

**LOWER PAXTON TOWNSHIP  
ZONING HEARING BOARD**

Meeting of October 23, 2008

Members in Attendance

Jeffrey Staub, Chairman  
Sara Jane Cate, Vice Chairperson  
Richard Freeburn  
Gregory Sirb  
David Dowling

Also in Attendance

James Turner, Solicitor  
Dianne Moran, Planning & Zoning Officer

**Special Exception  
#08-04**

Applicant: T-Mobile NE, LLC

Address: 250 Granite Run Drive, Lancaster , PA 17601

Property: 35-077-021, located on Spring Creek Road in the R-1 zone.

Interpretation: An antenna tower that does not meet Section 402.A.16.a, such as freestanding towers located on public utility substations require a special exception approval in the R-1 zoning district.  
The applicant proposes to erect a monopole for support of an antenna array.

Grounds: Article 306.B.1 of the Lower Paxton Township Codified Ordinances pertains to this application.

Fees Paid: October 3, 2008

Property Posted: October 14, 2008

Advertisement: Appeared in The Paxton Herald on October 8 & 15, 2008

The hearing began at 7:01 pm.

Mr. Staub stated it is customary for the Board to enter as exhibits the application and site plans. The applicant had no objection to its doing so.

The following were sworn in: Dianne Moran, Planning & Zoning Officer; Dennis White, Wireless Site Development, 209 Whittaker Avenue, Mont Clair, PA; Michael Damiano, Senior Product Manager for PP&L Infrastructure Services, 333 Alpine Street, Emaus, PA; and Rick Harding, Radio Frequency Engineer Consultant with T-Mobile, 250 Meadow Run Drive, Lancaster, PA. Michael Reed, Mette, Evans & Woodside, was present on behalf of the applicant.

Mr. Staub asked the Planning Commission's recommendation for this application. Ms. Moran stated that the Planning Commission recommended to the Zoning Hearing Board that they found the application to be unobjectionable and that they asked the Zoning Hearing Board to encourage the applicant to minimize the visual intrusion. They did not describe specific measures of minimization.

Mr. White stated that Wireless Site Development is a contractor to T-Mobile to help them facilitate filling holes in coverage in central Pennsylvania. His specific job is to negotiate leases and work with permitting processes. He has been in this line of work for approximately 10 years.

Mr. Reed asked Mr. White to describe the site on Spring Creek Road. Mr. White stated there is a PP&L Substation, where power is coming in and being transferred out. It sits in a bowl and is surrounded by open space and agricultural uses.

Mr. Reed distributed Exhibit 1, the application and supporting letter addressing the provisions of the Section 402.A.16. The answers in the letter would be the same tonight so Mr. Reed asked if the Board would agree that he can skip reading each one. Mr. Staub agreed.

Mr. Reed presented Exhibit 2, a set of engineering design drawings which detail the proposed facility, which was prepared for T-Mobile by an engineer through PP&L.

Mr. Reed asked if this is the most recently revised set of drawings. Mr. White stated that it is. The last page attached to the drawings is an enlarged drawing of the actual site within the PP&L property. Mr. Reed asked for an explanation of the notation of future 50'x50'. Mr. White stated that T-Mobile's intent is to lease an area larger than needed to build the small concrete pad for the radio cabinets. They intend to construct and fence only the facility T-Mobile requires for its immediate needs. That includes the pad, radio cabinets, coaxial cable that connect to the antennae that are on the monopole. That will be inside the fenced compound area, which will be significantly smaller than the lease area. This will allow space for future carriers who wish to add antennas. They would have to negotiate a ground lease with PP&L and tower space with T-Mobile. This is standard practice. Sometimes T-Mobile will build out all of its leasable area, but they will not in this case. The next carrier that wishes to collocate here will have to come back to the Township with a special exception application to indicate how they will attach to T-Mobile's tower.

Mr. Reed asked if PP&L gave permission to T-Mobile to file the special exception application. Mr. White stated they did, and they have entered into a site license agreement with PP&L.

Mr. Reed asked if the application meets the requirements of Section 403.A.16.b. Mr. White testified that the zoning ordinance was recently amended, and this application does meet those requirements. No variances are needed.

Mr. Reed asked if the tower is set back from the lot lines and rights-of-way a distance of the height of the tower. Mr. White answered yes. Mr. Reed asked if the tower is set back a distance of 300 feet plus the height of the tower from any residence. Mr. White answered yes. Mr. Reed asked if the facility will be served by an 8-foot high security fence. Mr. White answered yes.

Mr. Reed asked Mr. White to describe the policy to offer space on the tower to other providers. Mr. White stated that all of the wireless carriers have master license agreements among themselves, and they issue specific site license agreements for allowing individual carriers to come onto a site that has already been developed. This cuts down on the number of towers.

Mr. Reed asked if Mr. White investigated the possibility of collocation on an existing tower. Mr. White stated that towers and other tall structures were all evaluated; this was a last result.

Mr. Reed asked if the height of the tower is less than the 150-foot maximum allowed. Mr. White stated it is going to be 120 feet, and the antennas will extend beyond that by three feet.

Mr. White stated that the tower will not be lighted. Lighting is generally installed as required by the FAA. This was investigated as part of due diligence and it is not required here.

Mr. Reed asked about minimizing the visual intrusiveness. Mr. White stated they put it as close to the substation as they could without creating a conflict with vehicular traffic. It will look like a component of the substation. There are towers within the substation and large high tension lattice towers. The pole is galvanized and will oxidize to a dull gray.

Mr. Reed asked about removal if the tower is not in use. Mr. White stated T-Mobile is committed to removing the tower if it is no longer in use within 6 months. Mr. Reed asked if the cabinets meet the maximum area requirements. Mr. White stated yes, and noted that they are the size of small refrigerators.

Given the number of cell towers in the area, Mr. Dowling asked that the applicant elaborate on the efforts made to collocate on other towers. Mr. White stated the towers need to be relatively close to one another given the frequency that T-Mobile operates. The RF Engineer will elaborate on that later. They have to be located so that a call can be handed off from one tower to the next. He was given an area in which to try to locate

a cell site to fill a hole in coverage. The area that Mr. White was given did not include any existing cell towers. It did include monopoles and high tension lines that run through some subdivisions. He then contacted the utility to inquire about the availability of collocation. They looked at several sites, which had problems ranging from access, to height limitations. They did evaluate all the tall structures, which came down to PP&L structures.

Mr. Dowling asked if there is cell service for T-Mobile in this area now. Mr. White stated no, and referenced the RF plots in the packet.

Mr. Dowling asked if there is Verizon service in the area. Mr. White did not know.

Mr. Dowling asked if T-Mobile explored other structures like fire houses. Mr. White stated he did look into those but there were not any that would give the opportunity for a tower.

Mr. White stated they considered a new tower only after exhausting the possibilities for existing structures. Then the dilemma was where to put a new tower. It has to be in the area that is lacking coverage. They then approached PP&L to ask if they would consider the substation, if the Township would permit it.

Ms. Cate asked if there are no Verizon towers in that area. Mr. White stated there are no towers available in that area. Ms. Cate asked about her cell tower service in the area. Mr. White explained that they may be providing coverage from another vantage point, but there are no towers close enough to be of value to T-Mobile. The first step is to seek existing tall structures or existing towers.

Ms. Cate asked if T-Mobile is new to the area. Mr. White stated that new is relative, and no they are not. They have a network that is developing in the area.

Ms. Cate asked if the PP&L wires will not interfere with the tower. Mr. White stated the frequencies are totally different.

Mr. Freeburn asked about the surrounding geography, particularly to the east and west. Ms. Moran distributed a tax parcel map, marked as Township Exhibit #2. Mr. White displayed several photographs of the area: Spring Creek Road from several vantage points; the access drive from several points. The photos were marked as Exhibits #5-8.

Mr. Dowling asked how close the tower will be to the high tension lines. Mr. White stated the first one is probably 150 yards away.

Mr. Staub stated that part of the special exception process is to show that if the pole falls, it will not fall outside the property line. He stated it is close enough that it could fall on the substation, and he has an issue with that. Mr. White stated they do not fall over. When they collapse, they bend like a straw at the top.

Mr. Freeburn asked who owns the properties to the east and west. Mr. White did not know. Mr. Freeburn asked if those property owners have been notified of the proposal. Mr. White stated they have not been. Mr. Sirb asked about future development as well. The property was posted, but he asked if they would have seen that. Ms. Cate stated the owner may not have been in the area. Ms. Moran stated the Township doesn't mail out notices, but the property is posted and the hearing is advertised two times.

Mr. Freeburn asked how close the closest high tension pole would be to the fenced in area. Mr. White stated he doesn't think they measured that because it is not really relevant to the application.

Mr. Staub asked about the area being a leased area. Mr. Sirb asked if it is cheaper to lease from someone else or to buy its own site. Mr. White stated they never own their own land. Mr. Sirb asked how part of the site is then leased from T-Mobile. Mr. White stated they would have to negotiate a lease from PP&L and then also lease tower space from T-Mobile.

Mr. Sirb stated the Township says you can't put a tower in the R-1, but if we give them a Special Exception to put one in, every other carrier is going to want a piece of this prime location.

Mr. Dowling speculated that other carriers service this area via other poles. If the others were lacking, they would have already considered this site. Mr. Sirb stated that if the coverage is there from another tower, go to that tower.

Mr. Mike Damiano stated he is a Senior Product Manager for PP&L Infrastructure Services, which is a company that offers to wireless carriers land or attachments to existing structures.

Mr. Reed asked if any of Mr. White's testimony needs to be corrected. Mr. Damiano stated that T-Mobile will have a "licensed" area, only for itself. The plan shows expansion for future carriers if they decide to come in and request form PP&L additional licensed area for their equipment, and from T-Mobile for space on the pole, and from Lower Paxton Township for the approvals to do so.

Mr. Damiano stated the top of the antenna will be at the top of the pole, they will not extend above the pole. The pole is 120 feet and the top of the antenna will be at 120 feet.

Mr. Reed asked for a description of the site design at the PP&L substation. Mr. Damiano showed pages Z-1 and Z-2, showing a compound fenced in for T-Mobile capable of being expanded for additional carriers with an access off of Spring Creek Road using PP&L's access road. The tower will be located approximately 120 feet from either property line, set back 125 feet, and more than 125 feet from spring creek road.

Mr. Reed asked about the height of other poles at the substation. Mr. Damiano speculated the other poles are higher than 60 feet, probably about 75-80 feet.

Mr. Reed asked if PP&L has given permission to T-Mobile to file this application. Mr. Damiano answered yes.

Mr. Reed asked if Mr. Damiano is familiar with the engineering of the foundation enough to say the tower is stable. Mr. Damiano answered yes. The foundation for the pole and the pole itself have to undergo an engineering design. That will then go to the Township Codes department for approvals. The tower will be designed to meet the national standards. It will also go to PP&L engineering for their approval.

Mr. Staub stated the exhibits show the antenna array to be higher than the pole, contrary to the testimony. Mr. Damiano stated the latest updated version of the drawings, dated 10-21-08 "revision 2" show the antenna height to match the pole height. This came about after discussions with the RF engineer.

Mr. Reed stated that the engineers have continued to work on the plan after the plans were submitted to the Zoning Hearing Board with the application.

Mr. Staub stated that the drawing sheet A-1, there is a general note that says the site plan is preliminary for release purposes and locations of the monopole, compound and parking area are subject to change following a detailed site design. He asked if the Board is looking at where the site will actually be constructed. On sheet A-2, there is a note that says the heights are approximate... Mr. Staub asked for finality in the height and location.

Mr. White stated the exhibits were prepared for the application and updates have continued to be made. Mr. Turner asked that the newest drawing be marked as Applicant's Exhibit 9.

Mr. Reed stated that the drawings are zoning drawings, the construction drawings will be prepared for the Building Codes Official. Mr. Turner stated that if the Board were inclined to grant the special exception, they may grant it conditionally based on height limitations or location of the structures.

Mr. Sirb asked about the difference between a leased area and a licensed area. Licensed sounds like a smaller more distinct part of the whole. He asked how many

licensed areas can go in that area. Mr. Damiano stated it is called a licensed area because PP&L does not want to convey any interest in real property so they give a license. Regarding number of licenses, it depends on how many could fit on the pole. Mr. Damiano stated some have up to four. Mr. Damiano stated some carriers require more space than others, as large as 12x30 foot buildings or as small as one refrigerator sized cabinet on a slab.

Mr. Dowling asked if the lease agreement with T-Mobile restrict PP&L's ability to lease to another carrier to build another tower. Mr. Damiano stated that PP&L does not have exclusive agreements.

Mr. Dowling asked hypothetically if Verizon came in and wanted coverage, but 120 feet was not tall enough for them, would they be able to install a new pole. Mr. Damiano stated that it would be up to PP&L if they would wish to offer a portion of their site to another carrier. T-Mobile has no say in whether PP&L allows or doesn't allow another carrier to install another monopole. Mr. Sirb asked if that is law or just PP&L's standard. They did not know. Mr. Sirb stated he has seen it both ways where it does not allow the creation of a monopoly, but others where it allows restrictive use of those prime areas.

Mr. Sirb asked if they know of any other electric companies that have exclusive agreements. Mr. Damiano stated they do it like PP&L does.

Mr. Freeburn asked about minimizing visual intrusiveness in other locations. He stated that PP&L doesn't typically do that, they offer their poles for attachments as they are. They do not want to risk its own system integrity by adding unnecessary things. In most cases, the antennas will basically blend in with the structures already there. Visually it is one spot with several towers.

Mr. Freeburn asked if the tower belongs to PP&L. Mr. Damiano answered no.

Mr. White stated that in this market, he has only seen two. One is a flag pole, so the antennas are mounted inside the pole, so where the antennas face out it is covered by fiberglass. In rare circumstances, there are trees. Pole companies shy away from them. They look silly six months of the year. Where they are requested, they are in the woods, but the woods are bare of leaves half of the year. It looks like a bottle brush sticking up on the horizon that doesn't match. They use branch like sticks, and they visually catch one's eye anyway. They do not make it go away, they only make it look different. Regarding a flag pole in the middle of a field doesn't make much sense. From an engineering standpoint, there is a limitation on collocation. There has to be a 10 foot separation between the centerline of the antennas. A typical antenna array is a triangle mount off the pole going in certain directions. They are all relative to one another horizontally. In a flag pole, they have to be stacked vertically rather than a horizontal array. That reduces the collocation potential for other carriers.

Mr. Freeburn stated that the electrical pole is about 60 feet tall. Mr. Staub asked if an antenna could go on there. Mr. Damiano stated that PP&L could change out that pole and put arms on it to suspend the electrical wires. Mr. Freeburn stated it would be twice as tall. Mr. Damiano stated it would look exactly like a cell tower with arms and electrical wires. Mr. Freeburn stated the ground cabinet would also have to be relocated. Mr. Damiano stated it is more complicated. It would most likely involve more right-of-way area.

Mr. Staub stated the applicant has addressed all of the items listed in 402.A.16.B.4., except for the one requirement for a statement sealed by a professional engineer stating that the tower will meet the structural and wind resistant requirements. The cover letter says testimony would be given. Mr. White stated that T-Mobile can provide such a letter from the manufacturer of the pole, or a surveyor sealed foundation drawing and design and pole design can be submitted with the building permit. Mr. Reed stated they would most likely go with the second.

Mr. Freeburn stated it could be a condition of granting the special exception.

Mr. Harding stated he has been an RF engineer for about 14 years. He has been providing consulting services for several companies in the US and India. As a Radio Frequency Engineer, Mr. Harding is doing design work. That is to find ways to fill areas of coverage deficiencies and coming up with ways to solve those problems. That can be to modify existing sites, if that doesn't work, they issue a search ring to find a location that can provide coverage.

Mr. Reed asked if an analysis was done of the existing coverage. Mr. Harding stated that he has done the analysis, and it is shown on Exhibit 4. Mr. Harding demonstrated that the red dots are existing sites, and the green shows in-building coverage, the best coverage, and the yellow is in-vehicle coverage. The blue dot shows the proposed location. The white areas have either no coverage or unreliable coverage. In those areas customers may be able to make a call, but if they are indoors, they may not have service. If they are outdoors or in a vehicle they may not have good coverage and may have dropped calls.

Mr. Reed asked if Mr. Harding looked into the other sites. Mr. Harding stated that when he comes up with an area with a coverage deficiency, he issues a search ring to the site acquisition personnel, Mr. White, who comes back with potential or willing land owners that may allow collocation or a place to build. In this case the PP&L location was presented. He analyzed it and found he needed 120 feet to provide coverage in this area. Mr. Harding stated that T-Mobile, like all wireless carriers, tries to use existing structures. All the sites surrounding this proposal are collocations. They are not owned by T-Mobile, and vary in height from 90 feet to 140 feet. Exhibit #4 shows the coverage expected to be generated by this new tower.

Mr. Freeburn asked if there are other poles in the area that T-Mobile is not collocated on. Mr. Harding agreed it is possible, but didn't have that information. Mr. Freeburn stated that the Board is wondering if it is possible to collocate on another tower that may not be represented on these maps, giving the coverage needed. Mr. Reed stated that Mr. White testified that there are no such other poles.

Mr. Freeburn asked if one of the other poles could be modified in height to provide coverage in this hole. Mr. Harding stated that could be possible in some cases, but being that this hole is so large, the height would have to be increased significantly for each location. If it is possible, it would have been the first solution.

The Township had no position in this hearing and there was no comment from the audience.

Mr. Dowling asked what the Planning Commission meant by their recommendation. Ms. Moran read from Section 402, "A new tower shall be designed in a manner that minimizes the visual intrusiveness and environmental impacts to the maximum extent feasible, for example monopole designed into a flag pole." She felt they were reiterating that statement, but did not have a specific direction.

Mr. Freeburn stated the only options were not really very viable. Ms. Cate asked why the flag pole was not feasible. Mr. Sirb stated it is probably not cost effective. Ms. Cate was not concerned with cost. Mr. Freeburn stated the antennae have to be internal, limiting the collocation ability. Fewer carriers on a pole may result in more monopoles. Ms. Cate agreed that was a valid point.

Mr. Sirb stated the area is an R-1 district, and felt that is why the Planning Commission emphasized that section of the ordinance. Minimizing it is a great idea, particularly in that area where the new high school will go and probably new homes. No one wants to live by that. Mr. Sirb was boggled that these poles continue to go up in areas where they do not belong.

Mr. Freeburn stated the code provides a list of requirements for the special exception, and they have reviewed every one in detail, and they have all been met, except B.4 which can be a condition.

Mr. Staub stated the monopoles cannot go anywhere in the R-1, Low Density Residential District, they must go through the SE process, and even then can only go on public utility substations. There are 6-7 substations in Lower Paxton Township, and they are not all in an R-1 zone.

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Mr. Freeburn made a motion to grant the special exception as submitted, with the condition that a statement sealed by a professional engineer stating that the tower will meet structural and wind resistance requirements of the construction code be submitted before a building permit is issued. The height of 120 feet is an understood condition because it was the testimony given. Mr. Dowling seconded the motion and a roll call vote followed: Mr. Freeburn-Aye; Mr. Sirb-No; Mr. Dowling-Aye; Ms. Cate-No; Mr. Staub-Aye.

Special Exception 08-04 was granted. The hearing ended at 8:22 pm.

Respectfully Submitted,

Michelle Hiner  
Recording Secretary