



**Initial Commentary on  
T-Mobile Application for Variance for  
a Wireless Communications Facility at  
22 Griffin Street, Westford, Massachusetts**

14 May 2010

Broadcast Signal Lab was engaged by the Town of Westford to assist with the review of the T-Mobile application for variances for a Wireless Communications Facility (WCF) including a new tower, at 22 Griffin Street (Site). The applicant seeks a use variance as well as a variance from the 900-foot dwelling setback in the WCF bylaw (6.2.3) and from the 35 foot height limitation in the Table of Dimensional and Density Regulations (Appendix C). Applicant also seeks a variance to the limitation of not more than one principal structure on a lot (4.1.2).

Under Section 6.2.3 of the Zoning Bylaw, there is a hierarchy of location priorities. Existing communications facilities are preferred for locating new facilities. Next, the use of other existing structures is preferred. Finally, new construction (e.g. a new tower) is permissible if the other priorities cannot be achieved. The applicant has a substantial burden to demonstrate that existing facilities and existing structures cannot be utilized, under 6.2.3.1 and 6.2.3.2.

Similarly, the applicant has a burden to demonstrate that 6.2.3.3 and its subsections are not viable solutions. We will look at each of these location priorities, below.

The applicant requests relief under MGL ch 40A, and alternatively, under the non-prohibition of the provision of wireless service clause of the Telecommunications Act of 1996 (TCA). Applicant suggests a denial of the variances would have the effect of prohibiting the provision of wireless services due to a lack of Bylaw-compliant Sites to achieve the applicant's objectives.

**6.2.3.1 Existing wireless facilities**

The applicant has submitted no documentation on whether any existing wireless facilities can be utilized to reduce and/or eliminate the purported gap in service. Applicant should consider not only upgrading its current sites with such improvements as increased antenna height, increased

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power, and addition or repositioning of sector antennas, but also identifying the locations of all other wireless facilities surrounding the proposed Site and providing evaluations of them.

#### 6.2.3.2 Existing Structures

The applicant has submitted no documentation on whether there are any existing structures that have characteristics that might be utilized to reduce and/or eliminate the purported gap in service.

Since the Board has the obligation under the TCA to gather substantial evidence in the written record, the applicant should provide documentation of its search for structures in and around the locus of coverage in light of 6.2.3.1 and 6.2.3.2. At the same time, the Board and residents are encouraged to surface their own suggested sites, and enter them into the record. The applicant should evaluate these suggestions and provide evidence on the relative viability of suggested alternatives. As peer reviewers, we feel our role is to review and analyze the applicant's data, rather than attempt to create solutions out of whole cloth, unless the applicant fails to evaluate options that the Board seeks evidence on.

Section 6.2.9 limits new tower heights to 100 feet. Applicant should provide 100-foot analysis from the Site, and should consider and provide examples of bylaw-compliant alternatives that might utilize 100-foot structure(s). While the applicant would prefer to use a single facility to address its coverage objectives, it may be less impactful on the community if two facilities were used (or perhaps more accurately, a community-wide layout of facilities that might yield (for example) 5 instead of 4 facilities, with less overall impact on the community).

Finally, depending on the applicability of 6.2.3 2<sup>nd</sup> paragraph (unnumbered) and/or 6.2.9.12, each with respect to new towers, the applicant should map out all locations in and around the desired locus of coverage to illustrate what sites are compliant with the 900 foot and 300 foot setbacks, respectively. There does appear to be a conflict between these two dimensional criteria for new towers.

#### 6.2.3.3 New Structures

The applicant should illustrate coverage from the closest and most opportune locations within the districts listed in 6.2.3.3.a to illustrate whether and how increased use of these districts, with 100 foot structures could reduce or eliminate the purported coverage gap in the locus of the proposed Site.

We recommend having a detailed discussion at next week's hearing to jointly create a list of potential sites for the applicant and us to consider. Also, based on observations above, we recommend developing a list of additional evidence required from the applicant to demonstrate whether there any bylaw-permissible sites that could contribute to a coverage solution.

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