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Jennifer Notaro
Real Estate Consultant

June, 6 2014

Hand Delivered

Ms. Melanie A. Bachman
Acting Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

CC sent to Property Owner
Michael J. Coleman
219 Rogers Rd.
Norwich, CT 6360

RE: T-Mobile Northeast LLC notice of intent to modify an existing telecommunications facility located at 225 Rogers Road, Norwich, CT 026360. Known to T-Mobile Northeast LLC as site CT11148B.

Dear Ms. Bachman:

In order to accommodate technological changes, implement Global System for Mobile Communications Access (“GSM”) and/or Long Term Evolution (“LTE”) capabilities, and enhance system performance in the state of Connecticut, T-Mobile Northeast LLC 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 its attachments is being sent to the chief elected official of the municipality in which affected cell site is located.

GSM employs Spread-Spectrum technology and special coding scheme to allow multiple users to be multiplexed over the same physical channel. 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.

As part of the project the new multi-mode 800/1900 antenna will replace existing antennas. These antennas will provide more flexibility for optimization by allowing fast and easy electrical tilt adjustment from remote location and will enable the transmission of multiple technologies from a single antenna. As T-Mobile Northeast LLC network evolves to meet the demands of its customers, it is essential for T-Mobile Northeast LLC to install modern equipment and antennas in order to provide reliable wireless voice and data services. The proposed equipment will include multi-mode radios that will allow T-Mobile Northeast LLC to transmit at different frequencies using different technologies,

including LTE technology. Likewise, the proposed antennas are quad-pole multi-band high gain antennas that will allow T-Mobile Northeast LLC to operate using its multiple frequency bands and technologies, including LTE technology. The proposed equipment and antennas will improve the reliability, coverage and capacity of T-Mobile Northeast LLC voice and data networks across T-Mobile Northeast LLC various FCC licensed frequency bands and significantly increase the data speeds of T-Mobile Northeast LLC 's network by utilizing the latest LTE technology. Without the proposed modifications T-Mobile Northeast LLC will be unable to provide reliable wireless voice and data service using the latest technologies.

T-Mobile Northeast LLC will have an interim (testing) period during the modification/installation prior to the final configuration. This antenna configuration is shown on the attached drawings of the planned modifications. Also included is the power density calculation reflecting the change in T-Mobile Northeast LLC operations at the site and documentation of the structural sufficiency of the tower to accommodate the revised antenna configuration.

The changes to the facility do not constitute modification as defined 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 the R.C.S.A. Section 16-50j-72(b)(2).

1. The height of the overall structure will not be affected.
2. The proposed changes will not extend the site boundaries. There will be no effect on the site compound.
3. The proposed changes will not increase the noise level at the existing facility by 6 decibels or more.
4. Radio Frequency power density may increase due to the use of one or more GSM 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 T-Mobile Northeast LLC 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 (845) 499-4712 or email jnotaro@transcendwireless.com with questions concerning this matter. Thank you for your consideration.

Sincerely,

Jennifer Notaro
(845) 499-4712

RADIO FREQUENCY EMISSIONS ANALYSIS REPORT
EVALUATION OF HUMAN EXPOSURE POTENTIAL
TO NON-IONIZING EMISSIONS

T-Mobile Existing Facility

Site ID: CT11148B
Norwich/I395 X80_1

225 Rogers Road
Norwich, CT 06360

May 27, 2014

EBI Project Number: 62143191

May 27, 2014

T-Mobile USA
Attn: Jason Overbey, RF Manager
35 Griffin Road South
Bloomfield, CT 06002

Re: Emissions Values for Site: **CT11148B – Norwich_I-395 X80_1**

EBI Consulting was directed to analyze the proposed T-Mobile facility located at 225 Rogers Road, Norwich, CT, for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The number of $\mu\text{W}/\text{cm}^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) – (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limit for the cellular band is $567 \mu\text{W}/\text{cm}^2$, and the general population exposure limit for the PCS and AWS bands is $1000 \mu\text{W}/\text{cm}^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed T-Mobile Wireless antenna facility located at 225 Rogers Road, Norwich, CT, Norwich, CT using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, the actual antenna pattern gain value in the direction of the sample area was used. For this report the sample point is a 6 foot person standing at the base of the tower.

For all calculations, all equipment was calculated using the following assumptions:

- 1) 2 GSM / UMTS channels (1935.000 MHz to 1945.000 MHz / 1983.000 MHz to 1984.000 MHz) were considered for each sector of the proposed installation.
- 2) 4 UMTS / LTE channels (2110.000 to 2120.000 MHz / 2140.000 MHz to 2145.000 MHz) were considered for each sector of the proposed installation.
- 3) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
- 4) For the following calculations the sample point was the top of a six foot person standing at the base of the tower. The actual gain in this direction was used per the manufactures supplied specifications.
- 5) The antenna used in this modeling is the Ericsson AIR21 for LTE, UMTS and GSM. This is based on feedback from the carrier with regards to anticipated antenna selection. This antenna has a 15.6 dBd gain value at its main lobe. Actual antenna gain values were used for all calculations as per the manufacturers specifications.

- 6) The antenna mounting height centerline of the proposed antennas is **140 feet** above ground level (AGL).
- 7) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

All calculations were done with respect to uncontrolled / general public threshold limits.

Site ID	CT11148B - Norwich/I395 X80_1
Site Address	225 Rogers Road, Norwich CT 06360
Site Type	Monopole

Sector 1

Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBD)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
1a	Ericsson	AIR21 B4A/B2P	Active	AWS - 2100 MHz	LTE	60	2	120	-3.95	140	134	None	0	0	48.326044	0.967559	0.09676%
1b	Ericsson	AIR21 B4A/B2P	Not Used	-	-	-	-	0	-3.95	140	134	None	0	0	0	0	0.00000%
2a	Ericsson	AIR21 B2A / B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.95	140	134	1-5/8"	0	0	24.163022	0.48378	0.04838%
2B	Ericsson	AIR21 B2A / B4P	Passive	AWS - 2100 MHz	UMTS	30	2	60	-3.95	140	134	1-5/8"	0	0	24.163022	0.48378	0.04838%

Sector total Power Density Value: 0.194%

Sector 2

Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBD)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
1a	Ericsson	AIR21 B4A/B2P	Active	AWS - 2100 MHz	LTE	60	2	120	-3.95	140	134	None	0	0	48.326044	0.967559	0.09676%
1b	Ericsson	AIR21 B4A/B2P	Not Used	-	-	-	-	0	-3.95	140	134	None	0	0	0	0	0.00000%
2a	Ericsson	AIR21 B2A / B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.95	140	134	1-5/8"	0	0	24.163022	0.48378	0.04838%
2b	Ericsson	AIR21 B2A / B4P	Passive	AWS - 2100 MHz	UMTS	30	2	60	-3.95	140	134	1-5/8"	0	0	24.163022	0.48378	0.04838%

Sector total Power Density Value: 0.194%

Sector 3

Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBD)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
1a	Ericsson	AIR21 B4A/B2P	Active	AWS - 2100 MHz	LTE	60	2	120	-3.95	140	134	None	0	0	48.326044	0.967559	0.09676%
1b	Ericsson	AIR21 B4A/B2P	Not Used	-	-	-	-	0	-3.95	140	134	None	0	0	0	0	0.00000%
2a	Ericsson	AIR21 B2A / B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.95	140	134	1-5/8"	0	0	24.163022	0.48378	0.04838%
2b	Ericsson	AIR21 B2A / B4P	Passive	AWS - 2100 MHz	UMTS	30	2	60	-3.95	140	134	1-5/8"	0	0	24.163022	0.48378	0.04838%

Sector total Power Density Value: 0.194%

Site Composite MPE %	
Carrier	MPE %
T-Mobile	0.581%
AT&T	13.750%
Paging	2.220%
Nextwave	0.053%
Total Site MPE %	16.604%

Summary

All calculations performed for this analysis yielded results that were well within the allowable limits for general public exposure to RF Emissions.

The anticipated Maximum Composite contributions from the T-Mobile facility are **0.581% (0.194% from each sector)** of the allowable FCC established general public limit considering all three sectors simultaneously sampled at the ground level.

The anticipated composite MPE value for this site assuming all carriers present is **16.604%** of the allowable FCC established general public limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were well within the allowable 100% threshold standard per the federal government.



Scott Heffernan
RF Engineering Director

EBI Consulting
21 B Street
Burlington, MA 01803



AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure : 150 ft Monopole
ATC Site Name : Nrwc - Norwich, CT
ATC Site Number : 302493
Engineering Number : 58043924
Proposed Carrier : T-Mobile
Carrier Site Name : Nrwc - Norwich
Carrier Site Number : CT11148B
Site Location : 225 Rogers Road
Norwich, CT 06360-4036
41.533667,-72.135000
County : New London
Date : May 16, 2014
Max Usage : 99%
Result : Pass

Eric Bosko, E.I.



May 16 2014 1:36 PM



Table of Contents

Introduction	1
Supporting Documents	1
Analysis	1
Conclusion.....	1
Existing and Reserved Equipment.....	2
Equipment to be Removed.....	2
Proposed Equipment	2
Structure Usages	3
Foundations	3
Deflection, Twist, and Sway.....	3
Standard Conditions	4
Calculations	Attached



Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 150 ft monopole to reflect the change in loading by T-Mobile.

Supporting Documents

Tower Drawings	ITT Meyer Identification #AT-8935
Foundation Drawing	SNET Job #3C159, dated November, 1998
Geotechnical Report	GeoTechnologies Project #1-02-0846-EA, dated June 24, 2002
Modifications	ATC Project #50405532, dated December 18, 2012

Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	110 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 3/4" radial ice concurrent
Code:	ANSI/TIA-222-G / 2003 IBC w/ 2005 CT Supplement & 2009 CT Amendment
Structure Class:	II
Exposure Category:	B
Topographic Category:	1

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.



Existing and Reserved Equipment

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
150.0	158.0	1	11' Omni	Platform w/ Handrails & Side Arms	(1) 1 5/8" Coax	Unknown
	154.0	6	Powerwave LGP 21902		(12) 1 1/4" Coax (2) 0.65" 8 AWG 2C (1) 1.3" Hybrid (Type 1)	AT&T Mobility
		6	Powerwave LGP 21401			
		1	Raycap DC6-48-60-18-8F			
		6	Ericsson RRUS-11 800MHz			
		6	Powerwave 7770.00			
		1	KMW AM-X-CD-16-65-00T-RET			
		2	Andrew SBNH-1D6565C			

Equipment to be Removed

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
167.0	167.0	6	CCI DTMA-1819-DD-12	-	(6) 1 5/8" Coax	T-Mobile
163.0		3	72" x 16" Panel		-	

Proposed Equipment

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
140.0	140.0	3	Ericsson KRY 112 144/1	T-Arms	(12) 1 5/8" Coax (1) 1 5/8" Hybriflex	T-Mobile
		3	Ericsson AIR 21, 1.3 M, B2A B4			
		3	Ericsson AIR 21, 1.3M, B4A B2P			

¹Mount elevation is defined as height above bottom of steel structure to the bottom of mount, RAD elevation is defined as center of antenna above ground level (AGL).

Install proposed coax inside the pole shaft.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	79%	Pass
Shaft	89%	Pass
Base Plate	54%	Pass
Flanges	43%	Pass
Reinforcement	84%	Pass

Foundations

Reaction Component	Analysis Reactions
Moment (Kips-Ft)	2,675.5
Axial (Kips)	47.1
Shear (Kips)	27.7

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.

Deflection and Sway*

Antenna Elevation (ft)	Deflection (ft)	Sway (Rotation) (°)
140.0	1.857	1.566

*Deflection and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-G



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:

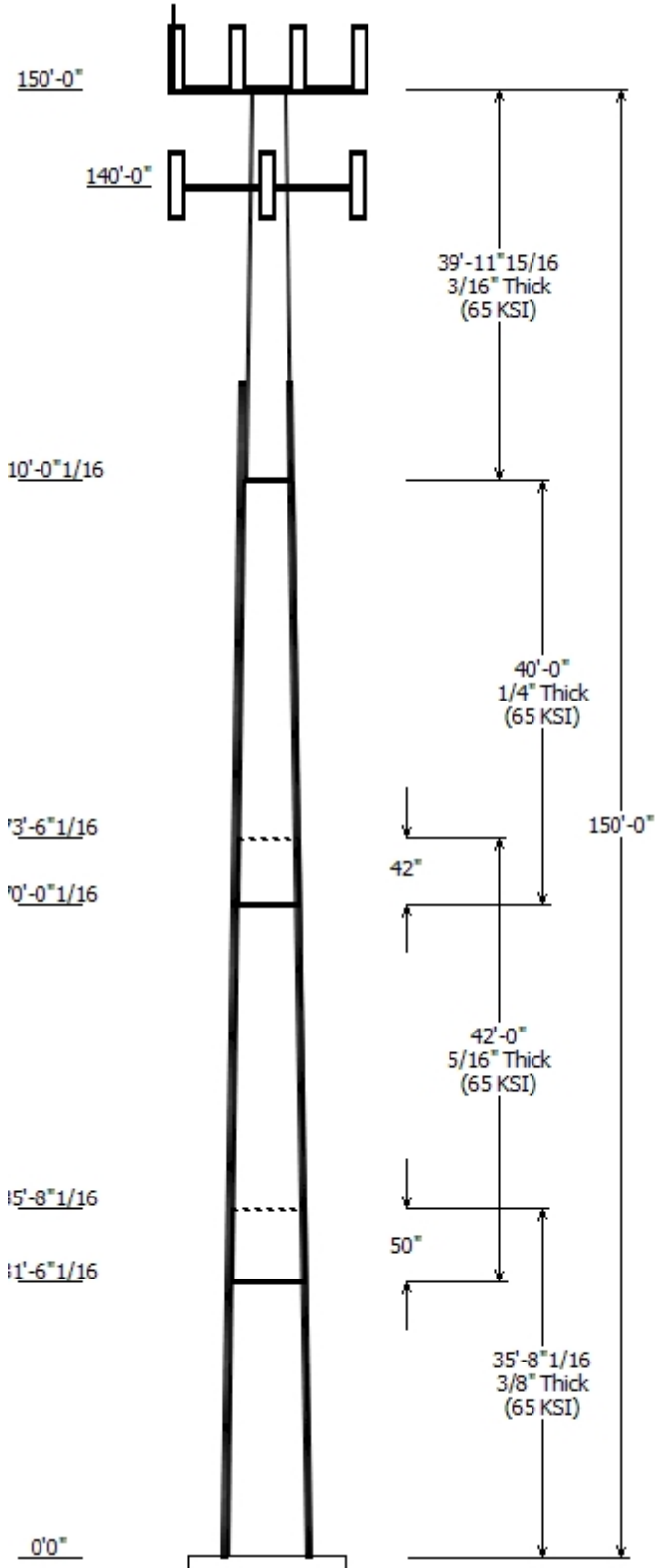
- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.
- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements of the structure.

It is the responsibility of the client to ensure that the information provided to ATC Tower Services, Inc. and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and that their capacity has not significantly changed from the "as new" condition.

Unless explicitly agreed by both the client and American Tower Corporation, all services will be performed in accordance with the current revision of ANSI/TIA -222. The design basic wind speed will be determined based on the minimum basic wind speed as prescribed in ANSI/TIA-222. Although every effort is taken to ensure that the loading considered is adequate to meet the requirements of all applicable regulatory entities, we can provide no assurance to meet any other local and state codes or requirements. 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.

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

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Job Information	
Pole :	302493
Code :	ANSI/TIA-222 Rev G
Description :	150 ft ITT Meyer Type "B" Monopole
Client :	T-Mobile
Struct Class :	II
Location :	Nrwc - Norwich, CT
Shape :	12 Sides
Exposure :	B
Height :	150.00 (ft)
Topo :	1
Base Elev (ft):	0.00
Taper:	0.15500(in/ft)

Sections Properties								
Shaft Section	Length (ft)	Diameter (in) Top	Diameter (in) Bottom	Thick (in)	Joint Type	Overlap Length (in)	Taper (in/ft)	Steel Grade (ksi)
1	35.670	31.85	37.38	0.375		0.000	0.155000	65
2	42.000	26.61	33.12	0.313	Slip Joint	50.000	0.155000	65
3	40.000	21.45	27.65	0.250	Slip Joint	42.000	0.155000	65
4	39.997	15.05	21.25	0.188	Butt Joint	0.000	0.155000	65

Discrete Appurtenance				
Attach Elev (ft)	Force Elev (ft)	Qty	Description	
150.000	150.000	3	Flat Side Arm	
150.000	158.000	1	11' Omni	
150.000	154.000	6	Ericsson RRUS-11 800 MHz	
150.000	154.000	2	Andrew SBNH-1D6565C	
150.000	154.000	1	Raycap DC6-48-60-18-8F	
150.000	154.000	1	KMW AM-X-CD-16-65-00T-RET	
150.000	154.000	6	Powerwave 7770.00	
150.000	154.000	6	Powerwave LGP 21401	
150.000	154.000	6	Powerwave LGP 21902	
150.000	150.000	1	Flat Platform w/ Handrails	
140.000	140.000	3	Flat T-Arm	
140.000	140.000	3	Ericsson AIR 21, 1.3M, B4A B2P	
140.000	140.000	3	Ericsson AIR 21, 1.3 M, B2A B4	
140.000	140.000	3	Ericsson KRY 112 144/1	

Linear Appurtenance			
Elev (ft) From	Elev (ft) To	Description	Exposed To Wind
0.000	120.0	Reinforcing Bars	Yes
0.000	140.0	1 5/8" Coax	No
0.000	140.0	1 5/8" Hybriflex	No
0.000	150.0	0.65" 8 AWG 2C	No
0.000	150.0	1 1/4" Coax	No
0.000	150.0	1 5/8" Coax	No
0.000	150.0	1.3" Hybrid (Type	No

Load Cases	
1.2D + 1.6W	110.00 mph with No Ice
0.9D + 1.6W	110.00 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50.00 mph with 0.75 in Radial Ice
1.0D + 1.0W	60.00 mph Serviceability

Reactions			
Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
1.2D + 1.6W	2675.46	27.75	33.27
0.9D + 1.6W	2645.15	27.47	26.95
1.2D + 1.0Di + 1.0Wi	493.05	4.77	47.12

1.0D + 1.0W

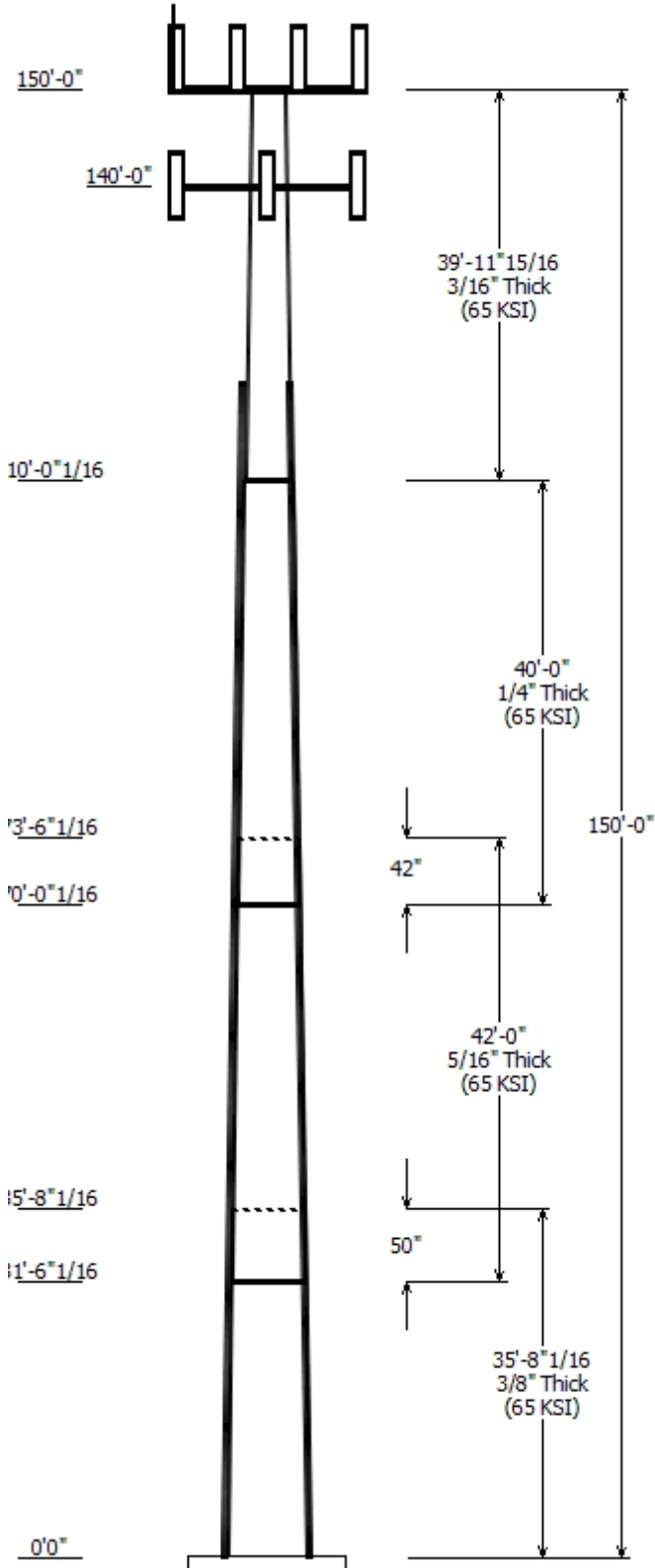
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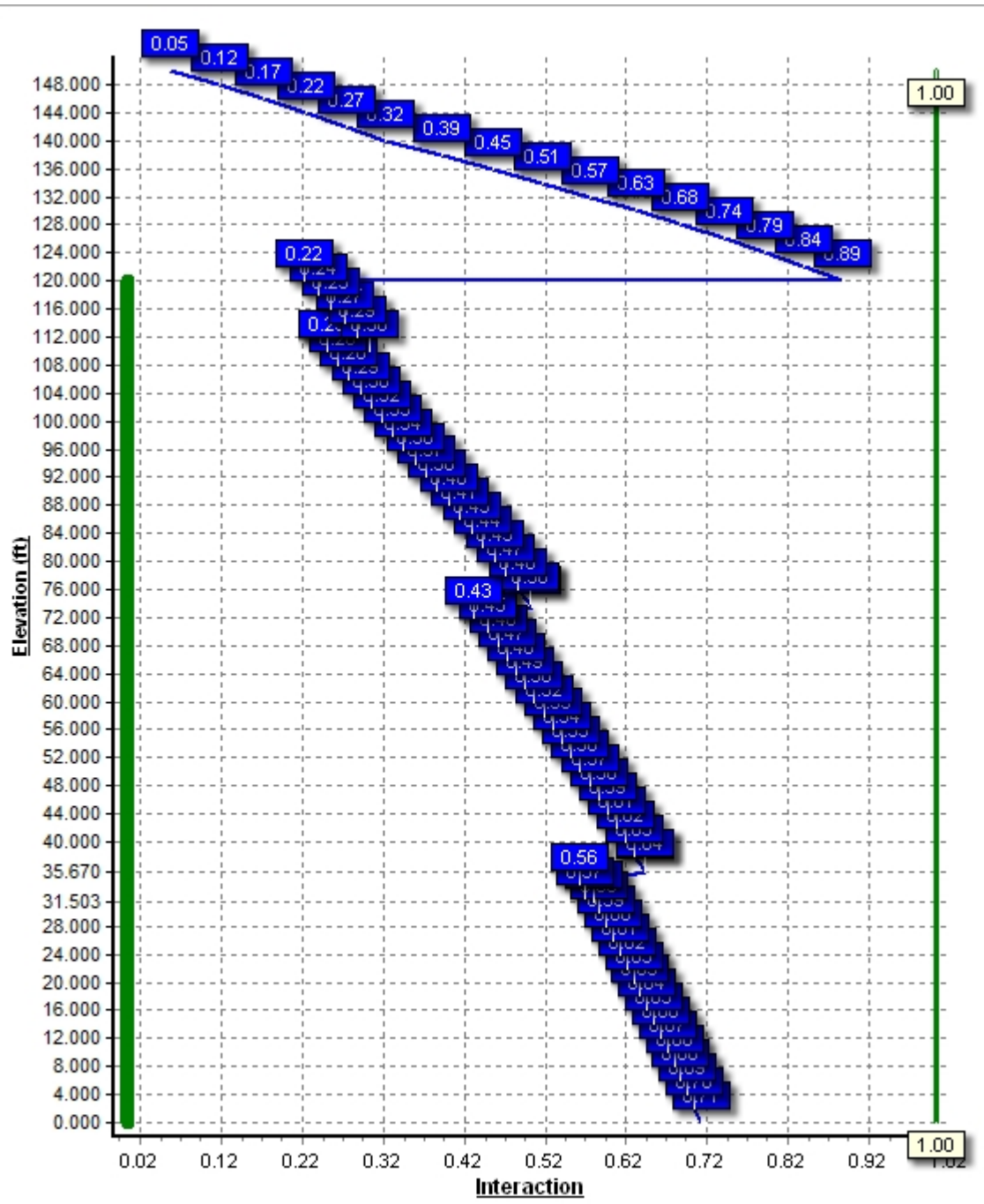
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Dish Deflections

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
	0.00	0.000	0.000

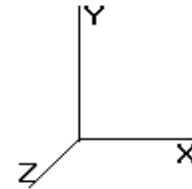




Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

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 Page: 1



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Shaft Section Properties

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Joint Len (in)	Weight (lb)	Bottom						Top						
							Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Taper (in/ft)
1-12	35.670	0.3750	65		0.00	5,018	37.38	0.00	44.68	7810.1	24.57	99.68	31.85	35.67	38.01	4806.4	20.62	84.94	0.155000
2-12	42.000	0.3130	65	Slip	50.00	4,257	33.12	31.50	33.07	4543.6	26.21	105.82	26.61	73.50	26.51	2340.2	20.64	85.03	0.155000
3-12	40.000	0.2500	65	Slip	42.00	2,663	27.65	70.00	22.06	2114.9	27.50	110.62	21.45	110.00	17.07	979.8	20.85	85.82	0.155000
4-12	39.997	0.1880	65	Butt	0.00	1,480	21.25	110.00	12.75	721.9	28.14	113.03	15.05	150.00	9.00	253.7	19.31	80.06	0.155000
Shaft Weight						13,419													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	No Ice			Ice			Distance From Face (ft)	Vert Ecc (ft)
			Weight (lb)	EPAA (sf)	Orientation Factor	Weight (lb)	EPAA (sf)	Orientation Factor		
150.00	11' Omni	1	40.00	3.300	1.00	186.47	6.768	1.00	0.000	8.000
150.00	Andrew SBNH-1D6565C	2	60.80	11.450	0.70	324.38	13.103	0.70	0.000	4.000
150.00	Ericsson RRUS-11 800 MHz	6	54.00	2.520	0.50	143.33	3.178	0.50	0.000	4.000
150.00	Flat Platform w/ Handrails	1	2000.00	42.400	1.00	3,424.08	63.415	1.00	0.000	0.000
150.00	Flat Side Arm	3	150.00	5.200	0.67	223.30	7.233	0.67	0.000	0.000
150.00	KMW AM-X-CD-16-65-00T-	1	33.00	6.050	0.69	200.27	7.125	0.69	0.000	4.000
150.00	Powerwave 7770.00	6	35.00	5.510	0.65	170.09	6.560	0.65	0.000	4.000
150.00	Powerwave LGP 21401	6	14.10	1.100	0.50	47.75	1.564	0.50	0.000	4.000
150.00	Powerwave LGP 21902	6	5.50	0.270	0.50	19.05	0.472	0.50	0.000	4.000
150.00	Raycap DC6-48-60-18-8F	1	20.00	1.110	1.00	100.52	2.522	1.00	0.000	4.000
140.00	Ericsson AIR 21, 1.3 M, B2A	3	83.00	6.050	0.71	250.65	7.140	0.71	0.000	0.000
140.00	Ericsson AIR 21, 1.3M, B4A	3	81.50	6.090	0.70	249.11	7.185	0.70	0.000	0.000
140.00	Ericsson KRY 112 144/1	3	11.00	0.410	0.50	27.22	0.632	0.50	0.000	0.000
140.00	Flat T-Arm	3	250.00	12.900	0.67	457.99	21.038	0.67	0.000	0.000
Totals		45	4592.70			10,466.20			Number of Loadings : 14	

Linear Appurtenance Properties

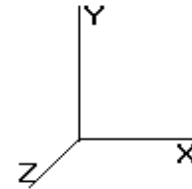
Elev From (ft)	Elev To (ft)	Description	Exposed Width (in)	Exposed To Wind
0.00	150.00	(2) 0.65" 8 AWG 2C	0.00	N
0.00	150.00	(12) 1 1/4" Coax	0.00	N
0.00	150.00	(1) 1 5/8" Coax	0.00	N
0.00	150.00	1.3" Hybrid (Type 1)	0.00	N
0.00	140.00	(12) 1 5/8" Coax	0.00	N
0.00	140.00	(1) 1 5/8" Hybriflex	0.00	N
0.00	120.00	(4) Reinforcing Bars #20	7.50	Y

Additional Steel

Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Offset (in)	— Intermediate Connections —			Connectors	Continuation?
						Description	Spacing (in)	Len (in)		
0.00	120.0	4	SOL #20 All Thread	80	2.19	6" Angle Bracket	30.0	3.31	5/8" A36 U-Bolt	No

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)



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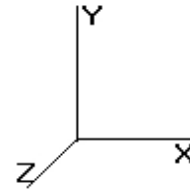
Segment Properties (Max Len : 2 ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	S (in3)	Weight (lb)	Additional Reinforcing		
											Area (in^2)	Ix (in^4)	Weight (lb)
0.00		0.3750	37.380	44.684	7,810.1	24.57	99.68	77.9	403.6	0.0	19.64	4,816	0.0
2.00		0.3750	37.070	44.309	7,615.4	24.34	98.85	78.2	396.9	302.8	19.64	4,749	133.6
4.00		0.3750	36.760	43.935	7,424.0	24.12	98.03	78.4	390.2	300.3	19.64	4,683	133.6
6.00		0.3750	36.450	43.561	7,235.9	23.90	97.20	78.6	383.5	297.7	19.64	4,616	133.6
8.00		0.3750	36.140	43.186	7,051.0	23.68	96.37	78.9	376.9	295.2	19.64	4,551	133.6
10.00		0.3750	35.830	42.812	6,869.2	23.46	95.55	79.1	370.4	292.6	19.64	4,485	133.6
12.00		0.3750	35.520	42.438	6,690.6	23.24	94.72	79.4	363.9	290.1	19.64	4,421	133.6
14.00		0.3750	35.210	42.063	6,515.1	23.02	93.89	79.6	357.5	287.5	19.64	4,356	133.6
16.00		0.3750	34.900	41.689	6,342.7	22.79	93.07	79.9	351.1	285.0	19.64	4,293	133.6
18.00		0.3750	34.590	41.315	6,173.4	22.57	92.24	80.1	344.8	282.4	19.64	4,229	133.6
20.00		0.3750	34.280	40.940	6,007.1	22.35	91.41	80.3	338.5	279.9	19.64	4,166	133.6
22.00		0.3750	33.970	40.566	5,843.8	22.13	90.59	80.6	332.3	277.3	19.64	4,104	133.6
24.00		0.3750	33.660	40.192	5,683.5	21.91	89.76	80.8	326.2	274.8	19.64	4,042	133.6
26.00		0.3750	33.350	39.817	5,526.2	21.69	88.93	81.1	320.1	272.3	19.64	3,981	133.6
28.00		0.3750	33.040	39.443	5,371.8	21.46	88.11	81.3	314.1	269.7	19.64	3,920	133.6
30.00		0.3750	32.730	39.069	5,220.3	21.24	87.28	81.5	308.1	267.2	19.64	3,859	133.6
31.50	Bot - Section 2	0.3750	32.497	38.787	5,108.3	21.08	86.66	81.7	303.7	199.1	19.64	3,814	100.4
32.00		0.3750	32.420	38.694	5,071.7	21.02	86.45	81.8	302.2	121.3	19.64	3,921	33.2
34.00		0.3750	32.110	38.320	4,925.9	20.80	85.63	81.9	296.4	485.5	19.64	3,860	133.6
35.67	Top - Section 1	0.3130	32.477	32.417	4,280.6	25.66	103.76	76.7	254.6	401.8	19.64	3,810	111.6
36.00		0.3130	32.426	32.365	4,260.2	25.62	103.60	76.8	253.8	36.4	19.64	3,800	22.0
38.00		0.3130	32.116	32.053	4,138.0	25.35	102.61	77.1	248.9	219.2	19.64	3,741	133.6
40.00		0.3130	31.806	31.741	4,018.2	25.08	101.62	77.4	244.1	217.1	19.64	3,681	133.6
42.00		0.3130	31.496	31.428	3,900.7	24.82	100.63	77.6	239.3	214.9	19.64	3,623	133.6
44.00		0.3130	31.186	31.116	3,785.5	24.55	99.64	77.9	234.5	212.8	19.64	3,565	133.6
46.00		0.3130	30.876	30.803	3,672.6	24.29	98.65	78.2	229.8	210.7	19.64	3,507	133.6
48.00		0.3130	30.566	30.491	3,562.0	24.02	97.65	78.5	225.1	208.6	19.64	3,450	133.6
50.00		0.3130	30.256	30.178	3,453.6	23.76	96.66	78.8	220.5	206.4	19.64	3,393	133.6
52.00		0.3130	29.946	29.866	3,347.4	23.49	95.67	79.1	215.9	204.3	19.64	3,337	133.6
54.00		0.3130	29.636	29.553	3,243.5	23.23	94.68	79.4	211.4	202.2	19.64	3,281	133.6
56.00		0.3130	29.326	29.241	3,141.7	22.96	93.69	79.7	207.0	200.1	19.64	3,225	133.6
58.00		0.3130	29.016	28.929	3,042.1	22.70	92.70	80.0	202.5	197.9	19.64	3,171	133.6
60.00		0.3130	28.706	28.616	2,944.6	22.43	91.71	80.3	198.2	195.8	19.64	3,116	133.6
62.00		0.3130	28.396	28.304	2,849.2	22.17	90.72	80.5	193.8	193.7	19.64	3,062	133.6
64.00		0.3130	28.086	27.991	2,755.8	21.90	89.73	80.8	189.6	191.6	19.64	3,009	133.6
66.00		0.3130	27.776	27.679	2,664.6	21.63	88.74	81.1	185.3	189.4	19.64	2,956	133.6
68.00		0.3130	27.466	27.366	2,575.4	21.37	87.75	81.4	181.1	187.3	19.64	2,903	133.6
70.00		0.3130	27.156	27.054	2,488.2	21.10	86.76	81.7	177.0	185.2	19.64	2,851	133.6
70.00	Bot - Section 3	0.3130	27.155	27.053	2,488.0	21.10	86.76	81.7	177.0	0.3	19.64	2,851	0.2
72.00		0.3130	26.846	26.742	2,403.0	20.84	85.77	81.9	172.9	331.8	19.64	2,883	133.4
73.50	Top - Section 2	0.2500	27.113	21.625	1,991.8	26.92	108.45	75.4	141.9	247.3	19.64	2,844	100.4
74.00		0.2500	27.036	21.563	1,974.7	26.83	108.14	75.4	141.1	36.5	19.64	2,831	33.2
76.00		0.2500	26.726	21.313	1,906.9	26.50	106.90	75.8	137.8	145.9	19.64	2,780	133.6
78.00		0.2500	26.416	21.064	1,840.7	26.17	105.66	76.2	134.6	144.2	19.64	2,729	133.6
80.00		0.2500	26.106	20.814	1,776.1	25.84	104.42	76.5	131.4	142.5	19.64	2,678	133.6
82.00		0.2500	25.796	20.565	1,713.0	25.50	103.18	76.9	128.3	140.8	19.64	2,628	133.6
84.00		0.2500	25.486	20.315	1,651.4	25.17	101.94	77.3	125.2	139.1	19.64	2,579	133.6
86.00		0.2500	25.176	20.065	1,591.3	24.84	100.70	77.6	122.1	137.4	19.64	2,530	133.6
88.00		0.2500	24.866	19.816	1,532.6	24.51	99.46	78.0	119.1	135.7	19.64	2,481	133.6
90.00		0.2500	24.556	19.566	1,475.4	24.18	98.22	78.3	116.1	134.0	19.64	2,433	133.6
92.00		0.2500	24.246	19.317	1,419.7	23.84	96.98	78.7	113.1	132.3	19.64	2,386	133.6
94.00		0.2500	23.936	19.067	1,365.4	23.51	95.74	79.1	110.2	130.6	19.64	2,339	133.6
96.00		0.2500	23.626	18.818	1,312.5	23.18	94.50	79.4	107.3	128.9	19.64	2,292	133.6
98.00		0.2500	23.316	18.568	1,261.0	22.85	93.26	79.8	104.5	127.2	19.64	2,246	133.6
100.00		0.2500	23.006	18.319	1,210.8	22.51	92.02	80.2	101.7	125.5	19.64	2,200	133.6
102.00		0.2500	22.696	18.069	1,162.0	22.18	90.78	80.5	98.9	123.8	19.64	2,155	133.6
104.00		0.2500	22.386	17.819	1,114.5	21.85	89.54	80.9	96.2	122.1	19.64	2,110	133.6
106.00		0.2500	22.076	17.570	1,068.3	21.52	88.30	81.2	93.5	120.4	19.64	2,066	133.6

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

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 Page: 3

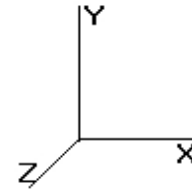


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108.0		0.2500	21.766	17.320	1,023.4	21.19	87.06	81.6	90.8	118.7	19.64	2,022	133.6
110.0		0.2500	21.456	17.071	979.8	20.85	85.82	81.9	88.2	117.0	19.64	1,978	133.6
110.0	Top - Section 3	0.2500	21.455	17.070	979.8	20.85	85.82	81.9	88.2	0.2	19.64	1,978	0.2
110.0	Bot - Section 4	0.1880	21.250	12.750	721.9	28.14	113.03	74.0	65.6		19.64	1,978	
112.0		0.1880	20.941	12.563	690.6	27.70	111.39	74.5	63.7	86.0	19.64	1,907	133.4
114.0		0.1880	20.631	12.375	660.1	27.26	109.74	75.0	61.8	84.9	19.64	1,865	133.6
116.0		0.1880	20.321	12.187	630.5	26.82	108.09	75.5	59.9	83.6	19.64	1,824	133.6
118.0		0.1880	20.011	12.000	601.8	26.38	106.44	75.9	58.1	82.3	19.64	1,782	133.6
120.0	Reinf. Top	0.1880	19.701	11.812	574.0	25.93	104.79	76.4	56.3	81.0	19.64	1,742	133.6
122.0		0.1880	19.391	11.624	547.1	25.49	103.14	76.9	54.5	79.7			
124.0		0.1880	19.081	11.437	521.0	25.05	101.49	77.4	52.8	78.5			
126.0		0.1880	18.771	11.249	495.8	24.61	99.84	77.9	51.0	77.2			
128.0		0.1880	18.461	11.061	471.4	24.17	98.19	78.4	49.3	75.9			
130.0		0.1880	18.151	10.874	447.8	23.73	96.55	78.8	47.7	74.6			
132.0		0.1880	17.841	10.686	425.0	23.28	94.90	79.3	46.0	73.4			
134.0		0.1880	17.531	10.498	403.0	22.84	93.25	79.8	44.4	72.1			
136.0		0.1880	17.221	10.311	381.8	22.40	91.60	80.3	42.8	70.8			
138.0		0.1880	16.911	10.123	361.3	21.96	89.95	80.8	41.3	69.5			
140.0		0.1880	16.601	9.935	341.6	21.52	88.30	81.2	39.8	68.3			
142.0		0.1880	16.291	9.748	322.6	21.07	86.65	81.7	38.3	67.0			
144.0		0.1880	15.981	9.560	304.3	20.63	85.00	81.9	36.8	65.7			
146.0		0.1880	15.671	9.372	286.8	20.19	83.35	81.9	35.4	64.4			
148.0		0.1880	15.361	9.185	269.9	19.75	81.70	81.9	33.9	63.1			
150.0		0.1880	15.051	8.997	253.7	19.31	80.06	81.9	32.6	61.9			
										13,418.5			8,016.0

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)



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Load Case: 1.2D + 1.6W 110.00 mph with No Ice 30 Iterations

Gust Response Factor : 1.10 Wind Importance Factor : 1.00

Dead Load Factor : 1.20

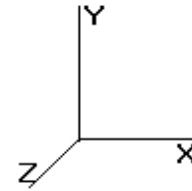
Wind Load Factor : 1.60

Shaft Segment Forces (Factored)

Seg Top								Ice				Wind	Dead	Tot Dead
Elev	Description	Kzt	Kz	qz	qzGh	C	Cf	Thick	Tributary	Ap	EPAs	Force X	Load Ice	Load
(ft)				(psf)	(psf)	(mph-ft)		(in)	(ft)	(sf)	(sf)	(lb)	(lb)	(lb)
0.00		1.00	0.70	20.599	22.65	296.79	1.000	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.70	20.599	22.65	294.33	1.284	* 0.000	2.00	6.423	8.25	299.0	0.0	497.0
4.00		1.00	0.70	20.599	22.65	291.87	1.289	* 0.000	2.00	6.370	8.21	297.6	0.0	493.9
6.00		1.00	0.70	20.599	22.65	289.41	1.294	* 0.000	2.00	6.316	8.17	296.2	0.0	490.9
8.00		1.00	0.70	20.599	22.65	286.94	1.299	* 0.000	2.00	6.263	8.13	294.9	0.0	487.8
10.00		1.00	0.70	20.599	22.65	284.48	1.200	* 0.000	2.00	6.209	7.45	270.1	0.0	484.8
12.00		1.00	0.70	20.599	22.65	282.02	1.200	* 0.000	2.00	6.156	7.39	267.8	0.0	481.7
14.00		1.00	0.70	20.599	22.65	279.56	1.200	* 0.000	2.00	6.102	7.32	265.5	0.0	478.6
16.00		1.00	0.70	20.599	22.65	277.10	1.200	* 0.000	2.00	6.049	7.26	263.1	0.0	475.6
18.00		1.00	0.70	20.599	22.65	274.64	1.200	* 0.000	2.00	5.995	7.19	260.8	0.0	472.5
20.00		1.00	0.70	20.599	22.65	272.18	1.200	* 0.000	2.00	5.942	7.13	258.5	0.0	469.5
22.00		1.00	0.70	20.599	22.65	269.71	1.200	* 0.000	2.00	5.888	7.07	256.2	0.0	466.4
24.00		1.00	0.70	20.599	22.65	267.25	1.200	* 0.000	2.00	5.835	7.00	253.8	0.0	463.4
26.00		1.00	0.70	20.599	22.65	264.79	1.200	* 0.000	2.00	5.781	6.94	251.5	0.0	460.3
28.00		1.00	0.70	20.599	22.65	262.33	1.200	* 0.000	2.00	5.728	6.87	249.2	0.0	457.2
30.00		1.00	0.70	20.616	22.67	259.98	1.200	* 0.000	2.00	5.674	6.81	247.1	0.0	454.2
31.50	Bot - Section 2	1.00	0.71	20.906	22.99	259.94	1.200	* 0.000	1.50	4.230	5.08	186.8	0.0	339.4
32.00		1.00	0.71	21.000	23.10	259.90	1.200	* 0.000	0.50	1.418	1.70	62.9	0.0	178.7
34.00		1.00	0.72	21.367	23.50	259.66	1.200	* 0.000	2.00	5.675	6.81	256.1	0.0	716.2
35.67	Top - Section 1	1.00	0.73	21.662	23.82	259.33	1.200	* 0.000	1.67	4.698	5.64	214.9	0.0	593.7
36.00		1.00	0.73	21.719	23.89	264.36	1.200	* 0.000	0.33	0.924	1.11	42.4	0.0	65.7
38.00		1.00	0.75	22.057	24.26	263.86	1.200	* 0.000	2.00	5.568	6.68	259.4	0.0	396.6
40.00		1.00	0.76	22.383	24.62	263.24	1.200	* 0.000	2.00	5.515	6.62	260.7	0.0	394.1
42.00		1.00	0.77	22.697	24.96	262.50	1.200	* 0.000	2.00	5.461	6.55	261.8	0.0	391.5
44.00		1.00	0.78	23.000	25.30	261.65	1.200	* 0.000	2.00	5.408	6.49	262.7	0.0	389.0
46.00		1.00	0.79	23.294	25.62	260.70	1.200	* 0.000	2.00	5.354	6.43	263.4	0.0	386.4
48.00		1.00	0.80	23.579	25.93	259.65	1.200	* 0.000	2.00	5.301	6.36	264.0	0.0	383.9
50.00		1.00	0.81	23.856	26.24	258.52	1.200	* 0.000	2.00	5.247	6.30	264.4	0.0	381.3
52.00		1.00	0.82	24.125	26.53	257.31	1.200	* 0.000	2.00	5.194	6.23	264.6	0.0	378.8
54.00		1.00	0.82	24.386	26.82	256.02	1.200	* 0.000	2.00	5.140	6.17	264.7	0.0	376.2
56.00		1.00	0.83	24.641	27.10	254.66	1.200	* 0.000	2.00	5.087	6.10	264.7	0.0	373.7
58.00		1.00	0.84	24.889	27.37	253.24	1.200	* 0.000	2.00	5.033	6.04	264.6	0.0	371.1
60.00		1.00	0.85	25.132	27.64	251.75	1.200	* 0.000	2.00	4.980	5.98	264.3	0.0	368.6
62.00		1.00	0.86	25.368	27.90	250.20	1.200	* 0.000	2.00	4.926	5.91	263.9	0.0	366.0
64.00		1.00	0.87	25.599	28.15	248.59	1.200	* 0.000	2.00	4.873	5.85	263.5	0.0	363.5
66.00		1.00	0.87	25.825	28.40	246.93	1.200	* 0.000	2.00	4.819	5.78	262.9	0.0	360.9
68.00		1.00	0.88	26.047	28.65	245.22	1.200	* 0.000	2.00	4.766	5.72	262.2	0.0	358.4
70.00		1.00	0.89	26.263	28.89	243.46	1.200	* 0.000	2.00	4.712	5.65	261.4	0.0	355.8
70.00	Bot - Section 3	1.00	0.89	26.264	28.89	243.46	1.200	* 0.000	0.00	0.008	0.01	0.4	0.0	0.6
72.00		1.00	0.90	26.476	29.12	241.65	1.200	* 0.000	2.00	4.737	5.68	264.9	0.0	531.5
73.50	Top - Section 2	1.00	0.90	26.632	29.29	240.26	1.200	* 0.000	1.50	3.532	4.24	198.6	0.0	397.2
74.00		1.00	0.90	26.684	29.35	244.32	1.200	* 0.000	0.50	1.160	1.39	65.4	0.0	77.0
76.00		1.00	0.91	26.888	29.57	242.44	1.200	* 0.000	2.00	4.638	5.57	263.4	0.0	308.7
78.00		1.00	0.92	27.088	29.79	240.51	1.200	* 0.000	2.00	4.585	5.50	262.3	0.0	306.6
80.00		1.00	0.92	27.285	30.01	238.55	1.200	* 0.000	2.00	4.531	5.44	261.1	0.0	304.6
82.00		1.00	0.93	27.478	30.22	236.55	1.200	* 0.000	2.00	4.478	5.37	259.9	0.0	302.6
84.00		1.00	0.94	27.668	30.43	234.52	1.200	* 0.000	2.00	4.424	5.31	258.5	0.0	300.5
86.00		1.00	0.94	27.854	30.64	232.44	1.200	* 0.000	2.00	4.371	5.24	257.1	0.0	298.5
88.00		1.00	0.95	28.038	30.84	230.34	1.200	* 0.000	2.00	4.317	5.18	255.7	0.0	296.4
90.00		1.00	0.95	28.219	31.04	228.20	1.200	* 0.000	2.00	4.264	5.12	254.1	0.0	294.4
92.00		1.00	0.96	28.396	31.23	226.02	1.200	* 0.000	2.00	4.210	5.05	252.5	0.0	292.4

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)



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Load Case: 1.2D + 1.6W	110.00 mph with No Ice	30 Iterations
Gust Response Factor : 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 1.20		
Wind Load Factor : 1.60		

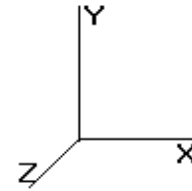
94.00		1.00	0.97	28.571	31.42	223.82	1.200	* 0.000	2.00	4.157	4.99	250.8	0.0	290.3
96.00		1.00	0.97	28.744	31.61	221.59	1.200	* 0.000	2.00	4.103	4.92	249.1	0.0	288.3
98.00		1.00	0.98	28.913	31.80	219.33	1.200	* 0.000	2.00	4.050	4.86	247.3	0.0	286.3
100.0		1.00	0.98	29.081	31.98	217.03	1.200	* 0.000	2.00	3.996	4.80	245.5	0.0	284.2
102.0		1.00	0.99	29.246	32.17	214.72	1.200	* 0.000	2.00	3.943	4.73	243.5	0.0	282.2
104.0		1.00	0.99	29.409	32.34	212.37	1.200	* 0.000	2.00	3.889	4.67	241.6	0.0	280.1
106.0		1.00	1.00	29.569	32.52	210.00	1.200	* 0.000	2.00	3.836	4.60	239.5	0.0	278.1
108.0		1.00	1.01	29.727	32.70	207.61	1.200	* 0.000	2.00	3.782	4.54	237.5	0.0	276.1
110.0		1.00	1.01	29.884	32.87	205.19	1.200	* 0.000	2.00	3.729	4.47	235.3	0.0	274.0
110.0	Top - Section 3	1.00	1.01	29.884	32.87	205.18	1.200	* 0.000	0.00	0.006	0.01	0.4	0.0	0.5
112.0		1.00	1.02	30.038	33.04	200.77	1.200	* 0.000	2.00	3.634	4.36	230.5	0.0	236.6
114.0		1.00	1.02	30.190	33.20	198.30	1.200	* 0.000	2.00	3.586	4.30	228.7	0.0	235.4
116.0		1.00	1.03	30.341	33.37	195.81	1.200	* 0.000	2.00	3.533	4.24	226.4	0.0	233.9
118.0		1.00	1.03	30.489	33.53	193.29	1.200	* 0.000	2.00	3.479	4.18	224.1	0.0	232.4
120.0	Reinf. Top	1.00	1.04	30.636	33.69	190.76	1.200	* 0.000	2.00	3.426	4.11	221.7	0.0	230.8
122.0		1.00	1.04	30.781	33.85	188.20	1.000	0.000	2.00	3.373	3.37	182.7	0.0	95.7
124.0		1.00	1.05	30.924	34.01	185.62	1.000	0.000	2.00	3.319	3.32	180.6	0.0	94.2
126.0		1.00	1.05	31.066	34.17	183.02	1.000	0.000	2.00	3.266	3.27	178.5	0.0	92.6
128.0		1.00	1.06	31.206	34.32	180.40	1.000	0.000	2.00	3.212	3.21	176.4	0.0	91.1
130.0		1.00	1.06	31.345	34.47	177.77	1.000	0.000	2.00	3.159	3.16	174.2	0.0	89.6
132.0		1.00	1.07	31.482	34.63	175.11	1.000	0.000	2.00	3.105	3.11	172.0	0.0	88.0
134.0		1.00	1.07	31.617	34.77	172.44	1.000	0.000	2.00	3.052	3.05	169.8	0.0	86.5
136.0		1.00	1.07	31.751	34.92	169.75	1.000	0.000	2.00	2.998	3.00	167.5	0.0	85.0
138.0		1.00	1.08	31.884	35.07	167.04	1.000	0.000	2.00	2.945	2.94	165.2	0.0	83.4
140.0	Appertunance(s)	1.00	1.08	32.015	35.21	164.32	1.000	0.000	2.00	2.891	2.89	162.9	0.0	81.9
142.0		1.00	1.09	32.145	35.36	161.58	1.000	0.000	2.00	2.838	2.84	160.5	0.0	80.4
144.0		1.00	1.09	32.274	35.50	158.82	1.000	0.000	2.00	2.784	2.78	158.1	0.0	78.8
146.0		1.00	1.10	32.402	35.64	156.04	1.000	0.000	2.00	2.731	2.73	155.7	0.0	77.3
148.0		1.00	1.10	32.528	35.78	153.25	1.000	0.000	2.00	2.677	2.68	153.3	0.0	75.8
150.0	Appertunance(s)	1.00	1.11	32.653	35.91	150.45	1.000	0.000	2.00	2.624	2.62	150.8	0.0	74.2
									Totals:	150.00		17,951.9	0.0	24,118.2

* = Cf Adjusted By Linear Load Ra Effect

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

5/16/2014 2:12:33 PM
 Page: 6



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Load Case: 1.2D + 1.6W 110.00 mph with No Ice 30 Iterations

Gust Response Factor : 1.10 Wind Importance Factor : 1.00

Dead Load Factor : 1.20

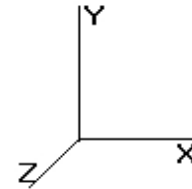
Wind Load Factor : 1.60

Discrete Appurtenance Segment Forces (Factored)

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Ka	Total EPAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
140.0	Ericsson KRY 112 144	3	32.015	35.217	0.50	0.80	0.49	0.000	0.000	27.72	0.00	0.00	39.60
140.0	Ericsson AIR 21, 1.3	3	32.015	35.217	0.71	0.80	10.31	0.000	0.000	580.89	0.00	0.00	298.80
140.0	Ericsson AIR 21, 1.3	3	32.015	35.217	0.70	0.80	10.23	0.000	0.000	576.50	0.00	0.00	293.40
140.0	Flat T-Arm	3	32.015	35.217	0.67	0.75	19.45	0.000	0.000	1,095.77	0.00	0.00	900.00
150.0	Flat Platform w/ Han	1	32.653	35.918	1.00	1.00	42.40	0.000	0.000	2,436.67	0.00	0.00	2,400.00
150.0	Powerwave LGP	6	32.899	36.189	0.50	0.75	0.61	0.000	4.000	35.18	0.00	140.70	39.60
150.0	Powerwave LGP	6	32.899	36.189	0.50	0.75	2.48	0.000	4.000	143.31	0.00	573.24	101.52
150.0	Powerwave 7770.00	6	32.899	36.189	0.65	0.75	16.12	0.000	4.000	933.20	0.00	3,732.80	252.00
150.0	KMW AM-X-CD-16-65-	1	32.899	36.189	0.69	0.75	3.13	0.000	4.000	181.29	0.00	725.14	39.60
150.0	Raycap DC6-48-60-18-	1	32.899	36.189	1.00	0.75	0.83	0.000	4.000	48.20	0.00	192.82	24.00
150.0	Andrew SBNH-	2	32.899	36.189	0.70	0.75	12.02	0.000	4.000	696.13	0.00	2,784.53	145.92
150.0	Ericsson RRUS-11 800	6	32.899	36.189	0.50	0.75	5.67	0.000	4.000	328.31	0.00	1,313.23	388.80
150.0	11' Omni	1	33.141	36.455	1.00	0.75	2.47	0.000	8.000	144.36	0.00	1,154.90	48.00
150.0	Flat Side Arm	3	32.653	35.918	0.67	1.00	10.45	0.000	0.000	600.66	0.00	0.00	540.00
										7,828.19			5,511.24

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
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Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)



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Load Case: 1.2D + 1.6W 110.00 mph with No Ice 30 Iterations

Gust Response Factor : 1.10 Wind Importance Factor : 1.00

Dead Load Factor : 1.20

Wind Load Factor : 1.60

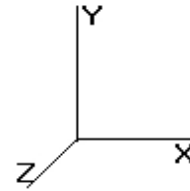
Linear Appurtenance Segment Forces (Factored)

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	FX (lb)	Dead Load (lb)
2.00	(4) Reinforcing Bars	Yes	2.00	0.000	7.50	1.25	0.00	20.599	0.195	1.284	0.00	0.00
4.00	(4) Reinforcing Bars	Yes	2.00	0.000	7.50	1.25	0.00	20.599	0.196	1.289	0.00	0.00
6.00	(4) Reinforcing Bars	Yes	2.00	0.000	7.50	1.25	0.00	20.599	0.198	1.294	0.00	0.00
8.00	(4) Reinforcing Bars	Yes	2.00	0.000	7.50	1.25	0.00	20.599	0.200	1.299	0.00	0.00
10.00	(4) Reinforcing Bars	Yes	2.00	0.668	7.50	1.25	0.83	20.599	0.201	0.000	30.25	0.00
12.00	(4) Reinforcing Bars	Yes	2.00	0.668	7.50	1.25	0.83	20.599	0.203	0.000	30.25	0.00
14.00	(4) Reinforcing Bars	Yes	2.00	0.668	7.50	1.25	0.83	20.599	0.205	0.000	30.25	0.00
16.00	(4) Reinforcing Bars	Yes	2.00	0.668	7.50	1.25	0.83	20.599	0.207	0.000	30.25	0.00
18.00	(4) Reinforcing Bars	Yes	2.00	0.668	7.50	1.25	0.83	20.599	0.209	0.000	30.25	0.00
20.00	(4) Reinforcing Bars	Yes	2.00	0.668	7.50	1.25	0.83	20.599	0.210	0.000	30.25	0.00
22.00	(4) Reinforcing Bars	Yes	2.00	0.668	7.50	1.25	0.83	20.599	0.212	0.000	30.25	0.00
24.00	(4) Reinforcing Bars	Yes	2.00	0.668	7.50	1.25	0.83	20.599	0.214	0.000	30.25	0.00
26.00	(4) Reinforcing Bars	Yes	2.00	0.668	7.50	1.25	0.83	20.599	0.216	0.000	30.25	0.00
28.00	(4) Reinforcing Bars	Yes	2.00	0.668	7.50	1.25	0.83	20.599	0.218	0.000	30.25	0.00
30.00	(4) Reinforcing Bars	Yes	2.00	0.667	7.50	1.25	0.83	20.616	0.220	0.000	30.27	0.00
31.50	(4) Reinforcing Bars	Yes	1.50	0.663	7.50	0.94	0.62	20.906	0.222	0.000	22.91	0.00
32.00	(4) Reinforcing Bars	Yes	0.50	0.661	7.50	0.31	0.21	21.000	0.223	0.000	7.59	0.00
34.00	(4) Reinforcing Bars	Yes	2.00	0.655	7.50	1.25	0.82	21.367	0.225	0.000	30.81	0.00
35.67	(4) Reinforcing Bars	Yes	1.67	0.651	7.50	1.04	0.68	21.662	0.227	0.000	25.91	0.00
36.00	(4) Reinforcing Bars	Yes	0.33	0.650	7.50	0.21	0.13	21.719	0.223	0.000	5.13	0.00
38.00	(4) Reinforcing Bars	Yes	2.00	0.645	7.50	1.25	0.81	22.057	0.224	0.000	31.31	0.00
40.00	(4) Reinforcing Bars	Yes	2.00	0.640	7.50	1.25	0.80	22.383	0.227	0.000	31.54	0.00
42.00	(4) Reinforcing Bars	Yes	2.00	0.636	7.50	1.25	0.79	22.697	0.229	0.000	31.76	0.00
44.00	(4) Reinforcing Bars	Yes	2.00	0.632	7.50	1.25	0.79	23.000	0.231	0.000	31.97	0.00
46.00	(4) Reinforcing Bars	Yes	2.00	0.628	7.50	1.25	0.78	23.294	0.233	0.000	32.17	0.00
48.00	(4) Reinforcing Bars	Yes	2.00	0.624	7.50	1.25	0.78	23.579	0.236	0.000	32.37	0.00
50.00	(4) Reinforcing Bars	Yes	2.00	0.620	7.50	1.25	0.78	23.856	0.238	0.000	32.56	0.00
52.00	(4) Reinforcing Bars	Yes	2.00	0.617	7.50	1.25	0.77	24.125	0.241	0.000	32.74	0.00
54.00	(4) Reinforcing Bars	Yes	2.00	0.614	7.50	1.25	0.77	24.386	0.243	0.000	32.92	0.00
56.00	(4) Reinforcing Bars	Yes	2.00	0.610	7.50	1.25	0.76	24.641	0.246	0.000	33.09	0.00
58.00	(4) Reinforcing Bars	Yes	2.00	0.607	7.50	1.25	0.76	24.889	0.248	0.000	33.26	0.00
60.00	(4) Reinforcing Bars	Yes	2.00	0.604	7.50	1.25	0.76	25.132	0.251	0.000	33.42	0.00
62.00	(4) Reinforcing Bars	Yes	2.00	0.602	7.50	1.25	0.75	25.368	0.254	0.000	33.57	0.00
64.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	25.599	0.257	0.000	33.79	0.00
66.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	25.825	0.259	0.000	34.09	0.00
68.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	26.047	0.262	0.000	34.38	0.00
70.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	26.263	0.265	0.000	34.67	0.00
70.00	(4) Reinforcing Bars	Yes	0.00	0.600	7.50	0.00	0.00	26.264	0.267	0.000	0.06	0.00
72.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	26.476	0.268	0.000	34.89	0.00
73.50	(4) Reinforcing Bars	Yes	1.50	0.600	7.50	0.94	0.56	26.632	0.271	0.000	26.42	0.00
74.00	(4) Reinforcing Bars	Yes	0.50	0.600	7.50	0.31	0.19	26.684	0.268	0.000	8.75	0.00
76.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	26.888	0.270	0.000	35.49	0.00
78.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	27.088	0.273	0.000	35.76	0.00
80.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	27.285	0.276	0.000	36.02	0.00
82.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	27.478	0.279	0.000	36.27	0.00
84.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	27.668	0.283	0.000	36.52	0.00
86.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	27.854	0.286	0.000	36.77	0.00
88.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	28.038	0.290	0.000	37.01	0.00
90.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	28.219	0.293	0.000	37.25	0.00
92.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	28.396	0.297	0.000	37.48	0.00
94.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	28.571	0.301	0.000	37.71	0.00

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
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 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

5/16/2014 2:12:33 PM
 Page: 8



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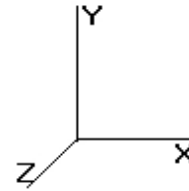
Load Case: 1.2D + 1.6W	110.00 mph with No Ice	30 Iterations
Gust Response Factor : 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 1.20		
Wind Load Factor : 1.60		

96.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	28.744	0.305	0.000	37.94	0.00
98.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	28.913	0.309	0.000	38.17	0.00
100.0	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	29.081	0.313	0.000	38.39	0.00
102.0	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	29.246	0.317	0.000	38.60	0.00
104.0	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	29.409	0.321	0.000	38.82	0.00
106.0	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	29.569	0.326	0.000	39.03	0.00
108.0	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	29.727	0.330	0.000	39.24	0.00
110.0	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	29.884	0.335	0.000	39.45	0.00
110.0	(4) Reinforcing Bars	Yes	0.00	0.600	7.50	0.00	0.00	29.884	0.338	0.000	0.07	0.00
112.0	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	30.038	0.343	0.000	39.58	0.00
114.0	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	30.190	0.349	0.000	39.85	0.00
116.0	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	30.341	0.354	0.000	40.05	0.00
118.0	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	30.489	0.359	0.000	40.25	0.00
120.0	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	30.636	0.365	0.000	40.44	0.00
Totals:											1,931.00	0.00

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

5/16/2014 2:12:33 PM
 Page: 9



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Load Case: 1.2D + 1.6W 110.00 mph with No Ice 30 Iterations
 Gust Response Factor : 1.10 Wind Importance Factor : 1.00
 Dead Load Factor : 1.20
 Wind Load Factor : 1.60

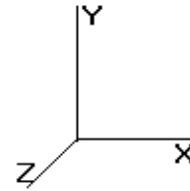
Applied Segment Forces Summary

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
2.00	298.96	547.72	0.00	0.00
4.00	297.60	544.66	0.00	0.00
6.00	296.24	541.61	0.00	0.00
8.00	294.88	538.55	0.00	0.00
10.00	300.38	535.49	0.00	0.00
12.00	298.05	532.43	0.00	0.00
14.00	295.73	529.38	0.00	0.00
16.00	293.40	526.32	0.00	0.00
18.00	291.07	523.26	0.00	0.00
20.00	288.75	520.21	0.00	0.00
22.00	286.42	517.15	0.00	0.00
24.00	284.09	514.09	0.00	0.00
26.00	281.76	511.04	0.00	0.00
28.00	279.44	507.98	0.00	0.00
30.00	277.33	504.92	0.00	0.00
31.50	209.68	377.52	0.00	0.00
32.00	70.46	191.33	0.00	0.00
34.00	286.92	766.95	0.00	0.00
35.67	240.83	636.11	0.00	0.00
36.00	47.51	74.06	0.00	0.00
38.00	290.70	447.37	0.00	0.00
40.00	292.23	444.82	0.00	0.00
42.00	293.55	442.27	0.00	0.00
44.00	294.66	439.72	0.00	0.00
46.00	295.59	437.17	0.00	0.00
48.00	296.35	434.62	0.00	0.00
50.00	296.94	432.06	0.00	0.00
52.00	297.37	429.51	0.00	0.00
54.00	297.67	426.96	0.00	0.00
56.00	297.82	424.41	0.00	0.00
58.00	297.84	421.86	0.00	0.00
60.00	297.74	419.31	0.00	0.00
62.00	297.52	416.76	0.00	0.00
64.00	297.25	414.20	0.00	0.00
66.00	296.96	411.65	0.00	0.00
68.00	296.56	409.10	0.00	0.00
70.00	296.06	406.55	0.00	0.00
70.00	0.49	0.68	0.00	0.00
72.00	299.78	582.17	0.00	0.00
73.50	225.07	435.31	0.00	0.00
74.00	74.13	89.57	0.00	0.00
76.00	298.88	359.41	0.00	0.00
78.00	298.05	357.37	0.00	0.00
80.00	297.13	355.33	0.00	0.00
82.00	296.13	353.29	0.00	0.00
84.00	295.05	351.26	0.00	0.00
86.00	293.89	349.22	0.00	0.00
88.00	292.66	347.18	0.00	0.00
90.00	291.36	345.14	0.00	0.00

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

5/16/2014 2:12:33 PM
 Page: 10



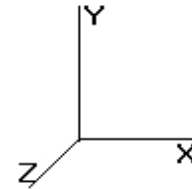
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Load Case: 1.2D + 1.6W 110.00 mph with No Ice 30 Iterations
 Gust Response Factor : 1.10 Wind Importance Factor : 1.00
 Dead Load Factor : 1.20
 Wind Load Factor : 1.60

92.00	289.99	343.10	0.00	0.00
94.00	288.55	341.07	0.00	0.00
96.00	287.04	339.03	0.00	0.00
98.00	285.47	336.99	0.00	0.00
100.0	283.84	334.95	0.00	0.00
102.0	282.14	332.92	0.00	0.00
104.0	280.39	330.88	0.00	0.00
106.0	278.58	328.84	0.00	0.00
108.0	276.71	326.80	0.00	0.00
110.0	274.79	324.76	0.00	0.00
110.0	0.46	0.54	0.00	0.00
112.0	270.11	287.21	0.00	0.00
114.0	268.53	286.16	0.00	0.00
116.0	266.44	284.63	0.00	0.00
118.0	264.30	283.10	0.00	0.00
120.0	262.11	281.56	0.00	0.00
122.0	182.70	146.43	0.00	0.00
124.0	180.64	144.90	0.00	0.00
126.0	178.55	143.37	0.00	0.00
128.0	176.41	141.83	0.00	0.00
130.0	174.25	140.30	0.00	0.00
132.0	172.04	138.77	0.00	0.00
134.0	169.81	137.24	0.00	0.00
136.0	167.54	135.70	0.00	0.00
138.0	165.24	134.17	0.00	0.00
140.0	2,443.78	1,664.44	0.00	0.00
142.0	160.54	104.37	0.00	0.00
144.0	158.14	102.84	0.00	0.00
146.0	155.72	101.31	0.00	0.00
148.0	153.26	99.77	0.00	0.00
150.0	5,698.09	4,077.68	0.00	10,617.36
Totals:	27,711.07	33,300.73	0.00	10,617.36

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)



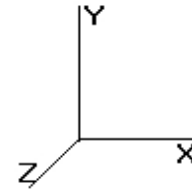
Load Case: 1.2D + 1.6W	110.00 mph with No Ice	30 Iterations
Gust Response Factor : 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 1.20		
Wind Load Factor : 1.60		

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-33.27	-27.75	0.00	-2,675.46	0.00	2,675.46	3,133.66	1,566.83	4,776.46	2,358.91	0.00	0.00	0.709
2.00	-32.67	-27.51	0.00	-2,619.97	0.00	2,619.97	3,117.04	1,558.52	4,710.93	2,326.55	0.03	-0.12	0.701
4.00	-32.07	-27.28	0.00	-2,564.95	0.00	2,564.95	3,100.26	1,550.13	4,645.58	2,294.28	0.10	-0.24	0.693
6.00	-31.47	-27.05	0.00	-2,510.38	0.00	2,510.38	3,083.32	1,541.66	4,580.43	2,262.10	0.23	-0.36	0.685
8.00	-30.88	-26.81	0.00	-2,456.29	0.00	2,456.29	3,066.21	1,533.11	4,515.47	2,230.02	0.40	-0.48	0.677
10.00	-30.29	-26.57	0.00	-2,402.66	0.00	2,402.66	3,048.95	1,524.47	4,450.72	2,198.04	0.63	-0.60	0.668
12.00	-29.71	-26.33	0.00	-2,349.52	0.00	2,349.52	3,031.51	1,515.76	4,386.18	2,166.17	0.91	-0.72	0.660
14.00	-29.13	-26.09	0.00	-2,296.86	0.00	2,296.86	3,013.92	1,506.96	4,321.85	2,134.40	1.23	-0.83	0.652
16.00	-28.55	-25.84	0.00	-2,244.69	0.00	2,244.69	2,996.16	1,498.08	4,257.75	2,102.74	1.61	-0.95	0.643
18.00	-27.98	-25.60	0.00	-2,193.00	0.00	2,193.00	2,978.24	1,489.12	4,193.87	2,071.20	2.03	-1.07	0.635
20.00	-27.41	-25.36	0.00	-2,141.80	0.00	2,141.80	2,960.16	1,480.08	4,130.23	2,039.77	2.51	-1.19	0.627
22.00	-26.85	-25.12	0.00	-2,091.08	0.00	2,091.08	2,941.92	1,470.96	4,066.83	2,008.46	3.03	-1.31	0.618
24.00	-26.29	-24.88	0.00	-2,040.85	0.00	2,040.85	2,923.51	1,461.75	4,003.68	1,977.27	3.61	-1.43	0.609
26.00	-25.74	-24.63	0.00	-1,991.10	0.00	1,991.10	2,904.94	1,452.47	3,940.79	1,946.21	4.23	-1.54	0.601
28.00	-25.19	-24.39	0.00	-1,941.83	0.00	1,941.83	2,886.20	1,443.10	3,878.15	1,915.27	4.90	-1.66	0.592
30.00	-24.65	-24.14	0.00	-1,893.05	0.00	1,893.05	2,867.31	1,433.65	3,815.78	1,884.47	5.62	-1.78	0.584
31.50	-24.25	-23.95	0.00	-1,856.75	0.00	1,856.75	2,853.00	1,426.50	3,769.08	1,861.41	6.20	-1.87	0.577
32.00	-24.03	-23.90	0.00	-1,844.86	0.00	1,844.86	2,848.25	1,424.12	3,753.69	1,853.80	6.39	-1.90	0.567
34.00	-23.23	-23.63	0.00	-1,797.06	0.00	1,797.06	2,824.57	1,412.28	3,686.05	1,820.40	7.21	-2.01	0.559
35.67	-22.58	-23.39	0.00	-1,757.60	0.00	1,757.60	2,238.61	1,119.30	2,967.00	1,465.29	7.94	-2.11	0.641
36.00	-22.48	-23.37	0.00	-1,749.88	0.00	1,749.88	2,236.44	1,118.22	2,959.36	1,461.52	8.08	-2.13	0.639
38.00	-22.00	-23.11	0.00	-1,703.15	0.00	1,703.15	2,223.20	1,111.60	2,913.17	1,438.71	9.00	-2.25	0.628
40.00	-21.52	-22.84	0.00	-1,656.94	0.00	1,656.94	2,209.80	1,104.90	2,867.11	1,415.96	9.97	-2.37	0.617
42.00	-21.04	-22.57	0.00	-1,611.25	0.00	1,611.25	2,196.23	1,098.12	2,821.18	1,393.28	10.99	-2.49	0.606
44.00	-20.57	-22.30	0.00	-1,566.11	0.00	1,566.11	2,182.51	1,091.25	2,775.40	1,370.67	12.06	-2.61	0.595
46.00	-20.10	-22.03	0.00	-1,521.50	0.00	1,521.50	2,168.61	1,084.31	2,729.77	1,348.13	13.18	-2.73	0.583
48.00	-19.63	-21.75	0.00	-1,477.44	0.00	1,477.44	2,154.56	1,077.28	2,684.29	1,325.67	14.35	-2.85	0.572
50.00	-19.17	-21.47	0.00	-1,433.94	0.00	1,433.94	2,140.34	1,070.17	2,638.98	1,303.29	15.57	-2.97	0.561
52.00	-18.72	-21.19	0.00	-1,390.99	0.00	1,390.99	2,125.97	1,062.98	2,593.83	1,280.99	16.84	-3.09	0.549
54.00	-18.26	-20.91	0.00	-1,348.61	0.00	1,348.61	2,111.42	1,055.71	2,548.86	1,258.78	18.16	-3.20	0.538
56.00	-17.82	-20.62	0.00	-1,306.79	0.00	1,306.79	2,096.72	1,048.36	2,504.06	1,236.66	19.52	-3.32	0.527
58.00	-17.37	-20.34	0.00	-1,265.54	0.00	1,265.54	2,081.85	1,040.93	2,459.46	1,214.63	20.94	-3.43	0.515
60.00	-16.93	-20.05	0.00	-1,224.87	0.00	1,224.87	2,066.82	1,033.41	2,415.05	1,192.70	22.40	-3.55	0.504
62.00	-16.50	-19.76	0.00	-1,184.78	0.00	1,184.78	2,051.63	1,025.81	2,370.83	1,170.87	23.91	-3.66	0.493
64.00	-16.06	-19.46	0.00	-1,145.27	0.00	1,145.27	2,036.27	1,018.14	2,326.83	1,149.13	25.47	-3.77	0.481
66.00	-15.64	-19.17	0.00	-1,106.34	0.00	1,106.34	2,020.76	1,010.38	2,283.03	1,127.50	27.07	-3.88	0.470
68.00	-15.21	-18.88	0.00	-1,068.00	0.00	1,068.00	2,005.07	1,002.54	2,239.46	1,105.98	28.72	-3.99	0.459
70.00	-14.81	-18.57	0.00	-1,030.25	0.00	1,030.25	1,989.23	994.61	2,196.11	1,084.58	30.41	-4.10	0.447
70.00	-14.79	-18.58	0.00	-1,030.19	0.00	1,030.19	1,989.20	994.60	2,196.04	1,084.54	30.42	-4.10	0.447
72.00	-14.20	-18.26	0.00	-993.09	0.00	993.09	1,971.12	985.56	2,150.69	1,062.15	32.16	-4.21	0.429
73.50	-13.77	-18.02	0.00	-965.64	0.00	965.64	1,466.65	733.33	1,624.17	802.11	33.49	-4.29	0.501
74.00	-13.66	-17.95	0.00	-956.69	0.00	956.69	1,464.19	732.10	1,616.75	798.45	33.94	-4.32	0.498
76.00	-13.29	-17.65	0.00	-920.79	0.00	920.79	1,454.20	727.10	1,586.96	783.74	35.77	-4.43	0.483
78.00	-12.93	-17.35	0.00	-885.48	0.00	885.48	1,444.04	722.02	1,557.26	769.07	37.65	-4.54	0.469
80.00	-12.57	-17.05	0.00	-850.78	0.00	850.78	1,433.72	716.86	1,527.64	754.44	39.57	-4.64	0.455
82.00	-12.21	-16.75	0.00	-816.68	0.00	816.68	1,423.24	711.62	1,498.11	739.86	41.54	-4.75	0.440
84.00	-11.85	-16.45	0.00	-783.18	0.00	783.18	1,412.59	706.30	1,468.69	725.33	43.55	-4.86	0.426
86.00	-11.50	-16.15	0.00	-750.28	0.00	750.28	1,401.79	700.89	1,439.37	710.85	45.60	-4.96	0.412
88.00	-11.15	-15.84	0.00	-717.99	0.00	717.99	1,390.81	695.41	1,410.17	696.43	47.70	-5.06	0.398
90.00	-10.81	-15.54	0.00	-686.30	0.00	686.30	1,379.68	689.84	1,381.09	682.07	49.84	-5.16	0.384
92.00	-10.47	-15.24	0.00	-655.22	0.00	655.22	1,368.38	684.19	1,352.13	667.77	52.02	-5.26	0.370

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
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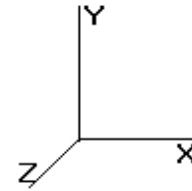
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Load Case: 1.2D + 1.6W 110.00 mph with No Ice 30 Iterations
Gust Response Factor : 1.10 **Wind Importance Factor :** 1.00
Dead Load Factor : 1.20
Wind Load Factor : 1.60

94.00	-10.13	-14.94	0.00	-624.75	0.00	624.75	1,356.93	678.46	1,323.31	653.53	54.24	-5.35	0.357
96.00	-9.80	-14.64	0.00	-594.87	0.00	594.87	1,345.30	672.65	1,294.62	639.36	56.50	-5.45	0.343
98.00	-9.46	-14.33	0.00	-565.60	0.00	565.60	1,333.52	666.76	1,266.08	625.27	58.80	-5.54	0.329
100.00	-9.14	-14.03	0.00	-536.94	0.00	536.94	1,321.57	660.79	1,237.69	611.25	61.14	-5.63	0.316
102.00	-8.81	-13.73	0.00	-508.87	0.00	508.87	1,309.46	654.73	1,209.47	597.31	63.51	-5.72	0.302
104.00	-8.49	-13.43	0.00	-481.41	0.00	481.41	1,297.19	648.59	1,181.40	583.45	65.92	-5.80	0.289
106.00	-8.18	-13.13	0.00	-454.54	0.00	454.54	1,284.75	642.38	1,153.50	569.67	68.36	-5.88	0.275
108.00	-7.86	-12.84	0.00	-428.28	0.00	428.28	1,272.15	636.08	1,125.79	555.98	70.84	-5.96	0.262
110.00	-7.56	-12.53	0.00	-402.60	0.00	402.60	1,258.29	629.15	1,097.29	541.91	73.35	-6.04	0.249
110.00	-7.55	-12.54	0.00	-402.56	0.00	402.56	1,258.26	629.13	1,097.24	541.88	73.36	-6.04	0.249
110.00	-7.55	-12.54	0.00	-402.56	0.00	402.56	849.39	424.69	737.77	364.36	73.36	-6.04	0.300
112.00	-7.28	-12.25	0.00	-377.53	0.00	377.53	842.35	421.17	720.81	355.98	75.89	-6.12	0.286
114.00	-7.00	-11.96	0.00	-353.03	0.00	353.03	835.13	417.57	703.86	347.61	78.47	-6.20	0.269
116.00	-6.73	-11.67	0.00	-329.11	0.00	329.11	827.75	413.88	686.97	339.27	81.08	-6.27	0.253
118.00	-6.47	-11.39	0.00	-305.76	0.00	305.76	820.21	410.11	670.13	330.95	83.72	-6.35	0.237
120.00	-6.20	-11.10	0.00	-282.99	0.00	282.99	812.51	406.25	653.35	322.67	86.39	-6.42	0.221
120.00	-6.20	-11.10	0.00	-282.99	0.00	282.99	812.51	406.25	653.35	322.67	86.39	-6.42	0.885
122.00	-6.05	-10.92	0.00	-260.78	0.00	260.78	804.64	402.32	636.65	314.42	89.08	-6.48	0.838
124.00	-5.88	-10.75	0.00	-238.93	0.00	238.93	796.61	398.31	620.02	306.21	91.85	-6.74	0.788
126.00	-5.71	-10.58	0.00	-217.43	0.00	217.43	788.42	394.21	603.48	298.04	94.72	-6.99	0.738
128.00	-5.55	-10.41	0.00	-196.26	0.00	196.26	780.06	390.03	587.02	289.91	97.70	-7.23	0.685
130.00	-5.39	-10.24	0.00	-175.44	0.00	175.44	771.54	385.77	570.66	281.83	100.76	-7.45	0.630
132.00	-5.24	-10.07	0.00	-154.95	0.00	154.95	762.86	381.43	554.40	273.80	103.92	-7.66	0.574
134.00	-5.10	-9.90	0.00	-134.81	0.00	134.81	754.02	377.01	538.25	265.82	107.17	-7.86	0.515
136.00	-4.96	-9.73	0.00	-115.00	0.00	115.00	745.01	372.51	522.21	257.90	110.49	-8.03	0.453
138.00	-4.83	-9.56	0.00	-95.54	0.00	95.54	735.84	367.92	506.30	250.04	113.88	-8.19	0.389
140.00	-3.52	-6.91	0.00	-76.41	0.00	76.41	726.51	363.26	490.51	242.24	117.33	-8.33	0.321
142.00	-3.42	-6.74	0.00	-62.59	0.00	62.59	717.02	358.51	474.85	234.51	120.83	-8.44	0.272
144.00	-3.33	-6.58	0.00	-49.10	0.00	49.10	704.68	352.34	457.59	225.99	124.37	-8.54	0.222
146.00	-3.25	-6.41	0.00	-35.94	0.00	35.94	690.85	345.42	439.70	217.15	127.96	-8.62	0.171
148.00	-3.17	-6.25	0.00	-23.12	0.00	23.12	677.01	338.51	422.16	208.49	131.57	-8.68	0.116
150.00	0.00	-5.70	0.00	-10.62	0.00	10.62	663.18	331.59	404.98	200.01	135.20	-8.71	0.053

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)



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Load Case: 0.9D + 1.6W 110.00 mph with No Ice (Reduced DL) 30 Iterations

Gust Response Factor : 1.10 Wind Importance Factor : 1.00

Dead Load Factor : 0.90

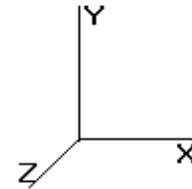
Wind Load Factor : 1.60

Shaft Segment Forces (Factored)

Seg Top								Ice				Wind	Dead	Tot Dead
Elev	Description	Kzt	Kz	qz	qzGh	C	Cf	Thick	Tributary	Ap	EPAs	Force X	Load Ice	Load
(ft)				(psf)	(psf)	(mph-ft)		(in)	(ft)	(sf)	(sf)	(lb)	(lb)	(lb)
0.00		1.00	0.70	20.599	22.65	296.79	1.000	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.70	20.599	22.65	294.33	1.000	* 0.000	2.00	6.423	6.42	232.9	0.0	406.1
4.00		1.00	0.70	20.599	22.65	291.87	1.000	* 0.000	2.00	6.370	6.37	230.9	0.0	403.8
6.00		1.00	0.70	20.599	22.65	289.41	1.000	* 0.000	2.00	6.316	6.32	229.0	0.0	401.6
8.00		1.00	0.70	20.599	22.65	286.94	1.000	* 0.000	2.00	6.263	6.26	227.0	0.0	399.3
10.00		1.00	0.70	20.599	22.65	284.48	1.200	* 0.000	2.00	6.209	7.45	270.1	0.0	397.0
12.00		1.00	0.70	20.599	22.65	282.02	1.200	* 0.000	2.00	6.156	7.39	267.8	0.0	394.7
14.00		1.00	0.70	20.599	22.65	279.56	1.200	* 0.000	2.00	6.102	7.32	265.5	0.0	392.4
16.00		1.00	0.70	20.599	22.65	277.10	1.200	* 0.000	2.00	6.049	7.26	263.1	0.0	390.1
18.00		1.00	0.70	20.599	22.65	274.64	1.200	* 0.000	2.00	5.995	7.19	260.8	0.0	387.8
20.00		1.00	0.70	20.599	22.65	272.18	1.200	* 0.000	2.00	5.942	7.13	258.5	0.0	385.5
22.00		1.00	0.70	20.599	22.65	269.71	1.200	* 0.000	2.00	5.888	7.07	256.2	0.0	383.2
24.00		1.00	0.70	20.599	22.65	267.25	1.200	* 0.000	2.00	5.835	7.00	253.8	0.0	380.9
26.00		1.00	0.70	20.599	22.65	264.79	1.200	* 0.000	2.00	5.781	6.94	251.5	0.0	378.6
28.00		1.00	0.70	20.599	22.65	262.33	1.200	* 0.000	2.00	5.728	6.87	249.2	0.0	376.3
30.00		1.00	0.70	20.616	22.67	259.98	1.200	* 0.000	2.00	5.674	6.81	247.1	0.0	374.0
31.50	Bot - Section 2	1.00	0.71	20.906	22.99	259.94	1.200	* 0.000	1.50	4.230	5.08	186.8	0.0	279.6
32.00		1.00	0.71	21.000	23.10	259.90	1.200	* 0.000	0.50	1.418	1.70	62.9	0.0	142.3
34.00		1.00	0.72	21.367	23.50	259.66	1.200	* 0.000	2.00	5.675	6.81	256.1	0.0	570.6
35.67	Top - Section 1	1.00	0.73	21.662	23.82	259.33	1.200	* 0.000	1.67	4.698	5.64	214.9	0.0	473.2
36.00		1.00	0.73	21.719	23.89	264.36	1.200	* 0.000	0.33	0.924	1.11	42.4	0.0	54.8
38.00		1.00	0.75	22.057	24.26	263.86	1.200	* 0.000	2.00	5.568	6.68	259.4	0.0	330.9
40.00		1.00	0.76	22.383	24.62	263.24	1.200	* 0.000	2.00	5.515	6.62	260.7	0.0	329.0
42.00		1.00	0.77	22.697	24.96	262.50	1.200	* 0.000	2.00	5.461	6.55	261.8	0.0	327.1
44.00		1.00	0.78	23.000	25.30	261.65	1.200	* 0.000	2.00	5.408	6.49	262.7	0.0	325.1
46.00		1.00	0.79	23.294	25.62	260.70	1.200	* 0.000	2.00	5.354	6.43	263.4	0.0	323.2
48.00		1.00	0.80	23.579	25.93	259.65	1.200	* 0.000	2.00	5.301	6.36	264.0	0.0	321.3
50.00		1.00	0.81	23.856	26.24	258.52	1.200	* 0.000	2.00	5.247	6.30	264.4	0.0	319.4
52.00		1.00	0.82	24.125	26.53	257.31	1.200	* 0.000	2.00	5.194	6.23	264.6	0.0	317.5
54.00		1.00	0.82	24.386	26.82	256.02	1.200	* 0.000	2.00	5.140	6.17	264.7	0.0	315.6
56.00		1.00	0.83	24.641	27.10	254.66	1.200	* 0.000	2.00	5.087	6.10	264.7	0.0	313.7
58.00		1.00	0.84	24.889	27.37	253.24	1.200	* 0.000	2.00	5.033	6.04	264.6	0.0	311.7
60.00		1.00	0.85	25.132	27.64	251.75	1.200	* 0.000	2.00	4.980	5.98	264.3	0.0	309.8
62.00		1.00	0.86	25.368	27.90	250.20	1.200	* 0.000	2.00	4.926	5.91	263.9	0.0	307.9
64.00		1.00	0.87	25.599	28.15	248.59	1.200	* 0.000	2.00	4.873	5.85	263.5	0.0	306.0
66.00		1.00	0.87	25.825	28.40	246.93	1.200	* 0.000	2.00	4.819	5.78	262.9	0.0	304.1
68.00		1.00	0.88	26.047	28.65	245.22	1.200	* 0.000	2.00	4.766	5.72	262.2	0.0	302.2
70.00		1.00	0.89	26.263	28.89	243.46	1.200	* 0.000	2.00	4.712	5.65	261.4	0.0	300.3
70.00	Bot - Section 3	1.00	0.89	26.264	28.89	243.46	1.200	* 0.000	0.00	0.008	0.01	0.4	0.0	0.5
72.00		1.00	0.90	26.476	29.12	241.65	1.200	* 0.000	2.00	4.737	5.68	264.9	0.0	432.0
73.50	Top - Section 2	1.00	0.90	26.632	29.29	240.26	1.200	* 0.000	1.50	3.532	4.24	198.6	0.0	323.0
74.00		1.00	0.90	26.684	29.35	244.32	1.200	* 0.000	0.50	1.160	1.39	65.4	0.0	66.0
76.00		1.00	0.91	26.888	29.57	242.44	1.200	* 0.000	2.00	4.638	5.57	263.4	0.0	264.9
78.00		1.00	0.92	27.088	29.79	240.51	1.200	* 0.000	2.00	4.585	5.50	262.3	0.0	263.4
80.00		1.00	0.92	27.285	30.01	238.55	1.200	* 0.000	2.00	4.531	5.44	261.1	0.0	261.8
82.00		1.00	0.93	27.478	30.22	236.55	1.200	* 0.000	2.00	4.478	5.37	259.9	0.0	260.3
84.00		1.00	0.94	27.668	30.43	234.52	1.200	* 0.000	2.00	4.424	5.31	258.5	0.0	258.8
86.00		1.00	0.94	27.854	30.64	232.44	1.200	* 0.000	2.00	4.371	5.24	257.1	0.0	257.3
88.00		1.00	0.95	28.038	30.84	230.34	1.200	* 0.000	2.00	4.317	5.18	255.7	0.0	255.7
90.00		1.00	0.95	28.219	31.04	228.20	1.200	* 0.000	2.00	4.264	5.12	254.1	0.0	254.2
92.00		1.00	0.96	28.396	31.23	226.02	1.200	* 0.000	2.00	4.210	5.05	252.5	0.0	252.7

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)



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Load Case: 0.9D + 1.6W	110.00 mph with No Ice (Reduced DL)	30 Iterations
Gust Response Factor : 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 0.90		
Wind Load Factor : 1.60		

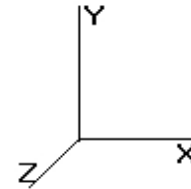
94.00		1.00	0.97	28.571	31.42	223.82	1.200	* 0.000	2.00	4.157	4.99	250.8	0.0	251.2
96.00		1.00	0.97	28.744	31.61	221.59	1.200	* 0.000	2.00	4.103	4.92	249.1	0.0	249.6
98.00		1.00	0.98	28.913	31.80	219.33	1.200	* 0.000	2.00	4.050	4.86	247.3	0.0	248.1
100.0		1.00	0.98	29.081	31.98	217.03	1.200	* 0.000	2.00	3.996	4.80	245.5	0.0	246.6
102.0		1.00	0.99	29.246	32.17	214.72	1.200	* 0.000	2.00	3.943	4.73	243.5	0.0	245.0
104.0		1.00	0.99	29.409	32.34	212.37	1.200	* 0.000	2.00	3.889	4.67	241.6	0.0	243.5
106.0		1.00	1.00	29.569	32.52	210.00	1.200	* 0.000	2.00	3.836	4.60	239.5	0.0	242.0
108.0		1.00	1.01	29.727	32.70	207.61	1.200	* 0.000	2.00	3.782	4.54	237.5	0.0	240.5
110.0		1.00	1.01	29.884	32.87	205.19	1.200	* 0.000	2.00	3.729	4.47	235.3	0.0	238.9
110.0	Top - Section 3	1.00	1.01	29.884	32.87	205.18	1.200	* 0.000	0.00	0.006	0.01	0.4	0.0	0.4
112.0		1.00	1.02	30.038	33.04	200.77	1.200	* 0.000	2.00	3.634	4.36	230.5	0.0	210.8
114.0		1.00	1.02	30.190	33.20	198.30	1.200	* 0.000	2.00	3.586	4.30	228.7	0.0	210.0
116.0		1.00	1.03	30.341	33.37	195.81	1.200	* 0.000	2.00	3.533	4.24	226.4	0.0	208.8
118.0		1.00	1.03	30.489	33.53	193.29	1.200	* 0.000	2.00	3.479	4.18	224.1	0.0	207.7
120.0	Reinf. Top	1.00	1.04	30.636	33.69	190.76	1.200	* 0.000	2.00	3.426	4.11	221.7	0.0	206.5
122.0		1.00	1.04	30.781	33.85	188.20	1.000	0.000	2.00	3.373	3.37	182.7	0.0	71.8
124.0		1.00	1.05	30.924	34.01	185.62	1.000	0.000	2.00	3.319	3.32	180.6	0.0	70.6
126.0		1.00	1.05	31.066	34.17	183.02	1.000	0.000	2.00	3.266	3.27	178.5	0.0	69.5
128.0		1.00	1.06	31.206	34.32	180.40	1.000	0.000	2.00	3.212	3.21	176.4	0.0	68.3
130.0		1.00	1.06	31.345	34.47	177.77	1.000	0.000	2.00	3.159	3.16	174.2	0.0	67.2
132.0		1.00	1.07	31.482	34.63	175.11	1.000	0.000	2.00	3.105	3.11	172.0	0.0	66.0
134.0		1.00	1.07	31.617	34.77	172.44	1.000	0.000	2.00	3.052	3.05	169.8	0.0	64.9
136.0		1.00	1.07	31.751	34.92	169.75	1.000	0.000	2.00	2.998	3.00	167.5	0.0	63.7
138.0		1.00	1.08	31.884	35.07	167.04	1.000	0.000	2.00	2.945	2.94	165.2	0.0	62.6
140.0	Appertunance(s)	1.00	1.08	32.015	35.21	164.32	1.000	0.000	2.00	2.891	2.89	162.9	0.0	61.4
142.0		1.00	1.09	32.145	35.36	161.58	1.000	0.000	2.00	2.838	2.84	160.5	0.0	60.3
144.0		1.00	1.09	32.274	35.50	158.82	1.000	0.000	2.00	2.784	2.78	158.1	0.0	59.1
146.0		1.00	1.10	32.402	35.64	156.04	1.000	0.000	2.00	2.731	2.73	155.7	0.0	58.0
148.0		1.00	1.10	32.528	35.78	153.25	1.000	0.000	2.00	2.677	2.68	153.3	0.0	56.8
150.0	Appertunance(s)	1.00	1.11	32.653	35.91	150.45	1.000	0.000	2.00	2.624	2.62	150.8	0.0	55.7
									Totals:	150.00		17,684.0	0.0	20,092.6

* = Cf Adjusted By Linear Load Ra Effect

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

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 Page: 15



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Load Case: 0.9D + 1.6W 110.00 mph with No Ice (Reduced DL) 30 Iterations

Gust Response Factor : 1.10 Wind Importance Factor : 1.00

Dead Load Factor : 0.90

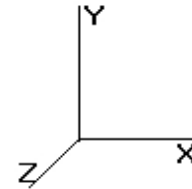
Wind Load Factor : 1.60

Discrete Appurtenance Segment Forces (Factored)

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Ka	Total EPAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
140.0	Ericsson KRY 112 144	3	32.015	35.217	0.50	0.80	0.49	0.000	0.000	27.72	0.00	0.00	29.70
140.0	Ericsson AIR 21, 1.3	3	32.015	35.217	0.71	0.80	10.31	0.000	0.000	580.89	0.00	0.00	224.10
140.0	Ericsson AIR 21, 1.3	3	32.015	35.217	0.70	0.80	10.23	0.000	0.000	576.50	0.00	0.00	220.05
140.0	Flat T-Arm	3	32.015	35.217	0.67	0.75	19.45	0.000	0.000	1,095.77	0.00	0.00	675.00
150.0	Flat Platform w/ Han	1	32.653	35.918	1.00	1.00	42.40	0.000	0.000	2,436.67	0.00	0.00	1,800.00
150.0	Powerwave LGP	6	32.899	36.189	0.50	0.75	0.61	0.000	4.000	35.18	0.00	140.70	29.70
150.0	Powerwave LGP	6	32.899	36.189	0.50	0.75	2.48	0.000	4.000	143.31	0.00	573.24	76.14
150.0	Powerwave 7770.00	6	32.899	36.189	0.65	0.75	16.12	0.000	4.000	933.20	0.00	3,732.80	189.00
150.0	KMW AM-X-CD-16-65-	1	32.899	36.189	0.69	0.75	3.13	0.000	4.000	181.29	0.00	725.14	29.70
150.0	Raycap DC6-48-60-18-	1	32.899	36.189	1.00	0.75	0.83	0.000	4.000	48.20	0.00	192.82	18.00
150.0	Andrew SBNH-	2	32.899	36.189	0.70	0.75	12.02	0.000	4.000	696.13	0.00	2,784.53	109.44
150.0	Ericsson RRUS-11 800	6	32.899	36.189	0.50	0.75	5.67	0.000	4.000	328.31	0.00	1,313.23	291.60
150.0	11' Omni	1	33.141	36.455	1.00	0.75	2.47	0.000	8.000	144.36	0.00	1,154.90	36.00
150.0	Flat Side Arm	3	32.653	35.918	0.67	1.00	10.45	0.000	0.000	600.66	0.00	0.00	405.00
										7,828.19			4,133.43

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)



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Load Case: 0.9D + 1.6W 110.00 mph with No Ice (Reduced DL) 30 Iterations

Gust Response Factor : 1.10 Wind Importance Factor : 1.00

Dead Load Factor : 0.90

Wind Load Factor : 1.60

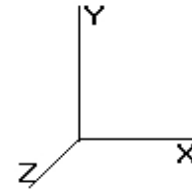
Linear Appurtenance Segment Forces (Factored)

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	FX (lb)	Dead Load (lb)
2.00	(4) Reinforcing Bars	Yes	2.00	0.000	7.50	1.25	0.00	20.599	0.195	1.284	0.00	0.00
4.00	(4) Reinforcing Bars	Yes	2.00	0.000	7.50	1.25	0.00	20.599	0.196	1.289	0.00	0.00
6.00	(4) Reinforcing Bars	Yes	2.00	0.000	7.50	1.25	0.00	20.599	0.198	1.294	0.00	0.00
8.00	(4) Reinforcing Bars	Yes	2.00	0.000	7.50	1.25	0.00	20.599	0.200	1.299	0.00	0.00
10.00	(4) Reinforcing Bars	Yes	2.00	0.668	7.50	1.25	0.83	20.599	0.201	0.000	30.25	0.00
12.00	(4) Reinforcing Bars	Yes	2.00	0.668	7.50	1.25	0.83	20.599	0.203	0.000	30.25	0.00
14.00	(4) Reinforcing Bars	Yes	2.00	0.668	7.50	1.25	0.83	20.599	0.205	0.000	30.25	0.00
16.00	(4) Reinforcing Bars	Yes	2.00	0.668	7.50	1.25	0.83	20.599	0.207	0.000	30.25	0.00
18.00	(4) Reinforcing Bars	Yes	2.00	0.668	7.50	1.25	0.83	20.599	0.209	0.000	30.25	0.00
20.00	(4) Reinforcing Bars	Yes	2.00	0.668	7.50	1.25	0.83	20.599	0.210	0.000	30.25	0.00
22.00	(4) Reinforcing Bars	Yes	2.00	0.668	7.50	1.25	0.83	20.599	0.212	0.000	30.25	0.00
24.00	(4) Reinforcing Bars	Yes	2.00	0.668	7.50	1.25	0.83	20.599	0.214	0.000	30.25	0.00
26.00	(4) Reinforcing Bars	Yes	2.00	0.668	7.50	1.25	0.83	20.599	0.216	0.000	30.25	0.00
28.00	(4) Reinforcing Bars	Yes	2.00	0.668	7.50	1.25	0.83	20.599	0.218	0.000	30.25	0.00
30.00	(4) Reinforcing Bars	Yes	2.00	0.667	7.50	1.25	0.83	20.616	0.220	0.000	30.27	0.00
31.50	(4) Reinforcing Bars	Yes	1.50	0.663	7.50	0.94	0.62	20.906	0.222	0.000	22.91	0.00
32.00	(4) Reinforcing Bars	Yes	0.50	0.661	7.50	0.31	0.21	21.000	0.223	0.000	7.59	0.00
34.00	(4) Reinforcing Bars	Yes	2.00	0.655	7.50	1.25	0.82	21.367	0.225	0.000	30.81	0.00
35.67	(4) Reinforcing Bars	Yes	1.67	0.651	7.50	1.04	0.68	21.662	0.227	0.000	25.91	0.00
36.00	(4) Reinforcing Bars	Yes	0.33	0.650	7.50	0.21	0.13	21.719	0.223	0.000	5.13	0.00
38.00	(4) Reinforcing Bars	Yes	2.00	0.645	7.50	1.25	0.81	22.057	0.224	0.000	31.31	0.00
40.00	(4) Reinforcing Bars	Yes	2.00	0.640	7.50	1.25	0.80	22.383	0.227	0.000	31.54	0.00
42.00	(4) Reinforcing Bars	Yes	2.00	0.636	7.50	1.25	0.79	22.697	0.229	0.000	31.76	0.00
44.00	(4) Reinforcing Bars	Yes	2.00	0.632	7.50	1.25	0.79	23.000	0.231	0.000	31.97	0.00
46.00	(4) Reinforcing Bars	Yes	2.00	0.628	7.50	1.25	0.78	23.294	0.233	0.000	32.17	0.00
48.00	(4) Reinforcing Bars	Yes	2.00	0.624	7.50	1.25	0.78	23.579	0.236	0.000	32.37	0.00
50.00	(4) Reinforcing Bars	Yes	2.00	0.620	7.50	1.25	0.78	23.856	0.238	0.000	32.56	0.00
52.00	(4) Reinforcing Bars	Yes	2.00	0.617	7.50	1.25	0.77	24.125	0.241	0.000	32.74	0.00
54.00	(4) Reinforcing Bars	Yes	2.00	0.614	7.50	1.25	0.77	24.386	0.243	0.000	32.92	0.00
56.00	(4) Reinforcing Bars	Yes	2.00	0.610	7.50	1.25	0.76	24.641	0.246	0.000	33.09	0.00
58.00	(4) Reinforcing Bars	Yes	2.00	0.607	7.50	1.25	0.76	24.889	0.248	0.000	33.26	0.00
60.00	(4) Reinforcing Bars	Yes	2.00	0.604	7.50	1.25	0.76	25.132	0.251	0.000	33.42	0.00
62.00	(4) Reinforcing Bars	Yes	2.00	0.602	7.50	1.25	0.75	25.368	0.254	0.000	33.57	0.00
64.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	25.599	0.257	0.000	33.79	0.00
66.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	25.825	0.259	0.000	34.09	0.00
68.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	26.047	0.262	0.000	34.38	0.00
70.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	26.263	0.265	0.000	34.67	0.00
70.00	(4) Reinforcing Bars	Yes	0.00	0.600	7.50	0.00	0.00	26.264	0.267	0.000	0.06	0.00
72.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	26.476	0.268	0.000	34.89	0.00
73.50	(4) Reinforcing Bars	Yes	1.50	0.600	7.50	0.94	0.56	26.632	0.271	0.000	26.42	0.00
74.00	(4) Reinforcing Bars	Yes	0.50	0.600	7.50	0.31	0.19	26.684	0.268	0.000	8.75	0.00
76.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	26.888	0.270	0.000	35.49	0.00
78.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	27.088	0.273	0.000	35.76	0.00
80.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	27.285	0.276	0.000	36.02	0.00
82.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	27.478	0.279	0.000	36.27	0.00
84.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	27.668	0.283	0.000	36.52	0.00
86.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	27.854	0.286	0.000	36.77	0.00
88.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	28.038	0.290	0.000	37.01	0.00
90.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	28.219	0.293	0.000	37.25	0.00
92.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	28.396	0.297	0.000	37.48	0.00
94.00	(4) Reinforcing Bars	Yes	2.00	0.600	7.50	1.25	0.75	28.571	0.301	0.000	37.71	0.00

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

5/16/2014 2:12:34 PM
 Page: 18



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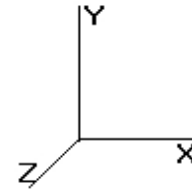
Load Case: 0.9D + 1.6W 110.00 mph with No Ice (Reduced DL) 30 Iterations
 Gust Response Factor : 1.10 Wind Importance Factor : 1.00
 Dead Load Factor : 0.90
 Wind Load Factor : 1.60

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
2.00	232.86	444.19	0.00	0.00
4.00	230.92	441.90	0.00	0.00
6.00	228.98	439.60	0.00	0.00
8.00	227.04	437.31	0.00	0.00
10.00	300.38	435.02	0.00	0.00
12.00	298.05	432.73	0.00	0.00
14.00	295.73	430.43	0.00	0.00
16.00	293.40	428.14	0.00	0.00
18.00	291.07	425.85	0.00	0.00
20.00	288.75	423.55	0.00	0.00
22.00	286.42	421.26	0.00	0.00
24.00	284.09	418.97	0.00	0.00
26.00	281.76	416.68	0.00	0.00
28.00	279.44	414.38	0.00	0.00
30.00	277.33	412.09	0.00	0.00
31.50	209.68	308.25	0.00	0.00
32.00	70.46	151.79	0.00	0.00
34.00	286.92	608.61	0.00	0.00
35.67	240.83	504.97	0.00	0.00
36.00	47.51	61.06	0.00	0.00
38.00	290.70	368.93	0.00	0.00
40.00	292.23	367.02	0.00	0.00
42.00	293.55	365.10	0.00	0.00
44.00	294.66	363.19	0.00	0.00
46.00	295.59	361.28	0.00	0.00
48.00	296.35	359.36	0.00	0.00
50.00	296.94	357.45	0.00	0.00
52.00	297.37	355.53	0.00	0.00
54.00	297.67	353.62	0.00	0.00
56.00	297.82	351.71	0.00	0.00
58.00	297.84	349.79	0.00	0.00
60.00	297.74	347.88	0.00	0.00
62.00	297.52	345.97	0.00	0.00
64.00	297.25	344.05	0.00	0.00
66.00	296.96	342.14	0.00	0.00
68.00	296.56	340.23	0.00	0.00
70.00	296.06	338.31	0.00	0.00
70.00	0.49	0.56	0.00	0.00
72.00	299.78	469.97	0.00	0.00
73.50	225.07	351.59	0.00	0.00
74.00	74.13	75.47	0.00	0.00
76.00	298.88	302.96	0.00	0.00
78.00	298.05	301.43	0.00	0.00
80.00	297.13	299.90	0.00	0.00
82.00	296.13	298.37	0.00	0.00
84.00	295.05	296.84	0.00	0.00
86.00	293.89	295.31	0.00	0.00
88.00	292.66	293.79	0.00	0.00
90.00	291.36	292.26	0.00	0.00

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
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Code: ANSI/TIA-222 Rev G
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 Topographic Category : 1
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5/16/2014 2:12:34 PM
 Page: 20

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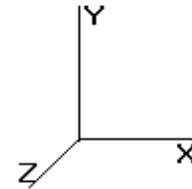
Load Case: 0.9D + 1.6W	110.00 mph with No Ice (Reduced DL)	30 Iterations
Gust Response Factor : 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 0.90		
Wind Load Factor : 1.60		

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-26.95	-27.47	0.00	-2,645.15	0.00	2,645.15	3,133.66	1,566.83	4,776.46	2,358.91	0.00	0.00	0.700
2.00	-26.45	-27.29	0.00	-2,590.21	0.00	2,590.21	3,117.04	1,558.52	4,710.93	2,326.55	0.03	-0.12	0.692
4.00	-25.95	-27.11	0.00	-2,535.62	0.00	2,535.62	3,100.26	1,550.13	4,645.58	2,294.28	0.10	-0.24	0.684
6.00	-25.46	-26.93	0.00	-2,481.40	0.00	2,481.40	3,083.32	1,541.66	4,580.43	2,262.10	0.23	-0.35	0.676
8.00	-24.97	-26.76	0.00	-2,427.53	0.00	2,427.53	3,066.21	1,533.11	4,515.47	2,230.02	0.40	-0.47	0.667
10.00	-24.48	-26.50	0.00	-2,374.02	0.00	2,374.02	3,048.95	1,524.47	4,450.72	2,198.04	0.62	-0.59	0.659
12.00	-24.00	-26.25	0.00	-2,321.02	0.00	2,321.02	3,031.51	1,515.76	4,386.18	2,166.17	0.90	-0.71	0.651
14.00	-23.52	-25.99	0.00	-2,268.52	0.00	2,268.52	3,013.92	1,506.96	4,321.85	2,134.40	1.22	-0.82	0.643
16.00	-23.04	-25.74	0.00	-2,216.54	0.00	2,216.54	2,996.16	1,498.08	4,257.75	2,102.74	1.59	-0.94	0.634
18.00	-22.57	-25.49	0.00	-2,165.05	0.00	2,165.05	2,978.24	1,489.12	4,193.87	2,071.20	2.01	-1.06	0.626
20.00	-22.10	-25.24	0.00	-2,114.07	0.00	2,114.07	2,960.16	1,480.08	4,130.23	2,039.77	2.48	-1.18	0.617
22.00	-21.64	-24.99	0.00	-2,063.60	0.00	2,063.60	2,941.92	1,470.96	4,066.83	2,008.46	3.00	-1.29	0.609
24.00	-21.17	-24.74	0.00	-2,013.63	0.00	2,013.63	2,923.51	1,461.75	4,003.68	1,977.27	3.56	-1.41	0.600
26.00	-20.71	-24.49	0.00	-1,964.16	0.00	1,964.16	2,904.94	1,452.47	3,940.79	1,946.21	4.18	-1.53	0.592
28.00	-20.26	-24.24	0.00	-1,915.19	0.00	1,915.19	2,886.20	1,443.10	3,878.15	1,915.27	4.84	-1.64	0.583
30.00	-19.81	-23.98	0.00	-1,866.72	0.00	1,866.72	2,867.31	1,433.65	3,815.78	1,884.47	5.56	-1.76	0.574
31.50	-19.49	-23.78	0.00	-1,830.67	0.00	1,830.67	2,853.00	1,426.50	3,769.08	1,861.41	6.12	-1.84	0.568
32.00	-19.31	-23.73	0.00	-1,818.85	0.00	1,818.85	2,848.25	1,424.12	3,753.69	1,853.80	6.32	-1.87	0.558
34.00	-18.67	-23.46	0.00	-1,771.39	0.00	1,771.39	2,824.57	1,412.28	3,686.05	1,820.40	7.13	-1.99	0.550
35.67	-18.15	-23.22	0.00	-1,732.22	0.00	1,732.22	2,238.61	1,119.30	2,967.00	1,465.29	7.84	-2.08	0.631
36.00	-18.06	-23.19	0.00	-1,724.56	0.00	1,724.56	2,236.44	1,118.22	2,959.36	1,461.52	7.98	-2.10	0.629
38.00	-17.65	-22.92	0.00	-1,678.18	0.00	1,678.18	2,223.20	1,111.60	2,913.17	1,438.71	8.89	-2.22	0.618
40.00	-17.25	-22.65	0.00	-1,632.34	0.00	1,632.34	2,209.80	1,104.90	2,867.11	1,415.96	9.85	-2.34	0.607
42.00	-16.85	-22.38	0.00	-1,587.04	0.00	1,587.04	2,196.23	1,098.12	2,821.18	1,393.28	10.85	-2.46	0.596
44.00	-16.46	-22.10	0.00	-1,542.29	0.00	1,542.29	2,182.51	1,091.25	2,775.40	1,370.67	11.91	-2.58	0.585
46.00	-16.07	-21.82	0.00	-1,498.09	0.00	1,498.09	2,168.61	1,084.31	2,729.77	1,348.13	13.01	-2.70	0.573
48.00	-15.68	-21.54	0.00	-1,454.44	0.00	1,454.44	2,154.56	1,077.28	2,684.29	1,325.67	14.17	-2.81	0.562
50.00	-15.29	-21.26	0.00	-1,411.36	0.00	1,411.36	2,140.34	1,070.17	2,638.98	1,303.29	15.37	-2.93	0.551
52.00	-14.91	-20.97	0.00	-1,368.85	0.00	1,368.85	2,125.97	1,062.98	2,593.83	1,280.99	16.62	-3.04	0.540
54.00	-14.53	-20.68	0.00	-1,326.91	0.00	1,326.91	2,111.42	1,055.71	2,548.86	1,258.78	17.92	-3.16	0.529
56.00	-14.16	-20.39	0.00	-1,285.54	0.00	1,285.54	2,096.72	1,048.36	2,504.06	1,236.66	19.27	-3.27	0.517
58.00	-13.79	-20.10	0.00	-1,244.75	0.00	1,244.75	2,081.85	1,040.93	2,459.46	1,214.63	20.67	-3.39	0.506
60.00	-13.42	-19.81	0.00	-1,204.54	0.00	1,204.54	2,066.82	1,033.41	2,415.05	1,192.70	22.11	-3.50	0.495
62.00	-13.05	-19.52	0.00	-1,164.92	0.00	1,164.92	2,051.63	1,025.81	2,370.83	1,170.87	23.60	-3.61	0.484
64.00	-12.69	-19.23	0.00	-1,125.88	0.00	1,125.88	2,036.27	1,018.14	2,326.83	1,149.13	25.13	-3.72	0.472
66.00	-12.34	-18.93	0.00	-1,087.43	0.00	1,087.43	2,020.76	1,010.38	2,283.03	1,127.50	26.71	-3.83	0.461
68.00	-11.98	-18.63	0.00	-1,049.57	0.00	1,049.57	2,005.07	1,002.54	2,239.46	1,105.98	28.34	-3.94	0.450
70.00	-11.65	-18.33	0.00	-1,012.31	0.00	1,012.31	1,989.23	994.61	2,196.11	1,084.58	30.01	-4.04	0.439
70.00	-11.63	-18.34	0.00	-1,012.25	0.00	1,012.25	1,989.20	994.60	2,196.04	1,084.54	30.02	-4.04	0.439
72.00	-11.15	-18.02	0.00	-975.64	0.00	975.64	1,971.12	985.56	2,150.69	1,062.15	31.73	-4.15	0.421
73.50	-10.80	-17.78	0.00	-948.55	0.00	948.55	1,466.65	733.33	1,624.17	802.11	33.05	-4.23	0.491
74.00	-10.71	-17.71	0.00	-939.71	0.00	939.71	1,464.19	732.10	1,616.75	798.45	33.49	-4.25	0.488
76.00	-10.40	-17.41	0.00	-904.29	0.00	904.29	1,454.20	727.10	1,586.96	783.74	35.29	-4.36	0.474
78.00	-10.09	-17.11	0.00	-869.46	0.00	869.46	1,444.04	722.02	1,557.26	769.07	37.14	-4.47	0.460
80.00	-9.78	-16.81	0.00	-835.24	0.00	835.24	1,433.72	716.86	1,527.64	754.44	39.04	-4.58	0.445
82.00	-9.48	-16.51	0.00	-801.62	0.00	801.62	1,423.24	711.62	1,498.11	739.86	40.97	-4.68	0.431
84.00	-9.18	-16.20	0.00	-768.61	0.00	768.61	1,412.59	706.30	1,468.69	725.33	42.96	-4.78	0.417
86.00	-8.88	-15.90	0.00	-736.20	0.00	736.20	1,401.79	700.89	1,439.37	710.85	44.98	-4.89	0.404
88.00	-8.59	-15.60	0.00	-704.40	0.00	704.40	1,390.81	695.41	1,410.17	696.43	47.05	-4.98	0.390
90.00	-8.30	-15.30	0.00	-673.19	0.00	673.19	1,379.68	689.84	1,381.09	682.07	49.15	-5.08	0.376
92.00	-8.01	-15.00	0.00	-642.60	0.00	642.60	1,368.38	684.19	1,352.13	667.77	51.30	-5.18	0.362

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)



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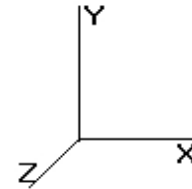
Load Case: 1.2D + 1.0Di + 1.0Wi	50.00 mph with 0.75 in Radial Ice	29 Iterations
Gust Response Factor : 1.10	Ice Dead Load Factor : 1.00	Wind Importance Factor : 1.00
Dead Load Factor : 1.20		Ice Importance Factor : 1.00
Wind Load Factor : 1.00		

Shaft Segment Forces (Factored)

Seg Top Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Ap (sf)	EPAs (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	4.256	4.682	0.000	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.70	4.256	4.682	0.000	1.200	* 1.133	2.00	6.801	8.16	38.2	112.1	609.1
4.00		1.00	0.70	4.256	4.682	0.000	1.200	* 1.215	2.00	6.774	8.13	38.1	119.5	613.4
6.00		1.00	0.70	4.256	4.682	0.000	1.200	* 1.265	2.00	6.738	8.09	37.9	123.5	614.4
8.00		1.00	0.70	4.256	4.682	0.000	1.200	* 1.302	2.00	6.696	8.04	37.6	126.2	614.0
10.00		1.00	0.70	4.256	4.682	0.000	1.200	* 1.331	2.00	6.653	7.98	37.4	128.1	612.9
12.00		1.00	0.70	4.256	4.682	0.000	1.200	* 1.356	2.00	6.607	7.93	37.1	129.5	611.2
14.00		1.00	0.70	4.256	4.682	0.000	1.200	* 1.377	2.00	6.561	7.87	36.9	130.4	609.1
16.00		1.00	0.70	4.256	4.682	0.000	1.200	* 1.395	2.00	6.514	7.82	36.6	131.1	606.7
18.00		1.00	0.70	4.256	4.682	0.000	1.200	* 1.412	2.00	6.466	7.76	36.3	131.6	604.1
20.00		1.00	0.70	4.256	4.682	0.000	1.200	* 1.427	2.00	6.417	7.70	36.1	131.9	601.4
22.00		1.00	0.70	4.256	4.682	0.000	1.200	* 1.440	2.00	6.368	7.64	35.8	132.1	598.5
24.00		1.00	0.70	4.256	4.682	0.000	1.200	* 1.453	2.00	6.319	7.58	35.5	132.1	595.5
26.00		1.00	0.70	4.256	4.682	0.000	1.200	* 1.465	2.00	6.269	7.52	35.2	132.0	592.3
28.00		1.00	0.70	4.256	4.682	0.000	1.200	* 1.476	2.00	6.220	7.46	34.9	131.9	589.1
30.00		1.00	0.70	4.260	4.686	0.000	1.200	* 1.486	2.00	6.169	7.40	34.7	131.6	585.8
31.50	Bot - Section 2	1.00	0.71	4.320	4.751	0.000	1.200	* 1.493	1.50	4.604	5.52	26.3	98.8	438.1
32.00		1.00	0.71	4.339	4.773	0.000	1.200	* 1.495	0.50	1.541	1.85	8.8	33.2	211.9
34.00		1.00	0.72	4.415	4.856	0.000	1.200	* 1.504	2.00	6.177	7.41	36.0	133.4	849.6
35.67	Top - Section 1	1.00	0.73	4.476	4.923	0.000	1.200	* 1.512	1.67	5.119	6.14	30.2	111.1	704.8
36.00		1.00	0.73	4.487	4.936	0.000	1.200	* 1.513	0.33	1.007	1.21	6.0	21.9	87.6
38.00		1.00	0.75	4.557	5.013	0.000	1.200	* 1.521	2.00	6.075	7.29	36.5	132.5	529.1
40.00		1.00	0.76	4.625	5.087	0.000	1.200	* 1.529	2.00	6.024	7.23	36.8	132.0	526.0
42.00		1.00	0.77	4.689	5.158	0.000	1.200	* 1.537	2.00	5.973	7.17	37.0	131.4	522.9
44.00		1.00	0.78	4.752	5.227	0.000	1.200	* 1.544	2.00	5.922	7.11	37.2	130.8	519.8
46.00		1.00	0.79	4.813	5.294	0.000	1.200	* 1.551	2.00	5.871	7.05	37.3	130.2	516.6
48.00		1.00	0.80	4.872	5.359	0.000	1.200	* 1.557	2.00	5.820	6.98	37.4	129.5	513.4
50.00		1.00	0.81	4.929	5.422	0.000	1.200	* 1.564	2.00	5.769	6.92	37.5	128.8	510.1
52.00		1.00	0.82	4.984	5.483	0.000	1.200	* 1.570	2.00	5.717	6.86	37.6	128.1	506.8
54.00		1.00	0.82	5.039	5.542	0.000	1.200	* 1.576	2.00	5.666	6.80	37.7	127.3	503.5
56.00		1.00	0.83	5.091	5.600	0.000	1.200	* 1.581	2.00	5.614	6.74	37.7	126.5	500.2
58.00		1.00	0.84	5.142	5.657	0.000	1.200	* 1.587	2.00	5.562	6.67	37.8	125.7	496.8
60.00		1.00	0.85	5.193	5.712	0.000	1.200	* 1.592	2.00	5.511	6.61	37.8	124.9	493.4
62.00		1.00	0.86	5.241	5.766	0.000	1.200	* 1.598	2.00	5.459	6.55	37.8	124.0	490.0
64.00		1.00	0.87	5.289	5.818	0.000	1.200	* 1.603	2.00	5.407	6.49	37.8	123.1	486.6
66.00		1.00	0.87	5.336	5.869	0.000	1.200	* 1.608	2.00	5.355	6.43	37.7	122.3	483.2
68.00		1.00	0.88	5.382	5.920	0.000	1.200	* 1.612	2.00	5.303	6.36	37.7	121.3	479.7
70.00		1.00	0.89	5.426	5.969	0.000	1.200	* 1.617	2.00	5.251	6.30	37.6	120.4	476.2
70.00	Bot - Section 3	1.00	0.89	5.426	5.969	0.000	1.200	* 1.617	0.00	0.009	0.01	0.1	0.2	0.8
72.00		1.00	0.90	5.470	6.017	0.000	1.200	* 1.622	2.00	5.277	6.33	38.1	121.4	652.9
73.50	Top - Section 2	1.00	0.90	5.503	6.053	0.000	1.200	* 1.625	1.50	3.939	4.73	28.6	90.8	488.0
74.00		1.00	0.90	5.513	6.064	0.000	1.200	* 1.626	0.50	1.295	1.55	9.4	30.0	106.9
76.00		1.00	0.91	5.555	6.111	0.000	1.200	* 1.631	2.00	5.182	6.22	38.0	119.6	428.3
78.00		1.00	0.92	5.597	6.156	0.000	1.200	* 1.635	2.00	5.130	6.16	37.9	118.7	425.3
80.00		1.00	0.92	5.637	6.201	0.000	1.200	* 1.639	2.00	5.078	6.09	37.8	117.7	422.3
82.00		1.00	0.93	5.677	6.245	0.000	1.200	* 1.643	2.00	5.025	6.03	37.7	116.6	419.2
84.00		1.00	0.94	5.716	6.288	0.000	1.200	* 1.647	2.00	4.973	5.97	37.5	115.6	416.1
86.00		1.00	0.94	5.755	6.331	0.000	1.200	* 1.651	2.00	4.921	5.91	37.4	114.6	413.1
88.00		1.00	0.95	5.793	6.372	0.000	1.200	* 1.655	2.00	4.869	5.84	37.2	113.5	410.0
90.00		1.00	0.95	5.830	6.413	0.000	1.200	* 1.658	2.00	4.817	5.78	37.1	112.5	406.9
92.00		1.00	0.96	5.867	6.454	0.000	1.200	* 1.662	2.00	4.764	5.72	36.9	111.4	403.8

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev: 0.000 (ft)



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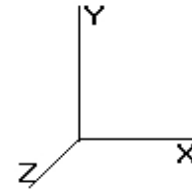
Load Case: 1.2D + 1.0Di + 1.0Wi	50.00 mph with 0.75 in Radial Ice	29 Iterations
Gust Response Factor : 1.10	Ice Dead Load Factor : 1.00	Wind Importance Factor : 1.00
Dead Load Factor : 1.20		Ice Importance Factor : 1.00
Wind Load Factor : 1.00		

94.00		1.00	0.97	5.903	6.493	0.000	1.200	*	1.666	2.00	4.712	5.65	36.7	110.3	400.6
96.00		1.00	0.97	5.939	6.533	0.000	1.200	*	1.669	2.00	4.660	5.59	36.5	109.2	397.5
98.00		1.00	0.98	5.974	6.571	0.000	1.200	*	1.672	2.00	4.607	5.53	36.3	108.1	394.4
100.0		1.00	0.98	6.008	6.609	0.000	1.200	*	1.676	2.00	4.555	5.47	36.1	107.0	391.2
102.0		1.00	0.99	6.043	6.647	0.000	1.200	*	1.679	2.00	4.503	5.40	35.9	105.9	388.1
104.0		1.00	0.99	6.076	6.684	0.000	1.200	*	1.682	2.00	4.450	5.34	35.7	104.7	384.9
106.0		1.00	1.00	6.109	6.720	0.000	1.200	*	1.686	2.00	4.398	5.28	35.5	103.6	381.7
108.0		1.00	1.01	6.142	6.756	0.000	1.200	*	1.689	2.00	4.345	5.21	35.2	102.5	378.5
110.0		1.00	1.01	6.174	6.792	0.000	1.200	*	1.692	2.00	4.293	5.15	35.0	101.3	375.3
110.0	Top - Section 3	1.00	1.01	6.174	6.792	0.000	1.200	*	1.692	0.00	0.007	0.01	0.1	0.2	0.6
112.0		1.00	1.02	6.206	6.827	0.000	1.200	*	1.695	2.00	4.198	5.04	34.4	99.1	335.6
114.0		1.00	1.02	6.238	6.861	0.000	1.200	*	1.698	2.00	4.152	4.98	34.2	98.0	333.5
116.0		1.00	1.03	6.269	6.896	0.000	1.200	*	1.701	2.00	4.100	4.92	33.9	96.9	330.8
118.0		1.00	1.03	6.299	6.929	0.000	1.200	*	1.704	2.00	4.047	4.86	33.7	95.7	328.0
120.0	Reinf. Top	1.00	1.04	6.330	6.963	0.000	1.200	*	1.707	2.00	3.995	4.79	33.4	94.5	325.3
122.0		1.00	1.04	6.360	6.996	0.000	1.200		1.710	2.00	3.942	4.73	33.1	93.3	189.0
124.0		1.00	1.05	6.389	7.028	0.000	1.200		1.712	2.00	3.890	4.67	32.8	92.1	186.2
126.0		1.00	1.05	6.419	7.060	0.000	1.200		1.715	2.00	3.837	4.60	32.5	90.8	183.5
128.0		1.00	1.06	6.448	7.092	0.000	1.200		1.718	2.00	3.785	4.54	32.2	89.6	180.7
130.0		1.00	1.06	6.476	7.124	0.000	1.200		1.720	2.00	3.732	4.48	31.9	88.4	177.9
132.0		1.00	1.07	6.504	7.155	0.000	1.200		1.723	2.00	3.679	4.42	31.6	87.1	175.2
134.0		1.00	1.07	6.532	7.186	0.000	1.200		1.726	2.00	3.627	4.35	31.3	85.9	172.4
136.0		1.00	1.07	6.560	7.216	0.000	1.200		1.728	2.00	3.574	4.29	31.0	84.6	169.6
138.0		1.00	1.08	6.588	7.246	0.000	1.200		1.731	2.00	3.521	4.23	30.6	83.4	166.8
140.0	Appertunance(s)	1.00	1.08	6.615	7.276	0.000	1.200		1.733	2.00	3.469	4.16	30.3	82.1	164.0
142.0		1.00	1.09	6.642	7.306	0.000	1.200		1.736	2.00	3.416	4.10	29.9	80.9	161.2
144.0		1.00	1.09	6.668	7.335	0.000	1.200		1.738	2.00	3.363	4.04	29.6	79.6	158.4
146.0		1.00	1.10	6.695	7.364	0.000	1.200		1.741	2.00	3.311	3.97	29.3	78.3	155.6
148.0		1.00	1.10	6.721	7.393	0.000	1.200		1.743	2.00	3.258	3.91	28.9	77.0	152.8
150.0	Appertunance(s)	1.00	1.11	6.746	7.421	0.000	1.200		1.745	2.00	3.205	3.85	28.5	75.7	150.0
* = Cf Adjusted By Linear Load Ra Effect										Totals:	150.00		2,662.0	8,468.9	32,587.1

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

5/16/2014 2:12:34 PM
 Page: 24



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Load Case: 1.2D + 1.0Di + 1.0Wi 50.00 mph with 0.75 in Radial Ice 29 Iterations

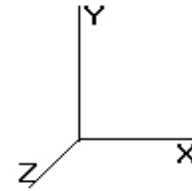
Gust Response Factor : 1.10 Ice Dead Load Factor : 1.00 Wind Importance Factor : 1.00
 Dead Load Factor : 1.20 Ice Importance Factor : 1.00
 Wind Load Factor : 1.00

Discrete Appurtenance Segment Forces (Factored)

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Ka	Total EPAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
140.0	Ericsson KRY 112 144	3	6.615	7.276	0.50	0.80	0.76	0.000	0.000	5.52	0.00	0.00	88.25
140.0	Ericsson AIR 21, 1.3	3	6.615	7.276	0.71	0.80	12.17	0.000	0.000	88.53	0.00	0.00	801.76
140.0	Ericsson AIR 21, 1.3	3	6.615	7.276	0.70	0.80	12.07	0.000	0.000	87.83	0.00	0.00	796.22
140.0	Flat T-Arm	3	6.615	7.276	0.67	0.75	31.72	0.000	0.000	230.77	0.00	0.00	1,331.96
150.0	Flat Platform w/ Han	1	6.746	7.421	1.00	1.00	63.42	0.000	0.000	470.61	0.00	0.00	3,374.08
150.0	Powerwave LGP	6	6.797	7.477	0.50	0.75	1.06	0.000	4.000	7.94	0.00	31.74	120.92
150.0	Powerwave LGP	6	6.797	7.477	0.50	0.75	3.52	0.000	4.000	26.31	0.00	105.22	303.41
150.0	Powerwave 7770.00	6	6.797	7.477	0.65	0.75	19.19	0.000	4.000	143.47	0.00	573.88	1,062.51
150.0	KMW AM-X-CD-16-65-	1	6.797	7.477	0.69	0.75	3.69	0.000	4.000	27.57	0.00	110.28	206.87
150.0	Raycap DC6-48-60-18-	1	6.797	7.477	1.00	0.75	1.89	0.000	4.000	14.14	0.00	56.57	104.52
150.0	Andrew SBNH-	2	6.797	7.477	0.70	0.75	13.76	0.000	4.000	102.87	0.00	411.49	673.08
150.0	Ericsson RRUS-11 800	6	6.797	7.477	0.50	0.75	7.15	0.000	4.000	53.46	0.00	213.86	924.79
150.0	11' Omni	1	6.847	7.532	1.00	0.75	5.08	0.000	8.000	38.24	0.00	305.89	194.47
150.0	Flat Side Arm	3	6.746	7.421	0.67	1.00	14.54	0.000	0.000	107.89	0.00	0.00	519.90
										1,405.13			10,502.74

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)



5/16/2014 2:12:34 PM
 Page: 25

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Load Case: 1.2D + 1.0Di + 1.0Wi 50.00 mph with 0.75 in Radial Ice 29 Iterations

Gust Response Factor : 1.10 Ice Dead Load Factor : 1.00 Wind Importance Factor : 1.00
 Dead Load Factor : 1.20 Ice Importance Factor : 1.00
 Wind Load Factor : 1.00

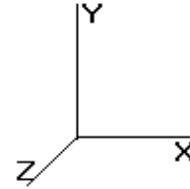
Linear Appurtenance Segment Forces (Factored)

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	FX (lb)	Dead Load (lb)
2.00	(4) Reinforcing Bars	Yes	2.00	0.000	7.50	1.63	0.00	4.256	0.195	1.284	0.00	3.14
4.00	(4) Reinforcing Bars	Yes	2.00	0.000	7.50	1.65	0.00	4.256	0.196	1.289	0.00	3.60
6.00	(4) Reinforcing Bars	Yes	2.00	0.000	7.50	1.67	0.00	4.256	0.198	1.294	0.00	3.91
8.00	(4) Reinforcing Bars	Yes	2.00	0.000	7.50	1.68	0.00	4.256	0.200	1.299	0.00	4.14
10.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.69	2.03	4.256	0.201	0.000	9.52	4.33
12.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.70	2.04	4.256	0.203	0.000	9.56	4.49
14.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.71	2.05	4.256	0.205	0.000	9.60	4.63
16.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.72	2.06	4.256	0.207	0.000	9.64	4.76
18.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.72	2.06	4.256	0.209	0.000	9.67	4.87
20.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.73	2.07	4.256	0.210	0.000	9.69	4.97
22.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.73	2.08	4.256	0.212	0.000	9.72	5.07
24.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.73	2.08	4.256	0.214	0.000	9.74	5.16
26.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.74	2.09	4.256	0.216	0.000	9.77	5.24
28.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.74	2.09	4.256	0.218	0.000	9.79	5.32
30.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.75	2.09	4.260	0.220	0.000	9.81	5.39
31.50	(4) Reinforcing Bars	Yes	1.50	1.200	7.50	1.31	1.58	4.320	0.222	0.000	7.49	4.09
32.00	(4) Reinforcing Bars	Yes	0.50	1.200	7.50	0.43	0.52	4.339	0.223	0.000	2.49	1.36
34.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.75	2.10	4.415	0.225	0.000	10.21	5.53
35.67	(4) Reinforcing Bars	Yes	1.67	1.200	7.50	1.46	1.76	4.476	0.227	0.000	8.65	4.66
36.00	(4) Reinforcing Bars	Yes	0.33	1.200	7.50	0.29	0.35	4.487	0.223	0.000	1.71	0.92
38.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.76	2.11	4.557	0.224	0.000	10.57	5.66
40.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.76	2.11	4.625	0.227	0.000	10.74	5.71
42.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.76	2.11	4.689	0.229	0.000	10.91	5.77
44.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.76	2.12	4.752	0.231	0.000	11.07	5.82
46.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.77	2.12	4.813	0.233	0.000	11.23	5.88
48.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.77	2.12	4.872	0.236	0.000	11.38	5.93
50.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.77	2.13	4.929	0.238	0.000	11.52	5.97
52.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.77	2.13	4.984	0.241	0.000	11.67	6.02
54.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.78	2.13	5.039	0.243	0.000	11.81	6.07
56.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.78	2.13	5.091	0.246	0.000	11.94	6.11
58.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.78	2.13	5.142	0.248	0.000	12.08	6.15
60.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.78	2.14	5.193	0.251	0.000	12.21	6.20
62.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.78	2.14	5.241	0.254	0.000	12.33	6.24
64.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.78	2.14	5.289	0.257	0.000	12.46	6.28
66.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.79	2.14	5.336	0.259	0.000	12.58	6.32
68.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.79	2.14	5.382	0.262	0.000	12.70	6.35
70.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.79	2.15	5.426	0.265	0.000	12.81	6.39
70.00	(4) Reinforcing Bars	Yes	0.00	1.200	7.50	0.00	0.00	5.426	0.267	0.000	0.02	0.01
72.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.79	2.15	5.470	0.268	0.000	12.91	6.42
73.50	(4) Reinforcing Bars	Yes	1.50	1.200	7.50	1.35	1.62	5.503	0.271	0.000	9.78	4.85
74.00	(4) Reinforcing Bars	Yes	0.50	1.200	7.50	0.45	0.53	5.513	0.268	0.000	3.24	1.60
76.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.79	2.15	5.555	0.270	0.000	13.15	6.50
78.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.79	2.15	5.597	0.273	0.000	13.26	6.53
80.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.80	2.16	5.637	0.276	0.000	13.37	6.56
82.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.80	2.16	5.677	0.279	0.000	13.47	6.60
84.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.80	2.16	5.716	0.283	0.000	13.57	6.63
86.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.80	2.16	5.755	0.286	0.000	13.68	6.66
88.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.80	2.16	5.793	0.290	0.000	13.78	6.69
90.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.80	2.16	5.830	0.293	0.000	13.87	6.72
92.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.80	2.16	5.867	0.297	0.000	13.97	6.75
94.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.81	2.17	5.903	0.301	0.000	14.07	6.78

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

5/16/2014 2:12:34 PM
 Page: 26



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Load Case: 1.2D + 1.0Di + 1.0Wi 50.00 mph with 0.75 in Radial Ice 29 Iterations

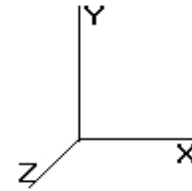
Gust Response Factor : 1.10 Ice Dead Load Factor : 1.00 Wind Importance Factor : 1.00
 Dead Load Factor : 1.20 Ice Importance Factor : 1.00
 Wind Load Factor : 1.00

96.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.81	2.17	5.939	0.305	0.000	14.16	6.81
98.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.81	2.17	5.974	0.309	0.000	14.25	6.83
100.0	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.81	2.17	6.008	0.313	0.000	14.34	6.86
102.0	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.81	2.17	6.043	0.317	0.000	14.43	6.89
104.0	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.81	2.17	6.076	0.321	0.000	14.52	6.92
106.0	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.81	2.17	6.109	0.326	0.000	14.61	6.94
108.0	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.81	2.18	6.142	0.330	0.000	14.70	6.97
110.0	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.81	2.18	6.174	0.335	0.000	14.78	6.99
110.0	(4) Reinforcing Bars	Yes	0.00	1.200	7.50	0.00	0.00	6.174	0.338	0.000	0.02	0.01
112.0	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.81	2.17	6.206	0.343	0.000	14.84	7.01
114.0	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.82	2.18	6.238	0.349	0.000	14.95	7.04
116.0	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.82	2.18	6.269	0.354	0.000	15.03	7.07
118.0	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.82	2.18	6.299	0.359	0.000	15.12	7.09
120.0	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.82	2.18	6.330	0.365	0.000	15.20	7.12
Totals:										690.16	358.31	

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

5/16/2014 2:12:35 PM
 Page: 27



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Load Case: 1.2D + 1.0Di + 1.0Wi 50.00 mph with 0.75 in Radial Ice 29 Iterations
 Gust Response Factor : 1.10 Ice Dead Load Factor : 1.00 Wind Importance Factor : 1.00
 Dead Load Factor : 1.20 Ice Importance Factor : 1.00
 Wind Load Factor : 1.00

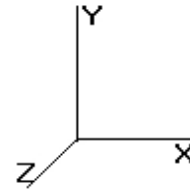
Applied Segment Forces Summary

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
2.00	38.21	663.00	0.00	0.00
4.00	38.06	667.73	0.00	0.00
6.00	37.85	669.06	0.00	0.00
8.00	37.62	668.92	0.00	0.00
10.00	46.89	667.93	0.00	0.00
12.00	46.68	666.38	0.00	0.00
14.00	46.46	664.44	0.00	0.00
16.00	46.23	662.21	0.00	0.00
18.00	45.99	659.74	0.00	0.00
20.00	45.75	657.09	0.00	0.00
22.00	45.50	654.28	0.00	0.00
24.00	45.24	651.35	0.00	0.00
26.00	44.99	648.30	0.00	0.00
28.00	44.73	645.16	0.00	0.00
30.00	44.50	641.93	0.00	0.00
31.50	33.74	480.37	0.00	0.00
32.00	11.31	225.89	0.00	0.00
34.00	46.20	905.85	0.00	0.00
35.67	38.89	751.84	0.00	0.00
36.00	7.68	96.92	0.00	0.00
38.00	47.12	585.51	0.00	0.00
40.00	47.52	582.49	0.00	0.00
42.00	47.88	579.44	0.00	0.00
44.00	48.22	576.34	0.00	0.00
46.00	48.52	573.20	0.00	0.00
48.00	48.80	570.03	0.00	0.00
50.00	49.05	566.83	0.00	0.00
52.00	49.28	563.59	0.00	0.00
54.00	49.49	560.33	0.00	0.00
56.00	49.67	557.03	0.00	0.00
58.00	49.83	553.72	0.00	0.00
60.00	49.98	550.37	0.00	0.00
62.00	50.10	547.01	0.00	0.00
64.00	50.21	543.63	0.00	0.00
66.00	50.30	540.22	0.00	0.00
68.00	50.37	536.79	0.00	0.00
70.00	50.43	533.35	0.00	0.00
70.00	0.08	0.89	0.00	0.00
72.00	51.01	709.96	0.00	0.00
73.50	38.39	531.00	0.00	0.00
74.00	12.66	121.13	0.00	0.00
76.00	51.15	485.55	0.00	0.00
78.00	51.16	482.56	0.00	0.00
80.00	51.15	479.55	0.00	0.00
82.00	51.13	476.54	0.00	0.00
84.00	51.10	473.50	0.00	0.00
86.00	51.06	470.46	0.00	0.00
88.00	51.01	467.40	0.00	0.00
90.00	50.94	464.33	0.00	0.00

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

5/16/2014 2:12:35 PM
 Page: 28



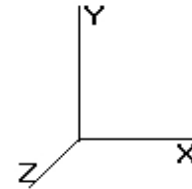
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Load Case: 1.2D + 1.0Di + 1.0Wi	50.00 mph with 0.75 in Radial Ice	29 Iterations
Gust Response Factor : 1.10	Ice Dead Load Factor : 1.00	Wind Importance Factor : 1.00
Dead Load Factor : 1.20		Ice Importance Factor : 1.00
Wind Load Factor : 1.00		

92.00	50.87	461.25	0.00	0.00
94.00	50.78	458.16	0.00	0.00
96.00	50.69	455.05	0.00	0.00
98.00	50.58	451.94	0.00	0.00
100.0	50.47	448.81	0.00	0.00
102.0	50.35	445.68	0.00	0.00
104.0	50.22	442.54	0.00	0.00
106.0	50.08	439.38	0.00	0.00
108.0	49.93	436.22	0.00	0.00
110.0	49.77	433.05	0.00	0.00
110.0	0.08	0.72	0.00	0.00
112.0	49.23	393.28	0.00	0.00
114.0	49.14	391.25	0.00	0.00
116.0	48.96	388.56	0.00	0.00
118.0	48.77	385.86	0.00	0.00
120.0	48.58	383.15	0.00	0.00
122.0	33.10	239.70	0.00	0.00
124.0	32.81	236.95	0.00	0.00
126.0	32.51	234.20	0.00	0.00
128.0	32.21	231.44	0.00	0.00
130.0	31.90	228.68	0.00	0.00
132.0	31.59	225.91	0.00	0.00
134.0	31.27	223.13	0.00	0.00
136.0	30.95	220.35	0.00	0.00
138.0	30.62	217.56	0.00	0.00
140.0	442.93	3,232.96	0.00	0.00
142.0	29.95	185.23	0.00	0.00
144.0	29.61	182.42	0.00	0.00
146.0	29.26	179.61	0.00	0.00
148.0	28.90	176.79	0.00	0.00
150.0	1,021.03	7,658.52	0.00	1,808.92
Totals:	4,757.27	47,119.49	0.00	1,808.92

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)



Load Case: 1.2D + 1.0Di + 1.0Wi 50.00 mph with 0.75 in Radial Ice 29 Iterations

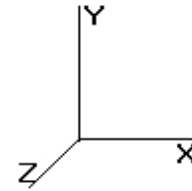
Gust Response Factor : 1.10 Ice Dead Load Factor : 1.00 Wind Importance Factor : 1.00
 Dead Load Factor : 1.20 Ice Importance Factor : 1.00
 Wind Load Factor : 1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-47.12	-4.77	0.00	-493.05	0.00	493.05	3,133.66	1,566.83	4,776.46	2,358.91	0.00	0.00	0.140
2.00	-46.45	-4.75	0.00	-483.52	0.00	483.52	3,117.04	1,558.52	4,710.93	2,326.55	0.00	-0.02	0.138
4.00	-45.78	-4.72	0.00	-474.03	0.00	474.03	3,100.26	1,550.13	4,645.58	2,294.28	0.02	-0.04	0.137
6.00	-45.11	-4.70	0.00	-464.58	0.00	464.58	3,083.32	1,541.66	4,580.43	2,262.10	0.04	-0.07	0.135
8.00	-44.44	-4.68	0.00	-455.17	0.00	455.17	3,066.21	1,533.11	4,515.47	2,230.02	0.07	-0.09	0.134
10.00	-43.77	-4.65	0.00	-445.81	0.00	445.81	3,048.95	1,524.47	4,450.72	2,198.04	0.12	-0.11	0.133
12.00	-43.10	-4.62	0.00	-436.51	0.00	436.51	3,031.51	1,515.76	4,386.18	2,166.17	0.17	-0.13	0.131
14.00	-42.44	-4.59	0.00	-427.27	0.00	427.27	3,013.92	1,506.96	4,321.85	2,134.40	0.23	-0.15	0.130
16.00	-41.78	-4.56	0.00	-418.09	0.00	418.09	2,996.16	1,498.08	4,257.75	2,102.74	0.30	-0.18	0.128
18.00	-41.11	-4.52	0.00	-408.98	0.00	408.98	2,978.24	1,489.12	4,193.87	2,071.20	0.38	-0.20	0.127
20.00	-40.46	-4.49	0.00	-399.94	0.00	399.94	2,960.16	1,480.08	4,130.23	2,039.77	0.46	-0.22	0.125
22.00	-39.80	-4.46	0.00	-390.96	0.00	390.96	2,941.92	1,470.96	4,066.83	2,008.46	0.56	-0.24	0.123
24.00	-39.15	-4.42	0.00	-382.04	0.00	382.04	2,923.51	1,461.75	4,003.68	1,977.27	0.67	-0.27	0.122
26.00	-38.50	-4.39	0.00	-373.19	0.00	373.19	2,904.94	1,452.47	3,940.79	1,946.21	0.78	-0.29	0.120
28.00	-37.85	-4.36	0.00	-364.41	0.00	364.41	2,886.20	1,443.10	3,878.15	1,915.27	0.91	-0.31	0.119
30.00	-37.21	-4.32	0.00	-355.69	0.00	355.69	2,867.31	1,433.65	3,815.78	1,884.47	1.04	-0.33	0.117
31.50	-36.73	-4.29	0.00	-349.19	0.00	349.19	2,853.00	1,426.50	3,769.08	1,861.41	1.15	-0.35	0.116
32.00	-36.50	-4.29	0.00	-347.06	0.00	347.06	2,848.25	1,424.12	3,753.69	1,853.80	1.19	-0.35	0.114
34.00	-35.59	-4.25	0.00	-338.48	0.00	338.48	2,824.57	1,412.28	3,686.05	1,820.40	1.34	-0.38	0.113
35.67	-34.84	-4.21	0.00	-331.39	0.00	331.39	2,238.61	1,119.30	2,967.00	1,465.29	1.47	-0.39	0.129
36.00	-34.74	-4.21	0.00	-330.00	0.00	330.00	2,236.44	1,118.22	2,959.36	1,461.52	1.50	-0.40	0.129
38.00	-34.16	-4.17	0.00	-321.58	0.00	321.58	2,223.20	1,111.60	2,913.17	1,438.71	1.67	-0.42	0.127
40.00	-33.57	-4.14	0.00	-313.23	0.00	313.23	2,209.80	1,104.90	2,867.11	1,415.96	1.85	-0.44	0.125
42.00	-32.99	-4.10	0.00	-304.96	0.00	304.96	2,196.23	1,098.12	2,821.18	1,393.28	2.04	-0.47	0.123
44.00	-32.41	-4.06	0.00	-296.76	0.00	296.76	2,182.51	1,091.25	2,775.40	1,370.67	2.24	-0.49	0.121
46.00	-31.84	-4.02	0.00	-288.65	0.00	288.65	2,168.61	1,084.31	2,729.77	1,348.13	2.45	-0.51	0.118
48.00	-31.27	-3.97	0.00	-280.62	0.00	280.62	2,154.56	1,077.28	2,684.29	1,325.67	2.67	-0.53	0.116
50.00	-30.70	-3.93	0.00	-272.67	0.00	272.67	2,140.34	1,070.17	2,638.98	1,303.29	2.90	-0.56	0.114
52.00	-30.14	-3.89	0.00	-264.81	0.00	264.81	2,125.97	1,062.98	2,593.83	1,280.99	3.14	-0.58	0.112
54.00	-29.57	-3.84	0.00	-257.04	0.00	257.04	2,111.42	1,055.71	2,548.86	1,258.78	3.39	-0.60	0.110
56.00	-29.02	-3.80	0.00	-249.35	0.00	249.35	2,096.72	1,048.36	2,504.06	1,236.66	3.64	-0.62	0.108
58.00	-28.46	-3.75	0.00	-241.75	0.00	241.75	2,081.85	1,040.93	2,459.46	1,214.63	3.91	-0.64	0.106
60.00	-27.91	-3.71	0.00	-234.24	0.00	234.24	2,066.82	1,033.41	2,415.05	1,192.70	4.18	-0.67	0.103
62.00	-27.36	-3.66	0.00	-226.82	0.00	226.82	2,051.63	1,025.81	2,370.83	1,170.87	4.47	-0.69	0.101
64.00	-26.82	-3.62	0.00	-219.50	0.00	219.50	2,036.27	1,018.14	2,326.83	1,149.13	4.76	-0.71	0.099
66.00	-26.28	-3.57	0.00	-212.27	0.00	212.27	2,020.76	1,010.38	2,283.03	1,127.50	5.06	-0.73	0.097
68.00	-25.74	-3.52	0.00	-205.13	0.00	205.13	2,005.07	1,002.54	2,239.46	1,105.98	5.37	-0.75	0.095
70.00	-25.21	-3.47	0.00	-198.09	0.00	198.09	1,989.23	994.61	2,196.11	1,084.58	5.69	-0.77	0.092
70.00	-25.21	-3.47	0.00	-198.08	0.00	198.08	1,989.20	994.60	2,196.04	1,084.54	5.69	-0.77	0.092
72.00	-24.49	-3.42	0.00	-191.14	0.00	191.14	1,971.12	985.56	2,150.69	1,062.15	6.02	-0.79	0.089
73.50	-23.96	-3.38	0.00	-186.00	0.00	186.00	1,466.65	733.33	1,624.17	802.11	6.27	-0.81	0.104
74.00	-23.84	-3.37	0.00	-184.33	0.00	184.33	1,464.19	732.10	1,616.75	798.45	6.36	-0.81	0.103
76.00	-23.36	-3.32	0.00	-177.59	0.00	177.59	1,454.20	727.10	1,586.96	783.74	6.70	-0.84	0.101
78.00	-22.87	-3.27	0.00	-170.95	0.00	170.95	1,444.04	722.02	1,557.26	769.07	7.06	-0.86	0.098
80.00	-22.39	-3.22	0.00	-164.41	0.00	164.41	1,433.72	716.86	1,527.64	754.44	7.42	-0.88	0.095
82.00	-21.92	-3.17	0.00	-157.97	0.00	157.97	1,423.24	711.62	1,498.11	739.86	7.79	-0.90	0.092
84.00	-21.44	-3.12	0.00	-151.64	0.00	151.64	1,412.59	706.30	1,468.69	725.33	8.17	-0.92	0.089
86.00	-20.97	-3.07	0.00	-145.40	0.00	145.40	1,401.79	700.89	1,439.37	710.85	8.56	-0.94	0.087
88.00	-20.50	-3.01	0.00	-139.27	0.00	139.27	1,390.81	695.41	1,410.17	696.43	8.96	-0.96	0.084
90.00	-20.04	-2.96	0.00	-133.24	0.00	133.24	1,379.68	689.84	1,381.09	682.07	9.37	-0.98	0.081
92.00	-19.58	-2.91	0.00	-127.32	0.00	127.32	1,368.38	684.19	1,352.13	667.77	9.78	-1.00	0.078

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev: 0.000 (ft)



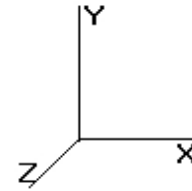
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Load Case: 1.2D + 1.0Di + 1.0Wi	50.00 mph with 0.75 in Radial Ice	29 Iterations
Gust Response Factor : 1.10	Ice Dead Load Factor : 1.00	Wind Importance Factor : 1.00
Dead Load Factor : 1.20		Ice Importance Factor : 1.00
Wind Load Factor : 1.00		

94.00	-19.12	-2.86	0.00	-121.50	0.00	121.50	1,356.93	678.46	1,323.31	653.53	10.20	-1.01	0.075
96.00	-18.67	-2.80	0.00	-115.79	0.00	115.79	1,345.30	672.65	1,294.62	639.36	10.63	-1.03	0.073
98.00	-18.21	-2.75	0.00	-110.18	0.00	110.18	1,333.52	666.76	1,266.08	625.27	11.07	-1.05	0.070
100.00	-17.77	-2.70	0.00	-104.68	0.00	104.68	1,321.57	660.79	1,237.69	611.25	11.51	-1.07	0.067
102.00	-17.32	-2.64	0.00	-99.28	0.00	99.28	1,309.46	654.73	1,209.47	597.31	11.96	-1.09	0.065
104.00	-16.88	-2.59	0.00	-93.99	0.00	93.99	1,297.19	648.59	1,181.40	583.45	12.42	-1.10	0.062
106.00	-16.44	-2.54	0.00	-88.81	0.00	88.81	1,284.75	642.38	1,153.50	569.67	12.88	-1.12	0.059
108.00	-16.00	-2.48	0.00	-83.74	0.00	83.74	1,272.15	636.08	1,125.79	555.98	13.36	-1.13	0.057
110.00	-15.57	-2.43	0.00	-78.78	0.00	78.78	1,258.29	629.15	1,097.29	541.91	13.83	-1.15	0.054
110.00	-15.57	-2.43	0.00	-78.77	0.00	78.77	1,258.26	629.13	1,097.24	541.88	13.84	-1.15	0.054
110.00	-15.57	-2.43	0.00	-78.77	0.00	78.77	849.39	424.69	737.77	364.36	13.84	-1.15	0.065
112.00	-15.18	-2.37	0.00	-73.92	0.00	73.92	842.35	421.17	720.81	355.98	14.32	-1.16	0.062
114.00	-14.79	-2.32	0.00	-69.17	0.00	69.17	835.13	417.57	703.86	347.61	14.81	-1.18	0.059
116.00	-14.40	-2.27	0.00	-64.53	0.00	64.53	827.75	413.88	686.97	339.27	15.31	-1.19	0.056
118.00	-14.01	-2.21	0.00	-59.99	0.00	59.99	820.21	410.11	670.13	330.95	15.81	-1.21	0.052
120.00	-13.63	-2.16	0.00	-55.56	0.00	55.56	812.51	406.25	653.35	322.67	16.32	-1.22	0.049
120.00	-13.63	-2.16	0.00	-55.56	0.00	55.56	812.51	406.25	653.35	322.67	16.32	-1.22	0.189
122.00	-13.39	-2.13	0.00	-51.24	0.00	51.24	804.64	402.32	636.65	314.42	16.84	-1.24	0.180
124.00	-13.15	-2.10	0.00	-46.98	0.00	46.98	796.61	398.31	620.02	306.21	17.36	-1.29	0.170
126.00	-12.92	-2.08	0.00	-42.77	0.00	42.77	788.42	394.21	603.48	298.04	17.91	-1.34	0.160
128.00	-12.68	-2.05	0.00	-38.62	0.00	38.62	780.06	390.03	587.02	289.91	18.48	-1.38	0.150
130.00	-12.46	-2.02	0.00	-34.52	0.00	34.52	771.54	385.77	570.66	281.83	19.07	-1.43	0.139
132.00	-12.23	-1.99	0.00	-30.48	0.00	30.48	762.86	381.43	554.40	273.80	19.68	-1.47	0.127
134.00	-12.01	-1.96	0.00	-26.49	0.00	26.49	754.02	377.01	538.25	265.82	20.30	-1.51	0.116
136.00	-11.78	-1.93	0.00	-22.57	0.00	22.57	745.01	372.51	522.21	257.90	20.94	-1.54	0.103
138.00	-11.57	-1.90	0.00	-18.70	0.00	18.70	735.84	367.92	506.30	250.04	21.59	-1.57	0.091
140.00	-8.35	-1.37	0.00	-14.90	0.00	14.90	726.51	363.26	490.51	242.24	22.26	-1.60	0.073
142.00	-8.16	-1.34	0.00	-12.15	0.00	12.15	717.02	358.51	474.85	234.51	22.93	-1.62	0.063
144.00	-7.98	-1.31	0.00	-9.47	0.00	9.47	704.68	352.34	457.59	225.99	23.61	-1.64	0.053
146.00	-7.80	-1.28	0.00	-6.85	0.00	6.85	690.85	345.42	439.70	217.15	24.30	-1.65	0.043
148.00	-7.63	-1.24	0.00	-4.30	0.00	4.30	677.01	338.51	422.16	208.49	25.00	-1.67	0.032
150.00	0.00	-1.02	0.00	-1.81	0.00	1.81	663.18	331.59	404.98	200.01	25.70	-1.67	0.009

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)



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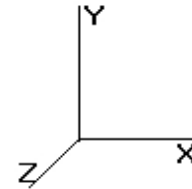
Load Case: 1.0D + 1.0W	60.00 mph Serviceability	28 Iterations
Gust Response Factor : 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

Shaft Segment Forces (Factored)

Seg Top Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Ap (sf)	EPAs (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	6.129	6.742	161.88	1.000	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.70	6.129	6.742	160.54	1.000	* 0.000	2.00	6.423	6.42	43.3	0.0	436.4
4.00		1.00	0.70	6.129	6.742	159.20	1.000	* 0.000	2.00	6.370	6.37	42.9	0.0	433.9
6.00		1.00	0.70	6.129	6.742	157.86	1.000	* 0.000	2.00	6.316	6.32	42.6	0.0	431.3
8.00		1.00	0.70	6.129	6.742	156.51	1.000	* 0.000	2.00	6.263	6.26	42.2	0.0	428.8
10.00		1.00	0.70	6.129	6.742	155.17	1.200	* 0.000	2.00	6.209	7.45	50.2	0.0	426.2
12.00		1.00	0.70	6.129	6.742	153.83	1.200	* 0.000	2.00	6.156	7.39	49.8	0.0	423.7
14.00		1.00	0.70	6.129	6.742	152.49	1.200	* 0.000	2.00	6.102	7.32	49.4	0.0	421.1
16.00		1.00	0.70	6.129	6.742	151.14	1.200	* 0.000	2.00	6.049	7.26	48.9	0.0	418.6
18.00		1.00	0.70	6.129	6.742	149.80	1.200	* 0.000	2.00	5.995	7.19	48.5	0.0	416.0
20.00		1.00	0.70	6.129	6.742	148.46	1.200	* 0.000	2.00	5.942	7.13	48.1	0.0	413.5
22.00		1.00	0.70	6.129	6.742	147.12	1.200	* 0.000	2.00	5.888	7.07	47.6	0.0	410.9
24.00		1.00	0.70	6.129	6.742	145.77	1.200	* 0.000	2.00	5.835	7.00	47.2	0.0	408.4
26.00		1.00	0.70	6.129	6.742	144.43	1.200	* 0.000	2.00	5.781	6.94	46.8	0.0	405.9
28.00		1.00	0.70	6.129	6.742	143.09	1.200	* 0.000	2.00	5.728	6.87	46.3	0.0	403.3
30.00		1.00	0.70	6.134	6.747	141.80	1.200	* 0.000	2.00	5.674	6.81	45.9	0.0	400.8
31.50	Bot - Section 2	1.00	0.71	6.220	6.842	141.78	1.200	* 0.000	1.50	4.230	5.08	34.7	0.0	299.6
32.00		1.00	0.71	6.248	6.873	141.76	1.200	* 0.000	0.50	1.418	1.70	11.7	0.0	154.5
34.00		1.00	0.72	6.357	6.993	141.63	1.200	* 0.000	2.00	5.675	6.81	47.6	0.0	619.1
35.67	Top - Section 1	1.00	0.73	6.445	7.089	141.45	1.200	* 0.000	1.67	4.698	5.64	40.0	0.0	513.4
36.00		1.00	0.73	6.462	7.108	144.19	1.200	* 0.000	0.33	0.924	1.11	7.9	0.0	58.4
38.00		1.00	0.75	6.562	7.219	143.92	1.200	* 0.000	2.00	5.568	6.68	48.2	0.0	352.8
40.00		1.00	0.76	6.659	7.325	143.58	1.200	* 0.000	2.00	5.515	6.62	48.5	0.0	350.7
42.00		1.00	0.77	6.753	7.428	143.18	1.200	* 0.000	2.00	5.461	6.55	48.7	0.0	348.5
44.00		1.00	0.78	6.843	7.527	142.71	1.200	* 0.000	2.00	5.408	6.49	48.8	0.0	346.4
46.00		1.00	0.79	6.931	7.624	142.20	1.200	* 0.000	2.00	5.354	6.43	49.0	0.0	344.3
48.00		1.00	0.80	7.015	7.717	141.63	1.200	* 0.000	2.00	5.301	6.36	49.1	0.0	342.2
50.00		1.00	0.81	7.098	7.807	141.01	1.200	* 0.000	2.00	5.247	6.30	49.2	0.0	340.0
52.00		1.00	0.82	7.178	7.895	140.35	1.200	* 0.000	2.00	5.194	6.23	49.2	0.0	337.9
54.00		1.00	0.82	7.255	7.981	139.65	1.200	* 0.000	2.00	5.140	6.17	49.2	0.0	335.8
56.00		1.00	0.83	7.331	8.064	138.91	1.200	* 0.000	2.00	5.087	6.10	49.2	0.0	333.7
58.00		1.00	0.84	7.405	8.146	138.13	1.200	* 0.000	2.00	5.033	6.04	49.2	0.0	331.5
60.00		1.00	0.85	7.477	8.225	137.32	1.200	* 0.000	2.00	4.980	5.98	49.2	0.0	329.4
62.00		1.00	0.86	7.548	8.302	136.47	1.200	* 0.000	2.00	4.926	5.91	49.1	0.0	327.3
64.00		1.00	0.87	7.616	8.378	135.59	1.200	* 0.000	2.00	4.873	5.85	49.0	0.0	325.2
66.00		1.00	0.87	7.684	8.452	134.69	1.200	* 0.000	2.00	4.819	5.78	48.9	0.0	323.0
68.00		1.00	0.88	7.749	8.524	133.75	1.200	* 0.000	2.00	4.766	5.72	48.8	0.0	320.9
70.00		1.00	0.89	7.814	8.595	132.79	1.200	* 0.000	2.00	4.712	5.65	48.6	0.0	318.8
70.00	Bot - Section 3	1.00	0.89	7.814	8.595	132.79	1.200	* 0.000	0.00	0.008	0.01	0.1	0.0	0.5
72.00		1.00	0.90	7.877	8.665	131.81	1.200	* 0.000	2.00	4.737	5.68	49.3	0.0	465.2
73.50	Top - Section 2	1.00	0.90	7.924	8.716	131.05	1.200	* 0.000	1.50	3.532	4.24	36.9	0.0	347.7
74.00		1.00	0.90	7.939	8.733	133.26	1.200	* 0.000	0.50	1.160	1.39	12.2	0.0	69.7
76.00		1.00	0.91	8.000	8.800	132.24	1.200	* 0.000	2.00	4.638	5.57	49.0	0.0	279.5
78.00		1.00	0.92	8.059	8.865	131.19	1.200	* 0.000	2.00	4.585	5.50	48.8	0.0	277.8
80.00		1.00	0.92	8.118	8.930	130.12	1.200	* 0.000	2.00	4.531	5.44	48.6	0.0	276.1
82.00		1.00	0.93	8.175	8.993	129.03	1.200	* 0.000	2.00	4.478	5.37	48.3	0.0	274.4
84.00		1.00	0.94	8.232	9.055	127.92	1.200	* 0.000	2.00	4.424	5.31	48.1	0.0	272.7
86.00		1.00	0.94	8.287	9.116	126.79	1.200	* 0.000	2.00	4.371	5.24	47.8	0.0	271.0
88.00		1.00	0.95	8.342	9.176	125.64	1.200	* 0.000	2.00	4.317	5.18	47.5	0.0	269.3
90.00		1.00	0.95	8.396	9.235	124.47	1.200	* 0.000	2.00	4.264	5.12	47.3	0.0	267.6
92.00		1.00	0.96	8.448	9.293	123.28	1.200	* 0.000	2.00	4.210	5.05	47.0	0.0	265.9

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)



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Load Case: 1.0D + 1.0W	60.00 mph Serviceability	28 Iterations
Gust Response Factor : 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

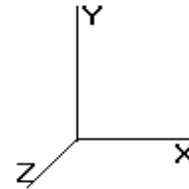
94.00		1.00	0.97	8.501	9.351	122.08	1.200	* 0.000	2.00	4.157	4.99	46.6	0.0	264.2
96.00		1.00	0.97	8.552	9.407	120.86	1.200	* 0.000	2.00	4.103	4.92	46.3	0.0	262.5
98.00		1.00	0.98	8.602	9.463	119.63	1.200	* 0.000	2.00	4.050	4.86	46.0	0.0	260.8
100.0		1.00	0.98	8.652	9.517	118.38	1.200	* 0.000	2.00	3.996	4.80	45.6	0.0	259.1
102.0		1.00	0.99	8.701	9.571	117.12	1.200	* 0.000	2.00	3.943	4.73	45.3	0.0	257.4
104.0		1.00	0.99	8.750	9.625	115.84	1.200	* 0.000	2.00	3.889	4.67	44.9	0.0	255.7
106.0		1.00	1.00	8.797	9.677	114.54	1.200	* 0.000	2.00	3.836	4.60	44.5	0.0	254.0
108.0		1.00	1.01	8.845	9.729	113.24	1.200	* 0.000	2.00	3.782	4.54	44.2	0.0	252.3
110.0		1.00	1.01	8.891	9.780	111.92	1.200	* 0.000	2.00	3.729	4.47	43.8	0.0	250.6
110.0	Top - Section 3	1.00	1.01	8.891	9.780	111.92	1.200	* 0.000	0.00	0.006	0.01	0.1	0.0	0.4
112.0		1.00	1.02	8.937	9.831	109.51	1.200	* 0.000	2.00	3.634	4.36	42.9	0.0	219.4
114.0		1.00	1.02	8.982	9.880	108.16	1.200	* 0.000	2.00	3.586	4.30	42.5	0.0	218.5
116.0		1.00	1.03	9.027	9.930	106.80	1.200	* 0.000	2.00	3.533	4.24	42.1	0.0	217.2
118.0		1.00	1.03	9.071	9.978	105.43	1.200	* 0.000	2.00	3.479	4.18	41.7	0.0	215.9
120.0	Reinf. Top	1.00	1.04	9.115	10.02	104.05	1.200	* 0.000	2.00	3.426	4.11	41.2	0.0	214.6
122.0		1.00	1.04	9.158	10.07	102.65	1.000	0.000	2.00	3.373	3.37	34.0	0.0	79.7
124.0		1.00	1.05	9.201	10.12	101.24	1.000	0.000	2.00	3.319	3.32	33.6	0.0	78.5
126.0		1.00	1.05	9.243	10.16	99.832	1.000	0.000	2.00	3.266	3.27	33.2	0.0	77.2
128.0		1.00	1.06	9.284	10.21	98.405	1.000	0.000	2.00	3.212	3.21	32.8	0.0	75.9
130.0		1.00	1.06	9.326	10.25	96.967	1.000	0.000	2.00	3.159	3.16	32.4	0.0	74.6
132.0		1.00	1.07	9.366	10.30	95.519	1.000	0.000	2.00	3.105	3.11	32.0	0.0	73.4
134.0		1.00	1.07	9.407	10.34	94.061	1.000	0.000	2.00	3.052	3.05	31.6	0.0	72.1
136.0		1.00	1.07	9.447	10.39	92.593	1.000	0.000	2.00	2.998	3.00	31.2	0.0	70.8
138.0		1.00	1.08	9.486	10.43	91.116	1.000	0.000	2.00	2.945	2.94	30.7	0.0	69.5
140.0	Appertunance(s)	1.00	1.08	9.525	10.47	89.630	1.000	0.000	2.00	2.891	2.89	30.3	0.0	68.3
142.0		1.00	1.09	9.564	10.52	88.134	1.000	0.000	2.00	2.838	2.84	29.9	0.0	67.0
144.0		1.00	1.09	9.602	10.56	86.630	1.000	0.000	2.00	2.784	2.78	29.4	0.0	65.7
146.0		1.00	1.10	9.640	10.60	85.117	1.000	0.000	2.00	2.731	2.73	29.0	0.0	64.4
148.0		1.00	1.10	9.678	10.64	83.596	1.000	0.000	2.00	2.677	2.68	28.5	0.0	63.1
150.0	Appertunance(s)	1.00	1.11	9.715	10.68	82.066	1.000	0.000	2.00	2.624	2.62	28.0	0.0	61.9
									Totals:	150.00		3,288.3	0.0	21,434.5

* = Cf Adjusted By Linear Load Ra Effect

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

5/16/2014 2:12:35 PM
 Page: 33



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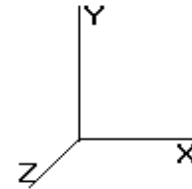
Load Case: 1.0D + 1.0W	60.00 mph Serviceability	28 Iterations
Gust Response Factor : 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

Discrete Appurtenance Segment Forces (Factored)

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Ka	Total EPAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
140.0	Ericsson KRY 112 144	3	9.525	10.478	0.50	0.80	0.49	0.000	0.000	5.16	0.00	0.00	33.00
140.0	Ericsson AIR 21, 1.3	3	9.525	10.478	0.71	0.80	10.31	0.000	0.000	108.02	0.00	0.00	249.00
140.0	Ericsson AIR 21, 1.3	3	9.525	10.478	0.70	0.80	10.23	0.000	0.000	107.20	0.00	0.00	244.50
140.0	Flat T-Arm	3	9.525	10.478	0.67	0.75	19.45	0.000	0.000	203.76	0.00	0.00	750.00
150.0	Flat Platform w/ Han	1	9.715	10.686	1.00	1.00	42.40	0.000	0.000	453.10	0.00	0.00	2,000.00
150.0	Powerwave LGP	6	9.788	10.767	0.50	0.75	0.61	0.000	4.000	6.54	0.00	26.16	33.00
150.0	Powerwave LGP	6	9.788	10.767	0.50	0.75	2.48	0.000	4.000	26.65	0.00	106.59	84.60
150.0	Powerwave 7770.00	6	9.788	10.767	0.65	0.75	16.12	0.000	4.000	173.53	0.00	694.12	210.00
150.0	KMW AM-X-CD-16-65-	1	9.788	10.767	0.69	0.75	3.13	0.000	4.000	33.71	0.00	134.84	33.00
150.0	Raycap DC6-48-60-18-	1	9.788	10.767	1.00	0.75	0.83	0.000	4.000	8.96	0.00	35.85	20.00
150.0	Andrew SBNH-	2	9.788	10.767	0.70	0.75	12.02	0.000	4.000	129.45	0.00	517.78	121.60
150.0	Ericsson RRUS-11 800	6	9.788	10.767	0.50	0.75	5.67	0.000	4.000	61.05	0.00	244.20	324.00
150.0	11' Omni	1	9.860	10.846	1.00	0.75	2.47	0.000	8.000	26.84	0.00	214.75	40.00
150.0	Flat Side Arm	3	9.715	10.686	0.67	1.00	10.45	0.000	0.000	111.69	0.00	0.00	450.00
										1,455.66			4,592.70

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)



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Load Case: 1.0D + 1.0W 60.00 mph Serviceability 28 Iterations

Gust Response Factor : 1.10 Wind Importance Factor : 1.00

Dead Load Factor : 1.00

Wind Load Factor : 1.00

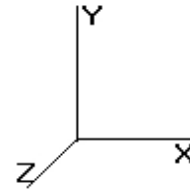
Linear Appurtenance Segment Forces (Factored)

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	FX (lb)	Dead Load (lb)
2.00	(4) Reinforcing Bars	Yes	2.00	0.000	7.50	1.25	0.00	6.129	0.195	1.284	0.00	0.00
4.00	(4) Reinforcing Bars	Yes	2.00	0.000	7.50	1.25	0.00	6.129	0.196	1.289	0.00	0.00
6.00	(4) Reinforcing Bars	Yes	2.00	0.000	7.50	1.25	0.00	6.129	0.198	1.294	0.00	0.00
8.00	(4) Reinforcing Bars	Yes	2.00	0.000	7.50	1.25	0.00	6.129	0.200	1.299	0.00	0.00
10.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.25	1.50	6.129	0.201	0.000	10.11	0.00
12.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.25	1.50	6.129	0.203	0.000	10.11	0.00
14.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.25	1.50	6.129	0.205	0.000	10.11	0.00
16.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.25	1.50	6.129	0.207	0.000	10.11	0.00
18.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.25	1.50	6.129	0.209	0.000	10.11	0.00
20.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.25	1.50	6.129	0.210	0.000	10.11	0.00
22.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.25	1.50	6.129	0.212	0.000	10.11	0.00
24.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.25	1.50	6.129	0.214	0.000	10.11	0.00
26.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.25	1.50	6.129	0.216	0.000	10.11	0.00
28.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.25	1.50	6.129	0.218	0.000	10.11	0.00
30.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.25	1.50	6.134	0.220	0.000	10.12	0.00
31.50	(4) Reinforcing Bars	Yes	1.50	1.200	7.50	0.94	1.13	6.220	0.222	0.000	7.71	0.00
32.00	(4) Reinforcing Bars	Yes	0.50	1.200	7.50	0.31	0.37	6.248	0.223	0.000	2.56	0.00
34.00	(4) Reinforcing Bars	Yes	2.00	1.200	7.50	1.25	1.50	6.357	0.225	0.000	10.49	0.00
35.67	(4) Reinforcing Bars	Yes	1.67	1.194	7.50	1.04	1.25	6.445	0.227	0.000	8.83	0.00
36.00	(4) Reinforcing Bars	Yes	0.33	1.192	7.50	0.21	0.25	6.462	0.223	0.000	1.75	0.00
38.00	(4) Reinforcing Bars	Yes	2.00	1.183	7.50	1.25	1.48	6.562	0.224	0.000	10.67	0.00
40.00	(4) Reinforcing Bars	Yes	2.00	1.174	7.50	1.25	1.47	6.659	0.227	0.000	10.75	0.00
42.00	(4) Reinforcing Bars	Yes	2.00	1.166	7.50	1.25	1.46	6.753	0.229	0.000	10.83	0.00
44.00	(4) Reinforcing Bars	Yes	2.00	1.158	7.50	1.25	1.45	6.843	0.231	0.000	10.90	0.00
46.00	(4) Reinforcing Bars	Yes	2.00	1.151	7.50	1.25	1.44	6.931	0.233	0.000	10.97	0.00
48.00	(4) Reinforcing Bars	Yes	2.00	1.144	7.50	1.25	1.43	7.015	0.236	0.000	11.03	0.00
50.00	(4) Reinforcing Bars	Yes	2.00	1.137	7.50	1.25	1.42	7.098	0.238	0.000	11.10	0.00
52.00	(4) Reinforcing Bars	Yes	2.00	1.131	7.50	1.25	1.41	7.178	0.241	0.000	11.16	0.00
54.00	(4) Reinforcing Bars	Yes	2.00	1.125	7.50	1.25	1.41	7.255	0.243	0.000	11.22	0.00
56.00	(4) Reinforcing Bars	Yes	2.00	1.119	7.50	1.25	1.40	7.331	0.246	0.000	11.28	0.00
58.00	(4) Reinforcing Bars	Yes	2.00	1.113	7.50	1.25	1.39	7.405	0.248	0.000	11.34	0.00
60.00	(4) Reinforcing Bars	Yes	2.00	1.108	7.50	1.25	1.39	7.477	0.251	0.000	11.39	0.00
62.00	(4) Reinforcing Bars	Yes	2.00	1.103	7.50	1.25	1.38	7.548	0.254	0.000	11.45	0.00
64.00	(4) Reinforcing Bars	Yes	2.00	1.098	7.50	1.25	1.37	7.616	0.257	0.000	11.50	0.00
66.00	(4) Reinforcing Bars	Yes	2.00	1.093	7.50	1.25	1.37	7.684	0.259	0.000	11.55	0.00
68.00	(4) Reinforcing Bars	Yes	2.00	1.088	7.50	1.25	1.36	7.749	0.262	0.000	11.60	0.00
70.00	(4) Reinforcing Bars	Yes	2.00	1.084	7.50	1.25	1.35	7.814	0.265	0.000	11.65	0.00
70.00	(4) Reinforcing Bars	Yes	0.00	1.084	7.50	0.00	0.00	7.814	0.267	0.000	0.02	0.00
72.00	(4) Reinforcing Bars	Yes	2.00	1.080	7.50	1.25	1.35	7.877	0.268	0.000	11.67	0.00
73.50	(4) Reinforcing Bars	Yes	1.50	1.076	7.50	0.94	1.01	7.924	0.271	0.000	8.82	0.00
74.00	(4) Reinforcing Bars	Yes	0.50	1.075	7.50	0.31	0.33	7.939	0.268	0.000	2.92	0.00
76.00	(4) Reinforcing Bars	Yes	2.00	1.071	7.50	1.25	1.34	8.000	0.270	0.000	11.78	0.00
78.00	(4) Reinforcing Bars	Yes	2.00	1.067	7.50	1.25	1.33	8.059	0.273	0.000	11.83	0.00
80.00	(4) Reinforcing Bars	Yes	2.00	1.063	7.50	1.25	1.33	8.118	0.276	0.000	11.87	0.00
82.00	(4) Reinforcing Bars	Yes	2.00	1.060	7.50	1.25	1.32	8.175	0.279	0.000	11.91	0.00
84.00	(4) Reinforcing Bars	Yes	2.00	1.056	7.50	1.25	1.32	8.232	0.283	0.000	11.95	0.00
86.00	(4) Reinforcing Bars	Yes	2.00	1.053	7.50	1.25	1.32	8.287	0.286	0.000	11.99	0.00
88.00	(4) Reinforcing Bars	Yes	2.00	1.049	7.50	1.25	1.31	8.342	0.290	0.000	12.03	0.00
90.00	(4) Reinforcing Bars	Yes	2.00	1.046	7.50	1.25	1.31	8.396	0.293	0.000	12.07	0.00
92.00	(4) Reinforcing Bars	Yes	2.00	1.042	7.50	1.25	1.30	8.448	0.297	0.000	12.11	0.00
94.00	(4) Reinforcing Bars	Yes	2.00	1.039	7.50	1.25	1.30	8.501	0.301	0.000	12.15	0.00

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev: 0.000 (ft)

5/16/2014 2:12:35 PM
 Page: 35



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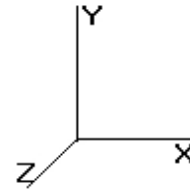
Load Case: 1.0D + 1.0W	60.00 mph Serviceability	28 Iterations
Gust Response Factor : 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

96.00	(4) Reinforcing Bars	Yes	2.00	1.036	7.50	1.25	1.30	8.552	0.305	0.000	12.18	0.00
98.00	(4) Reinforcing Bars	Yes	2.00	1.033	7.50	1.25	1.29	8.602	0.309	0.000	12.22	0.00
100.0	(4) Reinforcing Bars	Yes	2.00	1.030	7.50	1.25	1.29	8.652	0.313	0.000	12.25	0.00
102.0	(4) Reinforcing Bars	Yes	2.00	1.027	7.50	1.25	1.28	8.701	0.317	0.000	12.29	0.00
104.0	(4) Reinforcing Bars	Yes	2.00	1.024	7.50	1.25	1.28	8.750	0.321	0.000	12.32	0.00
106.0	(4) Reinforcing Bars	Yes	2.00	1.022	7.50	1.25	1.28	8.797	0.326	0.000	12.36	0.00
108.0	(4) Reinforcing Bars	Yes	2.00	1.019	7.50	1.25	1.27	8.845	0.330	0.000	12.39	0.00
110.0	(4) Reinforcing Bars	Yes	2.00	1.016	7.50	1.25	1.27	8.891	0.335	0.000	12.42	0.00
110.0	(4) Reinforcing Bars	Yes	0.00	1.016	7.50	0.00	0.00	8.891	0.338	0.000	0.02	0.00
112.0	(4) Reinforcing Bars	Yes	2.00	1.014	7.50	1.25	1.26	8.937	0.343	0.000	12.43	0.00
114.0	(4) Reinforcing Bars	Yes	2.00	1.011	7.50	1.25	1.26	8.982	0.349	0.000	12.49	0.00
116.0	(4) Reinforcing Bars	Yes	2.00	1.008	7.50	1.25	1.26	9.027	0.354	0.000	12.52	0.00
118.0	(4) Reinforcing Bars	Yes	2.00	1.006	7.50	1.25	1.26	9.071	0.359	0.000	12.55	0.00
120.0	(4) Reinforcing Bars	Yes	2.00	1.004	7.50	1.25	1.25	9.115	0.365	0.000	12.58	0.00
Totals:											637.11	0.00

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

5/16/2014 2:12:35 PM
 Page: 36



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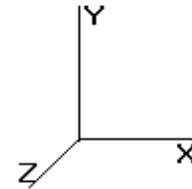
Load Case: 1.0D + 1.0W	60.00 mph Serviceability	28 Iterations
Gust Response Factor : 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

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
2.00	43.30	478.70	0.00	0.00
4.00	42.94	476.15	0.00	0.00
6.00	42.58	473.60	0.00	0.00
8.00	42.22	471.06	0.00	0.00
10.00	60.34	468.51	0.00	0.00
12.00	59.91	465.96	0.00	0.00
14.00	59.48	463.41	0.00	0.00
16.00	59.04	460.87	0.00	0.00
18.00	58.61	458.32	0.00	0.00
20.00	58.18	455.77	0.00	0.00
22.00	57.75	453.22	0.00	0.00
24.00	57.31	450.68	0.00	0.00
26.00	56.88	448.13	0.00	0.00
28.00	56.45	445.58	0.00	0.00
30.00	56.06	443.03	0.00	0.00
31.50	42.44	331.34	0.00	0.00
32.00	14.25	164.97	0.00	0.00
34.00	58.11	661.39	0.00	0.00
35.67	48.80	548.68	0.00	0.00
36.00	9.63	65.39	0.00	0.00
38.00	58.91	395.08	0.00	0.00
40.00	59.23	392.95	0.00	0.00
42.00	59.51	390.83	0.00	0.00
44.00	59.75	388.70	0.00	0.00
46.00	59.95	386.57	0.00	0.00
48.00	60.12	384.45	0.00	0.00
50.00	60.26	382.32	0.00	0.00
52.00	60.37	380.19	0.00	0.00
54.00	60.45	378.07	0.00	0.00
56.00	60.51	375.94	0.00	0.00
58.00	60.54	373.82	0.00	0.00
60.00	60.54	371.69	0.00	0.00
62.00	60.53	369.56	0.00	0.00
64.00	60.49	367.44	0.00	0.00
66.00	60.43	365.31	0.00	0.00
68.00	60.35	363.18	0.00	0.00
70.00	60.25	361.06	0.00	0.00
70.00	0.10	0.60	0.00	0.00
72.00	60.93	507.37	0.00	0.00
73.50	45.75	379.50	0.00	0.00
74.00	15.07	80.17	0.00	0.00
76.00	60.76	321.77	0.00	0.00
78.00	60.60	320.08	0.00	0.00
80.00	60.42	318.38	0.00	0.00
82.00	60.23	316.68	0.00	0.00
84.00	60.03	314.98	0.00	0.00
86.00	59.81	313.28	0.00	0.00
88.00	59.57	311.58	0.00	0.00
90.00	59.32	309.89	0.00	0.00

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)



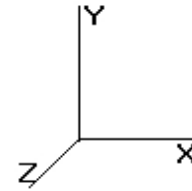
Load Case: 1.0D + 1.0W	60.00 mph Serviceability	28 Iterations
Gust Response Factor : 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-29.09	-5.39	0.00	-513.72	0.00	513.72	3,133.66	1,566.83	4,776.46	2,358.91	0.00	0.00	0.141
2.00	-28.60	-5.35	0.00	-502.95	0.00	502.95	3,117.04	1,558.52	4,710.93	2,326.55	0.01	-0.02	0.140
4.00	-28.13	-5.32	0.00	-492.24	0.00	492.24	3,100.26	1,550.13	4,645.58	2,294.28	0.02	-0.05	0.138
6.00	-27.65	-5.29	0.00	-481.60	0.00	481.60	3,083.32	1,541.66	4,580.43	2,262.10	0.04	-0.07	0.136
8.00	-27.18	-5.26	0.00	-471.02	0.00	471.02	3,066.21	1,533.11	4,515.47	2,230.02	0.08	-0.09	0.134
10.00	-26.71	-5.21	0.00	-460.50	0.00	460.50	3,048.95	1,524.47	4,450.72	2,198.04	0.12	-0.11	0.133
12.00	-26.24	-5.16	0.00	-450.09	0.00	450.09	3,031.51	1,515.76	4,386.18	2,166.17	0.17	-0.14	0.131
14.00	-25.77	-5.11	0.00	-439.78	0.00	439.78	3,013.92	1,506.96	4,321.85	2,134.40	0.24	-0.16	0.129
16.00	-25.31	-5.06	0.00	-429.57	0.00	429.57	2,996.16	1,498.08	4,257.75	2,102.74	0.31	-0.18	0.128
18.00	-24.85	-5.01	0.00	-419.46	0.00	419.46	2,978.24	1,489.12	4,193.87	2,071.20	0.39	-0.21	0.126
20.00	-24.39	-4.95	0.00	-409.45	0.00	409.45	2,960.16	1,480.08	4,130.23	2,039.77	0.48	-0.23	0.124
22.00	-23.94	-4.90	0.00	-399.54	0.00	399.54	2,941.92	1,470.96	4,066.83	2,008.46	0.58	-0.25	0.122
24.00	-23.49	-4.85	0.00	-389.73	0.00	389.73	2,923.51	1,461.75	4,003.68	1,977.27	0.69	-0.27	0.121
26.00	-23.04	-4.80	0.00	-380.02	0.00	380.02	2,904.94	1,452.47	3,940.79	1,946.21	0.81	-0.30	0.119
28.00	-22.59	-4.75	0.00	-370.41	0.00	370.41	2,886.20	1,443.10	3,878.15	1,915.27	0.94	-0.32	0.117
30.00	-22.15	-4.70	0.00	-360.90	0.00	360.90	2,867.31	1,433.65	3,815.78	1,884.47	1.08	-0.34	0.115
31.50	-21.81	-4.66	0.00	-353.83	0.00	353.83	2,853.00	1,426.50	3,769.08	1,861.41	1.19	-0.36	0.114
32.00	-21.65	-4.65	0.00	-351.52	0.00	351.52	2,848.25	1,424.12	3,753.69	1,853.80	1.23	-0.36	0.112
34.00	-20.98	-4.60	0.00	-342.21	0.00	342.21	2,824.57	1,412.28	3,686.05	1,820.40	1.38	-0.39	0.110
35.67	-20.44	-4.55	0.00	-334.53	0.00	334.53	2,238.61	1,119.30	2,967.00	1,465.29	1.52	-0.40	0.126
36.00	-20.37	-4.54	0.00	-333.03	0.00	333.03	2,236.44	1,118.22	2,959.36	1,461.52	1.55	-0.41	0.126
38.00	-19.97	-4.49	0.00	-323.94	0.00	323.94	2,223.20	1,111.60	2,913.17	1,438.71	1.72	-0.43	0.124
40.00	-19.58	-4.44	0.00	-314.96	0.00	314.96	2,209.80	1,104.90	2,867.11	1,415.96	1.91	-0.45	0.122
42.00	-19.19	-4.38	0.00	-306.09	0.00	306.09	2,196.23	1,098.12	2,821.18	1,393.28	2.10	-0.48	0.119
44.00	-18.80	-4.33	0.00	-297.33	0.00	297.33	2,182.51	1,091.25	2,775.40	1,370.67	2.31	-0.50	0.117
46.00	-18.41	-4.27	0.00	-288.68	0.00	288.68	2,168.61	1,084.31	2,729.77	1,348.13	2.52	-0.52	0.115
48.00	-18.02	-4.21	0.00	-280.14	0.00	280.14	2,154.56	1,077.28	2,684.29	1,325.67	2.75	-0.54	0.112
50.00	-17.64	-4.16	0.00	-271.71	0.00	271.71	2,140.34	1,070.17	2,638.98	1,303.29	2.98	-0.57	0.110
52.00	-17.26	-4.10	0.00	-263.40	0.00	263.40	2,125.97	1,062.98	2,593.83	1,280.99	3.22	-0.59	0.108
54.00	-16.88	-4.04	0.00	-255.21	0.00	255.21	2,111.42	1,055.71	2,548.86	1,258.78	3.47	-0.61	0.106
56.00	-16.50	-3.98	0.00	-247.13	0.00	247.13	2,096.72	1,048.36	2,504.06	1,236.66	3.73	-0.63	0.103
58.00	-16.13	-3.92	0.00	-239.16	0.00	239.16	2,081.85	1,040.93	2,459.46	1,214.63	4.00	-0.65	0.101
60.00	-15.76	-3.86	0.00	-231.32	0.00	231.32	2,066.82	1,033.41	2,415.05	1,192.70	4.28	-0.68	0.099
62.00	-15.39	-3.80	0.00	-223.59	0.00	223.59	2,051.63	1,025.81	2,370.83	1,170.87	4.57	-0.70	0.096
64.00	-15.02	-3.75	0.00	-215.98	0.00	215.98	2,036.27	1,018.14	2,326.83	1,149.13	4.87	-0.72	0.094
66.00	-14.65	-3.69	0.00	-208.49	0.00	208.49	2,020.76	1,010.38	2,283.03	1,127.50	5.17	-0.74	0.092
68.00	-14.29	-3.63	0.00	-201.12	0.00	201.12	2,005.07	1,002.54	2,239.46	1,105.98	5.49	-0.76	0.090
70.00	-13.93	-3.56	0.00	-193.86	0.00	193.86	1,989.23	994.61	2,196.11	1,084.58	5.81	-0.78	0.087
70.00	-13.93	-3.57	0.00	-193.85	0.00	193.85	1,989.20	994.60	2,196.04	1,084.54	5.81	-0.78	0.087
72.00	-13.42	-3.50	0.00	-186.73	0.00	186.73	1,971.12	985.56	2,150.69	1,062.15	6.14	-0.80	0.084
73.50	-13.04	-3.45	0.00	-181.47	0.00	181.47	1,466.65	733.33	1,624.17	802.11	6.40	-0.82	0.098
74.00	-12.96	-3.44	0.00	-179.75	0.00	179.75	1,464.19	732.10	1,616.75	798.45	6.48	-0.82	0.097
76.00	-12.64	-3.38	0.00	-172.87	0.00	172.87	1,454.20	727.10	1,586.96	783.74	6.83	-0.84	0.094
78.00	-12.32	-3.32	0.00	-166.12	0.00	166.12	1,444.04	722.02	1,557.26	769.07	7.19	-0.86	0.091
80.00	-12.00	-3.26	0.00	-159.48	0.00	159.48	1,433.72	716.86	1,527.64	754.44	7.55	-0.88	0.089
82.00	-11.68	-3.20	0.00	-152.97	0.00	152.97	1,423.24	711.62	1,498.11	739.86	7.93	-0.90	0.086
84.00	-11.37	-3.13	0.00	-146.58	0.00	146.58	1,412.59	706.30	1,468.69	725.33	8.31	-0.92	0.083
86.00	-11.05	-3.07	0.00	-140.31	0.00	140.31	1,401.79	700.89	1,439.37	710.85	8.70	-0.94	0.080
88.00	-10.74	-3.01	0.00	-134.16	0.00	134.16	1,390.81	695.41	1,410.17	696.43	9.10	-0.96	0.077
90.00	-10.43	-2.95	0.00	-128.14	0.00	128.14	1,379.68	689.84	1,381.09	682.07	9.51	-0.98	0.075
92.00	-10.12	-2.89	0.00	-122.23	0.00	122.23	1,368.38	684.19	1,352.13	667.77	9.92	-1.00	0.072

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)



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Load Case: 1.0D + 1.0W 60.00 mph Serviceability 28 Iterations

Gust Response Factor : 1.10 Wind Importance Factor : 1.00

Dead Load Factor : 1.00

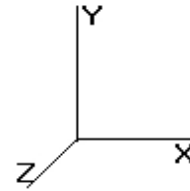
Wind Load Factor : 1.00

94.00	-9.82	-2.83	0.00	-116.45	0.00	116.45	1,356.93	678.46	1,323.31	653.53	10.34	-1.02	0.069
96.00	-9.51	-2.77	0.00	-110.80	0.00	110.80	1,345.30	672.65	1,294.62	639.36	10.77	-1.03	0.067
98.00	-9.21	-2.71	0.00	-105.26	0.00	105.26	1,333.52	666.76	1,266.08	625.27	11.21	-1.05	0.064
100.00	-8.91	-2.65	0.00	-99.85	0.00	99.85	1,321.57	660.79	1,237.69	611.25	11.65	-1.07	0.061
102.00	-8.61	-2.59	0.00	-94.56	0.00	94.56	1,309.46	654.73	1,209.47	597.31	12.10	-1.08	0.059
104.00	-8.31	-2.52	0.00	-89.39	0.00	89.39	1,297.19	648.59	1,181.40	583.45	12.56	-1.10	0.056
106.00	-8.02	-2.46	0.00	-84.34	0.00	84.34	1,284.75	642.38	1,153.50	569.67	13.02	-1.11	0.053
108.00	-7.72	-2.40	0.00	-79.41	0.00	79.41	1,272.15	636.08	1,125.79	555.98	13.49	-1.13	0.051
110.00	-7.43	-2.34	0.00	-74.60	0.00	74.60	1,258.29	629.15	1,097.29	541.91	13.97	-1.14	0.048
110.00	-7.43	-2.34	0.00	-74.59	0.00	74.59	1,258.26	629.13	1,097.24	541.88	13.97	-1.14	0.048
110.00	-7.43	-2.34	0.00	-74.59	0.00	74.59	849.39	424.69	737.77	364.36	13.97	-1.14	0.058
112.00	-7.17	-2.28	0.00	-69.91	0.00	69.91	842.35	421.17	720.81	355.98	14.45	-1.16	0.056
114.00	-6.91	-2.23	0.00	-65.34	0.00	65.34	835.13	417.57	703.86	347.61	14.94	-1.17	0.052
116.00	-6.65	-2.17	0.00	-60.89	0.00	60.89	827.75	413.88	686.97	339.27	15.43	-1.19	0.049
118.00	-6.39	-2.11	0.00	-56.56	0.00	56.56	820.21	410.11	670.13	330.95	15.93	-1.20	0.046
120.00	-6.14	-2.05	0.00	-52.34	0.00	52.34	812.51	406.25	653.35	322.67	16.44	-1.21	0.043
120.00	-6.14	-2.05	0.00	-52.34	0.00	52.34	812.51	406.25	653.35	322.67	16.44	-1.21	0.170
122.00	-6.01	-2.02	0.00	-48.23	0.00	48.23	804.64	402.32	636.65	314.42	16.95	-1.22	0.161
124.00	-5.89	-1.99	0.00	-44.19	0.00	44.19	796.61	398.31	620.02	306.21	17.47	-1.27	0.152
126.00	-5.77	-1.96	0.00	-40.22	0.00	40.22	788.42	394.21	603.48	298.04	18.01	-1.32	0.142
128.00	-5.65	-1.93	0.00	-36.31	0.00	36.31	780.06	390.03	587.02	289.91	18.57	-1.36	0.133
130.00	-5.53	-1.89	0.00	-32.46	0.00	32.46	771.54	385.77	570.66	281.83	19.15	-1.40	0.122
132.00	-5.42	-1.86	0.00	-28.67	0.00	28.67	762.86	381.43	554.40	273.80	19.75	-1.44	0.112
134.00	-5.30	-1.83	0.00	-24.94	0.00	24.94	754.02	377.01	538.25	265.82	20.36	-1.48	0.101
136.00	-5.19	-1.80	0.00	-21.28	0.00	21.28	745.01	372.51	522.21	257.90	20.99	-1.51	0.090
138.00	-5.08	-1.77	0.00	-17.68	0.00	17.68	735.84	367.92	506.30	250.04	21.63	-1.54	0.078
140.00	-3.70	-1.28	0.00	-14.14	0.00	14.14	726.51	363.26	490.51	242.24	22.28	-1.57	0.063
142.00	-3.62	-1.25	0.00	-11.59	0.00	11.59	717.02	358.51	474.85	234.51	22.94	-1.59	0.054
144.00	-3.53	-1.22	0.00	-9.09	0.00	9.09	704.68	352.34	457.59	225.99	23.61	-1.61	0.045
146.00	-3.45	-1.19	0.00	-6.66	0.00	6.66	690.85	345.42	439.70	217.15	24.29	-1.62	0.036
148.00	-3.37	-1.16	0.00	-4.29	0.00	4.29	677.01	338.51	422.16	208.49	24.97	-1.63	0.026
150.00	0.00	-1.06	0.00	-1.97	0.00	1.97	663.18	331.59	404.98	200.01	25.65	-1.64	0.010

Pole : 302493
 Location : Nrwc - Norwich, CT
 Height : 150.0 (ft)
 Base Dia : 37.38 (in)
 Top Dia : 15.05 (in)
 Shape : 12 Sides
 Taper : 0.155000 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

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 Page: 40



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Analysis Summary

Load Case	Reactions						Max Usage	
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.6W	27.75	0.00	33.27	0.00	0.00	2675.46	120.00	0.89
0.9D + 1.6W	27.47	0.00	26.95	0.00	0.00	2645.15	120.00	0.86
1.2D + 1.0Di + 1.0Wi	4.77	0.00	47.12	0.00	0.00	493.05	120.00	0.19
1.0D + 1.0W	5.39	0.00	29.09	0.00	0.00	513.72	120.00	0.17

Additional Steel Summary

Elev From (ft)	Elev To (ft)	Member	Intermediate Connectors			Upper Termination Connectors				Lower Termination Connectors				Max Member		
			VQ/I (lb/in)	Shear Applied (kips)	Shear phiVn (kips)	MQ/I (kips)	phiVn (kips)	Num Reqd	Num Actual	MQ/I (kips)	phiVn (kips)	Num Reqd	Num Actual	Pu (kip)	phiPn (kip)	Ratio
0.00	120.	(4) SOL-#20 All Thre	322.0	9.7	16.8	95.7	12.0	8	12	0.0	12.0	0	12	278.8	330.5	0.844

Base/Flange Plate	Plate Type	Baseplate
	Pole Diameter	37.38 in
	Pole Thickness	0.375 in
	Plate Length	44 in
	Plate Thickness	2.5 in
	Plate Fy	60 ksi
	Weld Length	0.3125 in
	ϕ_s Resistance	1382.37 k-in
	Applied	744.90 k-in
Stiffeners	#	0

Code Rev. **G**

Date **5/16/2014**
 Engineer **EWB**
 Site # **302493**
 Carrier **T-Mobile**

Moment **2675.5 k-ft**
 Axial **33.3 k**

Bolts	#	8
	Bolt Circle	44 in
	(R)adial / (S)quare	S
	Bolt Gap	6 in
	Diameter	2.25 in
	Hole Diameter	2.375 in
	Type	A615
	Fy	75 ksi
	Fu	100 ksi
ϕ_s Resistance	259.82 k	
Applied	205.77 k	
Reinforcement	#	4
	DYW. Circle	45 in
	Offset Angle	0°
	Type	#20
	Diameter	2.5 in
Fu	100 ksi	
Extra Bolts O	#	0

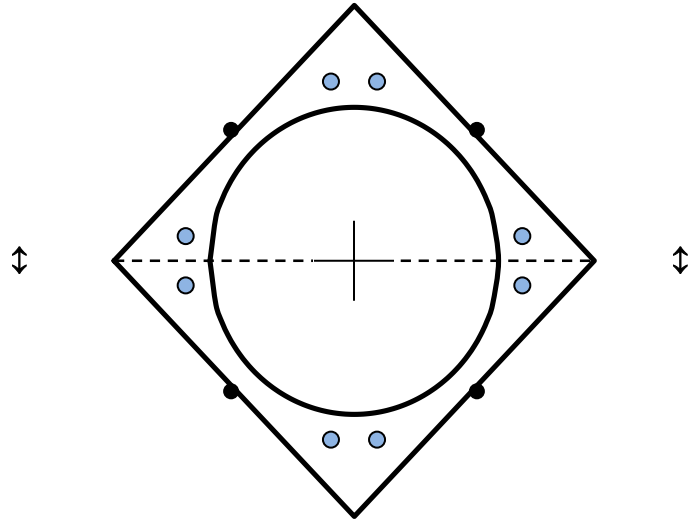


Plate Stress Ratio:
0.54 (Pass)

Bolt Stress Ratio:
0.79 (Pass)

Base/Flange Plate	Plate Type	Flange @ 110.0 ft
	Pole Diameter	21.25 in
	Pole Thickness	0.188 in
	Plate Diameter	28.5 in
	Plate Thickness	1 in
	Plate Fy	60 ksi
	Weld Length	0.3125 in
	ϕ_s Resistance	90.61 k-in
	Applied	39.08 k-in
	Stiffeners	#

Code Rev. **G**

Date **5/16/2014**
 Engineer **EWB**
 Site # **302493**
 Carrier **T-Mobile**

Moment **402.6 k-ft**
 Axial **7.6 k**

Required Flange Thickness:

0.66 in OK

Bolts	#	4
	Bolt Circle (R)adial / (S)quare	25.75 in R
	Diameter	1 in
	Hole Diameter	1.125 in
	Type	A325
	Fy	92 ksi
	Fu	120 ksi
	ϕ_s Resistance Applied	54.52 k 13.34 k
Reinforcement	#	4
	DYW. Circle	29 in
	Offset Angle	60°
	Type	#20
	Diameter	2.5 in
Fu	100 ksi	
Extra Bolts O	#	4
	Bolt Circle (R)adial / (S)quare	25.75 in R
	Offset Angle	30°
	Diameter	1 in
	Type	A325
	Fy	92 ksi
	Fu	120 ksi
	ϕ_s Resistance Applied	54.52 k 15.08 k

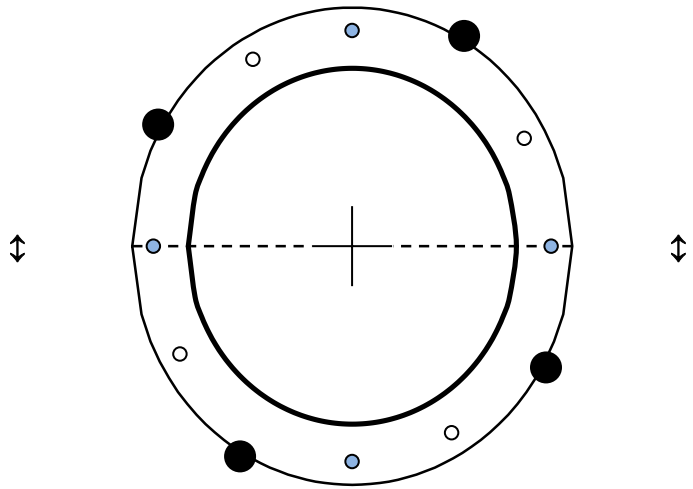


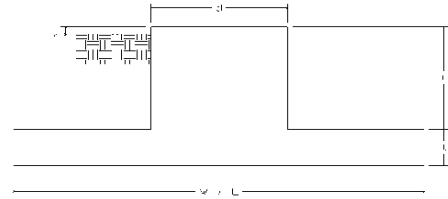
Plate Stress Ratio:
0.43 (Pass)

Bolt Stress Ratio:
0.24 (Pass)

Extra Bolt Stress Ratio:
0.28 (Pass)

Site Name: Nrwc - Norwich, CT
 Site Number: 302493
 Engineering Number: 58043924
 Engineer: E. Bosko
 Date: 05/16/14
 Tower Type: MP

Program Last Updated: 11/15/2012



Design Loads (Factored) - Analysis per TIA-222-G Standards

Design / Analysis / Mapping:	Analysis		
Compression/Leg:	0.0 k	Concrete Strength (f'_c):	4000 psi
Uplift/Leg:	0.0 k	Pad Tension Steel Depth:	32.00 in
Total Shear:	27.8 k	ϕ_{Shear} :	0.75
Moment:	2675.5 k-ft	$\phi_{\text{Flexure / Tension}}$:	0.90
Tower + Appurtenance Weight:	33.2 k	$\phi_{\text{Compression}}$:	0.65
Depth to Base of Foundation (l + t - h):	8.00 ft	β :	0.85
Diameter of Pier (d):	5.00 ft	Bottom Pad Rebar Size #:	10
Height of Pier above Ground (h):	0.50	# of Bottom Pad Rebar:	36
Width of Pad (W):	18.00 ft	Pad Bottom Steel Area:	45.72 in ²
Length of Pad (L):	18.00 ft	Pad Steel F_y :	60000 psi
Thickness of Pad (t):	3.00 ft	Top Pad Rebar Size #:	5
Tower Leg Center to Center:	0.00 ft	# of Top Pad Rebar:	36
Number of Tower Legs:	1.0 (1 if MP or GT)	Pad Top Steel Area:	11.16 in ²
Tower Center from Mat Center:	0.00 ft	Pier Rebar Size #:	10
Depth Below Ground Surface to Water Table:	4.00 ft	Pier Steel Area (Single Bar):	1.27 in ²
Unit Weight of Concrete:	150.0 pcf	# of Pier Rebar:	36
Unit Weight of Soil Above Water Table:	125.0 pcf	Pier Steel F_y :	60000 psi
Unit Weight of Water:	62.4 pcf	Pier Cage Diameter:	52.0 in
Unit Weight of Soil Below Water Table:	65.0 pcf	Rebar Strain Limit:	0.008
Friction Angle of Uplift:	15.0 Degrees	Steel Elastic Modulus:	29000 ksi
Ultimate Coefficient of Shear Friction:	0.35	Tie Rebar Size #:	4
Ultimate Compressive Bearing Pressure:	14000.0 psf	Tie Steel Area (Single Bar):	0.20 in ²
Ultimate Passive Pressure on Pad Face:	3300.0 psf	Tie Spacing:	12 in
$\phi_{\text{Soil and Concrete Weight}}$:	0.9	Tie Steel F_y :	60000 psi
ϕ_{Soil} :	0.75		

Overturning Moment Usage

Design OTM: 2911.3 k-ft
 OTM Resistance: 2929.0 k-ft
 Design OTM / OTM Resistance: 0.99 Result: OK

Soil Bearing Pressure Usage

Net Bearing Pressure: 6689 psf
 Factored Nominal Bearing Pressure: 10500 psf
 Net Bearing Pressure/Factored Nominal Bearing Pressure: 0.64 Result: OK
 Load Direction Controlling Design Bearing Pressure: Diagonal to Pad Edge

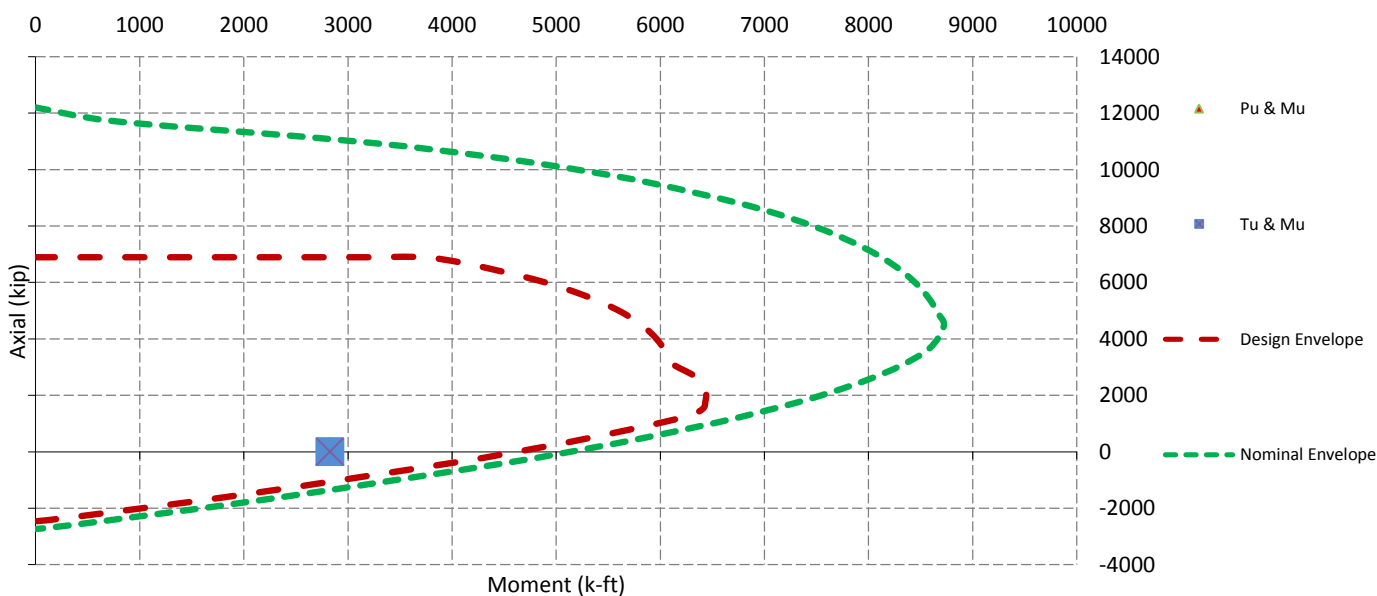
Sliding Factor of Safety

Total Factored Sliding Resistance: 199.0 k
 Sliding Design / Sliding Resistance: 0.14 Result: OK

One Way Shear, Flexural Capacity, and Punching Shear

Factored One Way Shear (V_u):	213.7 k
One Way Shear Capacity (ϕV_c):	550.9 k - ACI11.3.1.1
$V_u / \phi V_c$:	0.39 Result: OK
Load Direction Controlling Shear Capacity:	Diagonal to Pad Edge
Lower Steel Pad Factored Moment (M_u):	1262.3 k-ft
Lower Steel Pad Moment Capacity (ϕM_n):	6257.1 k-ft - ACI10.3
$M_u / \phi M_n$:	0.20 Result: OK
Load Direction Controlling Flexural Capacity:	Parallel to Pad Edge
Upper Steel Pad Factored Moment (M_u):	503.6 k-ft
Upper Steel Pad Moment Capacity (ϕM_n):	1587.6 k-ft
$M_u / \phi M_n$:	0.32 Result: OK
Lower Pad Flexural Reinforcement Ratio:	0.0066 OK - Minimum Reinforcement Ratio Met - ACI10.5.1
Upper Pad Flexural Reinforcement Ratio:	0.0016 OK - Minimum Reinforcement Ratio Met - ACI10.5.1
Lower Pad Reinforcement Spacing:	6 in - Pad Reinforcing Spacing OK - ACI7.12.2.2 & 10.5.4
Upper Pad Reinforcement Spacing:	6 in - Pad Reinforcing Spacing OK - ACI7.12.2.2 & 10.5.4
Factored Punching Shear (V_u):	0.0 k
Nominal Punching Shear Capacity ($\phi_c V_n$):	1754.8 k - ACI11.12.2.1
$V_u / \phi V_c$:	0.00 Result: OK
Factored Moment in Pier (M_u):	2828.1 k-ft
Pier Moment Capacity (ϕM_n):	5231.8 k-ft
$M_u / \phi M_n$:	0.54 Result: OK
Factored Shear in Pier (V_u):	27.8 k
Pier Shear Capacity (ϕV_n):	268.2 k
$V_u / \phi V_c$:	0.10 Result: OK
Pier Shear Reinforcement Ratio:	0.0007 No Ties Necessary for Shear - ACI11.5.6.1
Factored Tension in Pier (T_u):	0.0 k
Pier Tension Capacity (ϕT_n):	2468.9 k
$T_u / \phi T_n$:	0.00 Result: OK
Factored Compression in Pier (P_u):	0.0 k
Pier Compression Capacity (ϕP_n):	4918.1 k - ACI10.3.6.2
$P_u / \phi P_n$:	0.00 Result: OK
Pier Compression Reinforcement Ratio:	0.016 OK - Reinforcement Ratio Met - ACI10.9.1 & 10.8.4
$M_u / \phi_B M_n + T_u / \phi_T T_n$:	0.54 Result: OK

Nominal and Design Moment Capacity and Factored Design Loads



RF SYSTEM SCHEDULE (2C CONFIGURATION)

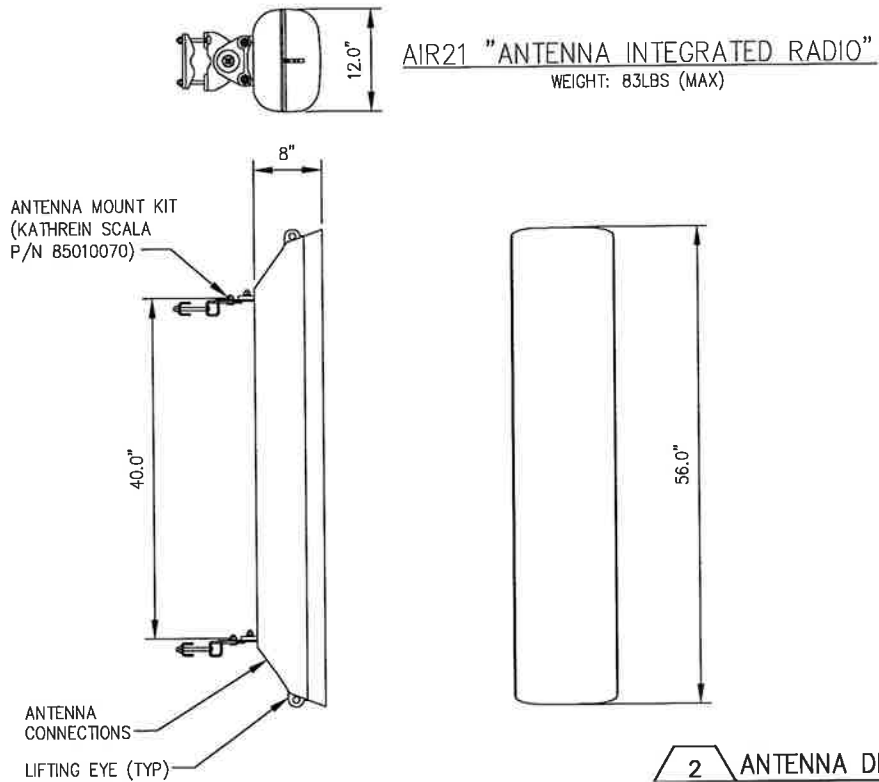
SECTOR	TECHNOLOGY	ANTENNA PORT	BAND	ANTENNA MODEL #	VENDOR	AZIMUTH	M-TILT	E-TILT	ANTENNA CENTERLINE	TMA MODEL #	VENDOR	CABLE LENGTH	CABLE DIAMETER	CABLE TYPE	CABLE MODEL #	VENDOR	CABLE TAGGING	COLOR CODING	JUMPER TYPE	JUMPER TAGGING	COLOR CODING											
A	UMTS AWS	RF #1	B4P	AIR21	ERICSSON	40°	-	-	140'-0"	KRY 112 144/1	N/A	EXISTING	1-5/8"	COAX	EXISTING	N/A	UMTS AWS A1	B	COAX	UMTS AWS A1	B											
		EXISTING										1-5/8"	COAX	EXISTING	N/A	UMTS AWS A2	B	COAX	UMTS AWS A2	B												
	LMU	LMU #1	-									PROPOSED	1-5/8"	COAX	TBD	N/A	LMU A1	-	COAX	LMU A1	-											
		LMU #2										PROPOSED	1-5/8"	COAX	TBD	N/A	LMU A2	-	COAX	LMU A2	-											
	GSM	OPTICAL #1	B2A									180'±	-	-	-	-	-	-	-	-	-	-	-	-	-	-	FIBER	GSM 1900 A1	R			
	UMTS	OPTICAL #2																									FIBER	UMTS 1900 A2	G			
LTE AWS	OPTICAL #1	B4A	AIR21	ERICSSON	40°	-	-	140'-0"	-	-	-	-	-	HYBRID	MASTERLINE EXTREME HYBRID (9x18)	ERICSSON	FIBER 1	0	FIBER	LTE FIBER 1	Y											
B	UMTS AWS	RF #1	B4P	AIR21	ERICSSON	160°	-	-	140'-0"	KRY 112 144/1	N/A	EXISTING	1-5/8"	COAX	EXISTING	N/A	UMTS AWS B1	BB	COAX	UMTS AWS B1	BB											
		EXISTING										1-5/8"	COAX	EXISTING	N/A	UMTS AWS B2	BB	COAX	UMTS AWS B2	BB												
	LMU	LMU #1	-									PROPOSED	1-5/8"	COAX	TBD	N/A	LMU B1	-	COAX	LMU B1	-											
		LMU #2										PROPOSED	1-5/8"	COAX	TBD	N/A	LMU B2	-	COAX	LMU B2	-											
	GSM	OPTICAL #1	B2A									(ANTENNA CONNECTED VIA SINGLE SHARED MLE HYBRID GEN2 CABLE. SEE SECTOR "A")	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	HYBRID	GSM 1900 B1	RR		
	UMTS	OPTICAL #2																										HYBRID	UMTS 1900 B2	GG		
LTE AWS	OPTICAL #1	B4A	AIR21	ERICSSON	160°	-	-	140'-0"	-	-	-	-	-	-	-	-	-	-	-	HYBRID	LTE FIBER 2	YY										
C	UMTS AWS	RF #1	B4P	AIR21	ERICSSON	280°	-	-	140'-0"	KRY 112 144/1	N/A	EXISTING	1-5/8"	COAX	EXISTING	N/A	UMTS AWS C1	BBB	COAX	UMTS AWS C1	BBB											
		EXISTING										1-5/8"	COAX	EXISTING	N/A	UMTS AWS C2	BBB	COAX	UMTS AWS C2	BBB												
	LMU	LMU #1	-									PROPOSED	1-5/8"	COAX	TBD	N/A	LMU C1	-	COAX	LMU C1	-											
		LMU #2										PROPOSED	1-5/8"	COAX	TBD	N/A	LMU C2	-	COAX	LMU C2	-											
	GSM	OPTICAL #1	B2A									(ANTENNA CONNECTED VIA SINGLE SHARED MLE HYBRID GEN2 CABLE. SEE SECTOR "A")	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	HYBRID	GSM 1900 C1	RRR
	UMTS	OPTICAL #2																												HYBRID	UMTS 1900 C2	GGG
LTE AWS	OPTICAL #1	B4A	AIR21	ERICSSON	280°	-	-	140'-0"	-	-	-	-	-	-	-	-	-	-	-	-	HYBRID	LTE FIBER 3	YYY									

1 RF SCHEDULE
NOT TO SCALE

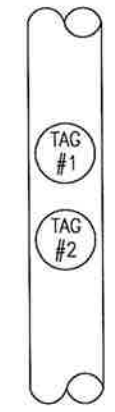
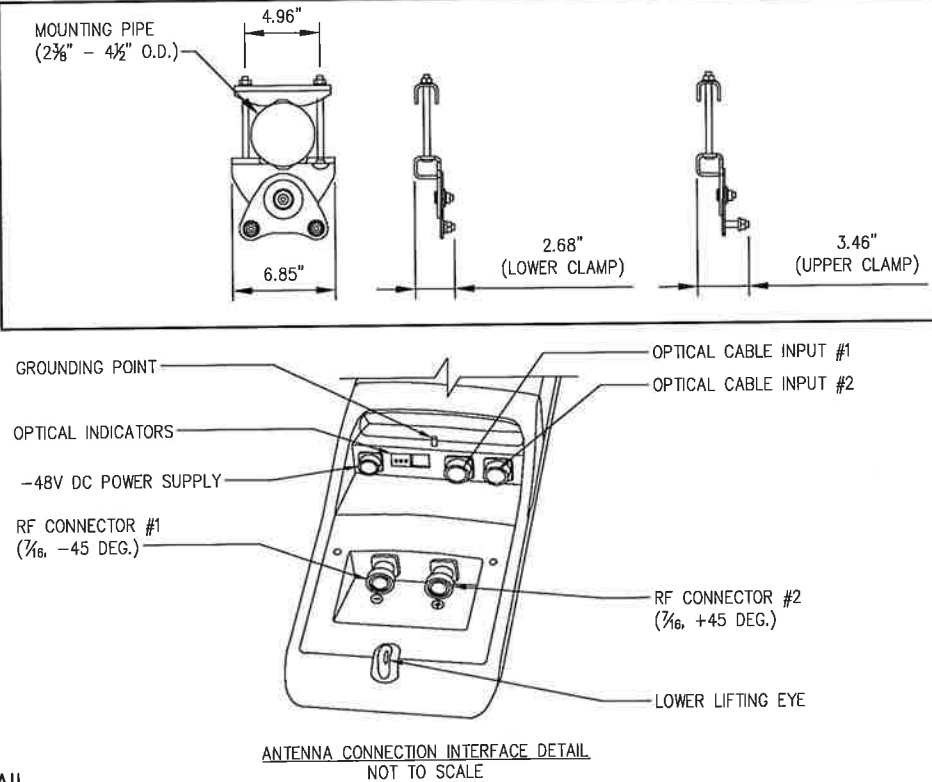
NOTE:
ROUTE PROPOSED COAX CABLE IN SAME PATHWAY AS T-MOBILE COAX CABLE. INSTALLATION MUST COMPLY WITH RESULTS OF STRUCTURAL ANALYSIS, LATEST REVISION.

KEY

EXISTING	R - RED - GSM
PROPOSED	G - GREEN - UMTS 1900
FIBER CONNECTION	B - BLUE - UMTS AWS
	Y - YELLOW - LTE
	O - ORANGE - FIBER CABLE



2 ANTENNA DETAIL
NOT TO SCALE



- METALLIC TAG NOTES:
- TWO METALLIC TAGS SHALL BE ATTACHED AT EACH END OF EVERY CABLE LONGER THAN (3) THREE FEET.
 - CABLES LESS THAN (3) THREE FEET WILL HAVE TWO METALLIC TAGS ATTACHED AT THE CENTER OF THE CABLE.
 - TAGS WILL BE FASTENED WITH STAINLESS STEEL ZIP TIES APPROPRIATE FOR CABLE DIAMETER.
 - STANDARDIZED METALLIC TAG KITS WILL BE ASSEMBLED WITH TAGS ALREADY ENGRAVED TO ACCOMMODATE ALL CONFIGURATIONS.

3 METALLIC TAG DETAIL
NOT TO SCALE



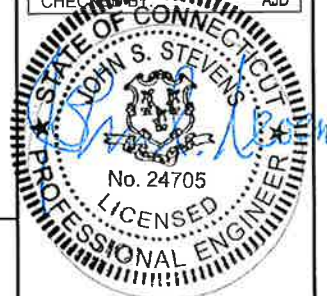
INFINIGY8
Design, Build, Deliver
1033 WATERBURY SHAKER ROAD
OFFICE: (518) 680-0790
FAX: (518) 680-0783

SUBMITTALS

DATE	DESCRIPTION	REVISION
4/03/14	REVIEW	A
6/06/14	FOR PERMIT	0

DEPT.	DATE	APP'D	REVISIONS
RFE			
RF MAN.			
ZONING			
OPS			
CONSTR.			
SITE AC.			

PROJECT NO: 317-1180
DRAWN BY: JLM
CHECKED BY: AJD



PROFESSIONAL SEAL

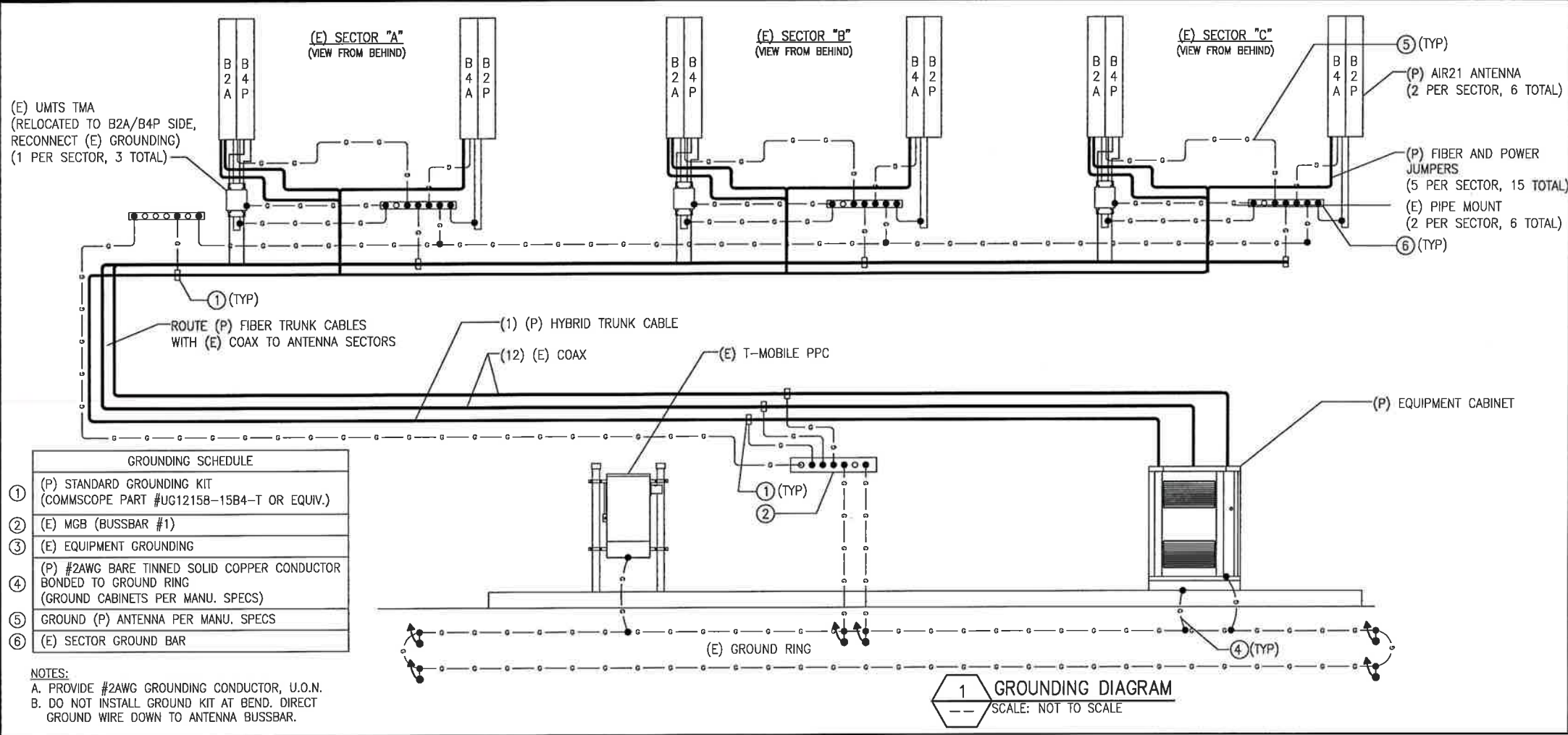
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SITE NAME
CT11148B
NORWICH I-395 X80_1
225 ROGERS ROAD
NORWICH, CT 06360

SHEET TITLE
ANTENNA DETAIL & RF SCHEDULE

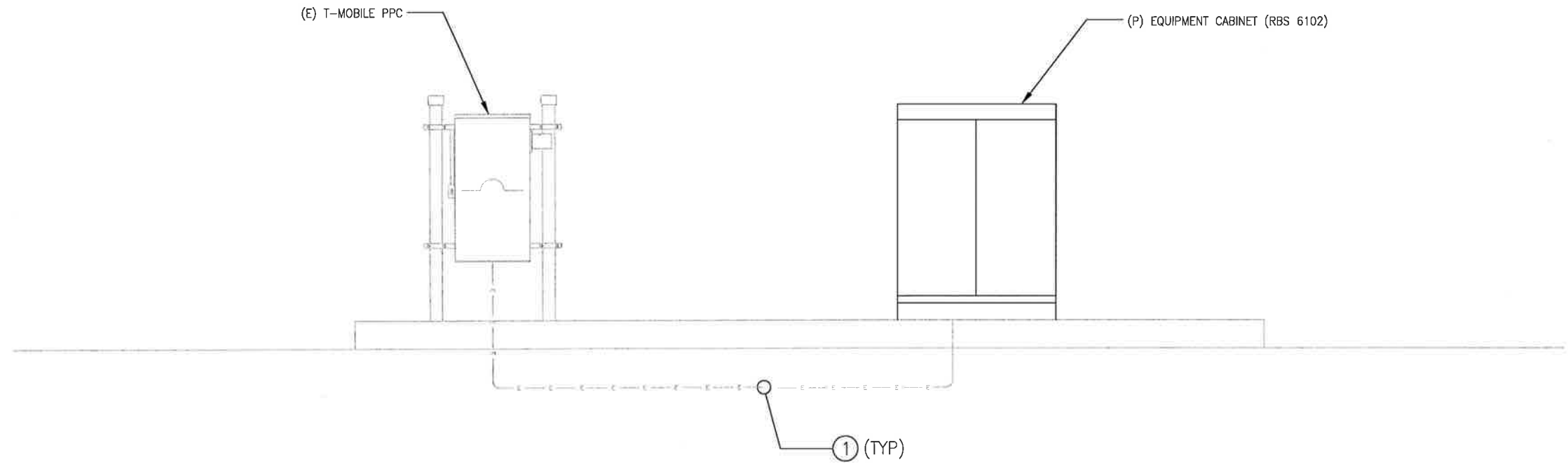
SHEET NUMBER
C-3
SHEET 4 OF 8 SHEETS



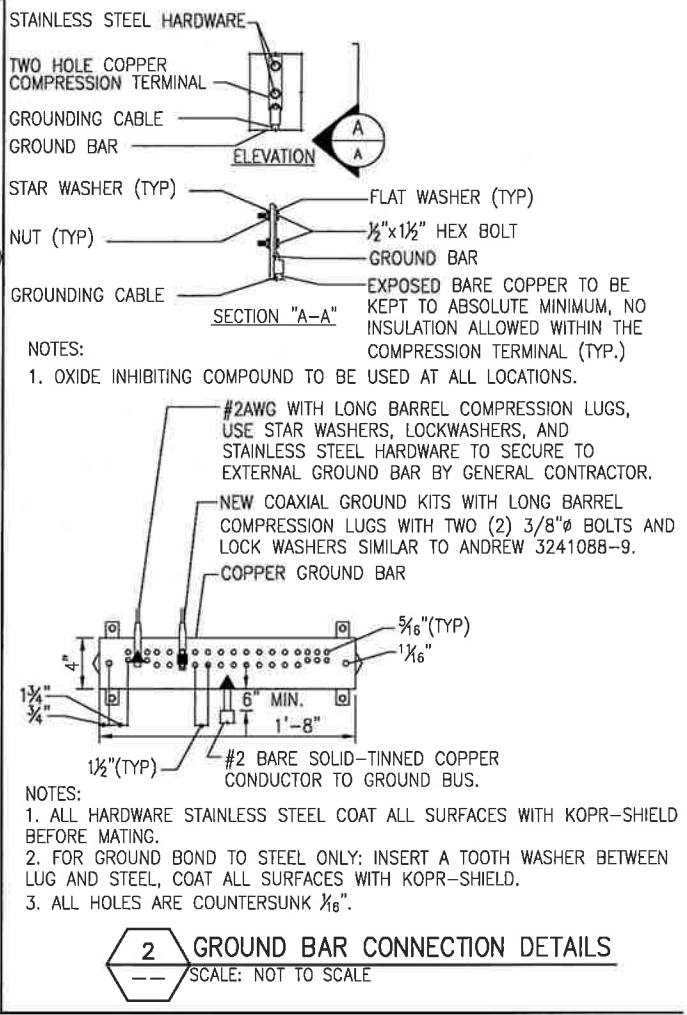
GROUNDING SCHEDULE	
①	(P) STANDARD GROUNDING KIT (COMMSCOPE PART #UG12158-15B4-T OR EQUIV.)
②	(E) MGB (BUSSBAR #1)
③	(E) EQUIPMENT GROUNDING
④	(P) #2AWG BARE TINNED SOLID COPPER CONDUCTOR BONDED TO GROUND RING (GROUND CABINETS PER MANU. SPECS)
⑤	GROUND (P) ANTENNA PER MANU. SPECS
⑥	(E) SECTOR GROUND BAR

NOTES:
 A. PROVIDE #2AWG GROUNDING CONDUCTOR, U.O.N.
 B. DO NOT INSTALL GROUND KIT AT BEND. DIRECT GROUND WIRE DOWN TO ANTENNA BUSSBAR.

CONDUIT SCHEDULE	
①	(E) POWER CONDUIT



3 POWER DIAGRAM
 --- SCALE: NOT TO SCALE



NOTES:
 1. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.
 2. #2AWG WITH LONG BARREL COMPRESSION LUGS, USE STAR WASHERS, LOCKWASHERS, AND STAINLESS STEEL HARDWARE TO SECURE TO EXTERNAL GROUND BAR BY GENERAL CONTRACTOR.
 3. NEW COAXIAL GROUND KITS WITH LONG BARREL COMPRESSION LUGS WITH TWO (2) 3/8"Ø BOLTS AND LOCK WASHERS SIMILAR TO ANDREW 3241088-9.
 4. COPPER GROUND BAR

NOTES:
 1. ALL HARDWARE STAINLESS STEEL COAT ALL SURFACES WITH KOPR-SHIELD BEFORE MATING.
 2. FOR GROUND BOND TO STEEL ONLY: INSERT A TOOTH WASHER BETWEEN LUG AND STEEL, COAT ALL SURFACES WITH KOPR-SHIELD.
 3. ALL HOLES ARE COUNTERSUNK 1/16".

2 GROUND BAR CONNECTION DETAILS
 --- SCALE: NOT TO SCALE

INFINIGY&
 Design. Build. Deliver.
 1033 WATERVLIET SHAKER ROAD
 ALBANY, NY 12205
 OFFICE: (518) 865-0790
 FAX: (518) 865-0793

SUBMITTALS		
DATE	DESCRIPTION	REVISION
4/03/14	REVIEW	A
6/06/14	FOR PERMIT	0

DEPT.	DATE	APP'D	REVISIONS
RFE			
RF MAN.			
ZONING			
OPS			
CONSTR.			
SITE AC.			

PROJECT NO: 317-1180
 DRAWN BY: JLM
 CHECKED BY: AJD



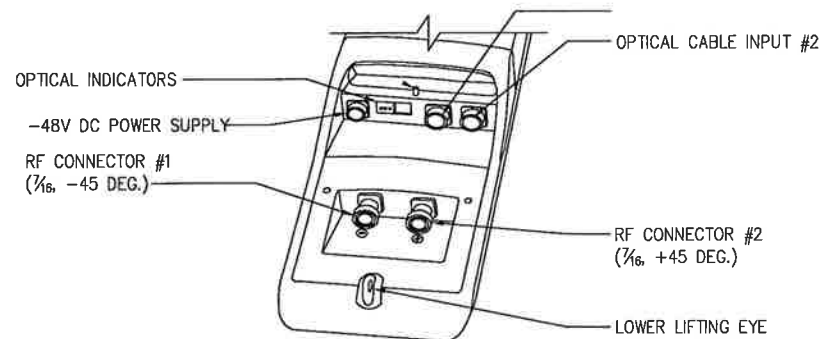
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SITE NAME
 CT11148B
 NORWICH / I-395 X80_1
 225 ROGERS ROAD
 NORWICH, CT 06360

SHEET TITLE
GROUNDING & POWER DIAGRAMS

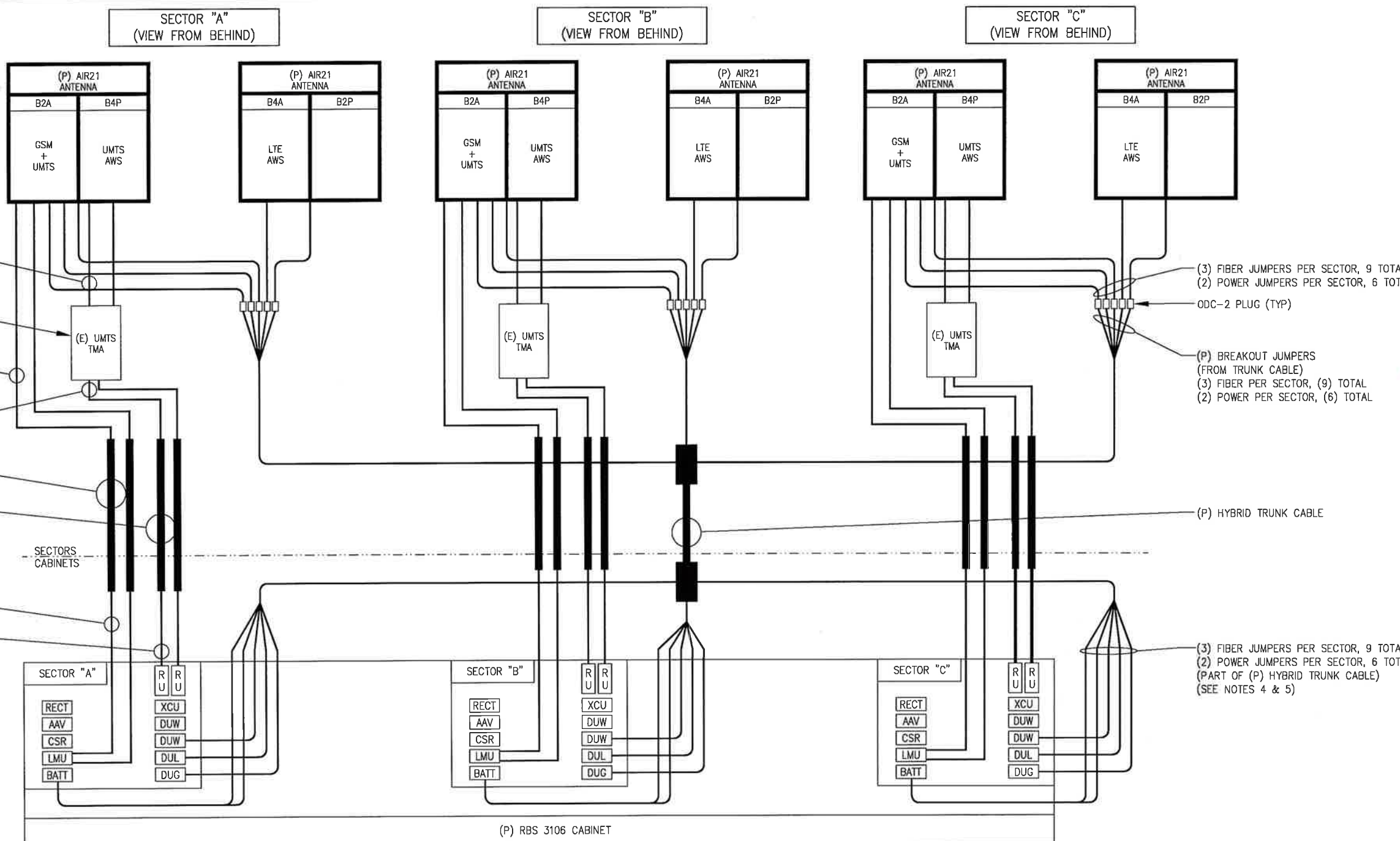
SHEET NUMBER
E-1



1 ANTENNA CONNECTION INTERFACE
NOT TO SCALE

NOTES:

1. TAG ALL EXISTING AND PROPOSED CABLES/JUMPERS PER T-MOBILE SPECIFICATIONS (SEE RF SCHEDULE/C-3)
2. SEE RF SCHEDULE/C-3 FOR CABLE AND JUMPER LENGTHS.
3. IF NEW GPS ADDED TO SITE, CAP AND WEATHERPROOF ANY UNUSED COAX FOR FUTURE USE.
4. TRIM POWER JUMPERS PER MANU. SPECS TO CORRECT LENGTH FOR CONNECTION.
5. COIL EXCESS FIBER IN CABINET BASE.

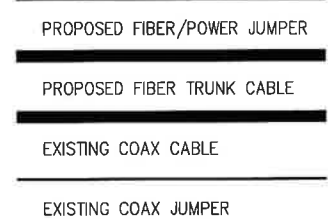


- (E) UMTS JUMPERS (TO ANTENNA)
(2) PER SECTOR, (6) TOTAL
- (E) UMTS TMA
(1) PER SECTOR, (3) TOTAL
- (P) COAX JUMPERS (TO FEED LMUs AS NECESSARY, SEE NOTE 4)
(2) PER SECTOR, (6) TOTAL
- (E) UMTS JUMPERS (TO TMA)
(2) PER SECTOR, (6) TOTAL
- (P) COAX (TO FEED LMUs AS NECESSARY, SEE NOTE 4)
(2) PER SECTOR, (6) TOTAL
- (E) UMTS COAX
(2) PER SECTOR, (6) TOTAL
- (P) JUMPER (TO FEED LMUs AS NECESSARY, SEE NOTE 4)
(2) PER SECTOR, (6) TOTAL
- (E) UMTS JUMPERS (TO COAX)
(2) PER SECTOR, (6) TOTAL

- (3) FIBER JUMPERS PER SECTOR, 9 TOTAL
- (2) POWER JUMPERS PER SECTOR, 6 TOTAL
- (P) BREAKOUT JUMPERS (FROM TRUNK CABLE)
(3) FIBER PER SECTOR, (9) TOTAL
(2) POWER PER SECTOR, (6) TOTAL

(P) HYBRID TRUNK CABLE

- (3) FIBER JUMPERS PER SECTOR, 9 TOTAL
- (2) POWER JUMPERS PER SECTOR, 6 TOTAL (PART OF (P) HYBRID TRUNK CABLE) (SEE NOTES 4 & 5)



2 2C CONFIGURATION COAX/FIBER PLUMBING DIAGRAM
NOT TO SCALE

SUBMITTALS		
DATE	DESCRIPTION	REVISION
4/03/14	REVIEW	A
6/05/14	FOR PERMIT	0

DEPT.	DATE	APP'D	REVISIONS
RFE			
RF MAN			
ZONING			
OPS			
CONSTR.			
SITE AC			

PROJECT NO: 317-1180
DRAWN BY: JLM
CHECKED BY: AJD



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SITE NAME
CT11148B
NORWICH/I-395 X80_1
225 ROGERS ROAD
NORWICH, CT 06360

SHEET TITLE
COAX/FIBER PLUMBING DIAGRAM

SHEET NUMBER
E-2
SHEET 7 OF 8 SHEETS

