Small Antenna, Microtower & Small Cell ZTA Community Meeting

Montgomery County, Maryland

October 23, 2017

Community Meeting – Agenda

- Background
- Summary of Changes between July 2017 and October 2017 drafts
- Questions and Answers

Federal Law – Three Facts

- Under federal law, the County may regulate placement of telecom towers and antennas, but <u>may not prohibit the provision of telecom service</u>.
- The County Transmission Facilities Coordinating Group enforces FCC radio frequency (RF) emissions standards, but under federal law, the County <u>may not deny telecom siting because of concerns about RF emissions</u>.
- The County Executive believes that RF emissions is an issue worthy of study. CE Leggett, Council VP Riemer, Rep. Raskin, and all members of the Montgomery County delegation have called on the FCC to complete its 2013 proceeding examining the health effects of RF emissions.

Local Solutions Are Better Than State/Federal Preemption

- It is better to be the master of our own destiny and create a local solution that protects community interests
- 2 states adopted legislation to preempt local siting in 2016
- 11 states adopted preemption in 2017
- FCC is working to further preempt at end of 2017

Preemption Update

- US Senators Wicker (R-MS) and Cortez Masto (D-NV) introduced the SPEEDACT on October 20, 2017 to exempt wireless facilities in the right of way from environmental review
- FCC Broadband Deployment Advisory Committee meeting Nov 9 2017
- Rather than wait for one-sized fits all federal solutions to be imposed, the County Executive is seeking community input on how we prefer to this to be done. We zoned for macro towers in 1990s; now we need to zone for microtowers and small antennas.

Summary of the Zoning Text Amendment

The County released a suggested proposal in July 2017 to get input on:

- **Allowing replacement poles with 5'-10' additional feet as Limited Use (additional feet on wider and widest roads)**
- **Allowing antennas on lower height buildings as Limited Use**
- **Keeping Conditional Use process – with a public hearing – for installation of new poles**

October 2017 Changes to Zoning Text Amendment

- Concern about eliminating 300 ft setback for conditional use
  - Setback would be retained but poles 35 ft or less require 1-to-1 setback from dwelling unit
- Setbacks when using existing structures (and replacement poles)
  - Small antennas would be set back 20 feet from existing dwelling in residential areas, and 10 feet in commercial, multi-unit areas
- Difficult-to-enforce references to antenna technology and types
  - 5 categories of antennas with maximum length and volume

October 2017 Changes to Zoning Text Amendment

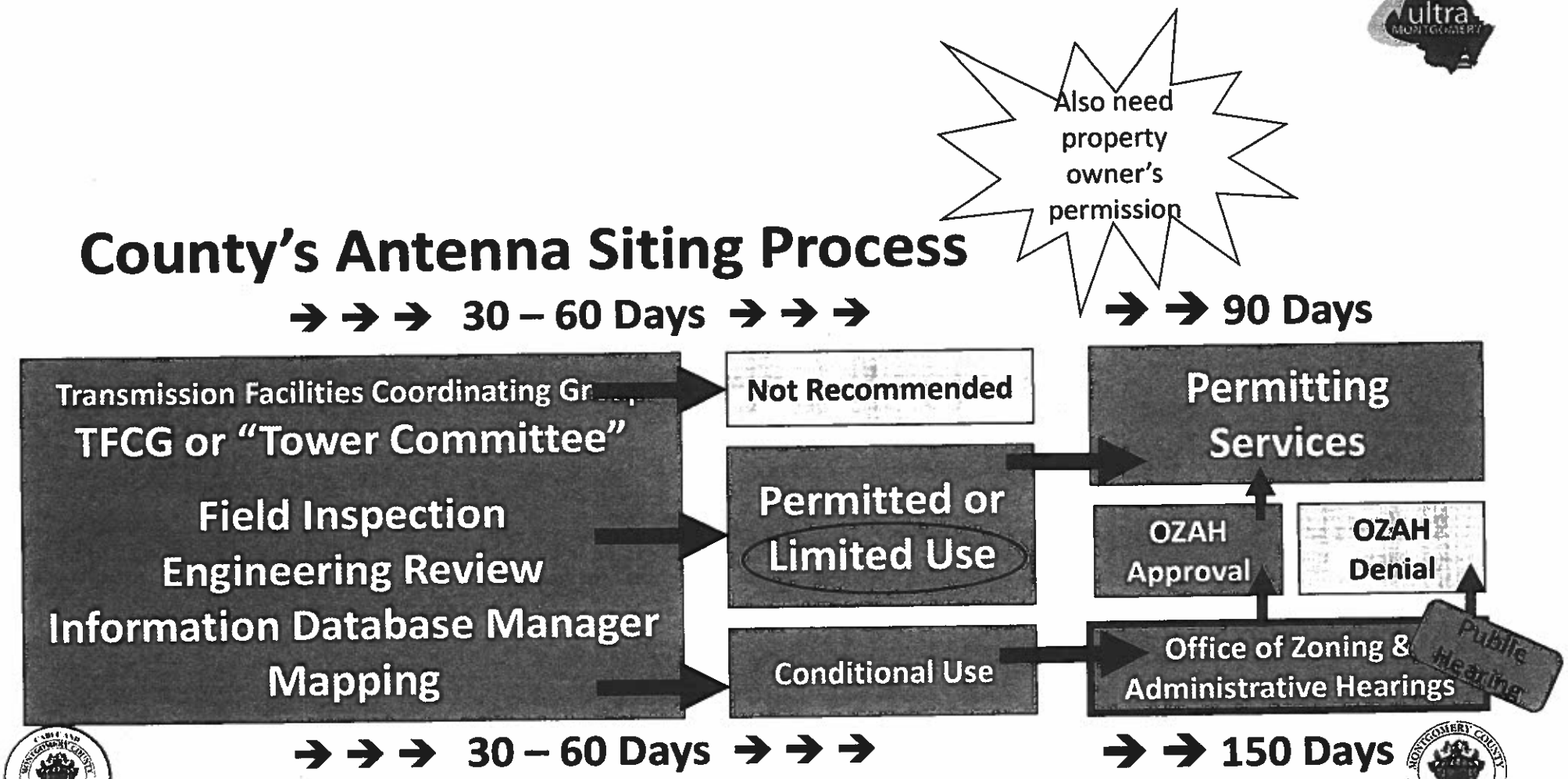
- Equipment (12 cu feet) on poles
  - Equipment required in base, at ground level, or as stealth
  - Fan permitted
  - Graffiti must be removed and damage repaired
- Replacement Pole Limit on Additional Height
  - Streetlights: 5 feet (paved road >30ft); 10 feet (30-60); 20 ft (paved road >60 ft)
  - Utility Poles and Parking Lot Lights: 10 feet
- Request additional information about site selection in TFCG application

Summary of Antenna Changes for Buildings

CTOBER 23 2017 SUGGESTED REVISIONS

Category			Allowable installations								
			Any Zone			Res Detached, Rural Res, PUD		Res MDU, C/R, Emplmnt, or Ind			
Category	Maximum Length on Any Side (in feet)	Maximum Volume (in cubic feet)	Tower or Watertanks	In ROW, utility or Streetight Pole	On any structure	Bldg rooftop	Bldg façade if screened or painted	On a bldg rooftop	On a building façade if screened or painted		
				Parking Lot Light	20 ft from dwelling	Bldg Ht 35 ft or greater		Bldg Ht 20 ft or greater	Bldg Ht 20 ft or greater	Sample Type	Sample Dimenions
A	4 feet	6 cubic feet	☑	☑	☑	☑	☑	☑	☑	Antenna in 4' canister	50"x15.1"x7.55"=5.18 cu ft
B	4 feet	46 cubic feet	☑			☑	☑	☑	☑	Box 4' antenna	39"x43"x47"=45.61 cu ft
C	6 feet	30 cubic feet	☑			☑		☑	☑(30' up on bldg)	Box 6' antenna	71.6"x24"x25"=24.86 cu ft
D	9 feet	13 cubic feet	☑			☑		☑	☑(30' up on bldg)	9' antenna (panel or cylinder)	8.76'x20"x6.9"=8.4 cu ft 8'x25.2"x9.3"=13.02 cu ft 9'x1.25' dia=11.04 cu ft
E	15 feet	1 cubic foot	☑			☑		☑	☑(30' up on bldg)	Thin Whip 15' antenna	15'x3"dia=.74 cu ft

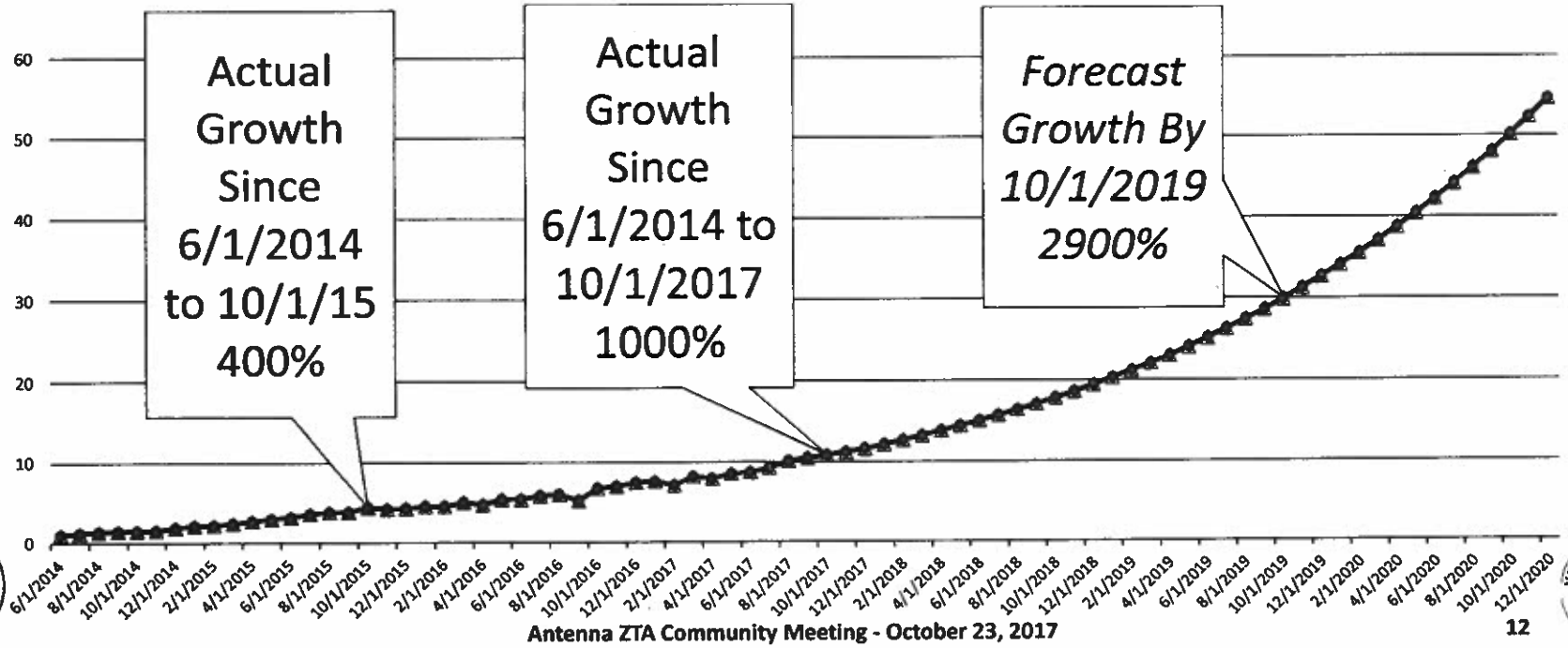
County's Antenna Siting Process



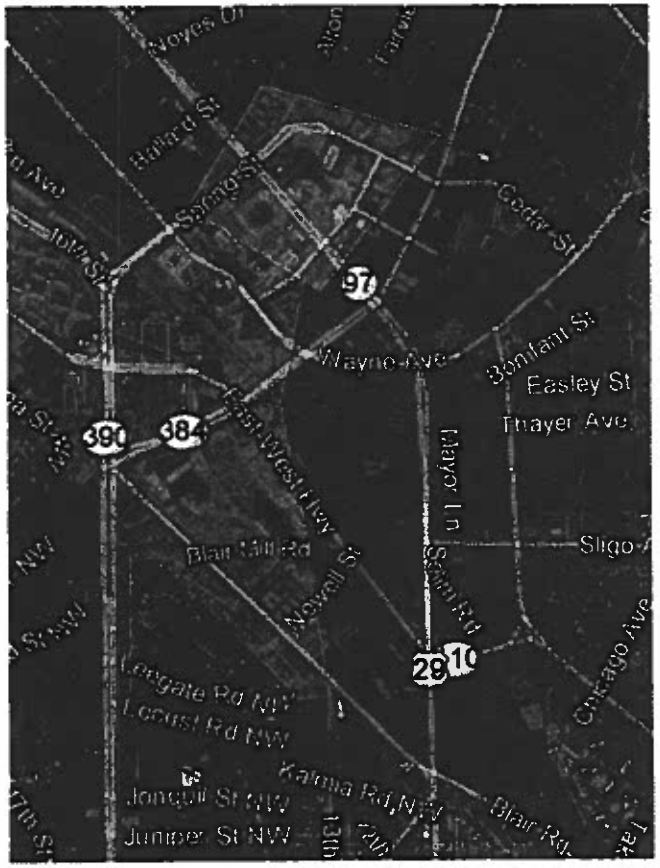
Process Improvements (in internal review)

- Require additional information about capacity improvement and reasons for selecting specific sites
- Use on-line submission to weed out worst of incomplete applications and increase transparency (in beta testing now)
- Add feature to automatically notify HOA when completed TFCG application is received
- $500 fee for incomplete applications and 30 day time limit to submit missing information
- 60-90 time limit to use TFCG Recommendation
- Require applicant to submit post-construction photo (need to address enforcement)

T-Mobile Data Usage Growth In Montgomery Co.

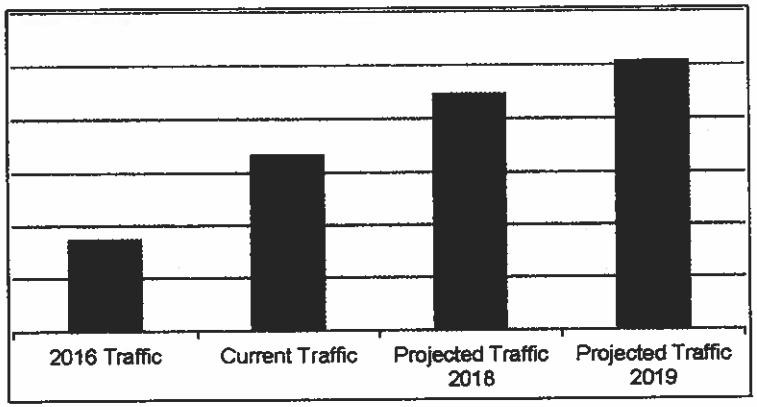


Silver Spring



The data capacity in these areas will begin to exhaust and the network performance will be degraded in the following years:

2018 2019 2020



Silver Spring data usage is predicted to increase 50% within the next (2) years

verizon

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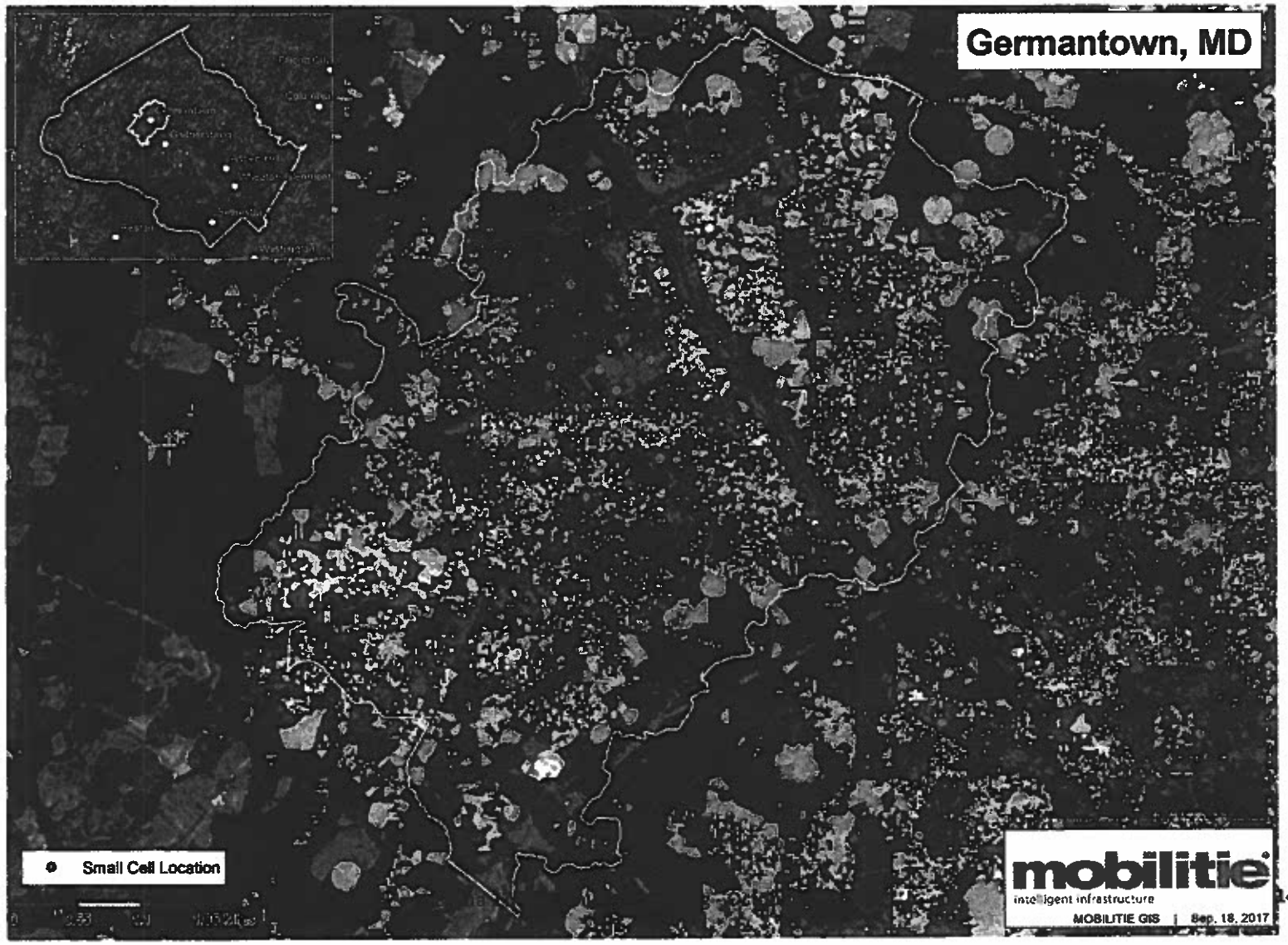
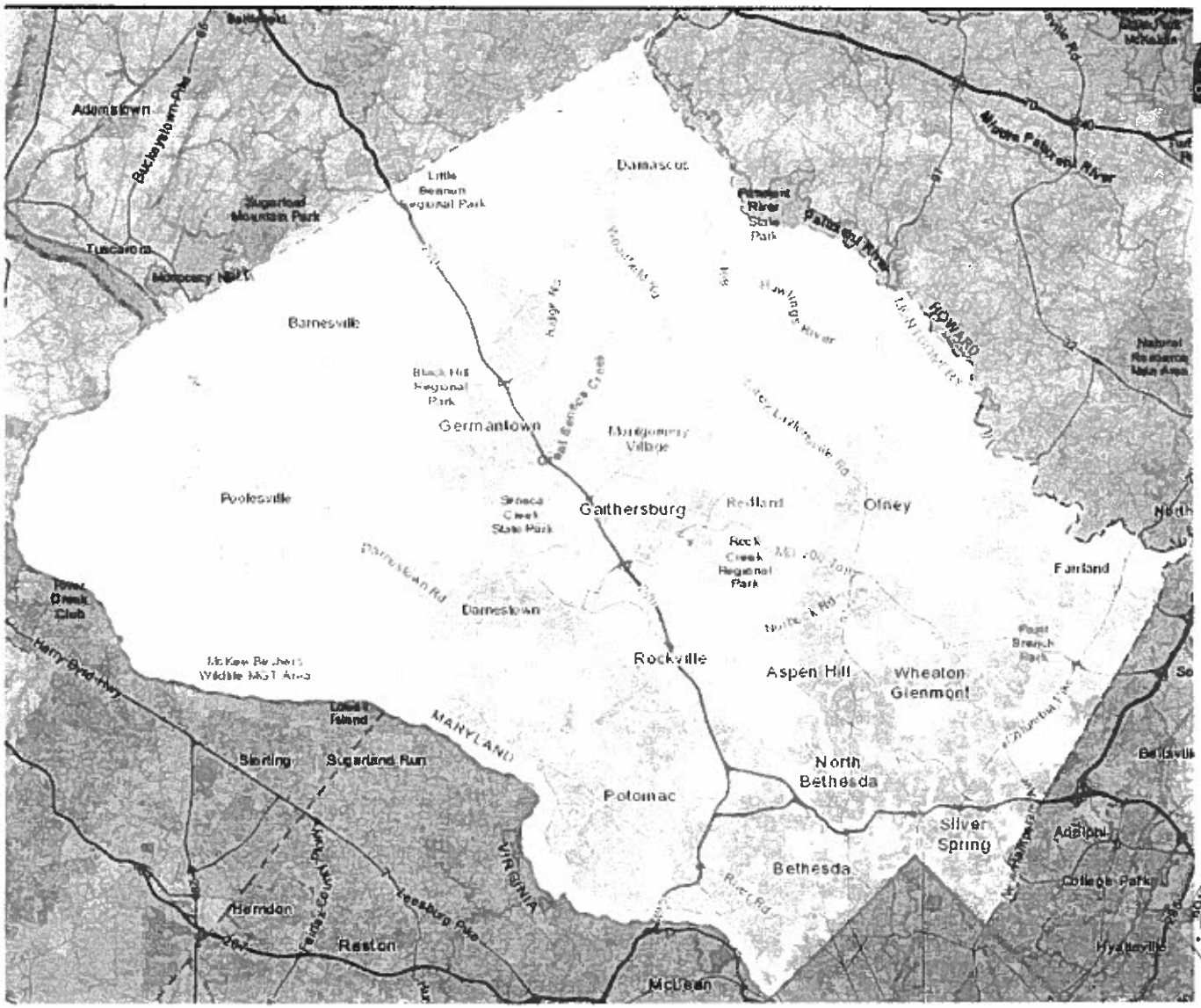
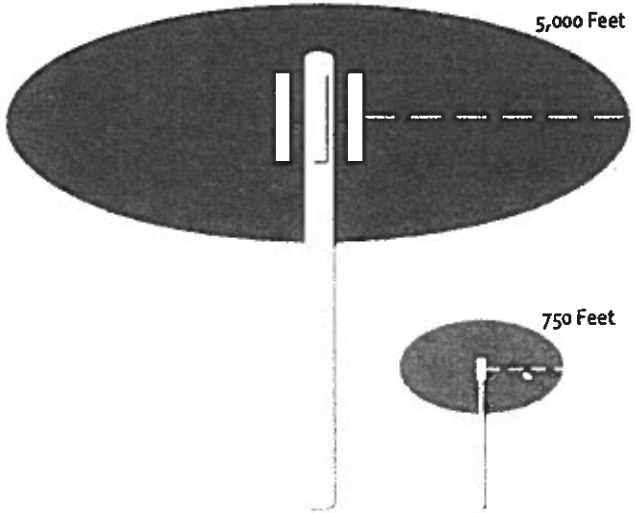

Germantown, MD
Small Cell Location
mobilitie
intelligent infrastructure
MOBILITIE GIS | Sep. 18, 2017

Underground and Aerial Utilities



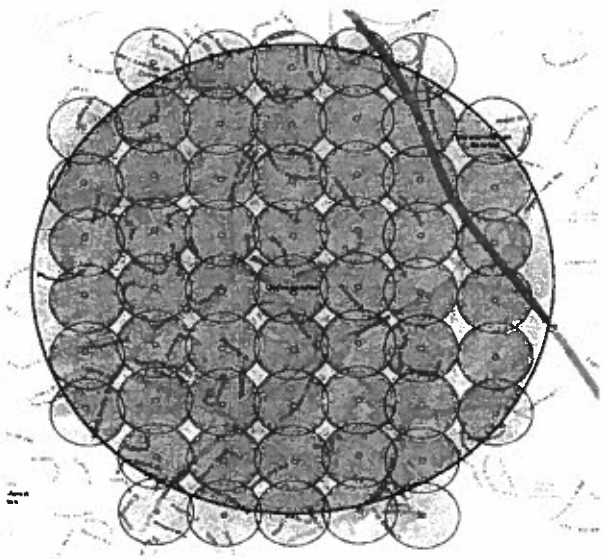
Why So Many New Small Antennas? "DENSIFICATION"

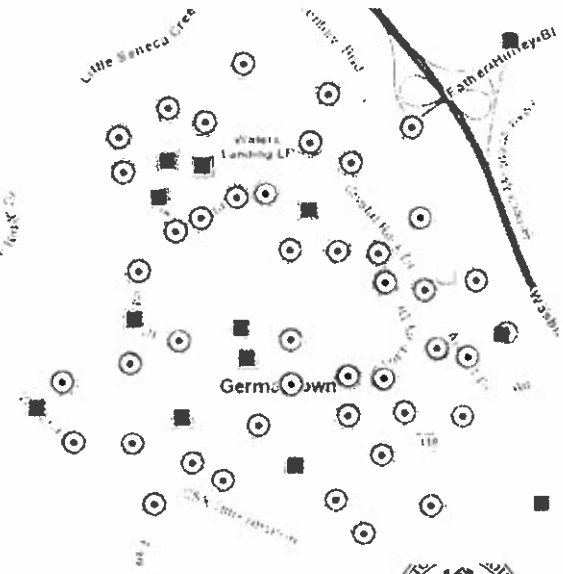
- Small antennas are one means to deliver more mobile broadband
- 100-foot antenna covering 1 mile radius provides same capacity as 20-foot antenna with 750 ft radius
- Current technology cannot be used to put all the new antennas on the macrotower



Upcounty Example

- Appx 57 microtower antennas fit in diameter of the microtower
- Build microtowers to add coverage as needed
- Newer 5G spectrum won't travel as far – microtowers are needed

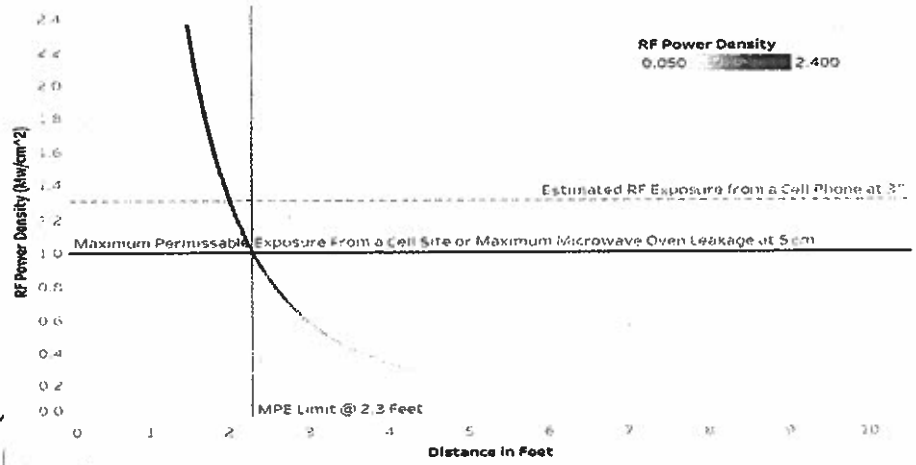




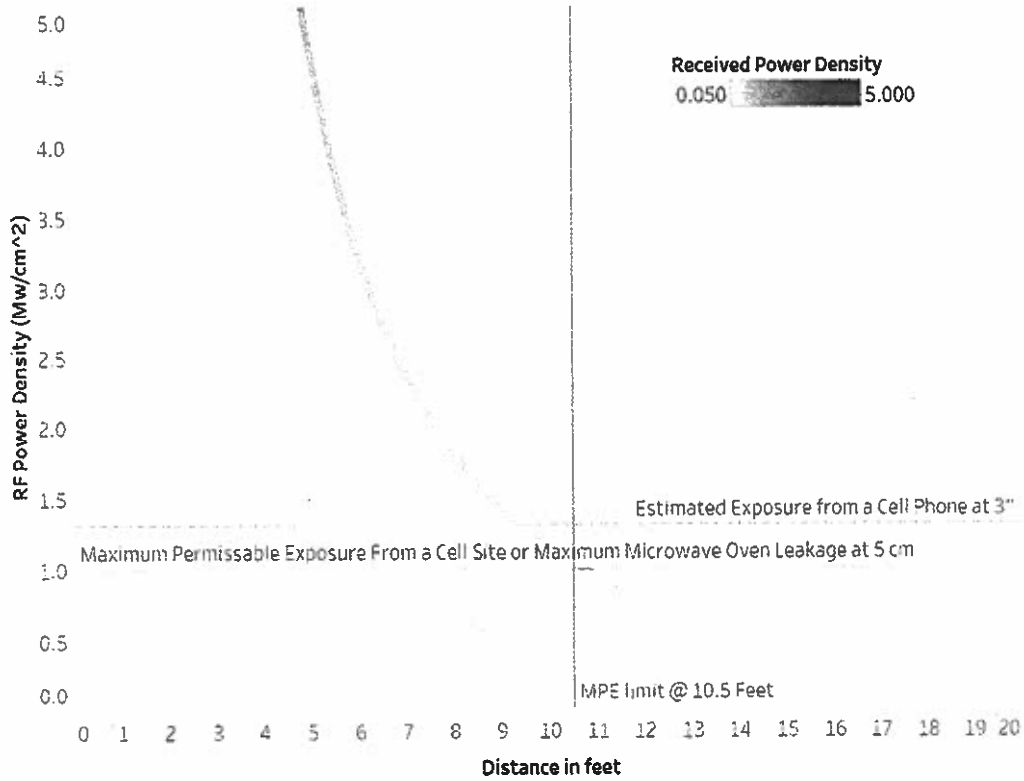
RF Exposure Comparison

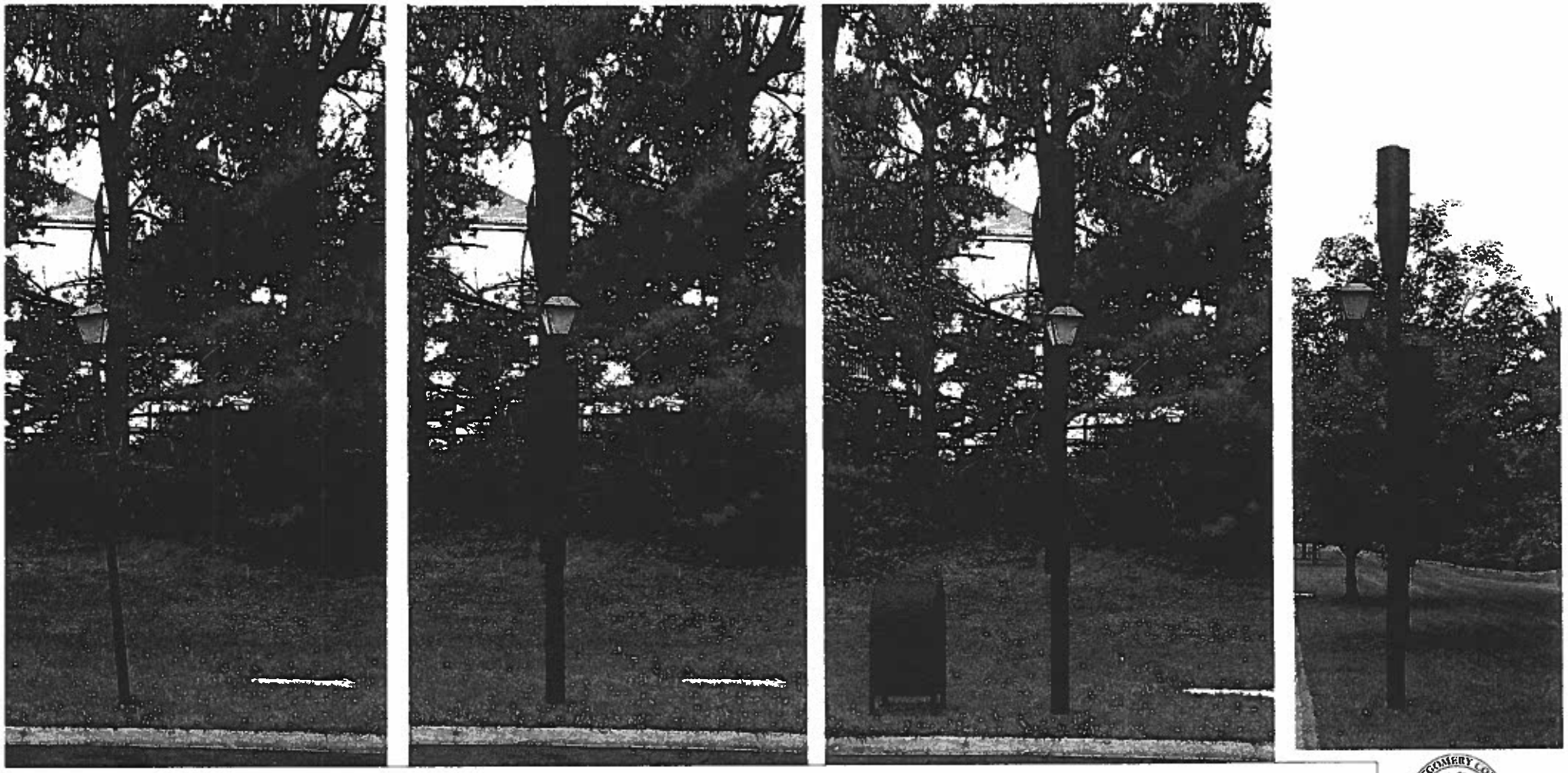
- **1 v 3 antennas, cell phone, microwave oven**
- **FCC RF Rules require minimum distances**

RF Power Received based on Based on Previous Applications of Small Cells in the Direct Path of Antenna



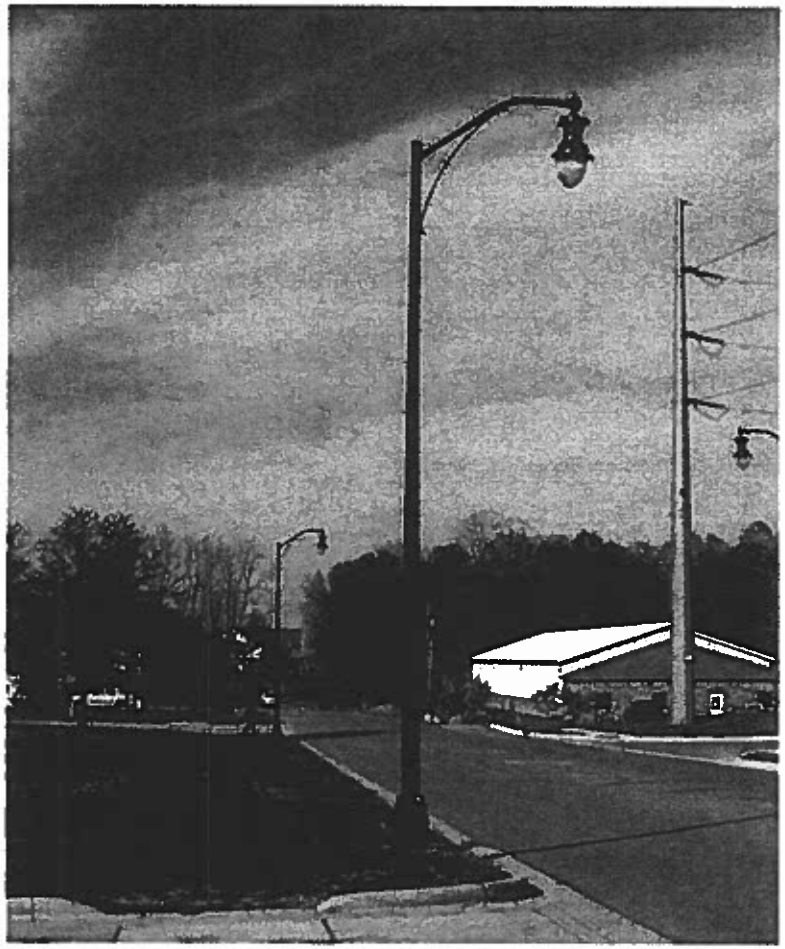
RF Power Received from a Robust Hypothetical Small Cell in the Direct Path of Antenna

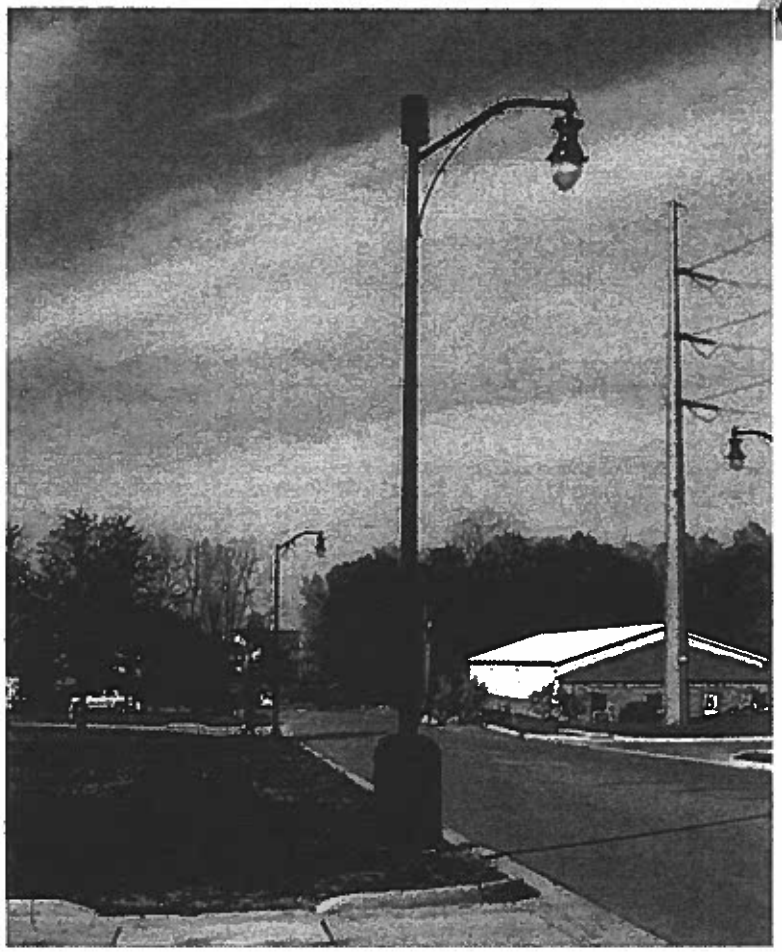


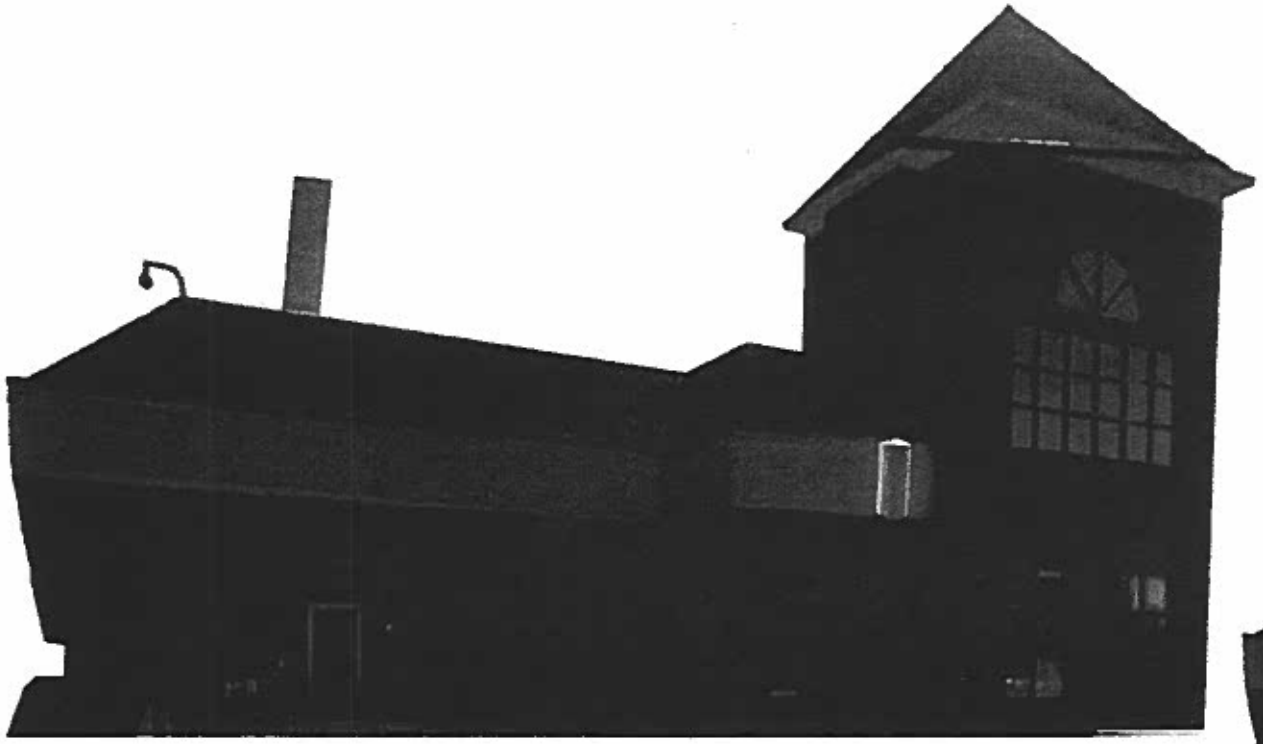


14’ to 16’ Colonial Streetlight Replaced with 19’ to 20’ side mounted or ground cabinet

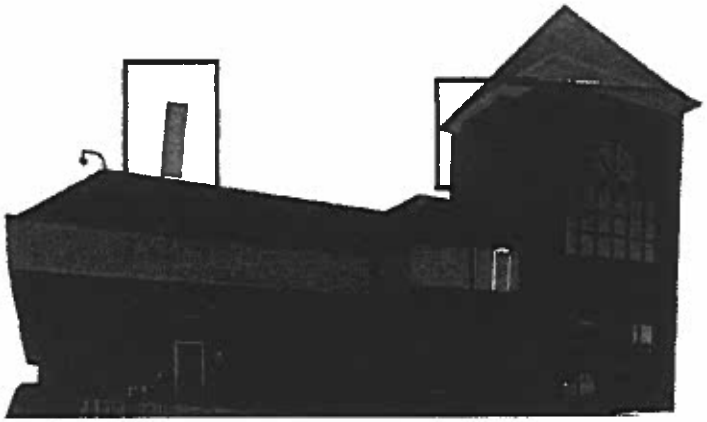
27' Cobrahead-Style Pole with Panel Antennas & Equipment







Allow antennas on shorter buildings but increase camouflage requirements if placed on shorter buildings



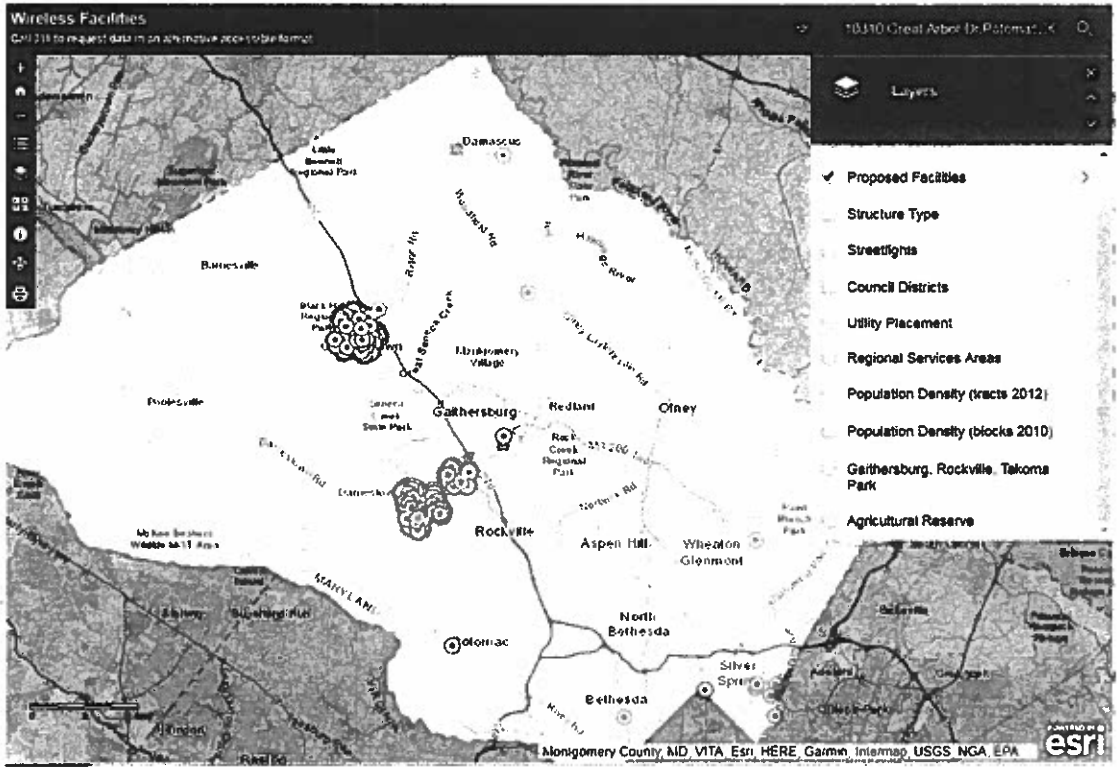
Federal Restrictions on Managing Antennas

47 U.S.C. Section 332(c)(7)

- The County cannot enact laws that prohibit or have the effect of prohibiting service, nor deny permits based on the environmental effects of radio frequency emissions other than FCC's standards
- We have to process applications within specific time limits:
  - 60-day "deemed granted" shot clock under Section 6409(a) of the Spectrum Act
  - 90-day shot clock, FCC interpretation of Sec. 332(c)(7) of the Communications Act
  - 150-day shot clock, FCC interpretation of Sec. 332(c)(7) of the Communications Act

Recent FCC Actions

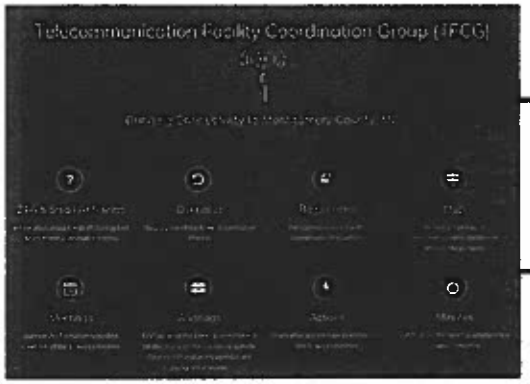
- Opened 3 new proceedings asking for ways to further preempt local zoning, suggesting:
  - Even shorter time frames to process applications
  - Limiting regulatory fees and compensation to cost
  - Enact preemptory zoning (or "deemed granted") for failure to act within time limits instead of courts
- Opened Broadband Deployment Advisory Committee (BDAC) and stocked it with industry representatives
- Expects BDAC report Nov 2017, and to issue Order in Dec 2017



New Mapping Tool

Also at

www.montgomerycountymd.gov/towers



MAP

https://gis3.montgomerycountymd.gov/WirelessAntennasAndTowers/

Additional Community Input

- The community meetings provided another forum, in addition to email and a website, to obtain public input on the draft ZTA.
- The Community Meeting is <u>not</u> a public hearing. The County Council will schedule a public hearing after the County Executive submits legislation. The public hearing will be televised, Internet streamed, and recorded.
- The County Council will have opportunity to amend legislation submitted by the County Executive for Council consideration.

More Information and Input

www.MontgomeryCountyMD.gov/AntennaZTA

https://mocotfcg.blogspot.com/p/home.html

AntennaZTA@montgomerycountymd.gov

www.MontgomeryCountyMD.gov/Towers