STATE OF CONNECTICUT



Daniel F. Caruso Chairman

June 25, 2009

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

Steven L. Levine Real Estate Consultant New Cingular Wireless PCS, LLC 500 Enterprise Drive Rocky Hill, CT 06067-3900

RE: EM-CING-005-090520 - New Cingular Wireless PCS, LLC notice of intent to modify an existing

telecommunications facility located at 31 Rust Road, Barkhamsted, Connecticut.

Dear Mr. Levine:

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.

The proposed modifications are to be implemented as specified here and in your notice dated May 20, 2009, 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.

S. Deule Phelps.

S. Derek Phelps Executive Director

SDP/MP/laf

c: The Honorable Donald S. Stein, First Selectman, Town of Barkhamsted Karl Nilsen, Zoning Enforcement Officer, Town of Barkhamsted Kenneth C. Baldwin, Esq., Robinson & Cole LLP





I WISHING WILL DOI THE

lew Cingular Wireless PCS, LLC

Phone: (860) 513-7636 Fax: (860) 513-7190

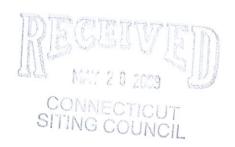
Steven L. Levine Real Estate Consultant

ORIGINAL

HAND DELIVERED

May 20, 2009

Honorable Daniel F. Caruso, Chairman, and Members of the Connecticut Siting Council Connecticut Siting Council 10 Franklin Square New Britain, Connecticut 06051



Re: New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 31 Rust Road, Barkhamsted (owner, Verizon)

Dear Chairman Caruso and Members of the Council:

In order to accommodate technological changes, implement Uniform Mobile Telecommunications System ("UMTS") capability, and enhance system performance in the State of Connecticut, New Cingular Wireless PCS, LLC ("AT&T") plans to modify the equipment configurations at many of its existing cell sites. Please accept this letter and attachments as notification, pursuant to R.C.S.A. Section 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2). In compliance with R.C.S.A. Section 16-50j-73, a copy of this letter and attachments is being sent to the chief elected official of the municipality in which the affected cell site is located.

UMTS technology offers services to mobile computer and phone users anywhere in the world. Based on the Global System for Mobile (GSM) communication standard, UMTS is the planned worldwide standard for mobile users. UMTS, fully implemented, gives computer and phone users high-speed access to the Internet as they travel. They have the same capabilities even when they roam, through both terrestrial wireless and satellite transmissions.

Attached is a summary of the planned modifications, including power density calculations reflecting the change in AT&T's operations at the site. Also included is documentation of the structural sufficiency of the tower to accommodate the revised antenna configuration.

The changes to the facility do not constitute modifications as defined in Connecticut General Statutes ("C.G.S.") Section 16-50i(d) because the general physical characteristics of the facility will not be significantly changed or altered. Rather, the planned changes to the facility fall

squarely within those activities explicitly provided for in R.C.S.A. Section 16-50j-72(b)(2).

- 1. The height of the overall structure will be unaffected.
- 2. The proposed changes will not extend the site boundaries. There will be no effect on the site compound other than some enlarged equipment pads as may be noted in the attachments.
- 3. The proposed changes will not increase the noise level at the existing facility by six decibels or more.
- 4. Radio frequency power density may increase due to use of one or more GSM channel for UMTS transmissions. However, the changes will not increase the calculated "worst case" power density for the combined operations at the site to a level at or above the applicable standard for uncontrolled environments as calculated for a mixed frequency site.

For the foregoing reasons, New Cingular Wireless respectfully submits that the proposed changes at the referenced site constitute exempt modifications under R.C.S.A. Section 16-50j-72(b)(2).

Please feel free to call me at (860) 513-7636 with questions concerning this matter. Thank you for your consideration.

Sincerely,

Steven L. Levine

Real Estate Consultant

Attachments

NEW CINGULAR WIRELESS Equipment Modification

Rust Road (New Hartford Road), Barkhamsted

Site Number 1115

Dockets 182 & 182A; EM's approved 6/98, 8/00, and 8/02

Tower Owner/Manager:

Verizon

Equipment Configuration:

Monopole

Current and/or Approved: Nine CSS panel antennas @ 114 ft AGL Six TMA's and three diplexers @ 114 ft

Nine runs 1 5/8 inch coax cable

Equipment shelter

Planned Modifications:

Remove existing antennas, TMA's, and diplexers

Install six Powerwave 7770 antennas (or equivalent) @ 114 ft

Install six TMA's and six diplexers @ 114 ft Install three additional runs 1 5/8 inch coax

Power Density:

Worst-case calculations for existing wireless operations at the site indicate a radio frequency electromagnetic radiation power density, measured at ground level beside the tower, of approximately 50.6 % of the standard adopted by the FCC. As depicted in the second table below, the total radio frequency electromagnetic radiation power density following proposed modifications would be approximately 48.2 % of the standard.

Existing

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm²)	Standard Limits (mW/cm²)	Percent of Limit
Other Users *							37.88
AT&T TDMA *	114	880 - 894	16	100	0.0443	0.5867	7.55
AT&T GSM *	114	1900 Band	2	427	0.0236	1.0000	2.36
AT&T GSM *	114	880 - 894	2	296	0.0164	0.5867	2.79
							50/6%

Per CSC records

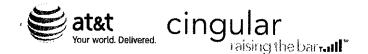
Proposed

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm²)	Standard Limits (mW/cm²)	Percent of Limit
Other Users *	[· ·			37.88
AT&T UMTS	114	880 - 894	1	500	0.0138	0.5867	2.36
AT&T GSM *	114	1900 Band	2	427	0.0236	1.0000	2.36
AT&T GSM *	114	880 - 894	4	296	0.0328	0.5867	5.58

^{*} Per CSC records

Structural information:

The attached structural analysis demonstrates that the tower has sufficient (Natcomm Engineers, 5/14/09)



New Cingular Wireless PCS, LLC 500 Enterprise Drive Rocky Hill, Connecticut 06067-3900 Phone: (860) 513-7636

Phone: (860) 513-7636 Fax: (860) 513-7190

Steven L. Levine Real Estate Consultant

May 20, 2009

Honorable Donald S. Stein

1st Selectman, Town of Barkhamsted
Town Hall 67 Ripley Hill Road
Barkhamsted, CT 06063

Re: Telecommunications Facility – Rust Road (New Hartford Road)

Dear Mr. Stein:

In order to accommodate technological changes, implement Uniform Mobile Telecommunications System ("UMTS") capability, and enhance system performance in the State of Connecticut, New Cingular Wireless PCS, LLC ("AT&T") will be changing its equipment configuration at certain cell sites.

As required by Regulations of Connecticut State Agencies ("R.C.S.A.") Section 16-50j-73, the Connecticut Siting Council has been notified of the changes and will review AT&T's proposal. Please accept this letter as notification under Section 16-50j-73 of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2).

The accompanying letter to the Siting Council fully describes AT&T's proposal for the referenced cell site. However, if you have any questions or require any further information on our plans or the Siting Council's procedures, please call me at (860) 513-7636 or Mr. Derek Phelps, Executive Director, Connecticut Siting Council at (860) 827-2935.

Sincerely,

Steven L. Levine Real Estate Consultant

Enclosure



Structural Analysis Report

145-ft Existing Monopole (Tree pole)

AT&T Site Ref: Barkhamsted-1115

Verizon Site Ref: Barkhamsted South

31 Rust Road Barkhamsted, CT

Natcomm Project No. 09009.CO.11

Date: May 14, 2009



Prepared for:

Verizon Wireless 99 East River Road, 9th Floor East Hartford, CT 06108

> p: 203.488.0580 f: 203.488.8587 w: nat-eng.com 63-2 N. Branford Rd. Branford, CT 06405

Table of Contents

SECTION 1 - REPORT

- INTRODUCTION.
- ANTENNA AND APPURTENANCE SUMMARY.
- PRIMARY ASSUMPTIONS USED IN THE ANALYSIS.
- ANALYSIS.
- TOWER LOADING.
- TOWER CAPACITY.
- FOUNDATION AND ANCHORS.
- CONCLUSION.

SECTION 2 - CONDITIONS & SOFTWARE

- STANDARD ENGINEERING CONDITIONS.
- GENERAL DESCRIPTION OF STRUCTURAL ANALYSIS PROGRAM.

SECTION 3 - CALCULATIONS

- RISATower INPUT/OUTPUT SUMMARY.
- RISATower DETAILED OUTPUT.
- ANCHOR BOLT AND BASE PLATE ANALYSIS.
- FLANGE BOLT AND PLATE ANALYSIS.
- SPREAD FOOTING W/ PIER ANALYSIS.

SECTION 4 - REFERENCE MATERIALS

ANTENNA CUT SHEETS.

TABLE OF CONTENTS TOC-1

<u>Introduction</u>

The purpose of this report is to summarize the results of the non-linear, P-∆ structural analysis of the antenna installation proposed by AT&T on the existing Verizon Wireless monopole (tower) located in Barkhamsted, Connecticut.

The host tower is a 145-ft, four-section, eighteen sided, tapered monopole (tree-pole) originally manufactured by Summit Manufacturing and designed by Paul J. Ford and Company job no: 29200-1316, dated September 7, 2000. The tower geometry, structure member sizes and foundation system information were taken from the Summit Manufacturing design report. Antenna and appurtenance information were taken from a previous structural analysis report prepared by Natcomm Inc., job no. 08136-CO10, signed and sealed December 15, 2008.

The tower is made up of four (4) tapered vertical sections consisting of A607-65 pole sections. The vertical tower sections are slip joint connected. The diameter of the pole (flat-flat) is 25.41-in at the top and 66.05-in at the base.

AT&T is proposing the installation of six (6) panel antennas on the existing tower. Refer to the Antenna and Appurtenance Summary below for a detailed description of the proposed antenna configuration.

<u>Antenna and Appurtenance Summary</u>

The existing tower was designed to support several communication antennas. The existing, proposed and future loads considered in this analysis consist of the following:

- SPRINT (Existing):
 Antennas: Six (6) Decibel DB980F90E-M panel antennas on three (3) existing T-Arms with a RAD center elevation of 142.67-ft above finished grade.
 Coax Cables: Six (6) 1-5/8" Ø coax cables running on the inside of the existing tower.
- VERIZON WIRELESS (Reserved): ⁽¹⁾
 Antennas: Fifteen (15) 72"x12" panel antennas on three (3) existing T-Arms with a RAD center elevation of 135-ft above finished grade.

 Coax Cables: Fifteen (15) 1-5/8" Ø coax cables running on the inside of the existing tower.
- VACANT (Existing):
 <u>T-Arms</u>: Three (3) Generic T-Arms with a RAD center elevation of 128.17-ft above the existing tower base plate.

SPRINT/NEXTEL (Existing):

Antennas: Twelve (12) Decibel DB844H90E-XY panel antennas on three (3) existing T-Arms with a RAD center elevation of 124.67-ft above finished grade.

Coax Cables: Twelve (12) 7/8" Ø coax cables running on the inside of the existing

tower.

T-MOBILE (Reserved):

Antennas: Nine (9) RFS APX16DWV-16WV-S-E-ACU panel antennas and Six (6) CCI DTMA-1819-DD-12 TMA's on three (3) T-Arms with a RAD center elevation of 103.17-ft above finished grade.

<u>Coax Cables</u>: Twelve (12) 1-5/8" \emptyset coax cables running on the inside of the existing tower.

POCKET WIRELESS (Reserved):

Antennas: (3) RFS APXV18-206517-C antennas flush mounted on a universal tribracket assembly at a RAD center elevation of 93-ft above finished grade.

Coax Cables: Six (6) 1-5/8" Ø coax cables running on the inside of the existing tower.

AT&T (Existing to remain):

Platform: Three (3) T-Arms

<u>Coax Cables</u>: Nine (9) 1-1/4" \varnothing coax cables running on the inside of the existing tower.

AT&T (Remove):

Antennas: Nine (9) CSS DUO4-8670 panel antennas and three (3) TMA's with a RAD center elevation of 113.17-ft above finished grade.

AT&T (Proposed):

Antennas: Six (6) Powerwave 7770 panel antennas, six (6) Powerwave LGP214 TMA's and six (6) Powerwave LGP219 Diplexers on three (3) existing T-Arms with a RAD center elevation of 113.17-ft above finished grade.

Coax Cables: Three (3) 1-1/4" Ø coax cables running on the exterior of the existing monopole.

Note:

(1) Reserved Verizon Wireless antenna loading is conservative to allow for future antenna growth. Existing antenna configuration consists of (4) Antel LPA80063/4CF, (2) Antel LPA80080/4CF, (4) Andrew DB948F65E-M and (2) Andrew DB948G85E-M panel antennas.

Primary Assumptions Used in the Analysis

- The tower structure's theoretical capacity not including any assessment of the condition of the tower.
- The tower carries the horizontal and vertical loads due to the weight of antennas, ice load and wind.
- Tower is properly installed and maintained.
- Tower is in plumb condition.
- Tower loading for antennas and mounts as listed in this report.
- All bolts are appropriately tightened providing the necessary connection continuity.
- All welds are fabricated with ER-70S-6 electrodes.
- All members are assumed to be as specified in the original tower design documents or reinforcement drawings.
- All members are "hot dipped" galvanized in accordance with ASTM A123 and ASTM A153 Standards.
- All member protective coatings are in good condition.
- All tower members were properly designed, detailed, fabricated, installed and have been properly maintained since erection.
- Any deviation from the analyzed antenna loading will require a new analysis for verification of structural adequacy.
- All existing coax cables to be installed within tower through engineered port holes.

Analysis

The existing tower was analyzed using a comprehensive computer program entitled RISATower. The program analyzes the tower, considering the worst case loading condition. The tower is considered as loaded by concentric forces along the tower shaft, and the model assumes that the shaft members are subjected to bending, axial, and shear forces.

The existing tower was analyzed for 80 mph basic wind speed (fastest mile) with no ice and 75% reduction of wind force with ½ inch accumulative ice to determine stresses in members as per guidelines of TIA/EIA-222-F-96 entitled "Structural Standards for Steel Antenna Towers and Antenna Supporting Structures", the American Institute of Steel Construction (AISC) and the Manual of Steel Construction; Allowable Stress Design (ASD).

<u>Tower Loading</u>

Tower loading was determined by the basic wind speed as applied to projected surface areas with modification factors per TIA/EIA-222-F, gravity loads of the tower structure and its components, and the application of ½" radial ice tower structure and its components.

Basic Wind Speed:

Litchfield; v = 80 mph (fastest mile)

[Section 16 of TIA/EIA-222-F-96]

Barkhamsted; v = 90 mph (3 second gust) equivalent to v = 75 mph

[Appendix K of the 2005 CT Building Code Supplement]

(fastest mile)

TIA/EIA wind speed controls

Load Cases:

Load Case 1; 80 mph wind speed w/ no ice plus gravity load – used in calculation of tower stresses and rotation. This load case typically controls the design of monopole [Section 2.3.16 of TIA/EIA-222-F-96]

towers.

Load Case 2; 69 mph wind speed w/ ½" radial ice plus gravity load – used in calculation of tower stresses. The 69 mph wind speed velocity represents 75% of the wind pressure

represents 75% of the wind pressure generated by the 80 mph wind speed. This load case typically controls the design of lattice towers.

[Section 2.3.16 of TIA/EIA-222-F-96]

Load Case 3; Seismic - not checked

[Section 1610.1.3 of State Bldg. Code 2005] does not control in the design of this structure type

Tower Capacity

Tower stresses were calculated utilizing the structural analysis software RISATower. Allowable stresses were determined based on Table 5 of the TIA/EIA code with a 1/3 increase per Section 3.1.1.1 of the same code.

Calculated stresses were found to be within allowable limits. In Load Case 1, per RISATower "Section Capacity Table", this tower was found to be at **78.7%** of its total capacity.

Tower Section	Component	Stress Ratio (percentage of capacity)	Result
Pole Shaft (L4)	1.67'-43.67'	78.7%	PASS

Foundation and Anchors

The existing foundation consists of a 8.0-ft square reinforced concrete pedestal with a 31.5-ft square reinforced concrete pad bearing directly on existing sub-grade. The sub-grade conditions used in the analysis of the existing foundation were obtained from the aforementioned structural analysis report; Natcomm; job no: 08136-CO10, dated December 15, 2008. The base of the tower is connected to the foundation by means of (24) 2.25" \varnothing , ASTM A615-75 anchor bolts embedded approximately 7-ft into the concrete foundation structure.

Review of the foundation and anchor design consisted of verification of applied loads obtained from the tower design calculations and code checks of allowable stresses:

 The tower base reactions developed from the governing Load Case 1 were used in the verification of the foundation and its anchors:

Base Reactions	Vector	Proposed Load (kips/ft-kips)
	Shear	56.0
Base	Axial	55.0
	Moment	5661.0

The foundation was found to be within allowable limits.

Foundation	Vector	IBC 2003/2005 CT State Building Code Section 3108.4.2	Proposed Loading	Result
Reinf Conc. Pad and Pier	ОТМ	2.0	2.04	PASS

The anchor bolts and base plate were found to be within allowable limits.

Tower Component	Design Limit	Stress Ratio (percentage of capacity)	Result
Flange Bolts	Tension	64.0%	PASS
Flange Plate	Bending	25.0%	PASS
Anchor Bolts	Compression	79.7%	PASS
Base Plate	Bending	68.3%	PASS

Conclusion

This analysis shows that the subject tower **is adequate** to support the proposed modified antenna configuration.

The analysis is based, in part, on the information provided to this office by Verizon Wireless. If the existing conditions are different than the information in this report, Natcomm, Inc. must be contacted for resolution of any potential issues.

Please feel free to call with any questions or comments.

Respectfully/Submitted by:

Carlo F. Centore, PE

Principal ~ Structural Engineer

Standard Conditions for Furnishing of Professional Engineering Services on Existing Structures

All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessarily limited to:

- Information supplied by the client regarding the structure itself, its foundations, the soil conditions, the antenna and feed line loading on the structure and its components, or other relevant information.
- Information from the field and/or drawings in the possession of Natcomm, Inc. or generated by field inspections or measurements of the structure.
- It is the responsibility of the client to ensure that the information provide to Natcomm, Inc. and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and are in an uncorroded condition and have not deteriorated. It is therefore assumed that its capacity has not significantly changed from the "as new" condition.
- All services will be performed to the codes specified by the client, and we do not imply to meet any other codes or requirements unless explicitly agreed in writing. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes, the client shall specify the exact requirement. In the absence of information to the contrary, all work will be performed in accordance with the latest revision of ANSI/ASCE10 & ANSI/EIA-222
- All services performed, results obtained, and recommendations made are in accordance
 with generally accepted engineering principles and practices. Natcomm, Inc. is not
 responsible for the conclusions, opinions and recommendations made by others based
 on the information we supply.

<u>GENERAL DESCRIPTION OF STRUCTURAL ANALYSIS PROGRAM</u>

RISATower, is an integrated structural analysis and design software package for Designed specifically for the telecommunications industry, RISATower, formerly ERITower, automates much of the tower analysis and design required by the TIA/EIA 222 Standard.

RISATower Features:

- RISATower can analyze and design 3- and 4-sided guyed towers, 3- and 4-sided selfsupporting towers and either round or tapered ground mounted poles with or without guys.
- The program analyzes towers using the TIA-222-G (2005) standard or any of the previous TIA/EIA standards back to RS-222 (1959). Steel design is checked using the AISC ASD 9th Edition or the AISC LRFD specifications.
- Linear and non-linear (P-delta) analyses can be used in determining displacements and forces in the structure. Wind pressures and forces are automatically calculated.
- Extensive graphics plots include material take-off, shear-moment, leg compression, displacement, twist, feed line, guy anchor and stress plots.
- RISATower contains unique features such as True Cable behavior, hog rod take-up, foundation stiffness and much more.

146.7 ft 25.4100 18 1.6 0.3750 42.75 9 9.9 82.9 ft 45.00 55.0140 0.4375 8 7.00 43.7 ft 49.00 0.5000 15.5 18 1.7 ft 34.0 Number of Sides Lap Splice (ft) Top Dia (in) Weight (K) Bot Dia (in)

DESIGNED APPURTENANCE LOADING

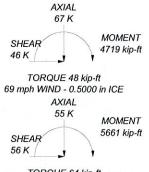
TYPE	ELEVATION	TYPE	ELEVATION	
Barkhamsted Branch 1	153.96	(2) LGP21903 Diplexer (ATI -	113.17	
(2) DB980F90E-M (Sprint/Nextel)	142.67	Proposed)		
(2) DB980F90E-M (Sprint/Nextel)	142.67	(2) LGP21903 Diplexer (ATI -	113.17	
(2) DB980F90E-M (Sprint/Nextel)	142.67	Proposed)		
Valmont T-Arm (1) (Sprint/Nextel)	142.67	Valmont T-Arm (1) (ATI)	113.17	
Valmont T-Arm (1) (Sprint/Nextel)	142.67	Valmont T-Arm (1) (ATI)	113.17	
Valmont T-Arm (1) (Sprint/Nextel)	142.67	Valmont T-Arm (1) (ATI)	113.17	
Barkhamsted Branch 2	138.86	Barkhamsted Branch 4	110.55	
(5) 72" x 12" x 6" Panel (Verizon - reserved)	135	Pirod 12' T-Frame Sector Mount (1) (T-Mobile - reserved)	103.17	
(5) 72" x 12" x 6" Panel (Verizon -	135	Pirod 12' T-Frame Sector Mount (1) (T-Mobile - reserved)	103.17	
(5) 72" x 12" x 6" Panel (Verizon - reserved)	135	Pirod 12' T-Frame Sector Mount (1) (T-Mobile - reserved)	103.17	
Valmont T-Arm (1) (Verizon)	133	(3) APX16DWV-16DWV-S-E-ACU (T-Mobile - reserved)	103.17	
Valmont T-Arm (1) (Verizon)	133	(3) APX16DWV-16DWV-S-E-ACU	103.17	
Valmont T-Arm (1) (Verizon)	133	(T-Mobile - reserved)	103.17	
Generic T-Arm Mount	128.17	(3) APX16DWV-16DWV-S-E-ACU	103.17	
Generic T-Arm Mount	128.17	(T-Mobile - reserved)		
Generic T-Arm Mount	128.17	(2) DTMA-1819-DD-12 (T-Mobile -	103.17	
(4) DB844H90E-XY (Sprint/Nextel)	124.67	reserved)		
(4) DB844H90E-XY (Sprint/Nextel)	124.67	(2) DTMA-1819-DD-12 (T-Mobile -	103.17	
(4) DB844H90E-XY (Sprint/Nextel)	124.67	reserved)		
Valmont T-Arm (1) (Sprint/Nextel)	124.67	(2) DTMA-1819-DD-12 (T-Mobile - reserved)	103.17	
Valmont T-Arm (1) (Sprint/Nextel)	124.67	APXV18-206517-C w/mount pipe	00	
Valmont T-Arm (1) (Sprint/Nextel)	124.67	(Pocket)	93	
Barkhamsted Branch 3	122.09	APXV18-206517-C w/mount pipe	93	
(2) 7770.00 (ATI - Proposed)	113.17	(Pocket)	00	
(2) 7770.00 (ATI - Proposed)	113.17	APXV18-206517-C w/mount pipe	93	
(2) 7770.00 (ATI - Proposed)	113.17	(Pocket)		
(2) LPG21401 TMA (ATI - Proposed)	113.17	Barkhamsted Branch 5	92.3	
(2) LPG21401 TMA (ATI - Proposed)	113.17	Barkhamsted Branch 6	83.5	
(2) LPG21401 TMA (ATI - Proposed)	113.17			
(2) LGP21903 Diplexer (ATI - Proposed)	113.17			

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A607-65	65 ksi	80 ksi			

TOWER DESIGN NOTES

- Tower designed for a 80 mph basic wind in accordance with the TIA/EIA-222-F Standard.
 Tower is also designed for a 69 mph basic wind with 0.50 in ice.
 Deflections are based upon a 50 mph wind.
 TOWER RATING: 78.7%



TORQUE 64 kip-ft REACTIONS - 80 mph WIND

63-2 N. Branford Rd.	^{Job:} 145' Summit Monopole w/ Branches				
	Project: 31 Rust Road, Barkhamsted, CT				
	Client: Verizon/AT&T	Drawn by: Staff	App'd:		
	Code: TIA/EIA-222-F	Date: 05/14/09	Scale: NTS		
	Path:	Bad, CTER Fleshts Surmit Tree Pole Baktumsted CT	Dwg No. E-1		