VILLAGE OF HASTINGS-ON-HUDSON, NEW YORK
ZONING BOARD OF APPEALS
REGULAR MEETING
MARCH 4, 2010

A Regular Meeting was held by the Zoning Board of Appeals on Thursday, March 4, 2010 at 8:00 p.m. in the Meeting Room, Municipal Building, 7 Maple Avenue.

PRESENT: Chairman Brian Murphy, Boardmember Ray Dowell, Boardmember Marc Leaf, Boardmember Stan Pycior, Boardmember David Forbes-Watkins, Village Attorney Marianne Stecich, and Building Inspector Deven Sharma

Chairman Murphy: OK, good evening everyone. We're here for the delayed February meeting of the Zoning Board of Appeals. Since we were snowed out last week, we're here on March 4 for the February meeting.

We have two cases on our agenda tonight. The first case is for Maura and David May, application for variance at 47 Calumet Avenue. And case number two is Joanna Steinglass and David Alfandre for variances at 45 Cochrane Avenue.

We're going to hear those two cases first, and then I understand Mr. [Warden] XXX for T-Mobile will have a status report and update for us to provide further information in advance of our next meeting.

I. Case No. 1-10 - Maura & David May - 47 Calumet Avenue

For alterations & additions

1. **Existing Front Yard – Non-conforming 26.0 feet; proposed for the new addition - 28.16 feet; Required-30 ft. {295-55A and 295-68.F(1)(a)}**

2. **Existing and Proposed Side Yard on One Side/total of both Sides – 10.3/36.55 feet; Required Minimum – 12/30 ft. {295-55A and 295-68.F(1)(c)}**

Chairman Murphy: Mr. Tilly, go ahead on our first case.

Steven Tilly, architect - 47 Calumet Avenue: Thank you.

Building Inspector Sharma: By the way, the mailings are all in order.

Chairman Murphy: Thank you.

Mr. Tilly: Thank you, Mr. Chairman, members of the Board, Madame Attorney. We're here representing David and Maura May, who are here on the front row. And I'm here with my colleague, [Gretchen Cleckner] XXX, who is the project architect. We're renovating the house at 47 Calumet and, after having wrestled with ways of accommodating contemporary uses in an early 20th century structure and proposing some adjustments to the interior to open up one of the smaller kitchens in Hastings, we're asking for what we believe is a minimal variance to get some key square footage that allows a very different kind of interior arrangement to take place.

That is essentially the nutshell of the proposal. It does not actually go any further towards the side yards than any existing building does, but because this house predates the zoning like many houses in Hastings, we are proposing new construction that is within the contemporary side yard and front yard.

This is a Google Earth representation of the house; the house to the north, which is a one-story ranch house; and the house to the south, which is sort of a house of similar size and similar vintage. Then I think you have the small version of this in front of you which shows the surrounding houses and shows views looking in to the area in question, which is around this north entrance into the kitchen: the existing staircase; the existing bump-out, again which we're not coming any further out from, that currently exists.

You can see also on this image the screening trees that exist, evergreen screening trees that exist between this structure and the adjoining structure, so that really it'll be very hard to tell from that adjoining property the difference between the current condition and the proposed condition.

The site plan, which I think you should have in front of you, shows the shaded areas which are this tiny corner which moves into the front yard, the new front yard setback. And again, you can see it doesn't go out anything like as far as the front entrance to the building.

Chairman Murphy: And what's the purpose for that little addition there, Mr. Tilly? I noticed that, but I wasn't quite sure. Was it just to make it symmetrical along the front corner?

[Gretchen Cleckner] XXX, project architect: It was to provide more clearance for the workspace in the kitchen.

Chairman Murphy: Oh, I see. That's to give you a little bit more space in the kitchen area?

[Ms. Cleckner] XXX: Yes.

Chairman Murphy: And so that affects the front yard setback? That would be where, I guess, the 28.16-foot request is for the new addition?

Mr. Tilly: Yes. Actually, the theoretical front yard comes right across through the kitchen, the living room, and the entry hall. So in order to square that off, we have to request this.

Chairman Murphy: Understood. I'm just trying to make sure. In terms of the front yard setback, the only reason you need to ask for the variance is to put that little corner in?

[Ms. Cleckner] XXX: Yes.

Mr. Tilly: That's correct.

Chairman Murphy: That's what I thought. Just want to make sure.

Boardmember Dowell: And that's a total of 2.23 feet?

Mr. Tilly: I think that's all of 2.23 square feet.

Chairman Murphy: OK, why don't you explain the side yard to us.

Mr. Tilly: Again, on this shaded diagram this rectangle – which fills in the corner from the current bump-out to the back corner of the building – part of it, and less than half of it, falls within the side yard setback, the current side yard setback. That allows us to get this very small powder room into the corner of the kitchen without impeding access out to the back porch.

We are opening up from the kitchen into the dining room. So we've done all the gymnastics that we can do to try to create a sense of space inside the building. But we came back to, OK, we need to really push out a little bit.

Chairman Murphy: And that proposed addition is the part that's tucked behind the existing bump-out?

Mr. Tilly: This is tucked in behind the existing so you do not see that from the street.

Chairman Murphy: So that's on the north side. Right?

Mr. Tilly: That's on the north side, the northwest corner of the building.

Chairman Murphy: And that's proposed 10.3 feet, according to the variance request?

Mr. Tilly: That is correct.

Chairman Murphy: OK. And in terms of the work on the south side, there's nothing there in terms of variance request?

Mr. Tilly: The south side work is all as-of-right. We're showing it in order for you to see the whole context of what we're doing.

Chairman Murphy: And in terms of adding the powder room, are there any other bathrooms on the main level there?

Mr. Tilly: No. As you know, many of these houses were built with only second-floor bathrooms and, occasionally, the gardeners thing in the basement. This does not have that first-floor amenity.

And finally, these are the elevations of the front of the building. And then the other one, this is the north side of the building with the new bump-out filled in, in the back. And then this little corner in the front.

Chairman Murphy: Understood. OK, do any of the Boardmembers have any particular questions for Mr. Tilly?

Boardmember Forbes-Watkins: Just one quick question. You show on your drawings sidewalks, but there's nothing going into the mud room, the mud room addition. I'm surprised at that. Are you planning some sort of walkway?

Mr. Tilly: I think if we look at the aerial you'll see that there is a walkway going in, which will remain.

Boardmember Forbes-Watkins: Into the mud room?

Mr. Tilly: Oh, into the mud room? Yes, there will be flagstones that allow one to get into the mud room.

Boardmember Forbes-Watkins: But they're not shown.

Mr. Tilly: They're not shown. Yes, there will be a civilized way to get into the mud room

Boardmember Forbes-Watkins: It just didn't make any sense

Mr. Tilly: Right, exactly. I agree.

Chairman Murphy: OK. Anyone else?

Boardmember Dowell: I'm looking at the site plan, at the little site plan, which doesn't seem to show the front addition; the smallest one, the surveyor's survey. It doesn't appear to show...

[Ms. Cleckner] XXX: This one?

Boardmember Dowell: No, it was ... doesn't seem to show the additions.

Village Attorney Stecich: Yes, I was confused by that, too.

Boardmember Dowell: This one. And the site plan that you have in front of you there shows a different configuration for a little fill-out, I think.

Mr. Tilly: A different configuration for what? I'm sorry.

Boardmember Dowell: For the addition. Is this filling out exactly? It seems to be in conflict with your floor plan. I'm just wondering which one. Here's the floor plan. You have a plane coming across here, and a plane coming across here. There just seems to be...

Mr. Tilly: You're right.

Boardmember Dowell: This would put it here, wouldn't it?

Mr. Tilly: The hatch should be notched on that site plan. You're right, yes. Good catch.

Boardmember Dowell: Well, at 2.23 feet it's certainly a minor variance.

Mr. Tilly: I would submit that it was.

Chairman Murphy: No, I agree.

Unless there are further questions, what's requested by the applicants are very minor and insignificant incursions into to already-existing incursions on the front- and side yard setbacks. So it looks more than reasonable. And to accommodate a powder room, certainly, on the main floor makes an awful lot of sense.

Village Attorney Stecich: I thought you were looking for a motion.

Chairman Murphy: I'm just saying my piece, and then anyone else can say their piece, and then the audience. Anyone else wish to make any comments before we...

Boardmember Leaf: I think it's a modest addition, and very nicely done. And certainly in keeping with the character of the neighborhood.

Chairman Murphy: OK. Mr. Tilly, thank you.

Mr. Tilly: Thank you.

Chairman Murphy: Is there anyone from our audience who wishes to speak on the first case, at 47 Calumet?

Seeing no takers, can we have a vote on the variances for 47 Calumet, please.

On MOTION of Boardmember Forbes-Watkins, SECONDED by XXX with a voice vote of all in favor, the Board resolved [approval of variance for additions and alterations at 47 Calumet Avenue: one, the existing Non-conforming 26.0 feet proposed for the new addition, and 28.16 feet required-30 feet] XXX.

On MOTION of Boardmember Pycior, SECONDED by XXX with a voice vote of all in favor, the Board resolved [approve variance for side yard requirement where the proposed is 10.3 feet on one side and 36.55 feet on the other, but the required minimum is 12 feet on one side and 30 feet on the other] XXX.

Chairman Murphy: Actually, I think that's the total of both sides: 36, subject to that correction.

Congratulations.

Mr. Tilly: Thank you very much.

Chairman Murphy: You're welcome. Mr. Tilly, thank you.

II. Case No. 2-10 - Joanna Steinglass & David Alfandre - 45 Cochrane Avenue

For the renovation, alteration and expansion of the non-conforming part of the 2nd floor attic space for use as added living space.

The variance sought is for the increase n the front yard non-conformity Existing and proposed front yard-10.21 feet; Required-30 feet {295-55A and 295-68.F(1)(a)

Chairman Murphy: Our second case, the application of Joanna Steinglass and David Alfandre at 45 Cochrane Avenue.

William O'Neil, O'Neil Architects: Do you want me to use that mic?

Chairman Murphy: Yes, please.

Mr. O'Neil: It seems such a small room to have a mic, you know.

Building Inspector Sharma: We have to record everything.

Mr. O'Neil: I understand, I understand.

Good evening, ladies and gentlemen. Thank you for hearing this case. We have a very, very simple application here.

Chairman Murphy: Just state your name, please.

Mr. O'Neil: I'm representing David Alfandre, who is here, and Joanna Steinglass, who cannot be here this evening.

Chairman Murphy: Mr. O'Neil, welcome. Thank you. Go ahead.

Mr. O'Neil: This is a very simple application. We have a house that is existing nonconforming in terms of the front yard. This site, the street comes around two sides here. So it's not a corner lot, but it is a lot where the street frontage goes around both these sides

here. So the front yard setback follows that line. And while the house, as it faces the street, meets the setback, at this side it clearly doesn't. I don't know whether that's the result of it not having been enforced or written in the same way at the time the house was built, but it exists this way now.

We are not in any way increasing the degree to which we are approaching the front yard line, but we are going up and we're changing the roofline. The reason the existing attic space has living space is, it's a one-story house with a livable attic. We will be removing the entire attic and roof structure, and it'll have a slightly higher pitch.

And, while there a couple of small dormers now, we will be adding a large shed dormer across the back of the house and connecting two gable dormers at the front with the shed dormer between them. That will give us a substantially greater amount of floor area upstairs, while making a relatively minor alteration to the exterior of the house.

This site plan shows what parts are existing, what parts are new. And you can see that about half of what we're doing, that half of the house, is in the front yard setback.

Chairman Murphy: You're not increasing the footprint area at all?

Mr. O'Neil: Not at all.

Chairman Murphy: Just going up?

Mr. O'Neil: Just going up.

Chairman Murphy: And I guess ... go ahead. I don't know if you were finished.

It's technically a front yard setback as it comes around the corner, if you will.

Mr. O'Neil: Yes, because this is all the street. Now, this is an odd street. Cochrane, actually more or less the pavement ends about there. But on the map, it continues about 300 feet to a cul-de-sac which has never been built and doesn't look like it's ever going to be built. I don't believe there's any plans to build out that street because, you know, right beyond that is the cliff.

There is one lot, I think, back behind here that may not be accessible in any other way. I believe that's attached to, or part of, another lot facing one of the adjoining streets. There are a number of small lots on the other side of the street, but I think those are all actually backyards. When you look at the tax parcel map, it looks like these tiny lots that only front

this street. But in reality, I believe they're part of the adjoining lots that go onto this street below. So while the street does not really very much continue here, it does technically count as the front yard all along this entire length here.

Chairman Murphy: And the existing setback, on that side of the front if you will, is about 10 feet?

Mr. O'Neil: It's 10.21 feet, but that's what it's always been. We have a very grainy copy of an old survey from when the house was built and it shows that number as the existing number at the time.

Chairman Murphy: OK. I don't know if you were finished, or if you want to continue to explain.

Mr. O'Neil: I'm happy to show you our presentation. That's that old survey, which is dated 1953, I believe. Pretty grainy and hard to read, but that's as-built.

Here you can see our demolition plan, electrical plan, floor plan for the second floor. This gives us an opportunity to have two bedrooms – they have two children – two bedrooms upstairs and the master bedroom, a small sort of office area, master bath, and a hall bath. We'll be adding a skylight in this upper plan.

Chairman Murphy: And what's there now?

Mr. O'Neil: There are two bedrooms there now. Right now there's a large bedroom and a small bedroom, and there are two bedrooms downstairs.

The two gables will be connected with the two small gable dormers, connected with the shed dormer in between them, and then on the back [off-mic] XXX of the house.

At this time we are not proposing to do any work on the ground floor. We do expect to perform that at some point, and do more work. That would not involve coming back before this board, but just to Mr. Sharma for a permit application. So while we're not doing any work down there right now, we do anticipate doing work in the future.

Chairman Murphy: And what's the purpose of the shed dormer in the back?

Mr. O'Neil: It's to give us more floor area upstairs. Right now there's a tiny shed dormer over just the hall bathroom upstairs. If you go back to the plan, there is very limited floor

space here so we'll be moving that back wall from here to here. We're picking up five or six feet.

Building Inspector Sharma: Excuse me. Could you grab the microphone, please?

Mr. O'Neil: I'm sorry. I apologize.

So we'll be picking up a significant amount of space across the back of the house by having the shed dormer there.

Boardmember Dowell: But you're doing all this by not pushing up the overall height of the house. The ridge beam stays pretty much where it is?

Mr. O'Neil: Pretty much. There are two things. First of all, the existing construction, as is typical in house construction, has the rafters sitting on top of the top plate of the wall adjacent to the joist. When you cut them out, it's very difficult to go back and put them back there. They'll sit on top of the joist. There'll be a ledger across there. So we're a little bit higher in that regard. And we're changing the pitch from, I think it's 10 to 12, or from 8 to 10. I forget the exact number. I have to look at the elevations. There's a slight change.

So we're talking about a difference of a foot or two, still well underneath the maximum allowed under the zoning. But it's a minor change, and I think that it's the kind of change that it will be very difficult to discern after the fact. I don't think anybody's going to go, "Oh, my goodness, it's so much larger." I don't think that'll be the impression.

Currently, there are two small gable dormers here. The ones that we're proposing are larger and they'll be connected, but I don't think it's an enormous difference in the way the house is going to look.

Chairman Murphy: On your application, you have 29 feet as the current height. And you're going up to 32.75, which is still 2.25 below the permitted.

Mr. O'Neil: And I think that's the maximum.

Chairman Murphy: Thirty-five is the maximum.

Mr. O'Neil: You're right.

Chairman Murphy: So you're a couple feet below that.

Other members of the Board? Ray? Marc, do you have anything?

Boardmember Leaf: I have nothing more.

Chairman Murphy: Anyone from our audience wish to speak?

Jennifer [Reese] XXX, 10 Nichols Drive: I've never been to one of these, so I don't know what the protocol is.

Chairman Murphy: Oh, sure. Just step right up to this microphone, please, and just tell us your name and your address before you start. And then go right ahead.

Ms. [Reese] XXX: My concern is that Cochrane Avenue is on top of my house. The hill is way up. My house is currently on the market, and I'm trying to sell it. My fear is that if there's any ... I didn't understand what you said so I don't know what happened. But if there's any major construction up there, and mud – which has happened in the past when there's been construction behind me – the mud has come down the hill; which is no big deal, except that my house is on the market right now.

When will this construction start? If it starts next spring I have no problem. But I hope to have my house sold by next spring.

Chairman Murphy: From your lips to God's ears.

Ms. [Reese] XXX: Sorry, I also have hearing problems. Even though I have hearing aids, I don't hear. I'm sorry.

Mr. O'Neil: I'm sorry. If you're not planning to sell your house until next spring...

Ms. [Reese] XXX: No, no, no. It's on the market now. It's been on the market for a week. Ahh, for a week – it's been on the market for a year and no one's bought it.

Mr. O'Neil: Two things. We expect to start construction as soon as possible. We have a building permit application before Mr. Sharma, and we expect to go ahead right away. But let me try and set you at ease. We are not doing any digging in the ground.

Ms. [Reese] XXX: You're not doing any digging?

Mr. O'Neil: None at all, and therefore we don't expect there to be any mud any erosion or any need for ... I don't believe Mr. Sharma's even asked us to do erosion control, but we'd be

happy to do it. But there's no need for it because we will not in any way be digging in the ground. There's no change in footprint. We're not even proposing changing the walkway.

It's a terrible thing if something happens where you have erosion coming down the hill to you. We would be required, if we were doing digging, to provide erosion controls to prevent that and to maintain those so that didn't happen to your house. But in this case, it's not really even an issue.

Ms. [Reese] XXX: OK. Because that happened in the ... I've been there for 40 years. And what happened in the past is, when they did dig on Cochrane Avenue a lot of mud came down the road. And it wouldn't matter except that I'm selling my house right now, trying to sell my house.

Mr. O'Neil: Well, we think it would matter and it would be a serious problem, and we wouldn't allow it to happen. And Mr. Sharma would never allow us to do that. The rules are much more stringent today, and that shouldn't ever be a problem.

Ms. [Reese] XXX: OK, thank you.

Chairman Murphy: OK. Thank you. Any more comments, or anyone wish to speak from our audience?

Seeing none, can I have a motion for the variance at 45 Cochrane Avenue, please?

On MOTION of Boardmember Forbes-Watkins, SECONDED by XXX with a voice vote of all in favor, the Board resolved [approval of Case No. 2-10, 45 Cochrane Avenue for renovation, alteration and expansion of the non-conforming part of the 2nd floor attic space for use as additional living space, the front yard setbacks, existing and proposed existing 10.21 feet, required 30 feet.

Chairman Murphy: The variance passes. Mr. O'Neil, thank you. Appreciate it.

III. T-Mobile Update

Chairman Murphy: OK, that's it for our formal cases tonight. Mr. [Warden] XXX, why don't you come up. We're going to get at least a status update and some additional information from Mr. [Warden] XXX on the T-Mobile application.

Just so I understand, I actually had a question. We received a letter, I guess today, from your firm. But I also received today ... in fact tonight, just before I came over here, I had a letter from Mr. [Comi] XXX, who is, I guess, the Village engineering consultant. I don't know if you've seen that because I didn't see it. I barely had a chance to read it before I came over, not that it matters to me.

Village Attorney Stecich: What's the date of that, Brian?

Chairman Murphy: It's dated February 23, 2010. It's a letter to Mr. [Warden] XXX from Richard [Comi] XXX, who's the Village consulting engineer. It appeared to get held up in the mail, at least to me, Mr. [Warden] XXX. So I just wanted to make sure that you got it and you can address it when it's time to address the comments made there.

So with that, why don't you go ahead and give us your update, status report, information, whatever you wish to convey to us tonight.

Doug [Warden] XXX, representing T-Mobile: Sure. Well, as you recall, I'm here on behalf of T-Mobile. T-Mobile, as you recall, has a pending application to locate a wireless telecommunications facility on top of the existing building at 565 Broadway.

At the last meeting, I gave what I hope was a fairly thorough overview of what the proposal was actually going to be, where the antennas were going to be, which building we're going on, height dimensions, things of that nature. The Board had a number of questions for me at that meeting, and had requested that we get back to the Board with some information and with some materials.

The status of that is that we have some materials that we are still working on providing, and assembling, in response to the Board's questions. We have some materials which we have submitted. And then we also have, in response to one specific question from the Board, an expert here who can give an answer to that question.

So to backtrack with respect to the materials that are still pending, that we are still working on, those materials are ... the Board may remember that they had asked for propagation maps, additional propagation maps, from areas in the Village such as, for example, the Chemka Pool, such as the [docerin loop] XXX – I hope I'm pronouncing that correctly – and also the Village hall. And the propagation maps, as you may remember, are like visual representations of what the coverage that would result from a facility in those locations would look like.

We are still working on assembling that information and assembling those maps. The application was a number of months in the making prior to coming here in the first place. So it's a complicated process, but we hope to have something shortly. That process is a little bit complicated by the February 23 comments from the Village telecommunications consultant, only because he has some specific requirements that he would like to see in terms of the maps and the materials that are provided to the Village. We hope that that will not delay things too much, but that's where those materials stand.

We have, however, submitted some materials to the Board, and tonight might be a good opportunity just to introduce those and talk about those. One of the things the Village had asked for that we had spoken about was the visual analysis we had submitted with our memorandum in support of the application. The visual analysis, you may recall, was a series of photographs taken from different viewpoints around the Village which would give the Board some kind of a sense of what the application would look like, and that included computer-generated renderings.

The Board's perspective was that they wanted to see some more. There was a particular viewpoint, it may have been viewpoint 7, that showed sort of a good, clear view of the antennas. And they wanted us to look and see if we could find locations around the Village which were sort of similar to that viewpoint 7 and which would give more clear views of the antennas.

It wasn't an easy job because the antennas are – and I don't think I'm being biased – not that visible. It's a beautiful wooded Village and it's not so easy to see these antennas, even with the leaves off the trees. But we have provided a supplemental visual analysis which we hope will give the Board a better sense for what the facility will look like.

That visual analysis also included another viewpoint that the Board had specifically requested, which was from the Five Corners. I think that's what the Board looked for. They wanted another shot from Five Corners which included a rendering, so we provided that as well. That's an introduction to the one item that we have been able to provide in between now and the last meeting.

The other thing we had provided was...

Chairman Murphy: Mr. [Warden] XXX, let me just stop you there.

Village Attorney Stecich: Did we get that?

Chairman Murphy: At least the Board hasn't received that yet.

Building Inspector Sharma: I have not received the photographs. Did you send me the photographs?

Mr. [Warden] XXX: I think we had somebody hand deliver them. No?

Village Attorney Stecich: I haven't gotten them either.

Building Inspector Sharma: I talked to your photographer and he was going to do it, but no new photographs or materials have been sent to me except for this letter that I circulated.

Mr. [Warden] XXX: OK, then we'll have opportunity for the Board to look at them further. I will find out. I think they were delivered, but if they weren't we'll give you additional copies. If they were, and they're just on a pile somewhere, we'll still get you additional copies. But that's what we have provided.

Chairman Murphy: No, I just wanted you to know that I don't know what the reason is, but we don't have it.

Mr. [Warden] XXX: I'm frankly shocked. It was submitted. I have the date of submittal, if that would help.

Chairman Murphy: Between you and Mr. Sharma, we'll get that fixed.

Mr. [Warden] XXX: February 24.

Building Inspector Sharma: That was the day after that snow.

Mr. [Warden] XXX: Did you also get the additional copy that I had sent you of the materials?

Building Inspector Sharma: Those two copies I did get, yes.

Mr. [Warden] XXX: I gave you one additional copy, and it should have been included with that package there. If not, we'll be glad to make any additional copies if it just seems to have gotten...

Village Attorney Stecich: But wouldn't there have been a big stack of them?

Mr. [Warden] XXX: I think so. I think there would have been. Is that it in your hand right there? That's them.

Chairman Murphy: So after tonight we'll make sure the Board gets them.

Mr. [Warden] XXX: These things happen. I understand.

Chairman Murphy: Good. So we got that squared away.

Mr. [Warden] XXX: Anyway, good. So you have a preface from me of what you have there, and it will be self-explanatory.

The other thing that we had provided in response the Village's questions, and also in response to the comments of the Village telecommunications consultant, was an analysis of radio frequency emissions on the rooftop. That's something that had been discussed at the meeting. Radio frequency emissions, in general, are a topic that had been coming up in residents' comments. So we have submitted an additional supplemental FCC compliance information report which indicates that the rooftop emissions will be less than one-tenth of 1 percent of what we are allowed, pursuant to the FCC, to safely and legally emit. That is a letter dated March 4, 2010.

If you'll recall, at the last meeting one of the Boardmembers – it may have been Mr. Watkins – was interested specifically in information about what the radio frequency emissions exposure would be like on the sixth floor. I wanted to make sure you got a good answer to that question so I have brought the engineer who generated that report so you could have a dialogue and a full opportunity to have all the answers on radio frequency emissions questions that the Board would like answered.

That being the case, I would like to take a second to introduce Daniel Collins from Pinnacle Telecom Group.

Village Attorney Stecich: Brian, could I ask one question?

Mr. [Warden] XXX: Yes, sure.

Village Attorney Stecich: Doug, you just said that the report from Pinnacle, I think it was, showed that on the roof it would be one-tenth?

Mr. [Warden] XXX: I believe it's less than on-tenth of 1 percent.

Village Attorney Stecich: No, that's not all what the letter shows.

Daniel Collins, chief technical officer – Pinnacle Telecom Group: Thirty-, 35 percent.

[Male Voice] XXX: It's 35 percent.

Village Attorney Stecich: That's a little different.

Mr. [Warden] XXX: Well, that's why we have experts in these circumstances, and I'd like to introduce...

Chairman Murphy: That was the original number from your original application, on the ground.

Village Attorney Stecich: From down on the street, yes.

Mr. [Warden] XXX: Good. OK, that having been said, let me introduce, for the sake of clarity, Daniel Collins.

Chairman Murphy: Mr. Collins, thank you. Go ahead.

Mr. Collins: Thank you. I'm the chief technical officer and a principal with Pinnacle Telecom Group, and I'm responsible for all of the analyses you might have seen on the businesses of whatever radio frequency levels in various areas of interest at this site, including our original report which looked at street level – which is the normal starting point at least, and sometimes the end point for some boards. It's an area of unrestricted public access.

We performed an analysis using standard FCC formulas and the parameters of the applicant's system, assuming maximum capacity and maximum power. And the worst case result at street level was one-quarter of 1 percent of the FCC's limit. By the way, that's roughly equivalent to what I'm causing right now as a human being, and every one of you as well. Human beings emit just a little bit of electromagnetic energy. The number happens to match what this facility would cause at street level.

Mr. [Comi] XXX, usually, when he's involved he likes to see a rooftop analysis. So I did provide that second supplemental letter that explained we had done in what was called a "roof view analysis." That's a piece of software that's accepted in the industry and by the FCC. We've got three antenna sectors, two of which are right at the edge of the roof and

facing off the roof. So the only access is to the rear, and the difference between the front of the antennas and the rear in terms of radio frequency levels is like 1,000-to-1.

So the worst case exposure right behind the antennas in two of the sectors that are at the edges of the roof is 5.5 percent of that same FCC standard. We're talking about the standard that's considered safe for continuous exposure by humans of either sex, all ages, all sizes, and under all conditions. Most times, rooftops have a different standard that allows a little more exposure. Because the assumption is, who needs to be close to an antenna except a technician. But in this case, I applied the strictest, most protective standard in all areas of interest, including the roof.

Now, having been provided with...

Chairman Murphy: Let me stop you there for a minute, Mr. Collins, just so I understand what you've written in the letter. So it's 5.55 percent of the FCC general population MPE limit. What is that?

Mr. Collins: MPE is maximum permissible exposure. That's the limit that is supposed to be completely acceptable for exposure the rest of your life.

Chairman Murphy: And that's determined based on, essentially, someone standing right behind the antenna on the roof?

Mr. Collins: Walking right up behind an antenna, yes.

Chairman Murphy: And it's 38.45 for the main, the alpha, sector.

Mr. Collins: The alpha sector, you can get into the area in front of the antenna. That's basically where antennas do their business. Except it's important to know that in what's call the "near field" of an antenna – in other words, you're on the roof where the antenna is – the RF levels in the immediate vicinity of antennas are concentrated in front of the antennas, of directional antennas, at the same subtended height of the antenna. In other words, if the antennas were, let's say, starting from here and went down to a foot above the floor. The level is going to occur in front of me; not above me, not below me. I mean, there's some level, but the majority is right here, same subtended height, in the 65-degree quadrant. And to the side of the antenna your levels are low above or below, and certainly behind.

In this case, the bottom of the antennas in what's called the alpha sector are 12 feet 9 inches off the ground. The FCC, if they audited this roof, would look; and as long as the antennas that you could walk in front of were 7 feet off the ground, would check a box and go home.

Well, 12.75 feet off the ground results in a radio frequency level – worst case, standing under the antennas – of, I think it's 38 percent or 35 percent.

Chairman Murphy: It's 38.45.

Mr. Collins: Actually, that's a reasonable level in terms of an antenna site and using the general population limit; not that other one that we could use for most rooftops called the "occupational limit."

So the worst case on the rooftop is 38 percent. That's less than the 100 percent reference that we can talk about in layman's terms. So the rooftop was in actual, quite comfortable, compliance. A rooftop with radio frequency levels like this, by the way, would not under normal circumstances even need an RF alert sign to tell you, oh, watch out, there's antennas here. The reason is, the RF levels are actually not significant in terms of FCC and its limit.

The transcript I read added another element...

Chairman Murphy: Let me ask you a question before you ... just so I'm clear, the general population MPE limit: that's the strictest standard is what you're telling us?

Mr. Collins: Yes. And then by law it's the strictest that can be applied in this country.

Chairman Murphy: OK. So your assumptions are that it's max power, max capacity standing under this antenna – I guess the alpha sector.

Mr. Collins: Yes. And by the way, the calculation ignores ... it's an extremely conservative calculation. Think of the antennas as the speakers and the radio equipment as the stereo set. Well, the longer the length of cord, or cable, between the stereo set and the speakers the loss increases and you get less and less energy out of the speakers. It's called "antenna line loss" when you're talking radio frequencies. We completely ignore the antenna line loss factor in these calculations so the actual levels are significantly less.

Boardmember Forbes-Watkins: One question. I've done some very questionable research in the last month on this. One of the things I run across is that most of these exposure measurements are based upon a 30-minute exposure. Is that correct?

Mr. Collins: Actually, it's not. My calculations, and the standard that I'm working on, are based on lifelong continuous exposure. Let me try and describe this. I said before there are two FCC limits. There's an FCC limit for average folks who don't have specialized training. And then there's another limit that would apply to a fellow like me if I went on the roof. The

reason for the different standard is that I presumably recognize the antennas, I understand where the radio frequency levels are higher and where they're lower, and I can control my exposure.

So the limit there is called the "occupational" or "controlled" limit. And that limit has another 100 percent value to it, too. The question is, could you walk directly in front of an antenna and have the exposure exceed the FCC's limit for a short period of time. And the answer is yes. But then you have to figure out ... well, you to have some reference averaging total time. For the professionals, the trained people, it happens to be six minutes. That says, theoretically, that I could be exposed at 200 percent of the limit for three minutes – half of that period – and zero for the other three. So that my average over a six-minute period would be 100 percent, or at least not higher. Good for me.

Now, sometimes the FCC does odd things. The standards, the two standards, have a five-to-one ratio. They decided somehow that we should apply the same kind of time averaging technique to the great unwashed, or the public. I want you to follow the logic here. If there's a six-minute average and a five-to-one ratio between the standards, the averaging time for the great unwashed, the public, ought to be 30 minutes; five times the six-minute average.

But my question to the FCC has always been this: How can you apply this to the public, who supposedly doesn't know about the antennas or the potential hazard in front of them and doesn't know how to control their exposure? What do they know about 30-minute time averaging? So we never apply it, and neither does the FCC actually. It's basically a scientific artifact. It means nothing.

So the standard, and all the numbers I'm talking about here, are what you can expose yourself to for the rest of your life. And you'll die of boredom maybe for the discussion, but you're not going to die of radio frequency exposure. That's for sure. There is no real 30-minute time averaging application. And the reason is, the public is not even supposed to know that exists. How could they control it?

Boardmember Forbes-Watkins: But it's irrelevant whether the public knows. The question is, is this 30-minute exposure applicable in some way. Because people who are living in a building are obviously exposed for many, many hours, not 30-minute segments.

Mr. Collins: Exactly. But remember what I said. The time...

Boardmember Forbes-Watkins: Yes, I heard that.

Mr. Collins: All right? The six-minute reference time average for an occupational exposure is there to allow someone to knowledgeably exceed their exposure, exceed the limit, for a short period of time as long as their longer six-minute time average is below the limit. You can't expect the public to control their exposure that way because they're not even supposed to know about their exposure or what to do about it. They don't know about the antennas. Or in other words, they don't qualify for a time averaging figure because they can't apply time averaging.

So there are people who work. Well, the exposure we're talking about is only good for 30 minutes for the public. No. The exposure is good for lifelong continuous exposure. The time averaging, which only really applies to RF-trained people, is only for those circumstances where you need to go in front of an antenna and exceed the limit for a very short period of time.

The exposure, by the way, that we're talking about in people's houses ... because my company doesn't just do mathematical studies, we do measurements of antenna facilities and where the equipment is, and we often get inside people's houses. I mentioned before that human beings actually emit a quarter of 1 percent of the FCC's limit. So everything electronic, whether or not it's intentionally an antenna or not – computers, the lady's camera here if it's plugged in, this microphone, not these lights but the fluorescent lights with the radio frequency ballast – all emit a little bit of radio frequency energy.

Oddly enough, the most significant source of radio frequency energy in everybody's apartment is the refrigerator motor; just sits there spitting out radio frequency energy, believe it or not. It's called electromagnetic energy, but it's in the radio frequency bandwidth.

The average, and I'm talking average, walk-around-any-room-of-your-house, exposure in your house, whether you live in a high-rise or low-rise, in the middle of the desert or the middle of a city, it doesn't make a difference – it also doesn't make a difference whether there are any antennas near your house, this is strictly and primarily controlled by the things that are plugged in, in your house, and a couple of human beings – the 200 homes that we've measured over the last seven or eight years have ranged consistently, with one exception, between 3- and 7 percent of the same FCC standard.

Now, I want you to compare 3- or 7 percent to the quarter of 1 percent that we talked about at street level, for example. The average is about 5 percent. The one home we measured where actually we measured 15 percent – it turns out unbeknownst to us until we finished the measurements – the fellow had, and this is about 12 years ago so nobody had what was called Wi-Fi then – this amateur, intelligent amateur, had completely wired his house for

Wi-Fi so no matter where he went he could use a portable computer. And he actually had his TV signals passed around that way. His house was one giant antenna, so he had 15 percent. But all of the other 200-plus residences we've measured have gone between 3- and 7 percent.

Now having brought that up, I understand from reading bits of the transcript that there was this question about what is the radio frequency level that will occur directly below the antennas inside the building for the folks who have nothing to do with the antennas and are worried about what's called "radio frequency leakage." It's important to understand here a couple of concepts. One is, the same FCC standard formula applies. The antenna pattern has a very serious effect on how much energy goes straight down.

In this case, we've got an antenna pattern that basically – and it's true of all cellular antennas – does its work horizontally. I had, in the original report, a diagram of the vertical plane pattern. In other words: cut it like an apple, what does it look like? Most of the energy goes this way. How much of the energy goes straight down? It's 3,000 times less than goes out this way. This way you've got 20 watts of energy in one frequency band and 40 in the other. And in each case, 3,000 times less energy goes straight down.

And it goes straight down for a distance of about 5 feet and encounters the roof. When the energy hits the roof, here's what happens. Most of it gets immediately reflected and just gets scattered off into the horizon. Basically, it's too low a level to get excited about. But the energy that went down is already attenuated by a factor of 3,500. Already it hits a roof and some of the energy is reflected, some of it is actually absorbed in the roof, and the bit that gets through into the apartment so that you could actually make a phone call is attenuated by an additional factor of 10.

So you've got maximum 40 watts going this way. You've got 3,000 times less than 40 watts heading toward the roof. And you've got 10 times less than that making it through. When you translate all of this to, once again, maximum power, what's the calculation if someone plastered himself right on the roof? Get on a ladder and just park yourself up there, what's the radio frequency level? As I recounted in a letter I wrote to Mr. [Warden] XXX today, the result was actually like a little less than one-tenth of 1 percent.

It gets progressively less significant as you get further away from the ceiling; anywhere else in the building, for example. Now, can you measure one-tenth of 1 percent? No. the lowest incremental level that can actually be measured by state of the art equipment is 0.5 percent. Part of that problem is, why a half? The guy holding the meter is already causing one-quarter and that sort of screws things up right off the top.

So we've tried to measure the radio frequency effect of cellular antennas right underneath the antennas on the top floor of a building. Even in one case where we had a hospital with cellular antennas and other antennas – a total of 117 antennas on the hospital roof – we went to the top floor and basically could not measure any incremental effect down through the roof, which was only 1 foot thick and which is typical from 117 antennas.

The level of leakage into buildings? Insignificant. In fact, a lot of people don't realize this is such a low, low-power service. I don't have my cell phone in my pocket here. Those little cell phones will actually make and hold a call when they receive from one of these base stations the equivalent of as little as one 200/billionth of a watt. That's what we walk around in when we're outdoors in terms of the, quote, "exposure" from the cellular base station. That, many people get excited about and say that must be a terrible thing, a one 200/billionth of a watt. They don't realize it's not a significant level.

The exposure you get from walking around in the streets is probably more affected if you're standing right next to somebody than if you happen to be near a cellular antenna. Good example here, by the way. Two people – if the attorney here and I were standing right next to each other under this facility, at street level, bemoaning the fact that we're being radiated by the antennas – frankly, we ought to stare at each other because the level between us is 0.5 percent and the level from the antennas is 0.25 percent. If you've got to worry about levels like 0.25 percent or 0.10 percent I probably can't help you too much

That answers all of the emission exposure-related questions. I understand, too, there might be some concerns about things related to interference, which is a different sort of emission story. You know, "Will this interfere with pacemakers or..."

Village Attorney Stecich: Brian, before we get to that I had one question. Maybe some other people do, too.

Chairman Murphy: Go ahead.

Mr. Collins: OK.

Village Attorney Stecich: When you said ... I'm a little confused because you said that the FCC bases its measurements on 30 minutes.

Mr. Collins: They don't. I said that the standard I applied for the general population...

Village Attorney Stecich: I understand what you said, the standard you applied. But I thought you said even the FCC only makes it 30 minutes.

Mr. Collins: No. What I said was, the FCC, in an attempt to deal with occupational exposure, allows for the exposure to exceed 100 percent – in other words, can you be overexposed for a short period of time – as long as the six-minute average is OK. Then, I guess because there were some people who were involved who were not scientific, they said, "Oh, well, we should have a similar consideration for the general population." And they adopted 30 minutes as the time averaging standard.

What that says is, for 15 minutes the general population could be exposed to 200 percent if, for the remaining 15 minutes of that 30-minute period, the number was zero. So your long-term average was 100. That's a ridiculous conclusion.

Village Attorney Stecich: But they're...

Mr. Collins: Excuse me. That's a ridiculous conclusion to draw, when the general population doesn't control its exposure.

Village Attorney Stecich: No, I understand that part. But you're saying that the FCC's exposure limits are based on lifetime exposure?

Mr. Collins: Yes.

Village Attorney Stecich: Twenty-four hour, lifetime exposure.

Mr. Collins: Let me give you the quote from the Food and Drug Administration. After the FCC standard was adopted somebody said, "What does it mean?" They were confused about this 30-minute thing. The Food and Drug Administration said that "*continuous*" – meaning lifelong – "*exposure at radio frequency levels up to and including 100 percent of the FCC standard*" – that same reference I've been using – "*has no health effects*."

Village Attorney Stecich: OK, thank you.

Boardmember Dowell: Your antennas are ... you've talked about downward propagation under the antenna, and that's fine if something's located at a parapet wall, for example. But aren't you ... you look confused. Am I being clear?

Mr. Collins: The antenna emits energy...

Boardmember Dowell: Your antennas are mounted on a parapet wall; you've got three to raise. One is located at Villard on the parapet wall. The other two are located back on the bulkhead.

Mr. Collins: Actually, I think it's two sectors of the parapet wall, and one is up high on a bulkhead.

Boardmember Dowell: OK. The ones that are located towards the center of the building, in which direction are they directed? Are they directing back over the building itself?

Mr. Collins: They're on a bulkhead like this. And I'm not sure how close it is to the edge, but I go through the drawings. They send energy that way.

Boardmember Dowell: But they're propagating over the top of the building.

Mr. Collins: Oh, sure.

Boardmember Dowell: There's a cone of propagation that comes out from these.

Mr. Collins: No, no. Not in the near field. In the near field of an antenna, meaning within about 40 feet, the energy level for 40 feet in front of one of these antennas is rather concentrated at the subtended height of the antenna in a 65-degree swath. And the levels above, below, or outside that, think of it as a pie, a slice of pie. Outside the slice of pie, the levels are significantly lower.

It isn't until *after* roughly 40 feet that you begin to get that spreading effect, and the cone you're thinking of. Which is why you can walk under an antenna who's bottom is 12 feet 9 inches off the ground and the RF levels are as low as they are.

Boardmember Dowell: So they're designed to project horizontally at, what did you say, 60 degrees?

Mr. Collins: Sixty-five degrees or so, yes.

Boardmember Dowell: And vertically...

Mr. Collins: Vertically, they basically do nothing until they get about 40 feet away. And then they begin to do this, and spread.

Boardmember Dowell: So that means it misses the top of the building entirely.

Mr. Collins: There is a level that results. That's the 38 percent that I calculated. But 38 percent of the FCC standard isn't too bad when the back of your refrigerator is 25 percent close to the motor. By the way, don't be afraid of your refrigerator motor. It's not going to hurt you.

Mr. [Warden] XXX: And you were talking about interference.

Mr. Collins: Yes. Now, if you folks don't have any immediate questions on emissions related to exposure, I was asked to bring along some material and some answers on the question of, well, what if you have a pacemaker or a hearing aid or an implanted defibrillator; in other words something ... a hearing aid, by the way, can go as an outside hearing aid or as a cochlear implant. Any electronic device is potentially subject to getting interference from other electronic devices, especially when they emit energy. And the radio frequency antennas do that on purpose.

There were – or at least in the old days, and I'm talking 10 to 12 years ago – instances of people who would pick up a cell phone and hold it close to a pacemaker and it might disable the pacemaker. It sent it into diagnostic mode, which means it's not helping you. As a result of knowledge of that, the pacemaker industry started to build pacemakers that were less susceptible to interference. Unfortunately, not all phones – I shouldn't say "unfortunately" – fortunately not all phones caused this problem.

The Food and Drug Administration says if you have a pacemaker you can basically talk to the fellow you're buying the phone from, and they know that some phones might cause trouble and some don't. What you do is, well, buy the one that doesn't. And even if you buy the one that could cause trouble, as long as you keep it roughly four to six inches away from the pacemaker it doesn't cause trouble. Distance helps in terms of the interference.

Hearing aids. There was a Hearing Aid Compatibility Act passed a few years ago to resolve the problem of cell phones being used in the vicinity of a hearing aid, where the interference, or the effect, to the hearing aid would be a buzzing. And it occurred sometimes with the cochlear implants and sometimes with the regular hearing aids. The Hearing Aid Compatibility Act did two things. One is that cell phones now have to be tested, and they don't cause an interference. And the hearing aids have to be built, once again, to be less susceptible to that kind of interference.

The message in both circumstances, from the FCC and the Food and Drug Administration, is that unless you have a pacemaker that is significantly more than 10 years old you're not going to have this problem. By the way, neither of those two problems – pacemakers, which

are implanted devices, or external electronics that are medical – none of those, are actually affected by the base station antennas simply because the levels are as low as they are. They can be affected by the little cell phones, even though the cell phones typically use a few tenths of a watt at most. But there's a shorter distance between the source of the interference and the interfered-with object.

So it's a cell phone issue, not a base station issue, and has been dealt with, with technology standards and a law that forced the technology standards. And in the odd case of a very, very old and still-operating pacemaker and a phone – if you even have a phone that causes the trouble – four inches is all you need to eliminate that problem.

The advice from the FCC and the Food and Drug Administration is, when you buy a phone talk to the fellow who's selling you the phone. They know those answers. And that's interference, by the way, not a ... I'm primarily here for the so-called health and safety related to the emissions. But exposure was the subject. This happens to be interference. It's related.

Mr. [Warden] XXX: [off-mic]

Mr. Collins: I don't know what the question is.

Building Inspector Sharma: Can you please speak in the microphone? Because we are recording.

Mr. Collins: Yes. Ask the question. I didn't pick this question up.

Mr. [Warden] XXX: If you have a Sprint phone, will somehow the T-Mobile antennas have a negative impact?

Mr. Collins: Oh, that's a good point. Will there be any interference from T-Mobile to any other radio service. I can describe why not in both a technical and a regulatory sense. This is the plain-English of interference. There are three basic types of interference between radio systems; in other words, systems that have antennas. One is, the antennas use exactly the same channel frequency and there would be interference.

For example, TV-Channel 4 in New York City could interfere with TV-Channel 4 in Philadelphia near the fringes of their coverage area. Except, well, Philadelphia doesn't use channel 4. they avoid the frequency because there can be what's called "co-channel interference." In this case, T-Mobile has paid a small fortune to have exclusive rights to the channel frequencies it uses in both of the frequency bands here. So there are no

opportunities for what's called co-channel, or "same-frequency" interference because there's nobody on the same frequency. Life's simple in terms of that.

What about if someone is obviously operating an antenna on an adjacent frequency or what's called an "out-of-band" frequency relative to T-Mobile's? That kind of interference is protected by an FCC standard that requires T-Mobile to attenuate its out-of-band emissions by a factor of 20,000. That says that if you're transmitting at 20 or 40 watts in in-band, on channel 1, well, channel ... oh, let me do a different channel, channel 2.

The amount of interference in either channel 1, or channel 3 immediately next door, is 20,000 times less. That's more than sufficient to avoid interference. Usually, the adjacent frequency operator is another cellular operator and they have the same out-of-band emission requirements and they don't interfere with each other.

The third type of interference is when people share the same structure for their antennas – two different players, let's say Sprint and T-Mobile – and they put the antennas too close together on a roof or on a tower. You can get the antennas to almost sympathetically vibrate like a tuning fork. The interference is called "intermodulation" interference, and the magic of distance solves it. If you're 10 feet away in any direction the problem just goes away, and sometimes even less than 10 feet. In this case, there's nobody else on the rooftop with an antenna so there's no chance for intermod interference.

So there's no co-channel interference because there's nobody co-channel, the adjacent channel interference is attenuated by a factor of 20,000, and then you've got the intermod, which isn't going to happen here. There's nobody else on the roof, at least no chance for intermod. But what if, despite all of that, somehow T-Mobile turns on its facility and somebody in the building says, "My God, I now have static on my TV."

If you go back and do a test with T-Mobile, and if they turn off their system and the static disappears – so there actually is some interference despite all the protections – the FCC has an ultimate regulatory protection. It has the force of law that says that it will not allow any licensee to cause any trouble, or interference, to any other licensee.

Last guy in fixes. Life is simple there, too. By the way, T-Mobile as far as I know, countrywide, has never had any interference problem of any kind. So there's no interference issue here to speak of. And if it ever did happen, the FCC's hammer comes down and they'd have to fix it anyway.

Boardmember Dowell: I'd like to go back to one issue on the vertical propagation. You say they push out 60 degrees, but vertically they propagate pretty straight.

Mr. Collins: Yes, for the first 40 feet.

Boardmember Dowell: For the first 40 feet. Well, then, why do you need to put them at the parapet edge?

Mr. Collins: I didn't ... just understand what I do for a living here. The exposure levels around antennas depend on the height the antennas are relative to the person of interest, like street-level versus the roof.

Boardmember Dowell: But for the effectiveness of the antenna. I'm looking at this diagram here.

Mr. Collins: I understand. I didn't pick the spots for the antennas. And the radio frequency...

Boardmember Dowell: But the question is, if the antenna would work according to the propagation geometry that you just mentioned it should work just as well if it was pushed back 45 feet, wouldn't it?

Mr. Collins: All right. If you push the antennas back, even though the ... and I said the energy was concentrated, but I said there is some that basically is outside the pie shape that I talked about. The problem with moving an antenna back away from a parapet without raising the antenna is that the visual line of sight to people within a block or two away is blocked. Right? And in fact, that disrupts the signal. You can significantly have a signal attenuated by a nearby parapet. Even though from an exposure point of view the model says the energy is collapsed here, there is some energy there.

Remember, I said that even though the energy is collapsed at the height of the antenna, concentrated, there's still a 38 percent exposure level directly under the antenna 12 feet below it. So there is some energy there. And if you move the antennas at the same height away from a parapet it basically destroys your near-end coverage.

That's the reason that they prefer – most of the radio frequency engineers – the antennas be either at the parapet, where there's no visual obstruction to nearby users. Or if you move it back, I've heard a couple of rules of thumb here. For every four feet back, you move one foot up; there's a safe rule of thumb in terms of the coverage.

You'll notice here, the one antenna that's not at the parapet is actually 12 feet off the roof. So they don't have that problem. But, once again, that's a radio frequency engineer design issue.

Remember here that the models we use for exposure are extremely conservative. And actually, assuming all of the energy is collapsed on that pie shape, it gives us a healthier respect for not being directly in front of antennas at the same height. That's basically why that model was built.

Boardmember Dowell: So the rule of thumb is four feet back, one foot up.

Mr. Collins: I've heard that. I've also heard one-for-five; I've heard one-for-three. But you usually do move back a little and up a little.

Boardmember Dowell: There is a ratio which you can...

Mr. Collins: Yes. And I've heard different numbers from different engineers, but it's always in that range: one-for-three to one-to-five. But that, like I say, is a coverage issue, and the radio frequency engineer is probably in a better position to state the rule of thumb for them.

Building Inspector Sharma: Can I ask a question, Mr. Chairman?

Chairman Murphy: Yes, of course. Go ahead.

Building Inspector Sharma: Some of the standards you mention, is it possible to put it in some kind of narrative form so that, since our engineer's not here tonight, we can give it to him for him to comment? He'll be able to say, "Yes. I agree what's being said here is yes indeed, correct," or whether he takes some exceptions to some of the things you're saying.

Mr. Collins: I didn't quite understand what your question is. Are you concerned that Mr. [Comi] XXX wouldn't follow what I've been talking about here?

Building Inspector Sharma: No, he'll follow. But if there's some way, again, to send him the minutes of this meeting, whatever you said.

Mr. [Warden] XXX: Yes. Don't you get – couldn't you give him – the minutes from the meeting, just like I got the minutes from the meeting?

Mr. Collins: Let me offer you this. This isn't the first time Mr. [Comi] XXX and I have interacted. We've probably interacted on a hundred sites. He has my phone number, and we often talk about this. We hadn't on this one, but if he had any questions about any of the testimony ... it's possible he'll listen to this entire story, or read it on a transcript. But the

odds are, if he has any questions about my written material he'll be right on the phone and we'll settle it right there.

Village Attorney Stecich: But Deven makes a good point, and the applicant has to be aware of this. Because this wasn't on as an agenda item, but they chose to present it tonight. It'll take awhile to get the minutes. So if it takes a few weeks to get the minutes, and Richard can't review it until after that, I just want you to understand that. That could be the delay. Our guy gets them as quickly as he can. And we don't have to wait until they're approved or anything, but there could be a bit of a delay. Just recognize that's a fact: that because it wasn't on the agenda ... if it were on the agenda he would have been here tonight and we wouldn't have had that issue.

Mr. Collins: I'm not quite sure where you were leading. What do you think I could do right now that would help this?

Mr. [Warden] XXX: May I interrupt very quickly? You asked for a narrative. A narrative has been provided. Dan has given a general narrative which was included as an exhibit to our memorandum in support. And I know Mr. [Comi] XXX will, in fact, review that. So that's a good starting point.

Building Inspector Sharma: A narrative in terms of, for example, at the last meeting we had a question – Mr. Forbes-Watkins had a question – about the level of emission in the apartment immediately below. You have provided the answers now.

Mr. [Warden] XXX: I can quickly summarize the levels in the different areas of interest.

Village Attorney Stecich: I think it's better that he read it from the minutes because we're not going to remember. I'm not saying this would happen, but he could provide a narrative that doesn't gibe exactly with what was said tonight. So the thing that makes the most sense, so that you're reviewing the same thing...

Mr. [Warden] XXX: Excuse me a second. I wrote a 21-page report on street-level exposure that also provided the entire formula you needed to do all of the calculations I've done since. And then provided a letter that said, "And here's the rooftop exposure near all three sectors." And then provided another letter that said, "Oh, by the way, if anybody's worried about the sixth floor, here's a letter that tells you what the number is on the sixth floor and how I got it."

Mr. [Comi] XXX has been through enough of this, I believe. He knows the mathematics, he's seen our work before. The narratives are in the report and the two letters.

Mr. [Warden] XXX: May I interrupt for a second? The third letter, that was the one that you just referenced. That has not yet been submitted.

Village Attorney Stecich: That's the sixth-floor one?

Mr. [Warden] XXX: That's the one that I was reading the one-tenth of 1 percent, or whatever. That's that letter.

Mr. Collins: I have 10 copies of that letter right here.

Mr. [Warden] XXX: And we'll be glad to submit it...

Village Attorney Stecich: OK, because we didn't get that.

Mr. [Warden] XXX: May I make one other point?

Mr. Collins: That might be it.

Chairman Murphy: Hang on, hang on.

Building Inspector Sharma: Speak into the microphone, please, because we have to transcribe the minutes and it may be difficult if the people can't hear.

Chairman Murphy: Mr. [Warden] XXX, go ahead.

Mr. [Warden] XXX: Sure. Just one point to bring all this into perspective. We're very interested in having a good relationship with the Village, and responding to all its concerns and dignifying those concerns. That's why we bring Mr. Collins here tonight. We do it as a courtesy to the Village.

But I do want to point out, these issues are very explicitly federally preempted. I just want everybody to keep that in the forefront of their mind. These emissions questions are not something that this board has the jurisdiction to conduct an inquiry into. That's very clear black-letter law.

However, we're here. We want to work with the Board, and we are doing this as a courtesy. And we're doing our best in order to make sure everybody's concerns are addressed. And if I may submit at this time 10 copies of the March 4, 2010 letter that relates to, I guess, RF leakage on the top floor.

Mr. Collins: I apologize to the Board that that letter was only dated today. I only found out it was an issue today. It usually doesn't come up. Or when it does, we usually answer just in oral testimony.

Chairman Murphy: Just so the record reflects that we now have Mr. Collins' March 4 letter submitted to the Board. And this provides us with, again, which data point, Mr. Collins?

Mr. Collins: This is the letter that addresses the leakage below the antennas into the top floor and concludes that, relative to the FCC standard again, it's less than one-tenth of 1 percent, or 1,000 times below the limit for acceptable safe continuous exposure.

Chairman Murphy: OK, thank you. So that's in the record. We'll consider that, too.

Mr. Collins: One thing not addressed in my reports, any of them, because I was primarily here as a radio frequency emissions exposure expert, was the comments I made here orally about what the FCC and FDA have to say about cell phones and pacemakers and hearing aids, et cetera. All of that is available publicly on the Web. I'm sure Mr. [Comi] XXX has seen it before.

Chairman Murphy: OK. Anything else from the Board? Any questions for Mr. Collins?

Mr. Collins: Thank you, sir.

Chairman Murphy: Mr. Collins, thank you.

Mr. [Warden] XXX: May I just ask, for my own satisfaction, I just want to confirm that it was, I believe, Mr. Watkins' initial inquiry that had prompted us to bring Mr. Collins here. I want to just make sure. Mr. Watkins, has your question been answered?

Boardmember Forbes-Watkins: Yes.

Mr. [Warden] XXX: OK, thank you. Is there anything else I can...

Chairman Murphy: No. We were just here to listen and take all the information you could provide today, and we appreciate it. Thank you.

Marianne, nothing procedurally at this point, right?

Village Attorney Stecich: No. I was just a little curious about when we were going to get from them the analysis of whether the Chemka Pool facility's going to work.

Chairman Murphy: Well, I notice that's also part of Mr. [Comi's] XXX response letter that I got today.

Village Attorney Stecich: Well, he did that, yes. But I was told quite a while ago that it was almost ready and that he hadn't gotten it. That would be helpful. The sooner we have that, the sooner the Board's going to be able to move along.

Mr. [Warden] XXX: We're working quickly to do that, and we hope to do it before the next meeting. Just to point out, Mr. [Comi's] XXX request for information, as I said, kind of alters what we've been working on. Because he has certain requirements, informational and otherwise, that he insists the materials comport with. So we're working on it, and we understand that that is...

Village Attorney Stecich: Yes. Just be aware that the sooner you get it in, the sooner we can have it to our guy to review. So it should be well before the next meeting.

Building Inspector Sharma: Yes. You say, "Before the next meeting I want to have all your reports and consensus reaction to those reports." So the Board needs to have all the information.

Mr. [Warden] XXX: We'll do our best to get those materials as quickly as we can.

Chairman Murphy: Marianne, is there an opportunity for Mr. [Comi] XXX to appear after we get all this technical information?

Village Attorney Stecich: Yes, sure. I think you should probably have him come to answer questions. But there was no point having him until he gets everything he needs to study.

Chairman Murphy: No, I agree.

Village Attorney Stecich: But yes, I would think ... I mean, you don't want to have him at every meeting, and then they're paying for him unnecessarily. But if they provide the material on time for him to review it before the next meeting, it might make sense for him to come to the next meeting. But it depends what's provided to the Village when. Deven and I'll keep an eye on that.

Chairman Murphy: OK. And let the record reflect we also received tonight the package of supplemental photographs with the locations of the proposed antennas.

Mr. [Warden] XXX: Could the record reflect that it was submitted on the 24th, with the additional materials?

Chairman Murphy: Sure, that's fine. But I got it tonight.

Mr. [Warden] XXX: Gotcha.

Chairman Murphy: Mr. Collins, thank you again. Mr. [Warden] XXX, thank you.

We're not going to take public comments tonight, but there'll be more opportunity for public comments at the next meeting or whenever we next schedule the application.

Mr. [Warden] XXX: But we look forward to seeing you at the next meeting, and thank you all very much for your time this evening and for coming out.

III. Approval of Minutes, Regular Meeting January 28, 2010

Chairman Murphy: We've approved the minutes.

Ladies and gentlemen, I just wanted to mention our next Board meeting we've altered the date by one day. It's going to be March 24 to accommodate a schedule. And because it's on March 24th it's not going to be in this room. It's going to be in the Orr Room in the library, downstairs in the library.

With that, this meeting's adjourned. Thank you.