



AMELIA COUNTY PLANNING COMMISSION

Regular Meeting

County Administration Conference Room

16360 Dunn Street,
Amelia, Virginia 23002

Monday, October 23, 2023
7:30 P.M.

AGENDA

Action Needed

- | | | |
|----|------------------------------------------------------------------------------------------------------|---------------|
| 1. | Call to Order and Welcome of Guests: Larkin Moyer, Chairman | Call to Order |
| 2. | Determination of Quorum | Quorum |
| 3. | Approval of Minutes | |
| | I. Regular Meeting September 25, 2023 | Motion |
| 4. | Old Business | |
| | I. Special Exception Request - Milestone Towers
(Wireless Support Structure in excess of 80 feet) | Motion |
| 5. | New Business | |
| | I. Commonwealth Regional Council - Comprehensive
Plan Update Kick-Off Meeting | |
| 6. | Chairman Comments | |
| 7. | Informational | |
| 8. | Adjournment | |

SPEAKER RULES OF PROCEDURE

Please respect all speakers and allow all opinions to be expressed in a tolerant atmosphere.

- Speakers may speak only once during a specific comment time and all comments should be directed to the Planning Commission.
- Speakers should approach the podium so they may be visible and audible to the Commission.
- Each speaker should clearly state his/her name and address.
- All questions should be directed to the Chairman. Speakers are encouraged to contact staff regarding unresolved concerns or to receive additional information.
- Speakers should be brief and avoid repetition of previously presented comments.

VIRGINIA: AT A REGULAR MEETING OF THE AMELIA COUNTY PLANNING COMMISSION HELD IN THE CONFERENCE ROOM OF THE COUNTY ADMINISTRATION BUILDING ON MONDAY, SEPTEMBER 25, 2023, AT 7:30 P.M.

PRESENT: LARKIN MOYER- Chairman
ROY EASTER – Vice-Chairman
JERRY “WHIT” MORRIS
DENNIS RAMSEY
JOHN AARON
MICHAEL BATES
JUAN WHITTINGTON
JENNIFER HARRIS
RICHARD CUMBIE, JR
DAVID FELTS, JR. – Board of Supervisors Representative

ABSENT: TRAVIS BARNARD

Amelia County Planning Commission

BRADY DEAL, Director of Community Development

I. CALL TO ORDER

Chairman Moyer called the meeting of the Amelia County Planning Commission to order at 7:30 p.m.

II. DETERMINATION OF QUORUM

Chairman Moyer declared there was a quorum with 10 of 11 members present at 7:30 p.m.

III. APPROVAL OF MINUTES

Vice Chairman Easter made a motion, seconded by Commissioner Ramsey to approve the minutes for the July Regular Meeting and August No Meeting.

The motion carried 10-0 recorded as follows: Larkin Moyer- AYE, John Aaron- AYE, Dennis Ramsey- AYE, Juan Whittington- AYE, Michael Bates- AYE, Jennifer Harris- AYE, Whit Morris- AYE, Roy Easter-AYE, David Felts- AYE, Richard Cumbie- AYE.

IV. OLD BUSINESS

The Planning Commissioners discussed the Dunn Street Rezoning and the recent action that was taken by the Board of Supervisors to approve the request.

V. NEW BUSINESS

Public Hearing – Special Exception Request – Walter Jones (Mini-Warehouse Storage)

Mr. Deal provided the staff report for the special exception request. He stated that the applicant was requesting this use authorization for a property located on Route 360 adjacent to the Hawkes Funeral Home. Mr. Deal added that the applicant had included a detailed site plan and a traffic impact analysis with his application. He also presented some aerial imagery of the parcel including the zoning map, flood hazard layer, and wetlands map.

The applicant, Mr. Jones, spoke regarding the request. He answered a question from the Commissioners regarding fencing. He stated that there would be a fence on the front and rear and that he would leverage the buildings as a barrier on the sides to ensure the complex is enclosed.

Vice-Chairman Easter asked where the applicant would put the RV Storage.

Mr. Jones stated that he would building phases, starting with the first half of the property. He added that the rear of the property would end up being used for RV Storage and/or for small contractor storage.

Commissioner Whittington asked if the customers would come primarily out of Chesterfield.

Mr. Jones stated that he would not turn down business from wherever it came from but that he believes there is a demand for Amelia residents.

Chairman Moyer opened the public hearing at 7:41 p.m.

No one spoke in favor or in opposition of the request.

Chairman Moyer closed the public hearing at 7:42 p.m.

Vice-Chairman Easter thought that this property was a great location for this type of use. He added that there was not any houses in proximity and that it was bordered by trees, the industrial park, and a funeral home.

Commissioner Harris stated that she didn't think there would be a significant amount of traffic and agreed with Vice-Chairman Easter

Mr. Jones stated that he believed on average a person would visit their storage facility very infrequently meaning the daily trip generation would be limited possibly even moreso than indicated by the traffic analysis.

Vice-Chairman Easter made a motion, seconded by Commissioner Bates, to recommend the Board of Supervisors approve the request.

The motion carried 10-0 recorded as follows: Larkin Moyer- AYE, John Aaron- AYE, Dennis Ramsey- AYE, Juan Whittington- AYE, Michael Bates- AYE, Jennifer Harris- AYE, Whit Morris- AYE, Roy Easter-AYE, David Felts- AYE, Richard Cumbie- AYE.

Public Hearing – Special Exception Request – Milestone Towers (Wireless Support Structure in excess of 80')

Mr. Deal provided the staff report for the special exception request. He also included a detailed presentation providing the Commission information on the request as it pertains to the proposed use/carrier for the tower, location, subject property conditions, and conceptual site schematics.

Mr. Jonathan Yates, representing the applicant, provided additional information to the Commission regarding the request. He provided some background information on the applicant and her history with the property. He added that T-Mobile feels like this is an ideal place due to the lack of cell coverage in the area. Mr. Yates stated that the tower could accommodate up to the three additional users.

Chairman Moyer asked if there would be lights on top of the tower.

Mr. Yates stated that there would not be any lights because the tower is under 200' tall.

Chairman Moyer opened the public hearing at 7:56 p.m.

Hugh Anderson, 15720 Grub Hill Church Road, spoke in opposition of the tower because of his concerns over the impact on the rural character of the area and the health impacts from the emission of electromagnetic frequencies.

Paul White, 7631 Merlin Way, spoke neither in opposition or in favor of the project but stated concerns regarding the 5G technology and the lack of studies completed on the impacts that exposure to this has on humans. He encouraged the County to think about mitigants that may be implementable in case information down the road indicates that there are health issues.

Chairman Moyer closed the public hearing at 8:05 p.m.

Chairman Moyer asked if Mr. Yates had any answers or information pertaining to the questions heard by the public.

Mr. Yates stated that T-Mobile and the other carriers are one of the most heavily regulated industries in the Country. He added that a third-party engineer provided a report, which was submitted with the application and included in the meeting's agenda packet. He stated that the engineering report stated that this tower would at most emit up to five percent of the allowable emissions according to FCC regulations.

Mr. Matthew Penning, Development Director, spoke regarding his experience working with Fairfax County Public Schools and the emissions monitoring that their efforts have entailed. He added that they regularly monitor the emissions from the towers/antennas that Fairfax County Public Schools has installed and that the reports show that the emissions are normally 100-1000 times lower than the FCC allowable limit. Mr. Penning stated that after speaking with Mr. Yeatts, they would be amenable to a condition of approval being placed on the request that required annual testing of emissions.

Vice-Chairman Easter asked if the increase in gigahertz causes more exposure.

Mr. Penning stated that the FCC standards and the exposure research done by the engineer, they accounted for 5G frequencies.

Commissioner Bates asked where the tower was located in proximity to Mr. Anderson's house.

Chairman Moyer responded it was located across the road towards the front of his house.

Mr. Anderson approached the podium and spoke to the location of his house and its proximity to the tower.

Commissioner Whittington asked if the applicant discussed locating the tower further back off of the road.

Mr. Yates responded that they chose the site based on the proximity to the wet areas that exist on the property and based on the county regulations for wireless support structures in excess of 80'. Mr. Yates stated that they would be willing to also have a third-party test completed every time a new user goes on the tower to make sure they all meet the rules they are placed under.

Vice-Chairman Easter asked how far the signal would transmit.

Mr. Yates responded that the ideal signal reach would be 2 miles.

Commissioner Whittington stated that if they are only planning to visit it once a month, he feels like they could move it further back from the roadside property line.

A discussion ensued between the Commissioners regarding the setbacks and the impact of a nearby power line.

Commissioner Morris stated that he wanted to ensure that there was a condition for testing but also wouldn't mind taking another 30 days to look at it. He made a motion, seconded by Commissioner Whittington, to defer action on the item at least until the meeting in October.

Mr. Yates asked to speak and stated that he would like the Commission to not carry the motion as there was not likely going to be any changes made to their request since they already exceed the requirements in the County code.

Commissioner Harris commented that if the condition to test was not adhered to then it would be a zoning violation and the County could pull the permit.

The motion carried 10-0 recorded as follows: Larkin Moyer- AYE, John Aaron- AYE, Dennis Ramsey- AYE, Juan Whittington- AYE, Michael Bates- AYE, Jennifer Harris- AYE, Whit Morris- AYE, Roy Easter-AYE, David Felts- AYE, Richard Cumbie- AYE.

Public Hearing – Rezoning Request – Caleb Phelps (R-3 to RR-3)

Mr. Deal provided the staff report for the rezoning request. He informed the Planning Commission that this was a downzoning which is the result of an application to vacate the existing subdivision, Greenfield Equities. He stated that the subdivision vacation could not be approved unless the zoning was changed back to the original zoning.

Mr. Deal provided a presentation on the four parcels, the surrounding zoning, and ultimate goal of the applicant, which is to place a dependent parent dwelling on the property for his mother-in-law.

This use would have to be inactivated upon the death of the dependent parent, meaning the mobile home would have to be removed from the property.

Chairman Moyer asked if there was a road constructed for the subdivision.

Mr. Caleb Phelps, the applicant, responded that the road was on paper but had never been constructed. He further detailed his motives for this request, specifically focusing on the ability to provide a place for his mother-in-law to reside.

A brief discussion ensued between some members in the audience regarding an easement that exists through the property to a neighboring property.

Chairman Moyer asked the audience to refrain from speaking until the public hearing.

Chairman Moyer opened the public hearing at 8:40 p.m.

James Robinson, 10900 Winterham Road, had some uncertainty about the request and asked some questions of clarification.

Arlene Love, 18900 W. Pridesville, Road, asked if there was enough property according to the ordinance for a mobile home to be placed.

Mr. Deal responded that the structure would not be on its parcel, but would rather be on the same parcel as the applicant's residence and would be permissible through the dependent parent dwelling exception.

"First name Inaudible" Anderson, 18900 W Pridesville Road, spoke in favor of the request.

Chairman Moyer opened the public hearing at 8:50 p.m.

Vice-Chairman Easter asked staff to make sure the final plat had the "paper street" removed so that there was not any confusion in the future over whether a road exists or not.

Vice-Chairman Easter made a motion, seconded by Commissioner Harris, to recommend the Board of Supervisors approve the request.

The motion carried 10-0 recorded as follows: Larkin Moyer- AYE, John Aaron- AYE, Dennis Ramsey- AYE, Juan Whittington- AYE, Michael Bates- AYE, Jennifer Harris- AYE, Whit Morris- AYE, Roy Easter-AYE, David Felts- AYE, Richard Cumbie- AYE.

VI. CHAIRMAN'S COMMENTS

Chairman Moyer stated that he had heard some rumbling about new potential solar projects and he advised staff and the other members to brush up on the recently adopted solar ordinance amendments and related material included in the Comp. plan.

VII. INFORMATIONAL

Mr. Deal informed the Planning Commission that the Commonwealth Regional Council would be conducting their kick-off meeting in the next month or two. Currently, they are shooting for

November. With that, he asked if the Comp. Plan Committee would be willing to meet in the next couple of weeks.

VIII. ADJOURNMENT

There being no further business to come before the Planning Commission, Chairman Moyer adjourned the meeting at 8:54 p.m.

Larkin Moyer, Chairman
Amelia County Planning Commission

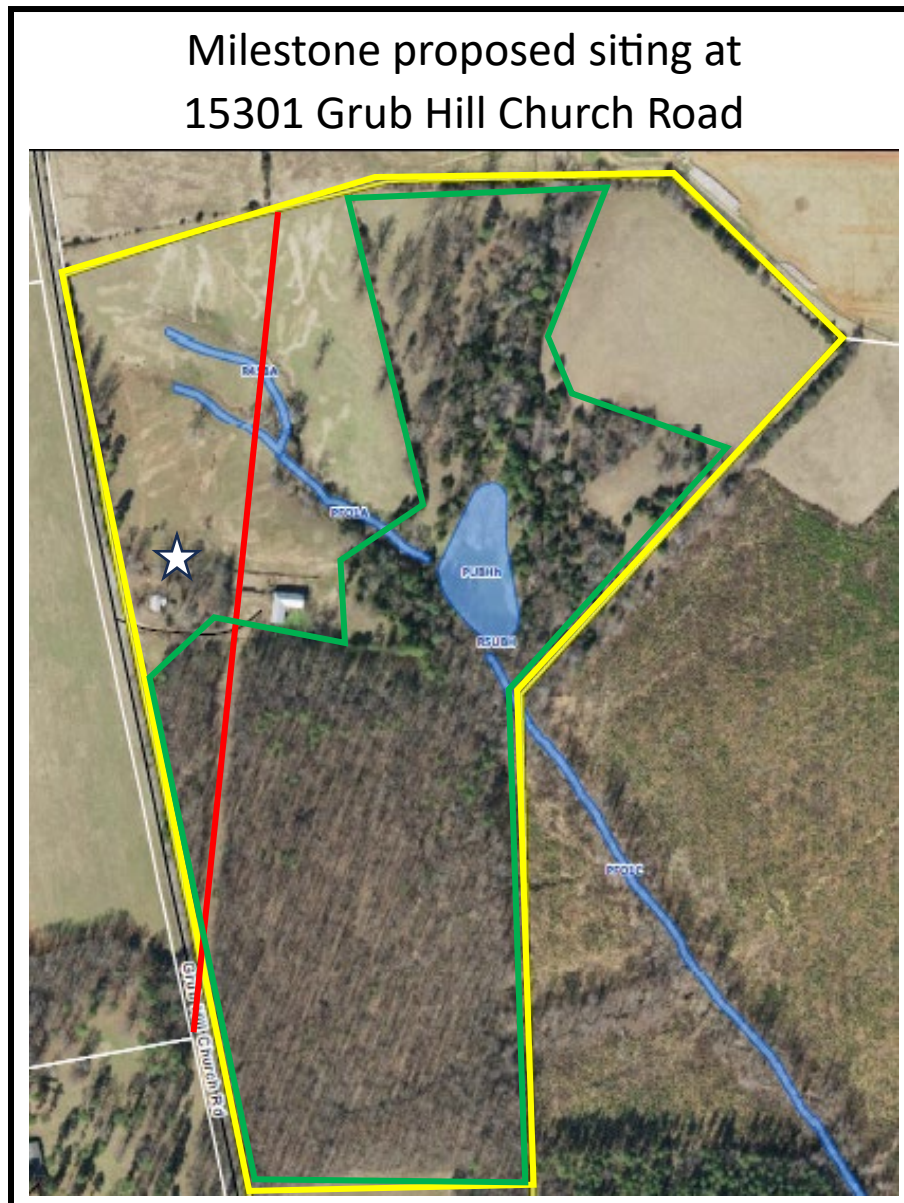
ATTEST:

Brady Deal
Director of Community Development

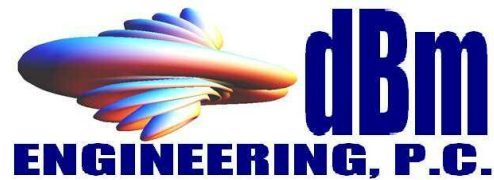
Amelia Court House Tower Siting

Considerations: (☆ proposed tower location)

- **General Development:** T-Mobile search area center was to the north, leading to a preferred location on the northern portion of the property. Parcel is landlocked to the north, east, and south; there are no public rights-of-way providing access from those locations. The proposed location utilized existing access entrance road along Grub Hill Church Rd to minimize the overall development footprint and to leave existing street tree buffer intact.
- **Power Lines:** Proposed location sited so not to cross the existing power line easement running through the northwest portion of the Parcel. Poles are approximately 170' east of existing tower location. (See red line below)
- **Environmental/Wetlands:** Proposed location sited so not to cross wetland systems running northwest to southeast across the Parcel. (See blue areas below, from the National Wetlands Inventory)
- **Tree/Habitat Preservation:** The northeastern and central portions of the parcel are forested (see green outline below). As part of National Environmental Policy Act report, natural resources review identified tree clearing restrictions to protect Federal and State endangered species on the property (Tri-Colored and Northern Long Eared Bats). As such, the proposed location was selected to avoid tree clearing to ensure compliance with all federal/state regulations.



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October 17, 2023
Matt Penning
Milestone Towers
12110 Sunset Hills Rd, #600
Reston, VA 20190

**Subject: Electromagnetic Exposure Analysis
"AMELIA COURTHOUSE"
15301 Grub Hill Church Road
Amelia Court House, VA 23002
N 37° 26' 54.38"
W 77° 57' 27.67"**

Mr. Penning:

In response to concerns expressed at the September 25, 2023 public meeting where this application was deferred, I have reviewed the specifics of the application and emissions related materials including the radio frequency design specifics and the August 16, 2023 Waterford report "RF Emissions Compliance Report". I have also performed an independent evaluation of the worst-case, cumulative anticipated radio-frequency exposure levels for the T-Mobile telecommunications facility along with three (3) hypothetical collocators to assess the upper limit potential for electromagnetic exposure in areas surrounding the proposed facility. The intention of this study is to verify compliance with Federal Communications Commission (hereafter "FCC") guidelines for human exposure limits to radio-frequency electromagnetic fields as per FCC Code of Federal Regulation 47 CFR 1.1307 and 1.1310. As a registered Professional Engineer, I am bound by a code of ethics to hold paramount the safety, health, and welfare of the public. All statements and calculations offered herein are made in an objective and truthful manner pursuant to that code.

Summary of Findings

As discussed in more detail below, the maximum exposure to radio-frequency emissions from the proposed T-Mobile equipment and three (3) more hypothetical wireless providers' equipment would be well below FCC exposure limits. The current FCC exposure limits include consideration of 5G technology. The December 2019 FCC report and order¹ specifically reaffirmed, on a unanimous and bipartisan basis, the existing limits in light of modern technologies including 5G.

¹ <https://docs.fcc.gov/public/attachments/FCC-19-126A1.pdf>

Technical Parameters of Consideration

The above calculations were based on the equipment configuration information furnished by representatives of T-Mobile. Specifically, for this installation, T-Mobile plans to install up to nine (9) new panel-style antennas at an antenna centerline height of 145' above grade on the new tower. The antennas will be organized in three (3) arrays of three (3) antennas per array with sector azimuths of 30°, 150°, and 270° in the horizontal plane with respect to true north. Transmitting through these antennas will be up four (4) LTE transmit paths in the 700 MHz band (per sector) at a cumulative maximum of 160 watts (per sector), up to four (4) LTE and / or 5G NR transmit paths in the 600 MHz band (per sector) at a cumulative maximum of 240 watts (per sector), four (4) LTE and / or 5G NR transmit paths in the 2100 MHz band (per sector) at a cumulative maximum of 320 watts (per sector), up to four (4) LTE transmit paths in the 1900 MHz band (per sector) at a cumulative maximum of 240 watts (per sector) and up to sixty-four (64) LTE and 5G NR transmit paths in the 2500 MHz band (per sector) at a cumulative maximum of 320 watts (per sector).

Exposure to Nearby Residences

The closest off-site residential property is roughly 976 feet from the proposed tower. Concerns expressed regarding exposure levels at that location from the proposed facility can be addressed by referencing the August 16, 2023 Waterford report "RF Emissions Compliance Report" and the specific finding therein. By summing the emitter specific frequency band contributions of exposure across one of the three (3) sectors of antennas, one can calculate that the **upper limit** exposure at approximately 1000' would not exceed 2% of the FCC limits for general population exposure. Figure 1 below illustrates **typical** exposure levels from cellular telecommunications equipment relative to other common emitters. By comparison, typical values for electromagnetic exposure from a macro site, like the one being proposed, are in the same range as exposure from other common household electronics like baby monitors, laptops and wi-fi routers.

According to page 14 of the FCC Office of Engineering and Technology (OET) Bulletin 65 "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio-frequency Electromagnetic Fields"²: *For antennas mounted higher than 10 meters, measurement data for cellular facilities have indicated that ground-level power densities are typically hundreds to thousands of times below the new MPE limits.*

Co-location of Other Wireless Providers and Anticipated Exposure Levels

To halt the proliferation of telecommunications structures and preserve as much of their natural landscape as possible many municipalities have adopted telecommunications ordinances that specifically require new structures to accommodate additional wireless providers from a structural standpoint. **From the standpoint of radio-frequency exposure**, the installation of the proposed T-Mobile equipment would in no way preclude

² https://transition.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet65/oet65.pdf

the use of this facility by other providers. In fact, using upper limit assumptions for the T-Mobile equipment configuration, and three more similarly channelized wireless service providers with antenna centerlines at ten-foot (10') increments below the T-Mobile array, the cumulative radio-frequency exposure levels would be less than 14.1% of the applicable FCC standard at all ground level locations of public access. In this scenario and at a distance of 1000' from the facility the cumulative radio-frequency exposure levels would be less than 4.8% of the applicable FCC standard. All exposure levels have been calculated using the methods prescribed in FCC Office of Engineering and Technology (OET) Bulletin 65 "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio-frequency Electromagnetic Fields" and account for multiple upper-limit assumptions. These upper-limit conditions include maximum traffic loading, significant antenna down-tilt, maximum pattern gain, and constructive interference from ground reflection. Additionally, signal attenuation due to environmental clutter such as buildings, trees, and roadways has been ignored which will overestimate actual power densities.

Additional Remarks

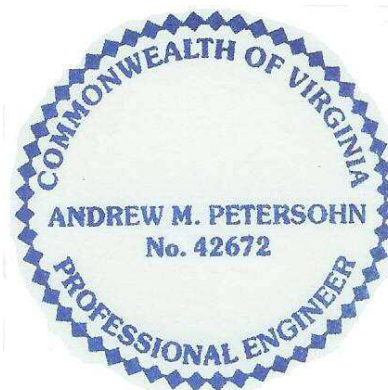
The radio-frequency emission levels from T-Mobile and other communications base stations are similar to that of other two-way communications systems like those used by police, fire and ambulance personnel. In contrast, commercial broadcast systems like television and radio often transmit at power levels ten times greater or more than the systems discussed above. The FCC exposure limits already include a significant margin of safety. Continuous exposure below 100% of FCC limit is considered by the scientific community to be just as safe as continuous exposure at 1% of FCC limit.

The biological effects on humans of non-ionizing radio-frequency exposure have been studied extensively now for decades. There have been thousands of reports produced by government agencies, universities, and private research groups that support the standards adopted by the FCC. **To date, there have been no credible studies conducted whose results showed evidence of any adverse health effects at the applicable FCC exposure limits.**

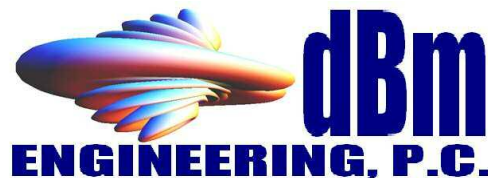
Sincerely,



Andrew M. Petersohn, P.E.
Registered Professional Engineer
Virginia License Number 042672

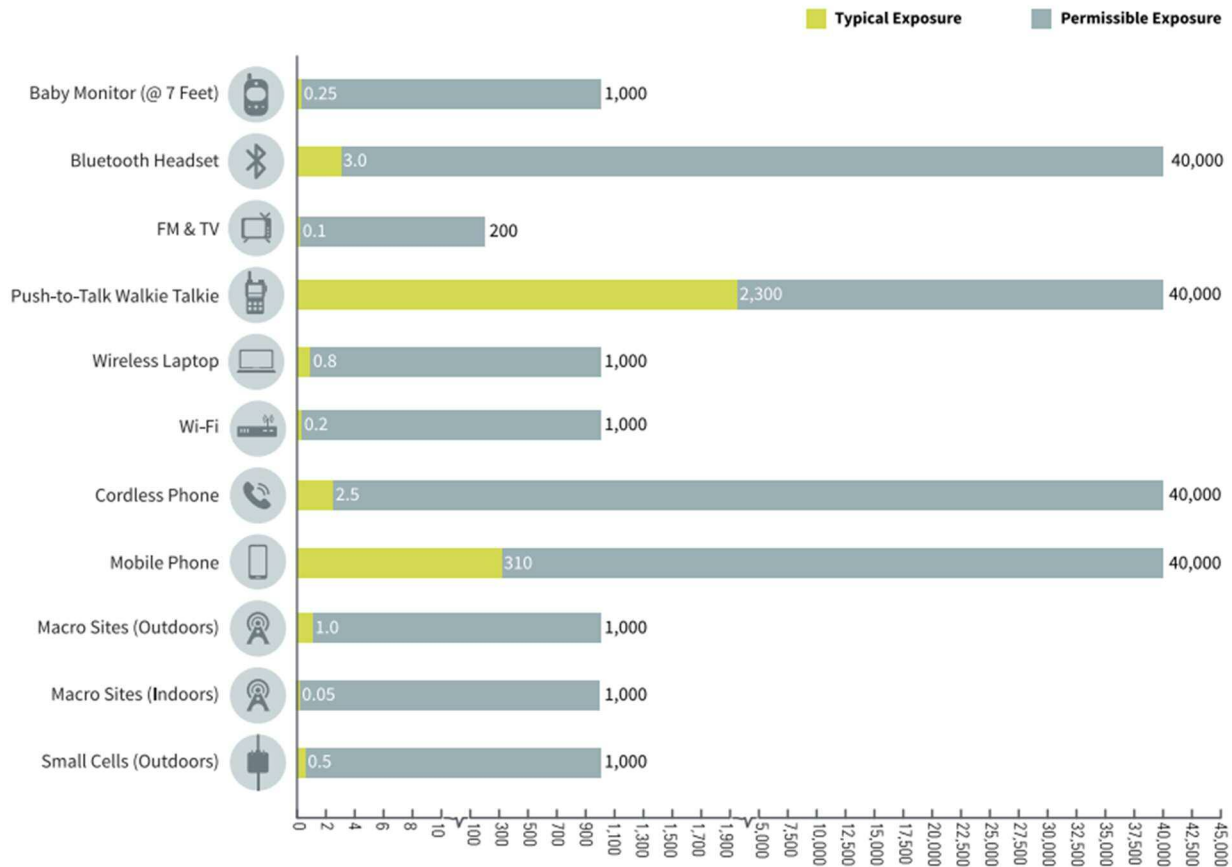


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Common Radiofrequency Exposures ($\mu\text{W}/\text{cm}^2$)

($\mu\text{W}/\text{cm}^2$) = microwatts per centimeter squared



A maximum exposure is generally taken to be a worst case (whole body) exposure value from a source whereas a typical exposure is a more realistic exposure one might expect to receive from a given source. The maximum exposure would usually exist only at a specified distance from the source whereas the typical exposure might occur at a wide range of locations and represent a more realistic exposure from a given source.

Source: Andrew H. Thatcher, Board Certified Health Physicist (c) 2020

Figure-1 – typical exposure levels from cellular telecommunications facilities relative to other common emitters

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DECLARATION OF ENGINEER

Andrew M. Petersohn, P.E., hereby states that he is a graduate telecommunications consulting engineer possessing Master and Bachelor Degrees in Electrical Engineering from Lehigh University (2005 and 1999, respectively). His corporation, dBm Engineering, P.C., has been retained by representatives of Milestone Towers to perform an electromagnetic emissions analysis for a proposed telecommunications facility.

Mr. Petersohn also asserts that the calculations and/or measurements described in this report were made personally and in a truthful and objective manner. Mr. Petersohn is a Registered Professional Engineer licensed in Pennsylvania, Delaware, Maryland, Virginia, New York, Florida and New Jersey. He has over two decades of engineering experience in the field of wireless communications. Mr. Petersohn is an active member of the National Society of Professional Engineers (NSPE) and the Pennsylvania Society of Professional Engineers (PSPE). Mr. Petersohn further states that all facts and statements contained in the foregoing document are true and accurate to the best of his knowledge. He believes, under penalty of perjury, the foregoing to be correct.

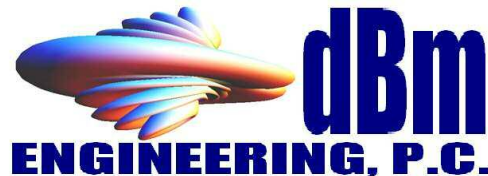


Andrew M. Petersohn, P.E.
Registered Professional Engineer
Virginia License Number 042672



Executed this the 17th day of October, 2023

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Appendix A

Background Information

In 1985, the FCC first adopted guidelines to be used for evaluating human exposure to RF emissions. The FCC revised and updated these guidelines on August 1, 1996, as a result of a rule-making proceeding initiated in 1993. The new guidelines incorporate limits for Maximum Permissible Exposure (MPE) in terms of electric and magnetic field strength and power density for transmitters operating at frequencies between 300 kHz and 100 GHz. The FCC's MPE limits are based on exposure limits recommended by the National Council on Radiation Protection and Measurements (NCRP) and, over a wide range of frequencies, the exposure limits were developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI) to replace the 1982 ANSI guidelines. Limits for localized absorption are based on recommendations of both ANSI/IEEE and NCRP.

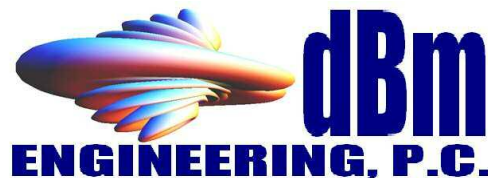
The FCC's limits, and the NCRP and ANSI/IEEE limits on which they are based, are derived from exposure criteria quantified in terms of specific absorption rate (SAR). The basis for these limits is a whole-body averaged SAR threshold level of 4 watts per kilogram (4 W/kg), as averaged over the entire mass of the body, above which expert organizations have determined that potentially hazardous exposures may occur. The MPE limits are derived by incorporating safety factors that lead, in some cases, to limits that are more conservative than the limits originally adopted by the FCC in 1985. Where more conservative limits exist, they do not arise from a fundamental change in the RF safety criteria for whole-body averaged SAR, but from a precautionary desire to protect subgroups of the general population who, potentially, may be more at risk.

The FCC exposure limits are also based on data showing that the human body absorbs RF energy at some frequencies more efficiently than at others. The most restrictive limits occur in the frequency range of 30-300 MHz where whole-body absorption of RF energy by human beings is most efficient. At other frequencies, whole-body absorption is less efficient, and consequently, the MPE limits are less restrictive.

MPE limits are defined in terms of power density (units of milliwatts per centimeter squared: mW/cm^2), electric field strength (units of volts per meter: V/m) and magnetic field strength (units of amperes per meter: A/m). The far-field of a transmitting antenna is where the electric field vector (E), the magnetic field vector (H), and the direction of propagation can be considered to be all mutually orthogonal ("plane-wave" conditions).

Occupational / controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their

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exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits, as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

General population / uncontrolled exposure limits apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment-related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area. **In the case of this study, the general population exposure limits have been applied as they are the more conservative set of standards.**

Applicability of the National Telecommunications Act of 1996

This Act states that “no state or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio-frequency emissions to the extent that such facilities comply with the (Federal Communications) Commission’s regulations concerning such emissions”. As indicated above, this proposed facility will be in full compliance with the FCC’s emissions standards and as such is beyond regulation in that regard.



Chapter III: Demographics

Population

During the early- to mid-20th century, the County experienced a marginal decline in population until the 1980s. During the 1980s, Amelia County experienced an 11% increase in the population. Growth has been modest at some times, and rapid at others, including a surge of growth during the 1990s that neared 30% for the decade. Growth in recent years has slowed, likely due to nationwide economic effects and the overall slowing of suburban growth.

Amelia County Population Trends 1920- 2020

Year	Population	Percentage (%) Change
1920	9,800	-
1930	8,799	-8%
1940	8,495	-5%
1950	7,908	-7%
1960	7,815	-1%
1970	7,592	-3%
1980	8,405	11%
1990	8,787	5%
2000	11,400	30%
2010	12,690	11%
2020	13,265	4%

Source: United States Census Bureau

It is very important to note Amelia County's regional context when considering population growth. As an outlying part of growing Richmond region, the County's future growth will be heavily influenced by the growth of neighboring jurisdictions. In particular, Chesterfield County has seen rapid growth in the decades of the 1980s, 1990s, and 2000s. Given this strong neighboring growth, its proximity to the Amelia County line, and the convenient transportation links between the two counties along U.S. 360, it is very likely that future Chesterfield growth will spur growth in Amelia as well.

Population Growth of Neighboring Counties 1990 – 2020

Jurisdiction	1990	2000	% Change	2010	% Change	2020	% Change
Amelia	8,787	11,400	30%	12,690	11%	13,265	4%
Chesterfield	209,000	259,903	24%	316,236	22%	364,548	13%
Powhatan	16,000	22,377	40%	28,046	25%	30,333	8%
Cumberland	7,800	9,017	16%	10,052	11%	9,675	-4%
Prince Edward	17,300	19,720	14%	23,368	18%	21,849	-7%
Nottoway	15,000	15,725	5%	15,853	1%	15,642	-1%
Dinwiddie	21,000	24,533	17%	28,001	14%	27,947	-0.2%

Source: United States Census Bureau

Population Forecasting

The growth of Amelia County, its neighboring jurisdictions, the Richmond region, or the Commonwealth of Virginia is in a constant state of change, influenced by factors as diverse as national economic trends, the decisions of major employers, and generational housing trends. For this reason, accurate forecasting of future population growth is difficult to achieve, if not impossible. The University of Virginia's Weldon Cooper Center attempts to predict future population growth using a proprietary model, and at this time predicts modest growth in Amelia County over the coming 27 years, averaging roughly 5% for each 10-year period following the United States Decennial Census studies.

Population Projections for Amelia County

Year	Population	Percentage (%) Change
2020	13,265	-
2030	13,642	3%
2040	14,359	5%
2050	15,292	6%

Source: University of Virginia Weldon Cooper Center

While the rates of growth predicted by the UVA Weldon Cooper Center would be easy enough for the County to absorb and manage, it should be acknowledged that much higher rates of growth are possible, and have been experienced in Amelia County and neighboring areas in the past. Amelia experienced growth of over 30% for the decade of the 1990s, while Powhatan grew over 40% during the same decade and Chesterfield County growth touched 48% growth during the 1980s. Given its small base population, Amelia County has the potential to experience a high percentage of population change very quickly. A single large subdivision or development project, of the type often seen in nearby areas of Chesterfield County, could result in a sudden population surge during a brisk real estate market. For this reason, Amelia must plan for future growth at a variety of scales, planning for realistic scenarios, as well as those scenarios that, while they may be unlikely, are possible and would result in huge impacts on county services, finances, and culture.

This Comprehensive Plan uses three population growth scenarios to analyze a broad range of future growth possibilities, from slow to explosive. As with many things, it is better to plan for the worst than to be caught unprepared.

2023 Comprehensive Plan Population Scenarios

Growth Scenario	Ten Year Growth	2030	2040
Slow - Moderate	5%	13,928	14,624
Moderate - Rapid	12%	14,857	16,640
Rapid - Explosive	25%	16,581	20,726

Employment

As with many rural counties, Amelia has a strong agricultural economy, including crop operations, nursery stock growing, and livestock farming, but is limited in other commercial, industrial, and service employment categories. According to the 2022 data that is collected by the Virginia Employment Commission, Amelia has a relatively low unemployment rate at 2.9% - which is in line with state

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averages, slightly better than regional and national rates of around 3.4% and 3.6% respectively. The table below shows the top 50 employers in the County.

Top 50 Amelia County Employers

1. Amelia County School Board	26. Village Veterinary Services
2. County of Amelia	27. Anderson Brothers Lumber
3. Wellsprings At Amelia Rehabilitation and Nursing Center	28. Williams Logging Inc.
4. Food Lion	29. Amelia County Department of Social Services
5. Catapult Learning LLC	30. Dolgencorp LLC
6. Star Children's Dress Company	31. VDOT
7. McDonald's	32. Hardee's
8. Swift Creek Forest Products	33. Land Vue Farm
9. Amelia Overhead Door	34. Postal Service
10. Goodman Truck and Tractor Company	35. Rock River Inc
11. Masons Touch Inc	36. Weaver Logging
12. Amelia Lumber Company Inc.	37. Crossroads Services Board
13. Superior Walls of Central VA	38. Virginia Department of Alcoholic Beverage Control
14. Amelia Academy	39. C & L Machine and Welding
15. Waste Management of Virginia	40. Lunenburg Medical Center
16. Amelia Signs	41. Virginia Department of State Police
17. Capital Business Solutions	42. Carr Contracting Company
18. Oak Ridge Services Inc	43. Christa E Morris DDS & As PC
19. 7-Eleven	44. Glenwood Farms
20. Beneficial Electrical Systems	45. Plumber On The Way
21. Tyson Farms	46. Center Inc
22. Borum Electrical Plumbing & Ht	47. Compass Two LLC
23. Easter Design Inc	48. JKA Concrete LLC
24. Rwc II Inc	49. Virginia Department of Veterans' Services
25. Southern States Co-operative, Inc.	50. Vaughans Car Care

Source: Virginia Employment Commission, Economic Information & Analytics, Quarterly Census of Employment and Wages (QCEW), 1st Quarter (January, February, March) 2023

While data shows that Amelia County residents are employed at similar rates to state averages, many find employment outside of the County by commuting to Chesterfield, among other regional employment destinations. Unfortunately, when many citizens are commuting out of the county for work, there can be resulting impacts on the local economy. When Amelia residents work in neighboring jurisdictions, the taxes paid by their employers goes to fund the locality in which the employer is located, meaning that the work of many Amelia residents ultimately helps to fund schools, services, and improvements in Chesterfield and other nearby areas rather than in their home county. Also, when residents commute daily to neighboring jurisdictions, they are more likely to combine their work trip with shopping, dining out, and other spending rather than contributing to Amelia County businesses. The tables that follow show the top destinations for workers commuting to Amelia County and top destinations for workers commuting out of the County.

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Top 10 Amelia County Commuter In-flow				
Residence		Workplace		Commuting Flow
State Name	Locality Name	State Name	County Name	Workers in Commuting Flow
Virginia	Amelia County	Virginia	Amelia County	677
Virginia	Chesterfield County	Virginia	Amelia County	248
Virginia	Nottoway County	Virginia	Amelia County	153
Virginia	Prince Edward County	Virginia	Amelia County	93
Virginia	Powhatan County	Virginia	Amelia County	70
Virginia	Henrico County	Virginia	Amelia County	63
Virginia	Richmond City	Virginia	Amelia County	43
Virginia	Cumberland County	Virginia	Amelia County	38
Virginia	Lunenburg County	Virginia	Amelia County	29
Virginia	Hanover County	Virginia	Amelia County	24
Virginia	Mecklenburg County	Virginia	Amelia County	18
Total				1,456
Source: U.S. Census Longitudinal Employer-Households Dynamics (LEHD)				

Top 10 Amelia County Commuter Out-flow				
Residence		Workplace		Commuting Flow
State Name	County Name	State Name	Locality Name	Workers out Commuting Flow
Virginia	Amelia County	Virginia	Amelia County	677
Virginia	Amelia County	Virginia	Chesterfield County	1,093
Virginia	Amelia County	Virginia	Henrico County	569
Virginia	Amelia County	Virginia	Richmond City	508
Virginia	Amelia County	Virginia	Powhatan County	204
Virginia	Amelia County	Virginia	Hanover County	145
Virginia	Amelia County	Virginia	Nottoway County	96
Virginia	Amelia County	Virginia	Prince Edward County	90
Virginia	Amelia County	Virginia	Goochland County	87
Virginia	Amelia County	Virginia	Fairfax County	79
Virginia	Amelia County	Virginia	Lynchburg City	60
Total				3,608
Source: U.S. Census Longitudinal Employer-Households Dynamics (LEHD)				

Affordability

As is typical of many rural communities, Amelia is a relatively affordable place to live, and more specifically, to buy or rent a home. With fewer services, longer travel distances to employment and commerce centers, and lower taxes, the County has generally lower housing costs as compared to the Richmond region. According to the United States Census 2021 American Community Survey, 29.9% of Amelia residents spend greater than 30% of their household income on housing expenses, compared to approximately 33% of Richmond City residents. However, this relative affordability could potentially have the effect of attracting higher levels of residential growth to the County, bringing Richmond area commuters while making housing less affordable for local workers. The affordability of housing should remain an area of focus as the County grows, and a key measure of the suitability of new development proposals.

Spending and Leakage

Amelia County has a limited retail and service sector economy, along with a resident population that commutes extensively within a larger region for work or for shopping. Because of these factors, Amelia sees a much lower rate of retail and service sector spending per capita than other communities. According to the 2017 United States Economic Census that is collected by the US Census Bureau every five years, state-wide per capita spending totals \$14,185 per resident per year, spending in Amelia County totals only \$4,677 per resident per year, while nearby Chesterfield County surpasses the state average at \$19,639 per resident per year. These lower rates of consumer spending directly affect the County's tax base, sending money earned by Amelia residents into the local coffers of Chesterfield and other nearby jurisdictions. In order to plan for a secure and prosperous future, Amelia should be looking to return consumer spending to the County by encouraging a variety of local business opportunities, thus allowing residents to work and shop locally, contributing to the betterment of their own community.

Consumer Spending

	2017 Sales	Per Capita Spending
Amelia County	\$60,677,000	\$4,677
Chesterfield County	\$6,746,095,000	\$19,639
Virginia	\$120,162,088,000	\$14,185

Source: 2017 United States Economic Census

Sales leakage is an attempt to quantify the dollar value of Amelia residents' out-of-county spending on consumer goods and services. If all other factors are held to be equal, a comparison between Amelia's per capita spending and that of Chesterfield County or the Commonwealth of Virginia gives us a basic count of the dollars that Amelia businesses and missing out on, and by extension, the value of sales for which Amelia does not collect local taxes. This affect is most pronounced for certain categories in which Amelia is not well represented, meaning that county residents have few, or sometimes no, local choices, forcing them to shop elsewhere.

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Amelia County Sales Leakage

Compared to Chesterfield County sales per capita:	\$14,962
Compared to Virginia sales per capita:	\$9,508

Source: 2017 United States Economic Census

Areas of Most Significant Per Capita Sales Leakage

- Food and Beverage Stores:
- Clothing:
- General Merchandise:
- Restaurants and Drinking Establishments:

In order to diversify and improve the Amelia County economy, the County's future plans for growth and development should focus on a more balanced set of land uses than it has seen over the past several decades. By supporting new business growth along with residential growth, the County can build a more resilient economy, develop a stronger tax base, and capture the earning and spending power of its citizens to continue improving Amelia as a place to live, work, and shop. Amelia has a strong set of local economic resources which have historically provided substantial economic stability as well as a reasonable level of prosperity for the County. While certain economic factors, including interest rates, energy prices, and inflation, are well outside of the County's control, Amelia can use future decisions about facilities, schools, environmental protection, and land use to protect exiting industries, promote new business growth, and attract new residents and employers to the county.

Amelia County has a host of competitive business advantages to leverage in the future, including its natural resources (particularly the agricultural and forest lands). In addition, the County has a variety of human resources which enhance its capability and potential for economic strength. Amelia's primary economic resources include:

- High quality natural resources such as forests, surface and ground water supplies, farmland, clean air, developable land, natural recreational resources, historic areas and scenic views.
- Proximity to economic, cultural, government, and education centers in Richmond, Farmville, and surrounding areas.
- Major, high-capacity highway infrastructure in U.S. Route 360.
- Relatively low cost of living in terms of housing and local taxes when compared to other jurisdictions in the Richmond region.

However, the County does suffer from several disadvantages in terms of employment and economic development activity and potential, including:

- Very limited areas served by public sewer and water
- Limited recreational facilities, cultural resources, health care facilities, and other resources that provide a more complete community.

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- A small number of existing employers and few major industries.
- Intensifying competition, automation and productivity improvements that require a more highly trained and more specialized labor force.