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/csc

June 10, 2011

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

RE: **EM-CING-158-110523** - New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 180A Bayberry Lane, Westport, Connecticut.

Dear Mr. Culp:

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 May 23, 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
Executive Director

LR/CDM/laf

c: The Honorable Gordon F. Joseloff, First Selectman, Town of Westport
Laurence Bradley, Director, Planning & Zoning, Town of Westport
American Tower Corporation

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/csc

May 24, 2011

The Honorable Gordon F. Joseloff
First Selectman
Town of Westport
Town Hall
110 Myrtle Avenue
Westport, CT 06880

RE: **EM-CING-158-110523** - New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 180A Bayberry Lane, Westport, Connecticut.

Dear First Selectman Joseloff:

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.

If you have any questions or comments regarding this proposal, please call me or inform the Council by June 8, 2011.

Thank you for your cooperation and consideration.

Very truly yours,

Linda Roberts
Executive Director

LR/jbw

Enclosure: Notice of Intent

c: Laurence Bradley, Director, Planning & Zoning, Town of Westport

EM-CING-158-110523

New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 463-5511
Fax: (860) 513-7190

Douglas L. Culp
Real Estate Consultant

ORIGINAL

HAND DELIVERED

May 23, 2011

Ms. Linda Roberts
Executive Director
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 180A Bayberry Lane Wesport, CT (owner American Tower)

Dear Ms. Roberts:

In order to accommodate technological changes, implement Uniform Mobile Telecommunications System ("UMTS") and/or Long Term Evolution ("LTE") capabilities, 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.

LTE is a new high-performance air interface for cellular mobile communications. It is designed to increase the capacity and speed of mobile telephone networks.

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. Moreover, LTE will utilize additional radio frequencies newly-licensed by the FCC for cellular mobile communications. 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) 463-5511 with questions concerning this matter. Thank you for your consideration.

Sincerely,

Douglas L. Culp
Real Estate Consultant

Attachments

NEW CINGULAR WIRELESS PCS, LLC
Equipment Modification

180A Bayberry Lane Westport, CT
Site Number CT2107
Exempt Mod

Tower Owner/Manager: American Tower

Equipment configuration: Monopole

Current and/or approved: Six PowerWave antennas @ 100 ft
Six PowerWave TMA's and Six PowerWave Diplexers @ 100 ft
Twelve runs 1 5/8 inch coax to 100 ft
Equipment Shelter

Planned Modifications: Retain existing PowerWave Antenna's, Diplexers and TMA's at 100 ft
Retain all Coax Cabling
Install three PowerWave P65-16 antennas or equivalent @ 100 ft
Install six remote radio heads and surge arrestor @ 100 ft
Install one fiber and two DC power cables to 100 ft

Power Density:

Worst-case calculations for existing wireless operations at the site, using standard parameters for other carriers, indicate a radio frequency electromagnetic radiation power density, measured at ground level beside the Tower, of 19.7% 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 23.4% 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							2.17
AT&T UMTS	100	1900 Band	1	500	0.0180	1.0000	1.80
AT&T UMTS	100	800 Band	1	500	0.0180	0.5867	3.06
AT&T GSM	100	800Band	7	296	0.0745	0.5867	12.70
Total							**19.7%**

* Data for other users based on actual field measurements conducted by SAI Communications – Report dated May 23, 2011.

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							2.17
AT&T UMTS	100	800 Band	1	500	0.0180	0.5867	3.06
AT&T UMTS	100	1900 Band	1	500	0.0180	1.0000	1.80
AT&T GSM	100	880 - 894	7	296	0.0745	0.5867	12.70
AT&T LTE	100	740 - 746	1	500	0.0180	0.4933	3.64
Total							**23.4%**

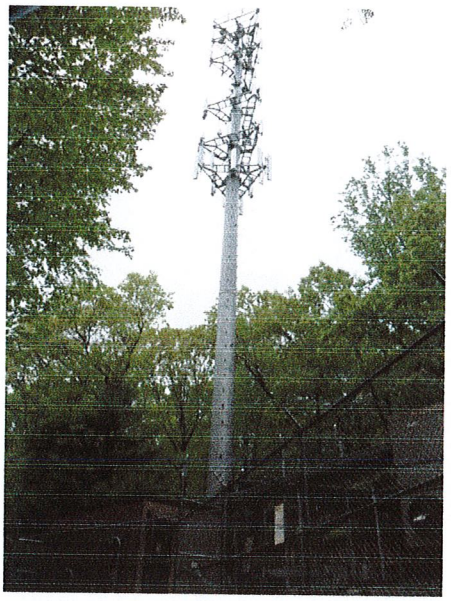
* Data for other users based on actual field measurements conducted by SAI Communications – Report dated May 23, 2011.

Structural information:

The attached structural analysis demonstrates that the monopole and foundation have adequate structural capacity to accommodate the proposed modifications. (American Tower, dated 4-26-11).

MAXIMUM PERMISSIBLE EXPOSURE STUDY

Site ID: CT2107
Site Name: Westport
Address: 180A Bayberry Lane, Westport, CT 06880



Conclusion: ***The site measurement was 2.17% of FCC Standard for Uncontrolled/General Public Maximum Permissible Exposure (MPE).***

Theoretical calculations also show site will still be within FCC Standard for Uncontrolled/General Public Maximum Permissible Exposure at ground level with AT&T's addition of LTE Technology.

Prepared by:

SAI Communications
260 Cedar Hill Street
Marlboro, MA 01752
508-573-5077

Date of Report: May 23, 2011

Table of Contents

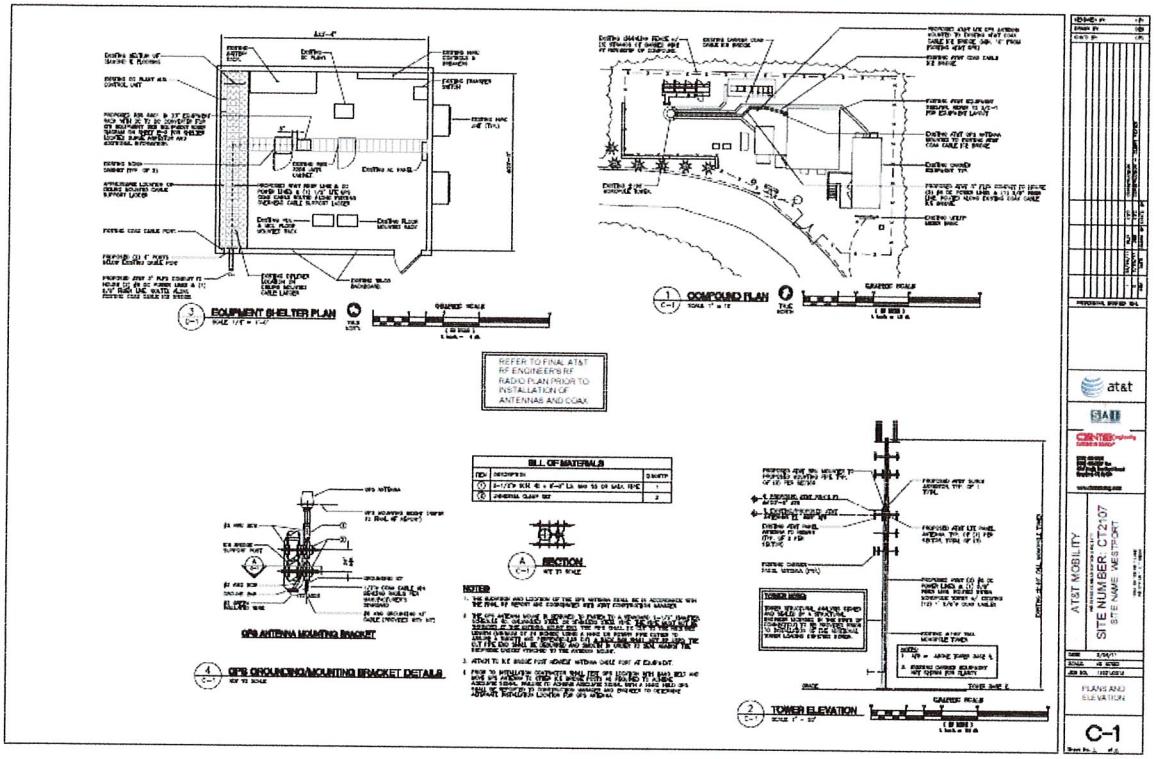
1. INTRODUCTION

SAI Communications conducted Radio Frequency measurements at 180A Bayberry Lane, Westport, CT around the outer perimeter ground level to determine the current RF exposure levels at the surrounding area prior to construction/modifications of the site. The measurements collected represent the cumulative power density levels of all the RF transmitters in the area, within the frequency range of the equipment used. The FCC has established Maximum Permissible Exposure (MPE) limits for general population exposures and occupational exposures. This report summarizes the Radio Frequency Emission findings in relevance to the FCC compliance standards for limiting human exposure to RF Electromagnetic fields.

2. SITE DESCRIPTION & CONFIGURATION

Table below shows the current AT&T antenna configuration for the three sectors containing two antennas per sector. AT&T's installation is on the tower at 180A Bayberry Lane, Westport, CT which is a monopole tower approximately 140 feet in height. The centerline for AT&T antennas is at approximately 100 feet on the said tower. Other carriers at this location include Sprint/Nextel Wireless with antenna mounted on said tower as well.

	Sector 1	Sector 2	Sector 3
Number of existing antennas	2	2	2
Current antenna model	Powerwave 7770	Powerwave 7770	Powerwave 7770
Current antenna azimuth	149	267	38
Current center line (ft)	100	100	100
Current number of feeders	2	2	2
Current feeder diameter	5/8"	5/8"	5/8"
Current feeder length (ft)	130	130	130


EQUIPMENT SHELTER PLAN
COMPOUND PLAN
REFER TO FINAL AT&T RF ENGINEER'S RF RADIO PLAN PRIOR TO INSTALLATION OF ANTENNAS AND COAX
BILL OF MATERIALS
SECTION
GPS ANTENNA MOUNTING BRACKET
GPS GROUNDING/MOUNTING BRACKET DETAILS
TOWER ELEVATION
AT&T MOBILITY
SITE NUMBER: CT2107
SITE NAME: WESTPORT
PLANS AND ELEVATION
C-1

3. FCC GUIDELINES

The FCC, in responding to the Telecommunications Act of 1996, issued ET Docket 93-62 which prescribed rules regarding the environmental effects of RF emission and to modify Title 47 parts 1, 2, 15, 24 and 97. The FCC established two levels for Maximum Permissible Exposure (MPE), the General Public/Uncontrolled limits and the Occupational/Controlled limits. The MPEs are presented in the Table 1 and Table 2, respectively below.

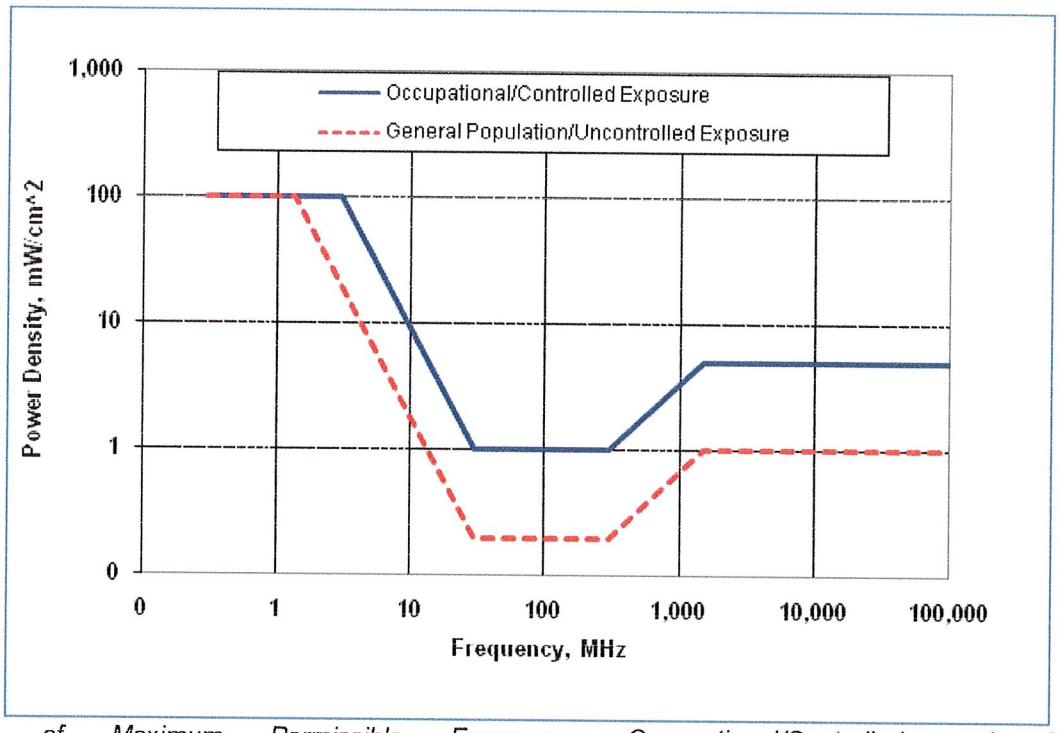
Table 1. MPE Limits for General Population/ Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	Averaging Time for $\|E\|^2$, $\|H\|^2$, or S (Minutes)
0.3 – 1.34	614	1.63	(100)*	30
1.34 -30	824/f	2.19/f	($180/f^2$)*	30
30 – 300	27.5	0.073	0.2	30
300 – 1500	--	--	f/1500	30
1500– 100,000	--	--	1.0	30
f = frequency in MHz		* = Plane wave equivalent power density		

TABLE 1: *General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can't exercise control over their exposure.*

Table 2. MPE Limits for Occupational/Controlled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	Averaging Time for $\|E\|^2$, $\|H\|^2$, or S (Minutes)
0.3 – 3.0	614	1.63	(100)*	6
3.0 – 30	1842/f	4.89/f	($900/f^2$)*	6
30 – 300	61.4	0.163	1.0	6
300 – 1500	--	--	f/300	6
1500– 100,000	--	--	5.0	6
f = frequency in MHz		* = Plane wave equivalent power density		

TABLE 2: *Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where such occupational/controlled limits apply provided he or she is made aware of the potential for exposure.*

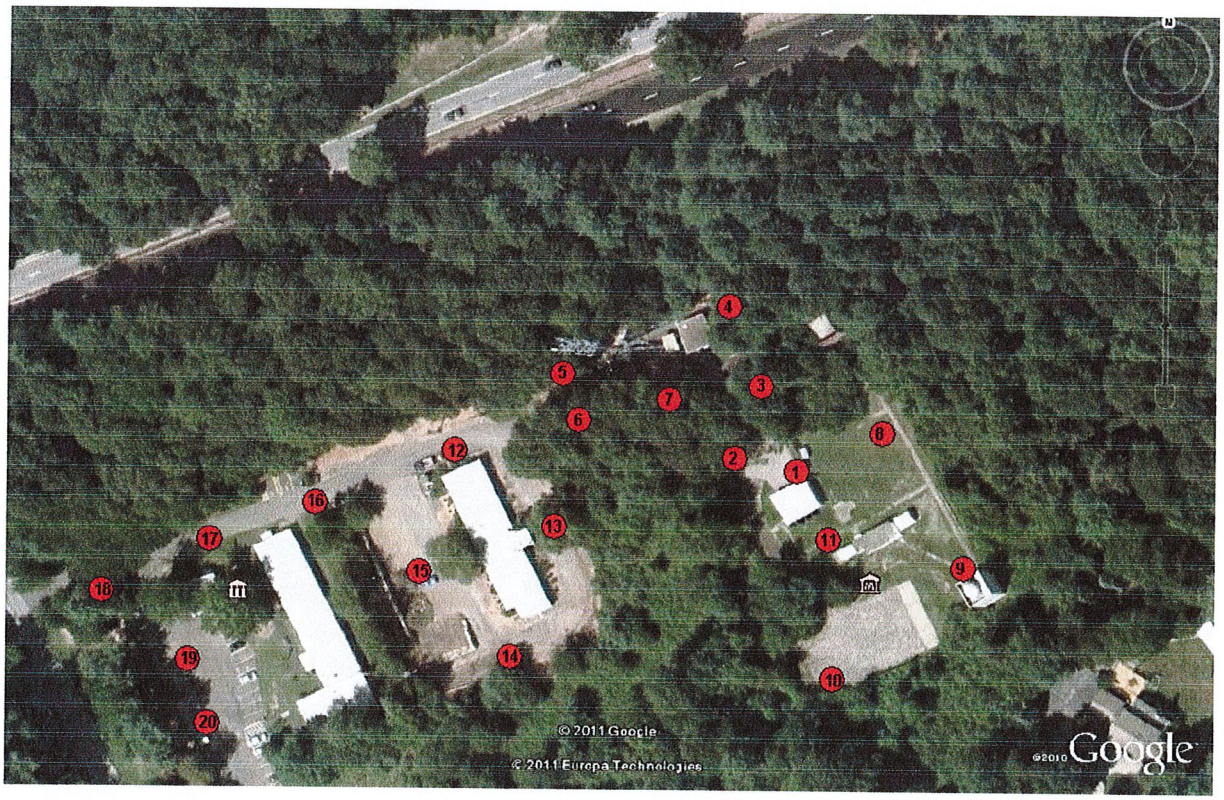
4. FCC RF EXPOSURE LIMITS



Graph of Maximum Permissible Exposures. Occupational/Controlled and General Population/Uncontrolled MPE's are functions of frequency.

5. FIELD SURVEY RESULTS

The measurement positions conducted at 180A Bayberry Lane, Westport, CT are shown on the aerial photo of the surrounding area. Contained on the next page is a table summarizing the pre-construction power density measurements recorded at the points indicated. The measurements presented were taken on the site property and nearby public access points.



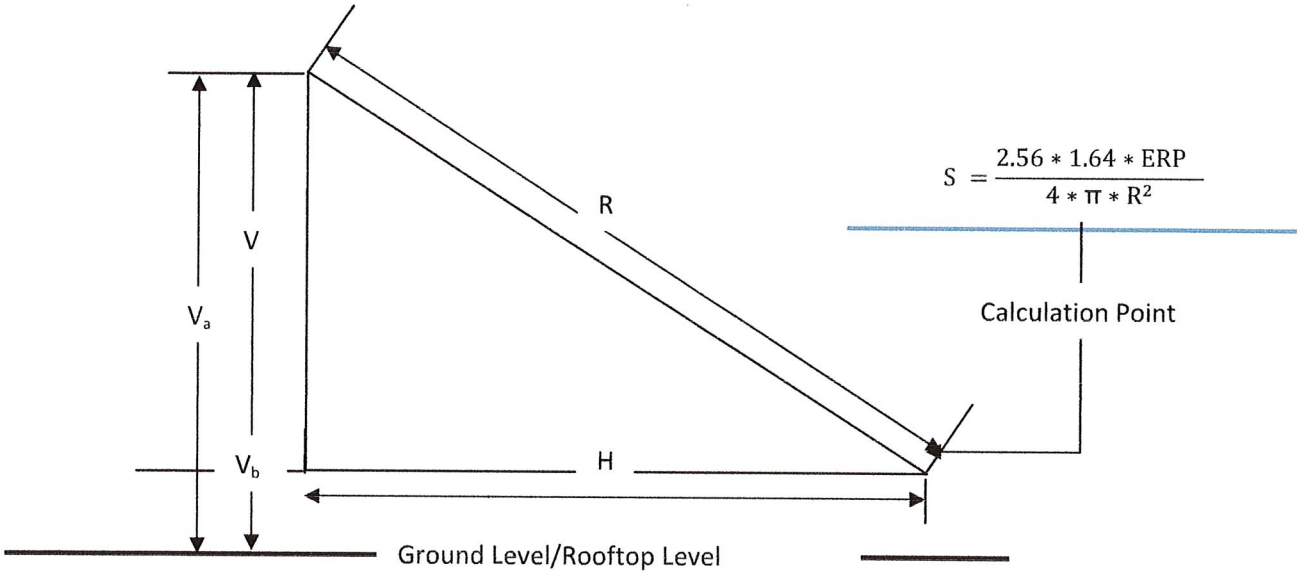
Measurement Position	Spatial Averaged %MPE Measurements - Cumulative of all Carriers	
	Controlled Population	Uncontrolled Population
Point 1 (164ft Distance)	0.0383	0.1915
Point 2 (116ft Distance)	0.0271	0.1355
Point 3 (100ft Distance)	0.0633	0.3165
Point 4 (84ft Distance)	0.0163	0.0815
Point 5 (62ft Distance)	0.1442	0.7210
Point 6 (67ft Distance)	0.1029	0.5145
Point 7 (42ft Distance)	0.1542	0.7710
Point 8 (210ft Distance)	0.1801	0.9005
Point 9 (321ft Distance)	0.1921	0.9605
Point 10 (309ft Distance)	0.1835	0.9175
Point 11 (209ft Distance)	0.1761	0.8805
Point 12 (165ft Distance)	0.1863	0.9315
Point 13 (152ft Distance)	0.2438	1.2190
Point 14 (270ft Distance)	0.2642	1.3210
Point 15 (250ft Distance)	0.2500	1.2500
Point 16 (287ft Distance)	0.3262	1.6310
Point 17 (425ft Distance)	0.2871	1.4355
Point 18 (545ft Distance)	0.3077	1.5385
Point 19 (464ft Distance)	0.4349	2.1745
Point 20 (486ft Distance)	0.0024	0.0120

6. THEORETICAL CALCULATIONS FOR THE PROPOSED LTE TECHNOLOGY

AT&T Mobility is planning to install 3 antennas (Powerwave P65-16-XLH-RR), 1 per sector, for LTE Technology at 700MHz and 2100MHz bands, with azimuths of 30°-150°-270° for alpha-beta-gamma sectors, in addition to the existing the GSM/UMTS antennas. This section of the report will evaluate the increase in power density with the addition of LTE Technology with one radio per sector per band at 45dBm transmit power, through the use of FCC suggested prediction methods.

6.1 RF EXPOSURE PREDICTION METHOD

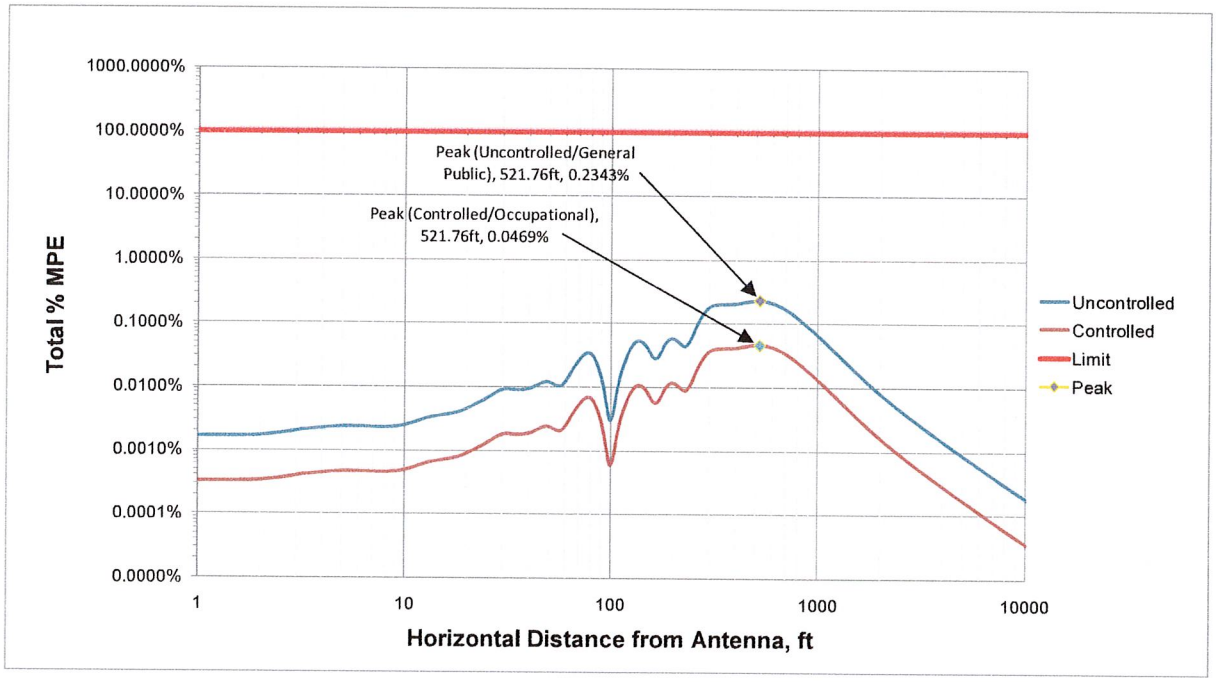
Power Density is calculated in accordance with FCC OET Bulletin 65 formula (7):



Where:
S = Power Density
ERPrel = Effective Radiated Power relative to antenna pattern
R = Radial distance $=\sqrt{H^2 + V^2}$
H = Horizontal distance from antenna
V = Vertical distance from antenna = $Va - Vb$
Va = Antenna height above ground
Vb = Calculation height
**Calculations made with assumption of horizontal plane (flat surface) from base of tower throughout the distances to calculation points.*

6.2 CALCULATION RESULTS

The following chart show the graphical representation of the calculated % MPE at ground level for the proposed LTE Technology, as horizontal distance from antenna increases. The calculations take into account the vertical pattern of the antennas and represent the immediate direction of each sector azimuth within the antenna horizontal beamwidth. The calculations also assume line of site to the antennas and the result will be lower if measured indoor due to in-building penetration loss.



6.3 ADDING THEORETICAL CALCULATIONS OF PROPOSED LTE TO ACTUAL MEASUREMENTS

Measurement Position	Spatial Averaged %MPE Measurements - Cumulative of all Carriers		Calculated %MPE - Proposed LTE Technology		Total %MPE (Current plus Proposed)	
	Controlled Population	Uncontrolled Population	Controlled Population	Uncontrolled Population	Controlled Population	Uncontrolled Population
Point 1 (164ft Distance)	0.0383	0.1915	0.0060	0.0299	0.0443	0.2214
Point 2 (116ft Distance)	0.0271	0.1355	0.0040	0.0198	0.0311	0.1553
Point 3 (100ft Distance)	0.0633	0.3165	0.0006	0.0030	0.0639	0.3195
Point 4 (84ft Distance)	0.0163	0.0815	0.0058	0.0288	0.0221	0.1103
Point 5 (62ft Distance)	0.1442	0.7210	0.0029	0.0144	0.1471	0.7354
Point 6 (67ft Distance)	0.1029	0.5145	0.0043	0.0214	0.1072	0.5359
Point 7 (42ft Distance)	0.1542	0.7710	0.0019	0.0096	0.1561	0.7806
Point 8 (210ft Distance)	0.1801	0.9005	0.0110	0.0549	0.1911	0.9554
Point 9 (321ft Distance)	0.1921	0.9605	0.0376	0.1880	0.2297	1.1485
Point 10 (309ft Distance)	0.1835	0.9175	0.0376	0.1880	0.2211	1.1055
Point 11 (209ft Distance)	0.1761	0.8805	0.0110	0.0549	0.1871	0.9354
Point 12 (165ft Distance)	0.1863	0.9315	0.0060	0.0299	0.1923	0.9614
Point 13 (152ft Distance)	0.2438	1.2190	0.0090	0.0452	0.2528	1.2642
Point 14 (270ft Distance)	0.2642	1.3210	0.0233	0.1166	0.2875	1.4376
Point 15 (250ft Distance)	0.2500	1.2500	0.0108	0.0542	0.2608	1.3042
Point 16 (287ft Distance)	0.3262	1.6310	0.0313	0.1567	0.3575	1.7877
Point 17 (425ft Distance)	0.2871	1.4355	0.0416	0.2082	0.3287	1.6437
Point 18 (545ft Distance)	0.3077	1.5385	0.0469	0.2343	0.3546	1.7728
Point 19 (464ft Distance)	0.4349	2.1745	0.0438	0.2189	0.4787	2.3934
Point 20 (486ft Distance)	0.0024	0.0120	0.0458	0.2290	0.0482	0.2410

7. EQUIPMENT USED FOR MEASUREMENTS

The following calibrated NARDA equipment was used for the measurements contained in this report. Calibration certification documents for probe and meter are located on pages 15 and 16 respectively.

Meter Manufacturer: *NARDA Microwave*	Probe Manufacturer: *NARDA Microwave*
Model: *NBM-550* S/N: *B-0552*	Model: *EA5091* S/N: *01046*
Calibration Due Date: *1/25/2013*	Calibration Due Date: *1/25/2013*

The probe used was a shaped probe which will give an aggregate reading of all transmitted RF Energy detected by the instrument by internally correcting for the different frequency/threshold limits and accurately measures the percent of MPE. The shaped probe has a frequency range of 300 KHz-50 GHz.

8. CONCLUSION

The measurements, recorded on May 19, 2011, revealed the worst-case spatially averaged measured value to be within **2.17%** of the FCC MPE limits for uncontrolled/general public as outlined in the FCC OET Bulletin 65. Access door is locked and RF safety signs are displayed at entrance to cell site.

The areas in the vicinity of 180A Bayberry Lane, Westport, CT were surveyed and found to be within the mandated uncontrolled/General Population limits for Maximum Permissible Exposure (MPE), as delineated in the FCC's Radio Frequency exposure rules.

In addition, MPE theoretical calculations show that the site will still be within the FCC Standard for Uncontrolled/General Population Maximum Permissible Exposure (MPE) with the addition of the LTE700 Technology.

9. STATEMENT OF CERTIFICATION

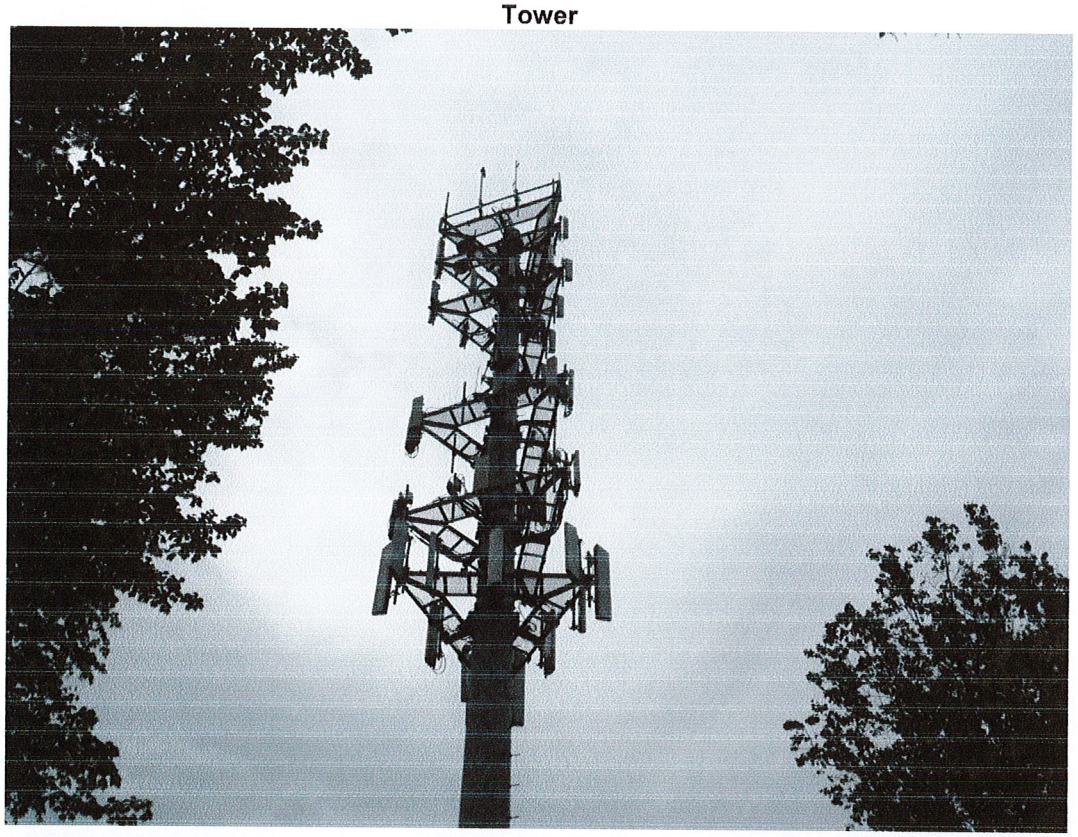
I certify to the best of my knowledge that the statements contained in this report are true and accurate. The measurements were obtained with properly calibrated equipment using techniques in compliance with Federal Communications Commission OET Bulletin 65 and FCC ET Docket No. 93-62. The theoretical computations contained are based on FCC recommended methods, with industry standard assumptions & formulas, and complies with FCC mandated Maximum Permissible RF Exposure requirements.

If questions arise regarding the report herein, SAI Communications recommends that additional field measurements be performed upon site completion to resolve any disputes.

Daniel J Hamman
SAI Communications, Inc

May 23, 2011
Date

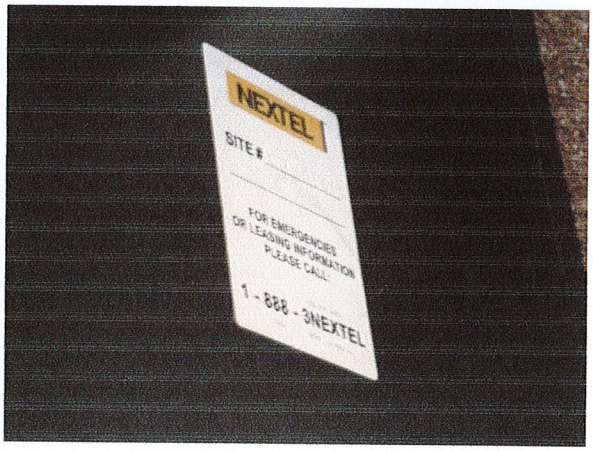
Tower




CAUTION
NO TRESPASSING
DANGER
HIGH VOLTAGE
KEEP AWAY


NOTICE
Radio frequency transmitters in use at this site. Transmitters operated by T-Mobile in full compliance with FCC regulations.
Site No.
Refer to RF EME Safety Plan on file with Building Management Officials.


MANAGED BY:
AMERICAN TOWER™
CORPORATION
SITE NAME:
SITE NUMBER:
FOR LEASING INFORMATION:
877-282-7483
877-ATC-SITE
FOR OPERATIONS & ACCESS:
877-518-6937
877-51-TOWER
NO TRESPASSING


NEXTEL
SITE #
FOR EMERGENCIES OR LEASING INFORMATION PLEASE CALL
1 - 888 - 3NEXTEL


cingular
WIRELESS
Site I.D.# NWHN 2107
EMERGENCY CALL
1-866-915-5600
180
WSPTCT
CNH01

Narda Safety Test Solutions
435 Moreland Road, Hauppauge, NY 11788
Phone: 631-231-1700 · Fax: 631-231-1711
E-mail: nardaeast@L-3com.com
www.nardamicrowave.com

narda
Safety Test Solutions
an L3 Communications Company

Calibration Certificate

Narda Safety Test Solutions hereby certifies that the referenced equipment has been calibrated by qualified personnel to Narda's approved procedures. The calibration was carried out within a certified quality management system conforming to ISO 9001:2000.

The metrological confirmation system for test equipment complies with ISO 10012-1.

Object	**Electric Field Probe EA5091**
Part Number (P/N)	**2402/07**
Serial Number (S/N)	**01046**
Manufacturer	Narda Safety Test Solutions
Date of Calibration	Wed 18/Feb/2009 10:54:03
Results of Calibration	Test Results within Specification
Confirmation interval (recommended)	24 Months
Ambient Conditions	(23 +/-3)°C (40...60)% rel. humidity
Calibration Procedure	ATE Software 990199 Ver. 1.47
Probe Definition File Set	P/N 990199-04 Ver. 1.06
Results Filed Under	EA5091_01046_18Feb2009.txt

Hauppauge, NY

V. M.
Calibrated by

Quality Assurance

This certificate may only be published in full, unless permission for the publication of an approved extract has been obtained in writing from the Director of Quality Assurance.

Certificate No. 01046_18Feb2009.txt

Narda Safety Test Solutions GmbH
Sandwiesenstrasse 7 · D-72793 Pfullingen · Germany
Phone: +49-7121-9732-0 · Fax: +49-7121-9732-790

narda
Safety Test Solutions
an L3 Communications Company

Calibration Certificate

Narda Safety Test Solutions GmbH hereby certifies that the referenced equipment has been calibrated by qualified personnel to Narda's approved procedures. The calibration was carried out within a certified quality management system conforming to DIN EN ISO 9001:2000.

The metrological confirmation system for test equipment complies with ISO 10012-1.

Object	**Broadband Field Meter NBM-550**
Part Number (P/N)	**2401/01**
Serial Number (S/N)	**B-0552**
Manufacturer	Narda Safety Test Solutions GmbH
Customer	
Date of Calibration	2008-12-11
Results of Calibration	Test results within specifications
Confirmation interval (recommended)	24 months
Ambient conditions	(23 ± 3)°C (20 ... 60) % rel. humidity
Calibration procedure	2401-8700-00A

Pfullingen, 2008-12-11

Person in charge
R.Martin

Head of Laboratory
N. Moll

This certificate may only be published in full, unless permission for the publication of an approved extract has been obtained in writing from the Managing Director.

MANAGEMENT SYSTEM

Certified by DQS against DIN EN ISO 9001:2000 (Reg.-No. 99379-QM)

WIRELESS COMMUNICATIONS FACILITY

CT2107
WESTPORT
180A BAYBERRY LANE
WESTPORT, CT 06880

SITE DIRECTIONS

FROM: 500 ENTERPRISE DRIVE, ROCKY HILL, CONNECTICUT **TO:** 180A BAYBERRY LANE, WESTPORT, CT 06880

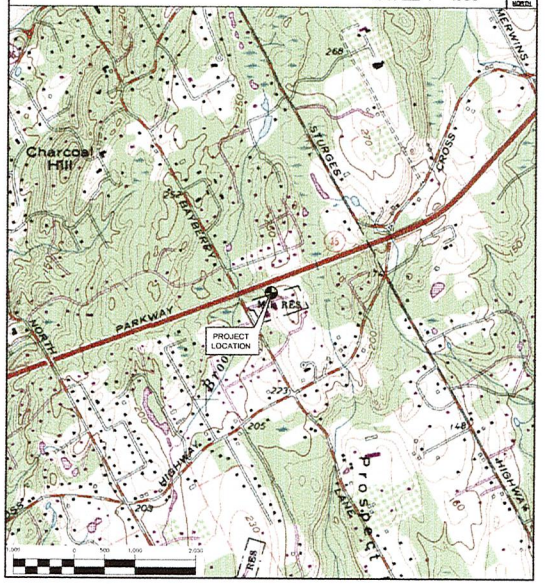
1. Depart Enterprise Dr toward Capitol Blvd	0.3 mi.
2. Turn left onto Capitol Blvd	0.2 mi.
3. Turn left onto West St	0.3 mi.
4. Take ramp left for I-91 South	9.7 mi.
5. At exit 17, take ramp right for SR-15 South / Wilbur Cross Pkwy toward E. Main St	43.3 mi.
6. At exit 42, take ramp right for SR-57 toward Westport / Weston	0.1 mi.
7. Turn right onto SR-57 / Weston Rd	0.2 mi.
8. Keep left onto Weston Rd	0.3 mi.
9. Turn left onto Cross Hwy	1.6 mi.
10. Turn left onto Bayberry Ln	0.3 mi.
11. Arrive at 180A Bayberry Ln, Westport, CT 06880-2802 on the right	

GENERAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2005 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2009 CONNECTICUT SUPPLEMENT, INCLUDING THE TIA/EIA-222 REVISION "F" "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND SUPPORTING STRUCTURES." 2005 CONNECTICUT FIRE SAFETY CODE AND 2009 AMENDMENTS, NATIONAL ELECTRICAL CODE AND LOCAL CODES.
2. THE COMPOUND, TOWER, PRIMARY GROUND RING, ELECTRICAL SERVICE TO THE METER BANK AND TELEPHONE SERVICE TO THE DEMARCATION POINT ARE PROVIDED BY SITE OWNER. AS BUILT FIELD CONDITIONS REGARDING THESE ITEMS SHALL BE CONFIRMED BY THE CONTRACTOR. SHOULD ANY FIELD CONDITIONS PRECLUDE COMPLIANCE WITH THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND SHALL NOT PROCEED WITH ANY AFFECTED WORK.
3. CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS IN THE CONTRACT DOCUMENT SET. CONTRACTOR SHALL COORDINATE ALL WORK SHOWN IN THE SET OF DRAWINGS. THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF DRAWINGS TO ALL SUBCONTRACTORS AND ALL RELATED PARTIES. THE SUBCONTRACTORS SHALL EXAMINE ALL THE DRAWINGS AND SPECIFICATIONS FOR THE INFORMATION THAT AFFECTS THEIR WORK.
4. CONTRACTOR SHALL PROVIDE A COMPLETE BUILD-OUT WITH ALL FINISHES, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS AND PROVIDE ALL ITEMS AS SHOWN OR INDICATED ON THE DRAWINGS OR IN THE WRITTEN SPECIFICATIONS.
5. CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR AND EQUIPMENT TO COMPLETE THE WORK AND FURNISH A COMPLETED JOB ALL IN ACCORDANCE WITH LOCAL AND STATE GOVERNING AUTHORITIES AND OTHER AUTHORITIES HAVING LAWFUL JURISDICTION OVER THE WORK.
6. CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND ALL INSPECTIONS REQUIRED AND SHALL ALSO PAY FEES REQUIRED FOR THE GENERAL CONSTRUCTION, PLUMBING, ELECTRICAL AND HVAC. PERMITS SHALL BE PAID FOR BY THE RESPECTIVE SUBCONTRACTORS.
7. CONTRACTOR SHALL MAINTAIN A CURRENT SET OF DRAWINGS AND SPECIFICATIONS ON SITE AT ALL TIMES AND INSURE DISTRIBUTION OF NEW DRAWINGS TO SUBCONTRACTORS AND OTHER RELEVANT PARTIES AS SOON AS THEY ARE MADE AVAILABLE. ALL OLD DRAWINGS SHALL BE MARKED VOID AND REMOVED FROM THE CONTRACT AREA. THE CONTRACTOR SHALL FURNISH AN "AS-BUILT" SET OF DRAWINGS TO OWNER UPON COMPLETION OF PROJECT.
8. LOCATION OF EQUIPMENT, AND WORK SUPPLIED BY OTHERS THAT IS DIAGRAMMATICALLY INDICATED ON THE DRAWINGS SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL DETERMINE LOCATIONS AND DIMENSIONS SUBJECT TO STRUCTURAL CONDITIONS AND WORK OF THE SUBCONTRACTORS.
9. THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE, AND TO ENSURE THE SAFETY OF THE EXISTING STRUCTURES AND ITS COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACING, UNDERPINNING, ETC. THAT MAY BE NECESSARY. MAINTAIN EXISTING BUILDING'S/PROPERTY'S OPERATIONS, COORDINATE WORK WITH BUILDING/PROPERTY OWNER.
10. DRAWINGS INDICATE THE MINIMUM STANDARDS, BUT IF ANY WORK SHOULD BE INDICATED TO BE SUBSTANDARD TO ANY ORDINANCES, LAWS, CODES, RULES, OR REGULATIONS BEARING ON THE WORK, THE CONTRACTOR SHALL INCLUDE IN HIS WORK AND SHALL EXECUTE THE WORK CORRECTLY IN ACCORDANCE WITH SUCH ORDINANCES, LAWS, CODES, RULES OR REGULATIONS WITH NO INCREASE IN COSTS.
11. ALL UTILITY WORK SHALL BE IN ACCORDANCE WITH LOCAL UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS.
12. ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUBCONTRACTORS FOR ANY CONDITION PER MFR.'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR CONSTRUCTION MANAGER.
13. ANY AND ALL ERRORS, DISCREPANCIES, AND "MISSED" ITEMS ARE TO BE BROUGHT TO THE ATTENTION OF THE AT&T CONSTRUCTION MANAGER DURING THE BIDDING PROCESS BY THE CONTRACTOR. ALL THESE ITEMS ARE TO BE INCLUDED IN THE BID. NO "EXTRA" WILL BE ALLOWED FOR MISSED ITEMS.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE SAFETY FROM THE TIME THE JOB IS AWARDED UNTIL ALL WORK IS COMPLETE AND ACCEPTED BY THE OWNER.
15. CONTRACTOR TO REVIEW ALL SHOP DRAWINGS AND SUBMIT COPY TO ENGINEER FOR APPROVAL. DRAWINGS MUST BEAR THE CHECKER'S INITIALS BEFORE SUBMITTING TO THE CONSTRUCTION MANAGER FOR REVIEW.
16. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES, AND EXISTING CONDITIONS AT THE SITE, PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY WORK IN THE CONTRACT AREA.
17. COORDINATION, LAYOUT, FURNISHING AND INSTALLATION OF CONDUIT AND ALL APPURTENANCES REQUIRED FOR PROPER INSTALLATION OF ELECTRICAL AND TELECOMMUNICATION SERVICE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
18. ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUB-CONTRACTORS FOR ANY CONDITION PER THE MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR CONSTRUCTION MANAGER.
19. ALL DAMAGE CAUSED TO ANY EXISTING STRUCTURE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE HELD LIABLE FOR ALL REPAIRS REQUIRED FOR EXISTING STRUCTURES IF DAMAGED DURING CONSTRUCTION ACTIVITIES.
20. THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT LEAST 48 HOURS PRIOR TO ANY EXCAVATIONS AT 1-800-922-4455. ALL UTILITIES SHALL BE IDENTIFIED AND CLEARLY MARKED PRIOR TO ANY EXCAVATION WORK. CONTRACTOR SHALL MAINTAIN AND PROTECT MARKED UTILITIES THROUGHOUT PROJECT COMPLETION.
21. CONTRACTOR SHALL COMPLY WITH OWNERS ENVIRONMENTAL ENGINEER ON ALL METHODS AND PROVISIONS FOR ALL EXCAVATION ACTIVITIES INCLUDING SOIL DISPOSAL. ALL BACKFILL MATERIALS TO BE PROVIDED BY THE CONTRACTOR.

VICINITY MAP

SCALE: 1" = 1000'



PROJECT SUMMARY

1. THE PROPOSED SCOPE OF WORK GENERALLY CONSISTS OF THE INSTALLATION OF ONE (1) LTE ANTENNA PER SECTOR FOR A TOTAL OF (3) LTE ANTENNAS TO THE EXISTING AT&T ANTENNA ARRAY. AN LTE BASEBAND EQUIPMENT UNIT (RBS) WILL BE INSTALLED WITHIN THE EXISTING AT&T EQUIPMENT SHELTER.
2. ADDITIONALLY, (2) REMOTE RADIO UNITS (RRUs) PER SECTOR WILL BE INSTALLED. SURGE ARRESTORS WILL BE INSTALLED AT BOTH AT&T RRU AND EQUIPMENT LOCATIONS. REFER TO THESE ACCOMPANYING DRAWINGS FOR FURTHER INFORMATION.

PROJECT INFORMATION

AT&T SITE NUMBER:	CT2107
AT&T SITE NAME:	WESTPORT
SITE ADDRESS:	180 BAYBERRY LANE WESTPORT, CT 06880
LESSEE/APPLICANT:	AT&T MOBILITY 500 ENTERPRISE DRIVE, SUITE 3A ROCKY HILL, CT 06067
ENGINEER:	CENTEK ENGINEERING, INC. 63-2 NORTH BRANFORD RD. BRANFORD, CT. 06405
PROJECT COORDINATES:	LATITUDE: 41°-10'-18" N LONGITUDE: 73°-19'-43" W GROUND ELEVATION: ±250' AMSL

SHEET INDEX

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C-2	LTE SYSTEM EQUIPMENT PLANS & DETAILS	1
E-1	ELECTRICAL DETAILS AND NOTES	1
E-2	ELECTRICAL DETAILS	1

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CHK'D BY:	CFC

REV.	DATE	DRAWN BY	CHK'D BY	
1	03/25/11	RJD	CFC	CONSTRUCTION – CLIENT REVIEW
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AT&T MOBILITY
WIRELESS COMMUNICATIONS FACILITY
SITE NUMBER: CT2107
SITE NAME: WESTPORT
180A BAYBERRY LANE
WESTPORT, CT 06880

DATE:	2/24/11
SCALE:	AS NOTED
JOB NO.	11021.C013

TITLE SHEET

T-1

Sheet No. 1 of 6

STRUCTURAL SPECIFICATIONS

DESIGN BASIS

GOVERNING CODE: 2003 INTERNATIONAL BUILDING CODE (IBC) AS MODIFIED BY THE 2005 CONNECTICUT STATE BUILDING CODE AND 2009 AMENDMENTS.

1. DESIGN CRITERIA:
   - WIND LOAD: PER EIA/TIA 222 F-96 (ANTENNA MOUNTS): 90 MPH (FASTEST MILE), EQUIVALENT TO 110 MPH (3 SECOND GUST).
   - BUILDING CLASSIFICATION: II (BASED ON IBC TABLE 1604.5)
   - BASIC WIND SPEED (OTHER STRUCTURE): 110 MPH (3 SECOND GUST) (EXPOSURE B/IMPORTANCE FACTOR 1.0 BASED ON ASCE 7-02) PER 2003 INTERNATIONAL BUILDING CODE (IBC) AS MODIFIED BY THE 2005 CONNECTICUT SUPPLEMENT & 2009 AMENDMENT.
   - SEISMIC LOAD (DOES NOT CONTROL): PER ASCE 7-95 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES.

GENERAL NOTES

1. IF ANY FIELD CONDITIONS EXIST WHICH PRECLUDE COMPLIANCE WITH THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND SHALL PROCEED WITH AFFECTED WORK AFTER CONFLICT IS SATISFACTORILY RESOLVED.
2. DIMENSIONS AND DETAILS SHALL BE CHECKED AGAINST THE PRE MANUFACTURED EQUIPMENT BUILDING SHOP DRAWINGS.
3. THE CONTRACTOR SHALL VERIFY AND COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS, SLEEVES AND ANCHOR BOLTS AS REQUIRED BY ALL TRADES.
4. REFER TO DRAWING T1 FOR ADDITIONAL NOTES AND REQUIREMENTS.

SITE NOTES

1. THE CONTRACTOR SHALL CALL UTILITIES PRIOR TO THE START OF CONSTRUCTION.
2. ACTIVE EXISTING UTILITIES, WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY, PRIOR TO PROCEEDING, SHOULD ANY UNCOVERED EXISTING UTILITY PRECLUDE COMPLETION OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
3. ALL RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED OFF SITE AND BE LEGALLY DISPOSED, AT NO ADDITIONAL COST.
4. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE EQUIPMENT AND TOWER AREAS.
5. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
6. THE SUBGRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
7. THE AREAS OF THE COMPOUND DISTURBED BY THE WORK SHALL BE RETURNED TO THEIR ORIGINAL CONDITION.
8. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.

EARTHWORK NOTES

1. COMPACTED GRAVEL FILL SHALL BE FURNISHED AND PLACED AS A FOUNDATION FOR STRUCTURES, WHERE SHOWN ON THE CONTRACT DRAWINGS OR DIRECTED BY THE ENGINEER.
2. CRUSHED STONE FILL SHALL BE PLACED IN 12" MAX. LIFTS AND CONSOLIDATED USING A HAND OPERATED VIBRATORY PLATE COMPACTOR WITH A MINIMUM OF 2 PAQSSES OF COMPACTOR PER LIFT.
3. COMPACTED GRAVEL FILL TO BE WELL GRADED BANK RUN GRAVEL MEETING THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	% PASSING
1 ½"	100
No. 4	40-70
No. 100	5-20
No. 200	4-8

4. CRUSHED STONE TO BE UNIFORMLY GRADED, CLEAN, HARD PROCESS AGGREGATE MEETING THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	% PASSING
1"	100
¾"	90-100
⅜"	0-15
#8	0-5

5. SELECT BACKFILL FOR FOUNDATION WALLS SHALL BE FREE OF ORGANIC MATERIAL, TOPSOIL, DEBRIS AND BOULDERS LARGER THAN 6".
6. GRAVEL AND GRANULAR FILL SHALL BE INSTALLED IN 8" MAX. LIFTS. COMPACTED TO 95% MIN. AT MAX. DRY DENSITY.
7. NON WOVEN GEOTEXTILE FOR SEPARATION PURPOSES SHALL BE MIRAFI 140N, OR ENGINEER APPROVED EQUAL.

FOUNDATION CONSTRUCTION NOTES

1. ALL FOOTINGS SHALL BE PLACED ON SUITABLE, COMPACTED SOIL HAVING ADEQUATE BEARING CAPACITY AND FREE OF ORGANIC CONTENT, CLAY, OR OTHER UNSUITABLE MATERIAL. ADDITIONAL EXCAVATION MAY BE REQUIRED BELOW FOOTING ELEVATIONS INDICATED IF UNSUITABLE MATERIAL IS ENCOUNTERED.
2. SUBGRADE PREPARATION: IF UNSUITABLE SOIL IS ENCOUNTERED, REMOVE ALL UNSUITABLE MATERIALS FROM BELOW PROPOSED STRUCTURE FOUNDATIONS AND COMPACT EXPOSED SOIL SURFACES. PLACE AND COMPACT APPROVED GRAVEL FILL. PLACEMENT OF ALL COMPACTED FILL MUST BE UNDER SUPERVISION OF AN APPROVED TESTING LABORATORY. FILL SHALL BE COMPACTED IN LAYERS NOT TO EXCEED 10" BEFORE COMPACTION. DETERMINE MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D1557-70 AND MAKE ONE (1) FIELD DENSITY TEST IN ACCORDANCE WITH ASTM D2167-66 FOR EACH 50 CUBIC YARDS OF COMPACTED FILL. BUT NOT LESS THAN ONE (1) PER LAYER, TO INSURE COMPACTION TO 95% OF MAX. DRY DENSITY.
3. ALL SOIL SURROUNDING AND UNDER ALL FOOTINGS SHALL BE KEPT REASONABLY DRY AND PROTECTED FROM FREEZING AND FROST ACTION DURING THE COURSE OF CONSTRUCTION.
4. WHERE GROUNDWATER IS ENCOUNTERED, DEWATERING SHALL BE ACCOMPLISHED CONTINUOUSLY AND COMPLETELY DURING FOUNDATION CONSTRUCTION. PROVIDE CRUSHED STONE AS REQUIRED TO STABILIZE FOOTING SUBGRADE.
5. ALL FOOTINGS ARE TO REST ON FIRM SOIL, REGARDLESS OF ELEVATIONS SHOWN ON THE DRAWINGS, BUT IN NO CASE MAY FOOTING ELEVATIONS BE HIGHER THAN INDICATED ON THE FOUNDATION PLAN, UNLESS SPECIFICALLY DIRECTED BY THE ENGINEER.

CONCRETE CONSTRUCTION NOTES

1. CONCRETE CONSTRUCTION SHALL CONFORM TO THE FOLLOWING STANDARDS:

   ACI 211 - STANDARD PRACTICE FOR SELECTING PROPORTIONS FOR NORMAL AND HEAVYWEIGHT CONCRETE.

   ACI 301 - SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS.

   ACI 302 - GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION

   ACI 304 - RECOMMENDED PRACTICE FOR MEASURING, MIXING, TRANSPORTING, AND PLACING CONCRETE.

   ACI 306.1 STANDARD SPECIFICATION FOR COLD WEATHER CONCRETING

   ACI 318 - BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.

2. CONCRETE SHALL DEVELOP COMPRESSIVE STRENGTH IN 28 DAYS AS FOLLOWS:

   SLABS ON GRADE 4,000 PSI
   ALL OTHER CONCRETE 3,000 PSI

   - PORTLAND CEMENT: ASTM C150, TYPE II, (540 LBS/CUBIC YARD)
   - AGGREGATE: ASTM C33, No. 67, TYPICAL
   - WATER: POTABLE WITH MAXIMUM WATER CEMENT RATIO OF .55
   - SLUMP: 3" TO 4"
   - ADMIXTURES: USE AIR ENTRAINING ADGENT CONFORMING TO ASTM C260 WITH 4 TO 6% TOTAL AIR. USE WATER REDUCING AGENT CONFORMING TO ASTM C494, TYPE A, IN ALL CONCRETE. CALCIUM CHLORIDE MAY NOT BE USED TO ACCELERATE THE CONCRETE SETTING TIME.

3. REINFORCING STEEL SHALL BE 60,000 PSI YIELD STRENGTH.
4. WELDED WIRE FABRIC SHALL CONFORM TO ASTM- A-185.
5. ALL DETAILING, FABRICATION, AND ERECTION OF REINFORCING BARS, UNLESS OTHERWISE NOTED, MUST FOLLOW THE LATEST ACI CODE AND LATEST ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES".
6. CONCRETE COVER OVER REINFORCING SHALL CONFORM TO THE FOLLOWING, UNLESS OTHERWISE SHOWN:

   BOTTOM OF FOOTINGS 3 INCHES

   SURFACES NOT EXPOSED TO EARTH OR WEATHER 1-1/2 INCHES

7. NO STEEL WIRE, METAL FORM TIES, OR ANY OTHER METAL SHALL REMAIN WITHIN THE REQUIRED COVER OF ANY CONCRETE SURFACE.
8. ALL REINFORCEMENT SHALL BE CONTINUOUS UNLESS OTHERWISE NOTED. SPLICES SHALL BE WELL STAGGERED. ADDITIONAL BARS AND SPECIAL BENDING DETAILS ARE REQUIRED AT INTERSECTING WALLS AND AT JOINTS. SUCH DETAILS SHALL COMPLY WITH ACI 315 RECOMMENDATIONS UNLESS OTHERWISE SHOWN.
9. NO TACK WELDING OF REINFORCING WILL BE PERMITTED.
10. NO CALCIUM CHLORIDE OR ADMIXTURES CONTAINING MORE THAN 1% CHLORIDE BY WEIGHT OF ADMIXTURE SHALL BE USED IN THE CONCRETE.
11. UNLESS OTHERWISE NOTED, ALL LAP SPLICES SHALL BE 48 BAR DIAMETERS.
12. SLAB ON GRADE FINISHES:

    EXTERIOR SLAB: NON-SLIP BROOM FINISH
    INTERIOR SLAB: STEEL TROWEL FINISH

GENERAL NOTES (REFERENCE)

CONTRACTOR TO REFER TO THE GENERAL NOTES ON SHEET T-1 FOR ADDITIONAL INFORMATION.

DESIGNED BY:	CFC
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CHK'D BY:	CFC

REV.	DATE	DRAWN BY	CHK'D BY	
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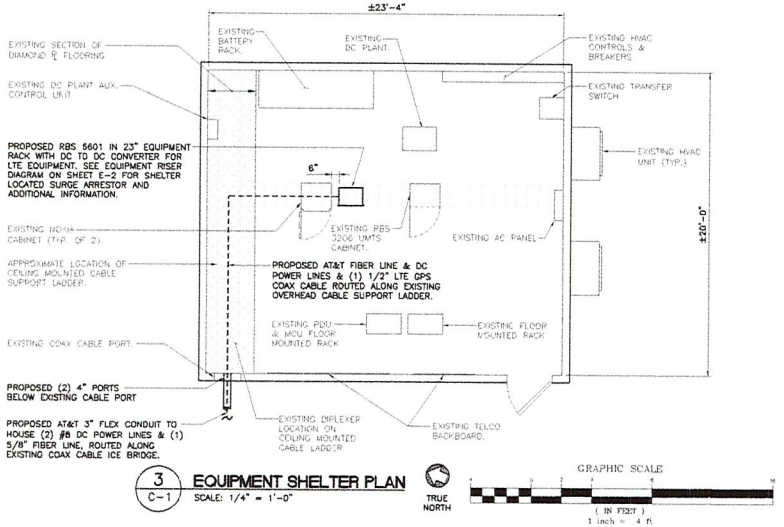
1978 BAYBERRY LANE
WESTPORT, CT 06880

DATE: 2/24/11
SCALE: AS NOTED
JOB NO. 11021.C013

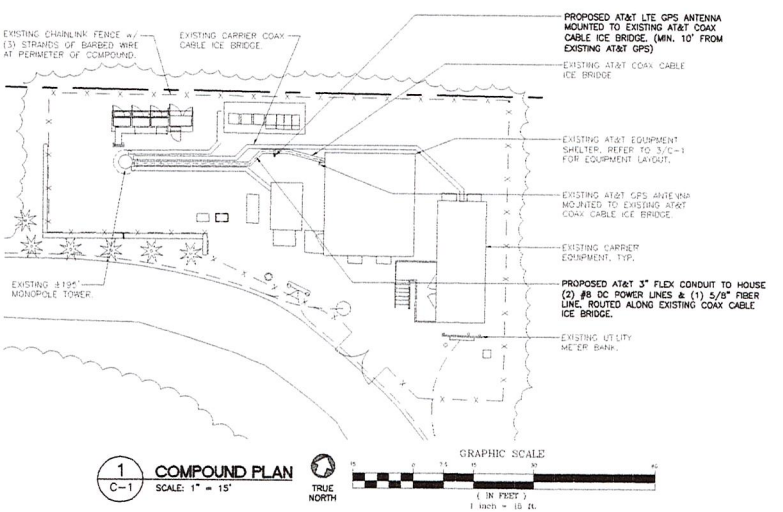
NOTES AND SPECIFICATIONS

N-1

Sheet No. 2 of 6

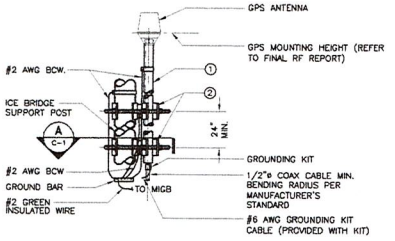


3 / C-1 **EQUIPMENT SHELTER PLAN**
SCALE: 1/4" = 1'-0"



1 / C-1 **COMPOUND PLAN**
SCALE: 1" = 15'

REFER TO FINAL AT&T RF ENGINEER'S RF RADIO PLAN PRIOR TO INSTALLATION OF ANTENNAS AND COAX



GPS ANTENNA MOUNTING BRACKET

4 / C-1 **GPS GROUNDING/MOUNTING BRACKET DETAILS**
NOT TO SCALE

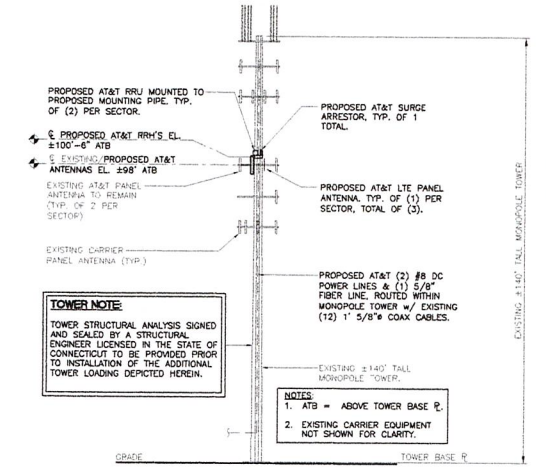
BILL OF MATERIALS		
ITEM	DESCRIPTION	QUANTITY
1	2-1/2"ø SCH. 40 x 8'-0" LG. MAX SS OR GALV. PIPE	1
2	UNIVERSAL CLAMP SET.	2

OR

A / C-1 **SECTION**
NOT TO SCALE

NOTES:

1. THE ELEVATION AND LOCATION OF THE GPS ANTENNA SHALL BE IN ACCORDANCE WITH THE FINAL RF REPORT AND COORDINATED WITH AT&T CONSTRUCTION MANAGER.
2. THE GPS ANTENNA MOUNT IS DESIGNED TO FASTEN TO A STANDARD 2-1/2" DIAMETER, SCHEDULE 40, GALVANIZED STEEL OR STAINLESS STEEL PIPE. THE PIPE MUST NOT BE THREADED AT THE ANTENNA MOUNT END. THE PIPE SHALL BE CUT TO THE REQUIRED LENGTH (MINIMUM OF 24 INCHES) USING A HAND OR ROTARY PIPE CUTTER TO ASSURE A SMOOTH AND PERPENDICULAR CUT. A HACK SAW SHALL NOT BE USED. THE CUT PIPE END SHALL BE DEBURRED AND SMOOTH IN ORDER TO SEAL AGAINST THE NEOPRENE GASKET ATTACHED TO THE ANTENNA MOUNT.
3. ATTACH TO ICE BRIDGE POST NEAREST ANTENNA CABLE PORT AT EQUIPMENT.
4. PRIOR TO INSTALLATION CONTRACTOR SHALL TEST GPS LOCATION WITH HAND HELD AND MOVE GPS ANTENNA TO OTHER ICE BRIDGE POSTS AS REQUIRED TO ACHIEVE ADEQUATE SIGNAL. FAILURE TO ACHIEVE ADEQUATE SIGNAL WITH A HAND HELD GPS SHALL BE REPORTED TO CONSTRUCTION MANAGER AND ENGINEER TO DETERMINE ALTERNATE INSTALLATION LOCATION FOR GPS ANTENNA.



2 / C-1 **TOWER ELEVATION**
SCALE: 1" = 20'

DESIGNED BY:	CFC
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CHK'D BY:	CFC

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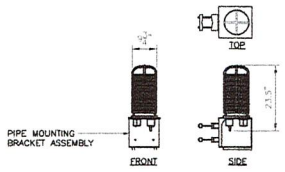
JOB NO.	11021.C013

PLANS AND ELEVATION

C-1

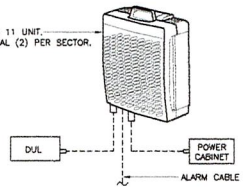
Sheet No. 3 of 6



SURGE ARRESTOR				
SITE TYPE	ARRESTOR MAKE/MODEL	QTY REQUIRED	ARRESTOR LOCATION	WEIGHT
TOWER	MAKE: RAYCAP (SQUID) MODEL: DC6-48-60-18-8F	(1) PER SITE	**TOWER, ADJACENT TO AT&T ANTENNAS AND RRUs.**	20 LBS. (WITHOUT MOUNT)

NOTES:
1. CONTRACTOR TO COORDINATE FINAL RRU SURGE ARRESTOR MODEL SELECTION(S) WITH AT&T CONSTRUCTION MANAGER PRIOR TO ORDERING.
2. CONTRACTOR TO INSTALL ARRESTOR IN CONFORMANCE WITH MANUFACTURERS RECOMMENDATIONS.

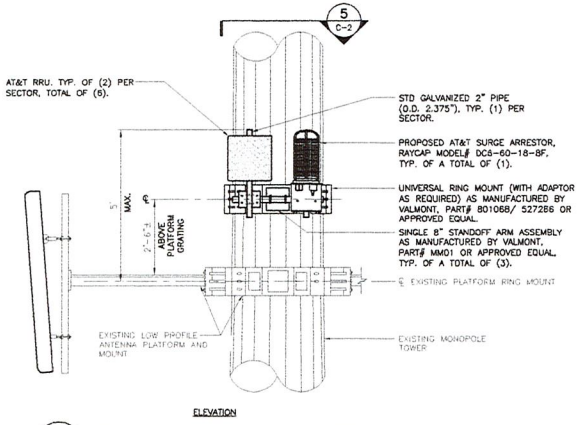
9 / C-2 **SURGE ARRESTOR DETAIL**
NOT TO SCALE



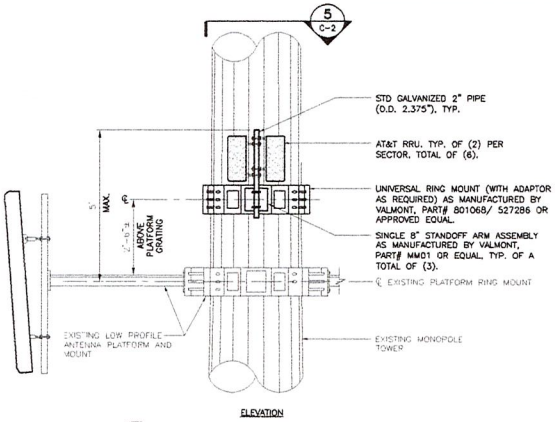
RRU (REMOTE RADIO UNIT)			
EQUIPMENT	DIMENSIONS	WEIGHT	CLEARANCES
MAKE: ERRICSON MODEL: RRUS 11	17.8"L x 17.3"W x 7.2"D	BAND 4: 44 LBS. BAND 12: 50 LBS.	ABOVE: 16" MIN. BELOW: 12" MIN. SIDE: 0" MIN.

NOTES:
1. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION WITH AT&T CONSTRUCTION MANAGER PRIOR TO ORDERING.

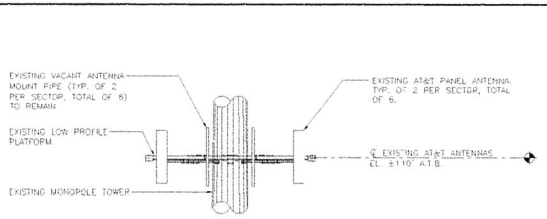
8 / C-2 **RRU DETAIL**
NOT TO SCALE



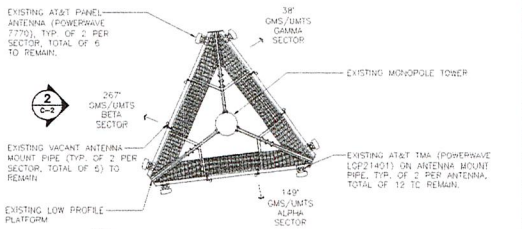
7 / C-2 **RRU AND SURGE ARRESTOR MOUNTING DETAIL**
SCALE: 1/2" = 1'- 0"



6 / C-2 **RRU MOUNTING DETAIL**
SCALE: 1/2" = 1'- 0"

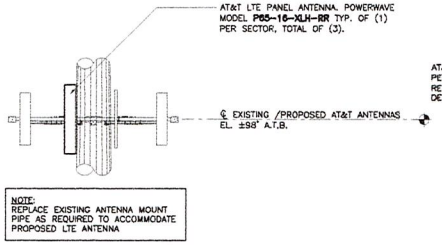


2 / C-2 **EXISTING ANTENNA SECTOR ELEVATION**
SCALE: 3/16" = 1'-0"



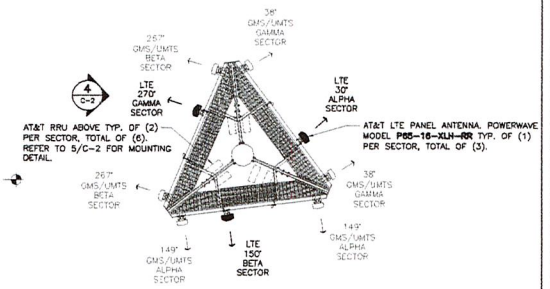
1 / C-2 **EXISTING ANTENNA PLAN**
SCALE: 3/16" = 1'-0"

NORTH



NOTE:
REPLACE EXISTING ANTENNA MOUNT PIPE AS REQUIRED TO ACCOMMODATE PROPOSED LTE ANTENNA

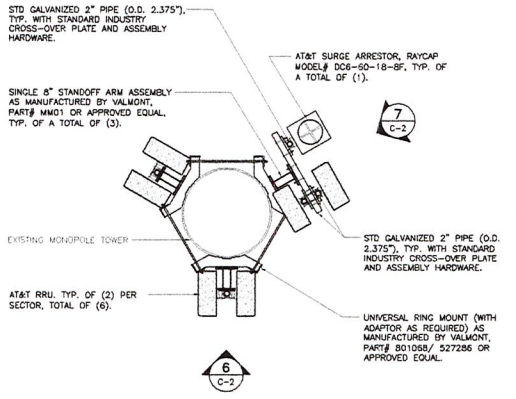
4 / C-2 **PROPOSED ANTENNA SECTOR ELEVATION**
SCALE: 3/16" = 1'-0"



3 / C-2 **PROPOSED ANTENNA PLAN**
SCALE: 3/16" = 1'-0"

NORTH

REFER TO FINAL AT&T RF ENGINEER'S RF RADIO PLAN PRIOR TO INSTALLATION OF ANTENNAS AND COAX



5 / C-2 **RRU AND SURGE ARRESTOR MOUNTING PLAN**
SCALE: 1/2" = 1'- 0"

DESIGNED BY:	CFC
DRAWN BY:	DEB
CHK'D BY:	CFC

REV.	DATE	DRAWN BY	CHK'D BY	
1	03/25/11	FLO	CFC	CONSTRUCTION
0	2/25/11	DEB	CFC	CONSTRUCTION - CLIENT REVIEW

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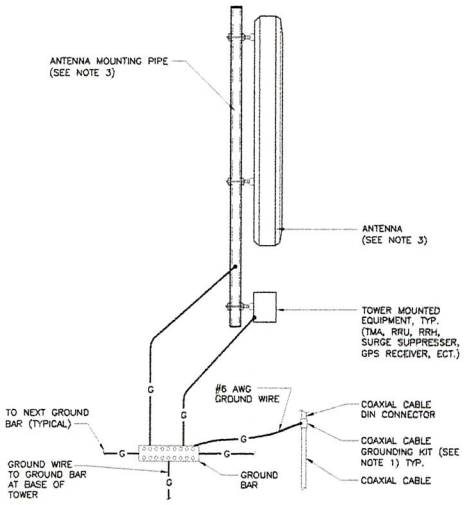
WIRELESS COMMUNICATIONS FACILITY
SITE NUMBER: CT2107
SITE NAME: WESTPORT
180A BAYBERRY LANE
WESTPORT, CT 06880

DATE:	2/24/11
SCALE:	AS NOTED
JOB NO.	11021.C013

LTE SYSTEM EQUIPMENT PLANS AND DETAILS

C-2

Sheet No. 4 of 8

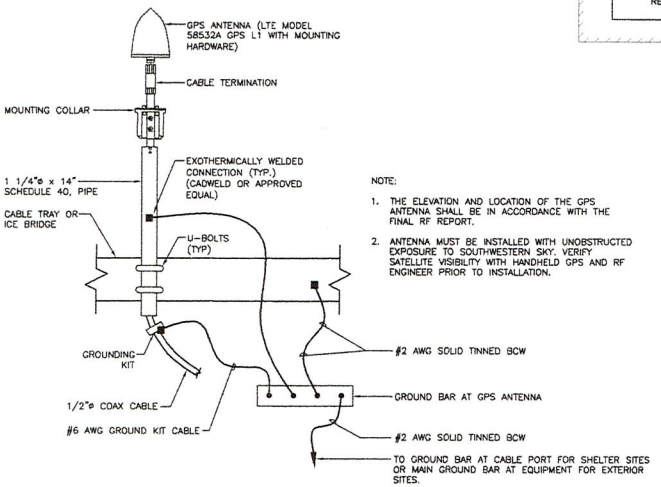


NOTES:

1. BOND COAXIAL CABLE GROUND KITS TO EACH OWNER'S GROUND BAR ALONG ENTIRE COAX RUN FROM ANTENNA TO SHELTER.
2. BOND ALL EQUIPMENT TO GROUND PER NEC AND MANUFACTURERS SPECIFICATIONS.
3. DETAIL IS TYPICAL FOR ALL ANTENNA SECTORS, INCLUDING GPS ANTENNA.

1 E-1 TYPICAL ANTENNA GROUNDING DETAIL

NOT TO SCALE

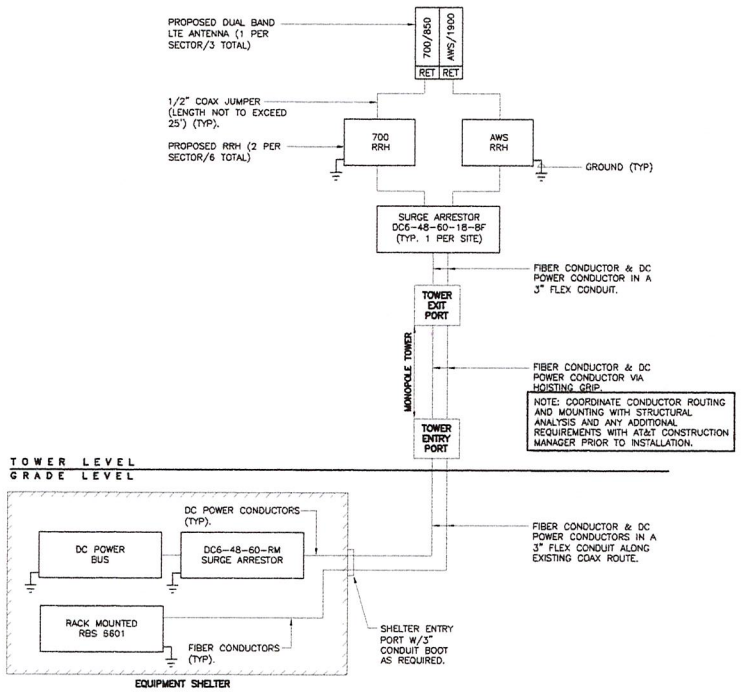


NOTE:

1. THE ELEVATION AND LOCATION OF THE GPS ANTENNA SHALL BE IN ACCORDANCE WITH THE FINAL RF REPORT.
2. ANTENNA MUST BE INSTALLED WITH UNOBSTRUCTED EXPOSURE TO SOUTHWESTERN SKY. VERIFY SATELLITE VISIBILITY WITH HANDHELD GPS AND RF ENGINEER PRIOR TO INSTALLATION.

3 E-1 GPS MOUNTED TO CABLE TRAY / ICE BRIDGE

NOT TO SCALE



NOTES:

1. CONTRACTOR TO CONFIRM ALL PARTS.
2. INSTALL ALL EQUIPMENT TO MANUFACTURERS RECOMMENDATIONS.

2 E-1 LTE SCHEMATIC DIAGRAM

NOT TO SCALE

ELECTRICAL NOTES

1. PRIOR TO START OF CONSTRUCTION CONTRACTOR SHALL COORDINATE WITH OWNER FOR ALL CONSTRUCTION STANDARDS AND SPECIFICATIONS, AND ALL MANUFACTURER DOCUMENTATION FOR ALL EQUIPMENT TO BE INSTALLED.
2. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH LOCAL BUILDING CODE, NATIONAL ELECTRIC CODE, OWNER AND MANUFACTURER'S SPECIFICATIONS.
3. CONNECT ALL NEW EQUIPMENT TO EXISTING TELCO AS REQUIRED BY MANUFACTURER.
4. MAINTAIN ALL CLEARANCES REQUIRED BY NEC AND EQUIPMENT MANUFACTURER.
5. PRIOR TO INSTALLATION CONTRACTOR SHALL MEASURE EXISTING ELECTRICAL LOAD AND VERIFY EXISTING AVAILABLE CAPACITY FOR PROPOSED INSTALLATION. IF INADEQUATE CAPACITY IS AVAILABLE, CONTRACTOR SHALL COORDINATE WITH LOCAL ELECTRIC UTILITY COMPANY TO UPGRADE EXISTING ELECTRIC SERVICE.
6. CONTRACTOR SHALL INSPECT EXISTING GROUNDING AND LIGHTNING PROTECTION SYSTEM AND ENSURE THAT IT IS IN COMPLIANCE WITH NEC, AND SITE OWNER'S SPECIFICATIONS. THE RESULTS OF THIS INSPECTION SHALL BE PRESENTED TO OWNERS REPRESENTATIVE, AND ANY DEFICIENCIES SHALL BE CORRECTED.
7. ALL TRANSMISSION TOWER SITES CONTAIN AN EXTENSIVE BURIED GROUNDING SYSTEM. ALL GROUNDING WORK MUST BE COORDINATED WITH, AND APPROVED BY, THE TOWER OWNER'S SITE REPRESENTATIVE. ALL OF THE TOWER OWNER'S SPECIFICATIONS MUST BE STRICTLY FOLLOWED.
8. PROVIDE AND INSTALL GROUND KITS FOR ALL NEW COAXIAL CABLES AND BOND TO EXISTING OWNERS GROUNDING SYSTEM PER OWNERS SPECIFICATIONS AND NEC.
9. ALL CONDUCTORS SHALL BE TYPE THWN (INT. APPLICATION) AND XHHW (EXT. APPLICATION), 75 DEGREE C, 600 VOLT INSULATION, SOFT ANNEALED STRANDED COPPER. #10 AWG AND SMALLER SHALL BE SPLICED USING ACCEPTABLE SOLDERLESS PRESSURE CONNECTORS. #8 AWG AND LARGER SHALL BE SPLICED USING COMPRESSION SPLIT-BOLT TYPE CONNECTORS. #12 AWG SHALL BE THE MINIMUM SIZE CONDUCTOR FOR LINE VOLTAGE BRANCH CIRCUITS. REFER TO PANEL SCHEDULE FOR BRANCH CIRCUIT CONDUCTOR SIZE(S). CONDUCTORS SHALL BE COLOR CODED FOR CONSISTENT PHASE IDENTIFICATION.
10. MINIMUM BENDING RADIUS FOR CONDUCTORS SHALL BE 12 TIMES THE LARGEST DIAMETER OF BRANCH CIRCUIT CONDUCTOR.
11. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE MADE IN STRICT ACCORDANCE WITH ALL LOCAL, STATE AND NATIONAL CODES AND REGULATIONS WHICH MAY APPLY AND NOTHING IN THE DRAWINGS OR SPECIFICATIONS SHALL BE INTERPRETED AS AN INFRINGEMENT OF SUCH CODES OR REGULATIONS.
12. THE ELECTRICAL CONTRACTOR IS TO BE RESPONSIBLE FOR THE COMPLETE INSTALLATION AND COORDINATION OF THE ENTIRE ELECTRICAL SERVICE. ALL ACTIVITIES TO BE COORDINATED THROUGH OWNER'S REPRESENTATIVE, DESIGN ENGINEER AND OTHER AUTHORITIES HAVING JURISDICTION OF TRADES.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND PAY ALL FEES AS MAY BE REQUIRED FOR THE ELECTRICAL WORK AND FOR SCHEDULING OF ALL INSPECTIONS AS MAY BE REQUIRED BY THE LOCAL AUTHORITY.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE SITE AND/OR BUILDING OWNER FOR NEW AND/OR DEMOLITION WORK INVOLVED.
15. THE CONTRACTOR SHALL GUARANTEE ALL NEW WORK FOR A PERIOD OF ONE YEAR FROM THE ACCEPTANCE DATE BY THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING WARRANTIES FROM ALL EQUIPMENT MANUFACTURERS FOR SUBMISSION TO THE OWNER.
16. DRAWINGS INDICATE GENERAL ARRANGEMENT OF WORK INCLUDED IN CONTRACT. CONTRACTOR SHALL WITHOUT EXTRA CHARGE, MAKE MODIFICATIONS TO THE LAYOUT OF THE WORK TO PREVENT CONFLICT WITH WORK OF OTHER TRADES AND FOR THE PROPER INSTALLATION OF WORK. CHECK ALL DRAWINGS AND VISIT JOB SITE TO VERIFY SPACE AND TYPE OF EXISTING CONDITIONS IN WHICH WORK WILL BE DONE, PRIOR TO SUBMITTAL OF BID.
17. ALL NON-CURRENT CARRYING PARTS OF THE ELECTRICAL AND TELEPHONE CONDUIT SYSTEMS SHALL BE MECHANICALLY AND ELECTRICALLY CONNECTED TO PROVIDE AN INDEPENDENT RETURN PATH TO THE EQUIPMENT GROUNDING SOURCES.
18. GROUNDING SYSTEM WILL BE IN ACCORDANCE WITH THE LATEST ACCEPTABLE EDITION OF THE NATIONAL ELECTRICAL CODE AND REQUIREMENTS PER LOCAL INSPECTOR HAVING JURISDICTION.
19. EACH EQUIPMENT GROUND CONDUCTOR SHALL BE SIZED IN ACCORDANCE WITH THE N.E.C. ARTICLE 250-122. (MIN. #12 AWG).
20. CONTRACTOR SHALL PROVIDE A CELLULAR GROUNDING SYSTEM WITH THE MAXIMUM AC RESISTANCE TO GROUND OF 5 OHM BETWEEN ANY POINT ON THE GROUNDING SYSTEM AS MEASURED BY 3-POINT GROUNDING TEST. (REFER TO SECTION 16960).

TESTS BY INDEPENDENT ELECTRICAL TESTING FIRM

A. CONTRACTOR SHALL RETAIN THE SERVICES OF A LOCAL INDEPENDENT ELECTRICAL TESTING FIRM (WITH MINIMUM 5 YEARS COMMERCIAL EXPERIENCE IN THE ELECTRICAL TESTING INDUSTRY) AS SPECIFIED BY OWNER TO PERFORM:

   TEST 1: RESISTANCE TO GROUND TEST ON THE CELLULAR GROUNDING SYSTEM.

   THE TESTING FIRM SHALL INCLUDE THE FOLLOWING INFORMATION WITH THE REPORT:

   1. TESTING PROCEDURE INCLUDING THE MAKE AND MODEL OF TEST EQUIPMENT.
   2. CERTIFICATION OF TESTING EQUIPMENT CALIBRATION WITHIN SIX (6) MONTHS OF DATE OF TESTING. INCLUDE CERTIFICATION LAB ADDRESS AND TELEPHONE NUMBER.
   3. GRAPHICAL DESCRIPTION OF TESTING METHOD ACTUALLY IMPLEMENTED.

B. TESTING SHALL BE PERFORMED IN THE PRESENCE AND TO THE SATISFACTION OF OWNERS CONSTRUCTION REPRESENTATIVE. TESTING DATA SHALL BE INITIALED AND DATED BY THE CONSTRUCTION AND INCLUDED WITH THE WRITTEN REPORT/ANALYSIS.

C. THE CONTRACTOR SHALL FORWARD SIX (6) COPIES OF THE INDEPENDENT ELECTRICAL TESTING FIRM REPORT/ANALYSIS TO ENGINEER A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO THE JOB TURNOVER.

D. CONTRACTOR TO PROVIDE A MINIMUM OF ONE (1) WEEK NOTICE TO OWNER AND ENGINEER FOR ALL TESTS REQUIRING WITNESSING.

DESIGNED BY:	CKD
DRAWN BY:	TJB
CHK'D BY:	CKD

REV.	DATE	DRAWN BY	CHK'D BY	
1	03/25/11	RJG	CFC	CONSTRUCTION – CLIENT REVIEW
0	2/25/11	DEB	CFC	CONSTRUCTION – CLIENT REVIEW

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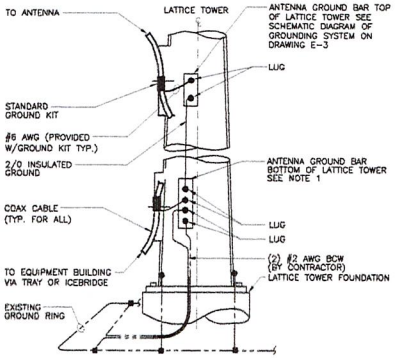
DATE:	2/24/11
SCALE:	AS NOTED
JOB NO.	11021.C013

ELECTRICAL DETAILS AND NOTES

E-1

Sheet No. 5 of 8

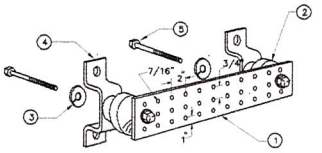


NOTES:

1. NUMBER OF GROUND BARS MAY VARY DEPENDING ON THE TYPE OF TOWER, LOCATION AND CONNECTION ORIENTATION. PROVIDE AS REQUIRED.
2. A SEPARATE GROUND BAR TO BE USED FOR GPS ANTENNA IF REQUIRED.

1 / E-2 ANTENNA CABLE GROUNDING - MONOPOLE

NOT TO SCALE

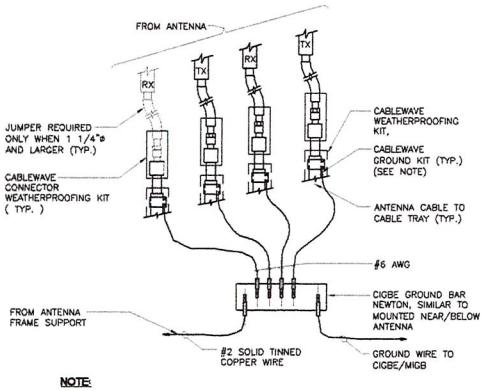


LEGEND

1. TINNED COPPER GROUND BAR, 1/4"x 4"x 20", NEWTON INSTRUMENT CO. HOLE CENTERS TO MATCH NEMA DOUBLE LUG .
2. INSULATORS, NEWTON INSTRUMENT CAT. NO. 2. 3061-4.
3. 3. 5/8" LOCK WASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015-8.
4. WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. 4. CAT NO. A-6056.
5. STAINLESS STEEL SECURITY SCREWS.

2 / E-2 GROUND BAR DETAIL

NOT TO SCALE

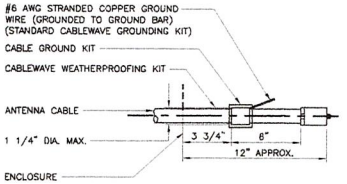


NOTE:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO CIGBE

3 / E-2 CONNECTION OF GROUND WIRES TO GROUND BAR

NOT TO SCALE



NOTE:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.

4 / E-2 ANTENNA CABLE GROUNDING DETAIL

NOT TO SCALE

DESIGNED BY:	CKD
DRAWN BY:	TJB
CHK'D BY:	CKD

REV.	DATE	DRAWN BY	CHK'D BY	
1	03/25/11	RJO	CFC	CONSTRUCTION
0	2/25/11	DEB	CFC	CONSTRUCTION – CLIENT REVIEW

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SITE NUMBER: CT2107
SITE NAME: WESTPORT
180A BAYBERRY LANE
WESTPORT, CT 06880

DATE: 2/24/11
SCALE: AS NOTED
JOB NO. 11021.C013

ELECTRICAL DETAILS

E-2

Sheet No. 6 of 8

AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure	:	**140 ft PennSummit Monopole**
ATC Site Name	:	**WSPT-Westport Rebuild CT, CT**
ATC Site Number	:	**310968**
Proposed Carrier	:	**AT&T Mobility**
Carrier Site Name	:	**Westport**
Carrier Site Number	:	**10034961/CT 2107**
County	:	**Fairfield**
Eng. Number	:	**47120622**
Date	:	**April 26, 2011***
Usage	:	**95%**
Portholes Required	:	**No**

Submitted by:
Christina Minor
Project Engineer

American Tower Engineering Services
400 Regency Forest Drive
Cary, NC 27518
Phone: 919-468-0112

AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure	:	**140 ft PennSummit Monopole**
ATC Site Name	:	**WSPT-Westport Rebuild CT, CT**
ATC Site Number	:	**310968**
Proposed Carrier	:	**AT&T Mobility**
Carrier Site Name	:	**Westport**
Carrier Site Number	:	**10034961/CT 2107**
County	:	**Fairfield**
Eng. Number	:	**47120622**
Date	:	**April 26, 2011***
Usage	:	**95%**
Portholes Required	:	**No**

Submitted by:
Christina Minor
Project Engineer

American Tower Engineering Services
400 Regency Forest Drive
Cary, NC 27518
Phone: 919-468-0112

Introduction

The purpose of this report is to summarize results of the structural analysis performed on the 140 ft PennSummit Monopole located east of the intersection of Merritt Parkway and Bayberry Lane, Westport, CT 06880, Fairfield County (ATC site #310968). The tower was originally designed and manufactured by PennSummit (PJF Job #29204-0171, dated July 1, 2004).

Analysis

The tower was analyzed using Semaan Engineering Solutions, Inc., Software.

Basic Wind Speed: 90 mph (Fastest Mile)
Radial Ice: 78 mph (Fastest Mile) w/ ½" ice
Code: TIA/EIA-222-F / 2003 IBC Criteria per Section 1609.1.1, Exception (5) and Section 3108.4 w/ 2005 CT Supplement and 2009 CT Amendments

Antenna Loads

The following antenna loads were used in the tower analysis.

Existing Antennas

Elev. (ft)	Qty	Antennas	Mount	Coax	Carrier
140.0	1	Andrew DB589	Platform w/ Handrails	(1) 1 ¼"	American Messaging
138.0	1	8' Omni (inverted)		(2) 7/8"	US Treasury
	2	8' Omni			
	1	Andrew VHLP2.5-10W		(3) 1 5/8" (1) EW90 (7) 7/8"	Town of Westport
	7	6' Omni			
	1	6' FM Antenna			
	2	8' Omni			
	1	6' Dipole			
131.0	12	Decibel 980F65E-M	Low Profile Platform	(12) 1 5/8"	Sprint Nextel
120.0	12	48" x 8" Panel	Low Profile Platform	(12) 1 ¼"	
100.0	6	Powerwave LGP21401	Low Profile Platform	(6) 1 5/8"	AT&T Mobility
	6	Powerwave 7770.00			
87.0	3	RFS ATMAA1412D-1A20	Low Profile Platform	(12) 1 5/8"	T-Mobile
	3	Andrew ETW190VS12UB			
	3	RFS APX16DWV-16DWV-S-E-ACU			
76.0	6	RFS FD9L4502/2C-3L	Low Profile Platform	(12) 1 5/8"	Verizon
	4	Andrew DB844H80E-XY			
	3	Andrew 932DG65T2E-M			
	3	Powerwave P65-16-XL-2			
	2	Antel LPA-80080/6CF			

Antenna Loads (continued)

Proposed Antennas

Elev. (ft)	Qty	Antennas	Mount	Coax	Carrier
100.0	1	Raycap DC6-48-60-18-8F	Low Profile Platform	(6) 1 5/8" (1) 3/8" (1) RG6 (2) 8 AWG 7	AT&T Mobility
	3	Powerwave P65-16-XLH-RR			
	6	Ericsson RRUS 11 (Band 12)			
	6	Powerwave LGP21901			

Install proposed coax inside monopole.

Results

The maximum structure usage is: 95%

Additional exit and/or entry ports may be required to accommodate the running of the proposed lines to the proposed antennas. These additional ports **may not** be installed without installation drawings providing the location, size and welding requirements of each port.

To ensure compliance with all conditions of this structural analysis, port installation drawings shall be provided by American Tower's Engineering Department under a subsequent project.

Pole Reactions	Original Design Reactions	Current Analysis Reactions	% Of Design
Moment (ft-kips)	3,550.0	3,241.7	91
Shear (kips)	35.0	32.4	93

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

The structure's base plate and anchor bolts also have sufficient strength to resist the base reactions from the analysis. Factor of safety exceeding two was noted for the base plate and anchor bolts. Detailed calculation is shown at the end of the analysis.

Conclusion

Based on the analysis results, the structure meets the requirements per TIA/EIA-222-F and 2003 IBC standards with 2005 CT supplement and 2008 CT amendments. The tower and foundation can support the existing and proposed antennas with the TX line distribution as described in this report.
If you have any questions or require additional information, please call 919-466-5006.

Standard Conditions

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

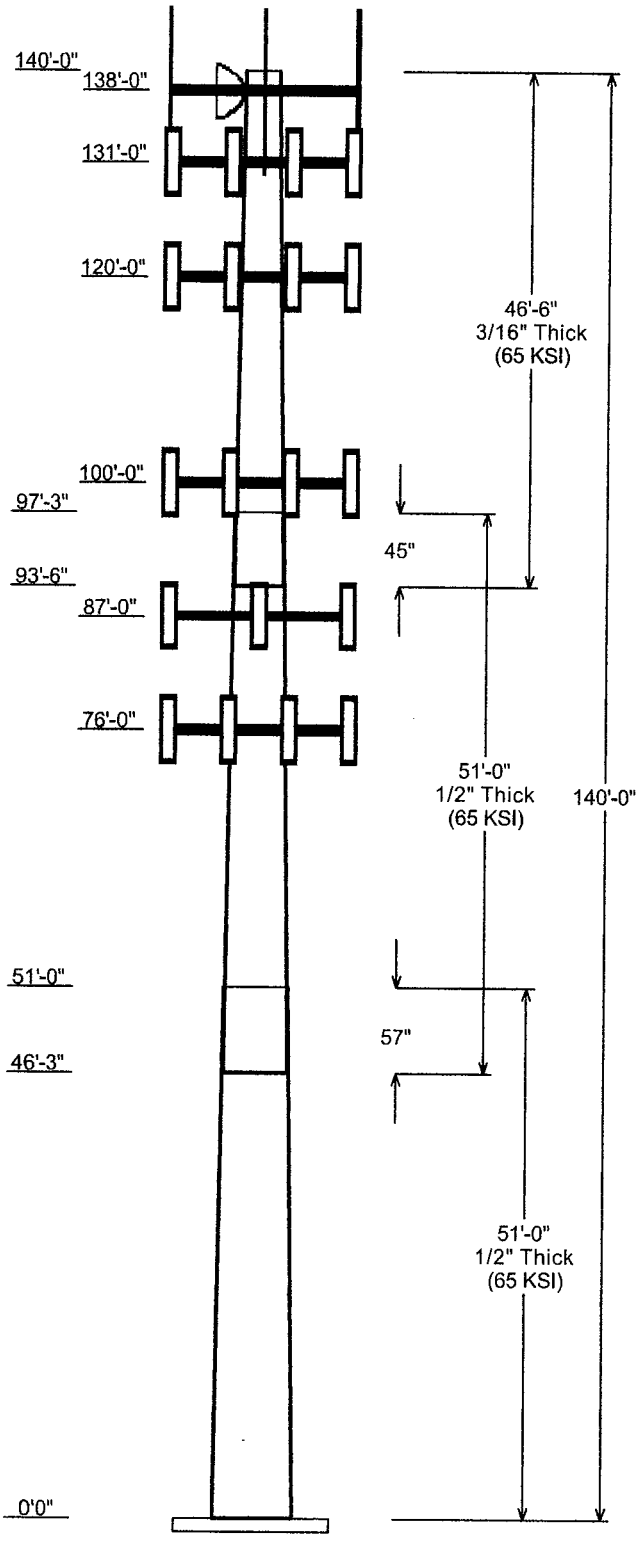
-- Information supplied by the client regarding the structure itself, the antenna and feed line loading on the structure and its components, or other relevant information.

-- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements of the structure.

It is the responsibility of the client to ensure that the information provided to ATC Engineering Services 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 that their 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 relevant revision of ANSI/EIA-222.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. ATC Engineering Services is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.



Job Information

Pole :	310968 Code: TIA/EIA-222 Rev F
Description :	140 ft PennSummit Monopole
Client :	AT&T Mobility
Location :	WSPT-Westport Rebuild CT, CT
Shape :	18 Sides Base Elev (ft): 0.00
Height :	140.00 (ft) Taper: 0.200036(in/ft)

Sections Properties

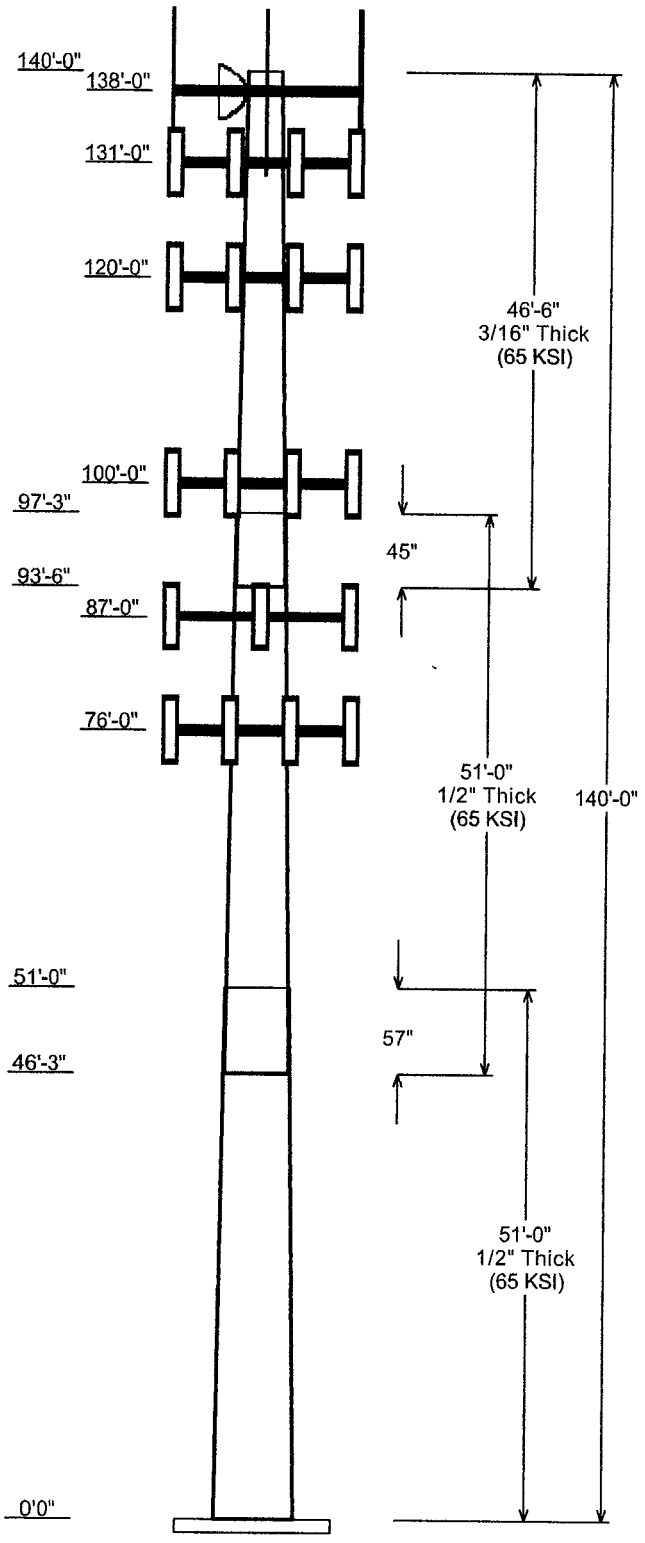
Shaft Section	Length (ft)	Diameter (in) Accross Flats Top	Bottom	Thick (in)	Joint Type	Overlap Length (in)	Taper (in/ft)	Steel Grade (ksi)
1	51.000	36.92	47.13	0.500		0.000	0.200036	65
2	51.000	28.67	38.87	0.500	Slip Joint	57.000	0.200036	65
3	46.500	20.50	29.80	0.188	Slip Joint	45.000	0.200036	65

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
138.000	134.000	1	8' Omni (inverted)
138.000	138.000	1	Andrew VHLP2.5-10W
138.000	144.250	1	Andrew DB589
138.000	138.000	1	Flat Platform w/ Handrails
138.000	138.000	7	6' Omni
138.000	138.000	2	8' Omni
138.000	142.000	2	8' Omni
138.000	142.000	1	6' FM Antenna
138.000	138.000	1	6' Dipole
131.000	131.000	1	Flat Low Profile Platform
131.000	131.000	12	Decibel 980F65E-M
120.000	120.000	1	Flat Low Profile Platform
120.000	120.000	12	48" x 8" Panel
100.000	100.000	6	Powerwave LGP21401
100.000	100.000	6	Powerwave 7770.00
100.000	100.000	1	Raycap DC6-48-60-18-8F
100.000	100.000	3	Powerwave P65-16-XLH-RR
100.000	100.000	6	Ericsson RRUS 11 (Band 12)
100.000	100.000	6	Powerwave LGP21901
100.000	100.000	1	Flat Low Profile Platform
87.000	87.000	3	RFS ATMAA1412D-1A20
87.000	87.000	3	Andrew ETW190VS12UB
87.000	87.000	3	RFS APX16DWV-16DWV-S-E-
87.000	87.000	1	Flat Low Profile Platform
76.000	76.000	6	RFS FD9L4502/2C-3L
76.000	76.000	2	Antel LPA-80080/6CF
76.000	76.000	4	Andrew DB844H80E-XY
76.000	76.000	3	Andrew 932DG65T2E-M
76.000	76.000	3	Powerwave P65-16-XL-2
76.000	76.000	1	Flat Low Profile Platform

Linear Appurtenance

Elev (ft) From	To	Description	Exposed To Wind
0.000	76.000	1 5/8" Coax	No
0.000	87.000	1 5/8" Coax	No
0.000	100.0	1 5/8" Coax	No
0.000	100.0	3/8" Coax	No
0.000	100.0	8 AWG 7	No
0.000	100.0	RG6	No
0.000	120.0	1 1/4" Coax	No
0.000	131.0	1 5/8" Coax	No
0.000	138.0	1 1/4" Coax	No
0.000	138.0	1 5/8" Coax	No
0.000	138.0	7/8" Coax	No



0.000	138.0	7/8" Coax	No
0.000	138.0	EW90	No

Load Cases

No Ice	90.00 mph Wind with No Ice
Ice	77.94 mph Wind with Ice
Twist/Sway	50.00 mph Wind with No Ice

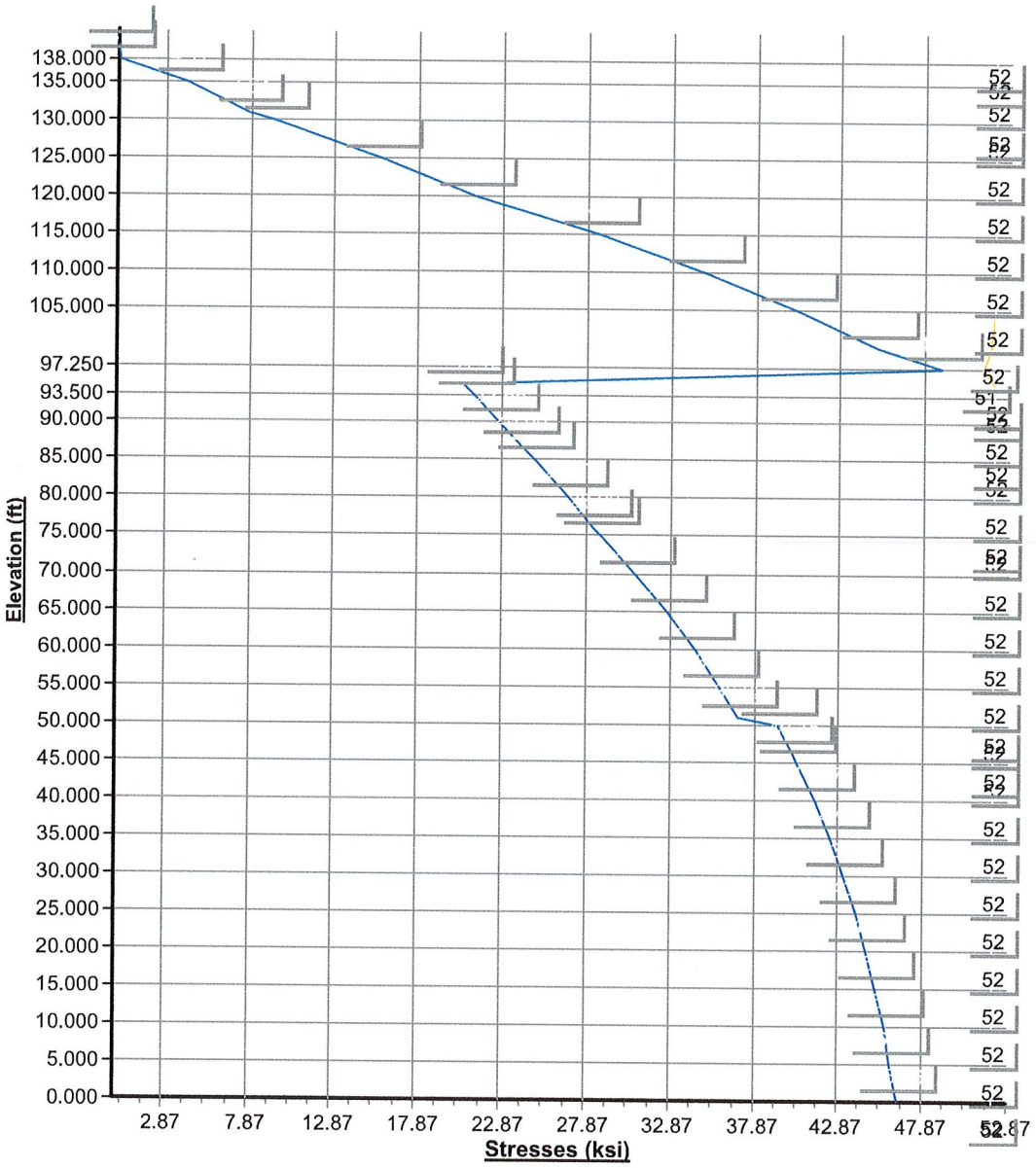
Reactions

Load Case	Moment (Kip-ft)	Shear (Kips)	Axial (Kips)
No Ice	3241.74	32.41	40.20
Ice	2785.17	27.25	46.59
Twist/Sway	1001.65	10.00	40.26

Dish Deflections

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
Twist/Sway	138.00	27.261	1.762

Load Case : No Ice
Max Stress 95.1% at 97.3ft



Pole : 310968
Location : WSPT-Westport Rebuild CT, CT
Height : 140.0 (ft)
Shape : 18 Sides
Base Dia : 47.13 (in)
Top Dia : 20.50 (in)
Taper : 0.200036 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

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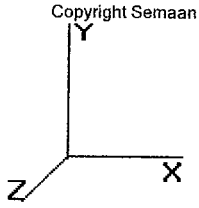


Shaft Section Properties

Sect Num	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom Dia (in)	Bottom Elev (ft)	Bottom Area (sqin)	Bottom Ix (in^4)	Bottom W/t Ratio	Bottom D/t Ratio	Top Dia (in)	Top Elev (ft)	Top Area (sqin)	Top Ix (in^4)	Top W/t Ratio	Top D/t Ratio	Taper (in/ft)
1	51.000	0.5000	65		0.00	11,437	47.13	0.000	74.00	20328.7	14.86	94.26	36.92	51.00	57.81	9692.3	11.26	73.86	0.20004
2	51.000	0.5000	65	Slip Joint	57.00	9,165	38.87	46.25	60.90	11333.7	11.95	77.76	28.67	97.25	44.71	4485.1	8.35	57.35	0.20004
3	46.500	0.1875	65	Slip Joint	45.00	2,351	29.80	93.50	17.62	1952.7	26.26	158.9	20.50	140.0	12.09	630.1	17.52	109.33	0.20004
				Shaft Weight		22,952													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	No Ice Weight (lb)	No Ice CaAa (sf)	No Ice CaAa Factor	Ice Weight (lb)	Ice CaAa (sf)	Ice CaAa Factor	Distance From Face (ft)	Vert Ecc (ft)
138.0	8' Omni (inverted)	1	40.00	2.400	1.00	62.00	3.230	1.00	0.000	-4.000
138.0	Andrew VHLP2.5-10W	1	47.60	8.430	1.00	97.03	8.910	1.00	0.000	0.000
138.0	Andrew DB589	1	11.50	1.380	1.00	20.00	2.200	1.00	0.000	6.250
138.0	Flat Platform w/ Handrails	1	2000.00	42.400	1.00	2450.00	48.400	1.00	0.000	0.000
138.0	6' Omni	7	25.00	1.760	1.00	38.24	2.130	1.00	0.000	0.000
138.0	8' Omni	2	40.00	2.400	1.00	62.00	3.230	1.00	0.000	0.000
138.0	8' Omni	2	40.00	2.400	1.00	62.00	3.230	1.00	0.000	0.000
138.0	6' FM Antenna	1	30.00	13.450	1.00	112.70	14.770	1.00	0.000	4.000
138.0	6' Dipole	1	30.00	4.000	1.00	50.00	5.500	1.00	0.000	4.000
131.0	Flat Low Profile Platform	1	1500.00	26.100	1.00	1700.00	31.600	1.00	0.000	0.000
131.0	Decibel 980F65E-M	12	9.50	3.750	0.81	29.85	4.320	0.81	0.000	0.000
120.0	Flat Low Profile Platform	1	1500.00	26.100	1.00	1700.00	31.600	1.00	0.000	0.000
120.0	48" x 8" Panel	12	14.00	3.730	0.91	40.30	4.290	0.91	0.000	0.000
100.0	Powerwave LGP21401	6	14.10	1.290	0.50	21.26	1.530	0.50	0.000	0.000
100.0	Powerwave 7770.00	6	35.00	5.880	0.75	67.63	6.530	0.75	0.000	0.000
100.0	Raycap DC6-48-60-18-8F	1	31.80	1.470	1.00	49.50	1.670	1.00	0.000	0.000
100.0	Powerwave P65-16-XLH-RR	3	53.00	8.400	0.78	100.20	9.220	0.78	0.000	0.000
100.0	Ericsson RRUS 11 (Band 12)	6	55.00	2.940	0.50	74.30	3.290	0.50	0.000	0.000
100.0	Powerwave LGP21901	6	5.50	0.230	0.50	7.70	0.340	0.50	0.000	0.000
100.0	Flat Low Profile Platform	1	1500.00	26.100	1.00	1700.00	31.600	1.00	0.000	0.000
87.00	RFS ATMAA1412D-1A20	3	13.00	1.170	0.50	20.60	1.390	0.50	0.000	0.000
87.00	Andrew ETW190VS12UB	3	11.00	0.760	0.50	16.30	0.950	0.50	0.000	0.000
87.00	RFS APX16DWV-16DWV-S-E-	3	39.60	6.700	0.67	69.38	7.350	0.67	0.000	0.000
87.00	Flat Low Profile Platform	1	1500.00	26.100	1.00	1700.00	31.600	1.00	0.000	0.000
76.00	RFS FD9L4502/2C-3L	6	2.60	0.370	0.50	4.90	0.500	0.50	0.000	0.000
76.00	Antel LPA-80080/6CF	2	21.00	9.100	1.00	69.26	9.930	1.00	0.000	0.000
76.00	Andrew DB844H80E-XY	4	10.00	3.730	0.88	35.38	4.290	0.88	0.000	0.000
76.00	Andrew 932DG65T2E-M	3	9.50	3.490	0.76	28.72	4.040	0.76	0.000	0.000
76.00	Powerwave P65-16-XL-2	3	33.00	8.400	0.75	77.53	9.230	0.75	0.000	0.000
76.00	Flat Low Profile Platform	1	1500.00	26.100	1.00	1700.00	31.600	1.00	0.000	0.000
	Totals	101	11540.40			14971.66			Number of Loadings :	30

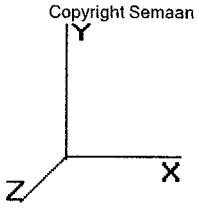
Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	No Ice Weight (lb/ft)	No Ice CaAa (sf/ft)	Ice Weight (lb/ft)	Ice CaAa (sf/ft)	Exposed To Wind
0.00	138.00	(1) 1 1/4" Coax	0.63	0.00	0.00	0.00	N
0.00	138.00	(3) 1 5/8" Coax	2.46	0.00	0.00	0.00	N
0.00	138.00	(7) 7/8" Coax	2.31	0.00	0.00	0.00	N
0.00	138.00	(2) 7/8" Coax	0.66	0.00	0.00	0.00	N
0.00	138.00	(1) EW90	0.32	0.00	0.00	0.00	N
0.00	131.00	(12) 1 5/8" Coax	9.84	0.00	0.00	0.00	N

Pole : 310968
Location : WSPT-Westport Rebuild CT, CT
Height : 140.0 (ft)
Shape : 18 Sides
Base Dia : 47.13 (in)
Top Dia : 20.50 (in)
Taper : 0.200036 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



0.00	120.00	(12) 1 1/4" Coax	7.56	0.00	0.00	0.00	N
0.00	100.00	(12) 1 5/8" Coax	9.84	0.00	0.00	0.00	N
0.00	100.00	(1) 3/8" Coax	0.08	0.00	0.00	0.00	N
0.00	100.00	(2) 8 AWG 7	0.98	0.00	0.00	0.00	N
0.00	100.00	(1) RG6	0.03	0.00	0.00	0.00	N
0.00	87.00	(12) 1 5/8" Coax	9.84	0.00	0.00	0.00	N
0.00	76.00	(12) 1 5/8" Coax	9.84	0.00	0.00	0.00	N
		Total Weight	5,773.45 (lb)		0.00 (lb)		

Pole : 310968
Location : WSPT-Westport Rebuild CT, CT
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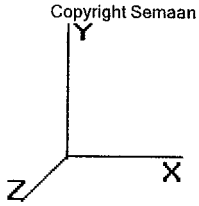

Segment Properties (Max Len : 5 ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	Fb (ksi)	Weight (lb)
0.00		0.5000	47.130	73.999	20,328.7	14.86	94.26	65	52	0.0
5.00		0.5000	46.130	72.412	19,048.5	14.50	92.26	65	52	1,245.5
10.00		0.5000	45.130	70.825	17,823.2	14.15	90.26	65	52	1,218.5
15.00		0.5000	44.129	69.237	16,651.5	13.80	88.26	65	52	1,191.5
20.00		0.5000	43.129	67.650	15,532.4	13.45	86.26	65	52	1,164.5
25.00		0.5000	42.129	66.063	14,464.6	13.09	84.26	65	52	1,137.5
30.00		0.5000	41.129	64.476	13,446.8	12.74	82.26	65	52	1,110.5
35.00		0.5000	40.129	62.889	12,478.0	12.39	80.26	65	52	1,083.5
40.00		0.5000	39.129	61.301	11,556.9	12.04	78.26	65	52	1,056.5
45.00		0.5000	38.128	59.714	10,682.2	11.68	76.26	65	52	1,029.5
46.25	Bot - Section 2	0.5000	37.878	59.317	10,470.7	11.59	75.76	65	52	253.1
50.00		0.5000	37.128	58.127	9,852.8	11.33	74.26	65	52	1,518.9
51.00	Top - Section 1	0.5000	37.928	59.396	10,512.6	11.61	75.86	65	52	399.9
55.00		0.5000	37.128	58.127	9,852.7	11.33	74.26	65	52	799.8
60.00		0.5000	36.128	56.539	9,067.4	10.98	72.26	65	52	975.5
65.00		0.5000	35.128	54.952	8,325.0	10.62	70.26	65	52	948.5
70.00		0.5000	34.128	53.365	7,624.3	10.27	68.26	65	52	921.4
75.00		0.5000	33.127	51.778	6,964.0	9.92	66.25	65	52	894.4
76.00		0.5000	32.927	51.460	6,836.7	9.85	65.85	65	52	175.6
80.00		0.5000	32.127	50.190	6,343.0	9.57	64.25	65	52	691.8
85.00		0.5000	31.127	48.603	5,760.0	9.21	62.25	65	52	840.4
87.00		0.5000	30.727	47.968	5,537.3	9.07	61.45	65	52	328.6
90.00		0.5000	30.127	47.016	5,214.0	8.86	60.25	65	52	484.8
93.50	Bot - Section 3	0.5000	29.427	45.905	4,853.0	8.61	58.85	65	52	553.3
95.00		0.5000	29.127	45.429	4,703.5	8.51	58.25	65	52	322.6
97.25	Top - Section 2	0.1875	29.052	17.177	1,808.1	25.56	154.94	65	51	477.6
100.0		0.1875	28.501	16.850	1,706.7	25.04	152.01	65	52	159.2
105.0		0.1875	27.501	16.255	1,532.1	24.10	146.67	65	52	281.6
110.0		0.1875	26.501	15.659	1,369.9	23.16	141.34	65	52	271.5
115.0		0.1875	25.501	15.064	1,219.5	22.22	136.00	65	52	261.4
120.0		0.1875	24.501	14.469	1,080.6	21.28	130.67	65	52	251.2
125.0		0.1875	23.501	13.874	952.7	20.34	125.34	65	52	241.1
130.0		0.1875	22.500	13.278	835.2	19.40	120.00	65	52	231.0
131.0		0.1875	22.300	13.159	813.0	19.21	118.94	65	52	45.0
135.0		0.1875	21.500	12.683	727.9	18.46	114.67	65	52	175.9
138.0		0.1875	20.900	12.326	668.1	17.89	111.47	65	52	127.7
140.0		0.1875	20.500	12.088	630.1	17.52	109.33	65	52	83.1
										22,952.4

Pole : 310968
Location : WSPT-Westport Rebuild CT, CT
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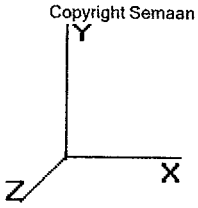


Load Case: No Ice — 90.00 mph Wind with No Ice — 23 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

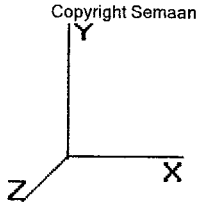
Shaft Segment Forces

Seg Top Elev (ft)	Description	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		0.00	1.00 20.736	35.04	353.47	0.650	0.00	0.00	0.000	0.00	0.0	0.0	0.0
5.00		0.00	1.00 20.736	35.04	345.97	0.650	0.00	5.00	19.429	12.63	442.6	0.0	1,245.5
10.00		0.00	1.00 20.736	35.04	338.47	0.650	0.00	5.00	19.012	12.36	433.1	0.0	1,218.5
15.00		0.00	1.00 20.736	35.04	330.97	0.650	0.00	5.00	18.596	12.09	423.6	0.0	1,191.5
20.00		0.00	1.00 20.736	35.04	323.47	0.650	0.00	5.00	18.179	11.82	414.1	0.0	1,164.5
25.00		0.00	1.00 20.736	35.04	315.96	0.650	0.00	5.00	17.762	11.55	404.6	0.0	1,137.5
30.00		0.00	1.00 20.736	35.04	308.46	0.650	0.00	5.00	17.345	11.27	395.1	0.0	1,110.5
35.00		0.00	1.01 21.088	35.63	303.50	0.650	0.00	5.00	16.929	11.00	392.1	0.0	1,083.5
40.00		0.00	1.05 21.908	37.02	301.64	0.650	0.00	5.00	16.512	10.73	397.4	0.0	1,056.5
45.00		0.00	1.09 22.657	38.29	298.91	0.650	0.00	5.00	16.095	10.46	400.6	0.0	1,029.5
46.25	Bot - Section 2	0.00	1.10 22.835	38.59	298.12	0.650	0.00	1.25	3.959	2.57	99.3	0.0	253.1
50.00		0.00	1.12 23.350	39.46	295.49	0.650	0.00	3.75	12.032	7.82	308.6	0.0	1,518.9
51.00	Top - Section 1	0.00	1.13 23.482	39.68	294.73	0.650	0.00	1.00	3.169	2.06	81.7	0.0	399.9
55.00		0.00	1.15 23.994	40.55	299.54	0.650	0.00	4.00	12.509	8.13	329.7	0.0	799.8
60.00		0.00	1.18 24.598	41.57	295.11	0.650	0.00	5.00	15.262	9.92	412.4	0.0	975.5
65.00		0.00	1.21 25.167	42.53	290.24	0.650	0.00	5.00	14.845	9.65	410.4	0.0	948.5
70.00		0.00	1.24 25.706	43.44	284.98	0.650	0.00	5.00	14.428	9.38	407.4	0.0	921.4
75.00		0.00	1.26 26.218	44.30	279.37	0.650	0.00	5.00	14.011	9.11	403.5	0.0	894.4
76.00	Appertunance(s)	0.00	1.26 26.317	44.47	278.21	0.650	0.00	1.00	2.752	1.79	79.6	0.0	175.6
80.00		0.00	1.28 26.706	45.13	273.44	0.650	0.00	4.00	10.842	7.05	318.1	0.0	691.8
85.00		0.00	1.31 27.172	45.92	267.23	0.650	0.00	5.00	13.178	8.57	393.3	0.0	840.4
87.00	Appertunance(s)	0.00	1.31 27.353	46.22	264.68	0.650	0.00	2.00	5.154	3.35	154.9	0.0	328.6
90.00		0.00	1.33 27.620	46.67	260.77	0.650	0.00	3.00	7.607	4.94	230.8	0.0	484.8
93.50	Bot - Section 3	0.00	1.34 27.922	47.18	256.10	0.650	0.00	3.50	8.685	5.65	266.4	0.0	553.3
95.00		0.00	1.35 28.050	47.40	254.07	0.650	0.00	1.50	3.706	2.41	114.2	0.0	322.6
97.25	Top - Section 2	0.00	1.36 28.238	47.72	250.98	0.650	0.00	2.25	5.489	3.57	170.3	0.0	477.6
100.0	Appertunance(s)	0.00	1.37 28.464	48.10	250.44	0.650	0.00	2.75	6.595	4.29	206.2	0.0	159.2
105.0		0.00	1.39 28.863	48.77	243.34	0.650	0.00	5.00	11.667	7.58	369.9	0.0	281.6
110.0		0.00	1.41 29.250	49.43	236.06	0.650	0.00	5.00	11.250	7.31	361.5	0.0	271.5
115.0		0.00	1.42 29.623	50.06	228.59	0.650	0.00	5.00	10.834	7.04	352.5	0.0	261.4
120.0	Appertunance(s)	0.00	1.44 29.986	50.67	220.97	0.650	0.00	5.00	10.417	6.77	343.1	0.0	251.2
125.0		0.00	1.46 30.338	51.27	213.19	0.650	0.00	5.00	10.000	6.50	333.3	0.0	241.1
130.0		0.00	1.48 30.679	51.84	205.26	0.650	0.00	5.00	9.584	6.23	323.0	0.0	231.0
131.0	Appertunance(s)	0.00	1.48 30.747	51.96	203.66	0.650	0.00	1.00	1.867	1.21	63.0	0.0	45.0
135.0		0.00	1.49 31.012	52.41	197.20	0.650	0.00	4.00	7.300	4.75	248.7	0.0	175.9
138.0	Appertunance(s)	0.00	1.50 31.207	52.74	192.29	0.650	0.00	3.00	5.300	3.45	181.7	0.0	127.7
140.0		0.00	1.51 31.336	52.95	189.00	0.650	0.00	2.00	3.450	2.24	118.8	0.0	83.1
						Totals:		140.00			10,785.5	0.0	22,952.4

Pole : 310968
Location : WSPT-Westport Rebuild CT, CT
Height : 140.0 (ft)
Shape : 18 Sides
Base Dia : 47.13 (in)
Top Dia : 20.50 (in)
Taper : 0.200036 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Load Case: No Ice — 90.00 mph Wind with No Ice — 23 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

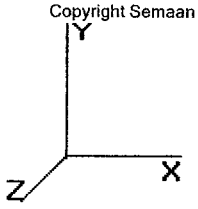
Discrete Appurtenance Segment Forces

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
76.00	RFS FD9L4502/2C-3L	6	26.317	44.476	0.50	1.11	0.000	0.000	49.37	0.00	0.00	15.60
76.00	Antel LPA-80080/6CF	2	26.317	44.476	1.00	18.20	0.000	0.000	809.46	0.00	0.00	42.00
76.00	Andrew DB844H80E-	4	26.317	44.476	0.88	13.13	0.000	0.000	583.95	0.00	0.00	40.00
76.00	Andrew 932DG65T2E-	3	26.317	44.476	0.76	7.96	0.000	0.000	353.90	0.00	0.00	28.50
76.00	Powerwave P65-16-	3	26.317	44.476	0.75	18.90	0.000	0.000	840.60	0.00	0.00	99.00
76.00	Flat Low Profile Pla	1	26.317	44.476	1.00	26.10	0.000	0.000	1,160.82	0.00	0.00	1,500.00
87.00	RFS ATMAA1412D-	3	27.353	46.227	0.50	1.75	0.000	0.000	81.13	0.00	0.00	39.00
87.00	Andrew	3	27.353	46.227	0.50	1.14	0.000	0.000	52.70	0.00	0.00	33.00
87.00	RFS APX16DWV-	3	27.353	46.227	0.67	13.47	0.000	0.000	622.54	0.00	0.00	118.80
87.00	Flat Low Profile Pla	1	27.353	46.227	1.00	26.10	0.000	0.000	1,206.53	0.00	0.00	1,500.00
100.0	Powerwave LGP21401	6	28.464	48.104	0.50	3.87	0.000	0.000	186.16	0.00	0.00	84.60
100.0	Powerwave 7770.00	6	28.464	48.104	0.75	26.46	0.000	0.000	1,272.83	0.00	0.00	210.00
100.0	Raycap DC6-48-60-18-	1	28.464	48.104	1.00	1.47	0.000	0.000	70.71	0.00	0.00	31.80
100.0	Powerwave P65-16-	3	28.464	48.104	0.78	19.66	0.000	0.000	945.53	0.00	0.00	159.00
100.0	Ericsson RRUS 11 (Ba	6	28.464	48.104	0.50	8.82	0.000	0.000	424.28	0.00	0.00	330.00
100.0	Powerwave LGP21901	6	28.464	48.104	0.50	0.69	0.000	0.000	33.19	0.00	0.00	33.00
100.0	Flat Low Profile Pla	1	28.464	48.104	1.00	26.10	0.000	0.000	1,255.51	0.00	0.00	1,500.00
120.0	Flat Low Profile Pla	1	29.986	50.676	1.00	26.10	0.000	0.000	1,322.64	0.00	0.00	1,500.00
120.0	48" x 8" Panel	12	29.986	50.676	0.91	40.73	0.000	0.000	2,064.11	0.00	0.00	168.00
131.0	Flat Low Profile Pla	1	30.747	51.962	1.00	26.10	0.000	0.000	1,356.21	0.00	0.00	1,500.00
131.0	Decibel 980F65E-M	12	30.747	51.962	0.81	36.45	0.000	0.000	1,894.01	0.00	0.00	114.00
138.0	8' Omni (inverted)	1	30.946	52.299	1.00	2.40	0.000	-4.000	125.52	0.00	-502.07	40.00
138.0	Andrew VHLP2.5-10W	1	31.207	52.741	1.00	8.43	0.000	0.000	444.60	0.00	0.00	47.60
138.0	Andrew DB589	1	31.605	53.412	1.00	1.38	0.000	6.250	73.71	0.00	460.68	11.50
138.0	Flat Platform w/ Han	1	31.207	52.741	1.00	42.40	0.000	0.000	2,236.19	0.00	0.00	2,000.00
138.0	6' Omni	7	31.207	52.741	1.00	12.32	0.000	0.000	649.73	0.00	0.00	175.00
138.0	8' Omni	2	31.207	52.741	1.00	4.80	0.000	0.000	253.15	0.00	0.00	80.00
138.0	8' Omni	2	31.463	53.173	1.00	4.80	0.000	4.000	255.23	0.00	1,020.92	80.00
138.0	6' FM Antenna	1	31.463	53.173	1.00	13.45	0.000	4.000	715.17	0.00	2,860.68	30.00
138.0	6' Dipole	1	31.207	52.741	1.00	4.00	0.000	0.000	210.96	0.00	0.00	30.00
									21,550.46			11,540.40

Pole : 310968
Location : WSPT-Westport Rebuild CT, CT
Height : 140.0 (ft)
Shape : 18 Sides
Base Dia : 47.13 (in)
Top Dia : 20.50 (in)
Taper : 0.200036 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Load Case: No Ice — 90.00 mph Wind with No Ice — 23 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	442.57	1,517.45	0.00	0.00
10.00	433.07	1,490.45	0.00	0.00
15.00	423.58	1,463.44	0.00	0.00
20.00	414.09	1,436.44	0.00	0.00
25.00	404.60	1,409.43	0.00	0.00
30.00	395.10	1,382.43	0.00	0.00
35.00	392.15	1,355.42	0.00	0.00
40.00	397.37	1,328.42	0.00	0.00
45.00	400.60	1,301.41	0.00	0.00
46.25	99.30	321.13	0.00	0.00
50.00	308.63	1,722.84	0.00	0.00
51.00	81.75	454.29	0.00	0.00
55.00	329.72	1,017.36	0.00	0.00
60.00	412.39	1,247.40	0.00	0.00
65.00	410.41	1,220.40	0.00	0.00
70.00	407.42	1,193.39	0.00	0.00
75.00	403.53	1,166.39	0.00	0.00
76.00	3,877.68	1,955.14	0.00	0.00
80.00	318.07	869.98	0.00	0.00
85.00	393.35	1,063.18	0.00	0.00
87.00	2,117.79	2,108.51	0.00	0.00
90.00	230.79	588.94	0.00	0.00
93.50	266.39	674.81	0.00	0.00
95.00	114.21	374.65	0.00	0.00
97.25	170.28	555.71	0.00	0.00
100.0	4,394.40	2,603.05	0.00	0.00
105.0	369.93	400.51	0.00	0.00
110.0	361.48	390.39	0.00	0.00
115.0	352.54	380.26	0.00	0.00
120.0	3,729.89	2,038.13	0.00	0.00
125.0	333.27	322.21	0.00	0.00
130.0	322.98	312.08	0.00	0.00
131.0	3,313.27	1,675.20	0.00	0.00
135.0	248.69	201.39	0.00	0.00
138.0	5,145.96	2,640.89	0.00	3,840.21
140.0	118.76	83.08	0.00	0.00
Totals:	32,335.97	40,266.24	0.00	3,840.21

Pole : 310968
Location : WSPT-Westport Rebuild CT, CT
Height : 140.0 (ft)
Shape : 18 Sides
Base Dia : 47.13 (in)
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Taper : 0.200036 (in/ft)

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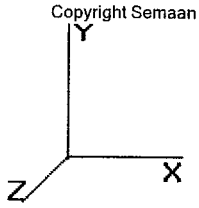
Base Elev : 0.000 (ft)



Load Case: No Ice — 90.00 mph Wind with No Ice — 23 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Calculated Shaft Forces and Deflections

Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-32.415	-40.202	0.000	0.000	0.000	-3,241.737	0.000	0.000	0.000	0.000
5.00	-32.119	-38.561	0.000	0.000	0.000	-3,079.666	-0.119	0.000	0.119	-0.221
10.00	-31.823	-36.948	0.000	0.000	0.000	-2,919.073	-0.470	0.000	0.470	-0.445
15.00	-31.526	-35.364	0.000	0.000	0.000	-2,759.961	-1.058	0.000	1.058	-0.672
20.00	-31.228	-33.808	0.000	0.000	0.000	-2,602.334	-1.885	0.000	1.885	-0.901
25.00	-30.930	-32.281	0.000	0.000	0.000	-2,446.196	-2.952	0.000	2.952	-1.132
30.00	-30.630	-30.783	0.000	0.000	0.000	-2,291.550	-4.263	0.000	4.263	-1.365
35.00	-30.324	-29.314	0.000	0.000	0.000	-2,138.401	-5.818	0.000	5.818	-1.599
40.00	-30.001	-27.875	0.000	0.000	0.000	-1,986.785	-7.619	0.000	7.619	-1.834
45.00	-29.624	-26.513	0.000	0.000	0.000	-1,836.781	-9.666	0.000	9.666	-2.070
46.25	-29.568	-26.133	0.000	0.000	0.000	-1,799.751	-10.217	0.000	10.217	-2.130
50.00	-29.241	-24.367	0.000	0.000	0.000	-1,688.872	-11.961	0.000	11.961	-2.308
51.00	-29.190	-23.855	0.000	0.000	0.000	-1,659.631	-12.450	0.000	12.450	-2.356
55.00	-28.897	-22.752	0.000	0.000	0.000	-1,542.872	-14.505	0.000	14.505	-2.544
60.00	-28.506	-21.420	0.000	0.000	0.000	-1,398.388	-17.283	0.000	17.283	-2.757
65.00	-28.108	-20.121	0.000	0.000	0.000	-1,255.857	-20.282	0.000	20.282	-2.965
70.00	-27.703	-18.855	0.000	0.000	0.000	-1,115.320	-23.496	0.000	23.496	-3.167
75.00	-27.269	-17.659	0.000	0.000	0.000	-976.807	-26.917	0.000	26.917	-3.363
76.00	-23.309	-15.897	0.000	0.000	0.000	-949.538	-27.626	0.000	27.626	-3.402
80.00	-22.982	-14.982	0.000	0.000	0.000	-856.302	-30.539	0.000	30.539	-3.552
85.00	-22.552	-13.897	0.000	0.000	0.000	-741.391	-34.355	0.000	34.355	-3.731
87.00	-20.319	-11.902	0.000	0.000	0.000	-696.287	-35.932	0.000	35.932	-3.802
90.00	-20.070	-11.292	0.000	0.000	0.000	-635.332	-38.354	0.000	38.354	-3.905
93.50	-19.773	-10.609	0.000	0.000	0.000	-565.086	-41.258	0.000	41.258	-4.020
95.00	-19.643	-10.223	0.000	0.000	0.000	-535.427	-42.528	0.000	42.528	-4.068
97.25	-19.446	-9.655	0.000	0.000	0.000	-491.231	-44.461	0.000	44.461	-4.138
100.0	-14.901	-7.324	0.000	0.000	0.000	-437.754	-46.867	0.000	46.867	-4.219
105.0	-14.540	-6.872	0.000	0.000	0.000	-363.249	-51.464	0.000	51.464	-4.553
110.0	-14.180	-6.442	0.000	0.000	0.000	-290.549	-56.395	0.000	56.395	-4.856
115.0	-13.821	-6.036	0.000	0.000	0.000	-219.649	-61.622	0.000	61.622	-5.121
120.0	-9.935	-4.314	0.000	0.000	0.000	-150.543	-67.101	0.000	67.101	-5.337
125.0	-9.583	-4.002	0.000	0.000	0.000	-100.867	-72.777	0.000	72.777	-5.503
130.0	-9.235	-3.713	0.000	0.000	0.000	-52.953	-78.599	0.000	78.599	-5.617
131.0	-5.775	-2.367	0.000	0.000	0.000	-43.718	-79.776	0.000	79.776	-5.634
135.0	-5.509	-2.189	0.000	0.000	0.000	-20.619	-84.511	0.000	84.511	-5.679
138.0	-0.126	-0.071	0.000	0.000	0.000	-0.253	-88.080	0.000	88.080	-5.693
140.0	-0.119	0.000	0.000	0.000	0.000	0.000	-90.461	0.000	90.461	-5.694

Pole : 310968
Location : WSPT-Westport Rebuild CT, CT
Height : 140.0 (ft)
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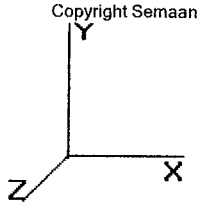


Load Case: No Ice — 90.00 mph Wind with No Ice — 23 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

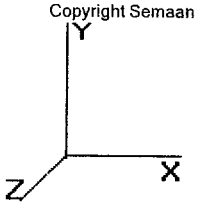
Calculated Stresses

Seg Elev (ft)	Applied Stresses Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)	Allowable Stress (Fb) (ksi)		Stress Ratio
0.00	0.54	0.88	0.00	0.00	0.00	45.79	46.36	52.0	0.0	0.892
5.00	0.53	0.89	0.00	0.00	0.00	45.44	46.00	52.0	0.0	0.885
10.00	0.52	0.91	0.00	0.00	0.00	45.03	45.58	52.0	0.0	0.877
15.00	0.51	0.92	0.00	0.00	0.00	44.56	45.10	52.0	0.0	0.868
20.00	0.50	0.93	0.00	0.00	0.00	44.02	44.55	52.0	0.0	0.857
25.00	0.49	0.94	0.00	0.00	0.00	43.41	43.93	52.0	0.0	0.845
30.00	0.48	0.96	0.00	0.00	0.00	42.70	43.21	52.0	0.0	0.831
35.00	0.47	0.97	0.00	0.00	0.00	41.90	42.40	52.0	0.0	0.816
40.00	0.45	0.99	0.00	0.00	0.00	40.98	41.47	52.0	0.0	0.798
45.00	0.44	1.00	0.00	0.00	0.00	39.94	40.42	52.0	0.0	0.778
46.25	0.44	1.00	0.00	0.00	0.00	39.67	40.15	52.0	0.0	0.772
50.00	0.42	1.01	0.00	0.00	0.00	38.77	39.23	52.0	0.0	0.755
51.00	0.40	0.99	0.00	0.00	0.00	36.48	36.92	52.0	0.0	0.710
55.00	0.39	1.00	0.00	0.00	0.00	35.42	35.86	52.0	0.0	0.690
60.00	0.38	1.02	0.00	0.00	0.00	33.95	34.37	52.0	0.0	0.661
65.00	0.37	1.03	0.00	0.00	0.00	32.29	32.70	52.0	0.0	0.629
70.00	0.35	1.05	0.00	0.00	0.00	30.42	30.82	52.0	0.0	0.593
75.00	0.34	1.06	0.00	0.00	0.00	28.31	28.71	52.0	0.0	0.552
76.00	0.31	0.91	0.00	0.00	0.00	27.86	28.22	52.0	0.0	0.543
80.00	0.30	0.92	0.00	0.00	0.00	26.42	26.77	52.0	0.0	0.515
85.00	0.29	0.94	0.00	0.00	0.00	24.41	24.75	52.0	0.0	0.476
87.00	0.25	0.85	0.00	0.00	0.00	23.54	23.83	52.0	0.0	0.459
90.00	0.24	0.86	0.00	0.00	0.00	22.37	22.66	52.0	0.0	0.436
93.50	0.23	0.87	0.00	0.00	0.00	20.88	21.16	52.0	0.0	0.407
95.00	0.23	0.87	0.00	0.00	0.00	20.20	20.48	52.0	0.0	0.394
97.25	0.56	2.28	0.00	0.00	0.00	48.09	48.81	51.3	0.0	0.951
100.00	0.43	1.78	0.00	0.00	0.00	44.54	45.08	51.8	0.0	0.871
105.00	0.42	1.80	0.00	0.00	0.00	39.73	40.27	52.0	0.0	0.775
110.00	0.41	1.83	0.00	0.00	0.00	34.24	34.80	52.0	0.0	0.670
115.00	0.40	1.85	0.00	0.00	0.00	27.98	28.56	52.0	0.0	0.550
120.00	0.30	1.38	0.00	0.00	0.00	20.80	21.23	52.0	0.0	0.408
125.00	0.29	1.39	0.00	0.00	0.00	15.16	15.64	52.0	0.0	0.301
130.00	0.28	1.40	0.00	0.00	0.00	8.69	9.29	52.0	0.0	0.179
131.00	0.18	0.88	0.00	0.00	0.00	7.31	7.64	52.0	0.0	0.147
135.00	0.17	0.88	0.00	0.00	0.00	3.71	4.17	52.0	0.0	0.080
138.00	0.01	0.02	0.00	0.00	0.00	0.05	0.06	52.0	0.0	0.001
140.00	0.00	0.02	0.00	0.00	0.00	0.00	0.03	52.0	0.0	0.001

Pole : 310968
Location : WSPT-Westport Rebuild CT, CT
Height : 140.0 (ft)
Shape : 18 Sides
Base Dia : 47.13 (in)
Top Dia : 20.50 (in)
Taper : 0.200036 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Load Case: Ice — 77.94 mph Wind with Ice — 23 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

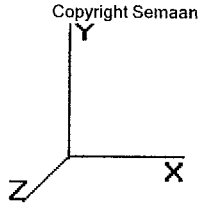
Shaft Segment Forces

Seg Top Elev (ft)	Description		Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		0.00	1.00	15.551	26.28	306.10	0.650	0.50	0.00	0.000	0.00	0.0	0.0	0.0
5.00		0.00	1.00	15.551	26.28	299.61	0.650	0.50	5.00	19.846	12.90	339.0	143.9	1,389.4
10.00		0.00	1.00	15.551	26.28	293.11	0.650	0.50	5.00	19.429	12.63	331.9	140.8	1,359.3
15.00		0.00	1.00	15.551	26.28	286.62	0.650	0.50	5.00	19.012	12.36	324.8	137.7	1,329.2
20.00		0.00	1.00	15.551	26.28	280.12	0.650	0.50	5.00	18.596	12.09	317.7	134.6	1,299.1
25.00		0.00	1.00	15.551	26.28	273.62	0.650	0.50	5.00	18.179	11.82	310.5	131.5	1,269.0
30.00		0.00	1.00	15.551	26.28	267.13	0.650	0.50	5.00	17.762	11.55	303.4	128.5	1,238.9
35.00		0.00	1.01	15.815	26.72	262.83	0.650	0.50	5.00	17.345	11.27	301.3	125.4	1,208.9
40.00		0.00	1.05	16.430	27.76	261.22	0.650	0.50	5.00	16.929	11.00	305.5	122.3	1,178.8
45.00		0.00	1.09	16.992	28.71	258.86	0.650	0.50	5.00	16.512	10.73	308.2	119.2	1,148.7
46.25	Bot - Section 2	0.00	1.10	17.126	28.94	258.17	0.650	0.50	1.25	4.063	2.64	76.4	29.6	282.8
50.00		0.00	1.12	17.511	29.59	255.89	0.650	0.50	3.75	12.345	8.02	237.5	89.4	1,608.3
51.00	Top - Section 1	0.00	1.13	17.611	29.76	255.23	0.650	0.50	1.00	3.252	2.11	62.9	23.7	423.6
55.00		0.00	1.15	17.995	30.41	259.40	0.650	0.50	4.00	12.843	8.35	253.9	92.9	892.7
60.00		0.00	1.18	18.448	31.17	255.57	0.650	0.50	5.00	15.678	10.19	317.7	113.0	1,088.5
65.00		0.00	1.21	18.874	31.89	251.35	0.650	0.50	5.00	15.262	9.92	316.4	109.9	1,058.4
70.00		0.00	1.24	19.278	32.58	246.79	0.650	0.50	5.00	14.845	9.65	314.4	106.9	1,028.3
75.00		0.00	1.26	19.662	33.22	241.93	0.650	0.50	5.00	14.428	9.38	311.6	103.8	998.2
76.00	Appertunance(s)	0.00	1.26	19.737	33.35	240.93	0.650	0.50	1.00	2.836	1.84	61.5	20.6	196.3
80.00		0.00	1.28	20.028	33.84	236.80	0.650	0.50	4.00	11.176	7.26	245.9	80.5	772.3
85.00		0.00	1.31	20.378	34.43	231.42	0.650	0.50	5.00	13.595	8.84	304.3	97.6	938.0
87.00	Appertunance(s)	0.00	1.31	20.514	34.66	229.21	0.650	0.50	2.00	5.321	3.46	119.9	38.5	367.2
90.00		0.00	1.33	20.714	35.00	225.82	0.650	0.50	3.00	7.857	5.11	178.8	56.7	541.5
93.50	Bot - Section 3	0.00	1.34	20.941	35.38	221.78	0.650	0.50	3.50	8.977	5.83	206.5	64.6	618.0
95.00		0.00	1.35	21.036	35.55	220.02	0.650	0.50	1.50	3.831	2.49	88.5	27.8	350.4
97.25	Top - Section 2	0.00	1.36	21.177	35.78	217.35	0.650	0.50	2.25	5.677	3.69	132.1	41.0	518.7
100.0	Appertunance(s)	0.00	1.37	21.347	36.07	216.88	0.650	0.50	2.75	6.824	4.44	160.0	49.2	208.4
105.0		0.00	1.39	21.646	36.58	210.73	0.650	0.50	5.00	12.084	7.85	287.3	86.4	368.0
110.0		0.00	1.41	21.936	37.07	204.42	0.650	0.50	5.00	11.667	7.58	281.1	83.3	354.8
115.0		0.00	1.42	22.216	37.54	197.96	0.650	0.50	5.00	11.250	7.31	274.6	80.2	341.6
120.0	Appertunance(s)	0.00	1.44	22.488	38.00	191.36	0.650	0.50	5.00	10.834	7.04	267.6	77.1	328.4
125.0		0.00	1.46	22.752	38.45	184.62	0.650	0.50	5.00	10.417	6.77	260.3	74.1	315.2
130.0		0.00	1.48	23.008	38.88	177.75	0.650	0.50	5.00	10.000	6.50	252.7	71.0	302.0
131.0	Appertunance(s)	0.00	1.48	23.059	38.96	176.37	0.650	0.50	1.00	1.950	1.27	49.4	14.1	59.1
135.0		0.00	1.49	23.258	39.30	170.77	0.650	0.50	4.00	7.633	4.96	195.0	54.3	230.2
138.0	Appertunance(s)	0.00	1.50	23.404	39.55	166.53	0.650	0.50	3.00	5.550	3.61	142.7	39.6	167.3
140.0		0.00	1.51	23.501	39.71	163.67	0.650	0.50	2.00	3.617	2.35	93.4	25.9	109.0
							Totals:		140.00			8,334.9	2,935.8	25,888.2

Pole : 310968
Location : WSPT-Westport Rebuild CT, CT
Height : 140.0 (ft)
Shape : 18 Sides
Base Dia : 47.13 (in)
Top Dia : 20.50 (in)
Taper : 0.200036 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Load Case: Ice — 77.94 mph Wind with Ice — 23 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Discrete Appurtenance Segment Forces

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
76.00	RFS FD9L4502/2C-3L	6	19.737	33.355	0.50	1.50	0.000	0.000	50.03	0.00	0.00	29.40
76.00	Antel LPA-80080/6CF	2	19.737	33.355	1.00	19.86	0.000	0.000	662.43	0.00	0.00	138.52
76.00	Andrew DB844H80E-	4	19.737	33.355	0.88	15.10	0.000	0.000	503.69	0.00	0.00	141.52
76.00	Andrew 932DG65T2E-	3	19.737	33.355	0.76	9.21	0.000	0.000	307.24	0.00	0.00	86.16
76.00	Powerwave P65-16-	3	19.737	33.355	0.75	20.77	0.000	0.000	692.70	0.00	0.00	232.59
76.00	Flat Low Profile Pla	1	19.737	33.355	1.00	31.60	0.000	0.000	1,054.02	0.00	0.00	1,700.00
87.00	RFS ATMAA1412D-	3	20.514	34.668	0.50	2.09	0.000	0.000	72.28	0.00	0.00	61.80
87.00	Andrew	3	20.514	34.668	0.50	1.42	0.000	0.000	49.40	0.00	0.00	48.90
87.00	RFS APX16DWV-	3	20.514	34.668	0.67	14.77	0.000	0.000	512.17	0.00	0.00	208.14
87.00	Flat Low Profile Pla	1	20.514	34.668	1.00	31.60	0.000	0.000	1,095.52	0.00	0.00	1,700.00
100.0	Powerwave LGP21401	6	21.347	36.076	0.50	4.59	0.000	0.000	165.59	0.00	0.00	127.56
100.0	Powerwave 7770.00	6	21.347	36.076	0.75	29.39	0.000	0.000	1,060.08	0.00	0.00	405.78
100.0	Raycap DC6-48-60-18-	1	21.347	36.076	1.00	1.67	0.000	0.000	60.25	0.00	0.00	49.50
100.0	Powerwave P65-16-	3	21.347	36.076	0.78	21.57	0.000	0.000	778.32	0.00	0.00	300.60
100.0	Ericsson RRUS 11 /Ba	6	21.347	36.076	0.50	9.87	0.000	0.000	356.07	0.00	0.00	445.80
100.0	Powerwave LGP21901	6	21.347	36.076	0.50	1.02	0.000	0.000	36.80	0.00	0.00	46.20
100.0	Flat Low Profile Pla	1	21.347	36.076	1.00	31.60	0.000	0.000	1,139.99	0.00	0.00	1,700.00
120.0	Flat Low Profile Pla	1	22.488	38.005	1.00	31.60	0.000	0.000	1,200.95	0.00	0.00	1,700.00
120.0	48" x 8" Panel	12	22.488	38.005	0.91	46.85	0.000	0.000	1,780.40	0.00	0.00	483.59
131.0	Flat Low Profile Pla	1	23.059	38.969	1.00	31.60	0.000	0.000	1,231.42	0.00	0.00	1,700.00
131.0	Decibel 980F65E-M	12	23.059	38.969	0.81	41.99	0.000	0.000	1,636.33	0.00	0.00	358.20
138.0	8' Omni (inverted)	1	23.208	39.222	1.00	3.23	0.000	-4.000	126.69	0.00	-506.75	62.00
138.0	Andrew VHLP2.5-10W	1	23.404	39.553	1.00	8.91	0.000	0.000	352.42	0.00	0.00	97.03
138.0	Andrew DB589	1	23.702	40.057	1.00	2.20	0.000	6.250	88.12	0.00	550.78	20.00
138.0	Flat Platform w/ Han	1	23.404	39.553	1.00	48.40	0.000	0.000	1,914.36	0.00	0.00	2,450.00
138.0	6' Omni	7	23.404	39.553	1.00	14.91	0.000	0.000	589.74	0.00	0.00	267.68
138.0	8' Omni	2	23.404	39.553	1.00	6.46	0.000	0.000	255.51	0.00	0.00	124.00
138.0	8' Omni	2	23.596	39.877	1.00	6.46	0.000	4.000	257.61	0.00	1,030.43	124.00
138.0	6' FM Antenna	1	23.596	39.877	1.00	14.77	0.000	4.000	588.99	0.00	2,355.95	112.70
138.0	6' Dipole	1	23.404	39.553	1.00	5.50	0.000	0.000	217.54	0.00	0.00	50.00
									18,836.64			14,971.66

Pole : 310968
Location : WSPT-Westport Rebuild CT, CT
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Shape : 18 Sides
Base Dia : 47.13 (in)
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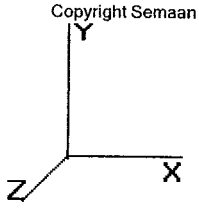
Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Load Case: Ice — 77.94 mph Wind with Ice — 23 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	339.02	1,661.34	0.00	0.00
10.00	331.90	1,631.25	0.00	0.00
15.00	324.78	1,601.16	0.00	0.00
20.00	317.66	1,571.07	0.00	0.00
25.00	310.55	1,540.98	0.00	0.00
30.00	303.43	1,510.88	0.00	0.00
35.00	301.33	1,480.79	0.00	0.00
40.00	305.53	1,450.70	0.00	0.00
45.00	308.21	1,420.61	0.00	0.00
46.25	76.43	350.74	0.00	0.00
50.00	237.47	1,812.24	0.00	0.00
51.00	62.92	478.01	0.00	0.00
55.00	253.86	1,110.25	0.00	0.00
60.00	317.72	1,360.42	0.00	0.00
65.00	316.43	1,330.33	0.00	0.00
70.00	314.37	1,300.24	0.00	0.00
75.00	311.63	1,270.15	0.00	0.00
76.00	3,331.58	2,578.86	0.00	0.00
80.00	245.88	950.53	0.00	0.00
85.00	304.32	1,160.77	0.00	0.00
87.00	1,849.29	2,475.09	0.00	0.00
90.00	178.77	645.65	0.00	0.00
93.50	206.49	739.45	0.00	0.00
95.00	88.54	402.42	0.00	0.00
97.25	132.06	596.75	0.00	0.00
100.0	3,757.10	3,379.31	0.00	0.00
105.0	287.33	486.92	0.00	0.00
110.0	281.14	473.71	0.00	0.00
115.0	274.56	460.49	0.00	0.00
120.0	3,248.97	2,630.87	0.00	0.00
125.0	260.35	396.27	0.00	0.00
130.0	252.75	383.05	0.00	0.00
131.0	2,917.14	2,133.47	0.00	0.00
135.0	195.02	255.70	0.00	0.00
138.0	4,533.66	3,493.82	0.00	3,430.41
140.0	93.37	109.00	0.00	0.00
Totals:	27,171.56	46,633.29	0.00	3,430.41

Pole : 310968
Location : WSPT-Westport Rebuild CT, CT
Height : 140.0 (ft)
Shape : 18 Sides
Base Dia : 47.13 (in)
Top Dia : 20.50 (in)
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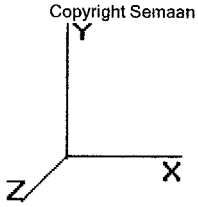


Load Case: Ice — 77.94 mph Wind with Ice — 23 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

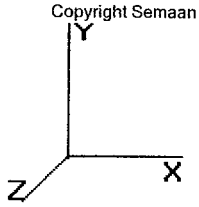
Calculated Shaft Forces and Deflections

Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-27.250	-46.587	0.000	0.000	0.000	-2,785.171	0.000	0.000	0.000	0.000
5.00	-27.058	-44.836	0.000	0.000	0.000	-2,648.924	-0.102	0.000	0.102	-0.190
10.00	-26.864	-43.116	0.000	0.000	0.000	-2,513.637	-0.404	0.000	0.404	-0.383
15.00	-26.668	-41.426	0.000	0.000	0.000	-2,379.319	-0.910	0.000	0.910	-0.578
20.00	-26.470	-39.767	0.000	0.000	0.000	-2,245.981	-1.621	0.000	1.621	-0.776
25.00	-26.270	-38.140	0.000	0.000	0.000	-2,113.634	-2.541	0.000	2.541	-0.975
30.00	-26.067	-36.543	0.000	0.000	0.000	-1,982.289	-3.671	0.000	3.671	-1.177
35.00	-25.857	-34.978	0.000	0.000	0.000	-1,851.957	-5.012	0.000	5.012	-1.380
40.00	-25.633	-33.444	0.000	0.000	0.000	-1,722.676	-6.566	0.000	6.566	-1.583
45.00	-25.354	-31.977	0.000	0.000	0.000	-1,594.513	-8.334	0.000	8.334	-1.787
46.25	-25.324	-31.583	0.000	0.000	0.000	-1,562.821	-8.809	0.000	8.809	-1.840
50.00	-25.077	-29.737	0.000	0.000	0.000	-1,467.857	-10.316	0.000	10.316	-1.994
51.00	-25.050	-29.217	0.000	0.000	0.000	-1,442.781	-10.739	0.000	10.739	-2.036
55.00	-24.841	-28.041	0.000	0.000	0.000	-1,342.582	-12.515	0.000	12.515	-2.200
60.00	-24.554	-26.616	0.000	0.000	0.000	-1,218.380	-14.918	0.000	14.918	-2.385
65.00	-24.260	-25.225	0.000	0.000	0.000	-1,095.611	-17.513	0.000	17.513	-2.566
70.00	-23.958	-23.868	0.000	0.000	0.000	-974.316	-20.296	0.000	20.296	-2.743
75.00	-23.624	-22.573	0.000	0.000	0.000	-854.528	-23.261	0.000	23.261	-2.914
76.00	-20.194	-20.138	0.000	0.000	0.000	-830.905	-23.875	0.000	23.875	-2.948
80.00	-19.947	-19.152	0.000	0.000	0.000	-750.131	-26.401	0.000	26.401	-3.080
85.00	-19.613	-17.973	0.000	0.000	0.000	-650.398	-29.710	0.000	29.710	-3.237
87.00	-17.646	-15.583	0.000	0.000	0.000	-611.172	-31.079	0.000	31.079	-3.299
90.00	-17.455	-14.920	0.000	0.000	0.000	-558.234	-33.180	0.000	33.180	-3.389
93.50	-17.222	-14.173	0.000	0.000	0.000	-497.141	-35.702	0.000	35.702	-3.490
95.00	-17.122	-13.761	0.000	0.000	0.000	-471.308	-36.805	0.000	36.805	-3.533
97.25	-16.968	-13.154	0.000	0.000	0.000	-432.784	-38.484	0.000	38.484	-3.594
100.0	-13.038	-9.977	0.000	0.000	0.000	-386.122	-40.575	0.000	40.575	-3.666
105.0	-12.765	-9.447	0.000	0.000	0.000	-320.936	-44.572	0.000	44.572	-3.960
110.0	-12.490	-8.940	0.000	0.000	0.000	-257.112	-48.865	0.000	48.865	-4.229
115.0	-12.213	-8.456	0.000	0.000	0.000	-194.661	-53.420	0.000	53.420	-4.463
120.0	-8.783	-6.067	0.000	0.000	0.000	-133.597	-58.199	0.000	58.199	-4.655
125.0	-8.503	-5.675	0.000	0.000	0.000	-89.683	-63.152	0.000	63.152	-4.802
130.0	-8.224	-5.307	0.000	0.000	0.000	-47.169	-68.236	0.000	68.236	-4.904
131.0	-5.136	-3.429	0.000	0.000	0.000	-38.945	-69.263	0.000	69.263	-4.918
135.0	-4.922	-3.189	0.000	0.000	0.000	-18.400	-73.399	0.000	73.399	-4.959
138.0	-0.102	-0.100	0.000	0.000	0.000	-0.205	-76.516	0.000	76.516	-4.972
140.0	-0.093	0.000	0.000	0.000	0.000	0.000	-78.596	0.000	78.596	-4.972

Pole : 310968
Location : WSPT-Westport Rebuild CT, CT
Height : 140.0 (ft)
Shape : 18 Sides
Base Dia : 47.13 (in)
Top Dia : 20.50 (in)
Taper : 0.200036 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Load Case: Ice — 77.94 mph Wind with Ice — 23 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

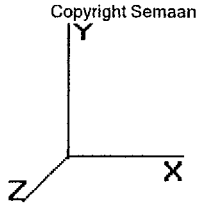
Calculated Stresses

Seg Elev (ft)	Applied Stresses Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)	Allowable Stress (Fb) (ksi)		Stress Ratio
0.00	0.63	0.74	0.00	0.00	0.00	39.34	39.99	52.0	0.0	0.769
5.00	0.62	0.75	0.00	0.00	0.00	39.08	39.72	52.0	0.0	0.764
10.00	0.61	0.76	0.00	0.00	0.00	38.78	39.41	52.0	0.0	0.758
15.00	0.60	0.78	0.00	0.00	0.00	38.42	39.04	52.0	0.0	0.751
20.00	0.59	0.79	0.00	0.00	0.00	38.00	38.61	52.0	0.0	0.743
25.00	0.58	0.80	0.00	0.00	0.00	37.51	38.11	52.0	0.0	0.733
30.00	0.57	0.81	0.00	0.00	0.00	36.94	37.53	52.0	0.0	0.722
35.00	0.56	0.83	0.00	0.00	0.00	36.29	36.87	52.0	0.0	0.709
40.00	0.55	0.84	0.00	0.00	0.00	35.54	36.11	52.0	0.0	0.695
45.00	0.54	0.86	0.00	0.00	0.00	34.67	35.24	52.0	0.0	0.678
46.25	0.53	0.86	0.00	0.00	0.00	34.44	35.01	52.0	0.0	0.674
50.00	0.51	0.87	0.00	0.00	0.00	33.70	34.24	52.0	0.0	0.659
51.00	0.49	0.85	0.00	0.00	0.00	31.71	32.24	52.0	0.0	0.620
55.00	0.48	0.86	0.00	0.00	0.00	30.82	31.34	52.0	0.0	0.603
60.00	0.47	0.88	0.00	0.00	0.00	29.58	30.09	52.0	0.0	0.579
65.00	0.46	0.89	0.00	0.00	0.00	28.17	28.67	52.0	0.0	0.552
70.00	0.45	0.90	0.00	0.00	0.00	26.57	27.06	52.0	0.0	0.521
75.00	0.44	0.92	0.00	0.00	0.00	24.77	25.25	52.0	0.0	0.486
76.00	0.39	0.79	0.00	0.00	0.00	24.38	24.81	52.0	0.0	0.477
80.00	0.38	0.80	0.00	0.00	0.00	23.15	23.57	52.0	0.0	0.453
85.00	0.37	0.81	0.00	0.00	0.00	21.41	21.83	52.0	0.0	0.420
87.00	0.32	0.74	0.00	0.00	0.00	20.66	21.03	52.0	0.0	0.405
90.00	0.32	0.75	0.00	0.00	0.00	19.65	20.01	52.0	0.0	0.385
93.50	0.31	0.76	0.00	0.00	0.00	18.37	18.72	52.0	0.0	0.360
95.00	0.30	0.76	0.00	0.00	0.00	17.78	18.13	52.0	0.0	0.349
97.25	0.77	1.99	0.00	0.00	0.00	42.37	43.27	51.3	0.0	0.843
100.00	0.59	1.56	0.00	0.00	0.00	39.29	39.97	51.8	0.0	0.772
105.00	0.58	1.58	0.00	0.00	0.00	35.10	35.78	52.0	0.0	0.688
110.00	0.57	1.61	0.00	0.00	0.00	30.30	31.00	52.0	0.0	0.596
115.00	0.56	1.63	0.00	0.00	0.00	24.80	25.52	52.0	0.0	0.491
120.00	0.42	1.22	0.00	0.00	0.00	18.45	18.99	52.0	0.0	0.365
125.00	0.41	1.24	0.00	0.00	0.00	13.48	14.05	52.0	0.0	0.270
130.00	0.40	1.25	0.00	0.00	0.00	7.74	8.42	52.0	0.0	0.162
131.00	0.26	0.79	0.00	0.00	0.00	6.51	6.90	52.0	0.0	0.133
135.00	0.25	0.78	0.00	0.00	0.00	3.31	3.81	52.0	0.0	0.073
138.00	0.01	0.02	0.00	0.00	0.00	0.04	0.06	52.0	0.0	0.001
140.00	0.00	0.02	0.00	0.00	0.00	0.00	0.03	52.0	0.0	0.001

Pole : 310968
Location : WSPT-Westport Rebuild CT, CT
Height : 140.0 (ft)
Shape : 18 Sides
Base Dia : 47.13 (in)
Top Dia : 20.50 (in)
Taper : 0.200036 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 22 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

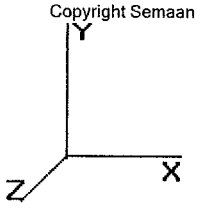
Shaft Segment Forces

Seg Top Elev (ft)	Description		Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		0.00	1.00	6.400	10.81	196.37	0.650	0.00	0.00	0.000	0.00	0.0	0.0	0.0
5.00		0.00	1.00	6.400	10.81	192.20	0.650	0.00	5.00	19.429	12.63	136.6	0.0	1,245.5
10.00		0.00	1.00	6.400	10.81	188.04	0.650	0.00	5.00	19.012	12.36	133.7	0.0	1,218.5
15.00		0.00	1.00	6.400	10.81	183.87	0.650	0.00	5.00	18.596	12.09	130.7	0.0	1,191.5
20.00		0.00	1.00	6.400	10.81	179.70	0.650	0.00	5.00	18.179	11.82	127.8	0.0	1,164.5
25.00		0.00	1.00	6.400	10.81	175.53	0.650	0.00	5.00	17.762	11.55	124.9	0.0	1,137.5
30.00		0.00	1.00	6.400	10.81	171.37	0.650	0.00	5.00	17.345	11.27	121.9	0.0	1,110.5
35.00		0.00	1.01	6.509	10.99	168.61	0.650	0.00	5.00	16.929	11.00	121.0	0.0	1,083.5
40.00		0.00	1.05	6.762	11.42	167.57	0.650	0.00	5.00	16.512	10.73	122.6	0.0	1,056.5
45.00		0.00	1.09	6.993	11.81	166.06	0.650	0.00	5.00	16.095	10.46	123.6	0.0	1,029.5
46.25	Bot - Section 2	0.00	1.10	7.048	11.91	165.62	0.650	0.00	1.25	3.959	2.57	30.6	0.0	253.1
50.00		0.00	1.12	7.207	12.17	164.16	0.650	0.00	3.75	12.032	7.82	95.3	0.0	1,518.9
51.00	Top - Section 1	0.00	1.13	7.248	12.24	163.74	0.650	0.00	1.00	3.169	2.06	25.2	0.0	399.9
55.00		0.00	1.15	7.406	12.51	166.41	0.650	0.00	4.00	12.509	8.13	101.8	0.0	799.8
60.00		0.00	1.18	7.592	12.83	163.95	0.650	0.00	5.00	15.262	9.92	127.3	0.0	975.5
65.00		0.00	1.21	7.768	13.12	161.24	0.650	0.00	5.00	14.845	9.65	126.7	0.0	948.5
70.00		0.00	1.24	7.934	13.40	158.32	0.650	0.00	5.00	14.428	9.38	125.7	0.0	921.4
75.00		0.00	1.26	8.092	13.67	155.20	0.650	0.00	5.00	14.011	9.11	124.5	0.0	894.4
76.00	Appertunance(s)	0.00	1.26	8.123	13.72	154.56	0.650	0.00	1.00	2.752	1.79	24.6	0.0	175.6
80.00		0.00	1.28	8.242	13.93	151.91	0.650	0.00	4.00	10.842	7.05	98.2	0.0	691.8
85.00		0.00	1.31	8.387	14.17	148.46	0.650	0.00	5.00	13.178	8.57	121.4	0.0	840.4
87.00	Appertunance(s)	0.00	1.31	8.442	14.26	147.04	0.650	0.00	2.00	5.154	3.35	47.8	0.0	328.6
90.00		0.00	1.33	8.525	14.40	144.87	0.650	0.00	3.00	7.607	4.94	71.2	0.0	484.8
93.50	Bot - Section 3	0.00	1.34	8.618	14.56	142.28	0.650	0.00	3.50	8.685	5.65	82.2	0.0	553.3
95.00		0.00	1.35	8.657	14.63	141.15	0.650	0.00	1.50	3.706	2.41	35.2	0.0	322.6
97.25	Top - Section 2	0.00	1.36	8.715	14.72	139.43	0.650	0.00	2.25	5.489	3.57	52.6	0.0	477.6
100.0	Appertunance(s)	0.00	1.37	8.785	14.84	139.13	0.650	0.00	2.75	6.595	4.29	63.6	0.0	159.2
105.0		0.00	1.39	8.908	15.05	135.19	0.650	0.00	5.00	11.667	7.58	114.2	0.0	281.6
110.0		0.00	1.41	9.028	15.25	131.14	0.650	0.00	5.00	11.250	7.31	111.6	0.0	271.5
115.0		0.00	1.42	9.143	15.45	126.99	0.650	0.00	5.00	10.834	7.04	108.8	0.0	261.4
120.0	Appertunance(s)	0.00	1.44	9.255	15.64	122.76	0.650	0.00	5.00	10.417	6.77	105.9	0.0	251.2
125.0		0.00	1.46	9.363	15.82	118.43	0.650	0.00	5.00	10.000	6.50	102.9	0.0	241.1
130.0		0.00	1.48	9.469	16.00	114.03	0.650	0.00	5.00	9.584	6.23	99.7	0.0	231.0
131.0	Appertunance(s)	0.00	1.48	9.490	16.03	113.14	0.650	0.00	1.00	1.867	1.21	19.5	0.0	45.0
135.0		0.00	1.49	9.572	16.17	109.55	0.650	0.00	4.00	7.300	4.75	76.8	0.0	175.9
138.0	Appertunance(s)	0.00	1.50	9.632	16.27	106.83	0.650	0.00	3.00	5.300	3.45	56.1	0.0	127.7
140.0		0.00	1.51	9.672	16.34	105.00	0.650	0.00	2.00	3.450	2.24	36.7	0.0	83.1
							Totals:		140.00			3,328.9	0.0	22,952.4

Pole : 310968
Location : WSPT-Westport Rebuild CT, CT
Height : 140.0 (ft)
Shape : 18 Sides
Base Dia : 47.13 (in)
Top Dia : 20.50 (in)
Taper : 0.200036 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 22 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Discrete Appurtenance Segment Forces

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
76.00	RFS FD9L4502/2C-3L	6	8.123	13.727	0.50	1.11	0.000	0.000	15.24	0.00	0.00	15.60
76.00	Antel LPA-80080/6CF	2	8.123	13.727	1.00	18.20	0.000	0.000	249.83	0.00	0.00	42.00
76.00	Andrew DB844H80E-	4	8.123	13.727	0.88	13.13	0.000	0.000	180.23	0.00	0.00	40.00
76.00	Andrew 932DG65T2E-	3	8.123	13.727	0.76	7.96	0.000	0.000	109.23	0.00	0.00	28.50
76.00	Powerwave P65-16-	3	8.123	13.727	0.75	18.90	0.000	0.000	259.44	0.00	0.00	99.00
76.00	Flat Low Profile Pla	1	8.123	13.727	1.00	26.10	0.000	0.000	358.28	0.00	0.00	1,500.00
87.00	RFS ATMAA1412D-	3	8.442	14.268	0.50	1.75	0.000	0.000	25.04	0.00	0.00	39.00
87.00	Andrew	3	8.442	14.268	0.50	1.14	0.000	0.000	16.27	0.00	0.00	33.00
87.00	RFS APX16DWV-	3	8.442	14.268	0.67	13.47	0.000	0.000	192.14	0.00	0.00	118.80
87.00	Flat Low Profile Pla	1	8.442	14.268	1.00	26.10	0.000	0.000	372.39	0.00	0.00	1,500.00
100.0	Powerwave LGP21401	6	8.785	14.847	0.50	3.87	0.000	0.000	57.46	0.00	0.00	84.60
100.0	Powerwave 7770.00	6	8.785	14.847	0.75	26.46	0.000	0.000	392.85	0.00	0.00	210.00
100.0	Raycap DC6-48-60-18-	1	8.785	14.847	1.00	1.47	0.000	0.000	21.82	0.00	0.00	31.80
100.0	Powerwave P65-16-	3	8.785	14.847	0.78	19.66	0.000	0.000	291.83	0.00	0.00	159.00
100.0	Ericsson RRUS 11 (Ba	6	8.785	14.847	0.50	8.82	0.000	0.000	130.95	0.00	0.00	330.00
100.0	Powerwave LGP21901	6	8.785	14.847	0.50	0.69	0.000	0.000	10.24	0.00	0.00	33.00
100.0	Flat Low Profile Pla	1	8.785	14.847	1.00	26.10	0.000	0.000	387.50	0.00	0.00	1,500.00
120.0	Flat Low Profile Pla	1	9.255	15.641	1.00	26.10	0.000	0.000	408.22	0.00	0.00	1,500.00
120.0	48" x 8" Panel	12	9.255	15.641	0.91	40.73	0.000	0.000	637.07	0.00	0.00	168.00
131.0	Flat Low Profile Pla	1	9.490	16.038	1.00	26.10	0.000	0.000	418.58	0.00	0.00	1,500.00
131.0	Decibel 980F65E-M	12	9.490	16.038	0.81	36.45	0.000	0.000	584.57	0.00	0.00	114.00
138.0	8' Omni (inverted)	1	9.551	16.142	1.00	2.40	0.000	-4.000	38.74	0.00	-154.96	40.00
138.0	Andrew VHLP2.5-10W	1	9.632	16.278	1.00	8.43	0.000	0.000	137.22	0.00	0.00	47.60
138.0	Andrew DB589	1	9.755	16.485	1.00	1.38	0.000	6.250	22.75	0.00	142.19	11.50
138.0	Flat Platform w/ Han	1	9.632	16.278	1.00	42.40	0.000	0.000	690.18	0.00	0.00	2,000.00
138.0	6' Omni	7	9.632	16.278	1.00	12.32	0.000	0.000	200.53	0.00	0.00	175.00
138.0	8' Omni	2	9.632	16.278	1.00	4.80	0.000	0.000	78.13	0.00	0.00	80.00
138.0	8' Omni	2	9.711	16.411	1.00	4.80	0.000	4.000	78.77	0.00	315.10	80.00
138.0	6' FM Antenna	1	9.711	16.411	1.00	13.45	0.000	4.000	220.73	0.00	882.93	30.00
138.0	6' Dipole	1	9.632	16.278	1.00	4.00	0.000	0.000	65.11	0.00	0.00	30.00
									6,651.38			11,540.40

Pole : 310968
Location : WSPT-Westport Rebuild CT, CT
Height : 140.0 (ft)
Shape : 18 Sides
Base Dia : 47.13 (in)
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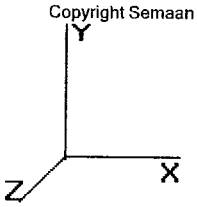
Taper : 0.200036 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 22 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

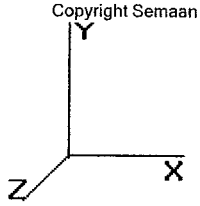
Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	136.59	1,517.45	0.00	0.00
10.00	133.66	1,490.45	0.00	0.00
15.00	130.73	1,463.44	0.00	0.00
20.00	127.80	1,436.44	0.00	0.00
25.00	124.88	1,409.43	0.00	0.00
30.00	121.95	1,382.43	0.00	0.00
35.00	121.03	1,355.42	0.00	0.00
40.00	122.64	1,328.42	0.00	0.00
45.00	123.64	1,301.41	0.00	0.00
46.25	30.65	321.13	0.00	0.00
50.00	95.25	1,722.84	0.00	0.00
51.00	25.23	454.29	0.00	0.00
55.00	101.77	1,017.36	0.00	0.00
60.00	127.28	1,247.40	0.00	0.00
65.00	126.67	1,220.40	0.00	0.00
70.00	125.75	1,193.39	0.00	0.00
75.00	124.55	1,166.39	0.00	0.00
76.00	1,196.81	1,955.14	0.00	0.00
80.00	98.17	869.98	0.00	0.00
85.00	121.40	1,063.18	0.00	0.00
87.00	653.64	2,108.51	0.00	0.00
90.00	71.23	588.94	0.00	0.00
93.50	82.22	674.81	0.00	0.00
95.00	35.25	374.65	0.00	0.00
97.25	52.55	555.71	0.00	0.00
100.0	1,356.30	2,603.05	0.00	0.00
105.0	114.17	400.51	0.00	0.00
110.0	111.57	390.39	0.00	0.00
115.0	108.81	380.26	0.00	0.00
120.0	1,151.20	2,038.13	0.00	0.00
125.0	102.86	322.21	0.00	0.00
130.0	99.68	312.08	0.00	0.00
131.0	1,022.61	1,675.20	0.00	0.00
135.0	76.76	201.39	0.00	0.00
138.0	1,588.26	2,640.89	0.00	1,185.25
140.0	36.65	83.08	0.00	0.00
Totals:	9,980.24	40,266.24	0.00	1,185.25

Pole : 310968
Location : WSPT-Westport Rebuild CT, CT
Height : 140.0 (ft)
Shape : 18 Sides
Base Dia : 47.13 (in)
Top Dia : 20.50 (in)
Taper : 0.200036 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

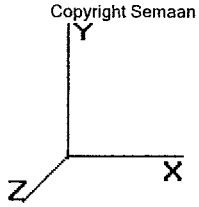


Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 22 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Calculated Shaft Forces and Deflections

Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-10.004	-40.260	0.000	0.000	0.000	-1,001.651	0.000	0.000	0.000	0.000
5.00	-9.913	-38.731	0.000	0.000	0.000	-951.633	-0.037	0.000	0.037	-0.068
10.00	-9.822	-37.229	0.000	0.000	0.000	-902.070	-0.145	0.000	0.145	-0.138
15.00	-9.731	-35.754	0.000	0.000	0.000	-852.962	-0.327	0.000	0.327	-0.208
20.00	-9.639	-34.306	0.000	0.000	0.000	-804.310	-0.582	0.000	0.582	-0.278
25.00	-9.548	-32.885	0.000	0.000	0.000	-756.115	-0.912	0.000	0.912	-0.350
30.00	-9.456	-31.492	0.000	0.000	0.000	-708.377	-1.317	0.000	1.317	-0.422
35.00	-9.363	-30.126	0.000	0.000	0.000	-661.096	-1.798	0.000	1.798	-0.494
40.00	-9.264	-28.787	0.000	0.000	0.000	-614.284	-2.355	0.000	2.355	-0.567
45.00	-9.149	-27.479	0.000	0.000	0.000	-567.964	-2.988	0.000	2.988	-0.640
46.25	-9.132	-27.153	0.000	0.000	0.000	-556.529	-3.158	0.000	3.158	-0.658
50.00	-9.031	-25.426	0.000	0.000	0.000	-522.285	-3.697	0.000	3.697	-0.713
51.00	-9.017	-24.966	0.000	0.000	0.000	-513.254	-3.848	0.000	3.848	-0.728
55.00	-8.927	-23.940	0.000	0.000	0.000	-477.188	-4.484	0.000	4.484	-0.787
60.00	-8.808	-22.685	0.000	0.000	0.000	-432.553	-5.343	0.000	5.343	-0.852
65.00	-8.686	-21.457	0.000	0.000	0.000	-388.514	-6.270	0.000	6.270	-0.917
70.00	-8.563	-20.257	0.000	0.000	0.000	-345.084	-7.264	0.000	7.264	-0.979
75.00	-8.429	-19.087	0.000	0.000	0.000	-302.272	-8.323	0.000	8.323	-1.040
76.00	-7.206	-17.151	0.000	0.000	0.000	-293.843	-8.542	0.000	8.542	-1.052
80.00	-7.106	-16.276	0.000	0.000	0.000	-265.020	-9.443	0.000	9.443	-1.098
85.00	-6.974	-15.211	0.000	0.000	0.000	-229.491	-10.624	0.000	10.624	-1.154
87.00	-6.284	-13.113	0.000	0.000	0.000	-215.543	-11.112	0.000	11.112	-1.176
90.00	-6.208	-12.522	0.000	0.000	0.000	-196.692	-11.861	0.000	11.861	-1.208
93.50	-6.116	-11.847	0.000	0.000	0.000	-174.966	-12.760	0.000	12.760	-1.243
95.00	-6.076	-11.471	0.000	0.000	0.000	-165.792	-13.153	0.000	13.153	-1.258
97.25	-6.016	-10.914	0.000	0.000	0.000	-152.120	-13.751	0.000	13.751	-1.280
100.0	-4.611	-8.337	0.000	0.000	0.000	-135.576	-14.495	0.000	14.495	-1.305
105.0	-4.501	-7.932	0.000	0.000	0.000	-112.521	-15.919	0.000	15.919	-1.408
110.0	-4.391	-7.537	0.000	0.000	0.000	-90.016	-17.445	0.000	17.445	-1.502
115.0	-4.282	-7.155	0.000	0.000	0.000	-68.060	-19.064	0.000	19.064	-1.584
120.0	-3.079	-5.147	0.000	0.000	0.000	-46.652	-20.761	0.000	20.761	-1.651
125.0	-2.970	-4.826	0.000	0.000	0.000	-31.259	-22.520	0.000	22.520	-1.702
130.0	-2.863	-4.516	0.000	0.000	0.000	-16.409	-24.324	0.000	24.324	-1.738
131.0	-1.790	-2.872	0.000	0.000	0.000	-13.547	-24.688	0.000	24.688	-1.743
135.0	-1.708	-2.673	0.000	0.000	0.000	-6.386	-26.155	0.000	26.155	-1.757
138.0	-0.039	-0.082	0.000	0.000	0.000	-0.078	-27.261	0.000	27.261	-1.762
140.0	-0.037	0.000	0.000	0.000	0.000	0.000	-27.999	0.000	27.999	-1.762



Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 22 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

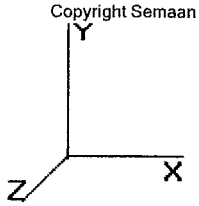
Calculated Stresses

Seg Elev (ft)	Applied Stresses Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)	Allowable Stress (Fb) (ksi)		Stress Ratio
0.00	0.54	0.27	0.00	0.00	0.00	14.15	14.70	52.0	0.0	0.283
5.00	0.53	0.28	0.00	0.00	0.00	14.04	14.58	52.0	0.0	0.281
10.00	0.53	0.28	0.00	0.00	0.00	13.92	14.45	52.0	0.0	0.278
15.00	0.52	0.28	0.00	0.00	0.00	13.77	14.30	52.0	0.0	0.275
20.00	0.51	0.29	0.00	0.00	0.00	13.61	14.12	52.0	0.0	0.272
25.00	0.50	0.29	0.00	0.00	0.00	13.42	13.92	52.0	0.0	0.268
30.00	0.49	0.30	0.00	0.00	0.00	13.20	13.70	52.0	0.0	0.264
35.00	0.48	0.30	0.00	0.00	0.00	12.95	13.44	52.0	0.0	0.259
40.00	0.47	0.30	0.00	0.00	0.00	12.67	13.15	52.0	0.0	0.253
45.00	0.46	0.31	0.00	0.00	0.00	12.35	12.82	52.0	0.0	0.247
46.25	0.46	0.31	0.00	0.00	0.00	12.27	12.74	52.0	0.0	0.245
50.00	0.44	0.31	0.00	0.00	0.00	11.99	12.44	52.0	0.0	0.239
51.00	0.42	0.31	0.00	0.00	0.00	11.28	11.71	52.0	0.0	0.225
55.00	0.41	0.31	0.00	0.00	0.00	10.96	11.38	52.0	0.0	0.219
60.00	0.40	0.31	0.00	0.00	0.00	10.50	10.91	52.0	0.0	0.210
65.00	0.39	0.32	0.00	0.00	0.00	9.99	10.39	52.0	0.0	0.200
70.00	0.38	0.32	0.00	0.00	0.00	9.41	9.81	52.0	0.0	0.189
75.00	0.37	0.33	0.00	0.00	0.00	8.76	9.15	52.0	0.0	0.176
76.00	0.33	0.28	0.00	0.00	0.00	8.62	8.97	52.0	0.0	0.173
80.00	0.32	0.29	0.00	0.00	0.00	8.18	8.52	52.0	0.0	0.164
85.00	0.31	0.29	0.00	0.00	0.00	7.56	7.88	52.0	0.0	0.152
87.00	0.27	0.26	0.00	0.00	0.00	7.29	7.57	52.0	0.0	0.146
90.00	0.27	0.27	0.00	0.00	0.00	6.92	7.21	52.0	0.0	0.139
93.50	0.26	0.27	0.00	0.00	0.00	6.46	6.74	52.0	0.0	0.130
95.00	0.25	0.27	0.00	0.00	0.00	6.26	6.52	52.0	0.0	0.126
97.25	0.64	0.71	0.00	0.00	0.00	14.89	15.57	51.3	0.0	0.303
100.00	0.49	0.55	0.00	0.00	0.00	13.79	14.32	51.8	0.0	0.277
105.00	0.49	0.56	0.00	0.00	0.00	12.31	12.83	52.0	0.0	0.247
110.00	0.48	0.57	0.00	0.00	0.00	10.61	11.13	52.0	0.0	0.214
115.00	0.47	0.57	0.00	0.00	0.00	8.67	9.20	52.0	0.0	0.177
120.00	0.36	0.43	0.00	0.00	0.00	6.44	6.84	52.0	0.0	0.132
125.00	0.35	0.43	0.00	0.00	0.00	4.70	5.10	52.0	0.0	0.098
130.00	0.34	0.43	0.00	0.00	0.00	2.69	3.13	52.0	0.0	0.060
131.00	0.22	0.27	0.00	0.00	0.00	2.26	2.53	52.0	0.0	0.049
135.00	0.21	0.27	0.00	0.00	0.00	1.15	1.44	52.0	0.0	0.028
138.00	0.01	0.01	0.00	0.00	0.00	0.01	0.02	52.0	0.0	0.000
140.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	52.0	0.0	0.000

Pole : 310968
Location : WSPT-Westport Rebuild CT, CT
Height : 140.0 (ft)
Shape : 18 Sides
Base Dia : 47.13 (in)
Top Dia : 20.50 (in)
Taper : 0.200036 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Analysis Summary

Load Case	Reactions Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Max Stresses Combined Stress (ksi)	Allowable Stress (ksi)	Elev (ft)	Stress Ratio
No Ice	32.4	0.00	40.20	0.00	0.00	3241.74	48.81	51.3	97.25	0.951
Ice	27.2	0.00	46.59	0.00	0.00	2785.17	43.27	51.3	97.25	0.843
Twist/Sway	10.0	0.00	40.26	0.00	0.00	1001.65	15.57	51.3	97.25	0.303

Base/Flange Plate	Plate Type	***Baseplate***	
	Pole Diameter	47.13	in
	Pole Thickness	0.5	in
	Plate Length	54	in
	Plate Thickness	3.25	in
	Plate Fy	50	ksi
	Weld Length	0.25	in
	ϕ_s Resistance	2529.50	k-in
	Applied	1313.13	k-in
Stiffeners	#	***0***	

Bolts	#	***16***	
	Bolt Circle	54	in
	(R)adial / (S)quare	S	
	Bolt Gap	6	in
	Diameter	2.25	in
	Hole Diameter	2.75	in
	Type	#18J	
	Fy	75	ksi
	Fu	100	ksi
	ϕ_s Resistance	194.86	k
	Applied	181.37	k
Reinforcement ●	#	***0***	
Extra Bolts O	#	***0***	

Code Rev.	*F*
A.S.I.	1.33
Moment	3241.7 k-ft
Axial	40.2 k

Date	4/26/2011
Engineer	CM
Site #	310968
Carrier	AT&T Mobility

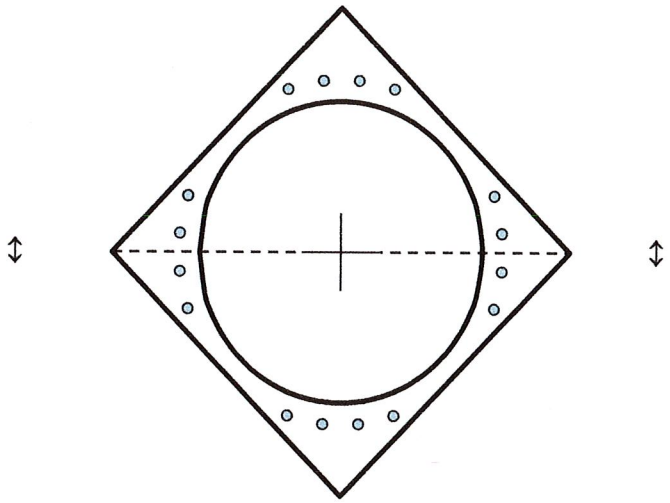
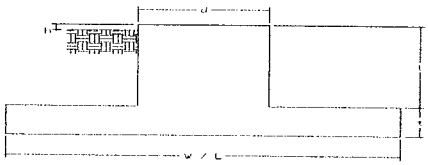


Plate Stress Ratio:
0.52 (Pass)

Bolt Stress Ratio:
0.93 (Pass)

Site Name:	WSPT-Westport Rebuild CT, CT
Site Number:	310968
Engineering Number:	47120622
Engineer:	C. Minor
Date:	04/26/11
Tower Type:	MP

Program Last Updated: 8/30/2010



Design Loads (Unfactored)

Foundation Mapped:	N	Concrete Strength (f'_c):	3000 psi
Compression/Leg:	40.2 k	Pad Tension Steel Depth:	44.00 in
Uplift/Leg:	0.0 k	Wind Load Factor:	1.3
Total Shear:	32.4 k	ϕ_{Shear}:	0.75
Moment:	3241.7 k-ft	$\phi_{Flexure\ /\ Tension}$:	0.90
Tower + Appurtenance Weight:	45.6 k	$\phi_{Compression:}$	0.65
Depth to Base of Foundation:	7.00 ft	β:	0.85
Diameter of Pier (d):	6.77 ft	Bottom Pad Rebar Size #:	9
Height of Pier above Ground (h):	0.50	# of Bottom Pad Rebar:	25
Width of Pad (W):	23.00 ft	Pad Bottom Steel Area:	25.00 in^2
Length of Pad (L):	23.00 ft	Pad Steel F_y:	60000 psi
Thickness of Pad (t):	4.00 ft	Top Pad Rebar Size #:	9
Tower Leg Center to Center:	0.00 ft	# of Top Pad Rebar:	25
Number of Tower Legs:	1.0 (1 if MP or GT)	Pad Top Steel Area:	25.00 in^2
Tower Center from Mat Center:	0.00 ft	Pier Rebar Size #:	11
Depth Below Ground Surface to Water Table:	100.00 ft	Pier Steel Area (Single Bar):	1.56 in^2
Unit Weight of Concrete:	150.0 pcf	# of Pier Rebar:	40
Unit Weight of Soil Above Water Table:	115.0 pcf	Pier Steel F_y:	60000 psi
Unit Weight of Water:	62.4 pcf	Pier Cage Diameter:	73.2 in
Unit Weight of Soil Below Water Table:	65.0 pcf	Rebar Strain Limit:	0.008
Friction Angle of Uplift:	31.00 Degrees	Steel Elastic Modulus:	29000 ksi
Ultimate Coefficient of Shear Friction:	0.34	Tie Rebar Size #:	4
Allowable Compressive Bearing Pressure:	10000.0 psf	Tie Steel Area (Single Bar):	0.20 in^2
Ultimate Passive Pressure on Pad Face:	10500.0 psf	Tie Spacing:	6 in
Allowable Capacity Increase:	1.00	Tie Steel F_y:	60000 psi

Overturning Factor of Safety

Design OTM:	3484.7	k-ft
OTM Resistance:	8689.9	k-ft
OTM Resistance / Design OTM Factor of Safety:	2.49	Result: OK

Soil Bearing Pressure Usage:

Total Weight (Foundation, Soil, Tower):	552.0	k
Net Bearing Pressure:	3212	psf
Allowable Bearing Pressure:	10000	psf
Net Bearing Pressure/Allowable Bearing Pressure:	0.32	Result: OK
Load Direction Controling Design Bearing Pressure:	Diagonal to Pad Edge	

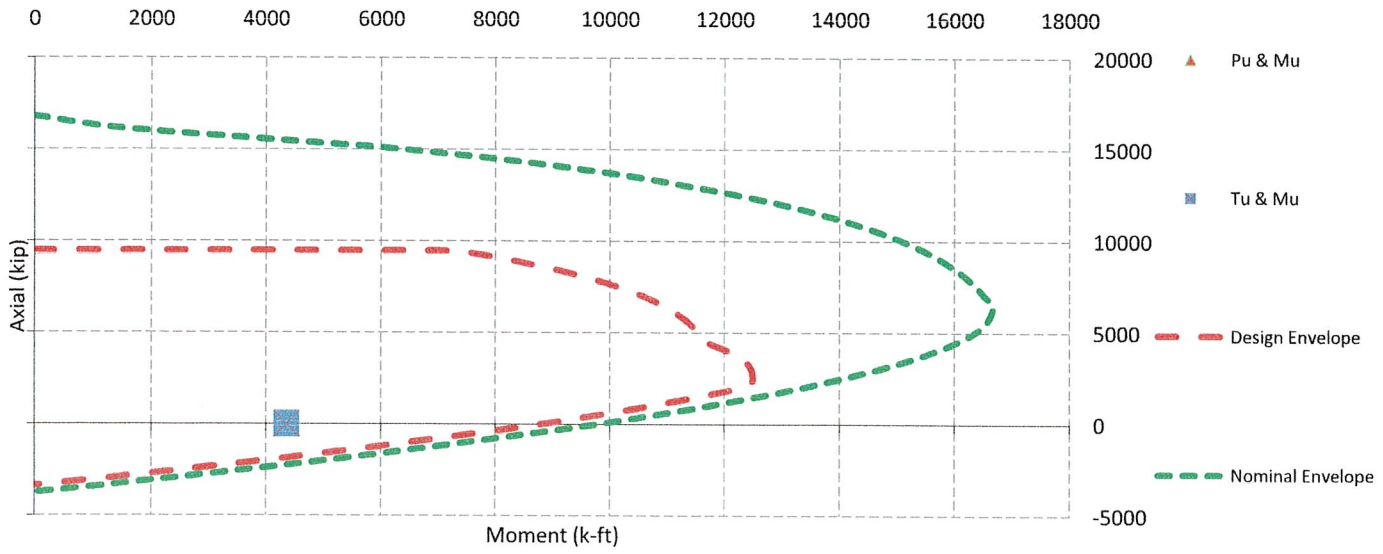
Sliding Factor of Safety

Total Ultimate Sliding Resistance:	1153.7	k
Sliding Resistance/Sliding Design Factor of Safety:	35.61	Result: OK

One Way Shear, Flexual Capacity, and Punching Shear

Factored One Way Shear (V_u):	221.1	k
One Way Shear Capacity (ϕV_c):	799.2	k - ACI11.3.1.1
$V_u / \phi V_c$:	0.28	Result: OK
Load Direction Controling Shear Capacity:	Diagonal to Pad Edge	
Lower Pad Steel Factored Moment (M_u):	1680.5	k-ft
Lower Steel Pad Moment Capacity (ϕM_n):	4848.1	k-ft - ACI10.3
$M_u / \phi M_n$:	0.35	Result: OK
Load Direction Controling Flexural Capacity:	Parallel to Pad Edge	
Upper Steel Pad Factored Moment (M_u):	1107.0	k-ft
Upper Steel Pad Moment Capacity (ϕM_n):	4848.1	k-ft
$M_u / \phi M_n$:	0.23	Result: OK
Lower Pad Flexural Reinforcement Ratio:	0.0021	OK - Minimum Reinforcement Ratio Met - ACI10.5.1
Upper Pad Flexural Reinforcement Ratio:	0.0021	OK - Minimum Reinforcement Ratio Met - ACI10.5.1
Lower Pad Reinforcement Spacing:	11	in - Pad Reinforcing Spacing OK - ACI7.12.2.2 & 10.5.4
Upper Pad Reinforcement Spacing:	11	in - Pad Reinforcing Spacing OK - ACI7.12.2.2 & 10.5.4
Factored Punching Shear (V_u):	0.0	k
Nominal Punching Shear Capacity ($\phi_c V_n$):	2844.6	k - ACI11.12.2.1
$V_u / \phi V_c$:	0.00	Result: OK
Factored Moment in Pier (M_u):	4361.7	k-ft
Pier Moment Capacity (ϕM_n):	10058.4	k-ft
$M_u / \phi M_n$:	0.43	Result: OK
Factored Shear in Pier (V_u):	42.1	k
Pier Shear Capacity (ϕV_n):	427.5	k
$V_u / \phi V_c$:	0.10	Result: OK
Pier Shear Reinforcement Ratio:	0.0004	No Ties Necessary for Shear - ACI11.5.6.1
Factored Tension in Pier (T_u):	0.0	k
Pier Tension Capacity (ϕT_n):	3369.6	k
$T_u / \phi T_n$:	0.00	Result: OK
Factored Compression in Pier (P_u):	52.3	k
Pier Compression Capacity (ϕP_n):	8737.6	k - ACI10.3.6.2
$P_u / \phi P_n$:	0.01	Result: OK
Pier Compression Reinforcement Ratio:	0.012	OK - Reinforcement Ratio Met - ACI10.9.1 & 10.8.4
$M_u/\phi_B M_n + T_u/\phi_T T_n$:	0.43	Result: OK

Nominal and Design Moment Capacity and Factored Design Loads



P65-16-XLH-RR ⋮ Dual Broadband Antennas

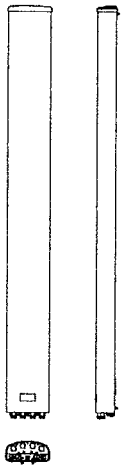
POLARIZATION: Dual linear ±45°
FREQUENCY (MHz): 698-894, 1710-2170
HORIZONTAL BEAM WIDTH (°): 65, 65
GAIN (dBi/dBd): 15.5/13.4 17.5/15.4
TILT: 1-12, 0-8
LENGTH: 72"

ELECTRICAL SPECIFICATIONS*

Frequency range (MHz)	698-894		1710-2170		
Frequency band (MHz)	698-806	806-894	1710-1880	1850-1990	1900-2170
Gain (dBi/dBd)	14.8/12.7	15.5/13.4	16.9/14.8	17.2/15.1	17.5/15.4
Polarization	Dual Linear +/- 45			Dual Linear +/- 45	
Nominal Impedance (Ω)	50			50	
VSWR	< 1.5:1			< 1.5:1	
Horizontal beam width, -3 dB (°)	66	65	60	63	63
Vertical beam width, -3 dB (°)	14.7	12.5	6.8	6.4	5.7
Electrical down tilt (°)	1 to 12			0 to 8	
Side lobe suppression, vertical 1st upper (dB)	> 16	>16	> 16		
	>16	>16			
Isolation between inputs (dB)	> 30	> 30	> 30	> 30	
Inter band Isolation (dB)	> 40			> 40	
Tracking, horizontal plane ±60° (dB)	< 2		< 2	< 2	< 2
First null fill (dB)			>-20	>-20	>-20
Vertical beam squint (°)	< 0.8	< 0.8	< 0.5	< 0.5	< 0.5
Front to back ratio (dB) 180°±30° copolar	>24	>24	> 30	>30	>28
Front to back ratio (dB) 180°±30° total power					
Cross polar discrimination (XPD) 0° (dB)	> 15	> 15	> 15	> 15	> 15
Cross polar discrimination (XPD) ±60° (dB)	> 10	> 10	> 10	> 10	> 10
Far field coupling					
IM3, 2xTx@43dBm (dBc)	<-153			<-153	
IM7, 2xTx@43dBm (dBc)					
Power handling, average per input (W)	500			250	
Power handling, average total (W)	1000			500	

MECHANICAL SPECIFICATIONS*

Connector	4 X 7/16 DIN Female, IP67
Connector position	Bottom
Dimensions, HxWxD, mm (ft)	72" x 12" x 6" (1829 x 305 x 152)
Mounting	Pre-mounted Tilt Brackets
Weight, with brackets, kg (lbs)	29 (64)
Weight, without brackets, kg (lbs)	24 (53)
Wind load, frontal/lateral/rear side 42 m/s Cd=1.6 (N)	1380
Maximum operational wind speed, m/s (mph)	100 (45)
Survival wind speed, m/s (mph)	150 (67)
Lightning protection	DC Ground
Operating Temperature	-40C to +60C
Radome material	PVC, IP55
Packet size, HxWxD, mm (ft)	87" x 16" x 10" (2225 x 400 x 225)
Radome colour	Light Grey
Shipping weight, kg (lbs)	34 (75)
RET	iRET AISGv1.1, MET and AISGv2.0
Brackets	7256.00, 7454.00A



*All specifications subject to change without notice. Please contact your Powerwave representative for complete performance data.

ANTENNA PATTERNS*

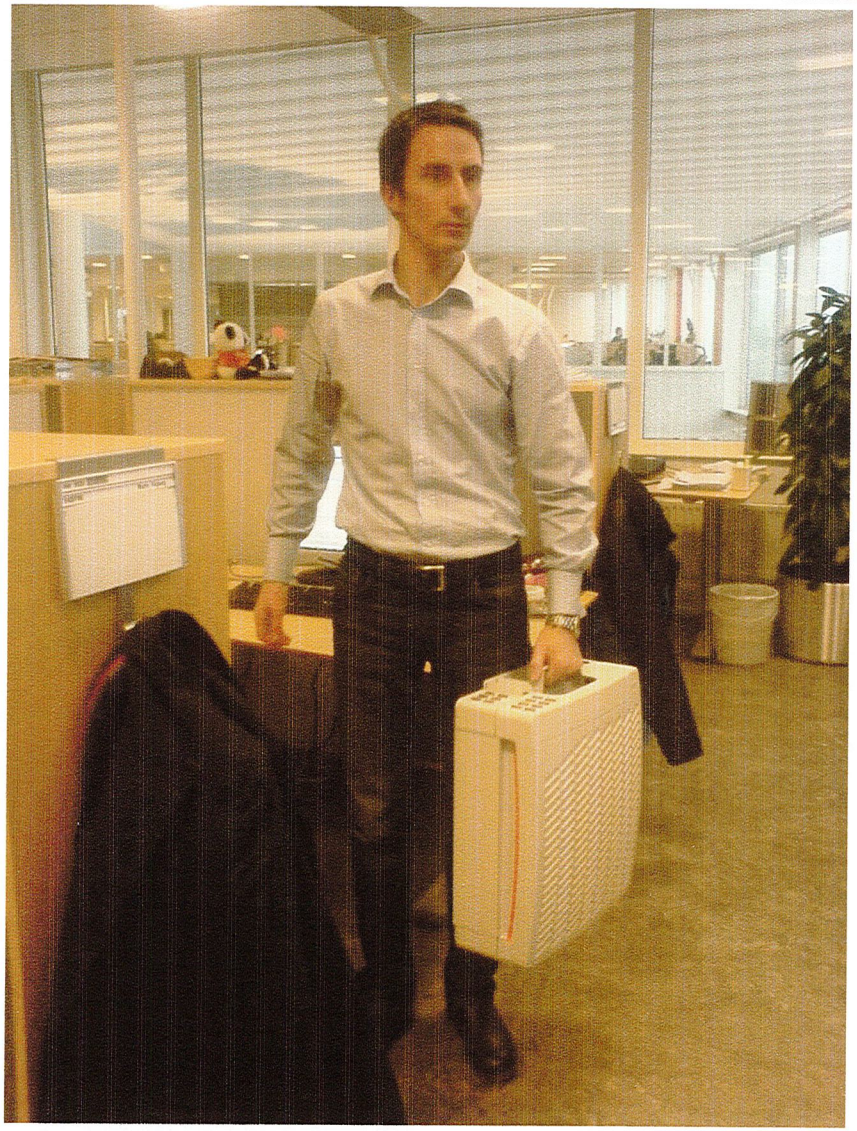
For detailed patterns visit http://www.powerwave.com/rpa/.

RRUS 11 – Dual PA RRU.

Technical Data

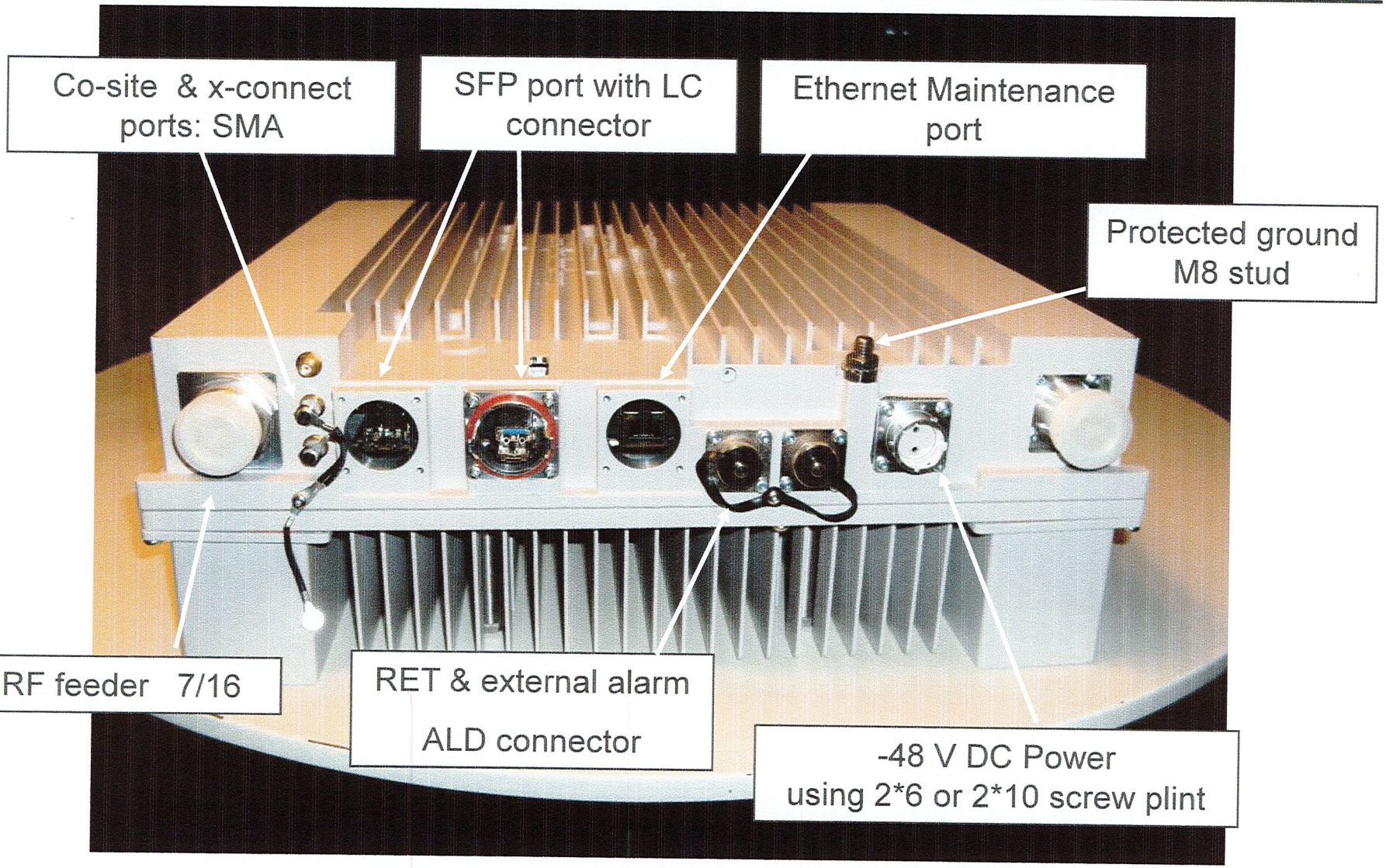
RBS6000

- Multi standard
- RF: 2x30 Watts
- Carrier BW: 1.4 – 20 MHz
- Alarms: 2
- Dimensions (with sunshield):
  - Width: 17.0 in
  - Height: 17.8 in
  - Depth: 7.2 in
  - Weight: 55 lbs (Band 12)
  - Weight: 50 lbs (Band 4)
- Temperature: -40 to +131 F
- Cooling: Self convection
- Power: -48 VDC
- Rec. fuse size 20 Amp
  - Rec. DC cable:
    - 6 mm^2 up to 60 meters
    - 10 mm^2 over 60 meters
    - Shielded
- Power Cons: 200 Watts typ.



RRUS-11 I/F

RBS6000



POWER

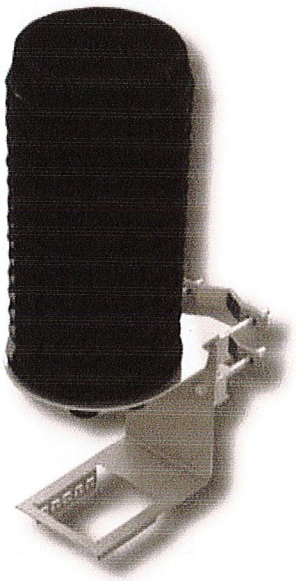
DC6-48-60-18-8F

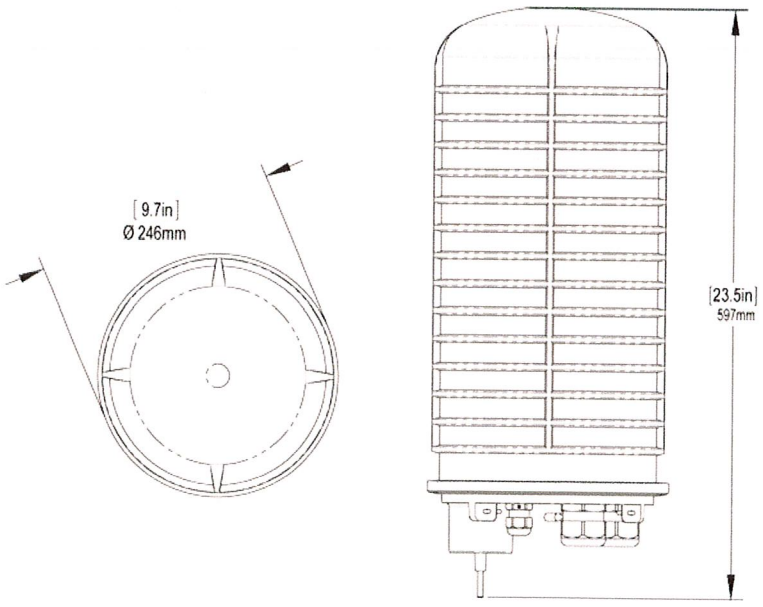
DC Surge Suppression Solution

The DC6-48-60-18 is a dual chambered, DC surge suppression system for use in multi-circuit, Distributed Antenna Systems. The system will protect up to 6 Remote Radio Heads from voltage surges and lightning, and connect up to 18 fiber pairs. The system is enclosed in a NEMA 4 rated, waterproof enclosure.

FEATURES

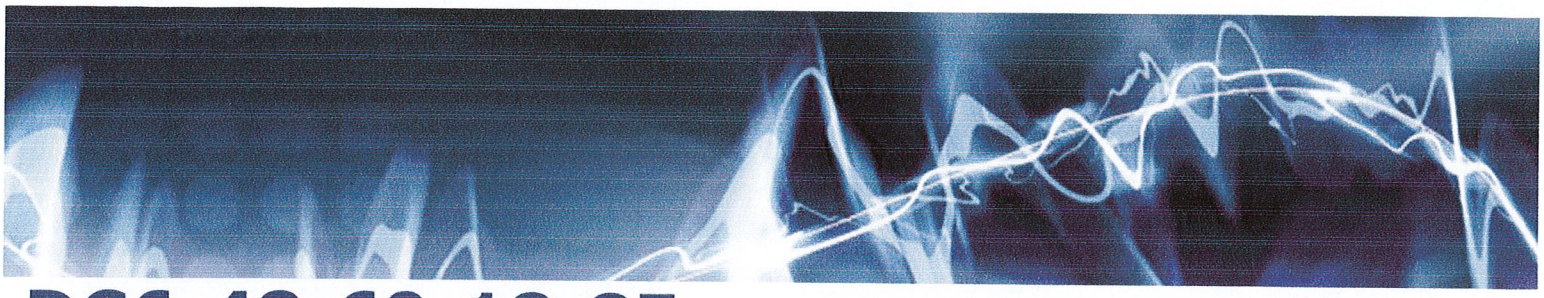
- Protects up to 6 Remote Radio Heads, each with its own protection circuit.
- Flexible design allows for installation at the top of a tower for Remote Radio Head protection.
- Includes fiber connections for up to 18 pairs of fiber.
- LED indicators on individual circuits provide visual indication of suppressor status.
- Form 'C' relays allow for remote monitoring of the suppressor status.
- Patented Strikesorb technology provides over 60 kA of surge current capacity per circuit.
- Strikesorb suppression modules are fully recognized to UL 1449-3rd Edition Safety Standard, meeting all intermediate and high current fault requirements to facilitate use in OEM applications.
- Raycap recommends that DC protection system be installed within 2 meters or 6 feet of the radio.
- Dome design is lightweight and aerodynamic providing maximum flexibility for installation on top of towers.





Raycap

Phone 208.777.1166 Toll Free 800.890.2569 Fax 208.777.4466 www.raycapsurgeprotection.com



DC6-48-60-18-8F

DC Power Surge Protection

Electrical Specifications	
Model Number	DC6-48-60-18-8F
Nominal Operating Voltage	48 VDC
Nominal Discharge Current (I_n)	20 kA 8/20 µs
Maximum Discharge Current (I_{max}) per NEMA LS-1	60 kA 8/20 µs
Maximum Continuous Operating Voltage (U_c)	75 VDC
Voltage Protection Rating	400 V

Mechanical Specifications	
Suppression Connection Method	Compression lug, #2-#14 AWG Copper, #2-#12 Aluminum
Fiber Connection Method	LC-LC Single mode duplex
Environmental Rating	IP 68, 7m 72hrs
Operating Temperature	-40° C to + 80° C
Storage Temperature	-70° C to + 80° C
Cold Temperature Cycling	IEC 61300-2-22e -30° C to + 60° C 200 hrs @ 5 psi
Resistance to Aggressive Materials	CEI IEC 61073-2 including acids and bases
UV Protection	ISO 4892-2 Method A Xenon-Arc 2160 hrs
Weight	20 lbs without Mounting Bracket

STANDARDS

Strikesorb modules are compliant to the following Surge Protection Device (SPD) Standards:

- ANSI/UL 1449 – 3rd Edition
- IEEE C62.41
- NEMA LS-1, IEC 61643-1:2005 2nd Edition:2005
- IEC 61643-12
- EN 61643-11:2002 (including A11:2007)

GS-07F-0435V

Certified to ISO 9001:2000

TÜV Rheinland of North America

Raycap

G02-00-068 REV 050610

Raycap, Inc. 806 W. Clearwater Loop • Post Falls • Idaho • 83854 • USA
Phone 208.777.1166 • Toll Free 800.890.2569 • Fax 208.777.4466 • www.raycapsurgeprotection.com

New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 463-5511
Fax: (860) 513-7190

Douglas L. Culp
Real Estate Consultant

May 23, 2011

Honorable Gordon F. Joseloff
1st Selectman, Town of Westport
Westport Town Hall
110 Myrtle Ave., Room 310
Westport, CT 06880

Re: Telecommunications Facility – 180 A Bayberry Lane Westport, CT

Dear Selectman Joseloff:

In order to accommodate technological changes, implement Uniform Mobile Telecommunications System ("UMTS") and Long Term Evolution ("LTE") capabilities, 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 Cingular'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) 463-5511 or Ms. Linda Roberts, Executive Director, Connecticut Siting Council at (860) 827-2935.

Sincerely,

Douglas L. Culp
Real Estate Consultant

Enclosure