STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

Internet: ct.gov/csc

Daniel F. Caruso
Chairman

February 14, 2011

Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597

RE: **EM-VER-047-110126** - Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 15 Chamberlain Road, East Windsor, Connecticut.

Dear Attorney Baldwin:

The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies with the following conditions:

- Any deviation from the proposed modification as specified in this notice and supporting materials with Council shall render this acknowledgement invalid;
- Any material changes to this modification as proposed shall require the filing of a new notice with the Council;
- Not less than 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
- The validity of this action shall expire one year from the date of this letter; and
- The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration;

The proposed modifications including the placement of all necessary equipment and shelters within the tower compound are to be implemented as specified here and in your notice dated January 26, 2011. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require

explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Thank you for your attention and cooperation.

Very truly yours,

Linda Roberts NAB

Linda Roberts
Executive Director

LR/CDM/laf

c: The Honorable Denise Sabotka Menard, First Selectman, Town of East Windsor
Laurie Whitten, Town Planner, Town of East Windsor
Crop Production Services

ROBINSON & COLE LLP

KENNETH C. BALDWIN

280 Trumbull Street
Hartford, CT 06103-3597
Main (860) 275-8200
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Direct (860) 275-8345

EM-VER-047-110126

January 26, 2011

ORIGINAL

Via Hand Delivery

Linda Roberts
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **Notice of Exempt Modification- Facility Modification**
15 Chamberlain Road, East Windsor, Connecticut

Dear Ms. Roberts:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains fifteen (15) wireless telecommunications antennas on a water tank at the above-referenced address. The Council approved Cellco's most recent facility modification in 2005. Cellco now intends to modify its installation by replacing all of its antennas with six (6) LPA-80080/4CF cellular antennas; six (6) LPA 185080/8CF PCS antennas; and three (3) BXA-70063/6CF LTE antennas at the same levels on the water tank. Attached behind Tab 1 are the specifications for the proposed replacement antennas.

Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Denise Menard, First Selectman for the Town of East Windsor. Pursuant to a Council directive, a copy of this letter is also being sent to Crop Production Services, Inc., the owner of the property on which the facility is located.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

1. The proposed modifications will not result in any increase in the height of the water tank or Cellco's antenna centerline. Cellco's replacement antennas will be installed in the same location as the existing antennas on the water tank.

2. The proposed modifications will not involve any changes to ground equipment and therefore, will not require extension of the site boundary.

3. The proposed modifications will not increase noise levels at the facility by six decibels or more.

4. The proposed modifications will not result in an increase in radio frequency (RF) power density levels at the facility to a level at or above the Federal Communications Commission (FCC) adopted safety standard. A worst-case power density table for Cellco's modified facility is included behind Tab 2.

Also attached is a Structural Letter confirming that the water tank can support Cellco's proposed facility modifications. (See Tab 3).

For the foregoing reasons, Cellco respectfully submits that the proposed modifications to the above-referenced telecommunications facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

Kenneth C. Baldwin

Enclosures
Copy to:
Denise Menard, East Windsor First Selectman
Crop Production Services, Inc.
Sandy M. Carter

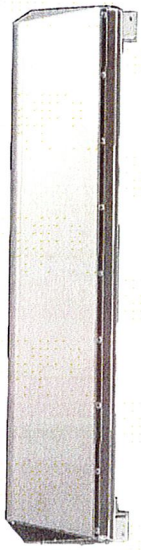
Amphenol ANTENNA SOLUTIONS

LPA-80080-4CF-EDIN-X

V-Pol | Log Periodic | 80° | 12.5 dBd

Replace "X" with desired electrical downtilt.

Antenna is also available with NE connector(s). Replace "EDIN" with "NE" in the model number when ordering.

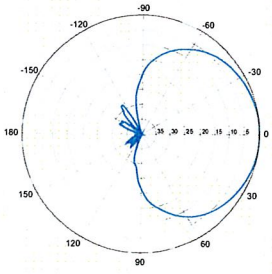


Electrical Characteristics	
Frequency bands	806-960 MHz
Polarization	Vertical
Horizontal beamwidth	80°
Vertical beamwidth	15°
Gain	12.5 dBd (14.6 dBi)
Electrical downtilt (X)	0, 2, 4, 5, 6, 8, 10, 12, 14
Impedance	50Ω
VSWR	≤1.4:1
Upper sidelobe suppression (0°)	-14.2 dB
Front-to-back ratio (+/-30°)	-34.7 dB
Null fill	15% (-16.48 dB)
Input power	500 W
Lightning protection	Direct Ground
Connector(s)	1 Port / EDIN or NE / Female / Center (Back)

Mechanical Characteristics		
Dimensions Length x Width x Depth	1200 x 140 x 335 mm	47.2 x 5.5 x 13.2 in
Depth of antenna with z-bracket	375 mm	14.8 in
Weight without mounting brackets	5.4 kg	12 lbs
Survival wind speed	> 201 km/hr	> 125 mph
Wind area	Front: 0.17 m² Side: 0.40 m²	Front: 1.8 ft² Side: 4.3 ft²
Wind load @ 161 km/hr (100 mph)	Front: 254 N Side: 574 N	Front: 57 lbf Side: 129 lbf

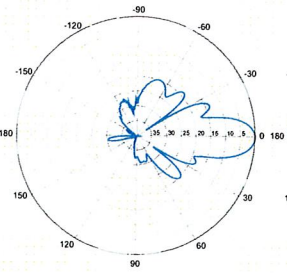
Mounting Options	Part Number	Fits Pipe Diameter	Weight
2-Point Mounting & Downtilt Bracket Kit (0-20°)	21699999	50-102 mm 2.0-4.0 in	5.4 kg 12 lbs
Lock-Down Brace	If the lock-down brace is used, the maximum diameter of the mounting pipe is 88.9 mm or 3.5 in.		

LPA-80080-4CF-EDIN-X



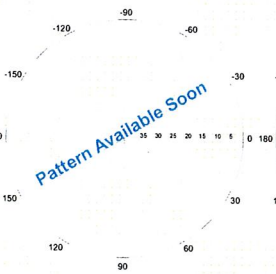
Horizontal

LPA-80080-4CF-EDIN-0



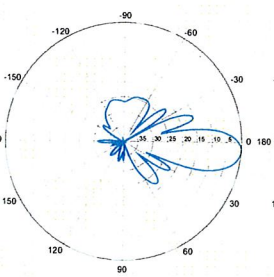
0° | Vertical

LPA-80080-4CF-EDIN-2



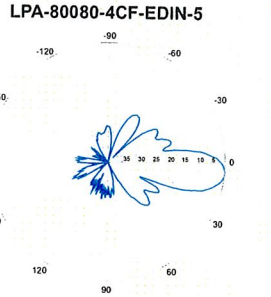
2° | Vertical

LPA-80080-4CF-EDIN-4



2° | Vertical

LPA-80080-4CF-EDIN-5

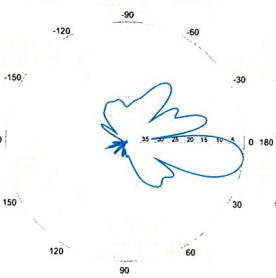


5° | Vertical

LPA-80080-4CF-EDIN-6

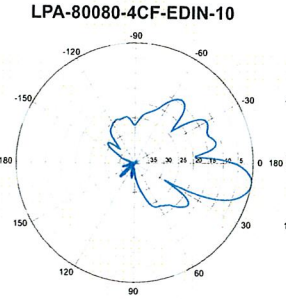
6° | Vertical

LPA-80080-4CF-EDIN-8



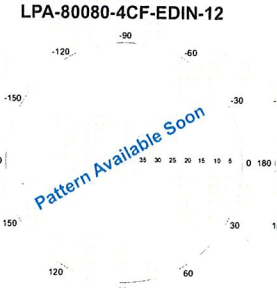
8° | Vertical

LPA-80080-4CF-EDIN-10



10° | Vertical

LPA-80080-4CF-EDIN-12



12° | Vertical

LPA-80080-4CF-EDIN-14

14° | Vertical

Vertically Polarized, Log Periodic 80° / 16.5 dBi

LPA-185080/8CF __ 2°

When ordering replace "__" with connector type.

Mechanical specifications

Length	1204 mm	47.4 in
Width	104 mm	4.1 in
Depth	150 mm	5.9 in
Depth with t-bracket	178 mm	7.0 in
[4] Weight	3.2 kg	7.0 lbs
Wind Area		
Fore/Aft	0.13 m^2	1.4 ft^2
Side	0.14 m^2	1.6 ft^2
Rated Wind Velocity (Safety factor 2.0)	>658 km/hr	>409 mph
Wind Load @ 100 mph (161 km/hr)		
Fore/Aft	202 N	45.0 lbs
Side	270 N	60.8 lbs

Antenna consisting of aluminum alloy with brass feedlines covered by a UV safe fiberglass radome.

Mounting and Downtilting

Mounting brackets attach to a pipe diameter of Ø50-102 mm (2.0-4.0 in).

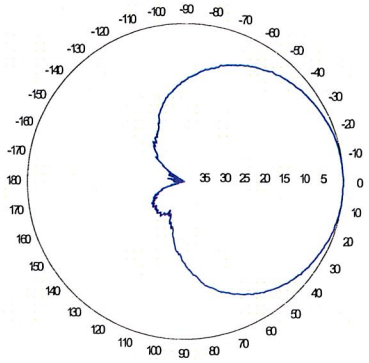
Mounting bracket kit #26799997
Downtilt bracket kit #26799999

The downtil bracket kit includes the mounting bracket kit.

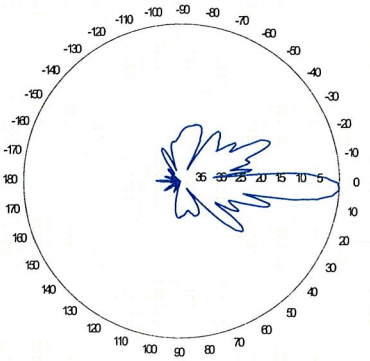
Electrical specifications

Frequency Range	1850-1990 MHz
Impedance	50Ω
[3] Connector(s)	NE or E-DIN 1 port / center
[1] VSWR	≤ 1.4:1
Polarization	Vertical
[1] Gain	16.5 dBi
[2] Power Rating	250 W
[1] Half Power Angle	
H-Plane	80°
E-Plane	8°
[1] Electrical Downtilt	2°
[1] Null Fill	10%
Lightning Protection	Direct Ground

Radiation pattern[1]



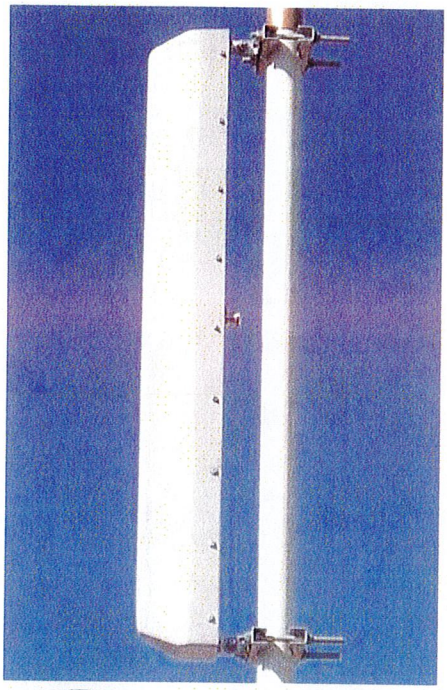
Horizontal



Vertical

Radiation patterns for all antennas are measured with the antenna mounted on a fiberglass pole.

Mounting on a metal pole will typically improve the Front-to-Back ratio.



Amphenol Antel's Exclusive 3T (True Transmission Line Technology) Antenna Design:

- True log-periodic design allows for superior front-to-side characteristics to minimize sector overlap.
- Unique feedline design eliminates the need for conventional solder joints in the signal path.
- A non-collinear system with access to every radiating element for broad band-width and superior performance.
- Air as insulation for virtually no internal signal loss.

This Amphenol Antel antenna is under a five-year limited warranty for repair or replacement.

Antenna available with center-fed connector only.

1) Typical values.
2) Power rating limited by connector only.
3) NE indicates an elongated N connector. E-DIN indicates an elongated DIN connector.
4) The antenna weight listed above does not include the bracket weight.

Improvements to mechanical and/or electrical performance of the antenna may be made without notice.

CF Denotes a Center-Fed Connector.

1850-1990 MHz

Amphenol Antel, Inc. 1300 Capital Drive Rockford, Illinois 61109 USA Tel. (815) 399-0001
Toll-Free (888) 417-9562 Fax. (815) 399-0156 antel@antelinc.com www.antelinc.com

Amphenol Antel, Inc.
The Antenna Technology Company

Revision Date: 7/12/07

Amphenol ANTENNA SOLUTIONS

BXA-70063-6CF-EDIN-X

X-Pol | FET Panel | 63° | 14.5 dBd

Replace "X" with desired electrical downtilt.

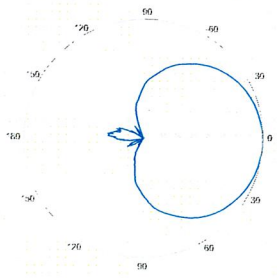
Antenna is also available with NE connector(s). Replace "EDIN" with "NE" in the model number when ordering.

Electrical Characteristics	696-900 MHz	
Frequency bands	696-806 MHz	806-900 MHz
Polarization	±45°	
Horizontal beamwidth	65°	63°
Vertical beamwidth	13°	11°
Gain	14.0 dBd (16.1 dBi)	14.5 dBd (16.6 dBi)
Electrical downtilt (X)	0, 2, 3, 4, 5, 6, 8, 10	
Impedance	50Ω	
VSWR	≤1.35:1	
Upper sidelobe suppression (0°)	-18.3 dB	-18.2 dB
Front-to-back ratio (+/-30°)	-33.4 dB	-36.3 dB
Null fill	5% (-26.02 dB)	
Isolation between ports	< -25 dB	
Input power	500 W	
Lightning protection	Direct Ground	
Connector(s)	2 Ports / EDIN or NE / Female / Center (Back)	

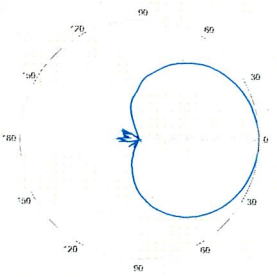
Mechanical Characteristics		
Dimensions Length x Width x Depth	1804 x 285 x 132 mm	71.0 x 11.2 x 5.2 in
Depth with z-brackets	172 mm	6.8 in
Weight without mounting brackets	7.9 kg	17 lbs
Survival wind speed	> 201 km/hr	> 125 mph
Wind area	Front: 0.51 m² Side: 0.24 m²	Front: 5.5 ft² Side: 2.6 ft²
Wind load @ 161 km/hr (100 mph)	Front: 759 N Side: 391 N	Front: 169 lbf Side: 89 lbf

Mounting Options	Part Number	Fits Pipe Diameter	Weight
3-Point Mounting Bracket Kit	36210003	50-160 mm 2.0-6.3 in	6.3 kg 14 lbs
3-Point Downtilt Bracket Kit (0-14°)	36210004	50-160 mm 2.0-6.3 in	7.3 kg 16 lbs
Downtilt Mounting Applications	A mounting bracket and downtilt bracket kit must be ordered for downtilt applications		
Concealment Configurations	For concealment configurations, order BXA-70063-6CF-EDIN-X-FP		

BXA-70063-6CF-EDIN-X

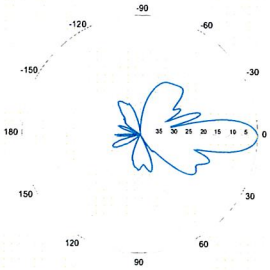


Horizontal | 750 MHz

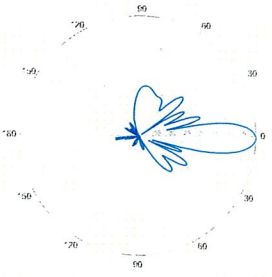


Horizontal | 850 MHz

BXA-70063-6CF-EDIN-0

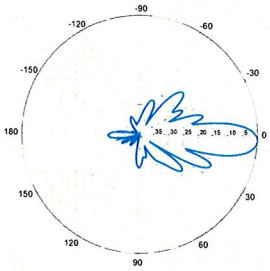


0° | Vertical | 750 MHz

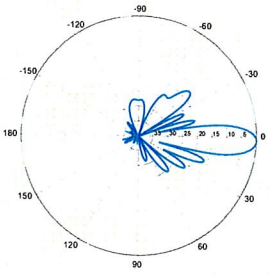


0° | Vertical | 850 MHz

BXA-70063-6CF-EDIN-2



2° | Vertical | 750 MHz



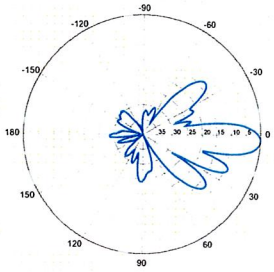
2° | Vertical | 850 MHz

Quoted performance parameters are provided to offer typical or range values only and may vary as a result of normal manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to product may be made without notice.

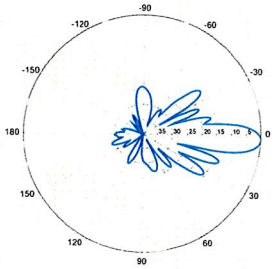
BXA-70063-6CF-EDIN-X

X-Pol | FET Panel | 63° | 14.5 dBd

BXA-70063-6CF-EDIN-3

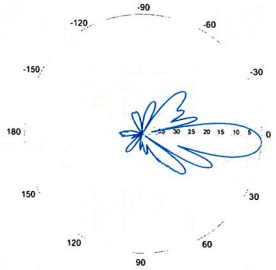


3° | Vertical | 750 MHz

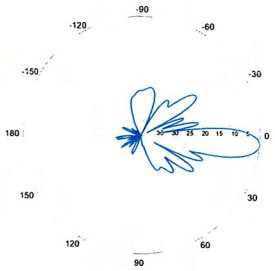


3° | Vertical | 850 MHz

BXA-70063-6CF-EDIN-4

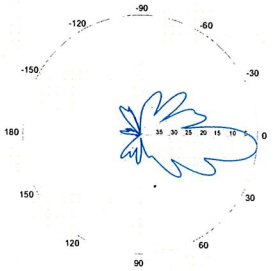


4° | Vertical | 750 MHz

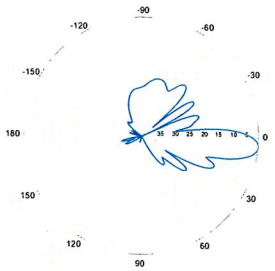


4° | Vertical | 850 MHz

BXA-70063-6CF-EDIN-5

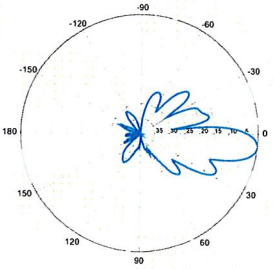


5° | Vertical | 750 MHz

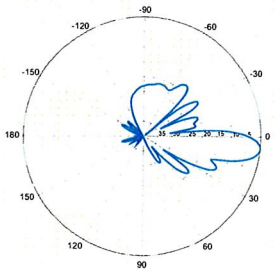


5° | Vertical | 850 MHz

BXA-70063-6CF-EDIN-6

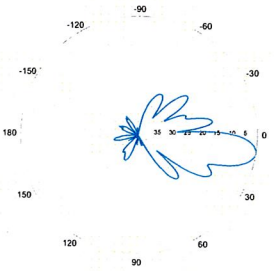


6° | Vertical | 750 MHz

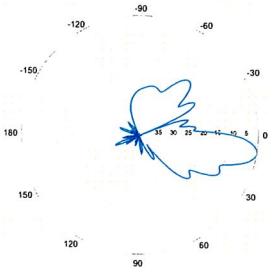


6° | Vertical | 850 MHz

BXA-70063-6CF-EDIN-8

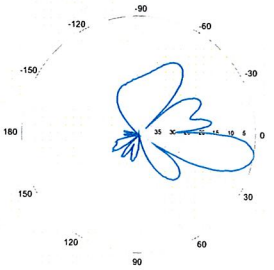


8° | Vertical | 750 MHz

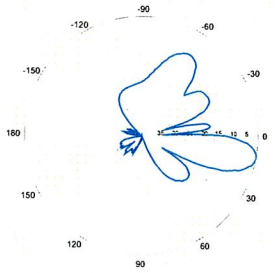


8° | Vertical | 850 MHz

BXA-70063-6CF-EDIN-10



10° | Vertical | 750 MHz



10° | Vertical | 850 MHz

	General	Power	Density					
Site Name: Broadbrook								
Tower Height: Verizon @ 116Ft.								
CARRIER	# OF CHAN.	WATTS ERP	HEIGHT	CALC. POWER DENS	FREQ.	MAX. PERMISS. EXP.	FRACTION MPE	Total
*Sprint			104	0.1655	1962.5	1.0000	16.55%	
*Pocket	3	631	106.58	0.0599	2130	1.0000	5.99%	
Verizon	**3**	**394**	**116**	**0.0316**	**1970**	**1.0000**	**3.16%**	
Verizon	**9**	**287**	**116**	**0.0690**	**869**	**0.5793**	**11.91%**	
Verizon	**1**	**698**	**116**	**0.01865171**	**757**	**0.497333**	**3.75%**	**41.37%**
* Source: Siting Council								

CENTEK engineering

Centered on Solutions℠

January 21, 2011

Mr. Tom Nolan
Verizon Wireless
99 East River Drive
East Hartford, CT 06108

Re: Structural Certification Letter ~ LTE Antenna Upgrade
Verizon Wireless Site Ref ~ Broadbrook
15 Chamberlain Road
East Windsor, CT 06016

Centek Project No. 11001.CO4 Rev. 1

Dear Mr. Nolan,

Centek Engineering Inc., has reviewed the proposed Verizon Wireless antenna upgrade at the above referenced site. The purpose of the review is to determine the structural adequacy of existing 124-ft AGL water tank structure to support the proposed modified antenna configuration. The existing installation consists of five (5) antenna pipe mounts per sector (total of fifteen) welded to the side of the existing water tank. The review considered the effects of wind load, dead load, ice load and seismic forces in accordance with TIA/EIA-222-F and the 2005 Connecticut State Building Code as amended by the 2009 Connecticut State Supplement. Visual verification of the existing antenna mount installation was conducted from grade by Centek personnel on January 18, 2011. Refer to drawing C-1 marked Rev.A, dated 1/19/11 for mounting configuration.

The existing and proposed loads considered in this analysis consist of the following:

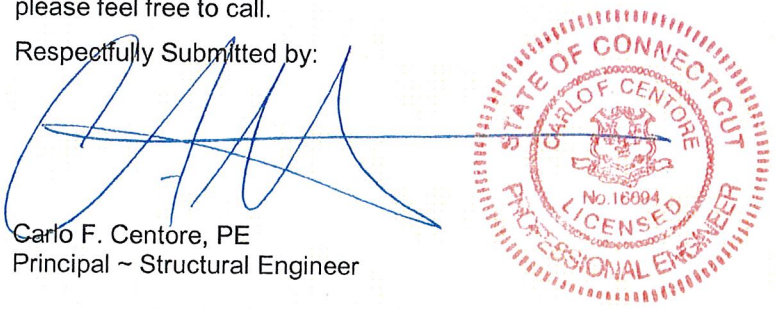
- SPRINT (Existing/Reserved)
  Antennas: Nine (9) panel antennas mounted to the existing water tank handrail with a RAD center elevation of 106-ft +/- AGL.
  Coax Cables: Nine (9) 1-5/8" dia. coax cables vertically supported off the leg of the existing water tank structure.
- MISC(Existing)
  GPS: One (1) GPS antenna mounted to the structure with a RAD center elevation of 35-ft +/- AGL and (1) GPS antenna mounted to the water tank leg with a RAD center elevation of 77-ft +/- AGL.
  Coax Cables: Two (2) 1/2" dia. coax cables (estimated) vertically supported off the leg of the existing water tank structure.
- Pocket (Existing)
  Antennas: Three (3) RFS APXV18-206417S-C panel antennas pipe mounted to the existing water tank handrail with RAD center elevation of 106-ft +/- AGL.
  Coax Cables: Six (6) 1-5/8" dia coaxial cables vertically supported off the leg of the existing water tank structure.
- Verizon (Existing to Remain):
  Coax: Fifteen (15) 1-5/8-in dia coaxial cables vertically supported off the leg/face of the existing water tank structure.
- Verizon (Existing to Remove):
  Antennas: Nine (9) Swedcom ALP9212 and six (6) Decibel 948F85T2E-M_2 panel antennas mounted to the existing antenna pipe mounts on the side of the water tank with a RAD center elevation of 116-ft +/- AGL.

- **Verizon (Proposed):**
  Antennas: Six (6) Antel LPA-80080/4CF panel antennas, six (6) LPA-185080/8CF_2 panel antennas, three (3) BXA-70063/6CF panel antennas and three (3) RFS FD9R6004/2C-3L Diplexers mounted to the existing antenna mount pipes on the side of the water tank with a RAD center elevation of 116-ft +/- AGL.

The proposed antenna installation meets the requirements of the TIA/EIA-222-F Standard considering the basic wind speed (fastest mile) of 80 mph for Hartford County which controls over the 2005 Connecticut State Building Code basic wind speed (fastest mile) of 77.5 mph for East Windsor (equivalent to 95 mph 3-second gust wind speed as required in Appendix K of the Connecticut supplement per Table 1609.3). Our findings are based on the assumption that all structural members and appurtenances were properly designed, detailed, fabricated, installed and have been properly maintained since erection.

In conclusion, the proposed Verizon Wireless antenna upgrade will not negatively impact the structural integrity of the existing water tank. If there are any questions regarding this matter, please feel free to call.

Respectfully Submitted by:



Carlo F. Centore, PE
Principal ~ Structural Engineer