TELECOMMUNICATIONS TRANSMISSION FACILITY COORDINATING COMMITTEE

2016 ANNUAL REPORT

PRINCE GEORGE'S COUNTY
RUSHERN L. BAKER, III
COUNTY EXECUTIVE

Cover Photo

COWS IN THE FIELD

In FY 16, an application was filed to erect a temporary tower on the First Baptist Church of Camp Springs property. The temporary tower was designed to support AT&T antennas while existing antennas on an adjacent property were temporarily removed. The existing antennas were attached to an elevated water tank that the Washington Suburban Sanitary Commission (WSSC) needed to paint.

This type of temporary structure—known as a "cell-on-wheels," or COW—is designed to provide temporary coverage to an area while a carrier awaits construction of a permanent facility, or while an existing antenna array or support structure is repaired. A COW is permitted for a period of 120 days pursuant to the County Zoning Code (as amended by CB-067-2008).

A COW can be moved from place to place. Once it is in position and outfitted with antennas to provide interim service, the collapsible tower is extended to the appropriate height and guyed for support. The photo below shows the collapsed tower on its trailer. The photo on the cover shows the COW erected on-site with the AT&T antennas attached.

Table of Contents

1. Executive Summary

In fiscal year 2016 the Telecommunications Transmission Facility Coordinating Committee (TTFCC) reviewed 241 applications. The majority of those applications (194) were minor modification applications to add antennas or otherwise change existing antenna arrays; most of those were administratively approved by the TTFCC Chair as permitted in the County Code.

The TTFCC reviewed 14 applications for new towers. Five were applications for public agency use—four from Baltimore Gas & Electric (BG&E) and one from the Washington Metropolitan Area Transit Authority (WMATA)—and one was from Verizon Wireless. The remaining eight were for relatively short, single-antenna DAS access points in the vicinity of FedEx Field.

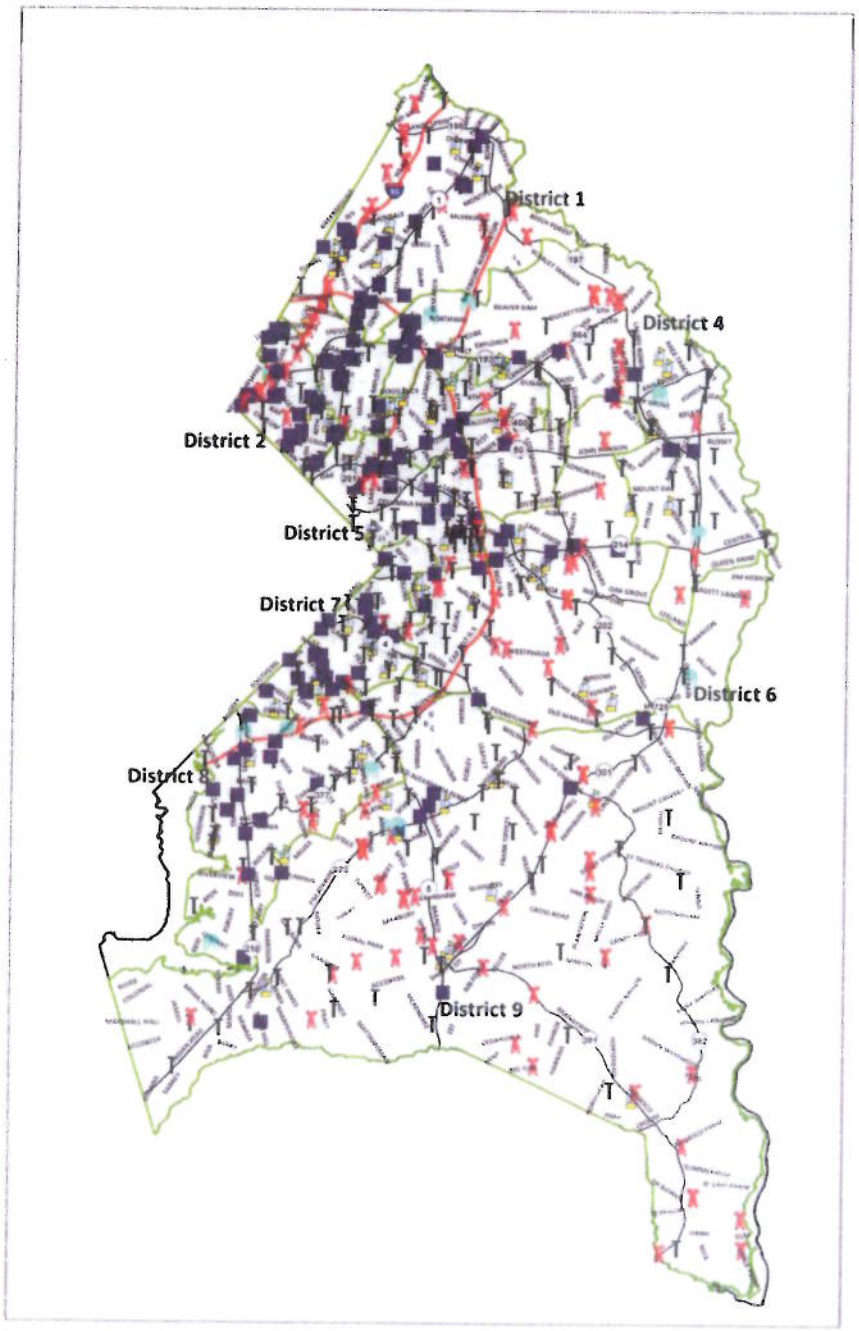
The carriers continue to upgrade their networks for service areas inside the Washington Beltway, where concentrations of antennas are located to serve residents, travelers, and employees. The table below shows the number of antenna sites and the number of monopoles (permitted by the Zoning Code up to 100 feet high in residential areas) in the County by Council District.

Council District	Number of Antenna Sites	Number of Monopoles
1	70	21
2	44	9
3	45	18
4	68	27
5	78	49
6	58	27
7	39	14
8	52	19
9	111	52
Total	565	236

TTFCC application fees collected during FY 16 amounted to approximately $217,500. The County's costs for TTFCC activities, excluding indirect County staff time, were $232,150. These costs were expenditures for outside services provided by the designated Telecommunications Transmission Facility Coordinator, presently Columbia Telecommunications Corporation.

2. Background

Since the TTFCC's inception in 2000, the Committee has processed 2,804 applications, enabling carriers to place antennas at 565 locations in the County. The map below illustrates the locations of antenna sites by type of support structure. Generally, antennas are mounted on four types of structures in the County—monopoles (shown in black on the map), buildings (purple), lattice towers (red), and water towers (turquoise).



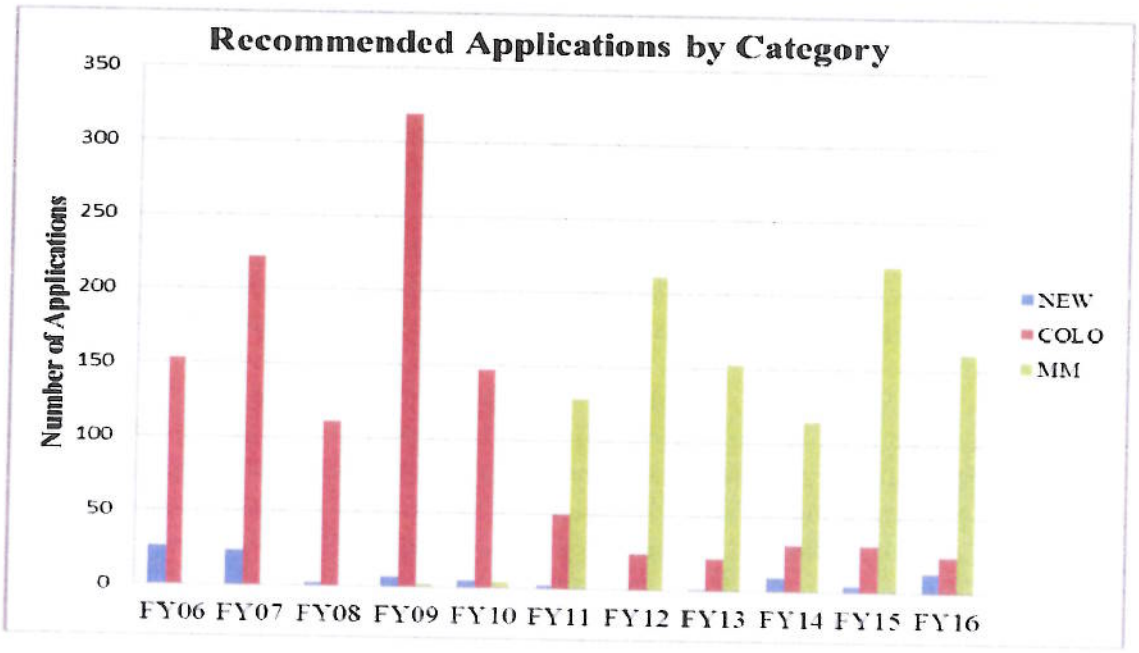
The following table shows the number of each type of antenna siting:

Type	Number
Monopole	236
Building	159
Tower	157
Water Tower	13
Total	*565*

Many structures where carriers have placed wireless facilities have antenna arrays from multiple carriers. The chart below shows the number of locations supporting multiple carriers.

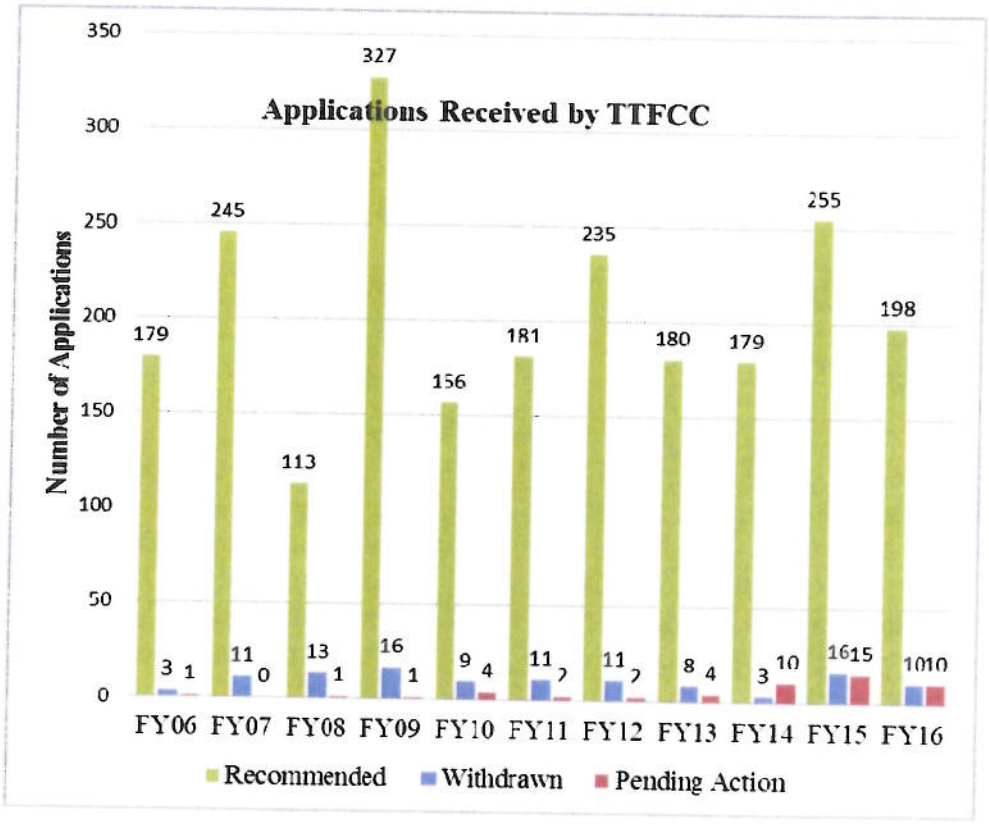
Number of Structures with Antennas from Multiple Carriers								
# Carriers	2	3	4	5	6	7	8	9
# Structures	70	54	35	38	19	8	8	2

Over time, the nature of applications filed with the TTFCC has changed; in recent years, carriers overwhelmingly have been upgrading existing antenna arrays to add capacity to service areas, not expanding their coverage areas with new antenna sites (eiither through co-location or by building new towers). Consequently, for the past few years, the majority of TTFCC applications have been for minor modifications to existing sties. The table below shows the TTFCC's recommendations by application type (i.e., new sites, co-location, and minor modification) for FY 16 and the prior 10 years.



3. FY 16 TTFCC Activities

Carriers filed 218 applications in FY 16 for TTFCC review and action. The table below illustrates the number of applications filed, by disposition (i.e., recommended by the TTFCC, subsequently withdrawn by the applicant, or pending action by the TTFCC), for FY 16 and the prior 10 years.



In FY 16 the TTFCC reviewed 241 applications, including some carried over from FY 15.[1]

Minor Modification Applications

The vast majority of applications reviewed by the TTFCC in FY 16 (194) were to modify an existing antenna array, which included replacing existing antennas or adding new antennas to an existing array of antennas, adding additional transmitting equipment, adding electrical generators, or all of those changes.

Revisions were made to the County Code in 2008 to permit the Chair of the TTFCC to administratively approve minor modification applications. This process permits the applicant to apply for a building permit without having to wait for the next TTFCC meeting, at which the full Committee makes a recommendation on each application. Nearly all of the minor modification applications filed in FY 16 (181, or 93 percent) were so approved. Of that total, 38 were

[1] For a variety of reasons, applications are not always reviewed in the fiscal year in which they are filed. Some of the applications reviewed in FY 16 were filed in FY 15; similarly, some of the applications filed in FY 16 will be reviewed in FY 15.

approved with conditions, including approval of any changes that may be needed to a special exception on the property, modification to a structure prior to making the antenna changes, and approval by WSSC for work on its facilities. The minor modification application for the placement of the COW shown on the cover of this report was approved with the condition that it be in place no longer that the allowed 120-day period.

Co-Location Applications

There were 33 co-location applications from carriers seeking to place their antennas on structures where other carriers already have antennas. As has been the case for the past few years, the carriers have been upgrading their existing antenna arrays and installing antennas at new sites to add capacity to their networks to support LTE technology (i.e., the technology needed to support the high-bandwidth applications used on new smart phones and other wireless devices).

New Facility Applications

The TTFCC reviewed 14 new tower applications in FY 16. Four of those applications were filed by Baltimore Gas & Electric (BG&E) to support microwave antennas to provide data links among its substations. One application was filed by the Washington Metropolitan Area Transit Authority (WMATA) for a similar purpose. Verizon Wireless filed for one new monopole to expand coverage and add capacity for 4G services in the vicinity of Accokeek Road and Route 5, where there has been considerable housing growth in recent years.

The remaining eight new tower applications received in FY16 were to place distributed antenna system (DAS) access points around FedEx Field to add additional capacity for smart phone demands in that vicinity, especially during events at that facility. Because the County does not permit use of its public right-of-way for such private use purposes, all of those structures are to be placed in the public utility easement areas on the property. Those structures, unlike a traditional tower or monopole, are 25-foot-high steel poles; they will be topped with two 23-inich-high panel antennas. Each access point is linked via fiber optic cabling to a central equipment facility, forming a single network.

Additionally, as explained in last year's report, placement of small cell antennas in the County continued in FY 16. Verizon Wireless filed 13 applications to place small cell antennas in areas where additional capacity was needed. Typically, those sitings have comprised the attachment of 23-inch or 24-inch-high antennas atop relatively low structures such as gas station buildings or canopies.

TTFCC Meetings

TTFCC meetings are generally held on the third Wednesday of each month. All meetings are open to the public. However, in the event that all the applications in a given month have been administratively approved, no meeting is held. There were four such months in FY 16.

4. Administration of the Antenna Siting Review Process

The TTFCC was created in 2000 to "promote the appropriate and efficient location and co-location of telecommunications transmission facilities to minimize adverse impacts on other land uses in the County. The Telecommunications Transmission Facility Coordinating Committee shall, among other things, evaluate the esthetic effects of locating multiple telecommunications transmission facilities in a single location or on a single structure." [County Code Section 5A.161]

The County Code requires that the TTFCC shall:

(1) "Review the siting of each proposed telecommunications transmission facility;
(2) Evaluate the technical rationale of proposed locations;
(3) Recommend alternative sites and techniques where appropriate to mitigate the visual impact of the proposed and alternative site and provide a copy of the recommendation to the council member in whose district the telecommunications transmission facility is to be located;
(4) Recommend provisions governing removal of the proposed telecommunications transmission facility at the end of its useful life, including the posting of a bond or other financial guarantee;
(5) Facilitate public participation in the telecommunications transmission facility siting process; [and]
(6) Report annually to the County Executive and/or the County Council [or] and as requested on siting policy issues."

To assist the TTFCC in its review of applications to place wireless telecommunications facilities in the County, a Telecommunications Transmission Facility Coordinator was established to:

- Maintain a database of telecommunications facilities
- Provide information
- Serve as a technical resource to the public and interested carriers and agencies
- Review applications
- Evaluate the technical need for the facility
- Recommend alternative locations where appropriate

Costs for the work of the TTFCC are, in part, funded from TTFCC application fees established in 2008. Those fees are as follows:

$2,500	TTFCC Application for a new tower, monopole, or support structure
$1,500	TTFCC Application for a co-location on an existing structure
$500	TTFCC Application for a minor modification to existing facilities
$250	Modification or revision to a TTFCC Application
$500	Annual Master Plan Update

Application fees collected during FY 16 amounted to approximately $217,500. The County's costs for TTFCC activities, excluding indirect County staff time, were $232,150. These costs were expenditures for outside services provided by the designated Telecommunications Transmission Facility Coordinator, presently Columbia Telecommunications Corporation.

The current TTFCC members are:

TTFCC Chair

- Michelle Lyons, Administrator of Boards and Commissions,
  Prince George's County Department of Permits, Inspections and Enforcement

TTFCC Vice-Chair

- Clarence Moseley, Permits Supervisor, Permits Information and Management Section,
  Prince George's County Department of Permits, Inspections and Enforcement

TTFCC Members

- Lakisha Pingshaw, Broadband Manager,
  Prince George's County Office of Information Technology
- James Stepowany, Acting Planning Coordinator, Permit Review Section,
  Maryland National Capital Parks and Planning Commission
- Collette Gresham, Committee Director
  Prince George's County Council
- Vincent Curl, Facility Supervisor, Maintenance Department,
  Prince George's County Public Schools
- Mary Rea, Planner III, Site/Road Permit Section,
  Prince George's County Department of Permits, Inspections and Enforcement

Additional support to the TTFCC is provided by:

- Jared McCarthy, Associate County Attorney,
  Prince George's County Office of Law
- TTFCC Facility Coordinator
  Columbia Telecommunications Corporation

Interested parties may find all general public information about the TTFCC at the Committee's website (http://www.princegeorgescountymd.gov/693/Telecommunications-Transmission-Facility). Included on the website, once the material is approved by the County Council, is a Master Plan map illustrating all of the carriers' proposed locations for new antennas based on the information the carriers provide the County with each annual update of their future planned antenna sites.

In addition, the County requires that a carrier seeking to construct a new tower or monopole in the County send a public notice to property owners and community organizations within a mile of the location proposed for the structure. The carriers are also obligated to notify the TTFCC Chair of any meetings that are subsequently held in response to those notices.

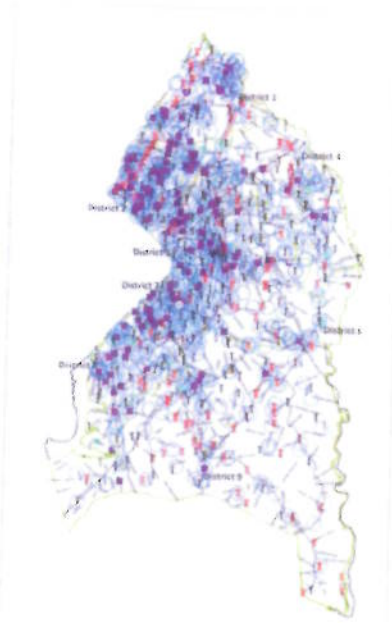
5. Future Expectations

The maps below illustrate the location and number of future antenna sites planned by the carriers based on their annual plan updates filed with the County in August 2016 and the two preceding years. Cumulatively, there are a total of 963 future sites listed by all carriers for FY 17 and beyond. As the maps illustrate, the TTFCC expects a significant increase in the number of applications it receives in FY 17.

2014-2015 Master Plan

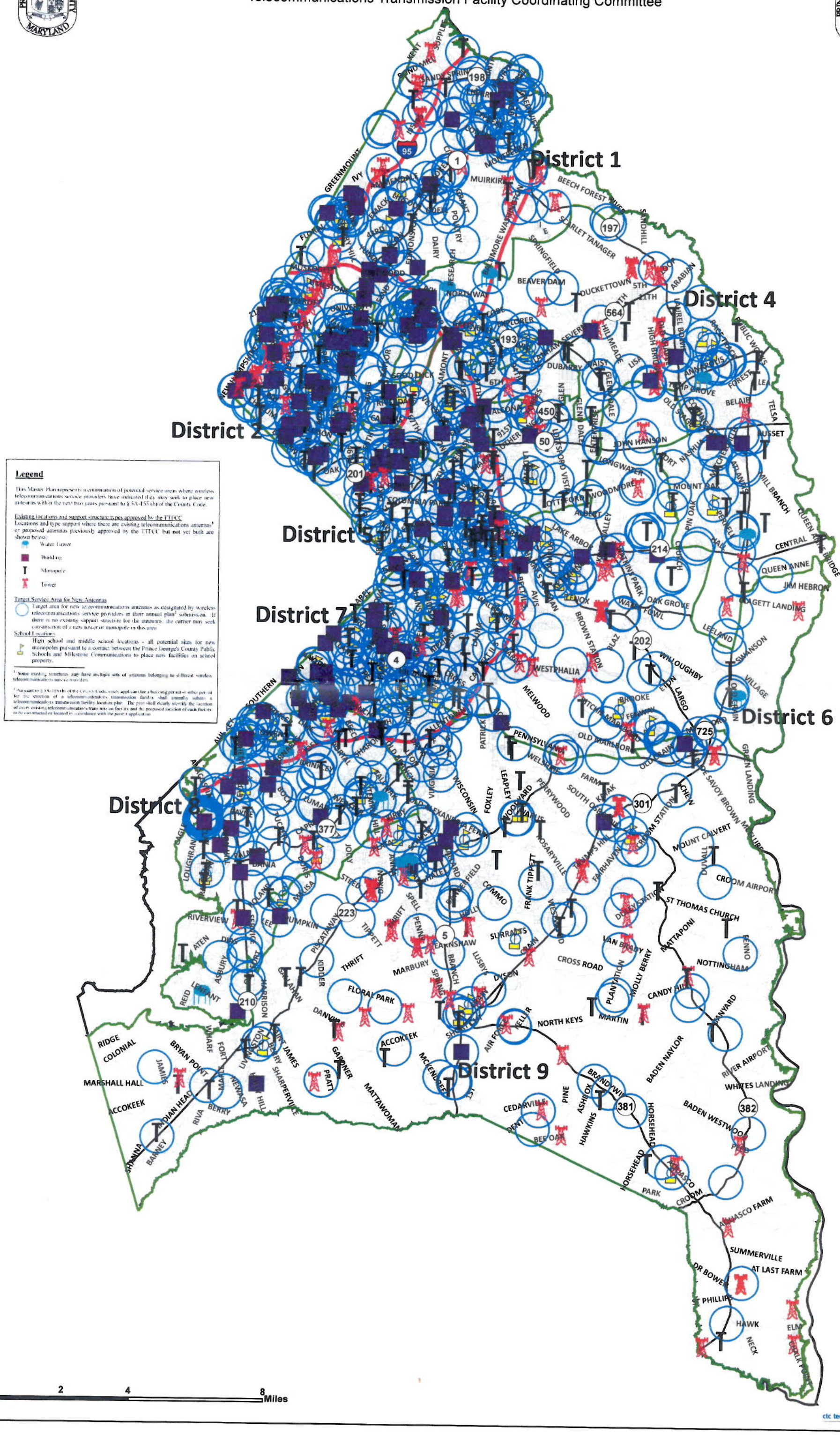
2015-2016 Master Plan

2016-2017 Master Plan



Telecommunications Transmission Facilities Master Plan 2016-2017

Telecommunications Transmission Facility Coordinating Committee



Legend

This Master Plan represents a compilation of potential service areas where wireless telecommunications service providers have indicated they may seek to place new antennas within the next two years pursuant to § 5A-155 (b) of the County Code.

Existing locations and support structure types approved by the TTFCC

Locations and type support where there are existing telecommunications antennas[1] or proposed antennas previously approved by the TTFCC but not yet built are shown below:

- Water Tower
- Building
- Monopole
- Tower

Target Service Area for New Antennas

Target area for new telecommunications antennas as designated by wireless telecommunications service providers in their annual plan[2] submission. If there is no existing support structure for the antennas, the carrier may seek construction of a new tower or monopole in this area

School Locations

High school and middle school locations - all potential sites for new monopoles pursuant to a contract between the Prince George's County Public Schools and Milestone Communications to place new facilities on school property.

[1] Some existing structures may have multiple sets of antennas belonging to different wireless telecommunications service providers.

[2] Pursuant to § 5A-155 (b) of the County Code, every applicant for a building permit or other permit for the erection of a telecommunications transmission facility shall annually submit a telecommunications transmission facility location plan. The plan shall clearly identify the location of every existing telecommunications transmission facility and the proposed location of each facility to be constructed or located in accordance with the permit application.

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