



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

www.ct.gov/esc

July 24, 2009

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

RE: **EM-CING-040-090623** – New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 56 Floydville Road, East Granby, 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 with the following conditions:

- The proposed coax shall be installed inside the pole's shaft;
- The proposed tower mounted amplifiers and diplexers shall be installed behind the panel antennas; and
- Not more than 45 days after completion of construction, the Council shall be notified in writing that coax, tower mounted amplifiers, and diplexers were installed as specified.

The proposed modifications are to be implemented as specified here and in your notice dated June 26, 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.

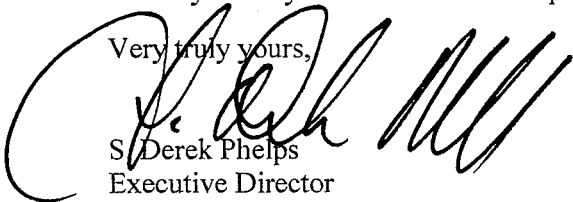
This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies 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.

July 24, 2009

Page 2

Thank you for your attention and cooperation.

Very truly yours,

A handwritten signature in black ink, appearing to read 'D. Phelps', written over the typed name and title.

S. Derek Phelps
Executive Director

SDP/MP/laf

c: The Honorable James M. Hayden, First Selectman, Town of East Granby
Lincoln B. White, Zoning Enforcement Officer, Town of East Granby
SBA

EM-CING-040-090623



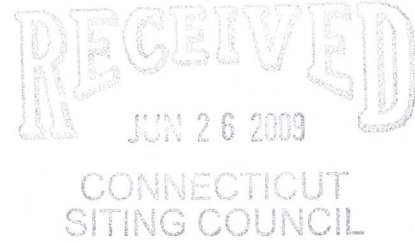
ORIGINAL

New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7636
Fax: (860) 513-7190

Steven L. Levine
Real Estate Consultant

HAND DELIVERED

June 26, 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 tele-communications facility located at 56 Floydville Road, East Granby (owner, SBA)

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**

56 Floydville Road, East Granby
Site Number 5425
Former AT&T Site
Exempt Modification approved 4/02

Tower Owner/Manager: SBA

Equipment Configuration: Monopole

Current and/or Approved: Three Allgon panel antennas @ 89 ft AGL
Six runs 1¼ inch coax cable
Concrete pad with outdoor cabinets

Planned Modifications: Remove existing antennas
Install low-profile platform
Install six Powerwave 7770 antennas (or equivalent) @ 89 ft
Install six TMA's and six diplexers @ 89 ft
Install six additional runs 1¼ inch coax
Remove one outdoor cabinet
Install one new outdoor cabinet for UMTS

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 27.3 % 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 41.9 % of the standard.

Existing

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm ²)	Standard Limits (mW/cm ²)	Percent of Limit
Other Users *							22.73
AT&T GSM *	89	1900 Band	4	250	0.0454	1.0000	4.54
Total							27.3%

* Per CSC records

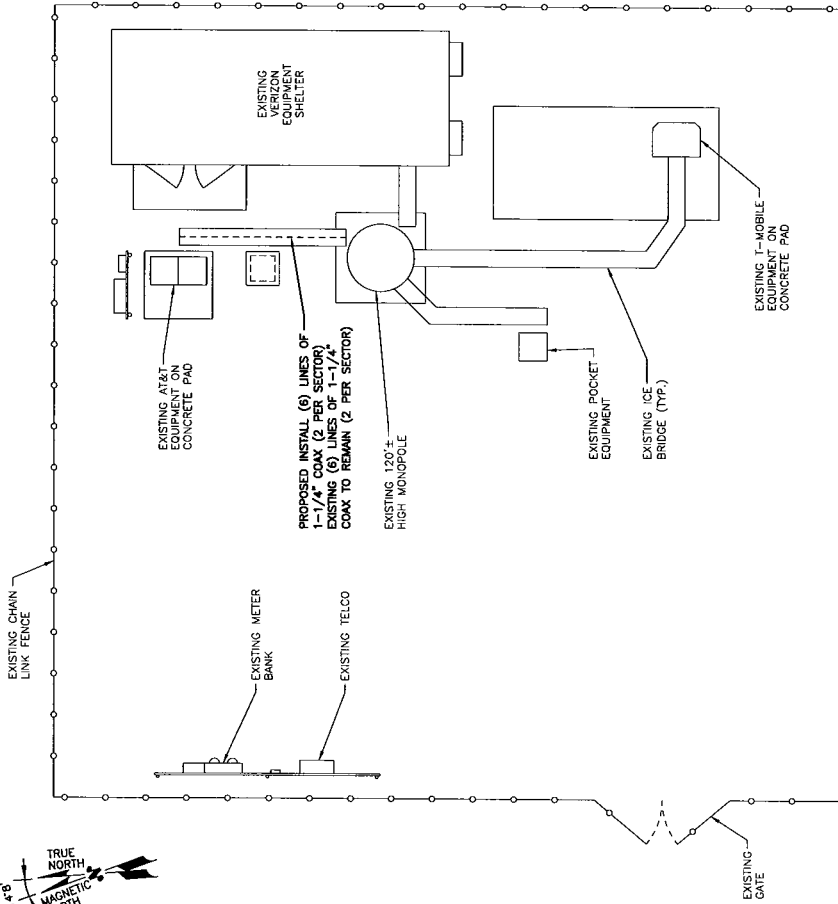
Proposed

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm ²)	Standard Limits (mW/cm ²)	Percent of Limit
Other Users *							22.73
AT&T UMTS	89	880 - 894	1	500	0.0227	0.5867	3.87
AT&T UMTS	89	1900 Band	1	500	0.0227	1.0000	2.27
AT&T GSM	89	1900 Band	2	427	0.0388	1.0000	3.88
AT&T GSM	89	880 - 894	4	296	0.0537	0.5867	9.16
Total							41.9%

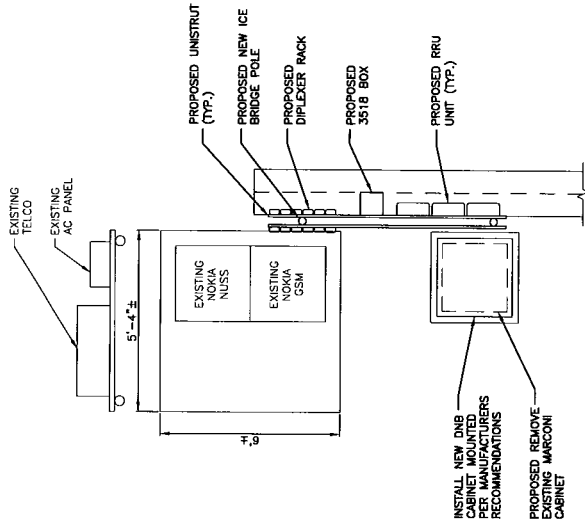
* Per CSC records

Structural information:

The attached structural analysis demonstrates that the tower and foundation have sufficient structural capacity to accommodate the proposed equipment modifications. (GPD Associates, 2/3/09)



COMPOUND PLAN
SCALE: 3/16"=1'-0"



EQUIPMENT PLAN
SCALE: 1/2"=1'-0"



1400 OGDEN STREET
BRANDS FORT MONMOUTH NJ 07030
TEL: 973-377-6900
FAX: 973-377-6900

22 KEEWAYDIN DRIVE
SALEM, NH 03079

500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06867

SITE NUMBER: 5425
SITE NAME: EAST GRANBY SW
56 FLOYDVILLE ROAD
EAST GRANBY, CT 06026
HARTFORD COUNTY

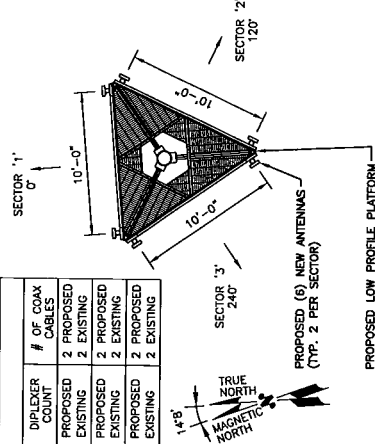
DATE: 04/29/04
ISSUED FOR: CONSTRUCTION
SCALE: AS SHOWN
DESIGNED BY: DC
CHECKED BY: RH
DRAWN BY: RH
PROJECT NUMBER: 5425-01
DRAWING NUMBER: A-1

COMPONENT & EQUIPMENT PLAN
AT&T

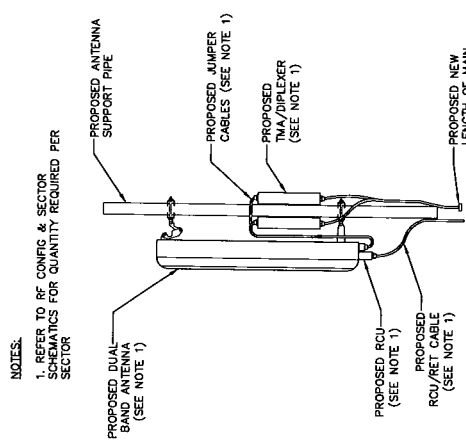
RF TABLE									
SECTOR	SECTOR NAME	ANTENNA MAKE & MODEL	ANTENNA COUNT	AZIMUTH	RAD CENTER	MECHANICAL DOWNTILT	TMA COUNT	DIPLEXER COUNT	# OF COAX CABLES
1	ALPHA	POWERWAVE 7770	2 PROPOSED 0 EXISTING	0°	89±	0*	2 PROPOSED 0 EXISTING	2 PROPOSED 0 EXISTING	2 PROPOSED 2 EXISTING
2	BETA	POWERWAVE 7770	2 PROPOSED 0 EXISTING	120*	89±	0*	2 PROPOSED 0 EXISTING	2 PROPOSED 0 EXISTING	2 PROPOSED 2 EXISTING
3	GAMMA	POWERWAVE 7770	2 PROPOSED 0 EXISTING	240*	89±	0*	2 PROPOSED 0 EXISTING	2 PROPOSED 0 EXISTING	2 PROPOSED 2 EXISTING

NOTE:*
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

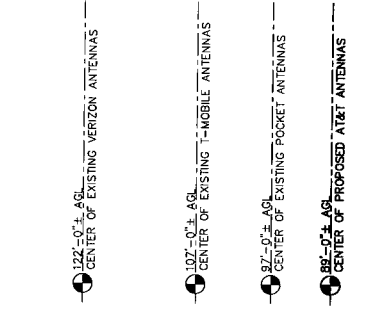
NOTE:
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT WILL BE DETERMINED PRIOR TO CONSTRUCTION.



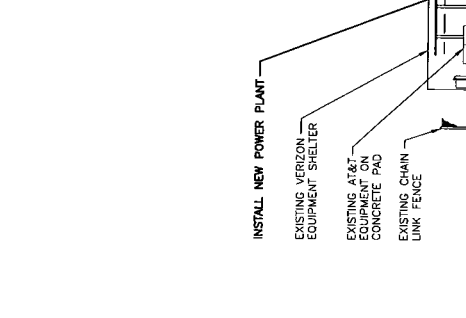
ANTENNA PLAN
SCALE: N.T.S.



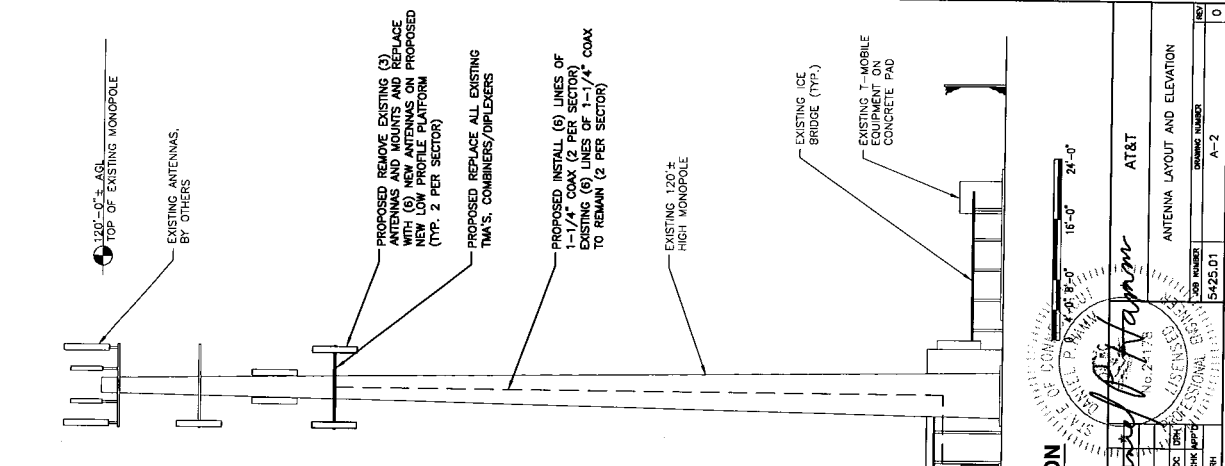
PROPOSED ANTENNA DETAIL
SCALE: N.T.S.



WEST ELEVATION
SCALE: 1/8"=1'-0"



ANTENNA MOUNT DETAIL
SCALE: N.T.S.



AT&T
ANTENNA LAYOUT AND ELEVATION

DATE: 01/22/09
ISSUED FOR CONSTRUCTION
NO. DATE
SCALE: AS SHOWN
DESIGNED BY: DC
CHECKED BY: RH
DRAWN BY: RH

JOB NUMBER: 5425.01
DRAWING NUMBER: A-2

at&t

500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

SITE NUMBER: 5425
SITE NAME: EAST GRANBY SW
56 FLOYDVILLE ROAD
EAST GRANBY, CT 06026
HARTFORD COUNTY

SIAD communications

22 KEWATON DRIVE
SALEM, NH 03079

Hudson Design Group, Inc.

100 WOODBURY STREET, SUITE 101
N. ANDOVER, MA 01854
TEL: 978 684-5888
FAX: 978 684-5888



New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7636
Fax: (860) 513-7190

Steven L. Levine
Real Estate Consultant

June 26, 2009

Honorable James M. Hayden
1st Selectman, Town of East Granby
Town Hall 9 Center Street
East Granby, CT 06026

Re: Telecommunications Facility – 56 Floydville Road

Dear Mr. Hayden:

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 for
SBA Network Services, Inc.**

120 ft Monopole

**Site Name: East Granby
Site ID: CT03801-S**

5425

FDH Project Number 09-05166E S1

Prepared By:

Brent McLain, EI
Project Engineer

Reviewed By:

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

FDH Engineering, Inc.

2730 Rowland Road
Raleigh, NC 27615
(919)-755-1012
info@fdh-inc.com



June 24, 2009

Prepared pursuant to ANSI TIA-222-G Structural Standards for Antenna Supporting Structures and Antennas

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EXECUTIVE SUMMARY

At the request of SBA Network Services, Inc., FDH Engineering, Inc. performed a structural analysis of the monopole located in East Granby, CT to determine whether the tower is structurally adequate to support both the existing and proposed loads, pursuant to the *Structural Standard for Antenna Supporting Structures and Antennas, ANSI/TIA-222-G*. Information pertaining to the existing/proposed antenna loading, current tower geometry, and member sizes was obtained from PiRod, Inc. (Eng File No. A-118413-1) original design drawings dated June 13, 2001, PiRod, Inc. (Eng File No. A-118413-1) Tower Calculations dated June 14, 2009, and SBA Network Services, Inc.

The *basic design wind speed* per *ANSI/TIA-222-G* standards is 100 MPH without ice and 50 MPH with 1" of radial ice. Ice is considered to increase in thickness with height.

Conclusions

With the current and proposed antennas from AT&T at 87 ft, the tower meets the requirements of the *ANSI/TIA-222-G* standards. Furthermore, provided the foundation was designed and constructed to support the original design reactions (see PiRod, Inc. Eng. File No. A-118413-1), the foundation should be adequate to support both the proposed and existing loading. For a more detailed description of the analysis of the tower, see the **Results** section of this report.

Our structural analysis has been performed assuming all information provided to FDH Engineering, Inc. is accurate (i.e. the steel data, tower layout, current loading, and proposed antenna loading) and that the tower has been properly erected and maintained per the original design drawings.

Recommendations

To ensure the requirements of the *ANSI/TIA-222-G* standards are met with the existing and proposed loading in place, we have the following recommendations:

1. The proposed coax should be installed inside the pole's shaft.
2. The proposed TMAs and diplexers should be installed directly behind the proposed panel antennas.

APPURTENANCE LISTING

The proposed and existing antennas with their corresponding cables/coax lines are shown in **Table 1**. *If the actual layout determined in the field deviates from this layout, FDH Engineering, Inc. should be contacted to perform a revised analysis.*

Table 1 – Appurtenance Loading

Existing Loading:

No.	Centerline Elevation (ft)	Coax and Lines ¹	Carrier	Mount Type	Description
1-12	117	(12) 1-5/8"	Verizon	(1) Low Profile Platform	(6) Swedcom ALP-E-9011 (6) Decibel DB948F85T2E-M
13-15	107 ²	(12) 1-5/8"	T-Mobile	(1) Low Profile Platform	(3) Thales P65Q56NS2B (6) Remec TMAs
16-18	97	(6) 1-5/8"	Pocket	Flush	(3) Kathrein 742-213
19-24	87 ³	(9) 1-5/8"	AT&T	(1) Low Profile Platform	(6) Dapa 58000

¹ Coax installed inside the pole's shaft unless otherwise noted.

² Currently, T-Mobile has (6) 1-5/8" coax at 107 ft. According to the information provided by SBA, T-Mobile reserves the right to (12) 1-5/8" coax at 107 ft. Analysis performed with full leased loading in place.

³ The existing loading will be altered at 87 ft. See the proposed loading below.

Proposed Loading:

No.	Centerline Elevation (ft)	Coax and Lines	Carrier	Mount Type	Description
1-6	87 ¹	(12) 1-5/8"	AT&T	(1) Low Profile Platform	(6) Powerwave 7770 (6) Powerwave LGP 21401 TMAs (6) Powerwave 21903 Diplexers

¹ This represents the final configuration at 87 ft. According to the information provided by SBA, AT&T will remove the existing antennas and install (6) Powerwave 7770 antennas, (6) Powerwave LGP 21401 TMAs, (6) Powerwave 21903 Diplexers, and (3) 1-5/8" coax at 87 ft.

RESULTS

Based on information obtained from the original design drawings, the yield strength of steel for individual members was as follows:

Table 2 - Material Strength

Member Type	Yield Strength
Tower Shaft Sections	65 ksi
Base Plate	50 ksi
Anchor Bolts	105 ksi

Table 3 displays the ratio (as a percentage) of force in the member to their capacities. Values greater than 100% indicate locations where the maximum force in the member exceeds its capacity. **Table 4** displays the maximum foundation reactions.

If the assumptions outlined in this report differ from actual field conditions, FDH Engineering, Inc. should be contacted to perform a revised analysis. Furthermore, as no information pertaining to the allowable twist and sway requirements for the existing or proposed appurtenances was provided, deflection and rotation were not taken into consideration when performing this analysis.

See the **Appendix** for detailed modeling information.

Table 3 – Summary of Working Percentage of Structural Components

Section No.	Elevation ft	Component Type	Size	% Capacity	Pass Fail
L1	120 - 98.5	Pole	TP34.0625x24.25x0.3125	5.3	Pass
L2	98.5 - 64.8333	Pole	TP41.75x31.688x0.375	17.1	Pass
L3	64.8333 - 32	Pole	TP49.0625x39.7478x0.375	27.2	Pass
L4	32 - 0	Pole	TP56.125x46.9463x0.375	35.5	Pass
		Base Plate	65"Ø x 1.5" thk.	44.0	Pass
		Anchor Bolts	(39) 1.25"Ø w BC = 61"Ø	28.4	Pass

Table 4 – Maximum Base Reactions

Base Reactions	Current Analysis (ANSI/TIA-222-G)	Design Loads (TIA/EIA-222-F)
Axial	20 k	37 k
Shear	39 k	37 k
Moment	1,536 k-ft	3,719 k-ft

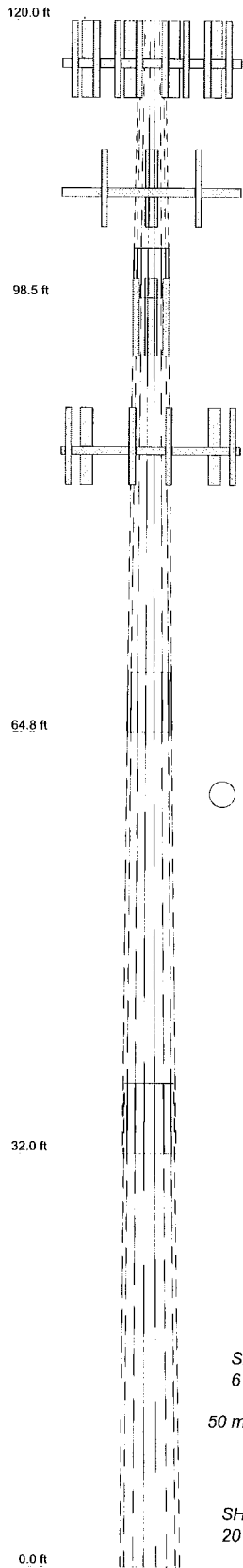
GENERAL COMMENTS

This engineering analysis is based upon the theoretical capacity of the structure. It is not a condition assessment of the tower and its foundation. It is the responsibility of SBA Network Services, Inc. to verify that the tower modeled and analyzed is the correct structure (with accurate antenna loading information) modeled. If there are substantial modifications to be made or the assumptions made in this analysis are not accurate, FDH Engineering, Inc. should be notified immediately to perform a revised analysis.

LIMITATIONS

All opinions and conclusions are considered accurate to a reasonable degree of engineering certainty based upon the evidence available at the time of this report. All opinions and conclusions are subject to revision based upon receipt of new or additional/updated information. All services are provided exercising a level of care and diligence equivalent to the standard and care of our profession. No other warranty or guarantee, expressed or implied, is offered. Our services are confidential in nature and we will not release this report to any other party without the client's consent. The use of this engineering work is limited to the express purpose for which it was commissioned and it may not be reused, copied, or distributed for any other purpose without the written consent of FDH Engineering, Inc.

Section	1	2	3	4	22.4
Length (ft)	21.50	37.50	37.50	37.50	
Number of Sides	18	18	18	18	
Thickness (in)	0.3125	0.3750	0.3750	0.3750	
Lap Splice (ft)	3.83	4.67	5.50	5.50	
Top Dia (in)	24.2500	31.6880	39.7478	46.9464	
Bot Dia (in)	34.0625	41.7500	49.0625	56.1250	
Grade			A572-65		
Weight (K)	2.1	5.5	6.7	7.8	



DESIGNED APPURTENANCE LOADING

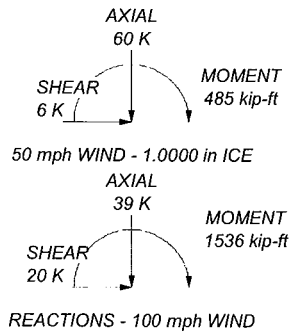
TYPE	ELEVATION	TYPE	ELEVATION
(2) ALP-E-9011 w/Mount Pipe (Verizon)	117	TMA-Remec (T-Mobile)	107
(2) ALP-E-9011 w/Mount Pipe (Verizon)	117	(3) Pipe Mount (T-Mobile)	107
(2) ALP-E-9011 w/Mount Pipe (Verizon)	117	(3) Pipe Mount (T-Mobile)	107
(2) DB948F85T2E-M w/Mount Pipe (Verizon)	117	Low Profile Platform (T-Mobile)	107
(2) DB948F85T2E-M w/Mount Pipe (Verizon)	117	742 213 w/Mount Pipe (Pocket)	97
(2) DB948F85T2E-M w/Mount Pipe (Verizon)	117	742 213 w/Mount Pipe (Pocket)	97
(2) DB948F85T2E-M w/Mount Pipe (Verizon)	117	742 213 w/Mount Pipe (Pocket)	97
Low Profile Platform (Verizon)	117	(2) 7770 w/Mount Pipe (ATT)	87
P65Q56NS2B w/Mount Pipe (T-Mobile)	107	(2) 7770 w/Mount Pipe (ATT)	87
P65Q56NS2B w/Mount Pipe (T-Mobile)	107	(2) TMA-LGP 21401 (ATT)	87
P65Q56NS2B w/Mount Pipe (T-Mobile)	107	(2) TMA-LGP 21401 (ATT)	87
P65Q56NS2B w/Mount Pipe (T-Mobile)	107	(2) Diplexer-LGP 21903 (ATT)	87
TMA-Remec (T-Mobile)	107	(2) Diplexer-LGP 21903 (ATT)	87
TMA-Remec (T-Mobile)	107	(2) Diplexer-LGP 21903 (ATT)	87
		(2) Pipe Mount (ATT)	87
		(2) Pipe Mount (ATT)	87
		(2) Pipe Mount (ATT)	87
		Low Profile Platform (T-Mobile)	87

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

TOWER DESIGN NOTES

1. Tower is located in Hartford County, Connecticut.
2. Tower designed for Exposure C to the TIA-222-G Standard.
3. Tower designed for a 100 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 50 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.



 FDH Engineering, Inc. 2730 Rowland Road Raleigh, North Carolina Tower Analysis Phone: (919)755-1012 FAX: (919)755-3031	Job: East Granby, CT Site ID: CT03801-S
	Project: 09-05166E S1
	Client: SBA Network Services, Inc. Drawn by: Brent McLain App'd:
	Code: TIA-222-G Date: 06/25/09 Scale: NTS
	Path: