

Lawrence Township Planning Board
Regular Meeting
Monday, April 7, 2014

Present: Christopher Bobbitt
Philip Duran
Richard S. Krawczun, Municipal Manager
Terrence O. Leggett
Stephen Brame, Councilman
Kim Y. Taylor, Vice Chairperson
Doris M. Weisberg, Chairperson

Excused Absence: Ian J. Dember
James S. Kownacki, Councilman
Aaron D. Duff
Glenn Collins

Absent: None

Also Present: James F. Parvesse, Municipal Engineer
Brian S. Slauch, Planning Consultant
Neil Yoskin, Planning Board Attorney
Bruce Eisenstein, PE, Radio Frequency Specialist
Susan Snook, Recording Secretary

1. **Statement of Proper Notice**

Adequate notice of this meeting of the Lawrence Township Planning Board has been provided by filing the annual meeting schedule with the Municipal Clerk as required by law, and by filing this agenda and notice with the Municipal Clerk, posting prominently in the Municipal Building, and mailing to the Trenton Times, and the Lawrence Ledger newspapers.

2. **Public Participation (for items no on the agenda)**

None

3. **Minutes for Approval**

None

4. **Resolutions**

Major Site Plan Application – Preliminary & Final Approval Application No. SP-14/13; **Auto Lenders Car Sales Facility**, Brunswick Pike and Brunswick Pike and Magnetic Drive, Tax Map Page 20.01, Block 2206, Lots 3.02 and 3.04 – None

5. **Applications**

Minor Site Plan Application No. SP-12/13; **New Cingular Wireless PCS, LLC (AT&T Mobility)**, 960 Spruce Street; Tax Map Page 2, Block 201, Lot 27

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Warren Stilwell of Cooper Levenstein represented the applicant referred to as AT&T. This application is to locate a 150' towered structure at 960 Spruce Street. This site was approved by the Planning Board for a 100' unipole under the application of Liberty Towers/Clear Tower. This is an extension request and according to the Land Use Ordinance of the Township there are certain conditions that are required to be met. One of the conditions is the tower is to be setback 110% of its height from the property line and the applicant is proposing 150 feet and needs to be 165' from the nearest property line. No variances are required for the unipole.

Mr. Stilwell introduced the witnesses. Mr. Yoskin stated as Dr. Eisenstein, representation for the Board, asks questions to the applicant's witnesses and will be effectively testified because there is no written report and was sworn in.

Witness #1: Mark Rubin, Radio Frequency Expert. Mr. Rubin explained that AT&T wireless has a gap in coverage in their wireless network. There is lack of quality and service in the Township in dense residential areas. AT&T looks for tall structures or looks for raw land to lease to build their own tall structure and then focuses on providing reliable service to the subscribers to get the antenna up above the clutter such as tall trees and buildings. The goal is to get the antenna sufficiently high in a given area and take advantage of ground elevation where possible and provide reliable service with sufficient overlapping the coverage so they can provide a seamless reliable experience for the subscribers.

A previous application was approved for a 100' unipole that was not constructed and the height is not nearly tall enough to satisfy AT&T requirements of coverage. There is no other existing tall structure in the immediate vicinity that would provide approximately 90% coverage of the search area objective. There is an existing structure, outside of the search area to the south and it would do two things; it would provide a lot of overlap in coverage with existing sites closer to the Trenton area and it would exacerbate unreliable service to the north (not have sufficient amount of coverage to the areas to the north).

Exhibit A-1: AT&T's Reliable Coverage without Proposed Site. Mr. Rubin explained the map (red lines, black lines, pie shape symbols, green shade; white shade, etc.). The white area is in the unreliable service (low probability to make or receive calls). Mr. Rubin presented to the Board the poles with the elevation and above ground height.

Exhibit A-2: AT&T's Reliable Coverage without Proposed Site. This exhibit is the same as Exhibit A-1 except it is activated for the Slackwood site which has the approved 100' unipole location at 150'. The majority of the area which is unreliable is green; there are some areas to the north, southwest and southeast that still have small pockets of unreliable coverage (indoor). This is the minimum height necessary to achieve 90% of the coverage objectives in the area without negatively impacting the area. The only way to achieve that is to build a new site and to basically have all nine sectors or more (because some sites have more sectors) all struggling to provide reliable service to the people who drive, live and work in the area.

Mr. Krawczun stated if the tower was not 150' and it was lower and the areas depicted in white will not have service (Exhibit A-1); the white areas will become larger (Exhibit A2); any other display that would show the effect on the white areas if the tower was to come down. Mr. Rubin stated there are no displays.

Dr. Eisenstein stated he has one at 85 – 95 which was in his application. Mr. Rubin stated this was done to demonstrate how the area gets larger. There is an exhibit from the previously approved 85/95 which demonstrates the white areas getting larger. Dr. Eisenstein stated the exhibit presented tonight is different than what was in the package on a more expanded scale. Dr. Eisenstein asked to explain what happens between 85/95 versus 135/145. Mr. Yoskin stated in the application there was Exhibit AT&T Existing – 85dBm Reliable Coverage in Lawrence Township, Exhibit A-3; Exhibit A-4: AT&T Proposed 85dBm Reliable Coverage in Lawrence at 135'/145' and Exhibit A-5: AT&T Proposed 85dBm Reliable Coverage in Lawrence at 85'/95'. This is in response to Mr. Krawczun's statement regarding the different heights.

Mr. Rubin explained the exhibits and the difference in the sites. Councilman Brame stated he is confused and had questions based upon his direct testimony and now different exhibits have been presented. Mr. Rubin stated Exhibit A3, 4 and 5 are accurate and have the same information. Exhibit A-4 & A-5 which have a difference of 50' and the difference is significant along Route 206 (Exhibit A-5) that has a lower elevation and a large area of unreliable service; to the east and west of Route 206 (Exhibit A4) which is smaller because the antennas are 50' higher and demonstrates that when they are higher they could reach out over trees and clutter.

North and south of Route 1 (Exhibit A5) east to Slackwood there is a large area of unreliable service that is much smaller on Exhibit A4. Vice Chairperson Tayler asked what had changed in the area that this is a concern (higher buildings, more buildings). Councilman Brame stated the reason that we now need a 99' tower to a 150' tower is because the lease is not available. Mr. Stilwell stated a 100' is not available and it would not have been their choice in any event and demonstrated why it would not work. Mr. Rubin stated it is not what has changed the applicant has changed. Clearwire was originally approved at 100' and this is AT&T and the needs are different and a much broader subscriber base and different devices.

Councilman Brame asked if the antenna could be erected at 150' or less. Mr. Rubin stated if approved as a unipole it would be less because you cannot install an antenna at the top of a structure like this because the antennas mount inside behind a fiber sheet of glass. Councilman Brame asked if there are any other towers that may or may not be AT&T owned that AT&T could co-locate. Mr. Rubin stated there is one existing to the south which is outside of the reach zone and it would provide too much coverage toward Trenton and leave a larger gap to the north and deemed unsuitable. Mr. Krawczun stated at 150' tower, how many other carriers will be co-locating on this structure. Mr. Rubin stated there are two other carriers that would have an interest. Mr. Rubin stated if the Board would be interested in changing the structure type from a unipole to either a traditional monopole or flush mount design, where the antennas are outside (which do not have the large plat forms) and the antennas are mounted externally and would extend 2 to 3' off of the pole.

Mr. Krawczun commented the client has proposed a 150' unipole and this construction could take how many carriers. Mr. Rubin stated it could have six (6) cannisters vertically stacked inside the structure. AT&T needs a minimum of two antennas per sector and would use 1/3 of the structures (compartments); so two other carriers could physically use it. The height of the antennas would be at 125/115 and the third carrier would be at 110/105.

Councilman Brame stated that the application seems to be both structurally and organically different than what was originally approved. He would like to see the application for what the real intent is so that the Board could have a better sense of what they were evaluating on granting. Where would the two additional servers/providers locate at the same level at 145 or less or greater than AT&T? Mr. Rubin stated he is not looking to change the application and rather made a recommendation and it would be to the Township's advantage as well because if there will be a tower why not add as many co-locators as possible. AT&T primary goal is to get a 50' extension approved; however, if the Board was inclined to change the structure type, AT&T and Liberty Tower would welcome that.

The elevations of the co-locators for AT&T would occupy the top two positions which would be 145/135 and the next two pairs would be at 125/115 and then 10/20' below that. Councilman Brame stated if the other carriers could provide a quality of service less than 150' then couldn't AT&T as well. Mr. Rubin stated that every foot you drop in an elevation the gray areas get smaller and the white areas get larger.

Mr. Slauch stated that carriers have different standards of what they consider reliable service. Councilman Brame asked at what point do calls drop. Dr. Eisenstein stated there is a federal law that governs that when they are seeking relief from the conditions; the FCC established regulations that carriers are to provide a level of service substantially better than the mediocre.

What frequencies are AT&T planning on this site. Mr. Rubin stated the LTE is at 700 mg and the UTS are at 850 mg and 1900 mg. There is one additional frequency at WCS at 300 mg. Dr. Eisenstein explained why he asked the question and stated why Clearwire would ask for a 100' coverage at 2600 mg; they would get a fraction of the coverage. Mr. Rubin stated they have a high frequency and the wave length is very small; they have lots of sites working together. Mr. Stilwell stated that Clearwire from their application started at 150'; however, because of the testimony they gave they agreed to lower it to 100'.

Richard Lemanowitz represented Liberty Towers (CIG Towers) and was interested in the ground lease. The original application was for 150' and they agreed to reduce the height of the tower to accommodate some concerns of the tower and the lease between Liberty Towers and CIG is still a valid lease and is for 95' above ground level.

Dr. Eisenstein stated he heard when going through the AT&T site (118, 103, 88, 75 85 above ground levels), too much coverage would be a co-channel interference, why when putting up an antenna site what about too much over dominance from 150' site. Mr. Rubin stated the tallest is 152' in North Trenton and there are multiple different heights for the sites in the area and gave examples. The primary goal is to cover the communities and commercial properties and compared the 85/95 foot Exhibit (A-5) vs Exhibit A-4 there is a large area between Lincoln Highway to Route 1 that will not have reliable service at the 50' altitude.

Mr. Krawczun asked Dr. Eisenstein if there is a height less than 150' that this could work at. Dr. Eisenstein answered that AT&T does not achieve full coverage with their proposed site at the height they are proposing at the coverage they want because there are still gap areas that are left. Dr. Eisenstein asked if the applicant had any plans on filling in those gap areas. Mr. Rubin stated they will remain. Dr. Eisenstein continued where they are right they are not getting full coverage and if they go down they get less coverage; they are getting about 60 – 70% of the coverage instead of 90%. It would work but less coverage. Mr. Krawczun asked if the tower was not as high would it meet the intent of the telecommunications act. Dr. Eisenstein stated they are not in danger of losing their license.

Councilman Brame stated he did not hear an answer from our expert regarding the minimum height less than 150'. Dr. Eisenstein stated 85/95 that achieves the level in all the areas that are green; 135/145 that achieves the level and the difference between the two of them is the white area, which reliable service is not being achieved. The answer is a business decision on AT&T's part as how much they want to leave uncovered. The white areas will remain white areas. Councilman Brame continued on where the Board could achieve a balance of adequate height vs. lost coverage, and it could be achieved at less than 150'.

Mr. Stilwell read the standard of our Land Use Ordinance and wanted to focus on our ordinance. Dr. Eisenstein stated we have it at 85' and request it at 105', 125' and get some of the intermediate heights and see what the shrinkage is. Mr. Yoskin stated there is a third issue that is the areas in white are uncovered, so there are residents of the Township, if you made a decision to go to a lesser height that resulted in a large white area, the Board would be obligated to explain to the residents in those areas why the Board decided that a height would of otherwise provided coverage, which is not allowed. Vice Chairperson Taylor stated the last time we had an application for a tower, we based our decision on the ordinance from people in the area and the concern was having an enormous tower in their back yard; we did take the resident's concerns. The other concern is if at 105 and 110 we would meet the federal law and our own ordinance. Mr. Yoskin stated that AT& T is only obligated to meet that legal standard in the areas where they provide service, if they don't provide service some where they are not obligated or lose their license, it is their decision if they want to expand their coverage. We are not obligated by federal law, we don't want to go passed 100', per the law they would not be obligated to fill those gaps.

Dr. Eisenstein stated they are proposed to building a unipole and the antenna's are inside. You would be able to get a lower height with a traditional monopole with a cluster mount and would achieve the same coverage. Mr. Krawczun stated he still does not know what the correct height is based on everything that has been stated tonight. It may be 150', 160' or 100'; however, you can't put a 150' pole in to many other locations because it is a zoning matter and then this applicant would have been before the Zoning Board and it is not clear as to what is the proper height.

Dr. Eisenstein stated 150' is on the high end especially in this area. Mr. Leggett stated the previous application wanted the 150' and from public participation the Board decided, even though it was not a monopole, it was dictated to be 100' and coming back to the original height. Dr. Eisenstein stated they proposed a monopole which the antennas are inside the pole and limits the coverage and 150' are not seen anymore.

Dr. Eisenstein asked if the applicant was to offer compliance testimony. Mr. Rubin stated that they will comply with all omission and FCC regulations and equipment for the broadcasting and transmission reception.

Mr. Duran stated that if this antenna were right next to a residence, refer to the report from dBm Engineering, dated October 13, 2013, Page 2, Column 1 & 2 (Horizontal Distance from Facility and Height Above Ground) will that be safe installation of people's health and FCC regulations. Mr. Rubin stated the energy is like a flashlight, the energy does not come straight down.

Mr. Stilwell asked Dr. Eisenstein is there any utility in preparing to show differences in the height. Dr. Eisenstein stated to start at the 85/95 to 10' increments to see what the shrinkage of coverage is. The Board will want to do a side by side comparison, use 11 x 17 and copies to be distributed to the Board members. Mr. Stilwell stated it will be done for a unipole. Dr. Eisenstein stated have some pictures to show it from a unipole and monopole. Mr. Yoskin stated if a decision is made for the monopole, because it is an aesthetic change, it will look different, and the application will be to be re-noticed. Mr. Stilwell stated he will notice because more is less.

Mr. Krawczun stated if it is also possible, if the Township border can be included on the maps because it will help give some sense of location. There was a discussion between Mr. Stilwell and Mr. Yoskin regarding the notice. Mr. Yoskin also asked to have Lincoln Highway checked.

The application was continued to May 5, 2014.

6. **Old Business / New Business / Correspondence**

None

7. **Adjournment:**

There being no further to come before the Board, the meeting was adjourned at 8:46 p.m.

Digital audio file of this meeting is available upon request.

Respectfully submitted,



Susan J. Snook
Recording Secretary

Minutes Approved: _____



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