

TOWNSHIP OF LOWER MAKEFIELD  
ZONING HEARING BOARD  
MINUTES – MARCH 3, 2009

The regular meeting of the Zoning Hearing Board of the Township of Lower Makefield was held in the Municipal Building on March 3, 2009. Chairman Malinowski called the meeting to order at 7:30 p.m.

Those present:

Zoning Hearing Board:       David Malinowski, Chairman  
                                      Paul Bamburak, Vice Chairman  
                                      Gregory J. Smith, Secretary  
                                      Jerry Gruen, Member  
                                      Anthony Zamparelli, Member

Others:                         Robert Habgood, Code Enforcement Officer  
                                      John Donaghy, Township Solicitor  
                                      James Majewski, Township Engineer  
                                      Allen Toadvine, Zoning Hearing Board Solicitor  
                                      Matt Maloney, Supervisor Liaison

APPEAL #09-1505 – JEFFREY D. MISHLER

Edward Murphy, attorney, was present with Jeffrey Mishler and Jeffrey Madden who were sworn in. The Application submitted was marked as Exhibit A-1. Attached to the Application was a one-sheet Plan for Tax Parcel #20-3-11-001 dated 1/16/09, and this was marked as Exhibit A-2. An aerial photograph entitled “Washington Crossing Road Conceptual Lay-Out” dated 9/24/08 was marked as Exhibit A-3.

Mr. Murphy stated Jeffrey Mishler is the owner of the Village Market. The property is the subject of this evening’s Application although the reason for the Application does not involve the operation of the Market in any regard, but involves a request to increase the allowable impervious surface on the Village Market property so as to accommodate certain re-alignment and other improvements proposed to the Stoopville Road/Route 532 intersection. He stated the Village Market is one of the properties that fronts on Route 532 which is one of the principal arterial roadways running through Newtown, Upper Makefield, and Lower Makefield Townships.

Mr. Murphy stated the Village Market has been in existence for some time and has been the subject of prior Applications and relief granted by the Zoning Hearing Board over the years, most recently approximately ten years ago. The Market has been there since the early 1950s. The prior Applications have dealt with various modernization efforts made by Mr. Mishler.

Mr. Murphy stated there was a recent article in the newspaper discussing the fact that the Delaware Valley Regional Planning Commission had recently authorized some additional Federal funding to do traffic calming work along a stretch of Stoopville Road that extends from Newtown Township to Upper Makefield Township and also impacts the intersection under discussion this evening. Mr. Murphy stated the most recent approval by the DVRPC was preceded approximately nine months ago by award and receipt of approximately \$500,000 of Federal funds which has also been earmarked for additional traffic calming and intersection improvements to Stoopville Road; and this money currently resides at the Bucks County Planning Commission awaiting distribution to the Municipalities where the work is going to be accomplished.

Mr. Murphy stated Mr. Jeffrey Madden, the project engineer who prepared the Plans, will testify as to the nature of the improvements proposed and the impact those improvements will have on the Village Market. He stated Mr. Mishler, while present to answer questions, will probably not testify directly.

Mr. Madden stated he is a professional engineer licensed in Pennsylvania and is employed by Eastern States. He prepared the Plans that have been marked as Exhibits A-2 and A-3. Mr. Madden stated A-2 shows the Village Market property which is approximately one acre. It also shows the surrounding roads – Stoopville Road and Washington Crossing Road. Mr. Madden stated the Plan highlights the proposed impervious areas to the left and to the back of the property where work will be done to make the property more accessible to trucks that drop off gas at the gas pumps. Mr. Madden stated the property is slightly more than one acre, and the entire use of the property is dedicated to the operation of the Village Market which is a grocery store/deli and also dispenses gas.

Mr. Madden stated Exhibit A-3 is the aerial photo and shows what will happen on the Village Market which is widening on the left of the project as well as behind the building itself and also shows the proposed improvements along Stoopville/Washington Crossing Roads.

Mr. Madden noted the yellow highlighted areas on Exhibit A-3 which show the proposed improvements. He showed the location of Stoopville Road and Route 532. He stated the westbound travel lane on Stoopville Road will be shifted slightly to the south so as to enable the intersection to be a 90 degree angle. The new paving is shown in yellow and a certain amount of paving will be removed which he noted on the Plan.

Mr. Murphy noted the three driveways to the north of the other leg of Stoopville Road where it intersects 532 and asked that Mr. Madden explain the changes to occur there. Mr. Madden stated there will be an extension of the existing driveways to the White property. He stated there are three driveways which now tie into Stoopville and/or Washington Crossing Roads; and with the re-alignment of Stoopville Road, they are

being extended onto the proposed road. Mr. Murphy noted eastbound traffic traveling on Route 532, and asked if those vehicles will be able to access Stoopville Road westbound at the same location where they do today; and Mr. Madden stated currently there is a spur off of Washington Crossing Road from the White property, and with the proposed configuration there will be a light at the proposed intersection of Stoopville Road and Washington Crossing Road and all cars would have to stop and make a right onto Stoopville Road. The spur would be removed, and the area will be reseeded.

Mr. Madden noted other improvements proposed for the intersection which include a traffic light and a dedicated right turn lane for Washington Crossing Road. He showed on Exhibit A-3 a length of curbing which will be added along the front of the Village Market. Mr. Madden stated they will have a controlled access point at the four-way intersection at the light as well as a right out onto Washington Crossing Road. Currently access to the Village Market along its frontage on 532 is uncontrolled so curbing will be added to limit entrance and exit points to the Village Market along 532.

Mr. Madden stated there is a proposed addition of impervious surface on the southern portion of the Village Market and additional impervious to the rear of the Market. He stated to the left of the gas pumps there will be additional impervious surface so that there is a ample space for patrons to maneuver to get gas as well as stack up and enter the property. To the rear of the Market there is additional impervious surface proposed which is for the maneuverability of the gas delivery trucks so that they can come in, unload in the rear, and then come around the back of the Market and be able to exit and go back eastbound. He stated the width of this area to the rear is 20', and this is for maneuverability of the gas trucks to accommodate the wheel base of the trucks. He stated this is narrow as possible. This area is to accommodate traffic only in one direction and not two-way traffic.

Mr. Murphy asked the current amount of impervious surface on the Village Market property, and Mr. Madden stated it is 36%. The property is currently non-conforming. What has been proposed is an additional 3,400 square feet or 6.7%. There are no other changes proposed to the existing operation of the Village Market.

Mr. Murphy stated he understands that there will be the need for some adjustment in the existing parking patterns particularly on the north edge of the property; and Mr. Madden agreed. He stated there are currently parking spaces to the right of the building; and because of the need for maneuverability of the gas trucks, a few of the spaces will have to be re-located in some fashion. Mr. Murphy stated he understands this would be true as well for the clothing drop-off area and the trash dumpsters, and Mr. Madden agreed.

Mr. Murphy asked about the existing pedestal sign. Mr. Madden showed the sign's location on the Plan, and stated they will also have to relocate this as well.

Mr. Toadvine stated the reason the work is being done is because the road is being re-aligned, and Mr. Murphy agreed. Mr. Murphy stated the impact of the National Veterans' Cemetery and the re-alignment of Stoopville/532 is what is triggering these improvements, and Mr. Mishler was approached about cooperating with these improvements.

Mr. Smith asked about stormwater run off mitigation on the property currently, and Mr. Madden stated there is little or none to his knowledge. Mr. Smith asked what stormwater mitigation is proposed with this addition of impervious surface. Mr. Madden stated currently there is nothing proposed, but they would have to work this out with the engineer if the proposal goes through. He stated there are currently no drains on the property, although there are a few along Washington Crossing Road. He stated the intersection will be looked at as a whole. Mr. Smith asked if the Applicant would be willing to look into some stormwater handling devices, and Mr. Murphy stated while they would, they do not know if this project is going to be viewed as a Land Development. He stated if it is, they would have to go through the next step of development of more detailed engineering plans for review by the engineer and stormwater would be part of this.

Mr. Gruen noted a triangular area on the Plan and asked what will happen with that area. Mr. Murphy stated they do not yet know what will happen as PennDOT has yet to determine what the ultimate disposition of that area will be. He stated the formal PennDOT Permit Application has not yet been submitted. Pending the outcome of tonight's Application, it will then be submitted. He stated he believes that Mr. White has asked if this will be his property or retained by PennDOT.

Mr. Gruen asked which way the Village Market property slopes, and Mr. Madden stated it slopes away from the road. Mr. Gruen asked what is behind the Village Market noted in green on the Plan, and Mr. Madden stated it is part of the property and it is grass. Mr. Gruen suggested that they look into a rain water harvesting system which would be less expensive.

Mr. Donaghy stated the Township would like to participate, but is not opposed. He asked Mr. Madden if there is a proposal to extend a sewer line to their location; and Mr. Madden stated in looking at the proposed Subdivision Plans for an adjacent property in the back of the Village Market, there is a stub to which they could possibly hook up. Mr. Donaghy asked if the intention is to connect to that sewage line, and Mr. Murphy stated that is their intention. Mr. Donaghy asked if they would have an objection to this as a Condition of Zoning Hearing Board relief, and Mr. Murphy stated they would be agreeable to this.

There was no one present to speak in favor or against the proposal, and the Public Hearing portion was closed.

Mr. Bamburak moved and Mr. Gruen seconded to grant the Variance to permit impervious surface of 42.7% with the Condition that the property be connected to sanitary sewer as it becomes available.

Mr. Gruen stated they indicated that they would be looking at stormwater management, and he asked if they should add this now or is this something that the Building Department would look at. Mr. Murphy stated typically this is handled either by the Land Development process or the Building Permit process if they get that far.

Motion carried unanimously.

#### APPEAL #09-1504 – BRYAN & BEVERLY HARPINE

Mr. Bryan Harpine was present and was sworn in. The Application submitted was marked as Exhibit A-1. Attached to the Application was a one-sheet Plan time-stamped by the Township 11/6/07 and again on 1/19/09. This was marked as Exhibit A-2.

Mr. Harpine stated they are requesting a construction permit for a handicapped-accessible in-law suite resulting into encroachment into the side yard special setback from Yardley-Langhorne Road. He stated they have sufficient room on the property, but the question was which way they should build. He stated they looked to the right which is a driveway and an encroachment into the neighbor's yard, and to the back there is a pool so the only place to go was to the left. He stated there is a large side yard and there are trees that line Yardley-Langhorne Road so the house is protected in terms of view. He stated what he is proposing is an in-law suite with no kitchen. It will have a front and rear entrance. It will be one story. The setback would be 60' rather than the 80' required. The size of the addition is 24' 10" by 36' 7" which is slightly less than 900 square feet. It will have one or two rooms and a bathroom.

Mr. Gruen stated he would want to make sure that they would not be converting this at some point in the future to a rental apartment. Mr. Harpine stated they will not do this.

Mr. Donaghy stated the Township is not participating in this matter.

There was no one present to speak in favor or against the Application. The Public Hearing portion was closed.

Mr. Zamparelli moved, Mr. Bamburak seconded and it was unanimously carried to grant the relief for a 60' setback.

A short recess was taken at this time.

APPEAL #08-1483, #08-1483(A) AND #08-1483(B) – T-MOBILE NORTHEAST LLC

Mr. Eric Goldberg, attorney, was present and stated at the last Hearing they had completed testimony from several witnesses, and this evening they will have a real estate appraiser and a continuation of the testimony of the radio frequency engineer, Bassem Iskander.

Mr. Michael Samuels was sworn in. He stated he is the principal of Clarion Samuels Associates, and they are the Philadelphia affiliate of a national real estate appraisal and consulting firm. Mr. Samuels stated he has a degree in Finance and Real Estate from the University of Illinois and a Masters in Real Estate Appraisal and Investment Analysis from the University of Wisconsin. He stated for the last eighteen years he has owned and operated Clarion Samuels doing real estate appraisals and consulting. Prior to that he was with a real estate development company and a life insurance company in the real estate investment department doing property acquisition and development nationwide. He stated he has also spent over nine years on the Tredyffrin Township, Chester County Planning Commission. He stated he has a wide variety of experience in expert testimony and has appeared before Municipal Boards in Pennsylvania and New Jersey before Boards of View in condemnation cases in Pennsylvania and appeared in Common Pleas Court. Mr. Samuels was offered as an expert in real estate appraisal.

Mr. Toadvine asked Mr. Samuels what credentials he holds, and Mr. Samuels stated he is a State Certified Appraiser in Pennsylvania, New Jersey, and Delaware and a Counselor of Real Estate which is an affiliate of the National Association of Realtors. He is not a Certified MAI.

Mr. Smith asked how many times he has testified as an expert, and Mr. Samuels estimated it to be thirty to forty. Mr. Smith asked how many times it was in favor of the appellant, and Mr. Samuels stated it varies. He stated usually before Municipal Boards he appears for an Applicant, and for condemnation, he has appeared for both condemner and condemnee. He noted some of the cases he has appeared on behalf of. He stated his methodology is the same whether he is testifying for the condemner or the condemnee.

There was no objection to Mr. Samuels being offered as an expert.

Mr. Goldberg asked Mr. Samuels if the Applicant this evening asked him to analyze whether there would be any impact on the values of the residential homes near the proposed site as a result of this Application, and Mr. Samuels stated he was asked to do so and has prepared a report regarding his analysis. The report was marked as Exhibit A-10.

Mr. Samuels stated this report analyzes the site and the potential impact the proposed tower, if constructed, would or would not have on residences approximate to the tower. He stated in making this analysis, he inspected the site, reviewed the Land Development Plans, and walked the neighborhood to understand the site and the Plan and how they interact. He stated they also walked and drove around the area while the balloon test was being done. He stated they also took photographs that day. Mr. Samuels stated they also researched the real estate markets in which the site is located and reviewed National literature about the topic to see what impact had been measured in the past for a variety of types of externalities. They also reviewed case studies that they had done themselves in the past for similar situations. Mr. Samuels stated they also did some new case studies in the local area to see if cell towers in general have had a negative impact on property values in Lower Bucks County.

Mr. Goldberg asked Mr. Samuels to describe the results of his analysis. Mr. Samuels stated they could not determine any measurable impact that the proposed tower, if constructed as shown on the site plan, would have on residences in the neighborhood that surround the tower or any other neighborhood. He reviewed some case studies which have been done in the past and noted particularly one in Mercer County where a 120' monopole was proposed adjacent to a 140' lattice tower and residences were within 300' of the tower. He stated they did a multi-faceted study in that subdivision to determine the impact of proximity to the tower and also tried to measure the impact of the tower on homes that had views of the tower but were not adjacent to it. Mr. Samuels stated they found a home that was approximately 325' from the tower that had sold and another within the same subdivision that was 2000' from the tower that had sold, and they did a paired-sales analysis. He stated they knew that the property that was 325' from the tower had sold for a certain amount and they found three comparable sales that were not in proximity to the tower and did not have views of the tower. They adjusted for all those elements of dissimilarities to see if they could isolate that one element that is the close proximity to the tower. They made a variety of adjustments and it turned out that the home that was 325' from the tower sold for what it should have sold for based on the comparables that were not in proximity to the tower. He stated this is an indication that the tower had no impact on the value.

Mr. Zamparelli asked if he feels the results would come out the same in today's real estate conditions. Mr. Samuels stated given the number of studies they have done in a variety of market conditions and a variety of locations, the conclusions would be consistent over time with different marketplaces and also different geographic conditions. He stated they have done this many times with similar conclusions and they are also consistent with all the National studies and are indicative of no negative impact for cell phone towers.

Mr. Bamburak stated he is indicating that it would have no significant impact on the price of a house today with a cell tower across the street compared to if the cell tower were not there, and Mr. Samuels stated it would negatively impact it. He stated he believes that there would be an aesthetic impact, but it has no impact on the value.

Mr. Samuels reviewed a case he had done on high tension wires where it did negatively impact the prices of the homes where they were physically in the rear yard, but it did not negatively impact the prices of the homes across the street. Mr. Samuels stated while he might not buy a home near high tension wires, it does not mean that the marketplace does not respond in a certain way. He stated the perception is that there is a negative impact, but the reality is there was a negative impact for one set of homes, but when you went across the street, they were not impacted. He stated the transactions are reality. He stated if there are 100 people in a marketplace for a home and ten of them would not buy the home or would only buy it at a discount, there are still 90 who would so that this is enough of a marketplace so that the price is not negatively impacted.

Mr. Samuels stated in the report he has included several other case studies they have done that show no negative impact from cell towers on a wide range of housing prices. He stated they also did a study on two Subdivisions – Clearview Estates in Lower Makefield and Bellemont Ridge in Bensalem Township. He stated in Clearview Estates, they took a home that was within 500' of the towers on the opposite side of the street and compared this with sales of homes that were over 2000' feet from the tower; and again after making adjustments, it indicated that people paid a price that was equivalent to comparable sales with no decrease due to the proximity of the tower. He stated they also included a case study at a subdivision in Bensalem.

Mr. Smith stated the cases mentioned were in 2005, and he asked if he has anything that was sold in the last three years. Mr. Samuels stated it is a difficult task to find case studies to do for proximately to cell towers since you first have to find residences close to a cell tower and within several hundred feet because of the subject of this evening's Application. He stated it also had to have sold and be able to have analyzed it with reasonable comparable sales. Mr. Smith asked if anything in Clearview Estates sold in the last three years, and Mr. Samuels stated they started doing this work six months ago and the problem is a distance issue. He stated there were several sales within Clearview Estates, but none of them were this close to the towers. Mr. Smith asked if any of the homes that are close to the towers are on the market now in Clearview Estates, but Mr. Samuels did not know this although he agreed to could find out.

Mr. Malinowski noted the property he noted in his report on 430 Brister Road which sold in May, 2006 for \$643,000; and the comps that he used had sale dates between 9/04 and 9/05 which he feels are too old. He stated he does not feel he can determine the value of a house in 2006 based on the value of a house in 2004 and 2005. Mr. Samuels stated

these are homes that were in a new subdivision, and when they look at sale dates for comparison purposes they look at the Agreements of Sale not the Settlement Date. He stated for 430 Brister, the Agreement of Sale date was 8/20/05, and the Agreement of Sale Date for the comparables were 3/05, 9/04, and 11/04. He stated these were in a new subdivision that was started by Realen Homes and finished by Orleans; and one of his specialties is Subdivision Appraisal and they were able to verify all of the elements of each one of the sales because of the information that Orleans was able to provide them. He noted Sale #3 which was placed under Agreement in 11/04 and the Agreement of Sale date for the subject was August, of 2005. He stated they know from Orleans what the base price was of the comparable Sale #3 in November of 2004 and how that base price changes between November 2004 and August of 2005, the sale date of the subject. He stated while in a normal setting it is somewhat problematic to make adjustments for changes in time and market conditions, the fact that this was an on-going sales situation, they have absolutely what the appropriate adjustment was because of the variation of base price.

Mr. Malinowski stated he would like to know when they closed and what they actually sold for at that time which he feels would make more sense. He stated what has been provided in the report does not make any sense. Mr. Samuels disagreed and stated he has done this several thousand times. He stated the Agreement of Sale date is important because that was the date on which the value was truly determined. He stated that was the decision-making date on which they decided how much they were willing to pay for the home. Mr. Malinowski stated while someone may be willing to pay a certain amount for a home, this does not mean that they will be able to get a mortgage on that home because the bank may disagree on the worth of the home when it comes to Settlement. Mr. Samuels stated if they had not settled, they would not have used them for comparables. He stated if the market conditions had changed so that the home value had decreased during that time period, they would not have gotten a mortgage and would not have been able to settle, they would have re-negotiated to a lower price, and Orleans would not have been able to raise the prices in the interim on the same model that was being sold a year later.

Mr. Gruen stated Mr. Samuels included in his report the value of the homes impacted by the proposed cell tower was between \$230,000 to \$335,000 and asked if this is the homes in the neighborhood or the four to five homes surrounding the proposed tower. Mr. Samuels stated this was a reflection of what homes in the neighborhood had sold for in recent years. Mr. Gruen asked how far back was “in recent years,” but Mr. Samuels did not recall. Mr. Gruen stated he looked in that neighborhood five years ago and there was nothing under \$400,000. Mr. Samuels agreed to provide support for the information he indicated in the report.

Mr. Gruen stated in his study he noted homes which were 300' to 2000' from cell towers, and in this case, the properties will be sitting under the tower and he has not shown anything in the report with regard to real estate value for homes where the towers is 100' from the building or 25' from the property line. Mr. Samuels stated in this case the closest one would be 140'. He added there is also another situation in this case as there is an existing water tank which could also impact property values. He stated studies he has seen in the past have shown that there is potentially a negative impact from proximity of homes to water tanks in part because of the height but more so because of the mass of water tanks. He stated the subject area is heavily wooded. He stated in his studies he tries to abstract out proximity and view. He stated when there is proximity and view there was no negative impact and when you had views but no proximity, there was no negative impact. He stated he did not have any studies which showed proximity with no views. He stated in this case you have proximity with no views. Mr. Gruen disagreed and stated all the trees surrounding the proposed tower are deciduous and from October to April, there will be an unobstructed view. Mr. Samuels disagreed.

Mr. Samuels stated if there was a home next to a landfill, this would not be good. He stated if they put a cell tower in the middle of that landfill, he questions whether this would have a further negative impact. Mr. Gruen stated he would not compare the water tower to a landfill. Mr. Samuels stated his point is that if they believe there is an impact, there is a redundancy in impact and there is not any impact greater than what is already there. Mr. Gruen stated Mr. Samuels is indicating that the impact is already there because of the water tower, and Mr. Samuels agreed. He stated the introduction of a cell tower at that location the way it is sited, will not have a further negative impact. He stated the properties at this location are already impacted.

Mr. Smith asked what would happen if they added two cell towers at this location, but Mr. Samuels stated he has not studied this situation. Mr. Smith stated Mr. Samuels is willing to indicate that the addition of one cell tower to this location will not have an additional negative impact over the impact of the existing water tower but is not willing to state two cell towers will not have an added negative impact; and Mr. Samuels stated he has not studied that situation so he is not willing to state that.

Mr. Gruen stated Mr. Samuels testified that he was present when they floated the balloon, and Mr. Samuels stated he was. Mr. Gruen asked how high the balloon went, and Mr. Samuels stated he was told it was at 100'; but he did not measure it. He stated it did go above the trees. Mr. Gruen stated he was told that it was very windy that day and they could not get it up higher than 40'. Mr. Samuels stated he does not feel this was the case as it was substantially higher than the water tower. He stated they did have to wait until the wind calmed down to take their pictures. He stated they were not able to float it in the proposed location and it was in fact on the side of the water tank which he feels made it far more visible at that location than the tower will be where it is to be constructed on the site as proposed.

Mr. Smith asked Mr. Samuels if he were going to buy an investment property and there were two identical properties one of which was in proximity to a cell phone tower and one which was not, which would he buy. Mr. Samuels stated they would be equal in his mind.

Mr. Goldberg stated Mr. Samuels had indicated that he had seen the site and is aware of the landscaping, and Mr. Samuels agreed. Mr. Goldberg stated he concluded that there would be no impact on the existing home values as a result of this Application, and Mr. Samuels stated he has been able to measure no impact.

Mr. Donaghy stated Mr. Samuels indicated that the height of the proposed tower is 100', and Mr. Samuels stated this is his understanding. Mr. Donaghy asked how far from the location of the tower are the nearest homes, and Mr. Samuels stated there is one which is 140', one approximately 175', one approximately 230', and one approximately 320'. Mr. Donaghy stated while he has not had the opportunity to read Mr. Samuel's entire report, he understands that for Clearview Estates, the closest home he reviewed was approximately 1,385' from the tower, and Mr. Samuels stated it was 540' from the nearest tower which is a beacon light tower for approaches to the Trenton Airport and 1380' from the cell tower. Mr. Donaghy asked if the cell tower was erected in 2000 and Mr. Samuels agreed. Mr. Donaghy asked when the homes were constructed, and Mr. Samuels stated some of the homes were constructed between 1998 and 2000. He stated on that page of his report where the distances are noted, the paragraph that follows shows an analysis of changes in sale prices between 1998 and 2000 when the homes were originally sold and between 2004 and 2005 when several were re-sold to see if there was any difference in the rate of appreciation for those homes that were in more proximity to the tower versus those that were in the back of the subdivision which were at a distance from the tower, and the rate of appreciation of the two were relatively the same.

Mr. Donaghy noted the towers discussed by Mr. Samuels which are near to Clearview Estates. He asked when the beacon tower was constructed, and Mr. Samuels stated it was constructed in 1941 which was prior to the construction of the development so anyone buying a home in that development was aware of that tower. Mr. Samuels stated this proves the point he made earlier that the addition of an additional tower did not have any impact over what was already there. He stated this is the same thing as adding a cell tower to a water tank. Mr. Donaghy asked if he is also indicating that any appreciation in sales of those homes are not likely to be impacted one way or other by the then existing towers because if the homeowners purchased those homes with the knowledge of those existing towers, they may have taken that into account in the initial price. Mr. Samuels stated there was no indication that buyers to the rear of the subdivision paid any more or any less than those buying homes in proximity to the towers. He stated it may affect the aesthetics; but it does not, according to the purchases, affect the prices they were willing to pay for those homes. Mr. Donaghy stated he is indicating they are "in proximity" and

asked if the towers were visible from those homes, and Mr. Samuels stated they were quite distant as some were 2000' feet away. He stated they were visible but not as visible as they would be if they were 500'. Mr. Donaghy stated a purchaser of those homes would have known that those towers were there and were visible. Mr. Samuels stated this is correct and this is the reason why in many of the studies they did an analysis of the impact of proximity and the impact of views. He stated they measured the impact from a home that was 300' away and found no impact. He stated within the same subdivision there was a home that was 2000' feet away, had a view of the tower, but was not in proximity to it and in that case they used three comparable sales where both did not have views of a tower and were not in proximity to the towers, and the home 2000' away with views showed no negative impact.

Mr. Donaghy stated in Clearview Estates Mr. Samuels indicated that one property was 1,385' from the tower and the remaining comparables were well over 2000' away, and Mr. Samuels agreed. Mr. Donaghy asked if comparable homes had views of the tower, and Mr. Samuels stated while they did have views, they were quite indirect views as there is a change in topography in that subdivision and those homes further away on Clearview Drive have a much different elevation so that while there are views, they are quite indirect.

Mr. Donaghy noted in the review of the comparables, he made an adjustment for location on each, and Mr. Samuels stated he did because there were some that were on cul-de-sac versus a location of the subject property which was at the entrance to the subdivisions which is not as a desirable lot since everyone coming into the subdivision has to drive past this property.

Mr. Smith asked if this is the Chapter on Page 30, and Mr. Samuels agreed. Mr. Smith stated he has indicated that he adjusted the comparables because they were not at the entrance to the subject property which was at the entrance. Mr. Samuels agreed and stated the three comparables were toward the rear of the subdivision on a loop road which they consider to be superior to a home that is located four lots into the subdivision and the recipient of all the traffic going in and out of the development. He stated this has nothing to do with the location in proximity to the tower. He stated he subtracted \$7,500 for each of the comparables because they were in a superior location. Mr. Smith stated they are also further away from the antenna tower, but Mr. Samuels stated this was not the intent of the adjustment. Mr. Smith stated they are three times the distance from the antenna tower as was the subject property, and Mr. Samuels agreed. He stated this is why they used them as comparables to determine whether or not there was an impact. Mr. Samuels stated those homes are in a better location within the subdivision but not having anything to do with the towers. He stated the subject property was four or five lots in from the entrance to the subdivision, and all traffic has to go by that lot. He stated he cannot find a subdivision where that lot would be considered more valuable or equally valuable to a home that was away from the entrance where there is less traffic.

Mr. Smith stated coincidentally, they are also much farther away from the cell tower and the antenna tower, and Mr. Samuels stated this is just the lay out of the subdivision. He stated this is just the opposite of the Bensalem property they considered.

Mr. Gruen asked Mr. Samuels when he evaluated the four homes surrounding the proposed tower did he consider the fact that they are off of Makefield Road and have a lot less traffic; and did he raise their value because of this. Mr. Samuels stated he did not appraise them. He stated in order to determine if there is going to be an impact you have to find case studies and apply the conclusions of those case studies to the situation. He stated he did not appraise the four homes on Makefield Road or on Williams Lane. He stated what he did was to try to find the most comparable situation where there was proximity of home sales to a cell tower and tried to make it as similar a marketplace as possible. He stated if he had done a study of cell phone towers in Long Island and tried to apply it to Lower Makefield Township, the Board would have indicated the marketplace is different. He stated he tried to find as comparable a situation as possible given the constraints he was working with – having to find homes that are approximate to cell phone towers that have sold and where in as reasonably close time period as possible to the present time; but added this is very difficult. He stated they drove to every cell phone tower within fifteen miles of the subject property to try to find adequate case studies, and these were the best.

Mr. Gruen asked when he did studies in Long Island did he find that homes with close proximity to high tension wires were valued less than homes away from high tension wires. Mr. Samuels stated they found that there were a series of homes in a neighborhood that were negatively affected by high tension wires, but the impact dissipated very rapidly within a short distance. Mr. Gruen asked if there is a law against building homes next to high tension wires, and Mr. Samuels stated there is not. Mr. Gruen stated there is also no law against building homes next to cell towers either, as the FCC indicates it is safe; however, there is a perception that cell towers are a health risk issue and there is a perception in the real estate market that homes next to cell towers will sell for less money than homes away from the cell towers. Mr. Samuels stated the studies they did show that as much as there may be a perception, it does not manifest itself in lower home sale prices. Mr. Gruen questioned how he can determine this if everything he has shown the Board is 300' to 2,000' away and the subject homes are 140' under the tower. He stated he feels the general public perceives that living under a cell tower is a health hazard. Mr. Samuels stated there is a belief by some that using cell phones has a negative impact on health; however, it has not stopped people from using them. He stated this is also true with regard to the perception that there is a negative health impact by living in proximity to a cell phone tower, but the reality is that people are not changing their behavior with regard to the purchase of homes and the prices they are paying.

Mr. Zamparelli asked Mr. Samuels if he interviewed any real estate agents who have sold houses near cell towers, and Mr. Samuels stated they spoke to the people who sold in the Subdivisions he noted; and asked them in the instances where they represented buyers of these homes if it had a negative impact, and their answer was that it did not.

Mr. Malinowski noted the Clearview Estates notation on Page 30 and stated if there is a net adjustment of \$78,000 he does not feel this is a comparable. Mr. Samuels noted the net adjustment on comparable #1 was \$1,400. Mr. Malinowski stated he was concerned with the validity of comparable #3 which he does not feel is valid. Mr. Samuels stated in a paired sales analysis you only need one comparable, and they were just trying to show as many as possible.

Mr. Donaghy asked Mr. Samuels how he made the determination that what he did was the appropriate amount of adjustment, and Mr. Samuels stated he did this either by looking at lot premiums or by talking to the sales agents. Mr. Donaghy stated with regard to Clearview Estates, Mr. Samuels had indicated that all the traffic exiting and entering the subdivision had to pass that lot; and Mr. Samuels stated this was one of two entrances, so while it was not all the traffic, it was a good portion of the traffic. Mr. Donaghy stated he feels they could reasonably say it was not all of the traffic, and Mr. Samuels agreed.

Mr. Donaghy asked if it is possible that there were other factors that negatively impacted the values of the homes such as other natural features, location of highways, etc. Mr. Samuels stated it is his job as a real estate professional to ask enough of the right questions of the buyers, sellers, and agents involved in the transactions to try to determine if that was in fact the case in these instances. Mr. Donaghy asked if it is possible that comparable #3 is near a sewage pumping station, and Mr. Samuels stated he did not know. Mr. Donaghy asked if he told him that it was near a sewage pumping station located on Taylorsville Road immediately to the rear, does he feel that this would adversely effect the value; and Mr. Samuels stated if in talking to the buyers, sellers, and agents involved in the transaction, they had mentioned that there was an impact because of that, he would have reflected that. He stated in their conversations with them, this was not indicated. Mr. Donaghy asked if he spoke to the agents, buyers, and sellers involved in these transactions; and Mr. Samuels stated the chances of them having spoken to the buyers and sellers are slim but they would absolutely speak to the agents in order to verify these sales. Mr. Donaghy asked if he requested any information as to other factors that might have affected the valuation, and Mr. Samuels stated he always asks this question. Mr. Donaghy asked if he recalls that this information was not provided, and Mr. Samuels stated to his knowledge no one indicated a sewer pump station affected how much they were willing to pay for the home. Mr. Donaghy asked if there were some other negative factor that impacted the value, would it be fair to say that those homes that were furthest from proximity to the towers might have comparable sale prices for reasons other than the tower, and Mr. Samuels stated their conversations with the agents did not

indicate that there were any other externalities that impacted the prices that people paid. Mr. Donaghy asked if it is possible; and Mr. Samuels stated as a hypothetical, anything is possible, but he tries to deal in as few hypotheticals as possible.

Mr. Donaghy stated with regard to Clearview Estates, the closest home was 1385' from the cell tower and 500' from the nearest beacon, and Mr. Samuels agreed. Mr. Donaghy stated in Belmont Ridge he indicated that the closest property to the tower was 385', and Mr. Samuels agreed. Mr. Donaghy stated as to at least these two developments, the subject properties he used were all further from the tower than any of the four homes in the immediately vicinity of this proposed tower, and Mr. Samuels agreed.

Mr. Donaghy stated when he was discussing the high tension wires, Mr. Samuels indicated it quickly seemed to have very little impact on the value of the property when they were away from the wires; and Mr. Samuel agreed. He added that typically studies that have tried to measure if there is a negative impact of high tension lines on property values, have shown negative impacts. He stated in the incident he cited, he saw that after a very short distance, there was no negative impact.

Mr. Donaghy stated one of the homes in question in Lower Makefield is 140' from the tower, and Mr. Samuels agreed. Mr. Donaghy asked if he has any studies that determined the effect on valuations on homes that are as close as 140' to 150' from cell towers, and Mr. Samuels stated he does not. Mr. Donaghy stated it would be conceivable based on the high tension studies that he has that even though a home 300' from a cell tower is not negatively impacted by the tower, if you get much closer such as 140' to 150', there could be an impact. Mr. Samuels stated if there was not a water tank there he would agree that this is possible; but the water tank is already there, and this would be redundant in those situations. Mr. Donaghy asked the height of the water tank; and Mr. Samuels stated it is 35' versus the tower being 100' tall, but the tank is 50' wide versus the tower being 2' to 3' wide. Mr. Donaghy stated he is basing his determination that there would not be any adverse effect on valuation on the fact that the water tank already exists, and Mr. Samuels stated in part this is correct because they have to analyze the entire situation not forgetting the features that exist, the difference in topography, and the vegetation that exists.

Mr. Donaghy asked if it is possible that there could be an accumulation of facilities so that an existing facility has a certain impact, but when you start adding other facilities nearby that in the cumulative effect, it creates a negative impact on valuation; and Mr. Samuels stated at some point if you added ten to twenty towers, he assumes this is a possibility but this not something that he was analyzing. Mr. Donaghy asked Mr. Samuels if he is saying that adding one tower will not have a cumulative effect, and Mr. Samuels agreed. Mr. Donaghy asked if there is anything in the studies he has provided that would support that, and Mr. Samuels stated there is not in these studies, but he can state that he has done studies in situations where antenna had been put on existing

water tanks and there are situations where antenna had been put on the tops of buildings. He reviewed a situation in Chicago where antenna were put on the top of a high rise building which includes residences such that the people on the top floors are extremely close to those towers. Mr. Gruen stated the difference is that those people moved into those residences after the towers were there. Mr. Samuels stated they are talking about the potential impact on property values, and he can point to dozens of situations where there is no impact. He stated he has tried to present facts and figures and verifiable information.

Mr. Smith noted the Belmont Ridge Development as noted on page 33 states, “prior to the dates sales commence, there was a 140’ cellular tower already near the subdivision,” and Mr. Samuels agreed. Mr. Smith noted the bottom photo on page 34 and asked what is the clear area in the lower left hand area, and Mr. Samuels stated he feels it is an industrial building. He was not aware of what type of industrial building or the acreage. He was asked if that was there prior to the residences being built, and Mr. Samuels stated he believes it was. Mr. Smith noted the upper left hand corner, and Mr. Samuels stated he does not recall what that was. Mr. Majewski stated he believes it is a store which is across the street from the Neshaminy Mall. He feels the residential property being shown is where the Juvenile Detention facility was previously located, and Mr. Samuels agreed. Mr. Samuels stated he believes the store being noted was there prior to the subdivision being constructed. Mr. Smith noted the right hand side of the picture it indicates, “Rosedale Memorial Park,” and he asked if that was there prior to the subdivision being constructed, and Mr. Samuels stated he feels it was. Mr. Smith stated it appears there is a cemetery, mall, service plaza and a cell phone tower which were all built prior to the subdivision being constructed, and Mr. Samuels agreed. Mr. Smith asked Mr. Samuels if he knows which one caused what impact on the house sales; and Mr. Samuels stated home sales #1 and #2 were the subjects of their study, and if they were being negatively impacted by the cell tower, commercial property, and the industrial property, then those homes should have sold for dramatically less than the homes internal to the subdivision which were not similarly impacted. Mr. Smith asked Mr. Samuels if he is stating that there is a cumulative effect when you add more than one item, and Mr. Samuels stated he is not saying that and he feels this is Mr. Smith’s premise that there is a cumulative impact and he feels Mr. Smith would have expected that #1 and #2 would have sold for dramatically less, but in fact they did not. Mr. Smith asked if he would agree that all those items were there when the people moved in, and Mr. Samuels agreed.

Mr. Gruen stated Mr. Samuels indicated that the cell tower is only 2’ wide, and he asked him if he considered the supporting equipment adjacent to the tower and the potential for additional towers at the site which would then increase the size of the pad and the installation of additional cabinets. Mr. Samuels stated he has taken this into account and feels there is adequate screening and adequate separation such that there will be no impact even if there were additional users.

Mr. Smith asked Mr. Samuels if he deals with the rental value of properties in his appraising, and Mr. Samuels stated he does. Mr. Smith stated there were some other locations considered in the area where T-Mobile was turned down, and he asked Mr. Samuels if he evaluated what was the appropriate rental value would be for use of those properties, and Mr. Samuels stated he did not. Mr. Goldberg asked Mr. Smith if he is discussing rental value for telecommunication facilities. Mr. Smith stated earlier in the testimony the Board was advised that an offer was made to the Diocese of Philadelphia to put antennas at St. John's and to the Pennsbury School District to put the antenna at one of the Schools and both of these were turned down. Mr. Smith stated he was told an offer was made, but he does not know how sincere T-Mobile was about actually getting access to those properties and does not know what was the rental offer made. He stated he feels that the rental offer made by T-Mobile to those individuals who already have structures in the area was probably far below market which is probably why they were not accepted. Mr. Samuels stated he was referring to the rental value of homes in general and does not have the expertise to answer Mr. Smith's question.

Mr. Bassem Iskander was reminded that he was still under oath. Mr. Goldberg stated they had previously marked Exhibit A-6. Mr. Iskander stated A-6 is the existing T-Mobile coverage without the proposed site. It is a map of this particular area of Lower Makefield Township with a series of colored dots and a series of shades of colors on it. He stated the blue dots represent T-Mobile's active on-air sites, and the red dot approximately in the center of the map labeled, "1BU7634E" is the proposed site for tonight's Application. He stated the two different colored shades on the map represent T-Mobile's existing coverage in the area. The green shade represents T-Mobile's in-building coverage, and the yellow shade represents T-Mobile's in-vehicle coverage. Mr. Goldberg stated he assumes he means "reliable" coverage, and Mr. Iskander agreed. Mr. Iskander added that customers that live in the green area or go into offices in the green area will be able to reliably make and receive phone calls inside structures and customers that are outside of the green do not have reliable in-building coverage, but if they are in the yellow which extends beyond the green, they would have in-vehicle coverage but not in their houses. He stated the white area is where most of their gap is which is where they have neither reliable in-vehicle or in-building coverage. The gap in coverage that this site is looking to remedy is both in-building and in-vehicle.

Mr. Iskander stated the in-building gap extends approximately one and a half miles north of the proposed site to Deerpath Lane, approximately 1.1 miles northeast to Yardley Road, approximately 1 mile east from the site, .86 miles southeast of the site, and approximately ¼ mile south of the site. The gap also extends .9 miles west of the proposed site to Stony Hill Road. The in-building gap is approximately 2.65 square miles. He stated the in-vehicle gap, which is just the white area – not the white and yellow area, is approximately a mile and an eighth square miles and that gaps extends 1.3 miles to the north, 1.1 miles northeast, .8 miles east, .68 miles northwest, and .9 miles west of the proposed location.

Mr. Goldberg stated Mr. Iskander had previously testified to numerous sites that currently provide coverage that are either within or outside of Lower Makefield and none of those can be used to fill this gap in coverage, and Mr. Iskander stated they cannot.

Mr. Goldberg stated the only way to fill this gap in coverage is to build a new telecommunications facility, and Mr. Iskander agreed. Mr. Goldberg stated Mr. Iskander had previously testified that the ideal site would be a little bit north of the proposed site, and Mr. Iskander agreed.

Exhibit A-11 was marked which is entitled “T-Mobile Future Coverage with Proposed Site.” Mr. Iskander stated Exhibit A-11 shows what the network would look like if they were able to build the site as proposed. This is the same map as seen previously except it shows what the site coverage would look like and how it would fit into their network. He stated their in-building gap would shrink tremendously and they would add about one and a quarter square miles of in-building coverage and have almost completely eliminated the in-vehicle gap in the area. He stated the in-building coverage extends from the site about .8 miles north, .9 miles southeast, and  $\frac{3}{4}$  of a mile west. The in-vehicle fill from the site would extend over one mile along Big Oak Road, about .5 miles along Yardley Road, and about one third mile along Stony Hill Road.

Mr. Goldberg stated Mr. Iskander had previously stated that as the network currently exists there are gaps in coverage, and he asked how this was determined. Mr. Iskander stated they have a software program which is a sophisticated propagation tool into which all the data of the network is input along with all the terrain and clutter data of the area. He stated this gives a picture of what the network looks like, and they then tune that tool using drive-test data which is when they have technicians go into the field, drive around the area using GPS devices and cell phones that receive the network’s signal. He stated they collect and correspond the signal levels and GPS coordinates so that they know the signal levels in the area. This data along with the tool tunes the propagations so that the maps are accurate and represent coverage in the area. He stated using the same methods, the tool, once the models are tuned, can be used to predict what coverage will look like if they were to put sites at different areas in the network.

Mr. Goldberg stated signal strength can tell reliable level of coverage, and Mr. Iskander agreed. He asked if this is an industry standard, and Mr. Iskander agreed and stated every carrier uses them.

Mr. Goldberg asked Mr. Iskander to describe the impact of signal strength over distance and how distance impacts the effectiveness of a signal. Mr. Iskander stated there is a mathematical equation of how signals lose value over distance. He stated signals start losing value as soon as they are transmitted from the antenna. He stated they start losing very rapidly and then wind down over distance. He stated most sites, depending on their height and configurations, will cover anywhere from one quarter to one mile in radius of in-building coverage and anywhere from one half mile to one and a half miles in radius of

in-vehicle coverage depending on the height of the site, the height of the clutter surrounding the site including houses, trees, and anything that would obstruct the signal. It would also depend on the terrain in the area and the configuration of the surrounding site of the network.

Mr. Goldberg stated Mr. Iskander previously testified that T-Mobile's signal strength is 1900 megahertz, and Mr. Iskander stated this is their frequency band which was obtained from the FCC. Mr. Goldberg asked if there is anything that could be done to change that frequency band, and Mr. Iskander stated there is not. Mr. Goldberg stated some of T-Mobile's competitors have a frequency band of 800 megahertz, and Mr. Iskander stated this is correct. He stated frequency is another factor in determining how far the cell sites can cover. He stated one of the factors in the signal loss equation is frequency so as frequency increases, the signal losses increase so the signal tends to cover less.

Mr. Smith asked how the signal frequency was obtained from the FCC. Mr. Iskander stated it was by auction. Mr. Smith stated they bid on different frequencies and the high bidder on the better frequencies was someone else. Mr. Iskander stated this is not correct. He stated the different frequency bands were auctioned off over a very long period of time. He stated when the 1900 megahertz band was auctioned off, it was not the same time when the 800 megahertz band was auctioned off as they were years apart. He stated at the time the 800 megahertz band was auctioned off it was years before T-Mobile was in business. Mr. Gruen stated they could acquire another cell company that has a better frequency, and Mr. Iskander agreed. Mr. Iskander stated the bands that were auctioned off later were more expensive even though they were worse bands.

Mr. Goldberg asked if there are heavily traveled roads within the coverage gap; and Mr. Iskander stated there are, and according to the PennDOT Website, the traffic along Big Oak Road is 6,520 average annual daily traffic per direction which means on an average daily basis there is a little more than 13,000 cars traveling on Big Oak Road. He stated for Makefield Road, the number is 7,125 per direction which is over 14,000 on average daily.

Mr. Goldberg asked if this would be considered a significant gap in coverage for T-Mobile, and Mr. Iskander stated it is.

Mr. Goldberg stated there has been a lot of testimony about the fact that a water tank exists on the property, and he asked Mr. Iskander to explain why the water tank could not be used as a site. Mr. Iskander stated if the tank were high enough they would try to get the antennas on the tank, but unfortunately it is only around 35' high which is lower than the tree coverage in the area so putting antennas on top of this would have the signals shooting straight into the trees which would effectively make the site useless. He stated the only reason they are proposing a pole is to get the antennas high enough above the clutter so that they have better line of sight and can serve more customers. He stated if they were within the clutter, the radius of coverage for the site decreases dramatically.

Mr. Goldberg asked if the proposed height for the site, the minimum height necessary to fill this significant gap in coverage, and Mr. Iskander stated it is.

Mr. Goldberg asked if there are other carriers besides T-Mobile currently providing service in the general area, and Mr. Iskander stated there are. Mr. Goldberg asked Mr. Iskander to identify them, and Mr. Iskander stated they are AT& T/Cingular, Sprint, and Verizon. Mr. Goldberg asked that Mr. Iskander identify the frequency at which the other carriers operate, and Mr. Sprint is at 1900, AT & T and Verizon are at 900 and 850 megahertz bands. Mr. Goldberg asked if Mr. Iskander looked into whether the other carriers have coverage in Lower Makefield, and Mr. Iskander stated they did and they have competitive drive test data which means they use equipment to collect signals from the other three carriers in the area to compare them to their signals to see if their coverage was comparable to T-Mobile's.

Mr. Smith asked Mr. Iskander if he knows the percentage of the market share that each of the cell phone providers have, and Mr. Iskander stated he does not.

Mr. Gruen noted it appears they have sufficient coverage for in-vehicle; but Mr. Iskander noted Exhibit A-6 which shows they have very spotty in-vehicle coverage along Big Oak Road and almost no coverage north of the site along Makefield Road.

Exhibit A-12 was marked which is the At & T Drive Test Results. Exhibit A-13 was marked which is the Sprint/PCS Drive Test Results. Exhibit A-14 was marked which is the Verizon Drive Test Results.

Mr. Smith asked what is meant by unreliable coverage, and Mr. Iskander stated it means the inability of a person to make, maintain, or receive a phone call. Mr. Smith stated he feels what has been presented is inaccurate as he has held cell phone conversations on the system he has in areas which the map shows as unreliable coverage. Mr. Malinowski stated it is unreliable for him as shown. Mr. Goldberg stated "unreliable" means you cannot do so reliably. Mr. Smith asked if it relates to a percentage. Mr. Iskander stated the colors on the maps represent the same colors on the propagation maps and the green means that it is reliable in-building coverage. Mr. Smith stated he is asking what is unreliable coverage. Mr. Iskander stated if an area is in yellow, it means it has in-vehicle coverage and over 90% of the time you can carry on a call in your vehicle. Mr. Smith stated he assumes this means there is 10% chance you could not make a call in the yellow area in your car, and Mr. Iskander stated this is approximately true. Mr. Smith asked the percentage chance that you cannot make a call in a red area, and Mr. Iskander stated if you are in a vehicle you have a less than 90% chance. Mr. Smith stated it could be an 89% chance that you could make a call, and Mr. Iskander stated it could be 100% for some periods of time and other times it could be 0.

Mr. Goldberg asked what T-Mobile strives for in terms of reliability, and Mr. Iskander stated they strive to serve their customers. He stated the guidelines for reliable and unreliable are indications of certain signal strengths that the phone needs in order to detect in order to hold calls in buildings or in vehicles.

Mr. Toadvine stated reliability is not about whether a call is made, dropped, or held – it is a measure of signal strength, and Mr. Iskander agreed. Mr. Toadvine asked what is the measure of signal strength between reliability and unreliability. Mr. Iskander stated the green area represents signal strength up to -76 dbm which is the industry standard for in-building coverage. This is outdoors as they take the measurements outdoors since they do not have a way of going indoors and measuring signals because they cannot correspond those with GPS. Mr. Toadvine stated “reliability” versus “unreliability” is measured and it not something that is subjective such that you ask ten people whether they dropped a call in that area and eight indicated they did. Mr. Toadvine stated it is an actual measure of the strength of the signal, and Mr. Iskander stated it corresponds to a measure of the strength. He stated it is an industry standard. He stated he has worked for Sprint, Nextel, AT&T and Cingular and the thresholds for in-building and in-vehicle coverage are the same. He stated the white areas do not meet the minimum standards. Mr. Smith stated they have established that green is -76 dbm, and he asked what is yellow. Mr. Iskander stated it is from -76 dbm to -84 dbm, and everything other than yellow is less than -84dbm.

Mr. Iskander stated the signal comes out of the antenna at a certain level and the phones of the customers have a certain threshold of receiver sensitivity, and below that sensitivity of the receiver of the phone, they cannot detect coverage. He stated when you take into account different factors that effect the signals as they travel through the network such as distance factors, clutter factors, terrain factors, reflections, weather, season, etc. you come to certain signal levels that are your cut off such that beyond a certain level you will have good in-building coverage and beyond a certain level you will have good in-vehicle coverage. He stated if they are less than a certain level, the phone may or may not pick up a call.

Mr. Gruen asked if all cell phones are created equally, and Mr. Iskander stated they are not. Mr. Malinowski stated they may need a better cell phone rather than another tower. Mr. Iskander stated they are created differently although some cell phones are more reliable than others, but they have no control over that. Mr. Gruen stated the cell phone is a receiver and a transmitter so if they build a more powerful phone you could get better coverage. Mr. Iskander stated -76 is a power level which corresponds to 2.511 times 10 to the power minus 11 miliwatts which is how sensitive the phone is and it can pick up that low of a signal level in buildings. He stated the in-vehicle is 3.98 times 10 to the power minus 12 miliwatts. Mr. Gruen asked if their cell phone is the same strength as a Verizon or AT & T phone, and Mr. Iskander stated the phones vary slightly by brand not cell phone carrier.

Mr. Gruen asked what they do in areas where they cannot put a cell tower, and Mr. Iskander stated they try to put in a cell tower as their job is to cover their network. He stated they have hundreds of sites in this market that they are trying to fill. Mr. Gruen asked if there is any law that requires T-Mobile to be able to cover everything, and Mr. Goldberg stated he does not feel this is on topic. Mr. Iskander stated he cannot speak to the law

Mr. Donaghy stated they have presented drive test results for Verizon, Sprint, and AT & T and asked if there is a similar one for T-Mobile for comparison; and Mr. Iskander stated they do have drive test data for the area. Mr. Donaghy stated it may be easier for them to compare if they had this.

Mr. Smith stated he would also like to see a copy of all offers made for any other locations in Lower Makefield by T-Mobile for a site location within the last five years.

Mr. Goldberg stated while he feels they could provide testimony on this, he does not feel they would be able to provide all the written correspondence that has taken place over the years. Mr. Smith stated there was previously testimony by a gentleman who indicated he made an offer for several other locations but he could not recall the specifics of the offers he made. Mr. Goldberg stated they will provide additional testimony regarding the potential use of alternative locations such as the School District.

Mr. Toadvine stated he understood they have a different site acquisition individual, and Mr. Goldberg stated the site acquisition person who previously testified is currently not with the company. Mr. Smith stated he assumes that individual will not be back to testify, and Mr. Goldberg stated they are not sure about that. He stated he is no longer currently employed by the company, but there is the potential that he may be re-employed by the company. Mr. Smith stated there is also the potential that someone else may be coming to testify who would not know about what efforts were previously made to acquire other sites in the Township; and Mr. Goldberg stated it is possible that someone else might testify, but that person would be cognizant of what efforts were previously made. Mr. Smith asked if that person would be able to provide detailed testimony about those efforts, and Mr. Goldberg stated he would be able to provide testimony regarding what was previously done.

Mr. Gruen stated they had also requested at the previous meeting that the acquisition person look at alternative locations, and they had indicated that he would. He stated he feels it is immaterial whether it is the same person or not. Mr. Goldberg stated he agrees that the Board had requested that several sites be considered.

Mr. Smith moved, Mr. Gruen seconded and it was unanimously carried to continue the matter to April 21, 2009.

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Mr. Smith moved, Mr. Bamburak seconded and it was unanimously carried to adjourn the meeting at 10:15 p.m.

Respectfully Submitted,

Gregory J. Smith, Secretary