

October 30, 2014

Via Electronic Transmission

Robert A. Yamuder  
Administrator  
Village of Pelham  
Pelham Village Hall  
195 Sparks Avenue  
Pelham, NY 10803

*Subject:* Telecommunications Facilities Engineering Review

Dear Mr. Yamuder:

As you have requested, this letter reports our findings and recommendations based on our review of the ExteNet Systems permit application to place distributed antenna system ("DAS") nodes in the Village of Pelham pursuant to the Village's Wireless Telecommunications Facilities Siting Law.

**Completeness of the Application**

We reviewed the ExteNet application and found that the applicant needed to provide the following additional information to complete the application:

1. An engineering report signed by a professional engineer licensed by the State of New York and containing the information required by §87-6(A)(5)).
2. A structural engineering report signed by a professional engineer licensed by the State of New York and containing the information required by §87-6(A)(6). This report was not contained in Exhibit 1 as stated in the application.
3. A statement that addresses the capability of each node to support additional antennas or otherwise provide services from other carriers, as required by §87-6(A)(7). This statement was not contained in Exhibit 1 as stated in the application.
4. A map that meets the requirements of §87-6(A)(10). The maps provided with the application only show the routing of fiber plant and locations of the existing and potential sites for wireless facilities.

5. A justification of the necessity of service, as required by §87-8(A). Exhibit 5 provided in response to this requirement comprises only two RF propagation maps with no explanation of the need for the facilities or the target coverage objective. The Exhibit also does not identify the proposed carrier's adjacent sites. Further, there is no explanation of the need for the new pole other than a photo with several captions—none of which explain why those options were ruled out as co-location alternatives in lieu of a new pole.
6. An explanation and supporting documentation as to why the existing poles could not be used in lieu of a new pole. For example, if the reasons were structural, there should be supporting analysis reports; if the poles were ruled out for RF reasons, accompanying RF maps should be provided. If there were some other reasons, the application should include an explanation as to why—and a justification of the need for a new pole. A statement that the location for the new pole is sited to have minimal visual impact should also be provided. (§87- 8(E) (F) and (I))
7. A listing of the distances from adjacent sites should be provided, per §87-9 (D)(2).

We advised the Village of our preliminary findings and, based in part on our findings, the Village sent a letter to ExteNet Systems requesting the additional information needed to complete the application. The applicant has since provided three separate replies dated September 21, October 21, and October 24. Based on our review of information provided therein we find that items number one, two, and four listed above have been addressed. The remaining requirements have, to our knowledge, not yet been met by the applicant.

### **Findings and Conclusions**

Included in one of the applicant's replies was an engineering report from Joseph Menio of PierCon Solutions that documents the need for antennas to improve signal strength across certain parts of the Village to the target levels of -90 dBm. That report included supporting RF maps illustrating the calculated coverage with and without the antenna nodes as placed.

We note that the addresses for three nodes in the RF Emission Evaluation Report do not correspond to the Node numbers assigned in the RF maps and drive test results. For purposes of this report, we have based our comments on the Node numbers associated with the RF maps:

Node 1 – 145 Harmon Avenue – atop an existing Verizon wooden pole

Node 2 – 156 East 2<sup>nd</sup> Street – atop a new wooden pole set by ExteNet

Node 3 – Colonial Avenue @ Pelhamdale Avenue – atop an existing Con Edison wooden pole

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In addition to the RF maps, the report provided drive test measurement illustrations showing signal levels with and without the antennas activated based on the empirical data collected during the drive tests. Those illustrations show no discernable difference in coverage for Node #1 with or without the antennas active. Coverage for Nodes #2 and #3, however, show that current signal levels are below the target levels for reliable service to support 4G technology needed for advanced data services to operate new "smartphone" applications. Based on the engineering report, we agree that antennas as placed would improve signals to the target levels in the vicinity of those two Nodes.

We do not find in any of the documents filed by the applicant, however, any supporting information about why there is a need for a new pole to be installed to support antennas for Node #2, other than a photograph of the intersection with some labels describing two adjacent existing poles. No supporting documentation has been provided explaining in detail why either of those poles, or the two other adjacent poles, could not have been used to support Node #2 antennas in lieu of the new pole. Consequently, without such documentation as required to be provided by the applicant to complete the application, we cannot comment on that important aspect of this application.

Sincerely,

A handwritten signature in cursive script that reads "Lee Afflerbach".

Lee Afflerbach, P.E.