THE CENTER FOR MUNICIPAL SOLUTIONS
70 CAMBRIDGE DRIVE
(518) 439-3079 GLENMONT, NEW YORK 12077 FAX (518) 478-0909

November 26, 2014

VIA E-MAIL

Mayor Timothy Cassidy and Members of the Board of Trustees
c/o Robert Yamuder, Village Administrator
Village of Pelham
Village Hall
195 Sparks Avenue
Pelham, NY 10803

Re: Application of ExteNet for a Permit for
Three DAS Nodes, Per Village Code Chapter 87

Dear Mayor Cassidy and Members of the Board of Trustees:

I. Introduction

The Center for Municipal Solutions ("CMS") has been retained by Matthew Kaplan and Aimee Linn to review and analyze the application (the "Application") of ExteNet Systems, Inc. ("ExteNet") to the Pelham Village Board (the "Village Board") for a permit, under Chapter 87 of the Pelham Village Code (the "Village Code"), to install and operate three Distributed Antenna System ("DAS") nodes within the Village of Pelham (the "Village"). In preparing this Report, we read and reviewed: 1) ExteNet's submittals of August and November 2014; 2) the report of Joseph Menio of T-Mobile, dated October 22, 2014 and submitted to the Village Board on October 24, 2014 (the "Menio Report"); and 3) Chapter 87 of the Village Code of Pelham (the "Village Code"). We are also familiar with the principles required by federal law relating to the provision of wireless telecommunication services.

CMS was retained to ascertain the following:

1. whether the materials submitted in support of the Application establish a significant gap in wireless service in the Village;

2. whether the materials submitted in support of the Application establish that the proposed DAS node locations[1] are the least intrusive means of filling the alleged significant gap in wireless service; and

[1] Throughout this Report, we refer to these locations as the locations of "Node 1," "Node 2," and "Node 3," corresponding with the locations so-labeled in the Exhibits to the Menio Report.

3. whether alternatives exist to fill the alleged significant gap which are less intrusive than those currently proposed and use existing lawfully installed poles.

CMS has reached the following conclusions concerning the aforementioned questions:

1. The Application and its supporting materials do not establish a significant gap in wireless service in the Village.

2. The DAS node location across from the Kaplan/Linn residence is not the least intrusive means of filling the alleged significant gap in wireless service.

3. Alternatives do exist, including at Corlies Street and First Avenue, which are less intrusive means of filling the alleged significant gap in wireless service.

After setting forth CMS's qualifications and experience, the balance of this Report sets forth in detail our reasoning for these conclusions.

II. Qualifications and Experience

CMS is a professional consulting firm which, for the past 17 years, has specialized in technical evaluation of applications by wireless service providers for permission to install and operate wireless telecommunications facilities. CMS is not compromised by split loyalties, as are the vast majority of consultants who prepare and analyze such applications. Most consultants work for the telecommunications industry in whole or in part. CMS is one of the few technical consulting firms that have a company policy of not working ever for the telecommunications industry. CMS exclusively works for and with municipalities, citizen organizations, and individuals.

CMS was founded by Richard Comi, one of the co-authors of this Report, who first became involved in telecommunications in the military. Upon graduation for the United States Military academy in 1967, Mr. Comi served as a signal officer for four years, where his duties included working with telecommunications equipment. Immediately after leaving military service Mr. Comi joined New York Telephone, now Verizon. Mr. Comi held numerous 1st, 2nd and 3rd level management positions for New York Telephone while employed there over a period of eighteen (18) years, including three different positions as a Director of Operations with responsibility for the capacity administration of over ninety (90) Central Offices. The methodology for determining capacity of voice land line services is similar to the methodology for determining wireless voice capacity, facilitating Mr. Comi's transition into wireless telecommunications operations. In 1989, Mr. Comi entered the wireless telecommunications industry. In the late 1980's and early 1990's, Mr. Comi was the Chief Operating Officer of Cellular One of Upstate New York, a startup wireless telecommunications company. In that capacity, he managed a team that designed, built, and operated one of the largest rural cellular telecommunications systems in the United States using what was then state-of-the-art cellular equipment.

In 1997, Mr. Comi founded CMS. In the last seventeen (17) years, CMS has been retained by hundreds of municipalities and a number of citizen groups to provide in-depth technical analysis of applications for the siting of wireless telecommunications facilities. During that time period, CMS has reviewed more than 4,000 thousand applications for the siting of wireless telecommunications facilities, as well as the materials submitted in support of such applications, including propagation maps and drive test data submitted on behalf of all of the major wireless carriers (including Verizon, AT&T, Sprint, and T-Mobile). Some municipalities have retained CMS to analyze more than one hundred (100) such applications. The applications which CMS has evaluated for these municipalities are quite similar to ExteNet's current application. As stated above, the CMS team provides impartial unbiased analyses and can do so because CMS does not accept work for the wireless telecommunications industry.

Currently, CMS is serving as a consultant to the Town of Hempstead, where Crown Castle (which recently purchased NextG, another infrastructure provider like ExteNet) is proposing to modify thirty (30) DAS nodes for T-Mobile service. Part of our review for the Town of Hempstead is to evaluate Crown Castle's evidence of the "need" for additional T-Mobile service.

From our work for the Town of Hempstead and from prior work for many municipal and citizen clients, CMS is fully familiar with the analytical methodologies and technical data associated with applications for DAS systems. CMS is also thoroughly familiar with the DAS equipment for which ExteNet seeks approval, including how such equipment functions, and how such equipment is used to provide wireless telecommunications service.

Cristopher Schrader, P.E., is a licensed professional engineer and co-author of this report. Mr. Schrader is part of the CMS team and works with CMS to evaluate telecommunications applications. Mr. Schrader is the principal engineer for Sustainable Engineering & Environmental Design, PLLC ("SEED") a civil and environmental engineering firm located in Albany, NY. Mr. Schrader and Mr. Comi co-authored this report and Mr. Schrader confirms, as a licensed professional engineer, that the contents of this Report are true and correct.

III. The Application Fails to Demonstrate a Significant Gap in Current Wireless Service

Chapter 87-4 of the Village Code provides that "[n]o person may install a wireless telecommunications facility without a permit granted" by the Village Board. For such a permit to be approved, "[t]he proposed wireless telecommunications facility must fill a <u>significant gap</u> in current wireless telecommunications services in the Village of Pelham." Village Code § 87-8.A (emphasis added). For the following reasons, we conclude that the Application fails to meet this requirement.

A. Menio Report and ExteNet's Evidence of an Alleged Gap in Service

ExteNet asserts that a "significant gap" exists in the T-Mobile wireless service network in the Village. For purposes of defining what ExteNet asserts to constitutes a "significant gap" in coverage, the Menio Report adopts T-Mobile's design criteria for the strength of the wireless signal which T-Mobile assumes to be necessary to ensure reliable wireless service for customers both when they are inside buildings ("in-building service" or "in-building coverage") and when they are driving in their cars ("in-vehicle service" or "in-building coverage"). In setting those design criteria, T-Mobile assumes that the minimum wireless signal strength for reliable coverage, represented in decibel-milliwatts ("dBm"), is -90 dBm to ensure reliable in-building service (which also ensures reliable in-vehicle service) and -98 dBm to ensure reliable in-vehicle service (but not in-building service).[2] However, the Menio Report provides no data supporting T-Mobile's assumption that these signal strengths are, in fact, the thresholds necessary to ensure reliable service, either generally or specifically in the Village.

The Menio Report attempts to demonstrate a significant gap in service through (1) computer propagation modeling and (2) measurements of wireless signal strength from a "drive test." For the following reasons, neither set of data establishes a significant gap in current T-Mobile wireless service in the Village, as required for approval of a wireless facility siting permit under Chapter 87 of the Village Code.

1. ExteNet's "Drive Test" Results Do Not Establish the Existence of a Significant Gap in T-Mobile's Wireless Service in the Village

The Menio Report heavily relies on the results from "drive tests" or "scan tests," in which a T-Mobile representative drove through portions of the Village and used monitoring equipment to measure the strength of the T-Mobile wireless network's signal at various points in the Village's streets. In order to establish the signal strength of the T-Mobile wireless network without the three DAS nodes whose approval was invalidated by order of the Westchester County Supreme Court, T-Mobile conducted a drive test with those three DAS nodes turned off. The results of that drive test are shown on the "drive test map" appended as Exhibit 2 to the Menio Report.

The drive test map has a series of colored dots which correspond to the measured signal strength for each location at which a measurement was taken: a) green dots: locations where the measured signal was at least -90 dBm, ExteNet's <u>assumed</u> minimum signal strength for reliable in-building service; b) yellow dots: locations where the measured signal was between -90 dBm and -98 dBm, the range which ExteNet <u>assumes</u> provides reliable in-vehicle coverage but not reliable in-building service); and c) red dots: locations where the measured signal was weaker than -98 dBm, ExteNet's <u>assumed</u> minimum signal strength for reliable in-vehicle service.

[2] Because dBm values are negative numbers, -90 dBm is greater (i.e., indicates a stronger signal) than -98 dBm.

ExteNet contends that the areas with the yellow and red dots comprise the significant gap in T-Mobile wireless service in the Village. Although this report will demonstrate below in detail why the data submitted by ExteNet are deficient, even putting aside those deficiencies, the drive test map appended as Exhibit 2 of the Menio Report fails to establish a significant gap in wireless telecommunications service.

To the extent that a purported significant gap rests upon the alleged absence of in-building service, the Village Code is explicit about the type of data required. The Village code mandates that "[a] significant gap may be demonstrated only by actual in-kind survey data in the area of the proposed installation." Village Code § 87-8.A. That Village Code section goes on to further mandate that "if the significant gap is within a building or buildings, then the survey data must be measured inside the building or buildings in the survey area." Id. (emphasis added). ExteNet has submitted no survey data measured inside any building or buildings in the survey area, only drive test data. Therefore, ExteNet's application and supporting materials fail to tender the evidence mandated by the Village Code in order to establish a lack of in-building service anywhere in the Village.

Not only does ExteNet fail to provide the evidence required by the Village Code, but there is evidence that there is, in fact, no lack of in-building service in the yellow dotted areas. Matthew Kaplan and Aimee Linn own and reside in a home near the center of the yellow dotted areas. They had been T-Mobile customers for more than seven years prior to the installation of the DAS node near their home. Both Matthew and Aimee had uninterrupted T-Mobile voice service and data service inside their home. They both regularly sent and received emails, text messages, and voice calls on their T-Mobile phones while in their home. Matthew regularly used his T-Mobile phone from home for lengthy telephone conferences of one hour and longer. Neither Matthew nor Aimee experienced dropped calls. Matthew and Aimee are currently not T-Mobile customers. Matthew switched to Verizon because he obtained a better plan through his work. Aimee switched because she was dissatisfied with the customer care service she received at her local T-Mobile retail establishment. Neither switched because of any dissatisfaction with their T-Mobile in-building service prior to the DAS Node being installed. Their au pair(s) never indicated any problem with T-Mobile's in-building service and, indeed, the phone used by the au pair(s) was intended to permit the placement of emergency calls using the T-Mobile phone as necessary and from various points in the Village (including in the Kaplan/Linn home). Their au pair(s) never indicated any problem with T-Mobile's in building service in their home and, indeed, placed emergency calls using this T-Mobile phone from within their home.

The experience of Matthew and Aimee is highly unlikely to be unique. That is why the Village Code quite properly requires in-building measurements in order to establish lack of in-building service. Given that Matthew and Aimee had reliable T-Mobile in-building service for years and given that others in the area likely had the same quality in-building service, there is no evidence

of any lack of in-building service in the in areas with "yellow dots" on the drive test map. See Menio Report, Ex. 2.

Moreover, in the yellow-dotted areas, ExteNet and T-Mobile admit that T-Mobile customers receive reliable in-vehicle coverage. Plainly, in the yellow-dotted areas, reliable in-vehicle and outdoor wireless service from T-Mobile exists. Because such service exists in the yellow-dotted areas, and because of the actual reliable in-building service received indoors at the Kaplan-Linn residence, there is no evidence of any T-Mobile wireless service gap in the yellow-dotted areas.[3]

The only area where there is even arguably a gap in T-Mobile wireless service is the area demarcated on the drive test map with red dots. The principal red-dotted area is along a mere two-block stretch of Highbrook Avenue, with yet smaller and more isolated red dots at the corner of Colonial Avenue and Cliff Avenue, at the corner of Heywood Road and Monterey Avenue (certain areas of which are technically located in the Village of Pelham Manor and not the Village of Pelham), and on a short stretch of Pelham Manor Road. In our view, none of these small areas are sufficiently large in physical size to individually or collectively establish a significant gap in T-Mobile's wireless service.

Furthermore, Exhibit 2's drive test map does not disclose the actual signal strength at the red-dotted locations—only that the signal strength was weaker than -98 dBm. It could have been just a shade weaker than -98 dBm or much weaker—the measurement data are not disclosed. This is significant because even in the red-dotted areas, there is no data submitted to show that there is no wireless service at any of those locations. It is entirely possible, indeed likely, that there is reliable outdoor service (i.e. while walking or sitting outside) even at the red-dotted locations. A "significant gap" in coverage exists only where there is *no* wireless service for a significant area. The data submitted by ExteNet fails to establish a single location where no T-Mobile wireless service exists in the Village.

In sum, the Application and the materials submitted in support of the Application fail to establish the existence of a significant gap in T-Mobile wireless service in the Village. For this reason, the Application should be denied in its entirety.

[3] Furthermore, the gap in "in-building" service purportedly shown by Exhibit 2 of the Menio Report fails to establish that service signals in those areas are insufficient for "hand-offs" between nodes. In industry parlance, "hand-off" refers to the process by which a cell phone that is making a call via a connection to one wireless site (i.e., a DAS node or macro cell tower) switches to a connection to another wireless site as the caller moves through the coverage area. Faulty hand-offs are one source of dropped calls, and an area in which moving customers would experience lost calls during hand-offs could be deemed to have a gap in service. However, motion over a large enough distance to require a hand-off will rarely, if ever, occur wholly within a single residential building, because it requires moving across relatively large distances. Generally, a call will only be handed-off between nodes when the caller is driving or walking outdoors. Accordingly, signal levels sufficient for in-vehicle use are also sufficient to avoid lost calls during hand-offs. Because ExteNet's drive test data shows reliable in-vehicle service at the large majority of locations, its data cannot demonstrate that faulty handoffs are likely to occur in those areas or that the measured signal levels establish a "significant gap" based on phones' inability to make hand-offs.

2. ExteNet's Computer Propagation Models Fails to Establish a Significant Gap in T-Mobile's Wireless Network

In addition to its drive tests, ExteNet also relies on certain computer propagation modeling to support its contention that a significant gap in T-Mobile's wireless service exists in the Village. ExteNet has submitted data based on use of a computer program known as "Asset," a software tool that predicts the geographic extent of in-building coverage based on certain starting parameters such as the signal's radio frequency, the structure of the network's antennas, and other inputs. (Menio Report at 6–7.) The results of that modeling are set forth in Exhibit 1 of the Menio Report, which purports to show the predicted extent of reliable in-building service coverage without the proposed DAS nodes, and Exhibit 3, which purports to show the predicted extent of reliable coverage with the nodes. (Exhibits 1 and 3 to the Menio Report are reproduced in Appendix A of this Report.)

However, the real-world accuracy of T-Mobile's computer propagation modeling cannot be confirmed because the Menio Report fails to specify the inputs and parameters on which its propagation model has been built. Our understanding is that as many as thirty-five (35) input parameters may be adjusted when using the Asset software and that adjustment of those parameters affects the model's ultimate prediction of wireless signal coverage. Because the Menio Report fails to specify any of the inputs, it is impossible for anyone to independently evaluate the accuracy of T-Mobile's computer propagation model. Thus, although Exhibit 1 shows areas in the vicinity of the proposed DAS nodes where the model predicted signal strength to be below T-Mobile's assumed threshold for reliable in-building coverage, this result cannot be assumed to demonstrate a service gap. Indeed, as stated above, the Village Code requires actual in-building measurements and does not authorize reliance on computer-generated data projections. (Village Code § 87-8.A.)

In sum, ExteNet fails to provide information necessary to evaluating the computer propagation models on which it relies, and even if it did, the Village Code prohibits the Village Board from granting the Application on the basis of such models.

IV. The Application and its Supporting Technical Data Contain Numerous Deficiencies

A. Technical Deficiencies in Data Proffered to Establish a Significant Gap

In the preceding section, we explained why, even if the data contained in Menio Report is assumed to be accurate for argument's sake, the data does not establish a significant gap in T-Mobile wireless service in the Village. However, because of technical deficiencies in the Menio Report and its accompanying data, the Village Board could not rationally rely on those materials to establish a significant gap in T-Mobile wireless service in the Village. The following are the technical deficiencies in the Menio Report:

a. There is no description (which is standard practice when "drive test" or "scan test" data is provided in support of a wireless siting application) of who conducted the test and how it was conducted, thereby precluding an evaluation of the methods and also precluding anyone from taking duplicate tests to confirm the accuracy of the drive test data submitted by ExteNet.

b. The Menio Report fails to identify the frequency band(s) at which the drive test measurements of signal strength were taken. Radio frequency signals propagate differently at different frequencies, and therefore without propagation data at each frequency band at which the service provider will operate, it is impossible to know whether the areas shown as "gaps" in ExteNet's filings are, in fact, areas where T-Mobile customers cannot make or receive calls reliably. T-Mobile is known to have licenses in multiple bands, but the Menio Report does not state at which frequency band(s) its measurements were taken. Propagation data and drive test measurements should be shown for all bands in which T-Mobile service is to be provided.

B. Technical Deficiencies in Data Proffered to Establish That the Proposed DAS Nodes are the Least Intrusive Means of Filling a Significant Gap in Service

Village Code Section 87-4.B provides that an applicant for a permit under Chapter 87 must demonstrate that the proposed facility is "the least intrusive means of filling the significant gap in current wireless telecommunications services."

On November 10, 2014, in response to questions from the Village Board regarding available alternatives to the location of Node 2 at the corner of Cliff Avenue and E. 2nd Street, ExteNet provided several maps containing propagation model results showing the predicted extent of service coverage from the three proposed DAS nodes, both at the proposed locations and with Node 2 located at several potential alternative locations. These maps are reproduced in Appendix B of this Report.

For several reasons, these maps fail to demonstrate that the proposed DAS nodes locations will fill the alleged T-Mobile service gap or that they will do so in the least intrusive means, as compared to available alternatives. Several technical deficiencies in the November 10 submission prevent a rational assessment of ExteNet's claim that its proposal is the least intrusive means to fill T-Mobile's alleged service gap:

a. The computer propagation models used, which were prepared by ExteNet, not T-Mobile, do not appear to have been prepared with the Asset tool or to reflect the same set of input data and parameters as the T-Mobile maps used to show the alleged gap in service in the Menio Report. Accordingly, maps purporting to show that the alternative locations for Node 2 will not provide sufficient service coverage may merely reflect differences in the modeling parameters used.

b. The propagation models for the maps only show wireless service originating from the three proposed DAS nodes as if no other service was being provided from T-Mobile's existing service network. Thus, they show certain areas as having "significant compromised coverage" even though those same areas are shown on the drive test maps as having reliable in-building service under the existing T-Mobile service network with the DAS nodes turned off.

c. The November 10 maps are not on the same scale as the drive test maps from the Menio report, making it difficult if not impossible to compare the predicted service area of the three nodes to the service gap purportedly demonstrated by the drive test maps.

These inconsistencies between ExteNet's submissions showing the alleged significant service gap and the maps showing how the proposed and alternative DAS nodes could fill that alleged gap preclude the Board from making a rational decision as to whether the proposed DAS node locations represent the least intrusive means to provide additional T-Mobile wireless service in the Village.

V. Less Intrusive Alternatives to the DAS Node by the Kaplan Home are Feasible

As noted, Section 87-4.B of the Village Code provides that an applicant for a permit under Chapter 87 must demonstrate that the proposed facility is "the least intrusive means of filling the significant gap in current wireless telecommunications services." Furthermore, Section 87-8.E requires "[t]he use of a utility pole or an attachment structure" instead of a new attachment structure "unless the applicant demonstrates that no attachment structure is suitable for the location of the wireless telecommunications facility."

The proposed DAS Node 2 is proposed to be located on a new support structure at the corner of Cliff Avenue and E. 2nd Street.[4] ExteNet has failed to show that installation of Node 2 at that corner is the least intrusive means to fill the alleged T-Mobile service gap. Indeed, there are several alternative locations for Node 2 that are likely less intrusive and make use of existing support structures. Under the Village Code, these conditions prohibit the Village Board from approving the application with Node 2 located at Cliff and E. 2nd Street. See Village Code § 87-8.F ("A new support structure is permissible only if use of an existing structure is not feasible and a new support structure is the least intrusive means to fill the significant gap in current wireless telecommunications service….").

[4] Although a utility pole currently exists at that corner, it was erected for the installation of ExteNet's DAS node pursuant to a Village approval that was subsequently invalidated by the Westchester County Supreme Court. Accordingly, although the Court allowed the existing structure and DAS node to remain pending a decision on this application, the Village Board must consider the application as if the unlawful support structure were not at the corner of Cliff Avenue and E. 2nd Street.

A. Alternative 1: Elimination of DAS Node 2

The November 10, 2014 signal propagation maps provided by ExteNet fail to show the service coverage that would result if ExteNet installed only DAS Nodes 1 and 3 (which are located on existing support structures). Even if the existing nodes, on their own, could not close the alleged service gap, ExteNet has not shown that those two facilities could not fill the alleged gap if they were increased slightly in height. No data has been provided concerning the use of Nodes 1 and 3 only. Such an alternative would be less intrusive than installing three nodes, and could potentially fill the alleged service gap. Data should be provided showing the projected increase in service that would be provided if Node 1 alone is added to the existing network, both at its present height and at various increased heights. The same should be done for Node 3 alone, and then for both Node 1 and 3, all at present height and at various increased heights. Only by providing such data can the Village Board know what the effect would be of eliminating Node 2 and approving Nodes 1 and 3, either at the current heights or higher. It is possible that Node 2 is not needed at all.

B. Alternative 2: Locating DAS Node 2 at Corlies Street and 1st Avenue

A suitable existing structure for Node 2 exists at Corlies Street and 1st Avenue. This location is preferable to the proposed location for Node 2 for numerous reasons. A utility pole exists at this intersection, so this alternative is consistent with the Village Code's requirement that new wireless telecommunications facilities be located, if possible, on existing support structures. This location is bordered on one side by the train station and tracks, and on the other side by two parks. It is not adjacent to any residences and is within approximately one block from the Village's commercially zoned areas. It is a less intrusive node location than the currently proposed location on a new structure across from the Kaplan residence.

Although ExteNet's propagation model for this location shows signal outside ExteNet's target area,[5] screening and blocking equipment would protect against unwanted signal interference.

Finally, although ExteNet's propagation model for this alternative location shows a gap in coverage on the east side of the target coverage area, ExteNet fails to show that a taller pole in that location would not close that gap. ExteNet's 80-foot pole propagation model for the Cliff and 1st alternative site suggests that a taller pole than ExteNet has modeled for Corlies and First would likely eliminate the coverage gap ExteNet now shows for the Corlies site. Moreover, as the Corlies site is seven (7) feet higher than the Cliff and 1st site, the Corlies site with a higher pole should be able to achieve the same or better results than the Cliff and 1st site. ExteNet should provide a propagation map for the Corlies site with an 80-foot height, just as such an analysis was done for the Cliff and 1st Street alternative. It would seem that a pole between 40 feet and 80 feet at the Corlies site would provide the desired coverage.

C. Alternative 3: ExteNet's Proposed Location 650' North of Proposed Node 2 Site

Another suitable existing structure for Node 2 exists at ExteNet's proposed relocation site on Cliff Ave six hundred and fifty feet (650') north of the proposed location of Node 2.

First, ExteNet has identified and proposed this location as a suitable alternative over the course of this proceeding.

Second, the "compromised coverage area" identified in ExteNet's propagation model for this site is small and, indeed, provides at least "in-vehicle" coverage over virtually all portions of the alleged gap in service. Although portions of the asserted "compromised coverage area" show no coverage over sections of the Village, those sections show "in-building" coverage on T-Mobile's drive test measurements. Thus, a significant amount of the "compromised coverage area" would be covered by adjacent pre-existing sites, DAS nodes or a macro site.

Third, if the "compromised coverage area" were too large for this site to be feasible, the "compromised coverage area" could be reduced, if necessary, by increasing the pole by ten (10) or twenty (20) feet.

VI. Conclusions

For all of the foregoing reasons, we conclude that:

1. The Application and its supporting materials fails to demonstrate a significant gap in T-Mobile's wireless service in the Village.

2. The Application and its supporting technical data contain numerous deficiencies which preclude any rational evaluation of the Application and its supporting materials.

3. Less intrusive alternatives to the DAS node by the Kaplan home are feasible and would provide the service desired by ExteNet for T-Mobile.

Respectfully submitted,

Richard Comi

Cristopher Schrader, P.E.

[5] ExteNet states that this will cause an interference problem, however they do not show the adjacent coverage in which such interference will occur.