



October 29<sup>th</sup>, 2003

Mayor Foy  
303 North Columbia  
Chapel Hill, NC 27516  
c/o: Joyce Smith - Chapel Hill Town Clerk

Dear Mayor Foy and members of the Chapel Hill Town Council:

ClearSKY Networks is a wireless Internet provider that offers its service to communities in the Southeastern United States. The Company was founded in April 2002 in Clemson, SC and expanded to Gainesville, FL, Wilmington, and Durham, NC in 2003. To date ClearSKY has over 1,200 paying subscribers, who utilize its wireless Internet service in over 30 apartment complexes, several hotels, and in the business districts of Clemson, Gainesville, and Wilmington.

ClearSKY would like to offer its high-speed wireless Internet services to the residents of Chapel Hill. We have secured several contracts from apartment and business owners in the community and on Franklin Street, who wish to offer this new service to their residents and customers as an alternative to high-speed cable and DSL. Given UNC's mandate that all incoming freshman must have laptops, with the majority having built-in wireless capabilities, wireless Internet will become increasingly the preferred medium for students to access the Internet.

To provide this new service, ClearSKY designs, builds, and operates wireless networks that allow residents and businesses to access the Internet without wires. We utilize some of the concepts of cellular to provide coverage to apartment tenants, businesses on "Main Street" and hotel guests, by concealing antennas and radios on poles, wooden Duke power poles, and inside buildings.

Herein lays the problem. The company recently met with the Community Design Commission (CDC) regarding city-zoning issues related to an apartment complex in Chapel Hill. ClearSKY proposed installing its network on a couple of its own poles near the front of the building, several existing Duke wooden power poles in the back of the building, and on the roof of the apartment complex. The company cooperated with the Chapel Hill zoning department to provide pictures of the proposed installations, antennas, and building elevation information. ClearSKY also provided copies of our Duke Power Pole Attachment Agreement, prepared the necessary forms, paid the application fee, and presented its case at the CDC meeting, whereby the CDC approved the building elevation with certain conditions. However, ClearSKY must still obtain zoning compliance permits before it can construct any networks. This process has taken several months and is complicated by all the required documents, information only available on microfiche files in Chapel Hill, and timing related to the various commission meetings.

At present, ClearSKY's wireless Internet service apparently falls under the cellular or telecom zoning ordinances in Chapel Hill. As such, we receive the same scrutiny as the cellular companies. We are required to comply with many of the same environmental, elevation, regulatory, and other related zoning requirements. However, antennae used for wireless Internet are very low profile and can usually be mounted in locations virtually unnoticed by the public. The radios are low power, (normally less than 1 watt of output power) and resemble the size of a doorbell when mounted indoors. Because the FCC limits output power and given the power limitations associated with wireless adapters in computers, wireless Internet providers can only provide quality service within a 300' radius of the radio/antenna location. ClearSKY's outdoor enclosures look similar to European call boxes (10" wide x 15" high x 9" deep) that are normally mounted on poles about 6' above ground level with padlocks for security.

Please review the attached photos for examples of ClearSKY's commercial installations. They represent (A) equipment on ClearSKY's own "radio poles"; (B) equipment mounted on a Duke wooden power pole; (C) typical indoor radio and enclosure; (D) common types of antennas utilized by ClearSKY. As you can see from these photographs, wireless Internet providers offer services similar to cellular, but install products and equipment at locations that require it to be "near the customer", but at streetlight elevation. Cellular towers are not required! In many cases, the older VHF/UHF TV antennas, CB radio antennas, and even some of the smallest satellite dishes are more obtrusive.

Across the world, wireless Internet is expanding from the coffee shops and airports to communities, schools, businesses, and residential areas. Our service is identical to that offered by UNC except that we offer it off-campus, which will further benefit the community of Chapel Hill and the students who attend UNC. Wireless Internet providers like ClearSKY seek to offer lower cost, reliable high-speed Internet access. To be competitive with DSL and high-speed cable services in Chapel Hill, the zoning process and permitting requirements must be streamlined. Additionally, given the numbers of potential radio/antenna locations; the permit costs associated with each installation must be reduced or eliminated. **ClearSKY respectfully requests the Mayor and members of the Town Council consider making wireless Internet providers exempt from the cellular and telecom regulations in Chapel Hill and grants Accessory Use Status to these service providers.** A copy of the 1999 Administrative Policy outlining the guidelines for determining whether telecommunications facilities can be considered for accessory use are attached for your review.

I appreciate your consideration of this request and look forward to your response. Please call me at 864-633-8900 x104 if you need additional information or clarification.

Regards,



David Lasier  
President  
ClearSKY Networks

cc:

Gene Poveromo  
Principal Planner  
306 N. Columbia Street  
Chapel Hill, NC 27516

(A) Examples of ClearSKY radio enclosure and antennas on its own pole. (<18' total height)



(B) Examples of ClearSKY radio enclosure, power meter and antennas on a Duke wooden power pole





(C) Examples of indoor radio enclosures (Typically mounted in the attic or in a hallway). Approximately the size of a doorbell.

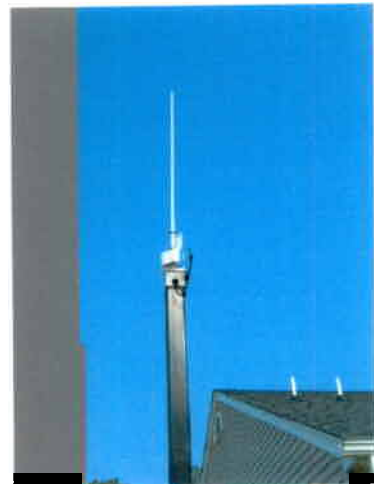


**D**

Doorbell antenna (15" long X 2" wide)

Omni antennae (1" diameter and 15", 36" or 60" in height)

Patch antennae (4"X4", 8"X8" & 12"X12" square panels)



Directional antenna (15" long X 3" diameter)



**ClearSKY Networks, LLC**

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**Administrative Policy:**

**Telecommunication Towers**



Accepted by Chapel Hill Town Council  
November 8, 1999

**Administrative Policy:**

**Telecommunication Towers**

This policy describes the manner in which administrative determinations are made regarding whether or not a proposed telecommunication facility can be considered an accessory use.

**REGULATORY CONTEXT**

Several definitions contained in the Chapel Hill Development Ordinance are important in determining the process by which a proposed telecommunication facility should be reviewed. These include:

- **Radio or Television Transmitting and/or Receiving Facility:** The use of land, buildings, or structures for the above-ground transmission and/or reception of airborne radio or television signals, including all transmitting and receiving towers, dishes and antennas except accessory radio or television transmitting and/or receiving antennas.
- **Accessory Radio or Television Transmitting and/or Receiving Antenna:** An antenna designed for the above-ground transmission and/or reception of airborne radio or television signals, customarily incidental to a permitted principal use, provided that any antenna located on a zoning lot containing a single-family or two-family dwelling shall serve only the needs of the occupants of such dwellings.
- **Accessory Use:** Customarily incidental to a permitted principal or special use.

A “Radio or television transmitting and/or receiving facility” is permitted only as a special use, and only in the following zoning districts: Community Commercial, Office Institutional-1, -2, and -3, and Industrial. A facility of this description is also permitted as either a principal or accessory use in a planned development. Land area requirements are such that a tower needs to be set back from all exterior property lines at least as far as the tower is tall. Special Use Permits are approved by the Town Council.

An accessory use is permitted anywhere, provided that it is “customarily incidental” to a permitted principal use. An accessory use can be approved by the Town Manager.

Accessory antennas are subject to setback and height restrictions which create a “building envelope” with the following exceptions:

“The following features may project above the building envelope defined by the maximum height limitations and additional setback requirements contained in Subsection 13.9.11 provided the Town Manager shall determine that such features do not significantly impair the degree of solar access provided adjacent properties through application of the appropriate solar setback requirements.

- a. Chimneys, accessory radio or television antennas, flagpoles, monuments, or solar collectors, provided the projection of such structures above the building envelope does not exceed fifteen percent (15%) of the maximum height limitation that defines the portion of the building envelope penetrated by such structures; . . .”

For property encumbered by a Special Use Permit, the Development Ordinance specifies what may be approved as a minor change by the staff and those changes which require Council consideration as a Modification of Special Use Permit. In addition, the terms of the Permit may further restrict the use of the property. Design commission approval may be required for some accessory antenna additions.

No other standards for appearance are provided in the Development Ordinance.

### **GUIDELINES FOR DETERMINING “ACCESSORY”**

Since adoption of a 1997 Development Ordinance text amendment, installation of telecommunication facilities (including antennas and panels) on top of existing buildings or towers is allowed as an “accessory use.” The Town of Chapel Hill in 1997 deemed such arrangements, and the co-location of telecommunication facilities in general, to be a desirable alternative to construction of new free-standing towers. The Town Manager shall use the following guidelines in determining whether a proposed telecommunications facility can be considered an accessory use.

Accessory: In order to be considered an accessory use, a telecommunication facility must first be clearly incidental and subordinate to the main use of a site. It cannot be of a type or nature that dominates the site, visually, architecturally, or in terms of overall massing. The following types of facilities, antennas, and panels are of a type that may be considered to be accessory uses.

1. **On Rooftops.** Antennas, utility rooms, and panels can be placed on top of existing buildings as an accessory use if the scale is small in comparison to the building, and the facilities are not visually obtrusive. In addition, the 15% limit above the building envelope, noted above, must be respected. Acceptable examples of accessory uses on rooftops follow:



Acceptable as Accessory Use



Acceptable as Accessory Use

2. **On Light Poles.** Existing light poles, for example those holding parking lot lamps or lights for athletic facilities, can be used for telecommunication facilities. For these telecommunication facilities to be considered accessory uses, they must not dominate the light pole in appearance, nor contain elements that extend vertically outward from the pole greater than ten feet. There should be no more than six panels mounted on a pole. The size, dimensions, and texture of poles containing telecommunication facilities should not differ greatly from nearby light poles. Further, the antennas may not exceed 15% of the maximum height limit for the building envelope. Acceptable examples of accessory uses on light poles follow:



Acceptable as Accessory Use



Acceptable as Accessory Use



3. **On Transmission Towers.** Antennas and panels can be mounted on existing transmission poles and considered to be accessory uses, if the telecommunication facilities do not significantly alter the appearance of the towers. Further, the antennas may not exceed 15% of the maximum height limit for the building envelope. Acceptable examples of accessory uses on transmission towers follow:



Acceptable as Accessory Use



Acceptable as Accessory Use

4. **Hidden Facilities.** Any telecommunication facility that is completely hidden from exterior view can be considered an accessory use. Examples could include facilities within buildings or church towers.

**Not Accessory:** Facilities that create a dominant visual feature, separate and distinct from the principal use of a site, cannot be considered accessory uses. Facilities on light poles that would include more than six panels, or that would have horizontal elements that extend more than ten feet beyond the pole itself could not be considered to be accessory uses. Examples of facilities that should not be considered accessory uses follow:



Not Acceptable as Accessory Use



Not Acceptable as Accessory Use

## **NEW TECHNOLOGIES**

As new telecommunication technologies develop, it is possible that an approach to facility location that has not been described above may prove acceptable as an accessory use. Additional approaches to the definition of accessory use may be added to this administrative policy at the direction of the Town Council.

*Prepared by Chapel Hill Planning Department*

*November, 1999*