be 139 feet for the tower. It's 125 feet for the replacement transmission tower. With the carriers on top, it would be 152.

CHAIRMAN COOPER: Okay. So the overall height of what's going in there is 152 feet?

MR. QUINN: Yes.

MS. COOKE: Correct.

MR. WARNER: The antennas are above the top of the tower, correct?

MS. COOKE: Correct.

MR. CASTANHEIRA: With 10 feet of separation between the two.

CHAIRMAN COOPER: Okay. All right.

MR. QUINN: The maximum height of the actual extension to the pole itself are going to be 149 feet, correct, with the antennas extending 3 feet

above that?

MS. COOKE: I don't have a set of plans in front of me but that sounds reasonable, yes.

MR. GALBRAITH: About 30 feet higher according to this.

CHAIRMAN COOPER: Any other questions of this witness?

MR. CHADWICK: Is there any reason that that antenna can't go below the wires?

MS. COOKE: Yes. Because First Energy -- First Energy's primary use of this transmission tower is for the safe and reliable transmission of electricity. That's our first main concern on every installation. The reason for going above the top of the transmission tower is so we stay out of that work zone and out of the area where they would have people working on the tower for both safety of the equipment and also their employees.

MR. QUINN: That's why First Energy dictates that carriers have to go above the lines?

MS. COOKE: Correct.

MR. WARNER: Do they dictate that they have to go above or are you saying that, if they go below the work zone, they would not have sufficient line of sight to get the propagations they need, the

coverage they need?

MS. COOKE: If AT&T were to install below the transmission lines?

MR. WARNER: Below the work zone.

MS. COOKE: Which would be measured from the bottom of the lowest conductor. They would have to be 20 feet below that which would put them at probably 20 feet, so no, that would probably not work from an RF perspective.

CHAIRMAN COOPER: Let's move along. Any other questions?

(No response)

CHAIRMAN COOPER: Any members of the public have questions for this witness based on the testimony that was given?

(No response)

CHAIRMAN COOPER: Seeing none, we will close that portion.

MR. QUINN: Okay. I'll call Mr. Daniel Penesso. He's our radio frequency engineer.

MR. PENESSO: Good evening. First name, Daniel; last name, Penesso, P-E-N-E-S-S-O. My address is 299 Madison Avenue, Morristown, New Jersey.

MR. QUINN: Mr. Penesso, you are here acting as an agent for the applicant; is that correct?

MR. PENESSO: Correct.
MR. QUINN: Can you give the Board the benefit of your education and professional background, please?
MR. PENESSO: Yes. I have a Bachelor's of Science in electrical engineering. I have been employed as an RF engineer for over 20 years. I have been responsible for designing implementation such as the site before you tonight and have been accepted as an expert witness throughout hundreds of Boards with regards to design implementation of wireless networks and I'm not sure if I was before Warren but everywhere around Warren.
CHAIRMAN COOPER: Okay. Thank you.
MR. WARNER: You are seeking to be accepted as an expert in radio frequency engineering?
MR. PENESSO: Yes. Responsible for the design of this site tonight.
CHAIRMAN COOPER: We will accept him.
DIRECT EXAMINATION OF DANIEL PENESSO BY MR. QUINN:
Q. Is the applicant a licensed FCC telecommunications carrier?
A. Yes.
Q. Does that license require them to have adequate service in the area in Warren including the

area surrounding the site?
A. Yes.
Q. Is there adequate service around this location?
A. We have deficient coverage in the area. I can illustrate that by the exhibits.
Q. Sure. The question was asked why we need a site here and why we need the height and so on.
A. Sure. Currently, AT&T -- I'm referring to Map 1 labeled "AT&T Neighboring Coverage."
Q. Before you get started --
MR. WARNER: We have these? These are the same ones that were submitted, just a larger version, to the Board?
MR. PENESSO: Yes.
MR. WARNER: They were submitted May 20th?
MR. PENESSO: That's correct.
MR. WARNER: They have not been changed in any way; it's the same coverage?
MR. PENESSO: Yes; that is correct.
Q. You don't need to mark that. I'll ask you to describe for the Board what that is, how you generate it, what the different lines are and the different colors and go from there.

A. Sure.
Approximately, in the center of the map, is the proposed location before the Board tonight. It is labeled W1320. The green dots on the map represent AT&T existing on-air sites within AT&T's network and the coverage that is being provided is depicted by the green and blue color on the map. The green represents reliable in-vehicle and the blue-purple-ish color is reliable in-building coverage. The area of white is unreliable AT&T coverage, approximately, in the center of the map.
This exhibit was done using an industry standard prediction modeling tool that takes into account the morphology and the different heights of the cell sites that are currently existing and integrated into AT&T's network and tuned with drive test data so we get a representation of what the coverage is to illustrate for you all AT&T's coverage footprints for those sites, what we are trying to fulfill with the site before the Board tonight.
I can go through and list the sites.
MR. BOWEN: How big is that area in white?
MR. PENESSO: The area in white is approximately -- to the north, maybe a little over a

mile. The scale is on the upper left. We have --
MR. BOWEN: What is it in square miles, yards, whatever you want to do?
MR. PENESSO: Approximately, maybe, I would say, in spherical square miles for the whole area, a little over 2.
MR. CASTANHEIRA: Is the coverage or lack of coverage that you are referring to specific to data, to cellular coverage, to text, SMS?
MR. PENESSO: Currently, AT&T is upgrading its network to include all LTE as well as FirstNet, which is a -- they were awarded the 700 megahertz band to allow first responders, if there was ever an emergency, that band will be allocated just to first responders and emergency workers. All of the area, the sites that are on air are going to have that as well as the proposed site that is before the Board tonight. We are trying to fulfill this area, which I will show in the next exhibit, so that this area has seamless, reliable coverage --
MR. CASTANHEIRA: Can you be specific to my question? Is this for cellular, data?
MR. PENESSO: It's for everything, cellular, voice, data.
MR. CASTANHEIRA: The FCC requirement

only mandates for cellular, right? They don't care about data.

MR. PENESSO: No. Everything. Everything -- anything that is wireless that's within AT&T's network.

MR. CASTANHEIRA: The FCC requirement, I think, refers to cellular and SMS, not data.

MR. PENESSO: Well, I can defer that to the attorney.

MR. QUINN: It refers to wireless communications services. It doesn't say "cellular only." The different bands are based upon what the frequency range is, correct?

MR. CASTANHEIRA: We can debate that. I think you guys should check that out. I think it refers to cellular, not data, correct? They don't care, like, if my kids are playing whatever game, Fortnight. They care about cellular, like telephone calls, texting.

My other question is: Did you look at other alternatives when you looked at this design?

MR. PENESSO: Yes. As was stated, there are no existing tall structures in the area.

MR. CASTANHEIRA: No. I mean other technologies, microcells.

MR. QUINN: We are going to get to that. He just started.

Q. Again, can you talk a little bit about FirstNet and what that is? Because I think that is something that is new that hasn't been part of these types of applications before for AT&T. It's something that's new for just AT&T in this particular area?

A. That's correct. The FCC awarded AT&T that band of frequencies in the 700 megahertz band, as I stated, for municipal emergency services. If there's ever an issue where -- or a catastrophic incident where the first responders in the area need to utilize the network, that spectrum would be allocated specifically for that. It would not be used for the public use. It would just be used for the emergency responders, whether they are in Warren or coming from another county to serve Warren or to help any situation as well as serve in hospitals. We want to have coverage in hospitals because, whenever there's an emergency situation, you have, you know, citizens that have to go to the emergency or to the hospital and we want to make sure we have reliable services there as well.

Q. It's not just for AT&T subscribers but also for this FirstNet service, which is particular to

AT&T's system but it's a component of AT&T's system, correct?

A. Yes.

Q. And that provides added service, dedicated coverage and service to first responders, hospitals, police, ambulances, fire departments?

A. Yes.

MR. BOWEN: Keeping in mind I'm not an engineer, do you ever share equipment?

MR. PENESSO: "Equipment," meaning...

MR. BOWEN: Verizon and AT&T decide to share.

MR. PENESSO: No. Every network is independent and we don't --

MR. BOWEN: Can you share equipment if somebody decided it was a good idea?

MR. PENESSO: Each carrier is allocated a certain amount of spectrum and they are competing for each other's subscribers. That's why you have various carriers, Sprint, Verizon, T-Mobile, all competing for various subscribers based on their design and their network.

Q. Additionally, you mentioned before, when you say "spectrum," you are talking about every carrier operates within certain frequency ranges,

correct?

A. Correct. That they have been awarded by the FCC.

Q. And they are distinct from one another?

A. That is correct.

Q. So AT&T doesn't operate within the same frequency band as Verizon?

A. They can operate within certain bands but it's separated by blocks of bands, 700 megahertz or 850 megahertz. They can have various blocks that were allocated to them but it's only a certain amount of spectrum, small blocks.

Q. Okay. I'll let you keep going.

A. So I can list the neighboring sites if the Board desires to hear the existing on-air sites.

Q. Sure. Talk about the sites we have to hand off to, please.

A. So going to the north, we have a site which is identified as -- I'll give the four digits of the site -- 0F07. That's located on Route 78 and Hillcrest Road in Warren.

Just north of that, 18 Drift Road in Watchung. We have a monopole which we are located on. That's identified with the last four digits of 1081.

Just north of that on Valley Road in

Gillette, we are on a lattice tower. 3P09 is the site ID.

South of that, on Warren Avenue, we have a site in Sterling which is a monopole. That is 0412.

Just south of that, we have a site located at 198 Mountain Avenue in Warren. That's a lattice tower identified by Site 3090.

Then, due south, we have a site located at 799 Mountain Boulevard which is in Watchung. That's identified with the Site ID 1087.

Just west of that, we have a site at 7 Geiger Road which is a self-support tower. That is identified by 0211.

Those are the immediate handoff sites to the proposed site that is before the Board tonight.

MR. BOWEN: Is 78 running right through that?

MR. PENESSO: Here, yes.

MR. BOWEN: If I'm on 78 on my AT&T phone, does it die right there?

MR. PENESSO: You'll have spotty coverage on 78 because of the cell sites that I mentioned, the one located on Route 78 in Hillcrest and the tower to the west at 198 Mountain Avenue, and as you can see in the exhibit, it's an exhibit showing coverage and

spotty coverage just north of the site so what we are trying to fulfill with this site is that level of coverage. We have unreliable coverage in this area of white which we need to fill to bring it up to, at least, as Mr. Castanheira was saying, the level of coverage to have reliable mobile coverage, the minimum. That's -- as you were stating, what the FCC is stating. There is no case law, that I know of, stating that we have to have reliable in-building coverage but we do have to provide reliable in-vehicle coverage and that's what this site is proposed to do.

MR. BOWEN: So you must have tested that, right, and you know, if you drive through there, whether it cuts out or not on a regular basis?

MR. PENESSO: That's correct.

MR. BOWEN: Does it cut out?

MR. PENESSO: That's correct. On 78, we have areas that you can keep your call up on 78, but in the area of white, we cannot so that's why we are proposing this site tonight. It's not just for 78. This is to cover this whole geographic area.

MR. WARNER: If I may, Mr. Chairman.

Are you aware of any complaints to the FCC or to your -- any of the carriers that are applicants here with respect to lost or spotty service

in the alleged gap here? I don't mean -- when I say "alleged," it's alleged until the Board determines. The alleged service gap area?

MR. PENESSO: I am not, no.

MR. WARNER: Okay. Thank you.

Q. How is this site measured? Is that tool calibrated and reliable in terms of your prediction of coverage?

A. Yes. As I stated, it's tuned with actual drive test data so you get an accurate representation of what these existing on-air sites provide.

Q. When you measure, what does green mean in terms of a signal strength? You said what it basically boils down to is you have what's in-vehicle coverage. That is measured by a certain strength of signal, correct?

A. That's correct, yes.

Q. Can you elaborate on that a little bit more? That's how you actually figure out what's green and what's not and what does that effectively mean to the end user?

A. For reliable in-vehicle coverage for the LTE network, it's -105 dB. It is just a unit of measurement and that is what the green depicts and -95 dBm for the reliable in-building LTE coverage. That

is what's being shown on the maps.

Q. In terms of what those numbers mean, is that, based upon AT&T's network, that's the level of signal that would need to be received and sent between the device and the facility?

A. That's correct. Whatever -- whichever the serving cell is, it's a two-way communication system and it has to be balanced that the user would be able to transmit to the serving cell as well as the serving cell back to the user.

MR. BOWEN: You seem to be able to get coverage on 78 where you have those little patches, right? Why doesn't that then, whatever you got there, stretch north and south? You must have a repeater or something over there.

MR. PENESSO: Because of the topography and the existing clutter, trees, everything, the topography that changes, these cell sites cannot serve this area in white.

MR. CASTANHEIRA: Do you know the population of that area in white? How many houses?

MR. PENESSO: No, I do not know.

Q. If this site were approved, what would this generate?

A. If this site were approved and integrated

into AT&T's network -- I'll flip to Map Number 2. This is labeled "AT&T Proposed Composite Coverage." This is the same exhibit, basically, just showing, if this site were integrated into the network, what coverage would be provided by the site and how it would connect to the existing on-air sites. As you can see, the area in white is predominantly fulfilled with this proposed site and that we do meet the handoff and the seamless, reliable coverage between the neighboring cells.

Q. Again, the proposed height is what is needed to achieve this level of service?

A. That is correct, yes.

Q. Again, the height being proposed is not necessarily as much dictated by AT&T trying to go as high as it possibly can but instead rather -- to meet your needs but rather opposed to being dictated where it has to go by the utility company on the replacement pole?

A. Correct.

MR. WARNER: And the need for separation from the other collocater.

MR. PENESSO: Correct. And as was stated previously, to be away from the static line dictated by the First Energy.

Q. The question before was, if AT&T was below the whole work zone of all the -- 20 feet below all the power lines here --

A. Below the lowest conductor, we would not meet our coverage objective.

Q. About 40 feet, if you dropped it to about a quarter --

A. We wouldn't get the propagation of the cell site that we need to fulfill the gap.

MR. BOWEN: Is this strictly additive or do you get to delete a tower somewhere?

MR. PENESSO: No. There are no neighboring cells -- no. We are not removing any of the neighboring cells. This cell is to fulfill the gap in coverage that I spoke about.

MR. WARNER: Mr. Chairman, if I may.

Is there any way which you could shift or maneuver the direction of any one or more of the antennas on any one or more of neighboring towers in order to, at least, for in-vehicle coverage, to full that alleged coverage gap?

MR. PENESSO: No, there is no other way.

MR. WARNER: What would happen?

MR. PENESSO: The cell sites that I depicted in my first exhibit are based on the height

that was afforded to us when we installed the antennas. The footprint of coverage is being depicted on the map as it is. There's no way to increase the heights or change them to bring up the level of coverage to fulfill the gap in coverage within Warren.

MR. WARNER: Maybe I wasn't clear in my question. You can redirect the antennas, correct?

MR. PENESSO: Changing the azimuth on any of the existing sites would not change the need for a cell site here. The sites are optimally designed to provide coverage to the areas that they are designated for.

Q. In other words, if you turn some of the antennas that are to the north of the site, if you turned them more to the south or, say, the site immediately to the north, if you turned the antennas -- right now, it looks like they are directed to the south, but if they were directed to the southeast, it wouldn't make a difference; there would be still be a need?

A. There would still be a need, yes.

MR. WARNER: I take it, you might be compromising the levels of service in the other areas if you did that too, correct?

MR. PENESSO: Yes. Like for the site to

the north in Gillette, if we reoriented it slightly, make it at 180 degrees, you would open up a gap in coverage in another area. You would not fulfill the need here and you would open up another hole somewhere else.

MR. WARNER: Last one for now, I promise.

It's -105 dBm for in-vehicle and -95 dBm for in-building. Did it not, in the olden days -- by "olden days," I mean about ten to fifteen years ago -- wasn't the industry standard -85 dBm?

MR. PENESSO: Right. Now, that we are using LTE, 700 megahertz, I'm showing the 700 megahertz so AT&T is allocated from 700 up to 2300 megahertz.

MR. WARNER: So is that the higher megahertz?

MR. PENESSO: The 1900 megahertz, where -- I'm showing -- the 700 megahertz has a longer wavelength, physical characteristic. Even at that level -- and that can propagate further because it's got a longer wavelength. The higher the frequency, the shorter the wavelength, the less propagation that you would get out of the radio wave. So even at 700 megahertz, which is the longer wavelength which can propagate further, we still have a need. If I were to

show you the higher frequencies, the gap in coverage would be slightly larger than what you see.

We are designing utilizing 700 megahertz because this is the new spectrum that was allocated to AT&T that the existing on-air cell sites need to be upgraded to as well as anything new needs to be upgraded to because of the FirstNet that was awarded to us by the FCC in addition to having the existing spectrum that we already have within AT&T's network, the 1900, 2300, 2100 megahertz.

Q. So this is the most forgiving service or signal?

A. Correct.

Q. If you were to show the other signals from the other frequencies that AT&T operates at, they would be even smaller?

A. As I stated, yes. If I was to show 1900 megahertz, I would have a slightly larger gap in coverage.

Q. And we need to provide service for all those --

A. Yes. And because we are licensed in all those bands, we have to have coverage within all of those bands so that -- because it's only a small block in each so we are going to be using that spectrum

throughout the network, all the different frequency bands.

Q. The devices use different frequency bands, not just one, so we have to provide service and frequencies within all the frequency bands?

A. That's correct, yes.

MR. WARNER: I take it this would provide sufficient coverage even at the higher megahertz bandwidth?

MR. PENESSO: Yes. All of -- if I were to show the other bands, we are going to show -- even though it's at a different dBm level, it's still going to match pretty closely because we have to operate in all the bands. We can't have one propagating a lot further because then we would not be able to utilize the 1900 megahertz as well.

MR. CASTANHEIRA: Is the bigger spectrum driven by data needs?

MR. PENESSO: As I stated, we have to provide reliable mobile service. As far as data needs, the network is being utilized by voice, data, SMS, everything. As far as AT&T providing the reliable coverage, I can state, for the record, for the mobile use but we do see the trend of much more data usage. All the carriers see the trend as far as

more data usage so that is the case.

Q. In terms of your question before about what the standard is, is that just cell or is it, you know, what different type of technology, what the New Jersey courts have come down and said is that how you evaluate these, and our planner says, you have to look at the benefits as a whole, not just one limited use of a phone or device, but rather, what does the benefit of the entire site do? When you are looking at the positive criteria here and particular suitability and all that stuff which you will hear from our planner, it's, really, you look at all the positives so it's the fact that you are going to have -- you know, people will be able to not just look at their phone and make a phone call when it's operating at one particular frequency band, but rather, the fact that someone is going to be able to FaceTime with their children as well, as I did before I came here tonight.

As we mentioned before, the FirstNet responders, they are going to be able to have high-speed allocation of a service designated just for them and they wouldn't get bounced by your kid playing on Fortnight. They can oversee that and they will have their own dedicated bandwidth for their needs as well.

MR. CASTANHEIRA: So you were able to FaceTime with no issues?

MR. QUINN: In Morristown.

CHAIRMAN COOPER: Okay. Why don't we keep moving along here.

Q. The question of alternative technology came up before. You did show the other coverage, what it would have in this area?

A. Yes.

Q. Approximately, what's the footprint of coverage being provided by this site?

A. As I stated, the whole area, the footprint of coverage that's being provided by the site, is approximately 2 spherical miles.

Q. In terms of the question raised before about alternative technology, is there any system that could realistically provide the service this would provide?

A. No. There is not, no. As far as a distributed antenna system which would normally be installed in tunnels or in schools, campus grounds where they have poles where they can be mounted on because each of these nodes would provide a small footprint of coverage. In order for you to have a distributed antenna system to cover this large

geographic area, it's not feasible because you have to have the poles in order install the antennas and the radio equipment.

MR. CASTANHEIRA: Isn't there existing poles there already on the streets?

MR. PENESSO: Yes. But you have to have the right of way access to put them on the poles whether they -- usually, in areas like a campus, they have access to those.

MR. CASTANHEIRA: Yeah. Other towns have done this before. Did you even try it or are you just assuming that it can't be done?

MR. PENESSO: No. We know that, for this large geographic area, it's not a small area like Staten Island that's small, this is too large of an area for you to cover with a DAS.

MR. CASTANHEIRA: 2 miles, you said?

MR. PENESSO: Spherical, yes. It's very large.

Q. In terms of that, not only is it just the antennas on the pole but it's also the equipment on the ground that's adjacent to these poles too?

A. Correct, yes.

Q. All over the place.

A. Correct.

Q. And they don't give much of a footprint of coverage so it would be throughout the area having to extend above trees, correct?

A. With this factor, we do have the existing tree lines and all the topography changes. That falls into it as well, yes.

Q. So the example that was raised about a repeater station or site that might be located right on the highway if you needed to have one little spot on the highway covered, that might be where you might find one of these types of sites but not in areas covering this geographic area?

A. That's correct.

Q. Not only that, but if -- the other problem with this is those sites don't offer any form of emergency service. If there's an outage, this site goes down. There's no backup battery; there's no generator associated like we are proposing here?

A. Correct.

MR. WARNER: If this application is approved, would it be your opinion that distributed antenna systems and other similar microcells would not be needed in the right of way in this area?

MR. PENESSO: If this cell site were approved, it would not be needed, no.

MR. WARNER: Would that cover anticipated 5G as well?

MR. PENESSO: There are no future sites prosed in this immediate vicinity. I can't say that AT&T would never be back before the Board again. As you can see, the only area that may be needing coverage is south and west of the proposed area.

MR. WARNER: So you wouldn't need any microcells, in your opinion, for either 4G or 5G in the area of the subject gap, correct?

MR. PENESSO: That is correct, yes.

MR. WARNER: Thank you.

MR. CASTANHEIRA: Are DAS systems traditionally more expensive than cell tower systems?

MR. PENESSO: That, I can't answer. I don't know, cost-wise.

Q. Your job is just to design the system?

A. Correct.

MR. CASTANHEIRA: Do you know?

MR. QUINN: I don't design the systems. I don't pay for the systems.

MR. BOWEN: Has this area always been a problem for AT&T? It's always been a bad spot?

MR. PENESSO: Well, I can say, we were trying to get a site built for quite a while. As you

can see, T-Mobile and Sprint are just north of us and Verizon is here as well. There are no other monopoles or tall structures to collocate onto to provide the reliable coverage that the carriers need, so yes, this area is an area that needs coverage.

Q. We talked about the two towers, transmission towers, that are located, this particular site, the one to the north of it. If you go further south of it, the topography drops.

A. Yes. Approximately, 20 feet lower.

Q. So that would make it an issue in terms of your service area and you would go farther away. What would happen in terms of your coverage?

A. Well, the cell site would be further south. We would have to even increase the height of the proposed structure to provide a similar footprint of coverage that this structure provides so the structure would be much taller.

Q. And it would still have a problem going further to the north?

A. Correct, yes. As you can see, with this site, this is Indiana Rock Road in this area. If we were to go further south, this area of unreliable coverage would get greater, would be larger.

MR. QUINN: Okay. I hope I answered your

questions. I know there was some open issues in terms of population or other data. If you like, we can certainly provide that for you. I don't know. I know there was a question that was raised. I don't know if the Board would like us to come back with that?

MR. CASTANHEIRA: Yeah. Because I think the testimony was that you are impacting that white area there. It would be good to know who you are impacting to create another tower that's going to be 34 feet taller than the existing one.

MR. HUBER: How do you make that assessment in terms of mobile activity? You can tell what the population is.

MR. CASTANHEIRA: There's not a lot of visiting, right, based upon population?

MR. QUINN: I mean -- I disagree. I think, quite frankly, in this area, I think you have people that come in and out and drive through Warren to go back and forth to work. They come to -- the Warren Fall Baseball League has people coming in and out of it. They just wrapped up last week. There's stuff that goes on in Warren. There's businesses here.

MR. CASTANHEIRA: I take that road every day. I have AT&T. I never lose phone coverage.

Q. Can you talk about that?

A. As I stated, we have an area -- in the first map that I showed, we have areas on 78. Route 78 has coverage, but throughout the whole area, we have unreliable coverage. It's not reliable and we need to bring the level of coverage up to have reliable, seamless coverage. That's the need for the site.

MR. BOWEN: If you put it on an existing tower to the south of 78 that doesn't have anybody on it right now, you are going to lose your ability to get some to the north, right?

MR. PENESSO: And we still have to rebuild that tower, as was stated by First Energy. You get above the static line --

MR. BOWEN: That was already done. There are three of them over there. You already got Verizon up there and whoever, right? That already exists.

MR. QUINN: No matter what we do, we have to replace the tower.

MR. PENESSO: We have to go by the standards of the new guidelines. The existing tower that we are proposing, Verizon is currently on that tower based on old guidelines. No matter where we would go now, at this time, we have to comply with the

new standards, so whether -- even if we were to go to the tower to the north which has T-Mobile and Sprint, that tower would have to be upgraded and everybody would have to be bumped above and go taller.

MR. BOWEN: If you were by yourself on top of one of the towers, how high would the tower be?

MR. PENESSO: If we were by ourself to the south, the tower is going to have to be 20 feet taller than where we are now to provide the similar footprint of coverage that I'm showing you because of the drop in elevation.

Q. But on top of that, you would have the new height of the new pole, which would be determined by, as you heard mentioned before, where it would be located, that it moved 10, 20, 30 feet away from the other one, how high the lines would have to be under the current First Energy standards, and then, on top of that, you heard that there would have to be a 10-foot increase in height there as well so you would have that same structure going elsewhere.

MR. BOWEN: I got it at about 135, if I'm doing the math right, versus 152.

MR. PENESSO: Based on the elevation drop, 152 where we are at the current elevation. If I go there, I need to be 172 to make the similar

footprint of coverage.

MR. BOWEN: You are 135 covering the southern end. You wouldn't get past northern 78. Let's just pretend. Is there another tower up on 78 that exists where you could do it at 135 and have two towers?

MR. PENESSO: No, there's not.

MR. BOWEN: Nothing up on that side?

MR. PENESSO: Nope.

MR. WARNER: Who is paying for the new tower?

MR. PENESSO: I'm not aware.

MR. WARNER: Is it First Energy? AT&T? Verizon? A combination of the three?

MR. QUINN: I can ask.

MR. WARNER: There's a reason I ask but I'll save it.

CHAIRMAN COOPER: It's a secret.

MR. CASTANHEIRA: Whoever is collecting the rent.

CHAIRMAN COOPER: Exactly.

Do you have more for this witness?

MR. QUINN: I have no other questions unless the Board professionals have anything.

MR. CHADWICK: You said that you had no

knowledge of complaints of service from this area. This is an assignment to you.

MR. PENESSO: That is correct, yes. We have actual data that shows that the area is deficient. We know that the area is deficient. Based on -- I'm illustrating it with the exhibits.

MR. CHADWICK: I'm trying to get the genesis of this thing. Nobody went out and spent all kinds of money on this unless they had a reason to. The reason, I would think, would be customer complaints somewhat.

MR. PENESSO: You can't just go by -- I have been through this for so many years now. We do not always get customer complaints for an area of deficiency because people do not call. They know there is no coverage. They won't make the effort to put in a complaint. We know the area is deficient and we need to provide a certain level of coverage in the area so that it's reliable and hands off between the neighboring cells. We need to provide the minimum, as I stated, reliable in-vehicle coverage. Because we don't have that in the area, that's why we need this site and that is why, even getting into how many people live here, we need to provide the level of coverage based on if there was one person living here.

It doesn't matter if it's 1 or 100 because we need to provide that level of coverage based on our license, FCC licenses, that we are awarded by the FCC. There's no -- so saying -- you know, having customer complaints or those things, that doesn't dictate having a cell site built. We know that we need the level of coverage to provide the reliable in-vehicle and that's why we are here before the Board, for that reason.

MR. HUBER: I think that's an interesting point that Mr. Chadwick brought up. I was thinking the same thing. Regardless where this goes and who is paying for it and who is going to profit by it, it seems counterintuitive to me that they would go through this whole mechanism of taking a tower down and putting one up unless they had the data that convinced them they needed it there. Why would they want to do that if it wasn't beneficial for their operation, which, at some point, services the people that are their customers? I put that out there. That just seems like common sense. Where we go from there is where we go. I certainly see that, based on your data and your research, you determined this is an area that needs service. I don't have any reason to doubt that.

MR. PENESSO: Right. That is correct. That is why I brought these exhibits to illustrate that and that they are tuned with actual drive test data and the sites that are currently in AT&T's network and all the testimony that I provided the Board. That is the reason why we are here tonight.

CHAIRMAN COOPER: Any other questions?

MR. CHADWICK: Everybody understands, that white area, you have Watchung High School, you have the middle school, you got Woodland School, you got Woodland Acres and all the residential development right below 78.

MR. CASTANHEIRA: Yet, no complaints.

MR. CHADWICK: That's why I asked the question.

CHAIRMAN COOPER: I think you have some homework to do on, you know, other than your gap there.

MR. QUINN: Sure, sure. Again, as was testified to, was that the data is what shows the need, not necessarily having -- one person might make 500 complaints as opposed to another person --

MR. CHADWICK: I understand the system. Run it through the machine and it comes out with this map and go, "Wow, a big hole in our system."

MR. QUINN: As Mr. Chadwick mentioned, having cell service in schools is critical. Whereas, years ago, people would say "I would rather my kids not be able to text in school," now, heaven forbid, if there was an emergency, everybody wants to be able to reach their child and it's critical now that we serve schools.

If there's no other questions, I can --

CHAIRMAN COOPER: No, you can't. We are going to stop here because you got a hard stop at 9:00.

MR. QUINN: Sure.

CHAIRMAN COOPER: We are not going to get through this case this evening. I think it makes sense, a good cut point for us to go and move on to our next case, the folks that have been waiting, and then, you need to come back.

For now, any member of the public have questions of this witness based upon the testimony that was just given?

(No response)

CHAIRMAN COOPER: Seeing none, we will close that portion of the meeting.

Mr. Quinn, I think we need an extension.

MR. WARNER: I don't know -- you will

give us an extension of time to act through the end of next every month if you need it and you will put it in writing if we need it?

MR. QUINN: If you request it, we will provide it.

MR. WARNER: We will be carrying to the next meeting, same time and place.

MR. QUINN: December 3rd is the next meeting?

MR. VILLANI: Mr. Quinn, since you are going to come back, maybe you can try to find out some information. Since there's so many schools in that area that you say have no coverage, maybe we can get a little information on the schools on whether or not they have a problem. I don't know if you can do that. I think it would be very helpful.

MR. QUINN: December 3rd is Hanukkah. I want to make sure that the Board will have a quorum that night?

CHAIRMAN COOPER: I believe so, if not...

MR. QUINN: We would be informed?

CHAIRMAN COOPER: Then, we should be good to go. Thank you. Sorry for the shutoff. It just seemed like a logical place to cut.

(The hearing concluded at 8:42 p.m.)

C E R T I F I C A T E

I, ALISON GULINO, a Certified Court Reporter, Registered Professional Reporter and Notary Public of the State of New Jersey, authorized to administer oaths pursuant to R.S. 41:2-1, do hereby state that the foregoing is a true and accurate verbatim transcript of my stenographic notes of the within proceedings, to the best of my ability.

Alison Gulino, CCR, RPR

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