



**Airosmith Development
Agent For
Southern Towers BTS, LP**

BEAR_MAPLE SITE

**4162 Bonlee Bennett Road
Bear Creek, North Carolina**

**SITE SELECTION ANALYSIS
APRIL 12, 2024**

SITE SELECTION ANALYSIS

Southern Towers proposes to install a new wireless telecommunications facility, including a new tower structure, which would include associated antennas, equipment platform and related appurtenances off of Bonlee Bennett Road, in the Township of Bear Creek, Chatham County, North Carolina. The property, which is located in R-1 Residential Zoning district, is currently a 29.00 acre lot in Chatham County, North Carolina. The property is owned by **Ryan C. Willett and wife, Annette C. Willett**, and consists of open pasture with forested lands mainly to north of the lot. Our subject site is located within the open pasture close to the west of the property.

1. NEED FOR FACILITY

(a) Problem

The process of identifying a technologically appropriate location, as well as the need for this communications facility are as provided in the **RF SEARCH RING JUSTIFICATION**. As indicated in that report, when a carrier's Radio Frequency Engineer identifies coverage gaps in the system or sites that have or will reach data capacity exhaustion, they issue a "search area." A search area is a geographical area located within the inadequately serviced area, and it is designed such that if a wireless telecommunications facility is located within the search area, and at an appropriate height, it will likely provide the required coverage. For the most part, locations outside of the search area will fail to provide adequate service to the cell. Due to technological constraints, there is limited flexibility as to where a new facility can be located, and still function properly. The goal of the search area is to define the permissible location for placement of a cell site that will provide adequate service in the subject cell, and also work properly as part of the overall network.

(b) Solution

A search area was developed based on the problems identified in the **RF SEARCH RING JUSTIFICATION** and is attached herein as **Attachment 1**. This is the geographical area within which a new wireless telecommunications facility is likely to provide the required coverage (at an appropriate height). In this case, the search area parameter is a square covering the largely rural area between Bonlee Bennett Road and Siler City Glendon Road. Again, for the most part, locations outside of the search area will fail to provide adequate service to the cell while locations within are likely, but not guaranteed, to do so.

2. SEARCH RING ANALYSIS

(a) Geography & Topography

The BEAR_MAPLE Cell is located in a relatively rural area with rolling terrain. The highest terrain is located slightly north of the search ring's center. RF identified a preferred AMSL of 570'.

(b) Land Use

The Search Ring is made up of R-1 Residential. **Attachment 2** is an overlay of the Search Ring and the tax map on an aerial photograph of the area.

3. ZONING CONSIDERATIONS

(a) Collocation

Carriers routinely seek to install its antennas and equipment on an existing communications towers or other tall structures (“collocation”). Local communities universally favor Collocations because they can minimize the number of wireless telecommunications towers in an area and many municipalities even provide for a streamlined application review process. Collocation is often listed as the highest siting priority in a local municipality’s Zoning Law. In addition to the streamlined zoning application process, collocation is preferred by wireless providers because it is generally a less expensive and more efficient option, compared to installation of a new tower facility.

(b) New Structure on Municipally-owned Property

As its next priority, carriers generally seek to locate wireless telecommunication facilities on municipally-owned property. These locations are often preferred by municipalities as the second preference behind collocation as it allows municipalities to benefit from a rental stream for the leased premises.

(c) New Structure on Privately-owned Property

When it is not feasible to collocate on an existing tower or tall structure, and there are no feasible municipally-owned properties in the area, carriers must find a privately-owned site which is appropriate for and can accommodate a new communications structure. In doing so, the Site Acquisition Specialist attempts to identify properties in the Search Area large enough to accommodate the facility and which also meet any required area requirements such as set back and fall zone. In addition, other characteristics such as existing compatible land use and existing mature vegetation that can screen the facility are considered. Access, land use, constructability, the presence of wetlands, floodplains and other contributing factors are also examined.

4. SEARCH RING ANALYSIS

After a comprehensive investigation of the Search Ring, no technologically feasible towers or tall structures were available for collocation.

In accordance with **Section 10.13 of Chatham County Ordinance** Amended March 21,2022, in R1 zoning district, Wireless Support Structures that are greater than one hundred ninety-nine (199) feet, but less than four hundred (400) feet in height are subject to approval of a Special Use Permit (**§ 10.13 Table 1: Zoning Table of Permitted Uses**). **Section 17** for Special Use Permits state permits for special uses as provided for in this Ordinance may be authorized by the Board of Commissioners in certain circumstances and subject to certain procedures. A Special Use Permit Application along with the required documentation has been submitted for review.

Chatham County Wireless Telecommunication Facilities Ordinance was Adopted and Effective February 17, 2014, and amended April 15, 2019. This Ordinance addresses specific requirements to be met for Wireless Telecommunication Facilities. In all zoning districts, no tower shall be located closer than one and one-half (1.5) miles from an existing tower unless need can be demonstrated and the Applicant shall provide a map of all other towers located within three (3) miles of the proposed tower location, along with information as to the heights of all such other



towers (§ 2-3 (2) (g)). After reviewing the surrounding area, we found no towers within a three-mile radius of the proposed location.

In addition, for towers greater than one hundred (100) feet, a setback of 50% of the Wireless Support Structure tower height is required from adjoining property lines and right-of-way (§ 2-4 (4) (b)). The two hundred eighty-five (285) feet self-supporting tower with a five (5) feet lightning rod would require a setback of one hundred forty-five (145) feet. This project complies with setback requirements, with the nearest adjoining property line situated approximately three hundred twenty-three (323) feet from the base of the tower.

In zoned residential districts and properties coded as residential uses by Chatham County Tax Record in the unzoned portions of the county, Wireless Support Structures shall not exceed a height equal to one hundred ninety-nine (199) feet from the base of the structure to the top of the highest point, however, the County shall have the authority to vary the foregoing height restriction upon the request of the applicant. With its waiver request, the Applicant shall submit technical information necessitating the need for the additional height to the satisfaction of the Board of Commissioners (§ 2-4 (6) (a)). We are requesting a waiver for the tower height of two hundred eighty-five (285) feet self-supporting tower with a five (5) feet lightning rod to meet the carrier's objective of providing better service for mobility users on the Siler City Glendon Road and Bonlee Bennett Road. Additionally, it will provide coverage to the rural home communities. Please see propagation map for Pre and Post RSRP Coverage.

5. CANDIDATE/ALTERNATIVES ANALYSIS

Nine (9) parcels were identified as being potential candidates for a new communications facility. These parcels are identified on **Attachment 3**. A summary of each of these properties located within the vicinity of Search Area is detailed below.

(a) **Ryan and Annette Willett (Tax Parcel ID# 8658 57 9120 000) Primary Candidate**

This candidate the primary candidate and subject site is comprised of one (1) parcel, located off Farmers Drive and Bonlee Bennett Road, in the Township of Bear Creek, totaling 29.00 deeded acres in size, and is currently used as hay pasture with cattle and single-family residential dwelling lot. This property is situated northwest of the ring center. It is in the R-1 Residential Zoning District. The proposed location of the tower on this property meets the Zoning setback standards of 50% of the Wireless Support Structure tower height from adjoining property lines and rights-of-way. This option was approved and selected as the primary candidate by the carrier's RF engineer.

(b) **John Douglas Cox (Tax Parcel ID# 8658 65 5291)**

This parcel, located at Bonlee Bennett Road in the Township of Bear Creek is 190.21 deeded acres in size and is currently used as pasture with cattle and single-family residential dwelling lot. This property is located west of the search ring center. It is in the R-1 Residential Zoning District. The property's ground elevation rises and falls with a high point of 577'. The property is capable of adequately meeting tower setback standards. The property owner was interested; however, it was not selected as the preferred location by carrier's RF engineer.

(c) A & J Family Limited Partnership (Tax Parcel ID# 8668 13 0118 000)

This parcel, located at 5743 Siler City Glendon Road, in the Township of Bear Creek, is 34.51 deeded acres in size and is currently used for agriculture, there is little forested land on this parcel. This property is located southeast of the search ring center within the R-1 Residential Zoning District. The property owner was not interested.

(d) Cecil Lee Beavers ATAL (Tax Parcel ID# 8658 84 6484 000)

This parcel is located at 5520 Siler City Glendon Road, in the Township of Bear Creek, is 27.3 deeded acres in size, mostly wooded and currently used for residential uses. This property is located south of the search ring center within the R-1 Residential Zoning District. This property owner was not interested.

(e) Cecil Lee Beavers ATAL (Tax Parcel ID# 8658 82 7805 000)

This parcel is located at 5884 Siler City Glendon Road, in the Township of Bear Creek, is 50 deeded acres in size and is currently used for agricultural and residential uses. This property is located south of the search ring center within the R-1 Residential Zoning District. This property owner was not interested.

(f) Ann Pickett Hancock (Tax Parcel ID# 8668 27 9419 000)

This parcel is located at 2755 Bonlee Bennett Road in the Township of Bear Creek. It is a 49.5 deeded acre parcel with a riverine running east and west on the northern portion of the parcel. It consists of open pasture with cattle and single-family residential dwelling with storage buildings. This property is in the Northeast Quadrant of the search ring and within the R-1 Residential Zoning District. This property owner was not interested.

(g) Herbert H Gaines Sr. and Jane M Gaines Trustee (Tax Parcel ID# 8658 79 1031 000)

This parcel, located at 4284 Siler City Glendon Road, in the Township of Bear Creek, is 218.48 deeded acres in size and is mostly wooded with storage shelters and sheds located behind the single-family residence. There are freshwater forested/shrub and riverine wetlands that run through the property. This property is in the Northwest Quadrant of the search ring and within the R-1 Residential Zoning District. The owner did not respond to attempts to establish interest.

(h) Henry Carole (Tax Parcel ID# 8668 16 5990 000)

This parcel, located at 3025 Bonlee Bennett Road, in the Township of Bear Creek, is 50.22 deeded acres in size. The northern portion is partially clear with a large freshwater pond on the western side and riverine wetlands running east and west from the pond just north of a single-family residence. A heavily wooded area surrounds this parcel to the south and partially wooded to the east and west. This property is in the Northeast Quadrant of the search ring and within the R-1 Residential Zoning District. The owner did not respond to attempts to establish interest.

(i) Patricia Ann Cox Life Estate (Tax Parcel ID# 8658 71 7271 000)

This parcel, located at 6246 Siler City Glendon Road, in the Township of Bear Creek, is 108.51 deeded acres in size that is mostly clear with storage shelters and sheds behind a single-family residential dwelling. This property is south of the search ring and within the R-1 Residential Zoning District. The owner did not respond to attempts to establish interest.



Other properties within or near the search area are not feasible to meet RF's desired coverage objectives due to the long and narrow lot size, or infeasibility due to existing wetlands, landlocked or not meeting setbacks.

5. CONCLUSION

Based on the requirements of the Zoning Law, the existing conditions and land use, nine (9) parcels or locations were identified for consideration. For these reasons, as well as the results of RF review and analysis, the Ryan and Annette Willett location is the best location for the proposed facility.

Prepared by:

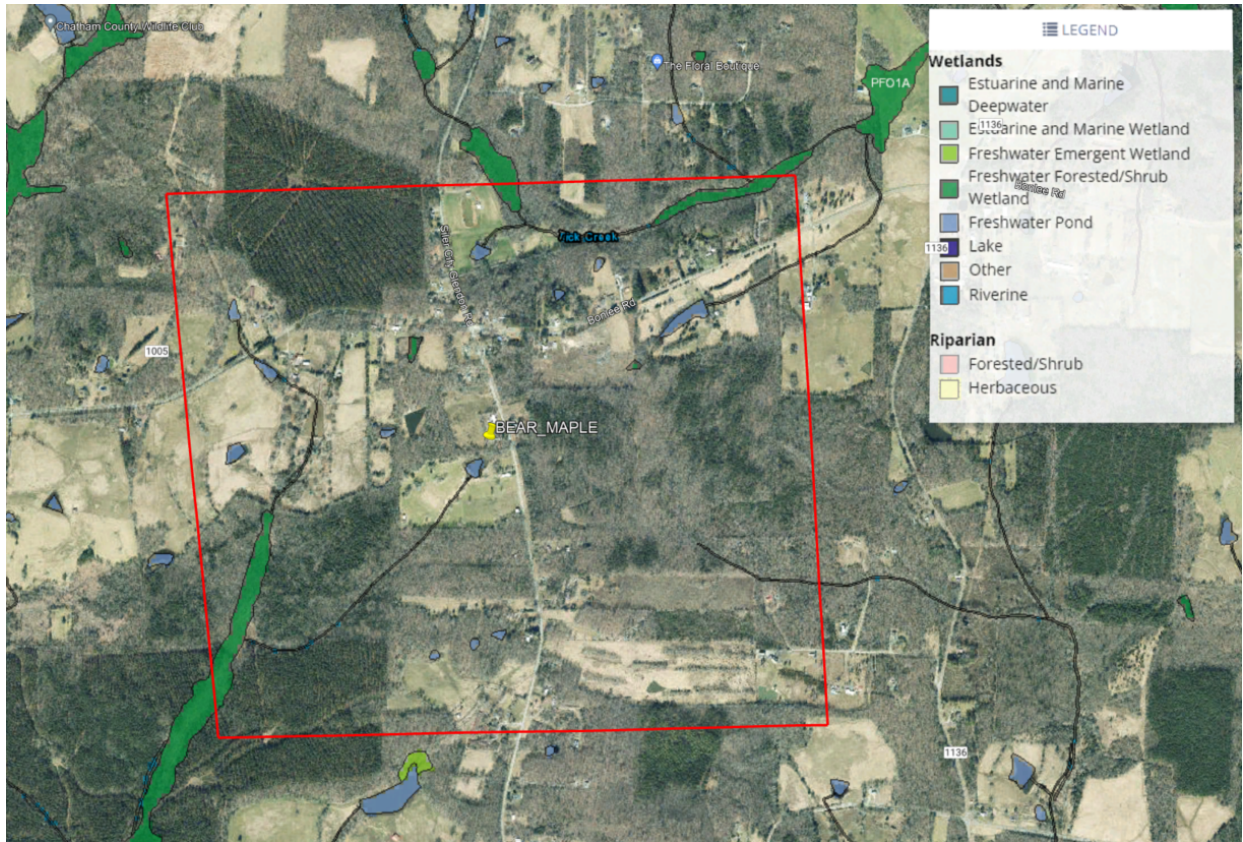
Tami Lewallen

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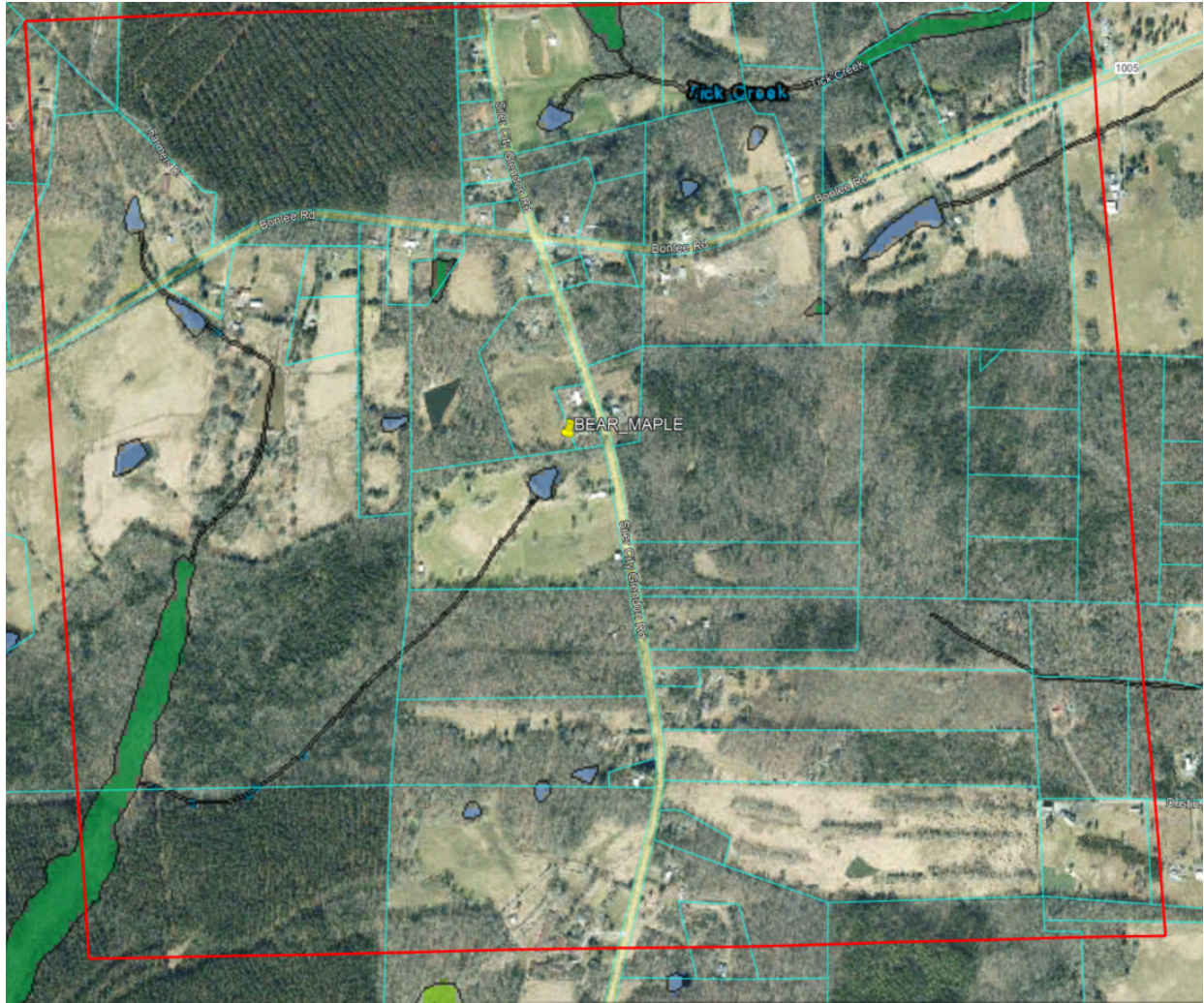
ATTACHMENT 1

BEAR_MAPLE SEARCH RING



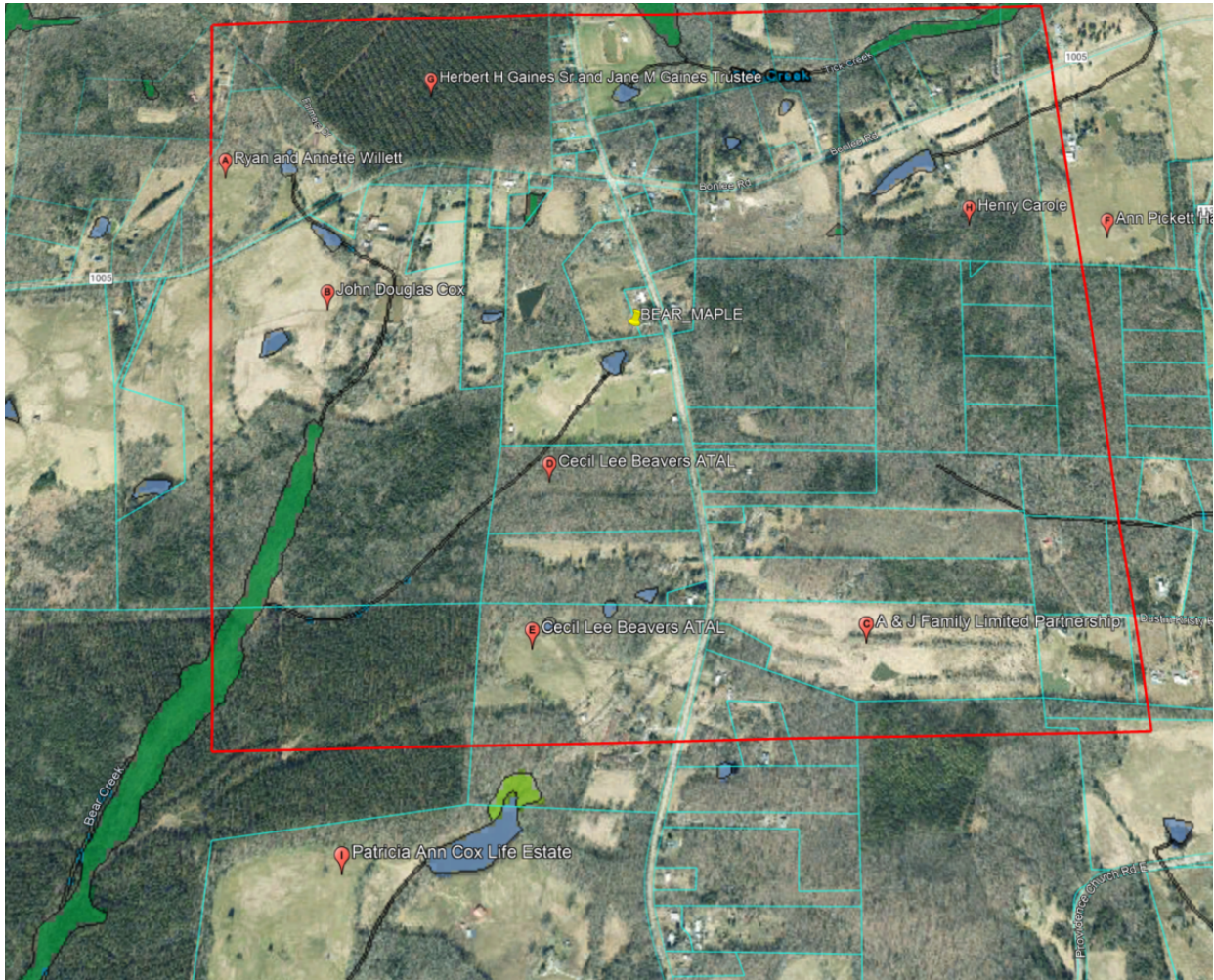
ATTACHMENT 2

OVERLAY – SEARCH RING, TAX MAP, AERIAL



ATTACHMENT 3

PARCELS IDENTIFIED & INVESTIGATED



ATTACHMENT 3

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