



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 25, 2008

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

RE: **EM-VER-009-080128** – Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 11 Francis J. Clarke Circle, Bethel, Connecticut.

Dear Attorney Baldwin:

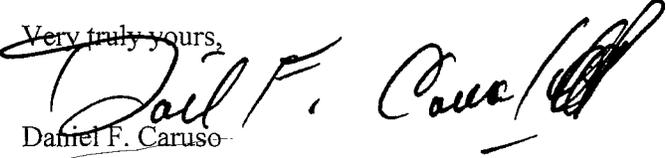
At a public meeting held on February 14, 2008, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated January 28, 2008, including the placement of all necessary equipment and shelters within the tower compound. 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. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,


Daniel F. Caruso
Chairman

DFC/MP/cm

c: The Honorable Robert E. Burke, First Selectman, Town of Bethel
Steve Palmer, Planning & Zoning Official, Town of Bethel
SBA



Daniel F. Caruso
Chairman

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January 30, 2008

The Honorable Robert E. Burke
First Selectman
Town of Bethel
1 School Street
Bethel Municipal Center
Bethel, CT 06801-2105

RE: **EM-VER-009-080128** – Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 11 Francis J. Clarke Circle, Bethel, Connecticut.

Dear Mr. Burke:

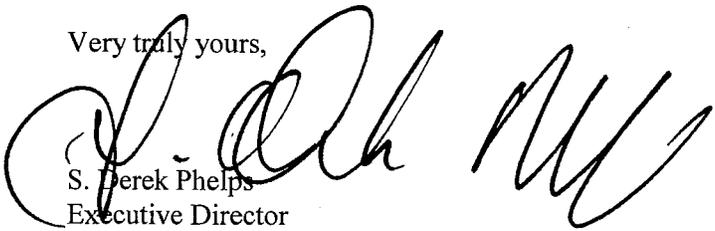
The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

The Council will consider this item at the next meeting scheduled for February 14, 2008, at 1:30 p.m. in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

If you have any questions or comments regarding this proposal, please call me or inform the Council by February 13, 2008.

Thank you for your cooperation and consideration.

Very truly yours,


S. Derek Phelps
Executive Director

SDP/jb

Enclosure: Notice of Intent

c: Steve Palmer, Planning & Zoning Official, Town of Bethel

EM-VER-009-080128

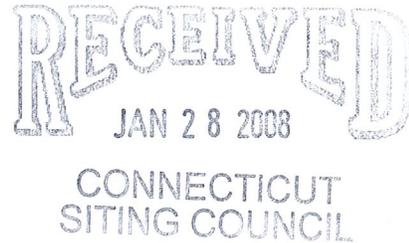
280 Trumbull Street
Hartford, CT 06103-3597
Main (860) 275-8200
Fax (860) 275-8299
kbaldwin@rc.com
Direct (860) 275-8345

ORIGINAL

January 28, 2008

Via Hand Delivery

S. Derek Phelps
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051



Re: **Notice of Exempt Modification – Antenna Swap
11 Francis J. Clarke Circle, Bethel, Connecticut**

Dear Mr. Phelps:

Cellco Partnership d/b/a Verizon Wireless (“Cellco”) currently maintains a wireless telecommunications facility at the above referenced location. The Council approved Cellco’s use of this facility on October 19, 2005. Cellco intends to modify its installation by replacing four (4) LPA-80090/4CF antennas with two (2) LPA-80063/6CF and two (2) LPA80080/6CF antennas at the same 137-foot height. 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 Robert E. Burke, First Selectman of the Town of Bethel. Pursuant to Council directive a copy of this letter is being sent to Costa Stergue, 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 overall height of the existing structures. Cellco’s replacement antennas will be located at the same height and location as its existing antennas.

2. The proposed modifications will not involve any ground-mounted equipment and, therefore, will not require the extension of the site boundaries.



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S. Derek Phelps
January 28, 2008
Page 2

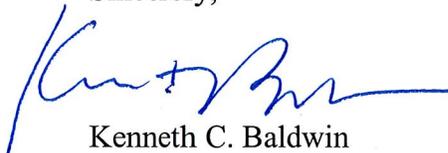
3. The proposed modifications will not increase noise levels at the facility by six decibels or more.

4. The operation of the replacement antennas will not increase radio frequency (RF) power density levels at the facility to a level at or above the Federal Communications Commission (FCC) adopted safety standard. A cumulative power density table for the facility is included behind Tab 2.

Also attached is a letter from FDH Engineering, Inc. confirming that the tower can support the proposed 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:

Robert E. Burke, Bethel First Selectman
Costa Stergue
Sandy M. Carter



Vertically Polarized, Log Periodic 90° / 11.5 dBd

LPA-80090/4CF

When ordering replace "___" with connector type.

Mechanical specifications

Length	1200 mm	47.2 in
Width	140 mm	5.5 in
Depth	240 mm	9.4 in
Depth with z-bracket	280 mm	11.0 in
4) Weight	5 kg	11.0 lbs
Wind Area		
Fore/Aft	0.17 m ²	1.8 ft ²
Side	0.29 m ²	3.1 ft ²
Rated Wind Velocity (Safety factor 2.0)		
	>444 km/hr	>276 mph
Wind Load @ 100 mph (161 km/hr)		
Fore/Aft	254 N	57.1 lbs
Side	415 N	93.3 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). If the lock-down brace is used, the maximum diameter is Ø88.9 mm (3.5 in).

Mounting Bracket & Downtilt Bracket Kit
#21699999

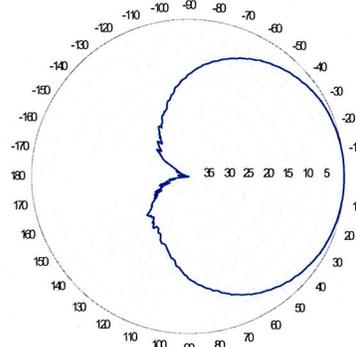
Electrical specifications

Frequency Range	806-960 MHz
Impedance	50Ω
3) Connector(s)	NE or E-DIN 1 port / center
1) VSWR	≤ 1.4:1
Polarization	Vertical
1) Gain	11.5 dBd
2) Power Rating	500 W
1) Half Power Angle	
H-Plane	90°
E-Plane	15°
1) Electrical Downtilt	0°
1) Null Fill	10-15%
Lightning Protection	Direct Ground

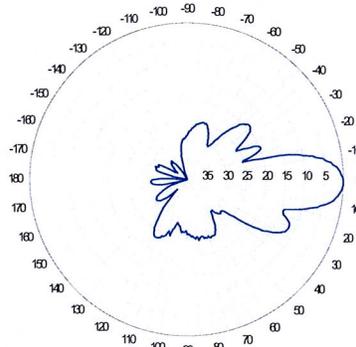
- 1) Typical values.
- 2) Power rating limited by connector only.
- 3) NE indicates an elongated N connector.
E-DIN indicates an elongated DIN connector.
- 4) The antenna weight listed above does not include the bracket weight.

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

Radiation pattern¹⁾



Horizontal



Vertical

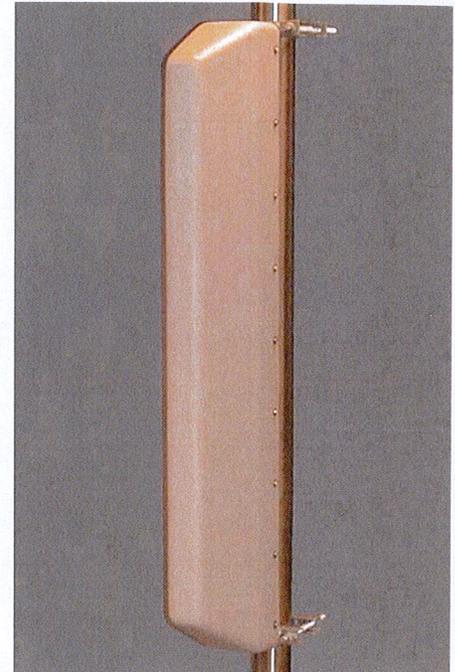
Featuring upper side lobe suppression.

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.

CF Denotes a Center-Fed Connector.

806-960 MHz



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 bandwidth 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.



Revision Date: 7/5/07

Vertically Polarized, Log Periodic 63° / 14.5 dBd

LPA-80063/6CF

When ordering replace "___" with connector type.

Mechanical specifications

Length	1800 mm	70.9 in
Width	380 mm	15.0 in
Depth	332 mm	13.1 in
Depth with z-bracket	372 mm	14.6 in
4) Weight	12.3 kg	27.0 lbs
Wind Area		
Fore/Aft	0.68 m ²	7.4 ft ²
Side	0.60 m ²	6.5 ft ²
Rated Wind Velocity (Safety factor 2.0)		
	>235 km/hr	>146 mph
Wind Load @ 100 mph (161 km/hr)		
Fore/Aft	993 N	223.3 lbs
Side	872 N	196.1 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). If the lock-down brace is used, the maximum diameter is Ø88.9 mm (3.5 in)

Mounting Bracket & Downtilt Bracket Kit
#21699999

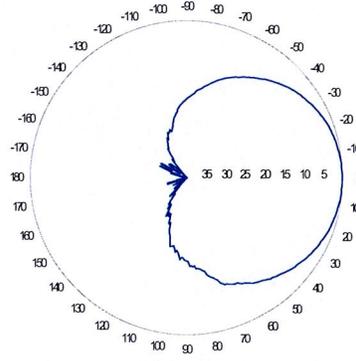
Electrical specifications

Frequency Range	806-960 MHz
Impedance	50Ω
3) Connector(s)	NE or E-DIN 1 port / center
1) VSWR	≤ 1.4:1
Polarization	Vertical
1) Gain	14.5 dBd
2) Power Rating	500 W
1) Half Power Angle	
H-Plane	63°
E-Plane	10°
1) Electrical Downtilt	0°
1) Null Fill	10%
Lightning Protection	Direct Ground

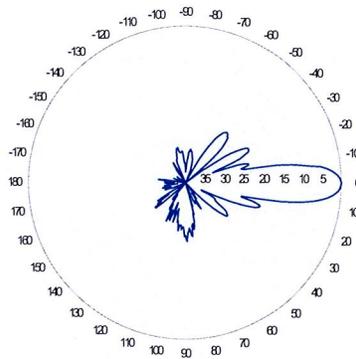
- 1) Typical values.
- 2) Power rating limited by connector only.
- 3) NE indicates an elongated N connector.
E-DIN indicates an elongated DIN connector.
- 4) The antenna weight listed above does not include the bracket weight.

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

Radiation pattern¹⁾



Horizontal

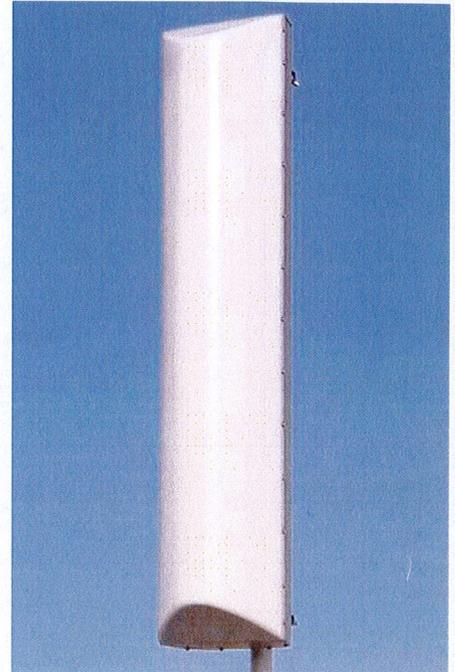


Vertical

Featuring upper side lobe suppression.

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.



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- 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.

CF Denotes a Center-Fed Connector.

806-960 MHz



Revision Date: 7/5/07

Vertically Polarized, Log Periodic 80° / 14 dBd

LPA-80080/6CF

When ordering replace "___" with connector type.

Mechanical specifications

Length	1800 mm	70.9 in
Width	140 mm	5.5 in
Depth	335 mm	13.2 in
Depth with z-bracket	375 mm	14.8 in
4) Weight	9.5 kg	21.0 lbs
Wind Area		
Fore/Aft	0.25 m ²	2.7 ft ²
Side	0.60 m ²	6.5 ft ²
Rated Wind Velocity (Safety factor 2.0)		
	>295 km/hr >183 mph	
Wind Load @ 100 mph (161 km/hr)		
Fore/Aft	415 N	93.3 lbs
Side	870 N	195.6 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). If the lock-down brace is used, the maximum diameter is Ø88.9 mm (3.5 in)

Mounting Bracket & Downtilt Bracket Kit
#21699999

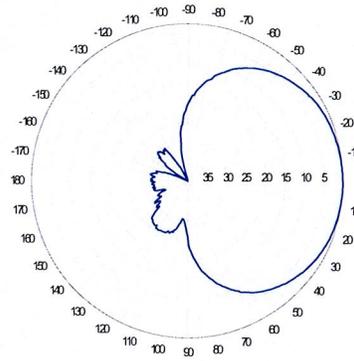
Electrical specifications

Frequency Range	806-960 MHz
Impedance	50Ω
3) Connector(s)	NE or E-DIN 1 port / center
1) VSWR	≤ 1.4:1
Polarization	Vertical
1) Gain	14 dBd
2) Power Rating	500 W
1) Half Power Angle	
H-Plane	80°
E-Plane	10°
1) Electrical Downtilt	0°
1) Null Fill	10%
Lightning Protection	Direct Ground

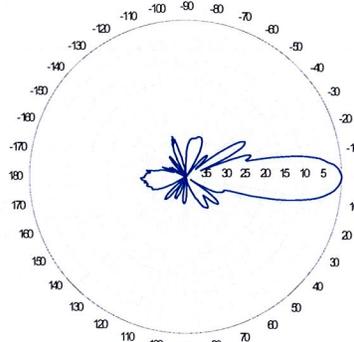
- 1) Typical values.
2) Power rating limited by connector only.
3) NE indicates an elongated N connector.
E-DIN indicates an elongated DIN connector.
4) The antenna weight listed above does not include the bracket weight.

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

Radiation pattern¹⁾



Horizontal



Vertical

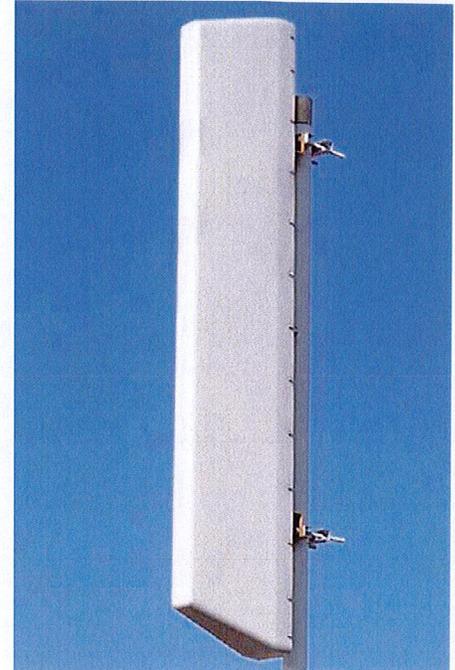
Featuring upper side lobe suppression.

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806-960 MHz



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

Antenna available with center-fed connector only.

Amphenol Antel, Inc.
The Antenna Technology Company

Revision Date: 7/5/07

January 17, 2008

Mr. Mark Luther
SBA Network Services, Inc.
800 S. Washington Ave
Scranton, PA 18505

RE: 155' Monopole
Site Name: North Bethel
SBA Site ID: CT00248-S
FDH Project Number: 08-01215E

Dear Mark:

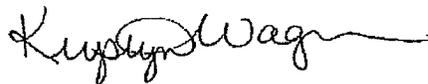
Per your request, FDH Engineering, Inc. has reviewed our original structural analysis report and the proposed loading for the 155' monopole located in Fairfield, CT. The original structural analysis report by FDH (Project No. 07-11330E dated December 20, 2007) stipulates the tower was analyzed with the current appurtenance loading outlined in **Table 1**.

It is our understanding Verizon will install (2) Antel LPA-80080/6CF antennas, (2) Antel LPA-80090/4CF antennas, (2) Antel LPA-80063/6CF antennas, (6) Antel LPA-185090/8CF antennas and (1) GPS with corresponding (12) 1-5/8" and (1) 1/2" coax at a centerline elevation of 137 ft (see **Table 2**). Given the working percentage calculated in the previous analysis, the load resulting from the existing and proposed loading will not overstress the tower and will be within *TIA/EIA-222-F* standards. Furthermore, provided the tower foundation was constructed to support the tower's original design loading, the foundation should meet *TIA/EIA-222-F* standards with both the proposed and existing appurtenances in place.

Our assessment has been made assuming all information provided to FDH Engineering is accurate and that the tower as been properly erected and maintained.

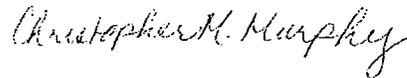
In conclusion, the Verizon installation should meet or exceed all applicable standards and should therefore be considered safe. Should you require additional information, please do not hesitate to contact our office.

Sincerely,



Krystyn Wagner, EI
Project Engineer

Reviewed By:



Christopher M. Murphy, PE
Vice President
CT PE License No. 25842



Table 1 – Existing Appurtenance Loading

No.	Centerline Elevation (ft)	Coax and Lines	Carrier	Mount Type	Description
1-11	157	(12) 1-5/8" ¹ (2) 1/2"	Sprint	13' Low Profile Platform	(2) Decibel DB980H65T2E-M (2) Decibel DB980H90E-M (2) Decibel DB980H65E-M (3) KMW-AM-X-WM-17-65-00T (2) Andrew VHLP2-23-2WH
12-20	147	(9) 1-1/4"	Nextel	13' Low Profile Platform	(9) Decibel DB844H90E-XY
21-32	137	(12) 1-5/8" ²	Verizon	13' Low Profile Platform	(6) Antel LPA-185090/8CF (6) Antel LPA-80090/4CF
33-38	127	(12) 1-5/8"	AT&T	(3) 4' Standoffs	(6) Allgon 7250.00

1 The coax for Sprint is located outside the monopole shaft in a single row.

2 The loading for Verizon at 137 ft will be altered. See the proposed loading below.

Table 2 – Proposed Appurtenance Loading

No.	Centerline Elevation (ft)	Coax and Lines	Carrier	Mount Type	Description
1-12	137	(12) 1-5/8" ¹ (1) 1/2"	Verizon	13' Low Profile Platform	(2) Antel LPA-80080/6CF (2) Antel LPA-80090/4CF (2) Antel LPA-80063/6CF (6) Antel LPA-185090/8CF (1) GPS

1 This represents the final loading for Verizon at 137 ft. According to information provided by SBA, Verizon will replace their existing loading with the loading listed above. The final configuration at 137 ft will be (12) antennas, (1) GPS, (12) 1-5/8" coax, and (1) 1/2" coax.