

# **2012 Annual Report Status and Outlook**

## **Antenna Advisory Board Town of Lewisboro**

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## A. Purpose

The Lewisboro Antenna Advisory Board (AAB) is given specific duties and responsibilities by the Town's Antenna Ordinance, Local Law No. 1-1998, which amends Chapter 220 of the Code of the Town of Lewisboro. That ordinance created "An Antenna Advisory Board ... consisting of five members appointed by the Town Board to serve staggered five year terms to review ongoing advancements in antenna technology, zoning ordinance compliance with Federal Communications Commission rulings, and offer recommendations on applications to construct antennas and subsequent amendments to and enforcement of this Local Law."

The AAB reviews each cellular or PCS (Personal Communication Service) carrier's application as the Planning Board receives them. The AAB may suggest potential alternative sites (if available) to that proposed by the carrier, if the alternative is less obtrusive or provides revenue to the town. Thus, the AAB provides a service to the Town by taking a proactive role in shaping the future of wireless communications services in Lewisboro.

The AAB functions only in an advisory capacity – its goal being to help maximize service with minimum impact on the character of the community. It is in that role that we publish this report and propose a goal for cellular coverage in Lewisboro.

## B. Audience

This report is intended to inform Lewisboro's Planning Board, Zoning Board of Appeals and Town Board (PB, ZBA, and TB, respectively), and, importantly, the residents of Lewisboro. It is also intended for the wireless carriers and associated companies that are contemplating business in the Town of Lewisboro.

## C. AAB Responsibilities

The AAB has no power to contract for or to locate cellular towers. Its responsibility is to provide what we hope will be helpful advice to the Town's Boards, residents, and to wireless carriers. Actual construction of an antenna facility is a lengthy process. It requires the entity on whose property the facility will be located to come to an agreement with the wireless carriers that will be located at that facility. Applications to and approvals from the Lewisboro Planning Board and potentially the Zoning Board of Appeals may also need to be obtained. Its role being advisory, the AAB is not a part of this permitting process.

## D. Wireless Service for Lewisboro – A Vision

The members of the Antenna Advisory Board have a simply stated goal for wireless service in Lewisboro. AAB's vision for service in Lewisboro is:

*To achieve comprehensive town wide wireless coverage with minimum aesthetic impact, with revenue going, where possible, to the Town, School District, or other Lewisboro public entity.*

The AAB realizes that reaching this goal may involve constructive compromise. In some cases, towers may need to be located on private property, with revenue going to a homeowner or commercial enterprise. There may also be a trade-off between the number of towers, and the height of the towers. Whether the prospect of fewer, higher towers is better or worse than that of

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more numerous, but smaller, towers will depend on the particular circumstances and be a matter of judgment for the Town.

The members of the AAB also believe that cell coverage is not only an issue of personal convenience for mobile users, but also an important matter of public safety for all members of the community, whether they are cell phone users or not. It is our recommendation that antenna sites established in Lewisboro be designed to accommodate public safety communications facilities, as well as the commercial interests of the cellular/PCS carriers.

In order to minimize costs and the number of sites, cell tower equipment shelters usually contain transceivers from multiple carriers. AAB believes that public safety transmitters for police, fire, emergency, and evacuation services should share space with commercial providers so that additional towers need not be built. Private and public interests become one on this issue.

We believe that the Town's Boards and residents will do well to keep this simple goal of maximum coverage with minimal impact in mind as they consider the merits of individual applications.

### E. Recent Developments

A number of recent developments should be noted.

- The Town has adopted an ordinance permitting application for a temporary cellular facility (a so-called COW, or cell on wheels) as a bridge to a permanent facility, or to fill emergency needs.
- Verizon has installed a COW at the site of their application for a permanent facility adjacent to the Town Park
- Verizon's application for this permanent facility has been approved and construction is expected to start this spring
- The facility at the Vista Fire Department has been completed and is in use by its primary tenant, AT&T Wireless. Verizon has begun work to co-locate on this tower.
- An application from Homeland Towers (with AT&T as the primary tenant) for a facility on Harriet Lane, 177 Waccabuc Road, is still in process.
- Electrical power and landline communications were disrupted for a significant portion of Town for multiple days by two events: Hurricane Irene in late August and an early snowstorm at Halloween. These events reinforced the important public safety role of cellular/PCS facilities with battery and generator power backup in providing alternative means of communications during emergencies.

### F. Coverage

There are currently four operational cell facilities in Lewisboro. The first is in the Leon Levy Preserve (formerly known as the Bell property), near the intersection of Routes 35 and 123. A newer one is the NYS DOT tower at Exit 6A of I-684, which provides space for commercial carriers in addition to its primary purpose of emergency communications. Because it is on state property, it did not require Town approval. A third tower at the Vista Fire Department has recently become operational. And a fourth facility, a temporary "cell on wheels" with a modest antenna height, has been installed at the site adjacent to the Town Park where Verizon will construct a higher, permanent, facility. These changes, together with additions in neighboring

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towns as well as technical advances, have substantially increased overall coverage for Lewisboro residents since the Town's Antenna Ordinance was adopted in 1998.

Nevertheless, coverage is not yet universal, and significant gaps still remain. Construction of the permanent, higher, tower near the Town Park and co-location on the Vista Fire Department tower should improve Verizon service in major sections of the Town. Anticipated co-location of other wireless carrier companies on the Vista and Town Park towers should significantly improve their service as well. And if the Harriet Lane application is approved, that should provide substantially better coverage in the area north of Cross River and east of Golden's Bridge.

The map in Figure 1 shows the approximate locations of both existing and proposed tower sites in Lewisboro (see also <http://goo.gl/maps/UpFo>).

### 1. *South-Eastern Leg of Lewisboro*

This includes the Vista and Lewisboro hamlets. The northern part of this area, on the Leon Levy Preserve, contains Lewisboro's first cell tower. The southern part of this area is covered by the new tower at the Vista Fire Department, initially only for AT&T, but with Verizon and potentially other carriers expected to co-locate antennas on this tower.

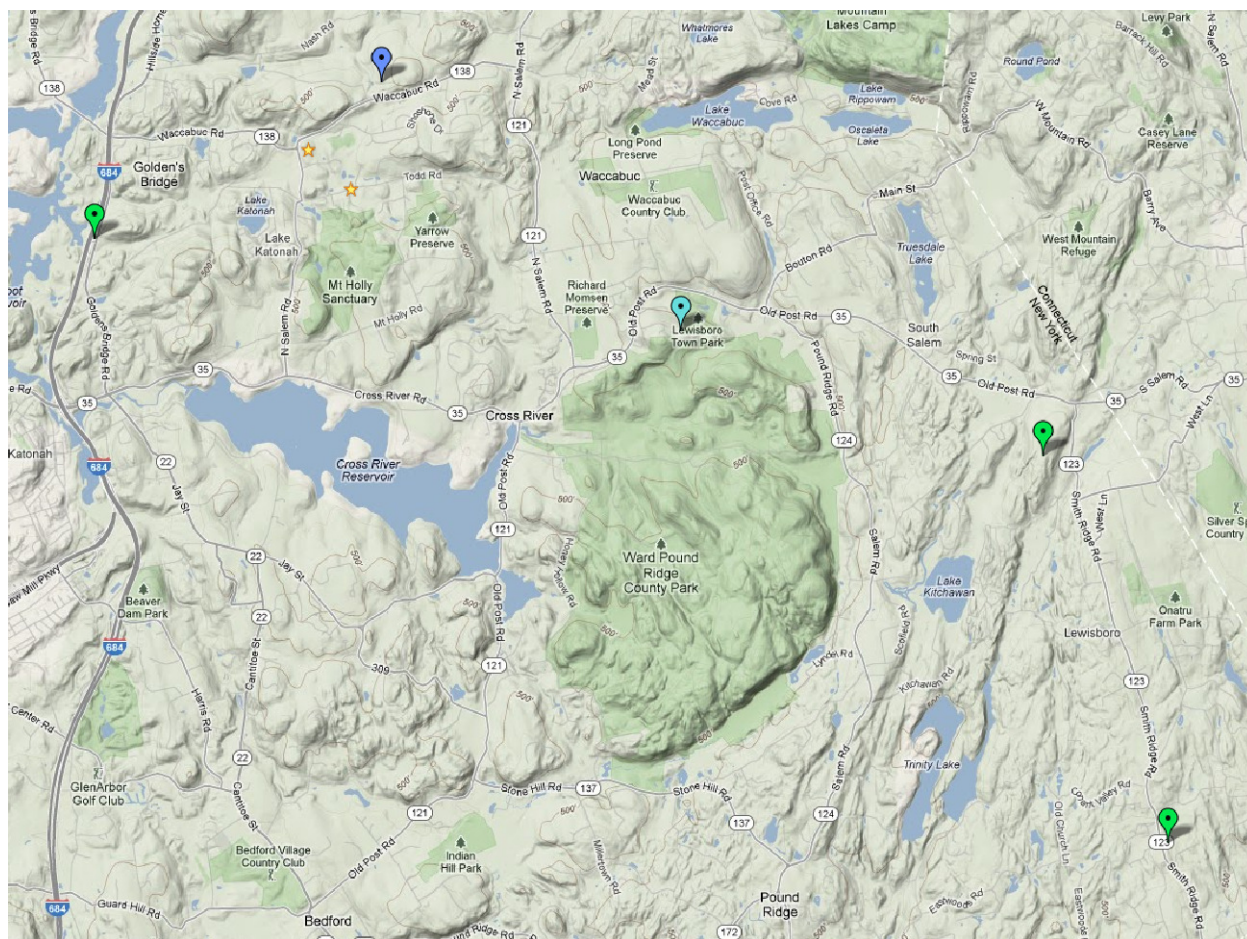


Figure 1: Existing and proposed tower sites in Lewisboro

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Another cell site may be required in this leg to provide more comprehensive cellular coverage. Thus, two cell sites may be needed in the South-Eastern leg of the Town instead of one in order to provide “seamless” cellular coverage.

A new tower was recently put into service along Route 123 in Connecticut, at the edge of the New Canaan Country Club. This facility likely provides some coverage at the extreme southern end of Lewisboro.

### 2. *Central Lewisboro*

Central Lewisboro includes the hamlets of South Salem, Cross River, and Waccabuc. In the Cross River area, cellular coverage is very poor, especially when deciduous trees have “leaved”, which further limits cellular/PCS communication. Another difficult area is the extreme northern edge of the Town, bordering the Town of North Salem. The topography of central Lewisboro is problematic for cellular/PCS coverage. Some areas of Cross River near the reservoir are in the “shadow” of the Town Park site.

The existing temporary facility in the Town Park area provides some coverage for Verizon customers. When the permanent, taller, tower is constructed and other carriers co-locate on it, coverage in the immediate Cross River area should improve substantially.

The proposed tower on Harriet Lane, if approved, should also provide coverage in the northern part of this area.

Even with these anticipated improvements, there may still be a “hole” in coverage in the area along Route 121 roughly from Route 138 south to Todd Road.

### 3. *Western/Northern Central Leg of Lewisboro*

This cellular/PCS coverage area includes Goldens Bridge and part of the central Lewisboro area. Wireless reception tends to be best along the I-684 corridor. The Goldens Bridge Metro-North station is located here, and contributes significantly to the volume of wireless calls, making capacity as well as coverage is an issue in this part of Town. As one moves east, coverage drops off and is much more sporadic.

The pending application for the Harriet Lane site would especially improve coverage in the eastern part of this area.

## G. FCC regulations

There were no FCC NPRMs (Notices of Proposed Rulemaking) during 2011 affecting Lewisboro.

## H. Industry Trends

### 1. *Business Trends*

Recent consolidations and acquisitions have resulted in a business environment in which there are two dominant nationwide carriers: Verizon and AT&T. Sprint and T-Mobile play distinctly minority roles, with some analysts questioning their long-term viability. In addition, smaller regional carriers exist, but as of this writing, none of them are involved in applications for

service in Lewisboro. As these trends play out, they have opposite effects: fewer carriers, implying the need for fewer antennas; but greater volume, requiring more antennas.

At the same time, the use of mobile voice and especially data services continues to increase explosively, with text messaging, web browsing, smartphone applications, mobile shopping and payments all placing increasingly heavy demands on digital data services. And the number of mobile phone subscriptions in the U.S. now exceeds the population<sup>1</sup>. These developments not only place extra demands on cellular capacity, but also lead to increased expectations of comprehensive coverage.

## 2. *Technology Advances*

Advances in technology also continue. Older 2G (second generation) and 2.5G wireless networks have already largely been replaced by 3G (third generation) networks, which provide higher speed data access. The next generation, 4G, is already being contemplated, and some intermediate systems (e.g., HSPA+ and LTE technologies) being marketed as “4G” are being deployed in increasing areas within the U.S., though they have not yet reached Lewisboro. Cable companies now offer phone and data services, and phone companies are offering television services. So-called Wi-Fi hot spots are becoming much more common in homes and businesses (e.g., the Lewisboro Library), and permit VoIP (Voice over-Internet Protocol) calls. Femtocells (small cellular base stations) can be used to provide localized coverage over broadband within a home or business.

Describing these and other advances in detail is beyond the scope of this report, but it is worth noting that the rapid pace of technological developments in the telecommunications industry suggests that significant changes in infrastructure requirements may well lie ahead.

## 3. *Regulatory Environment*

Another development of interest is that the U.S. law regulating the industry, the Telecommunications Act of 1996, is viewed by some as ripe for change because of the substantial changes in technology that have occurred in the 16 years since its enactment.

One recent development is a declaratory ruling by the FCC in late 2009 which establishes a “shot clock” for tower siting applications<sup>2</sup>. This sets a timeframe of 90 days for co-locations and 150 days for other site applications for review by local governments. The 1996 law required that government authorities act “within a reasonable period of time” and the 2009 ruling now gives a more precise definition of what is “reasonable.”

One possible remaining ambiguity in the law, which already came into play in Lewisboro with regard to the Cross River site application, is exactly when the “shot clock” starts. The ruling states that the clock begins when the application is deemed complete, and also sets a limit of 30 days for the local government to notify the telecommunications company if the application is deemed to be incomplete. Potentially, however, the resubmitted application could again be found incomplete, pushing the start of the clock off by repeated 30-day intervals.

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<sup>1</sup> Chetan Sharma Technology & Strategy Consulting, “US Mobile Data Market Update Q3 2011,” Nov. 2010, <http://www.chetansharma.com/usmobileupdateQ32011.htm>.

<sup>2</sup> Daniel M. Laub, “Wireless Facilities, Zoning and the FCC’s ‘Shot Clock’ Ruling, MYSBA/MLRC Municipal Lawyer, Winter 2010, Vol 24 No. 1 (<http://goo.gl/ShImC>)

## I. The Public Interest

The Antenna Advisory Board believes that a well-informed community will make the right decisions about the trade-offs that are part of achieving maximum coverage with minimum impact. We hope that publishing a report such as this, including a statement of direction will broaden public awareness of the issues, and encourage discussion about workable solutions. We encourage one and all to contact us by email, or by writing to The Antenna Advisory Board at the address above or by contacting members of the Town Board.

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