

**MINUTES OF THE
MENDHAM BOROUGH BOARD OF ADJUSTMENT
July 7, 2009
Garabrant Center, 4 Wilson Street, Mendham, NJ**

CALL TO ORDER

The regular meeting of the Board of Adjustment was called to order by Chair Santo at 7:30 p.m. at the Garabrant Center, 4 Wilson Street, Mendham, NJ.

CHAIRMAN'S ADEQUATE NOTICE STATEMENT

Notice of this meeting was published in the Observer Tribune on February 5, 2009 and the Daily Record on January 29, 2009 in accordance with the Open Public Meetings Act and was posted on the bulletin board of the Phoenix House.

ATTENDANCE

Mr. Palestina – Present
Mr. Peck – Present
Mr. Peralta – Present
Mr. Schumacher – Present

Mr. Seavey - Present
Mr. Smith - Present
Mr. Santo - Present

Also Present:

Mr. MacDonald, Attorney
Mr. Humbert, Planner
Mr. Hansen, Engineer
Dr. Eisenstein, Telecommunications Consultant

PUBLIC COMMENT

Chair Santo opened the meeting to public comment or questions on items that were not on the agenda. There being none, the public comment session was closed.

APPROVAL OF MINUTES

On motion by Mr. Seavey, second by Mr. Smith and carried, the minutes of the regular meeting of June 3, 2009 were approved as written.

HEARINGS

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Mr. Smith recused from the Board.

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Horne, Cecilia – Hardship Variance

Block 406, Lot 20, 12 Birch Street

Present: Cecilia Horne, Applicant
William Bryne, Architect

Mr. MacDonald, Esq. reviewed the public notices and advised that the required utility notification as well as incremental letter notification to property owners within 200 ft. had been completed. The Board had jurisdiction to proceed.

Mr. Hansen led the Board through the completeness review. There were no objections.

Mr. Bryne presented his credentials and was accepted as a witness by the Board.

Ms. Horne testified that she has an existing gazebo like structure. The lot and impervious coverage are minimal. It is not visible from the road.

Mr. Bryne testified that there was an original permit issued for a family room addition and a two car garage. The structure was not on the survey and was not picked up by the Zoning Officer or

himself until an as-built survey was requested. It was then noted that the coverage would be exceeded. At first Ms. Horne considered removing the structure, but then decided to go through the variance process. The permitted building coverage is 1693 sq. ft and with the spa it is 1872 sq. ft., over by approximately 175 sq. ft. The permitted impervious coverage is 2822 sq. ft. and with the spa is 2898 sq. ft., approximately 75 sq. ft. over. In terms of visibility, the spa is well screened by the stockade fence. The structure is a garden-like structure, 9 ft. tall. It sits lower on the property in comparison to the deck. The structure is diminimous in scale.

Addressing the Board on the topography of the lot, Mr. Bryne stated that it is fairly flat with a gentle slope toward the right rear corner. Ms. Horne added that the run off is to the back right corner. It has not caused a problem in the past.

Responding to Mr. Peck on the evolution of the building on the lot, Mr. Bryne stated that the garage was built last year. Ms. Horne added that the spa was built around 2004.

Chair opened the meeting to questions and comments by the public. There being none, the public session was closed.

In deliberations Board noted that the hardship was self inflicted, but that the Borough process did not identify the problem. Asking the applicant to remove the structure would be punitive. There is no intensification of use and the overage is minimal.

Mr. Seavey questioned whether there were gutters. Mr. Bryne explained that there are no gutters, and the structure sits on top of the brick paver patio. There is no foundation. Mr. Seavey requested that there be a condition that it is not a permanent structure, and that there could be no addition to it.

Mr. Seavey made a motion to approve the application with the condition that there be no additions to the structure. Mr. Schumacher seconded.

ROLL CALL: The result of the roll call was 6 to 0 as follows:

In Favor: Palestina, Peck, Peralta, Schumacher, Seavey, Santo
Opposed: None
Abstentions: None

The motion carried. The application was approved. Mr. MacDonald, Esq. will prepare a resolution memorializing the action for the August 4, 2009 regular meeting of the Board.

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Mr. Smith returned to the Board.

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Parmelli, Jean & Charles – Hardship Variance

Block 401, Lot 28, 26 Mountain Avenue

Present: Charles Parmelli, Applicant
Jean Parmelli, Applicant
William Bryne, Architect

Mr. MacDonald, Esq. reviewed the public notices and advised that the Board had jurisdiction.

Mr. Hansen led the Board through completeness. There were no objections.

Mr. Parmelli testified that they purchased their home 10 years ago as a home to grow into over time with an addition. In the proposed design they tried to keep the scale appropriate for Mountain Avenue. They are increasing the home from three to four bedrooms. There are four in their family, and they are currently sharing the single main bathroom. As part of the second floor expansion, they will add a master bath. The existing garage was built in the 1950s, and they are adding a two car garage. Instead of increasing the footprint, they are adding the master suite above the garage. They will be over on building footprint and impervious coverage due to an existing pool, 16 ft. x 32 ft., that was on the property when they purchased the home. The pool also has a walkway around it.

Chair commented that they are converting a one story home to a two story home. Responding to where the master bedroom is currently located, Mr. Parmelli explained that it is in the rear of the first floor. It will become a dining area in the new design. Addressing his question on whether the plans have been shown to the neighbors, Mr. Parmelli stated that the neighbors know that they have been thinking about expanding.

Clarifying the layout of the existing and new home, Mr. Bryne explained that the home is now a single story ranch. The main floor does not change too much. The back bedroom is becoming a dining room and the front room that is currently a bedroom will become a study. The stairway is in the center of the home. There will be a breakfast room and a mudroom. The one car garage will be converted to a two car garage to accommodate interior parking. The second floor is entirely new. The idea was not to create a full two story home, but more of a cottage style. There will be a bath for each bedroom and the master suite will be located above the two-car garage. The lot is located in the quarter acre zone.

Chair complimented the design of the home, but questioned the visual impact in the neighborhood. The neighbors would be dwarfed, particularly the home to the right. The Board must assess whether it fits in the zone and neighborhood. He questioned whether more of a wedding cake design would work so that the home would more appropriately transition into the neighborhood. The requested increase of 20% in lot and building coverage is substantial. The driveway is also increasing by several hundred square feet.

The Parmelli's stated that there are houses on each side of them that are two story. The pool is important to them. Mr. Bryne explained that the pool was 900 sq. ft. and that there is a shed of 100 sq. ft. They noted that part of the existing driveway is being removed. They tried to keep the home to scale during the design process. Mr. Bryne added that the angling of the garage is designed to soften the scale.

Responding to the Chair on the need for an open loft, Mrs. Parmelli stated that the current home is small and they do not want to feel closed in. The master bedroom is 15 ft. x 26 ft. only because they need a garage of that size.

Mr. Seavey explained to the applicants that the zoning plan was redone two to three years ago to deal with coverage. Varying size lots were reviewed and most restrictions became looser so that people would not need to come in for variances. The hardship is that the applicant in this case does not want to move. If the Board approved such a large increase of 20%, they would again be re-writing the zoning plan. The Board cannot re-design the architectural plan. The applicant needs to take a fresh look at what they want to do.

Mr. Peck indicated that there might be some leeway for the existing pool with appropriate measures for ground water, but the left side of the home has very large roof line. They should consider a more traditional look for the garage which might save on coverage. The existing design is too extreme. Mr. Smith agreed. Mr. Palestina requested that as they rethink the design, they also consider how they will direct the drainage. The property slopes back, and that will be the natural flow. Mr. Parmelli stated that there is problem on the property also caused by other properties.

Mr. Schumacher noted that there were two other applicants on Mountain Avenue that were required to scale down and remove impervious coverage. The Board needs to be consistent.

Mr. Humbert advised that he could offer some suggestions given the width of the lot in the neighborhood. Mr. Bryne will contact him.

The application will be carried to the August 4, 2009 regular meeting. Applicants were advised that in order to be heard, they would need to have copies of the revised plans to the Board Secretary a minimum of 10 days before the meeting. Mr. MacDonald, Esq. advised that there would be no further notice.

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Board took a 10 minute recess.

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Mr. Peralta recused from the Board.

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Omnipoint Communications, Inc. and New York SMSA Limited Partnership d/b/a Verizon Wireless – Use and Other required variances: **Continuation**

Block 801, Lot 20, Kings Shopping Center

Present: Richard Schneider, Esq., Attorney for the Applicant

On Behalf of Mr. Isko:

Robert Simon, Esq., Attorney
Ronald Graiff, RF Engineer

The hearing continued with Mr. Pierson being recalled in response to testimony by Mr. Graiff and questions by the Board.

Responding to Mr. Schneider, Esq. Mr. Pierson acknowledged that he had previously had the opportunity to work with Mr. Graiff when Mr. Graiff was serving in the role of Board consultant, and that from his perspective, they worked together cooperatively. Whenever Mr. Graiff had asked him for reasonable documentation, he had provided the information and never received any contrary interpretation. He did not recall having any discussions with Mr. Graiff relative to this application outside of the hearing process.

Addressing a line of questioning dealing with Mr. Graiff's testimony on a void dealing with certain sites not being reflected on the propagation charts or exhibits that were prepared, Mr. Pierson first commented on sites in Bernardsville. The closest sites would be located north or west of Route 287. He did not think that those sites would have an impact on the site at the Kings Shopping Center as there is a ridge between Mendham and Bernardsville that is about 700 feet high with a reduction in elevation to 500 ft. Unless the tower was located on top of the 700 ft. ridge, there would not be any appreciable coverage in the direction of Mendham. The Bernardsville towers were not shown as they do not bear on the need for a site at the Kings Shopping Center.

In terms of the Mt. Freedom site, about two and half miles north/northeast of the Borough, Mr. Pierson explained that 1900 megahertz could not cover that distance with the exception of spot coverage. There is also a 900 ft. ridge dropping to 500/600 ft. It would not provide any significant coverage into the Borough for the gap that is being discussed. The sites that would bear on coverage were included in Exhibit A-1.

Moving to his preparation of documentation for his testimony in June 2008, Mr. Pierson stated that he had communicated with Dr. Eisenstein to determine the type of documentation that he would require for the application. Explaining how he determined the levels of existing coverage from both Verizon Wireless and Omnipoint Communications, he stated that they looked at the initial propagation using the tools of the two different carriers. There were some concerns on how well the models were tuned, in comparison to what they believed it would cover.

Mr. Pierson testified that he directed personnel to the field on May 20 before the first public hearing to gather information on signal strengths from the existing sites from Omnipoint and Verizon. The data was gathered via a scanning receiver made by Agilent with all parameters set up properly. It was set up in a test van. The data was brought back to the propagation tools that were retuned to improve their accuracy and then the propagations seen in Exhibit A-1 and the overlays and the parameters in Exhibit A-2 were produced.

Mr. Schneider, Esq. clarified with Mr. Pierson that the propagations were not just based on the models, but also from testing that verified, confirmed or analyzed the levels of actual coverage from the existing sites of each of the two carriers. The propagation presented in June 2008 was presented from the tool which was tuned, or based on real world data from the existing sites. At that time, the Bell Tower and Conifer Drive were both on air for Verizon wireless, and the Bell Tower was active for Omnipoint. Omnipoint was not broadcasting from Conifer at that time.

Addressing how he accounted for the proposed degree of coverage for Omnipoint at Conifer, Mr. Pierson explained that there were two methods used. The first was using the data that they had for Omnipoint for the Bell Tower and applying it to Conifer Drive. If the data works on one side of the town, it usually works for the other side as there is not a real major difference between one side and the other. In terms of the second method, Verizon Wireless broadcasts at 1900 megahertz from Conifer Drive. He knows the parameters and what the signal is made up of. He also knows the parameters and what the signals would be made up of if Omnipoint were there. He knows the heights of the towers, a 10 ft. difference. With the double check, the data provided

in June regarding the existing coverage from Conifer Drive for Omnipoint was of reasonable accuracy of what would be there if the site was on air.

Mr. Schneider, Esq. stated that given the Board's focus in June 2008, it may not have been clear that the documentation that was provided contained all of the information described. Mr. Pierson stated that at the Board's request in June 2009, he did prepare some additional information at the request of the Board, and did have discussions with Dr. Eisenstein. Mr. Schneider, Esq. entered Exhibit A-21 (DT-1 through DT-3a), a series of charts that had previously been provided to the Board with their pre-meeting packages. Mr. Pierson described each of the charts that provided data with color coded dots representing where coverage was occurring based on drive test data taken on May 20, 2008 for the baseline view. It demonstrated the signal strength provided by the existing wireless facilities for Omnipoint Communications and Verizon Wireless in the 1900 MHZ frequency band. He also included data collected for Omnipoint Communications as of June 12, 2009.

Mr. Pierson testified that where Omnipoint was active on the left side of the map (DT1-A), in most cases they were within a few hundred feet of the propagation actually matching precisely with the drive test data. In most cases the propagation is a little over-predicted as it shows a little more coverage than may actually exist. Where Conifer was not on the air there are no signals. In that case the drive test does not match the model data. The polygon for the area not on air on the right side of the map is predicted based on the area on the left side of the map.

During the review of the data, and in response to Dr. Eisenstein, Mr. Pierson also explained how the drive test was conducted. A scanning receiver, an Agilent is placed in the car. Attached to it is an antenna that is mounted and drilled through the center rear roof of the vehicle. The antenna takes the signal strength from the existing sites. A GPS antenna attached to the receiver indicates location. The receiver goes through all the frequencies on the sites and takes a signal rating, scanning them as fast as it possibly can. The large files are post-processed into 100 ft. bins. There is averaging so that peak highs and peak lows are avoided. From the information the strongest signal from the carrier is taken and is displayed on the chart. Each dot on the chart represents a 100 ft. bin. It is overlaid on the propagation model data.

Responding to Mr. Palestina on whether there would be better coverage in May than in June or July due to trees in bloom, Mr. Pierson stated that there is a slight variation. It might be 2 dB between May and June. In terms of whether there are any other variables that might differ, Mr. Pierson answered that it is his understanding that the Bell Tower is very consistent in its settings. They will run full power in an area like this.

Returning to the data, Mr. Pierson testified that after the last meeting, he did a test drive to account for Conifer live. The same van with the same equipment, probably calibrated in between was sent out again on June 12, 2009. With the exception of a couple of roads, the exact same route was followed. Taking the data from Exhibit DT2 and overlaying it on the propagation polygon, they match up well. On Cold Hill Road the polygon was a little over-predictive as well as by Aberdeen Drive and north of Mountain Avenue. There is a gap on Tempewick Road by the police station, south of Route 24 and east of the high school and north of Route 24. The gap was not over-predicted in 2008, but slightly under-predicted.

Mr. Pierson continued that the measurement was determined from a vehicle. The measurement needed is minus 84 on the roof of the vehicle 5 feet in the air with no obstructions. In the vehicle, the strength may go down to minus 90 and in a home to minus 95. In Kings it even could be less. The design criteria and the design threshold are based upon the best situation. Omnipoint design criteria is minus 84 dbm in a vehicle.

Moving on to Verizon, Mr. Pierson went through the same analysis indicating that both the Bell Tower and Conifer were on air. Verizon uses 1900 megahertz based upon voice communications, but they have a different type of network called a CDMA network versus the Omnipoint GSM network. The Verizon standard for suburban coverage will get you in the house at 1900 megahertz. It has difference references. Again, the propagation matches well. It is a little over-predicted up Mountain Avenue and by Conifer Drive.

Mr. Pierson explained that the propagations for Verizon and Omnipoint are different given the different technologies. Verizon's criteria, minus 85 Ec is actually a stronger, higher reliability. It reaches a home rather than a vehicle.

Addressing Mr. Smith's question to Mr. Graiff from the previous meeting on whether he had experience where the actual data did not match the propagation charts, Mr. Schneider, Esq. questioned Mr. Pierson on his professional opinion on whether the results of the propagation charts are consistent with the data obtained in May 2008 and updated in June 2009. Mr. Pierson

stated that in his professional opinion, and also given his experience with drive testing, working with propagations, propagation tools, platforms, etc. that there are variables associated with drive testing. It is an instant of time with different variables. They are never going to match exactly. In his professional opinion, the data he presented was a very good match. There is no change in his opinion on the existence of a gap since 2008 based on the data received in June of 2009. Technically, the gap on Route 24 is slightly larger.

Moving to additional past testimony by Mr. Graiff indicating that the applicant was deficient in not looking at the potential siting of the facility on the police station property and whether strictly from a radio frequency perspective the site would work, Mr. Pierson stated that it would work. When a letter was sent to the town, he had a chance for review. As the property is 500 ft. from the Kings Shopping Center, it would work from a radiofrequency perspective. It has not been made available through the Borough. In terms of the fire department, it would not be an alternate for the Kings Shopping Center. The high school is located on a hill. The fire department is on one side and Tempewick is down low on the other side. If something is placed at the fire department, it would not cover Tempewick Road. His opinion on the firehouse has not changed.

Mr. Schneider, Esq. verified with Mr. MacDonald, Esq. that he had shown him how the overlays could be justified onto the base map.

Responding to Mr. Seavey on whether he had seen or prepared any propagation maps for historical or national parks or DEP wetland areas in New Jersey, Mr. Pierson stated that about 5 years ago, he had worked with Jockey Hollow trying to put up a site, but it did not progress and it wasn't built. Mr. Schneider, Esq. added that there is a National Park Service administrative process for siting. They essentially have a veto. Mr. Pierson continued that in terms of wetlands, engineers usually review the location and they do not proceed. In terms of Green Acres, he remembered one instance in Keansburg where they did get a tower.

Mr. Seavey questioned the Verizon and Omnipoint business plans and what specific demands the tower would be addressing. Mr. Pierson explained that the decision to put forth a project in particular areas is at least a couple levels above him in the Verizon offices. In this case it is Omnipoint that started the application. Verizon is co-locating. How the carriers look at things is usually based more on population. They are not worried about covering the wetlands north, but the Commons is located past that. It is significant. There is a fair amount of activity around Route 24 into the buildings and into the banks. There are a lot of banks. The major point is Omnipoint's in-vehicle coverage. The questions are where are the people, where do they congregate, and where do they drive. The tower is placed where they can get the most amount of the congregating areas. Mendham Borough has the shopping center, the banks and the post office. There will be in-building coverage and also reliable coverage for people going through town on route 24, Cold Hill and down somewhat on Tempewick. Given the terrain, the calls will be dropped before they reach Route 202.

Mr. Pierson referred to the Homeland Security Act, updated in 2003 that goes into detail on how wireless systems should be seamless ubiquitous coverage. They are looking to bolster up the wireless infrastructure. In terms of E911, he cited the high school as an example. Even though it is located on a hill, if someone got injured in the gymnasium, the phones would need to work.

Dr. Eisenstein restated that he has very little confidence in drive test data except to the extent that it is used to tune the propagation models. It makes the gaps look bigger than they are because of the day of the week or the time of the year that they happen to have been run. Propagation plots average out everything over the time of the year, the time of the day, the kinds of signals, and the fading conditions. One gets a reasonable design criteria rather than a snapshot in time. The snapshot is helpful in calibrating the propagation plots. Upon review of the data, he could not find one single case where the drive test data would have indicated a smaller gap than what was being testified to. The applicant had prepared the data in the way that he thought the Board would most be able to see it.

Chair opened the meeting to questions of Mr. Pierson by the public.

Ms. Susan Kaplan clarified with Mr. Pierson that he was referring to "Cold Hill Road", not "Cold Spring Road" in his testimony. She also confirmed that the drive test vehicle was denied access to the Mendham Commons. In response to whether he had been involved with any discussions with the Mendham Townhouse Association, Mr. Pierson stated that he was not, but that did not mean they did not take place. Responding to Ms. Kaplan's question on who was his employer, Mr. Pierson responded that he is an independent RF engineer. Keansburg was the town with which he had addressed the Green Acres issue about 12 years ago.

Addressing Ms. Kaplan on whether he would determine whether there is a gap in coverage, a capacity problem or the number of dropped calls, Mr. Pierson explained that an RF engineer could be asked to do any or all of them. It is a case-by-case basis. Revisiting testimony on DT-2A, Mr. Pierson noted Bowers drive and that a little more coverage is shown on that road in the 2009 drive than it did in the 2008 drive. He explained that during the testimony he was describing why signals might vary. If nothing obstructs the view, there can be call alignment with no obstructions. Radio waves don't have obstructions and a stronger signal may show on a propagation. If there are trees, the model may make an adjustment, if there are not, a stronger signal may show.

After some discussion, it was determined that Ms. Kaplan wanted to ask additional questions dealing with the planning testimony when it is presented.

Frank Lupo, 17 Dean Road, referenced the fact that in working with data, one puts data in buckets as it funnels through a model. He questioned how the charts were labeled. Mr. Pierson responded that the post-processing software contains greater than or equal to criteria. With a threshold of 84 it means up to 84. There are four or five data buckets. Mr. Pierson offered to provide the bucket thresholds to the Board if they required them.

In terms of his review of the Omnipoint data with the two towers, Mr. Lupo viewed it as continuous seamless coverage. Mr. Pierson explained that the green is reliable coverage at minus 84. Below that is considered a gap in coverage. On the chart that represents anything that is yellow, red or black. Addressing Mr. Lupo's question on whether the test was a phone-in receiver test, Mr. Pierson stated that it was not. It is the basic test for signal strength.

Responding to Mr. Lupo on whether he had drive tests with a 2-degree downtilt in addition to the ones done at 3 degrees, Mr. Pierson stated that it is not relevant as there is no difference in the antenna pattern between 2 and 3 degrees. Also, in terms of whether he had a drive test at 4 watts in addition to the 2.5 watts of power, Mr. Pierson explained that it is not design criteria to run the pilot at 4 watts. That would throw all the balance off in the CDMA network. Addressing whether the 850 megahertz drive test shows seamless coverage in the Borough, Mr. Pierson stated that it did not. He did not bring the information as the design for the area is the worst case frequency which in the case of Verizon is 1900 megahertz. If they design for 800 then the 1900 megahertz for which they have a license, and that is on air at St. John's and Conifer Drive would be useless. Mr. Pierson did not recall testimony dealing with Mr. Lupo's reference to analog sunset.

Addressing Mr. Lupo's question on why the Tempewick area outside the Borough is so important yet there are gaps further south, Mr. Pierson stated that he had explained that in response to a previous Board question.

Board, applicant and interested parties discussed the agenda for the next hearing. It was agreed that the RF testimony would continue at the August 4 meeting. Given scheduling conflicts, a special meeting to hear planning testimony would be considered for September. Board Secretary will canvas the Board and professionals for possible dates.

ADJOURNMENT

There being no additional business to come before the Board, on motion duly made, seconded and carried, Chair Santo adjourned the meeting at 10:40 p.m. The next regular meeting of the Board of Adjustment is Tuesday, August 4, 2009 at 7:30 p.m. at the Garabrant Center, 4 Wilson Street, Mendham, NJ.

Respectfully submitted,

Diana Callahan
Recording Secretary