



REQUEST FOR BOARD ACTION

ITEM NO. 26.

DATE OF MEETING: December 9, 2013

REQUESTED BY: Planning & Community Development

SHORT TITLE: Resolution to Approve a Special Use Permit (SUP) for the Construction and Operation of a Telecommunication Tower.

BACKGROUND: American Towers, LLC, applicant, on behalf of Corbett Brothers Timber Co., owner(s), is requesting approval of a Special Use Permit for the construction and operation of a 300 foot self-supported telecommunication tower with a 6 foot grounded lightening rod. The subject property is located along the west side of US Highway 421 approximately 1.6 miles south of Blueberry Road/ US Highway 421 intersection, between Fowler Lane and Sidney Lane, Currie and may be identified by Pender County PIN 2293-33-3487-0000. The property is zoned RA, Rural Agricultural, and according to the Pender County Unified Development Ordinance §5.2.3 Table of Permitted Uses; telecommunication towers are permitted via Special Use Permit in the RA zoning district.

SPECIFIC ACTION REQUESTED: To Hold a Public Hearing and Consider the Approval of a Special Use Permit for a Telecommunication Tower.

RESOLUTION

NOW, THEREFORE BE IT RESOLVED by the Pender County Board of Commissioners that:

The Board hereby (approved, modified, denied) a special use permit for a telecommunication tower, as described herein. The Chairman/County Manager is authorized to execute any/all documents necessary to implement this resolution.

AMENDMENTS:

MOVED _____ SECONDED _____

APPROVED _____ DENIED _____ UNANIMOUS

YEA VOTES: Brown ___ McCoy ___ Tate ___ Ward ___ Williams ___

Chairman 12/9/2013

Date

ATTEST 12/9/2013
Date

PLANNING STAFF REPORT
Special Use Permit

SUMMARY:

Hearing Date: December 9, 2013
Applicant: American Towers, LLC
Property Owner: Corbett Brothers Timber Co.
Case Number: 11064

Land Use Proposed: The applicant is requesting the approval of a Special Use Permit (SUP) for the construction and operation of a telecommunication tower, as defined in the Pender County Unified Development Ordinance:

TELECOMMUNICATION TOWER: A structure, including the tower, antennas, panels, microwave dishes, receiving dishes, equipment building, other transmitting and receiving components and other accessory structures, used for the wireless electromagnetic transmission of information, excluding structures utilized as satellite earth stations and structures utilized for amateur or recreational purposes such as ham radio or citizen band radio.

Property Record Number and Location: The subject property is located along the west side of US Highway 421 approximately 1.6 miles south of Blueberry Road/ US Highway 421 intersection, between Fowler Lane and Sidney Lane, Currie and may be identified by Pender County PIN 2293-33-3487-0000. There is one tract associated with this request totaling 232.15 acres.

Zoning District of Property: The property is currently zoned RA, Rural Agricultural; according to the Pender County Unified Development Ordinance §5.2.3 Table of Permitted Uses; telecommunication towers are permitted via Special Use Permit in the RA, Rural Agricultural zoning districts.

PROJECT DESCRIPTION:

American Towers, LLC, applicant, on behalf of Corbett Brothers Timber Co., owner(s), is requesting approval of a Special Use Permit for the construction and operation of a 300 foot self-supported telecommunication tower with a 6 foot grounded lightning rod on a ±232.15 acre vacant tract of land located along the west side of US Highway 421 approximately 1.6 miles south of Blueberry Road/ US Highway 421 intersection, between Fowler Lane and Sidney Lane, Currie. The proposed site is known as "Blueberry Road" and may be identified by American Tower No. 280565, and AT&T Site No. 478-073. Per the applicant's narrative, the project will consist of the construction of a 300-foot self-support wireless telecommunication tower with a 6 foot grounded lightning rod (Exhibit1). The proposed ±232.15 acre tract is vacant and is entirely forested, and participating in the State of North Carolina's Present Use Value Program. The tower site will be located on a 100 foot by 100 foot section on the southern boundary of the property; the proposed tower is 300 feet at its closest point to the southeast property boundary, 317 feet north of the southern property boundary, 1,461 feet west of US Highway 421, 751 feet south of the northern property line and 3,375 feet east of the western property boundary. A full

site development plan has been submitted along with this application, demonstration the location of the proposed tower with setbacks (Exhibit 2).

Section 5.3.12.Q of the Pender County Unified Development Ordinance sets forth specific use standards for Telecommunication Towers.

Telecommunication Facilities

- 1) *Co-located - Telecommunication antenna units that are attached to structures constructed for purposes other than supporting telecommunication equipment may be no taller than 30 feet or 30% of the structure's height. Co-located towers must comply with all relevant standards of this Article.*
- 2) *Freestanding - Freestanding telecommunication towers must comply with the following standards:*
 - a) *The minimum distance between the tower and an adjoining parcel of land that is residentially developed or is vacant and zoned Rural Agricultural, Residential Performance, Manufactured Home, General Business or Office & Institutional, or from an adjoining local road separating the tower site from such a parcel, must be equal to the tower's height, but not less than 50 feet, nor less than the minimum setback depth applicable in the zoning district. This provision does not apply in relationship to any nonconforming residential use or the residence of a caretaker or watchman accessory to a permitted non-residential use.*
 - b) *The Board of Commissioners, through the Special Use Permit public hearing, may reduce the minimum distance required above on finding that a lesser distance will not be injurious to properties or improvements in the affected area, but in no case may the minimum distance be reduced to less than that equal to 50% of the tower's height, or 50 feet, nor less than the minimum required setback depth applicable in the zoning district in which the tower is located.*
 - c) *The minimum distance between the tower and any other adjoining parcel of land or road must be equal to the minimum setback depth applicable in the zoning district, plus any additional distance necessary to ensure that the tower, as designed, will fall within the tower site.*
 - d) *The distances referred to above must be measured from the outside dimensions of the tower, not from the guy anchors.*
 - e) *If the tower is more than 100 feet high, but less than 180 feet high, it must be engineered and constructed to accommodate at least one additional telecommunication user. If the tower is at least 180 feet high, it must be engineered and constructed to accommodate at least 2 additional telecommunication users. Provision of co-location sites on other towers is encouraged wherever feasible.*
 - f) *The base of the tower and each guy anchor must be surrounded by a fence or wall at least 8 feet high, unless the tower and all guy anchors are mounted entirely on a structure over 8 feet high. Except for its entrances, the fence or wall must be screened with plant material so that no more than two-thirds of its surface is visible, within 3 years after its installation, from a public street or from any adjoining parcel of land that is residentially developed or is vacant and zoned Rural Agricultural, Residential Performance, Manufactured Home, General Business or Office & Institutional.*
 - g) *A buffer yard must be provided around the perimeter of the lease lot as in accordance with the requirements of Article 8, Landscaping & Buffering. A 40-foot-*

- type C buffer yard is required along the inside perimeter of a leased lot or parcel for the utilization of telecommunication towers.*
- h) Radio, television, or other electromagnetic transmission or reception on other properties may not be disturbed or diminished.*
 - i) The tower must meet the standards of the Federal Aviation Administration (FAA) for avoiding obstruction of navigable airspace and approaches to public airports (see Federal Aviation Regulations Part 77, as amended), and for marking and lighting structures to promote aviation safety (see FAA Advisory Circular 70/7460, as amended). Specifically, tower lighting must meet applicable FAA standards for either red obstruction lighting systems or dual lighting systems (red lighting for nighttime and medium-intensity flashing white lighting for daytime). If a tower is proposed to be located within 1,000 feet of a private use airport, the application must so indicate.*
 - j) Output from the tower's antennas must meet the minimum standards of the Federal Communications Commission (FCC) relating to the environmental effects of radio frequency emissions.*
- 3) Standards for Specific Zoning Districts*
- b) Non-residential Districts - If the tower is more than 100 feet high, it must be located at least 1,000 feet from any other telecommunications tower greater than 100 feet high; provided, however, that this separation requirement does not apply from a tower if the applicant submits sufficient evidence to demonstrate that a reasonable effort to co-locate on that tower was made, or that co-location on the tower will not technically satisfy the applicant's specific needs.*

This Special Use Permit request has been evaluated for compliance with standards outlined in Section 5.3.12.Q, Telecommunication Towers. Based on the applicant's submittal, the request is in conformance with all items.

Setbacks (2.a and 2.c): Based on the height of the proposed telecommunication tower, the facility is required to provide a 300 foot setback from adjoining parcels of land that are residentially developed or are vacant and zoned Rural Agricultural, Residential Performance, Manufactured Home, General Business or Office & Institutional, or from an adjoining local road separating the tower site from such a parcel. Similarly, the minimum distance between the tower and any other adjoining parcel or road must be equal to the minimum setback depth applicable in the zoning district, plus any additional distance necessary to ensure that the tower, as designed, will fall within the tower site.

As proposed, the tower is in compliance with setback standards (Exhibit 2). In this case, the tower is proposed to be set back 300 feet at its closest point to the southeast property boundary, 317 feet north of the southern property boundary, 1,461 feet west of US Highway 42, 751 feet south of the northern property line and 3,375 feet east of the western property boundary.

Telecommunication Users (2.e): Being over 180 feet high, the tower is required to be engineered and constructed to accommodate at least three telecommunication users. As proposed, the tower shows one proposed user (AT&T) with space for up to three additional users.

Fencing (2.f): The application proposes installing an eight foot wooden security fence, with a 16 foot access gate, thereby meeting the eight foot UDO requirement for telecommunication towers (Exhibit 3).

Buffer Yard (2g): The application meets and exceeds the C1 buffer requirement, proposing eight canopy trees surrounded by mulch, with the remaining lease area covered with grass (Exhibit 3).

State and Federal Regulations (2.h.i., and j): As stated in the applicant’s Project Narrative, the tower site will meet all FAA and FCC standards for illumination and environmental impacts, and the applicant will comply with all federal standards for radio frequency emissions (Exhibit 1). All applicable State and Federal permits will be obtained, including inspections and health department regulation compliance (Exhibit 1).

Tower Separation Requirements (3.b): In residential districts, towers over 75 feet in height must be located at least 1,500 feet from any other tower greater than 75 feet. The applicant submitted evidence that there is not another tower, of any size, within a one mile radius of the proposed tower, thus satisfying this requirement (Exhibit 4).

Prior to the issuance of final zoning approval, a site development plan must be submitted and approved in accordance with applicable provisions of the Pender County Unified Development Ordinance. In addition, all other applicable permits and approvals must be obtained including inspections and health department regulation compliance.

Use Type	Ref NAICS	Zoning Districts									
		RA	RP	RM	MH	PD	GB	OF	IT	CH	FC
MISCELLANEOUS USES											
Telecommunication Facilities		SD	SD			SD	SD	SD	SD	SD	

EVALUATION:

- A. Public Notifications:** Advertisements for the proposal have been placed in the *Pender-Topsail Post & Voice*. Adjacent property owners were notified by first class mail; as well as a sign advertising the public hearing was placed on the subject property.
- B. Basis for Granting SUP:** See attachment A for approval procedures (§3.12.3 of Unified Development Ordinance) and revocation procedures (§3.12.4 of Unified Development Ordinance).
- C. Unified Development Ordinance Compliance:** The property is currently zoned RA, Rural Agricultural, and telecommunication facilities are permitted in the RA zoning district by Special Use Permit, as prescribed by the Pender County Unified Development Ordinance §5.2.3 Table of Permitted Uses.
- D. 2010 Comprehensive Land Use Plan Compliance:** The Suburban Growth land use classification identifies those areas of Pender County where significant residential growth is expected to occur within the planning horizon. Areas designated as Suburban Growth are located primarily adjacent to municipal planning jurisdictions and within or near high growth, unincorporated areas of the County, i.e., Hampstead/Scotts Hill, Rocky Point, and portions of US 421 South. Suburban Growth designates areas where public water and public sewer are available or are planned in the near future.
 - a. The proposed tower is located within the US 421 Corridor South Small Area Plan, which is defined by the Pender County Comprehensive Land Use Plan as an Area Plan which is focused on development of the Pender County Commerce Park and

adjacent properties for major economic development projects that support the creation of new jobs and enable significant non-residential tax base growth. Once County utilities are available to this area, it is anticipated that the US 421 South corridor will receive significant interest in development of all types including market driven high intensity development which should be encouraged. Large scale developments should expect to be supported by public utilities and closely evaluated through appropriately coordinated plans.

b. The SUP request may be supported by a policy within the *2010 Comprehensive Land Use Plan*:

- i. *Policy 1A.1.5 -The County supports a pro-business/pro-growth attitude, balanced by a concern for preserving the natural assets and quality of life factors that make the area attractive to visitors and permanent residents alike*
- ii. *Policy 4C.1.3 - Support the development of commercial/office/institutional land uses at major intersections along the US 421 South to serve the local economy and the traveling public and transportation-related market demands.*

E. Existing Land Use in Area: The subject parcel is currently participating in the State of North Carolina's Present Use Value Program and appears to be vacant. Further, the subject parcel is bordered by a mix of single family residential structures and manufactured homes to the south and bound by properties participating in the State of North Carolina's Present Use Value Program to the north, east and west.

F. Site Access Conditions: Access to the proposed tower site will be on a 12 foot wide gravel, access road, located within an existing logging trail which will be dedicated as a 30 feet access/utility easement off US Highway 421. The driveway connection to US Highway 421 will be subject to review and approval by the North Carolina Department of Transportation.

G. Conditions To Consider In Issuing the Special Use Permit For This Project:

1. The project shall comply with all requirements of the Pender County Unified Developed Ordinance, specifically use standards outlined in Section 5.3.12.Q, Telecommunication Facilities.
2. Any violations of the conditions of this permit, confirmed by the Zoning Administrator shall result in this permit becoming void, if not corrected within 30 days of receipt of the notice of violation.
3. The applicant shall meet all other local, state and federal regulations.
4. The obligations imposed by this permit will be the responsibility of the property owner and operator and shall continue in affect for the duration of this permit.

Attachment A

3.12.3 Procedures for Reviewing Applications

- A. The special uses, as specified in the various districts, may be established only after review and approval by the Board of Commissioners.
- B. The Board of County Commissioners, acting in a quasi-judicial manner and setting, shall hear evidence from the applicant and any interested members of the public.
- C. The Board of Commissioners shall hold a public hearing on the application for a Special Use Permit within sixty (60) days after the completed application is filed.
- D. The Administrator shall cause notice of the hearing to be published once a week for two successive calendar weeks. The notice shall be published for the first time not less than ten (10) nor more than twenty-five (25) days before the date fixed for the hearing.
- E. All Special Use Permit applications must be presented to the Administrator for a determination of completeness.
- F. An appeal from a completeness determination may be made to the Board of Adjustment within twenty (20) days of the determination.
- G. The Board of Commissioners shall approve, modify, or deny the application for a Special Use Permit. In approving a Special Use Permit, the Board of Commissioners, with due regard to the nature and state of all adjacent structures and uses in the district within same is located, shall make written findings that the following are fulfilled:
 - 1. The use requested is listed among the special uses in the district for which application is made, or is similar in character to those listed in that district;
 - 2. The requested use will not impair the integrity or character of the surrounding or adjoining districts, nor adversely affect the safety, health, morals, or welfare of the community or of the immediate neighbors of the property;
 - 3. The proposed use shall not constitute a nuisance or hazard;
 - 4. The requested use will be in conformity with the Pender County Land Use Plan and other official plans or policies adopted by the Board of County Commissioners;
 - 5. Adequate utilities, access roads, drainage, sanitation or other necessary facilities have been or are being provided;
 - 6. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize the traffic congestion in the public roads;
 - 7. That the special use shall, in all other respects, conform to the applicable regulations of the district in which it is located; and
 - 8. The proposed use shall not adversely affect surrounding uses and shall be placed on a lot of sufficient size to satisfy the space requirements of said use.

3.12.4 General Provisions Concerning Special Use Permits

- B. Revocation - In any case where the Special Use Permit or the conditions of a Special Use Permit have not been or are not being complied with, the Administrator may initiate a notice of violation for the provisions of this ordinance and the conditions of the Special Use Permit not in compliance or the Administrator, may initiate notice of a public hearing to consider revocation of the permit by the Board of Commissioners or both actions may be initiated. Procedures for notice of such hearing shall be the same as procedures for consideration of an initial application for a Special Use Permit and the permittee shall be notified.

APPLICATION FOR SPECIAL USE PERMIT

THIS SECTION FOR OFFICE USE

Application No.	SUP 11064	Date	10-28-13
Application Fee	\$ 500.00	Receipt No.	# 132401
Pre-Application Conference	0	Hearing Date	12-9-13

SECTION 1: APPLICANT INFORMATION

Applicant's Name:	American Towers, LLC	Owner's Name:	Corbett Brothers Timber Co
Applicant's Address:	c/o Nexsen Pruet, 4141 Parklake Ave., Ste. 200	Owner's Address:	P.O. Box 210
City, State, & Zip	Raleigh, NC 27612	City, State, & Zip	Wilmington, NC 28402
Phone Number:	919-755-1800	Phone Number:	None

Legal relationship of applicant to land owner: Proposed lessee of tower site from land owner.

SECTION 2: PROJECT INFORMATION

Property Identification Number (PIN):	2293-33-3487-0000	Total property acreage:	232.15 AC +/-
Zoning Classification:	RA	Acreage to be disturbed:	See Enclosed.
Project Address :		NAICS Code:	237130
Description of Project Location:	Construction of Wireless SST, per the enclosed. Site Name: "Blueberry Road" US 421, Currie, NC 28435. See the attached maps for additional detail.		
Describe activities to be undertaken on project site:	Construction of Wireless SST, per the enclosed. AT&T Site Number: 478-073		

SECTION 3: SIGNATURES

Applicant's Signature		Agent	Date:	10/23/2013
Owner's Signature		Agent	Date:	10/23/2013

NOTICE TO APPLICANT

1. Applicant must also submit the information described on the Special Use Checklist.
2. Applicant or agent authorized in writing must attend the public hearing.
3. Once the public hearing has been advertised, the case will be heard unless the applicant withdraws the application or unless the Board of Commissioners or other authorized person agrees to table or delay the hearing.
4. Applicant may wish to review the required findings for approval of a Special Use Permit found on page 1 of this application
5. Permit will become void after 12 months if a final zoning permit is not obtained, unless specifically requested at the time of public hearing.

Appointment of Agent

The undersigned Corbett Brothers ("Owner") hereby appoints Nexsen Pruet, PLLC as Owner's exclusive agent for the purpose of petitioning Pender County for all necessary zoning, site plan, building permit and other local governmental approvals required for the location of a wireless telecommunications tower on the property located at West of Hwy 421 (PIN 2293-33-3487-0000) including, without limitation, the following:

1. To submit the proper applications and the required supplemental materials.
2. To appear at public meetings to give representation and commitments on behalf of the Owner.
3. To act on the Owner's behalf without limitation with regard to any and all things directly or indirectly connected with or arising out of the applications for zoning, site plan, building permit and other local governmental approvals required for the wireless telecommunications tower.

This agency agreement shall continue in effect until written notice of revocation by the Owner is delivered to Nexsen Pruet, PLLC.

This the 22nd day of OCT., 20 13

Agent's Name, Address & Telephone

Signature of Owner(s)

Nexsen Pruet, PLLC

W. Albert Corbett Member

4141 Parklake Avenue, Ste. 200

Raleigh, NC 27612

919-786-2764

Exhibit 1

NEXSEN|PRUET

David S. Robinson
Special Counsel
Admitted in NC

October 28, 2013

VIA EMAIL

Ed F. McCarthy
Planner II
Pender County Planning and Community Development
805 S. Walker Street
Burgaw, NC 28425

Re: Submission Supplement-- Project Narrative

Dear Mr. McCarthy:

As you know, I represent American Towers LLC ("American Tower") in connection with an Application for Special Use Permit, pending with your Planning Division. This Project Narrative will summarize the application package previously submitted.

The proposed tower site ("Tower Site") shall be located and identified as follows:

Address: US-421, Currie, NC 28435

Site Name: "Blueberry Road NC"

American Tower No: 280565

AT&T Site No: 478-073

The proposed Tower Site will include a 300' tall self-support tower with a 6' grounded lightening rod ("Tower") on +/- 232.15 acre site that is adequately sized for such a project. The proposed lease area will be 100 feet by 100 feet in size. The proposed Tower Site will be cleared only as necessary to construct the Tower; a landscape buffer is detailed, although the project proposes to maintain existing surrounding natural landscaping as much as possible. The Proposed Tower Site is zoned Agricultural Residential (AR). The Pender County UDO (the "Ordinance") allows Telecommunication Facilities, subject to certain standards, in Article 5,

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Attorneys and Counselors at Law

NPRAL1:315755.1-CORR-(DROBINSON) 038532-00359

Permitted Uses. Access to the Proposed Tower Site will be on a 12' wide access road, within a proposed 30' access/utility easement.

The site plan as required by the Ordinance has been previously submitted. The construction drawings have been sealed by a North Carolina professional engineer and provide that the Tower will be designed to have the structural integrity and/or capacity to support or accommodate more than one user and will be structurally sound. The drawings show one proposed user, AT&T, and space for up to three (3) additional users (Sheet A-2).

The Tower Site is an unmanned radio telecommunications facility. There will be no traffic congestion as a result of this project. In addition to the Tower structure, the site will contain a generator, and one or more equipment shelters. The enclosed Construction Drawings include:

- Title and Project Information
- Detailed site plan for the proposed lease area, the proposed compound, the proposed tower structure and proposed shelter, equipment and antenna details.
- Grading and Landscaping Plans
- Utility and Compound Grounding Plans
- Electrical Details
- Transducer Output Specifications

Utility service to the project is detailed on pages E-1 through E-17 of the Construction Drawings.

The proposed Tower Site complies with applicable set-back requirements and the compound will be enclosed by a gated fence at least 8' high.

The Tower Site will meet all Federal Aviation Administration (FAA) standards for avoiding obstruction of navigable airspace and approaches to public airports. The Tower will be illuminated only as required by the Federal Communications Commission (FCC), or other State or Federal Agency of competent jurisdiction. The Tower will be constructed of galvanized steel. Only signage required by the FCC and Federal or State regulations for emergency and cautionary purposes will be required at the Proposed Tower Site. No advertising shall be attached to the Tower.

The Tower will not emit a continuous or frequent noise. American Tower will comply with federal standards for radio frequency emissions and the antennas on the Tower will not cause localized interference with the reception of area television or radio broadcasts. The applicant will procure any and all applicable State and Federal permits required for this Tower Site.

Mr. Ed F. McCarthy
October 28, 2013
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In compliance with FCC rules and regulations, the proposed Tower Site will not materially endanger the public health or safety. The power density levels are much lower than Federal and ANSI standards. The Tower is designed and set back from existing structures such that if it were to fail, the public will not be harmed. The Tower will benefit public safety by providing better wireless coverage in the area. Many depend on their wireless devices to call public safety officials in the event of an emergency. In fact, wireless phones are often, and increasingly, used in the home instead of traditional landline phones. Wireless service is many times considered a public necessity, because it is often the sole access that citizens have to emergency services. In the event of a power outage, the Tower should have self-supporting generator power for several days.

The location and character of the use, if developed according to the plan as submitted and recommended, will be in harmony with the area in which it is to be located. The proposed tower will meet the infrastructure needs of this area of the County and will provide much needed access to emergency services, thereby enhancing the quality of life of the community. The proposed tower should facilitate the business recruitment efforts of the county by providing an improved infrastructure in the area in which the tower is to be located. As per the application materials, adequate utilities, access roads, drainage and other necessary facilities are being provided.

If you have any questions or need any additional information, please do not hesitate to contact me.

Very truly yours,

A handwritten signature in black ink, appearing to read "D S Robinson", with a horizontal line extending to the right.

David S. Robinson, Esq.



AT&T Mobility, LLC
Raleigh, NC

DATE: September 26, 2013
SUBJECT: FCC Compliance Assessment for Proposed AT&T Mobility Site 478-073

AT&T Mobility has been requested to evaluate the radio frequency emissions of our proposed site 478-073. In addition, AT&T Mobility has been requested to address other RF related topics such as transmitter operation and maximum permissible output power levels. The remainder of this report will address all RF related items requested by Pender County Zoning/Planning for proposed site 478-073.

Transmitter Operation

AT&T Mobility owns the C LTE Bands and B PCS Band PCS licenses in Pender County. The transmitters being used on the proposed site are authorized to operate in the 740-746 and 1950-1965 Megahertz (MHz) frequency range. The Ericsson Node B base station transmitters AT&T Mobility utilizes have a maximum output level of 60 watts. AT&T Mobility utilizes the GSM, LTE and UMTS digital technology. As a result our transmitters utilize Gaussian Minimum Shift Keying (GMSK), 16-State Quadrature Amplitude (16QAM), 64-State Quadrature Amplitude (64 QAM) and Quadrature Phase Shift Keying (QPSK) modulation. Precision filters limit unwanted and spurious emissions to levels below the FCC specification. The signals being transmitted will not interfere with the operation of commercial radio, cellular radio, television, telephone or other FCC approved communication equipment. For our proposed site 478-073, GSM technology will not be deployed.

Maximum Permissible Output Power

The maximum permissible output power for 1900 band per sector is 1640 Watts of effective radiated power (ERP) from the antennas in Pender County. The proposed site 478-073 is only transmitting 764 total watts ERP.

The maximum permissible output power for 700 band per sector is 1000 Watts of effective radiated power (ERP) from the antennas in Pender County. The proposed site 478-073 is only transmitting 248 total watts ERP.

RF Exposure (NIER levels)

The FCC states in 47 CFR 1.1310 that the maximum permissible exposure (MPE) level from non-ionizing electromagnetic radiation (NIER) to the general population at cellular and PCS frequencies is 1.0 milliwatt per centimeter squared (mW/cm^2). MPE is a measure of the RF power density at or below which there are no potential harmful effects from the exposure.

Power density calculations are based on guidelines given by the ANSI Standard C95.1-1992 and are based on a worst case scenario. For analysis purposes, worst case conditions were chosen for all output power levels based on the deployment of LTE and UMTS technologies. The site is being deployed initially with 6 transmitters. For analysis purposes, 15 transmitters were used. A summary of the results of the power density calculations for site 478-073 is listed below in **Table 1** and **Table 2**.

Distance From Tower (Feet)	Power Density (mw/cm2)	% FCC Standard
1	0.0000345	0.013803
25	0.0000342	0.013700
50	0.0000248	0.009933
75	0.0000178	0.007103
100	0.0000488	0.019522

Table 1: Power Density Summary for Site 478-073 for 1900 Band

Distance From Tower (Feet)	Power Density (mw/cm2)	% FCC Standard
1	0.0000043	0.0035056
25	0.0000071	0.0057743
50	0.0000112	0.0091594
75	0.0000149	0.0121974
100	0.0000175	0.0142997

Table 2: Power Density Summary for Site 478-073 for 700 Band

As shown in **Table 1**, the maximum power density will not exceed 0.0000488mW/cm² at ground level in 1900 Band and as shown in **Table 2**, the maximum power density will not exceed 0.0000175mW/cm² at ground level in 700 Band. Moreover, the average energy expected near ground level is less than 1% of the MPE level. This level does not exceed the MPE limit set by the Federal Communications Commission or the American National Standards Institute.

Based upon the ANSI/FCC standard and the predicted levels of electromagnetic energy emitted by site 478-073, this installation will be of no safety concern to the general public.

Sincerely



David J. LaCava
Senior Radio Access Network Specialist
AT&T Mobility, LLC