

DEPARTMENT OF TECHNOLOGY SERVICES

Isiah Leggett
County Executive

Harash (Sonny) Segal Chief Information Officer

June 24, 2015

TO: Transmission Facility Coordinating Group

Marjorie Williams, TFCG Chair, Office of Cable and Communications Services

Carlton Gilbert, M-NCPPC

Naeem Mia, OMB

Martin Rookard, WSSC Boyd Lawrence, MCPS Dave Niblock, DPS Ted Bowser, DTS

Thomas Williamson, DGS

FROM: Robert Hunnicutt, Tower Coordinator,

Columbia Telecommunications Corporation

SUBJECT: Tower Group Meeting Agenda

The next TFCG meeting is scheduled for Wednesday, July 1st at 2:00 p.m. in Room #225 in the COB. The agenda for the meeting is as follows:

Consent Agenda

- 1. Verizon Wireless application to replace 5 antennas with 5 panel antennas at the 207' level on a 215'-high lattice tower on Atlantic Seaboard Corp. property located at 35 Derwood Circle in Rockville (201506-07). *Minor Modification*.
- 2. Verizon Wireless application to replace 9 antennas with 9 panel antennas at the 105' level on an 116'-high monopole on State Highway Administration District 3 property located at I-495 & Connecticut Avenue in Chevy Chase (201506-10). *Minor Modification*.
- 3. Verizon Wireless application to remove 3 antennas and replace with 3 panel antennas at the 160' level on 230'-high self-supporting tower on Montgomery Mule LLC property located at 18500 Elmer School Road (aka 23000 White's Ferry Road) in Dickerson (201506-11). *Minor Modification*.

- 4. Pacific DataVision application to attach three whip antennas at the 155' level on a 134'-high apartment building on Hillzo Limited Partnership property located at 9727 Mt. Pisgah Road in Silver Spring (201507-01). *Co-location.*Conditioned on FCC approval of a license to transmit from this location
- 5. Sprint application to remove 6 antennas and replace with 6 panel antennas at the 110' level on 116'-high PEPCO transmission line tower on PEPCO property located at Seven Lock Road/Tuckerman Lane in Potomac (201507-02). *Minor Modification*.
- 6. T-Mobile application to remove 3 antennas and replace with 3 panel antennas at the 130' level on a 129'-high monopole on Montgomery County Public Schools property located at 5939 Muncaster Mill Road in Rockville (201507-03). *Minor Modification*.
- 7. Verizon Wireless application to replace 6 antennas with 6 panel antenna at the 46' level on a 42'-high apartment building on Grossberg Louis C Et Al property located at 11931 Viers Mill Road in Silver Spring (201507-04). *Minor Modification*.
- 8. Sprint application to replace 6 antennas with 6 panel antennas at the 92' level on a 94'-high apartment building at 18700 Walkers Choice Road in Gaithersburg (201507-05). *Minor Modification*.
- 9. Sprint application to attach 6 panel antennas at the 100' level on a 120'-high monopole on Montgomery County Public Schools property located at 5939 Muncaster Mill Road in Rockville (201507-06). *Co-location*.
- 10. Verizon Wireless application to attach 12 panel antennas at the 117' level on a 150'-high monopole on WMMH Building LLC property located at 1 Milestone Center Court in Germantown (201507-07). *Co-location*.

Regular Agenda

There are no items on the Regular Agenda this month.

Discussion Item

• Revised application and plans for TFCG #201303-03 Verizon Wireless @ Gramax Towers – 8060 13th Street, Silver Spring. The applicant reports that Verizon Wireless will install two antenna models that are different from what was proposed in the application the TFCG reviewed and recommended. The new antenna models are SBNHH-1D65C at 96"-high and SBNHH-1D45B at 72"-high. See attached explanation and revised plans from the applicant.

TFCG Meeting Agenda July 1, 2015 Page 3 of 3

Discussion Item

Revised application/plans for TFCG #201303-03 & excerpt from correspondence

From: Harold Bernadzikowski

Sent: Thursday, June 11, 2015 2:35 PM

Subject: TFCG #201507-07 Request for Information

The permit for the installation was issued recently so the construction is not complete. This will simply be for the antenna model change.



MONTGOMERY COUNTY, MARYLAND APPLICATION FOR WIRELESS COMMUNICATIONS SITE COORDINATION

DATE:	NUMBER: <u>201507-07</u>
	(To be filled in by County)

Applicant Name:	Verizon Wireless,	c/o Network Building	and Consulting, LLC
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DBA:

Address: 6095 Marshalee Drive, Suite 300, Elkridge, MD 21075

Contact Person

and Phone No.: Harold Bernadzikowski 410-530-0937 or hbernadzikowski@nbcllc.com

Provide a description of the proposed installation, including the type and height of the structure (i.e. monopole, rooftop, water tank, guyed tower, self-support tower, etc.) and whether it is existing, modified, or new. Describe any modifications that will be made to existing structure.

This application is for Minor Modifications to a telecommunication facility, previously acted on by the TFCG on March 18, 2013. The changes proposed are only for antenna models at the facility – see information in the antenna model section below and the enclosed zoning plans.

Address/City: 8060 13th Street, Silver Spring, MD 20910

Site Name: "North Gate"

Zoning: **CBD-1**

Site Owner/Landlord: Grammax Associates, LP

168 Business Park Drive, Suite 200

Virginia Beach, VA 23462

£ 3:

Structure Owner: Same

Latitude/Longitude (NAD27 degrees/minutes/seconds: N39`06'10.70"; W77`11'37.67"

Ground Elevation AMSL in feet: 347'

Antenna Height AGL in feet: 140' rad center for alpha, beta, and delta sectors; 155' rad center for gamma sector.

Frequency bands to be used:

700 MHz (LTE): Tx 746-757; Rx 776-787

850 MHz (Cellular): Tx 880-890 and 891-894; Rx 835-845 and 846-849

1900 MHz (PCS): Tx 1975-1985 and 1945-1950; Rx 1895-1905 and 1865-1870

2100 MHz (AWS): Tx 2120-2135; Rx 1720-1735

Maximum Effective Radiation Power (ERP):

48.65 watts (cellular), 58.04 watts (PCS), 120 watts (LTE), and 100 watts (AWS)

Federal Communication Commission (FCC) Emission Designator:

LTE (9M38F9W); Cellular (1M23G9W); PCS (1M25G9W); and AWS (9M45F9W)

FCC Antenna Structure Registration Number: N/A

Attachment 1 Revised 3/18/03

Attachment 1 Revised 8/15/07



MONTGOMERY COUNTY, MARYLAND **TOWER COORDINATOR RECOMMENDATION**

APPLICATION NUMBER: 201303-03 DATE: 6 February 2013

A 1: 4: - T C			
Application Information			
Applicant:	Verizon Wireless		
Description:	Attach sixteen panel antennas, six 72"-high and six 48"-high at the		
	140' and 155' levels atop the building.		
Site Location:	Gramax Towers		
<u></u>	8060 13 th Street, Silver Spring		
Property Owner:	Gramax Associates, LP		
	dance with Zoning Ordinance: CBD-1		
Private Property:	By right: Special Exception:		
Public Property:	Mandatory Referral: Special Exception		
	Minor Modification Modification:		
Impact on land-owning	g agency: N/A		
Existing or future publ	ic safety telecommunications facilities and plans: N/A		
Co-location options: N	J/A		
Implications to surrounding area: minimal. There do not appear to be any other antennas atop			
this building.			
Attachments: Applicat			
Comments: The anter	nnas are intended to improve coverage in between 16th Street and		
Georgia Avenue. Equi	pment will be placed on a 13' x 20' steel platform to be constructed on		
the roof.			
Tower Coordinator R	Recommendation: Recommended:		
	Recommended with conditions:		
	Not recommended:		
Conditions:			
\sim			
	nunciel 2.21.13		
Signature	Date		

SBNHH-1D45B Page 1 of 6

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(addtoproject.aspx?id=50557&company=wireless)SBNHH-1D45B

Andrew® Tri-band Antenna, 698-896 and 2x 1695-2360 MHz, 45° horizontal beamwidth, internal RETs.

- Interleaved dipole technology providing for attractive, low wind load mechanical package
- Three internal RETs for independent tilt on all three bands

Specifications (product_details.aspx?id=50557)

Related Products (product_details.aspx?id=50557&tab=2)

Documents/Tools (product_details.aspx?id=50557&tab=3)

Electrical Specifications						
Frequency Band, MHz	698	806	1695	1850	1920	2300
	-806	-896	-1880	-1990	-2180	-2360

SBNHH-1D45B Page 2 of 6

Gain, dBi	16.9	17.6	19.6	20.1	20.5	21.0
Beamwidth, Horizontal, degrees	47	43	45	42	42	39
Beamwidth, Vertical, degrees	12.4	11.4	5.8	5.3	5.1	4.5
Beam Tilt, degrees	0-14	0-14	0-8	0-8	0-8	0-8
USLS, dB	19	22	18	17	17	16
Isolation, dB	25	25	25	25	25	25
Isolation, Intersystem, dB	30	30	30	30	30	30
VSWR Return Loss, dB	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153
Input Power per Port, maximum, watts	350	350	350	350	350	300
Polarization	±45°	±45°	±45°	±45°	±45°	±45°
Impedance	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm

Electrical Specifications, BASTA*

Frequency Band, MHz	698	806	1695	1850	1920	2300
	-806	-896	-1880	-1990	-2180	-2360
Gain by all Beam Tilts, average, dBi	16.6	17.3	19.2	19.8	20.1	20.8
Gain by all Beam Tilts Tolerance, dB	±0.4	±0.3	±0.5	±0.4	±0.5	±0.4
Gain by Beam Tilt, average, dBi	0° 1	0° 1	0° 1	0° 1	0° 2	0 ° 2
	6.6	7.3	9.3	9.9	0.1	0.7
	7° 1	7° 1	4° 1	4° 1	4° 2	4° 2
	6.7	7.4	9.3	9.9	0.2	0.9
	14 °	14 °	8° 1	8° 1	8° 2	8° 2
	16.4	17.1	9.0	9.6	0.0	0.4

SBNHH-1D45B Page 3 of 6

Beamwidth, Horizontal Tolerance, degrees	±1.5	±2.8	±2.1	±1.7	±1	±1.7
Beamwidth, Vertical Tolerance, degrees	±0.8	±0.6	±0.3	±0.2	±0.4	±0.1
USLS, dB	19	23	16	15	16	16
Front-to-Back Total Power at 180° ± 30°, dB	24	24	28	30	31	30
CPR at Boresight, dB	28	29	23	24	20	19
CPR at 10 dB Horizontal Beamwidth, dB	13	17	13	13	13	13

^{*} CommScope® supports NGMN recommendations on Base Station Antenna Standards (BASTA). To learn more about the benefits of BASTA, download the whitepaper Time to Raise the Bar on BSAs. (http://info.commscope.com/2014-Gated-Assetts_BASTA_TimeToRaiseBarOnBSAs_WP-108068---LP.html)

General Specifications

Antenna Brand	Andrew®
Antenna Type	DualPol® multiband with internal RET
Band	Multiband
Brand	DualPol® Teletilt®
Operating Frequency Band	1695 – 2360 MHz 698 – 896 MHz
Performance Note 👩	Outdoor usage

Mechanical Specifications

Color	Light gray
Lightning Protection	dc Ground
Radiator Material	Aluminum Low loss circuit board
Radome Material	Fiberglass, UV resistant

Reflector Material	Aluminum
RF Connector Interface	7-16 DIN Female
RF Connector Location	Bottom
RF Connector Quantity, total	6
Wind Loading,	1038.0 N @ 150 km/h
maximum	233.4 lbf @ 150 km/h
Wind Speed, maximum	241.4 km/h 150.0 mph

Dimensions	
Depth	178.0 mm 7.0 in
Length	1829.0 mm 72.0 in
Width	457.0 mm 18.0 in
Net Weight	29.2 kg 64.4 lb

Remote Electrical Tilt (RET) Information					
Input Voltage	10-30 Vdc				
Power Consumption, idle state, maximum	2.0 W				
Power Consumption, normal conditions, maximum	13.0 W				
Protocol	3GPP/AISG 2.0 (Multi-RET)				
RET Interface	8-pin DIN Female 8-pin DIN Male				
RET Interface, quantity	1 female 1 male				
RET System	Teletilt®				

Patterns-Show

Regulatory Compliance/Certifications

Agency	Classification
RoHS 2011/65/EU	Compliant by Exemption
China RoHS SJ/T 11364- 2006	Above Maximum Concentration Value (MCV)
ISO 9001:2008	Designed, manufactured and/or distributed under this quality management system





Included Parts



BSAMNT-1

Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

About Us (/About-Us/Who-We- News Center (/NewsCenter)

Are/)

Careers (/About-Us/Careers/)

Corporate Responsibility (/About-

Us/Corporate-Responsibility/)

Timeline (/About-Us/Who-We-Are/Timeline/)

Investor Relations (http://ir.commscope.com)

Management Team (/About-Us/Management-

Team/)

Supply Chain (/About-Us/Corporate-

Responsibility-and-Sustainability/Supply-

Chain/)

Blog (/Blog/)

Events (/NewsCenter/Events/)

Infographics (/NewsCenter/Infographics/)

In the News (/NewsCenter/NewsItems/)

Media Contacts

(/NewsCenter/MediaContacts/)

Press Kit (/NewsCenter/PressKit/)

Press Releases (/NewsCenter/PressReleases/)









SBNHH-1D65C

Andrew® Tri-band Antenna, 1 \times 698–896 MHz and 2 \times 1710–2360 MHz, 65° horizontal beamwidth, internal electrical tilt. Both high bands share the same electrical tilt.

- Interleaved dipole technology providing for attractive, low wind load mechanical package
- The values presented on this datasheet have been calculated based on N-P-BASTA White Paper version 9.6 by the NGMN Alliance

Electrical Specifications

Frequency Band, MHz	698-806	806-896	1710-1880	1850-1990	1920-2180	2300-2360
Gain by all Beam Tilts, average, dBi	15.8	15.6	17.3	17.8	18.2	18.1
Gain by all Beam Tilts Tolerance, dB	±0.4	±0.5	±0.3	±0.2	±0.5	±0.4
	0 ° 16.0	0 ° 15.8	0 ° 17.3	0 ° 17.7	0 ° 18.0	0 ° 17.9
Gain by Beam Tilt, average, dBi	5 ° 16.0	5 ° 15.8	4 ° 17.4	4 ° 17.8	4 ° 18.2	4 ° 18.2
,	11 ° 15.5	11 ° 15.2	7 ° 17.3	7 ° 17.7	7 ° 18.1	7 ° 18.2
Beamwidth, Horizontal, degrees	66	64	70	65	63	58
Beamwidth, Horizontal Tolerance, degrees	±1.2	±1.9	±3.4	±3.8	±4.7	±3.7
Beamwidth, Vertical, degrees	8.9	7.8	5.7	5.2	5.0	4.4
Beamwidth, Vertical Tolerance, degrees	±0.6	±0.5	±0.3	±0.2	±0.3	±0.2
Beam Tilt, degrees	0-11	0-11	0-7	0-7	0-7	0-7
USLS, dB	13	14	17	16	17	15
Front-to-Back Total Power at $180^{\circ} \pm 30^{\circ}$, dB	26	24	27	25	25	26
CPR at Boresight, dB	29	22	20	21	19	21
CPR at Sector, dB	14	11	13	11	9	5
Isolation, dB	25	25	25	25	25	25
Isolation, Intersystem, dB	30	30	30	30	30	30
VSWR Return Loss, dB	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153
Input Power per Port, maximum, watts	400	400	350	350	350	300
Polarization	±45°	±45°	±45°	±45°	±45°	±45°
Impedance	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm

General Specifications

Antenna Brand

Antenna Type

Band

Brand

Operating Frequency Band

Andrew®

DualPol® tri-band

Multiband

DualPol® | Teletilt®

1710 - 2360 MHz | 698 - 896 MHz

Mechanical Specifications

Color Light gray

Connector Interface 7-16 DIN Female

Connector Location Bottom

Connector Quantity, total

Lightning Protection dc Ground

Radiator Material Aluminum | Low loss circuit board

Radome Material Fiberglass, UV resistant Wind Loading, maximum 879.0 N @ 150 km/h

197.6 lbf @ 150 km/h



SBNHH-1D65C

Wind Speed, maximum

241.4 km/h | 150.0 mph





Dimensions

 Depth
 181.0 mm
 | 7.1 in

 Length
 2438.0 mm
 | 96.0 in

 Width
 301.0 mm
 | 11.9 in

 Net Weight
 22.5 kg
 | 49.6 lb

Remote Electrical Tilt (RET) Information

Annual Failure Rate, maximum 0.01%

Power Consumption, idle state, maximum 2.0 W

Power Consumption, normal conditions, maximum 11.0 W

Power Input 10-30 N

Protocol 3GPP/AISG 2.0 Multi-RET

RET Interface RS-485 Female (daisy chain port ,1) | RS-485 Male (input port ,1)

RET Interface, quantity 1 female | 1 male

RET System Teletilt®

Regulatory Compliance/Certifications

Agency

RoHS 2011/65/EU

China RoHS SJ/T 11364-2006

ISO 9001:2008

Classification

Compliant by Exemption

Above Maximum Concentration Value (MCV)

Designed, manufactured and/or distributed under this quality management system





Included Products

BSAMNT-1 — Wide Profile Antenna Downtilt Mounting Kit for 2.5 - 4.5 in (64 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.



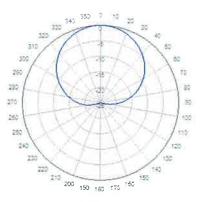
SBNHH-1D65C



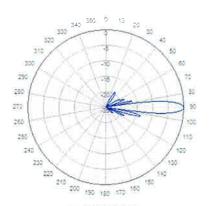


Horizontal Pattern

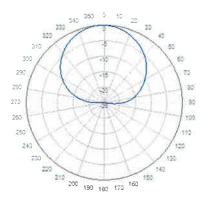
Vertical Pattern



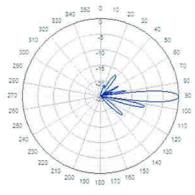
Freq: 750 MHz, Tilt: 0*



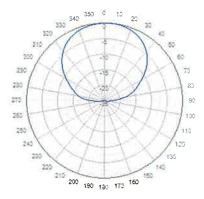
Freq: 750 MHz, Titt 0*



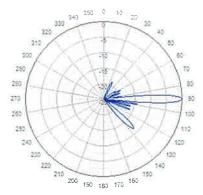
Freq: 850 MHz, Tat: 0*



Freq: 850 MHz, Tilt 0*



Freq: 1785 MHz, Tilt: 0



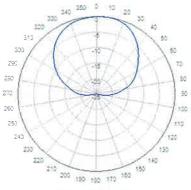
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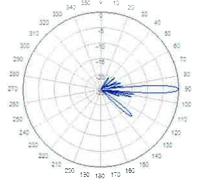


SBNHH-1D65C



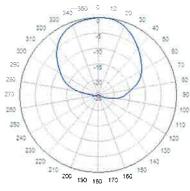


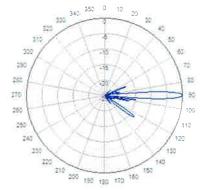






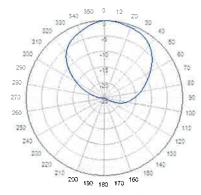
Freq: 1920 MHz, Tilt: 0"

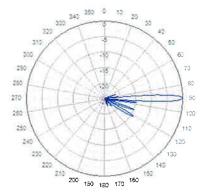




Freq: 2110 MHz, Tilt: 0*

Freq: 2110 MHz, Tilt 0°





Freq: 2330 MHz, Tilt: 0*

Freq: 2330 MHz, Tilt: 0*







BSAMNT-1

Wide Profile Antenna Downtilt Mounting Kit for 2.5 - 4.5 in (64 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

General Specifications

Antenna Brand

Andrew®

Mount Type

Pipe mounts

Application

Outdoor

Includes

Brackets | Hardware

Package Quantity

- - -

Mechanical Specifications

Color

Silver

Material Type

Galvanized steel

Dimensions

Compatible Diameter, maximum 114.3 mm | 4.5 in Compatible Diameter, minimum 63.5 mm | 2.5 in Net Weight 5.6 kg | 12.3 lb

Regulatory Compliance/Certifications

Agency

RoHS 2011/65/EU

China RoHS SJ/T 11364-2006

Classification

Compliant

Below Maximum Concentration Value (MCV)





