ROBINSON & COL

EM-VER-007-121018

KENNETH C. BALDWIN

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

Also admitted in Massachusetts

October 17, 2012

Linda Roberts
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **Notice of Exempt Modification – Antenna Swap**
260 Beckley Road, Berlin, Connecticut

Dear Ms. Roberts:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains twelve (12) wireless telecommunications antennas at the 116-foot level on an existing 150-foot tower at the above-referenced address. The tower is owned by American Tower Corporation. Cellco's use of the tower was approved by the Council in 2002. Cellco now intends to replace all of its existing antennas with six (6) model LPA-80063-6CF cellular antennas and six (6) model LPA-171063-12CF PCS antennas. Cellco also intends to add one (1) model APX75-866514-CT2 LTE antenna; and two (2) model LNX-6514DS-T4M LTE antennas, for a total of fifteen (15) antennas, all at the same 116-foot level. Cellco will also install six (6) additional coax cables attached to the outside of the monopole tower. Attached behind Tab 1 are the specifications for Cellco's replacement antennas.

Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Denise M. McNair, Town Manager of the Town of Berlin. A copy of this letter is also being sent to Elaine and John Matulis, the owners of the property on which the tower is located.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

1. The proposed modifications will not result in an increase in the height of the existing tower. Cellco's antennas will continue to be located at the 116-foot level on the 150-foot tower.

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

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

4. The operation of the replacement antennas will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) adopted safety standard. A cumulative General Power Density table for Cellco's modified facility is included behind Tab 2.

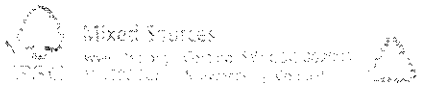
Also attached is a Structural Analysis Report confirming that the tower and foundation can support Cellco's proposed antenna modifications. (See Tab 3).

For the foregoing reasons, Cellco respectfully submits that the proposed modifications to the above-referenced telecommunications facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

Kenneth C. Baldwin

Enclosures
Copy to:
Denise M. McNair, Berlin Town Manager
Elaine and John Matulis
Sandy M. Carter


Mixed Sources

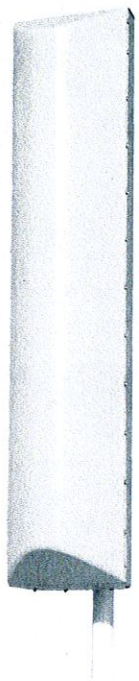
Amphenol ANTENNA SOLUTIONS

LPA-80063-6CF-EDIN-X

V-Pol | Log Periodic | 63° | 14.5 dBd

Replace "X" with desired electrical downtilt.

Antenna is also available with NE connector(s). Replace "EDIN" with "NE" in the model number when ordering.

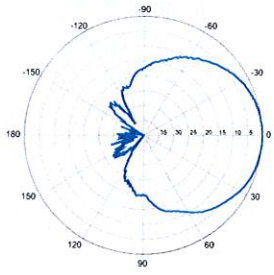


Electrical Characteristics	
Frequency bands	806-960 MHz
Polarization	Vertical
Horizontal beamwidth	63°
Vertical beamwidth	10°
Gain	14.5 dBd (16.6 dBi)
Electrical downtilt (X)	0, 2, 4, 5, 6, 8, 10
Impedance	50Ω
VSWR	≤1.4:1
Null fill	5% (-26.02 dB)
Input power	500 W
Lightning protection	Direct Ground
Connector(s)	1 Port / EDIN or NE / Female / Center (Back)

Mechanical Characteristics		
Dimensions Length x Width x Depth	1805 x 385 x 332 mm	71.1 x 15.2 x 13.1 in
Depth of antenna with z-bracket	372 mm	14.6 in
Weight without mounting brackets	12.3 kg	27 lbs
Survival wind speed	> 201 km/hr	> 125 mph
Wind area	Front: 0.70 m² Side: 0.59 m²	Front: 7.5 ft² Side: 6.3 ft²
Wind load @ 161 km/hr (100 mph)	Front: 885 N Side: 757 N	Front: 199 lbf Side: 170 lbf

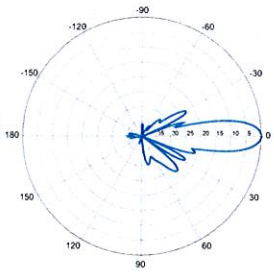
Mounting Options	Part Number	Fits Pipe Diameter	Weight
3-Point Mounting & Downtilt Bracket Kit (0-20°)	21700000	50-102 mm 2.0-4.0 in	11 kg 25 lbs
Lock-Down Brace	If the lock-down brace is used, the maximum diameter of the mounting pipe is 88.9 mm or 3.5 in.		

LPA-80063-6CF-EDIN-X



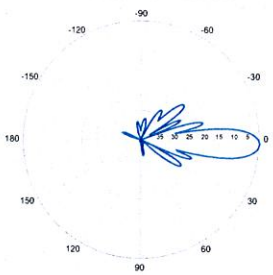
Horizontal

LPA-80063-6CF-EDIN-0



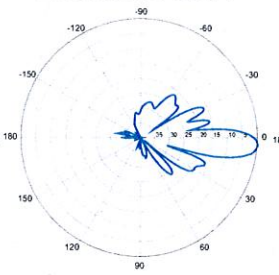
0° | Vertical

LPA-80063-6CF-EDIN-2



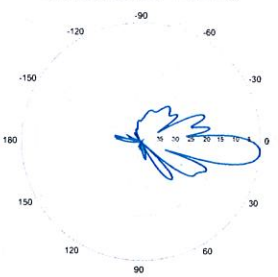
2° | Vertical

LPA-80063-6CF-EDIN-4



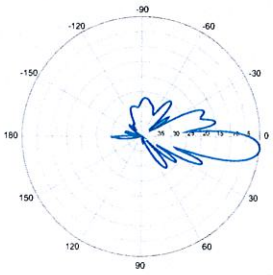
4° | Vertical

LPA-80063-6CF-EDIN-5



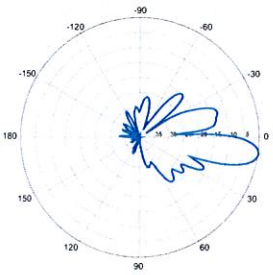
5° | Vertical

LPA-80063-6CF-EDIN-6



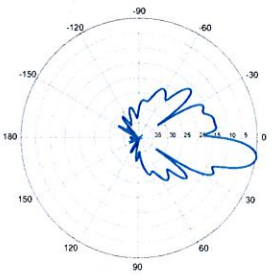
6° | Vertical

LPA-80063-6CF-EDIN-8



8° | Vertical

LPA-80063-6CF-EDIN-10



10° | Vertical

Amphenol ANTENNA SOLUTIONS

LPA-171063-12CF-EDIN-X

V-Pol | Log Periodic | 63° | 18.5-19.0 dBi

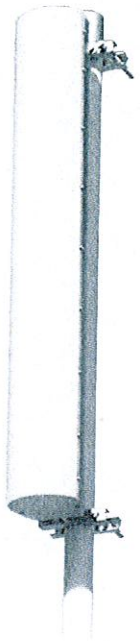
Replace "X" with desired electrical downtilt.

Antenna is available with NE connector(s). Replace "EDIN" with "NE" in the model number when ordering.

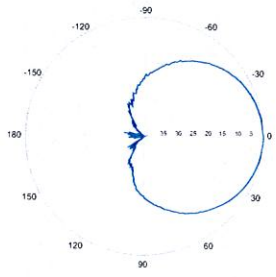
Electrical Characteristics	1710-2170 MHz		
Frequency bands	1710-1755 MHz	1850-1990 MHz	1920-2170 MHz
Polarization	Vertical		
Horizontal beamwidth	60°	63°	65°
Vertical beamwidth	3°	4°	3°
Gain	16.4 dBd (18.5 dBi)	16.9 dBd (19.0 dBi)	16.4 dBd (18.5 dBi)
Electrical downtilt (X)	0, 2		
Impedance	50Ω		
VSWR	≤ 1.5:1		
Null fill	5-10% (-26.02 to -20.0dB)		
Input power	250 W		
Lightning protection	Direct Ground		
Connector(s)	1 Port / EDIN or NE / Female / Center (Back)		

Mechanical Characteristics		
Dimensions Length x Width x Depth	1876 x 200 x 202 mm	73.9 x 7.9 x 8.0 in
Weight without mounting brackets	5.2 kg	11.5 lbs
Survival wind speed	>201 km/hr	>125 mph
Wind area	Front: 0.31 m² Side: 0.38 m²	Front: 4.0 ft² Side: 4.1 ft²
Wind load @ 161 km/hr (100 mph)	Front: 182 N Side: 586 N	Front: 41 lbf Side: 132 lbf

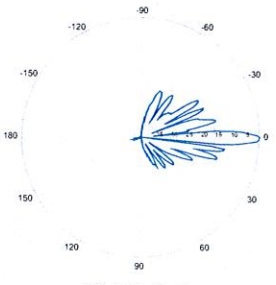
Mounting Options	Part Number	Fits Pipe Diameter	Weight
2-Point Mounting Bracket Kit	26799997	50-102 mm 2.0-4.0 in	2.3 kg 5.0 lbs
2-Point Mounting and Downtilt Bracket Kit	26799999	50-102 mm 2.0-4.0 in	2.3 kg 5.0 lbs



1710-1880 MHz

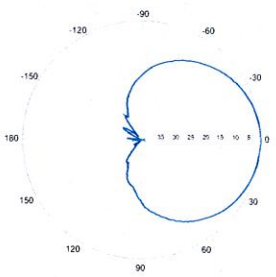


Horizontal

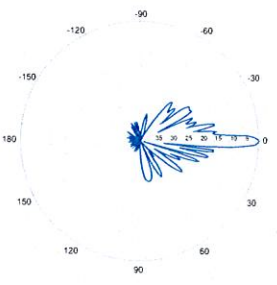


0° | Vertical

1850-1990 MHz

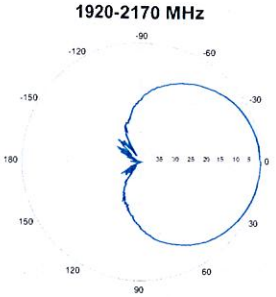


Horizontal

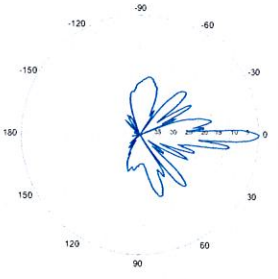


0° | Vertical

1920-2170 MHz



Horizontal

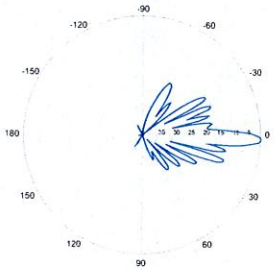


0° | Vertical

LPA-171063-12CF-EDIN-X

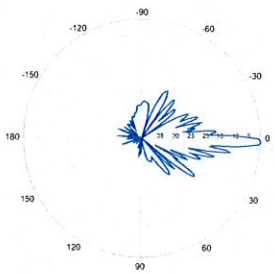
V-Pol | Log Periodic | 63° | 18.5-19.0 dBi

1710-1880 MHz



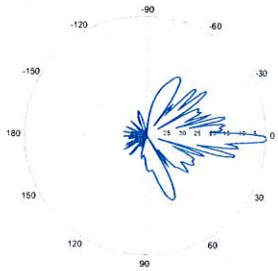
2° | Vertical

1850-1990 MHz



2° | Vertical

1920-2170 MHz



2° | Vertical

Product Specifications

ANDREW®
A CommScope Company

LNX-6514DS-T4M

DualPol® Antenna, 698–896 MHz, 65° horizontal beamwidth, fixed electrical tilt

- Broadband, providing future-ready single antenna for application in 700 MHz and existing 850 MHz cellular operation
- Air dielectric design provides superior PIM performance with repeatable antenna-to-antenna gain and pattern consistency
- Single piece radome provides long term mechanical stability
- Proven core design technology, with over 1,000,000 similar antennas deployed
- Exceptional USLS pattern shaping for optimizing coverage and interference mitigation for LTE applications
- Specifically designed to have physical dimensions similar to most existing cellular antennas

CHARACTERISTICS

General Specifications

Antenna Type	DualPol®
Brand	DualPol®
Operating Frequency Band	698 – 896 MHz

Electrical Specifications

Frequency Band, MHz	**698–806**	**806–896**
Beamwidth, Horizontal, degrees	66	64
Gain, dBd	13.8	14.5
Gain, dBi	15.9	16.6
Beamwidth, Vertical, degrees	12.0	11.0
Beam Tilt, degrees	4	4
Upper Sidelobe Suppression (USLS), typical, dB	18	18
Front-to-Back Ratio at 180°, dB	33	33
Isolation, dB	30	30
VSWR | Return Loss, db	1.35:1 | 16.5	1.35:1 | 16.5
Intermodulation Products, 3rd Order, 2 x 20 W, dBc	-150	-150
Input Power, maximum, watts	500	500
Polarization	±45°	±45°
Impedance, ohms	50	50
Lightning Protection	dc Ground	dc Ground

Product Data Sheet **APX75-866514-CT2**

Optimizer® Dual Polarized Antenna, 698-896, 65deg, 16.1dBi, 2m, FET, 2deg

Product Description

Wideband antenna for dense networks where site aspect is essential.

Features/Benefits

- **Wideband performance 698-896 MHz**
- **High sidelobe suppression**
- **Null fill**
- **Dual polarization**
- **High front-to-back ratio**

Technical Specifications

Electrical Specifications

Frequency Range, MHz	698-896
Horizontal Beamwidth, deg	66 +/-5
Vertical Beamwidth, deg	9-12
Electrical Downtilt Range, deg	2
Gain, dBi (dBd)	16.1 (14)
1st Upper Sidelobe Suppression, dB	>18
Upper Sidelobe Suppression, dB	>18
Front-To-Back Ratio, dB	>30
Polarization	Slant +/-45 degrees
VSWR	1.40:1
Isolation between Ports, dB	>30
3rd Order IMP @ 2 x 43 dBm, dBc	>150
Impedance, Ohms	50
Maximum Power Input, W	500
Lightning Protection	Chassis Ground
Connector Type/Location	(2) 7-16 Long Neck DIN Female/Bottom

Mechanical Specifications

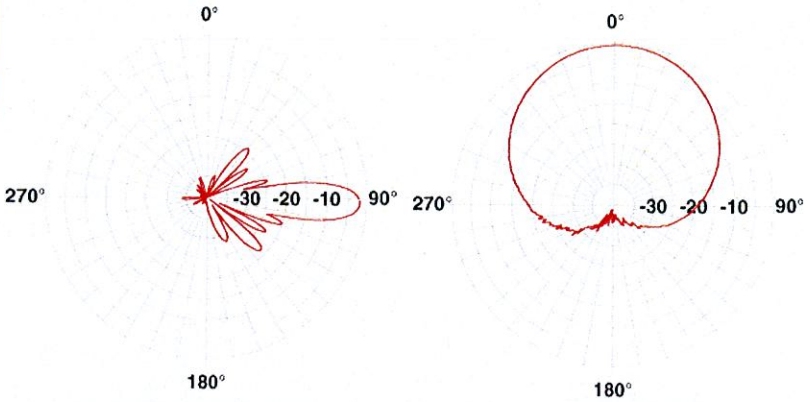
Dimensions - HxWxD, mm (in)	2082.8 x 311.2 x 120.7 (82 x 12.25 x 4.75)
Weight w/o Mtg Hardware, kg (lb)	14.0 (30.8)
Survival/Rated Wind Speed, km/h (mph)	200 (125) / 160 (100)
Operation temperature, °C (°F)	-40 to +60 (-40 to +140)
Radome Material/Color	ASA Plastic/Light Grey RAL7035
Mounting Hardware Material	Diecasted Aluminum
Radiating Element Material	Brass
Reflector Material	Aluminum

Ordering Information

Mounting Hardware	APM40-3
Mounting Pipe Diameter, mm (in)	60-120 (2.36-4.72)
Mounting Hardware Weight, kg (lb)	5.4 (11.9)

Product Data Sheet **APX75-866514-CT2**

Optimizer® Dual Polarized Antenna, 698-896, 65deg, 16.1dBi, 2m, FET, 2deg



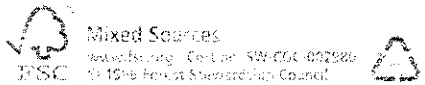
Vertical Pattern **Horizontal Pattern**

Notes

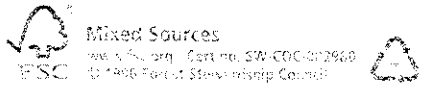
For additional mounting information please click "External Document Link" below.

External Document Links

APM40 Series Datasheet
APM40 Series Installation Instructions


Mixed Sources
FSC

	General	Power	Density					
Site Name: Berlin 2								
Tower Height: Verizon @ 116Ft.								
CARRIER	**# OF CHAN.**	**WATTS ERP**	**HEIGHT**	**CALC. POWER DENS**	**FREQ.**	**MAX. PERMISS. EXP.**	**FRACTION MPE**	**Total**
*AT&T UMTS	2	565	152	0.0176	880	0.5867	3.00%	
*AT&T UMTS	2	875	152	0.0272	1900	1.0000	2.72%	
*AT&T GSM	1	283	152	0.0044	880	0.5867	0.75%	
*AT&T GSM	4	525	152	0.0327	1900	1.0000	3.27%	
*AT&T LTE	1	1313	152	0.0204	734	0.4893	4.18%	
*Pocket	3	631	142	0.0338	2130	1.0000	3.38%	
*Berlin FD	1	25.12	94.5	0.0010	953.55	0.6357	0.16%	
*T-Mobile GSM	8	171	162	0.0187	1945	1.0000	1.87%	
*T-Mobile UMTS	2	683	162	0.0187	2100	1.0000	1.87%	
*Sprint	11	122	125	0.0309	1962.5	1.0000	3.09%	
*Nextel	12	100	90	0.0533	851	0.5673	9.39%	
Verizon PCS	**11**	**258**	**116**	**0.0758**	**1970**	**1.0000**	**7.58%**	
Verizon Cellular	**9**	**262**	**116**	**0.0630**	**869**	**0.5793**	**10.88%**	
Verizon AWS	**1**	**627**	**116**	**0.0168**	**2145**	**1.0000**	**1.68%**	
Verizon 700	**1**	**857**	**116**	**0.0229**	**698**	**0.4653**	**4.92%**	
								58.73%
* Source: Siting Council								


Mixed Sources

AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure	:	**150 ft Monopole**
ATC Site Name	:	**Brln - Berlin, CT**
ATC Site Number	:	**302483**
Engineering Number	:	**50013022**
Proposed Carrier	:	**Verizon**
Carrier Site Name	:	**Berlin 2, CT**
Carrier Site Number	:	**N/A**
Site Location	:	**260 Beckley Road** **Kensington, CT 06037-2419** **41.631722,-72.729900**
County	:	**Hartford**
Date	:	**September 13, 2012**
Max Usage	:	**96%**
Result	:	**Pass**

Esha Modi
Project Engineer

Esha Modi

STATE OF CONNECTICUT
RAPHAEL I. MOHAMED
No. 25112
LICENSED
PROFESSIONAL ENGINEER

9/13/12

AMERICAN TOWER®
CORPORATION

Eng. Number 50013022
September 13, 2012

Table of Contents

AMERICAN TOWER®
CORPORATION

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 Verizon.

Supporting Documents

Tower Drawings	ITT Meyer Type "B", dated July 21, 2001 Smith Cullum Mapping Acq. #CT-0019, dated July 21, 2001
Geotechnical Report	Daniel G. Loucks Project #CT-0019, dated 21 December 2001
Modifications	Scientel Project Berlin-CT0019, dated July 30 2002

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/EIA-222.

Basic Wind Speed:	80 mph (Fastest Mile)
Basic Wind Speed w/ Ice:	69 mph (Fastest Mile)w/ 1/2" radial ice concurrent
Code:	ANSI/TIA/EIA-222-F / 2003 IBC , Sec. 1609.1.1, Exception (5) & Sec. 3108.4 w/ 2005 CT Supplement & 2009 CT Amendment

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 me via email at esha.modi@americantower.com or call 919-466-5017.

Existing and Reserved Equipment

Mount Elev.[1] (ft)	Qty.	Antenna	Mount Type	Coax (in)	Carrier
163.0	6	Andrew ETW200VS12UB	Conceal Canister	(12) 1 5/8	T-Mobile
	3	RFS APX16DWV-16DWV-S-E-ACU			
152.0	6	Ericsson RRUS 11	Platform w/ Handrails	(12) 1 1/4 (2) 19.7 mm (1) 10 mm (1) 3" Conduit	AT&T Mobility
	6	KMW AM-X-CD-16-65-00T-RET			
	3	Powerwave 7770.00			
	6	Powerwave LGP21401			
	1	Raycap DC6-48-60-18-8F			
142.0	3	RFS APXV18-206517LS-C	Flush	(6) 1 5/8	Youghiogheny
130.0	3	Allgon 7184	Flush	(3) 1 5/8	Sprint Nextel
127.0	3	Allgon 7184	Flush	(3) 1 5/8	
123.0	3	Allgon 7184	Flush	(3) 1 5/8	
121.0	1	GPS	Flush	(1) 7/8	Verizon
106.0	3	72" x 12" Panel	Flush	(4) 1 5/8	AT&T Mobility
96.0	12	Decibel 844G65VTZASX	Low Profile Platform	(15) 1 5/8	Sprint Nextel

Proposed Equipment

Elevation[1] (ft)		Qty.	Antenna	Mount Type	Coax (in)	Carrier
Mount	RAD					
116.0	116.0	2	Andrew LNX-6514DS-T4M	Low Profile Platform	(18) 1 5/8	Verizon
		6	Antel LPA-171063-12CF-EDIN-X			
		6	Antel LPA-80063-6CF-EDIN-X			
		1	RFS APX75-866514-CT0			

[1]Mount 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).

Double stack proposed coax in the place of the existing Verizon coax.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	62%	Pass
Shaft	96%	Pass
Base Plate	68%	Pass

Foundations

Reaction Component	Analysis Reactions
Moment (Kips-Ft)	3664.0
Axial (Kips)	60.0
Shear (Kips)	37.8

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) (°)
116.0	1.211	-1.169

***Deflection and Sway was evaluated considering a design wind speed of 50 mph (Fastest Mile) per ANSI/TIA/EIA-222-F.**

AMERICAN TOWER®
CORPORATION

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:

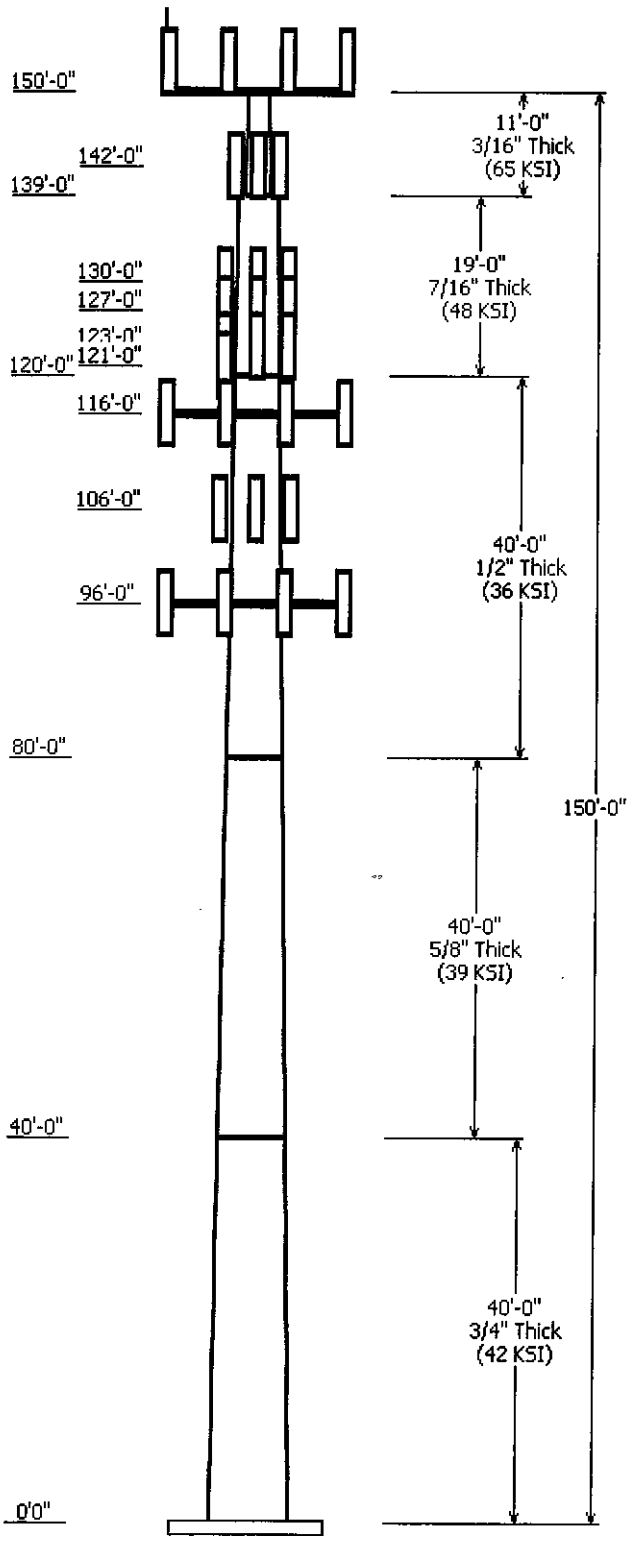
-- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.

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

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 Engineering Services is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.



Job Information

Pole :	302483 Code: TIA/EIA-222 Rev F
Description :	150 ft ITT Meyer Monopole
Client :	Verizon
Location :	Brin - Berlin, CT
Shape :	12 Sides
Height :	150.00 (ft)
Base Elev (ft):	0.00
Taper:	0.18970 (in/ft)

Sections Properties

Shaft Section	Length (ft)	Diameter (in) Accross Flats Top	Bottom	Thick (in)	Joint Type	Overlap Length (in)	Taper (in/ft)	Steel Grade (ksi)
1	40.000	43.71	51.30	0.750		0.000	0.189701	42
2	40.000	36.09	43.68	0.625	Butt Joint	0.000	0.189701	39
3	40.000	28.50	36.09	0.500	Butt Joint	0.000	0.189701	36
4	19.000	24.90	28.50	0.438	Butt Joint	0.000	0.189701	48
5	11.000	15.00	16.72	0.188	Butt Joint	0.000	0.156364	65

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
150.000	152.000	6	KMW AM-X-CD-16-65-00T-RET
150.000	152.000	6	Ericsson RRUS 11
150.000	152.000	1	Raycap DC6-48-60-18-8F
150.000	163.000	3	RFS APX16DWV-16DWV-S-E-
150.000	163.000	6	Andrew ETW200VS12UB
150.000	152.000	6	Powerwave LGP21401
150.000	152.000	3	Powerwave 7770.00
150.000	150.000	1	Flat Platform w/ Handrails
150.000	156.500	1	Concealment Canister
142.000	142.000	3	RFS APXV18-206517LS-C
130.000	130.000	3	Allgon 7184
127.000	127.000	3	Allgon 7184
123.000	123.000	3	Allgon 7184
121.000	121.000	1	GPS
116.000	116.000	6	Antel LPA-80063-6CF-EDIN-X
116.000	116.000	1	RFS APX75-866514-CT0
116.000	116.000	2	Andrew LNX-6514DS-T4M
116.000	116.000	6	Antel LPA-171063-12CF-EDIN-X
116.000	116.000	1	Round Low Profile Platform
106.000	106.000	3	72" x 12" Panel
96.000	96.000	1	Flat Low Profile Platform
96.000	96.000	12	Decibel 844G65VTZASX

Linear Appurtenance

Elev (ft) From	To	Description	Exposed To Wind
0.000	96.000	1 5/8" Coax	Yes
0.000	96.000	1 5/8" Coax	No
0.000	106.0	1 5/8" Coax	No
0.000	116.0	1 5/8" Coax	Yes
0.000	121.0	7/8" Coax	Yes
0.000	123.0	1 5/8" Coax	Yes
0.000	127.0	1 5/8" Coax	No
0.000	130.0	1 5/8" Coax	No
0.000	142.0	1 5/8" Coax	Yes
0.000	150.0	1 5/8" Coax	No
0.000	152.0	1 1/4" Coax	No
0.000	152.0	10 mm Cable	Yes

0.000	152.0	19.7 mm Cable	Yes
0.000	152.0	3" Conduit	Yes

Load Cases

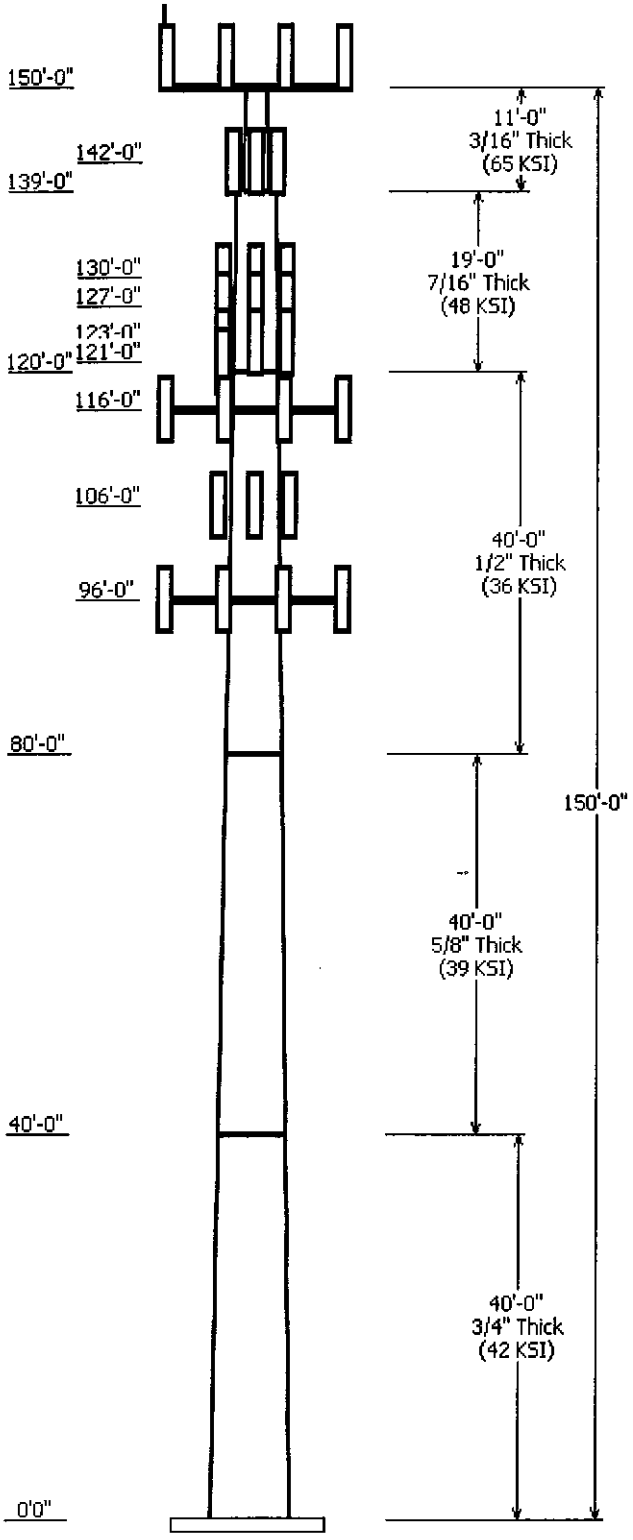
No Ice	80.00 mph Wind with No Ice
Ice	69.28 mph Wind with Ice
Twist/Sway	50.00 mph Wind with No Ice

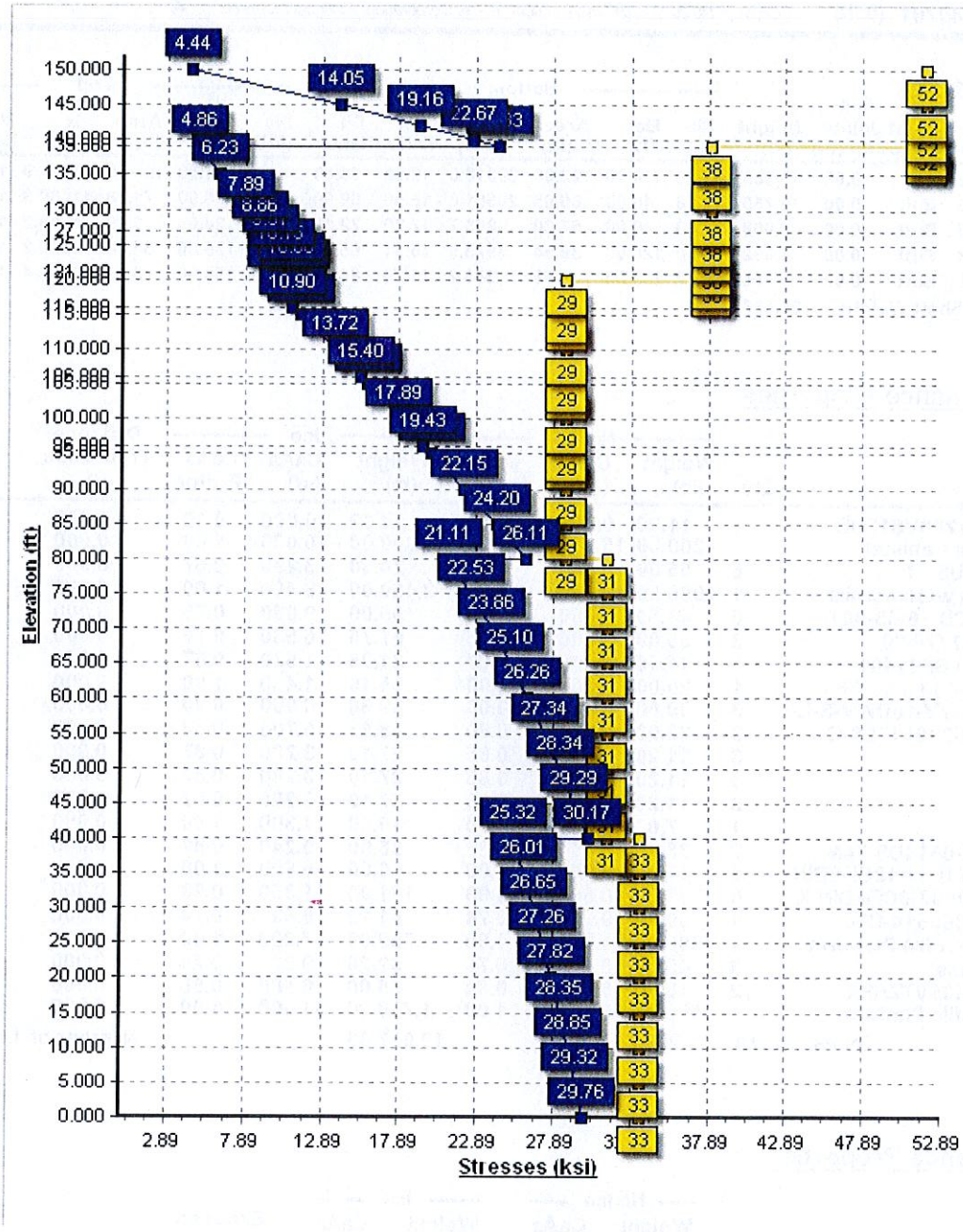
Reactions

Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
No Ice	3664.00	37.77	51.13
Ice	3083.96	31.34	59.98
Twist/Sway	1431.75	14.75	51.16

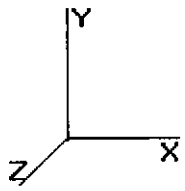
Dish Deflections

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




Elevation (ft)
Stresses (ksi)
150.000
145.000
135.000
130.000
125.000
110.000
100.000
90.000
85.000
80.000
75.000
70.000
65.000
60.000
55.000
50.000
45.000
40.000
35.000
30.000
25.000
20.000
15.000
10.000
5.000
0.000
2.89
7.89
12.89
17.89
22.89
27.89
37.89
42.89
47.89
52.89
4.44
14.05
19.16
22.67
4.86
6.23
7.89
10.90
13.72
15.40
17.89
19.43
22.15
24.20
21.11
26.11
22.53
23.86
25.10
26.26
27.34
28.34
29.29
25.32
30.17
26.01
26.65
27.26
27.82
28.35
28.85
29.32
29.76
52
38
29
31
33

Pole :	302483	Code: TIA/EIA-222 Rev F	9/13/2012 12:36:34 PM
Location :	Brln - Berlin, CT		Page: 1
Height :	150.0 (ft)		
Base Dia :	51.30 (in)		
Top Dia :	15.00 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.189701 (in/ft)		



Shaft Section Properties

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom Dia (in)	Bottom Elev (ft)	Bottom Area (sqin)	Bottom Ix (in^4)	Bottom W/t Ratio	Bottom D/t Ratio	Top Dia (in)	Top Elev (ft)	Top Area (sqin)	Top Ix (in^4)	Top W/t Ratio	Top D/t Ratio	Taper (in/ft)
1-12	40.000	0.7500	42		0.00	15,369	51.30	0.00	122.08	39816.6	16.18	68.40	43.71	40.00	103.75	24442.9	13.47	58.28	0.189701
2-12	40.000	0.6250	39	Butt	0.00	10,755	43.68	40.00	86.65	20501.8	16.58	69.89	36.09	80.00	71.38	11460.3	13.33	57.75	0.189701
3-12	40.000	0.5000	36	Butt	0.00	6,968	36.09	80.00	57.30	9265.7	17.20	72.18	28.50	120.00	45.09	4513.2	13.13	57.01	0.189701
4-12	19.000	0.4375	48	Butt	0.00	2,392	28.50	120.00	39.54	3975.5	15.31	65.15	24.90	139.00	34.46	2632.2	13.11	56.91	0.189701
5-12	11.000	0.1875	65	Butt	0.00	354	16.72	139.00	9.98	348.2	21.75	89.17	15.00	150.00	8.94	250.4	19.29	80.00	0.156364
				Shaft Weight		35,838													

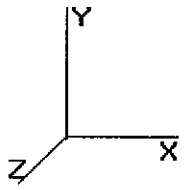
Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	No Ice Weight (lb)	No Ice CaAa (sf)	No Ice CaAa Factor	Ice Weight (lb)	Ice CaAa (sf)	Ice CaAa Factor	Distance From Face (ft)	Vert Ecc (ft)
150.00	Andrew ETW200VS12UB	6	11.00	0.000	0.00	14.52	0.000	0.00	0.000	13.000
150.00	Concealment Canister	1	200.00	15.000	1.00	300.00	20.000	1.00	0.000	6.500
150.00	Ericsson RRUS 11	6	55.00	2.940	0.67	74.30	3.290	0.67	0.000	2.000
150.00	Flat Platform w/ Handrails	1	2000.00	42.400	1.00	2,450.00	48.400	1.00	0.000	0.000
150.00	KMW AM-X-CD-16-65-00T-	6	48.50	8.260	0.78	95.00	9.080	0.78	0.000	2.000
150.00	Powerwave 7770.00	3	35.00	5.880	0.75	67.75	6.530	0.76	0.000	2.000
150.00	Powerwave LGP21401	6	14.10	1.290	0.67	21.26	1.530	0.67	0.000	2.000
150.00	Raycap DC6-48-60-18-8F	1	20.00	1.260	1.00	35.10	1.460	1.00	0.000	2.000
150.00	RFS APX16DWV-16DWV-S-E-	3	39.60	0.000	0.00	69.38	0.000	0.00	0.000	13.000
142.00	RFS APXV18-206517LS-C	3	22.00	5.020	0.80	48.13	5.700	0.82	0.000	0.000
130.00	Allgon 7184	3	11.20	2.680	0.85	27.10	3.280	0.87	0.000	0.000
127.00	Allgon 7184	3	11.20	2.680	0.85	27.10	3.280	0.87	0.000	0.000
123.00	Allgon 7184	3	11.20	2.680	0.85	27.10	3.280	0.87	0.000	0.000
121.00	GPS	1	7.00	1.000	1.00	15.00	1.300	1.00	0.000	0.000
116.00	Andrew LNX-6514DS-T4M	2	38.40	8.410	0.82	88.90	9.240	0.82	0.000	0.000
116.00	Antel LPA-171063-12CF-EDIN-	6	11.50	6.050	1.00	0.00	6.690	1.00	0.000	0.000
116.00	Antel LPA-80063-6CF-EDIN-X	6	27.00	10.500	0.93	101.90	11.350	0.93	0.000	0.000
116.00	RFS APX75-866514-CT0	1	30.80	9.760	0.74	81.10	10.690	0.74	0.000	0.000
116.00	Round Low Profile Platform	1	1500.00	21.700	1.00	1,700.00	27.200	1.00	0.000	0.000
106.00	72" x 12" Panel	3	45.00	8.400	0.75	92.28	9.230	0.75	0.000	0.000
96.00	Decibel 844G65VTZASX	12	16.00	5.890	0.84	55.00	6.500	0.85	0.000	0.000
96.00	Flat Low Profile Platform	1	1500.00	26.100	1.00	1,700.00	31.600	1.00	0.000	0.000
	Totals	78	7054.80			10,037.35			Number of Loadings :	22

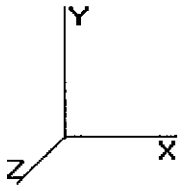
Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	No Ice Weight (lb/ft)	No Ice CaAa (sf/ft)	Ice Weight (lb/ft)	Ice CaAa (sf/ft)	Exposed To Wind
0.00	152.00	(12) 1 1/4" Coax	7.56	0.00	0.00	0.00	N
0.00	152.00	(1) 10 mm Cable	0.07	0.00	0.00	0.00	Y
0.00	152.00	(2) 19.7 mm Cable	1.18	0.00	0.00	0.00	Y
0.00	152.00	(1) 3" Conduit	7.58	0.35	8.80	0.40	Y
0.00	150.00	(12) 1 5/8" Coax	9.84	0.00	0.00	0.00	N
0.00	142.00	(6) 1 5/8" Coax	4.92	0.20	9.46	0.25	Y
0.00	130.00	(3) 1 5/8" Coax	2.46	0.00	0.00	0.00	N
0.00	127.00	(3) 1 5/8" Coax	2.46	0.00	0.00	0.00	N
0.00	123.00	(3) 1 5/8" Coax	2.46	0.20	4.73	0.25	Y
0.00	121.00	(1) 7/8" Coax	0.33	0.00	0.50	0.00	Y
0.00	116.00	(18) 1 5/8" Coax	9.84	0.40	18.93	0.50	Y
0.00	106.00	(4) 1 5/8" Coax	3.28	0.00	0.00	0.00	N

Pole :	302483	Code: TIA/EIA-222 Rev F	9/13/2012 12:36:34 PM
Location :	Brln - Berlin, CT		Page: 2
Height :	150.0 (ft)		
Base Dia :	51.30 (in)		
Top Dia :	15.00 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.189701 (in/ft)		



0.00	96.00	(6) 1 5/8" Coax	4.92	0.20	9.46	0.25	Y
0.00	96.00	(9) 1 5/8" Coax	7.38	0.00	0.00	0.00	N
		Total Weight	8,310.57 (lb)		6,427.25 (lb)		



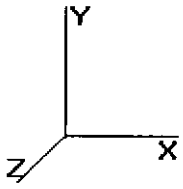
Segment Properties (Max Len : 5 ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	Fb (ksi)	Weight (lb)
0.00		0.7500	51.300	122.078	39,816.6	16.18	68.40	42	33	0.0
5.00		0.7500	50.351	119.787	37,617.1	15.85	67.14	42	33	2,057.5
10.00		0.7500	49.403	117.497	35,500.1	15.51	65.87	42	33	2,018.6
15.00		0.7500	48.454	115.206	33,464.0	15.17	64.61	42	33	1,979.6
20.00		0.7500	47.506	112.915	31,507.4	14.83	63.34	42	33	1,940.6
25.00		0.7500	46.557	110.625	29,628.5	14.49	62.08	42	33	1,901.6
30.00		0.7500	45.609	108.334	27,825.8	14.15	60.81	42	33	1,862.7
35.00		0.7500	44.660	106.044	26,097.8	13.81	59.55	42	33	1,823.7
40.00	Top - Section 1	0.7500	43.712	103.753	24,442.9	13.47	58.28	42	33	1,784.7
40.00	Bot - Section 2	0.6250	43.680	86.648	20,501.8	16.58	69.89	39	31	
45.00		0.6250	42.731	84.739	19,176.5	16.18	68.37	39	31	1,458.0
50.00		0.6250	41.783	82.830	17,909.5	15.77	66.85	39	31	1,425.5
55.00		0.6250	40.834	80.922	16,699.7	15.36	65.34	39	31	1,393.0
60.00		0.6250	39.886	79.013	15,545.5	14.96	63.82	39	31	1,360.6
65.00		0.6250	38.937	77.104	14,445.8	14.55	62.30	39	31	1,328.1
70.00		0.6250	37.989	75.195	13,399.3	14.14	60.78	39	31	1,295.6
75.00		0.6250	37.040	73.286	12,404.5	13.74	59.26	39	31	1,263.1
80.00	Top - Section 2	0.6250	36.092	71.377	11,460.3	13.33	57.75	39	31	1,230.6
80.00	Bot - Section 3	0.5000	36.092	57.303	9,265.7	17.20	72.18	36	29	
85.00		0.5000	35.144	55.776	8,544.5	16.69	70.29	36	29	962.0
90.00		0.5000	34.195	54.249	7,861.7	16.18	68.39	36	29	936.0
95.00		0.5000	33.247	52.722	7,216.3	15.67	66.49	36	29	910.0
96.00		0.5000	33.057	52.417	7,091.6	15.57	66.11	36	29	178.9
100.0		0.5000	32.298	51.195	6,607.2	15.16	64.60	36	29	705.1
105.0		0.5000	31.350	49.668	6,033.4	14.66	62.70	36	29	858.0
106.0		0.5000	31.160	49.363	5,922.8	14.55	62.32	36	29	168.5
110.0		0.5000	30.401	48.141	5,493.9	14.15	60.80	36	29	663.6
115.0		0.5000	29.453	46.614	4,987.4	13.64	58.91	36	29	806.1
116.0		0.5000	29.263	46.308	4,890.0	13.54	58.53	36	29	158.1
120.0	Top - Section 3	0.5000	28.504	45.087	4,513.2	13.13	57.01	36	29	622.0
120.0	Bot - Section 4	0.4375	28.504	39.539	3,975.5	15.31	65.15	48	38	
121.0		0.4375	28.314	39.272	3,895.4	15.20	64.72	48	38	134.1
123.0		0.4375	27.935	38.737	3,738.5	14.97	63.85	48	38	265.4
125.0		0.4375	27.556	38.203	3,585.9	14.73	62.98	48	38	261.8
127.0		0.4375	27.176	37.668	3,437.5	14.50	62.12	48	38	258.2
130.0		0.4375	26.607	36.866	3,222.6	14.15	60.82	48	38	380.4
135.0		0.4375	25.659	35.530	2,884.8	13.57	58.65	48	38	615.9
139.0	Top - Section 4	0.4375	24.900	34.461	2,632.2	13.11	56.91	48	38	476.3
139.0	Bot - Section 5	0.1875	16.720	9.981	348.2	21.75	89.17	65	52	
140.0		0.1875	16.564	9.887	338.4	21.53	88.34	65	52	33.8
142.0		0.1875	16.251	9.698	319.4	21.08	86.67	65	52	66.6
145.0		0.1875	15.782	9.415	292.2	20.41	84.17	65	52	97.6
150.0		0.1875	15.000	8.943	250.4	19.29	80.00	65	52	156.2
										35,838.1

Pole : 302483
Location : Brln - Berlin, CT
Height : 150.0 (ft)
Base Dia : 51.30 (in)
Top Dia : 15.00 (in)
Shape : 12 Sides
Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



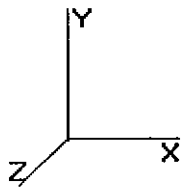
9/13/2012 12:36:34 PM
Page: 4

Load Case: No Ice — 80.00 mph Wind with No Ice — 22 Iterations

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

Shaft Segment Forces

Seg Top Elev (ft)	Description		Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		0.00	1.00	16.384	27.68	341.99	1.030	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		0.00	1.00	16.384	27.68	335.67	1.030	0.000	5.00	21.177	21.81	604.0	0.0	2,057.5
10.00		0.00	1.00	16.384	27.68	329.35	1.030	0.000	5.00	20.782	21.41	592.7	0.0	2,018.6
15.00		0.00	1.00	16.384	27.68	323.02	1.030	0.000	5.00	20.387	21.00	581.4	0.0	1,979.6
20.00		0.00	1.00	16.384	27.68	316.70	1.030	0.000	5.00	19.992	20.59	570.2	0.0	1,940.6
25.00		0.00	1.00	16.384	27.68	310.38	1.030	0.000	5.00	19.597	20.18	558.9	0.0	1,901.6
30.00		0.00	1.00	16.384	27.68	304.05	1.030	0.000	5.00	19.201	19.78	547.6	0.0	1,862.7
35.00		0.00	1.01	16.662	28.15	300.24	1.030	0.000	5.00	18.806	19.37	545.4	0.0	1,823.7
40.00	Top - Section 1	0.00	1.05	17.310	29.25	299.53	1.030	0.000	5.00	18.411	18.96	554.7	0.0	1,784.7
45.00		0.00	1.09	17.902	30.25	297.78	1.030	0.000	5.00	18.002	18.54	561.0	0.0	1,458.0
50.00		0.00	1.12	18.449	31.17	295.58	1.030	0.000	5.00	17.607	18.14	565.4	0.0	1,425.5
55.00		0.00	1.15	18.959	32.04	292.83	1.030	0.000	5.00	17.212	17.73	568.0	0.0	1,393.0
60.00		0.00	1.18	19.436	32.84	289.61	1.030	0.000	5.00	16.817	17.32	568.9	0.0	1,360.6
65.00		0.00	1.21	19.885	33.60	285.97	1.030	0.000	5.00	16.422	16.91	568.4	0.0	1,328.1
70.00		0.00	1.24	20.311	34.32	281.98	1.030	0.000	5.00	16.026	16.51	566.6	0.0	1,295.6
75.00		0.00	1.26	20.715	35.00	277.66	1.030	0.000	5.00	15.631	16.10	563.6	0.0	1,263.1
80.00	Top - Section 2	0.00	1.28	21.101	35.66	273.06	1.030	0.000	5.00	15.236	15.69	559.6	0.0	1,230.6
85.00		0.00	1.31	21.469	36.28	268.19	1.030	0.000	5.00	14.841	15.29	554.6	0.0	962.0
90.00		0.00	1.33	21.823	36.88	263.10	1.030	0.000	5.00	14.446	14.88	548.7	0.0	936.0
95.00		0.00	1.35	22.163	37.45	257.78	1.030	0.000	5.00	14.050	14.47	542.0	0.0	910.0
96.00	Appertunance(s)	0.00	1.35	22.229	37.56	256.69	1.030	0.000	1.00	2.763	2.85	106.9	0.0	178.9
100.0		0.00	1.37	22.490	38.00	252.27	1.030	0.000	4.00	10.893	11.22	426.4	0.0	705.1
105.0		0.00	1.39	22.806	38.54	246.57	1.030	0.000	5.00	13.260	13.66	526.4	0.0	858.0
106.0	Appertunance(s)	0.00	1.39	22.867	38.64	245.41	1.030	0.000	1.00	2.605	2.68	103.7	0.0	168.5
110.0		0.00	1.41	23.111	39.05	240.71	1.030	0.000	4.00	10.260	10.57	412.8	0.0	663.6
115.0		0.00	1.42	23.406	39.55	234.68	1.030	0.000	5.00	12.470	12.84	508.0	0.0	806.1
116.0	Appertunance(s)	0.00	1.43	23.464	39.65	233.46	1.030	0.000	1.00	2.446	2.52	99.9	0.0	158.1
120.0	Top - Section 3	0.00	1.44	23.692	40.04	228.51	1.030	0.000	4.00	9.628	9.92	397.1	0.0	622.0
121.0	Appertunance(s)	0.00	1.45	23.749	40.13	227.26	1.030	0.000	1.00	2.367	2.44	97.9	0.0	134.1
123.0	Appertunance(s)	0.00	1.45	23.860	40.32	224.74	1.030	0.000	2.00	4.687	4.83	194.7	0.0	265.4
125.0		0.00	1.46	23.970	40.51	222.20	1.030	0.000	2.00	4.624	4.76	192.9	0.0	261.8
127.0	Appertunance(s)	0.00	1.47	24.079	40.69	219.63	1.030	0.000	2.00	4.561	4.70	191.2	0.0	258.2
130.0	Appertunance(s)	0.00	1.48	24.241	40.96	215.75	1.030	0.000	3.00	6.723	6.92	283.7	0.0	380.4
135.0		0.00	1.49	24.503	41.41	209.19	1.030	0.000	5.00	10.889	11.22	464.4	0.0	615.9
139.0	Top - Section 4	0.00	1.50	24.709	41.75	203.85	1.030	0.000	4.00	8.426	8.68	362.4	0.0	476.3
140.0		0.00	1.51	24.759	41.84	135.74	1.030	0.000	1.00	1.387	1.43	59.8	0.0	33.8
142.0	Appertunance(s)	0.00	1.51	24.860	42.01	133.45	1.030	0.000	2.00	2.735	2.82	118.3	0.0	66.6
145.0		0.00	1.52	25.009	42.26	129.98	1.030	0.000	3.00	4.004	4.12	174.3	0.0	97.6
150.0	Appertunance(s)	0.00	1.54	25.252	42.67	124.14	1.030	0.000	5.00	6.413	6.61	281.9	0.0	156.2
							Totals:		150.00			15,724.7	0.0	35,838.1

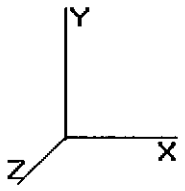


Load Case: No Ice — 80.00 mph Wind with No Ice — 22 Iterations

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

Discrete Appurtenance Segment Forces

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
96.00	Decibel	12	22.229	37.567	0.84	59.37	0.000	0.000	2,230.41	0.00	0.00	192.00
96.00	Flat Low Profile Pla	1	22.229	37.567	1.00	26.10	0.000	0.000	980.50	0.00	0.00	1,500.00
106.0	72" x 12" Panel	3	22.867	38.646	0.75	18.90	0.000	0.000	730.41	0.00	0.00	135.00
116.0	Andrew LNX-6514DS-	2	23.464	39.654	0.82	13.79	0.000	0.000	546.93	0.00	0.00	76.80
116.0	Antel LPA-171063-12C	6	23.464	39.654	1.00	36.30	0.000	0.000	1,439.45	0.00	0.00	69.00
116.0	Antel LPA-80063-6CF-	6	23.464	39.654	0.93	58.59	0.000	0.000	2,323.35	0.00	0.00	162.00
116.0	RFS APX75-866514-	1	23.464	39.654	0.74	7.22	0.000	0.000	286.40	0.00	0.00	30.80
116.0	Round Low Profile Pl	1	23.464	39.654	1.00	21.70	0.000	0.000	860.50	0.00	0.00	1,500.00
121.0	GPS	1	23.749	40.135	1.00	1.00	0.000	0.000	40.14	0.00	0.00	7.00
123.0	Allgon 7184	3	23.860	40.324	0.85	6.83	0.000	0.000	275.57	0.00	0.00	33.60
127.0	Allgon 7184	3	24.079	40.694	0.85	6.83	0.000	0.000	278.10	0.00	0.00	33.60
130.0	Allgon 7184	3	24.241	40.967	0.85	6.83	0.000	0.000	279.97	0.00	0.00	33.60
142.0	RFS APXV18-	3	24.860	42.013	0.80	12.05	0.000	0.000	506.17	0.00	0.00	66.00
150.0	Andrew	6	25.859	43.702	0.00	0.00	0.000	13.000	0.00	0.00	0.00	66.00
150.0	Concealment Canister	1	25.560	43.197	1.00	15.00	0.000	6.500	647.95	0.00	4,211.67	200.00
150.0	Ericsson RRUS 11	6	25.348	42.838	0.67	11.82	0.000	2.000	506.29	0.00	1,012.59	330.00
150.0	Flat Platform w/ Han	1	25.252	42.676	1.00	42.40	0.000	0.000	1,809.47	0.00	0.00	2,000.00
150.0	KMW AM-X-CD-16-65-	6	25.348	42.838	0.78	38.66	0.000	2.000	1,655.98	0.00	3,311.96	291.00
150.0	Powerwave 7770.00	3	25.348	42.838	0.75	13.23	0.000	2.000	566.75	0.00	1,133.49	105.00
150.0	Powerwave LGP21401	6	25.348	42.838	0.67	5.19	0.000	2.000	222.15	0.00	444.30	84.60
150.0	Raycap DC6-48-60-18-	1	25.348	42.838	1.00	1.26	0.000	2.000	53.98	0.00	107.95	20.00
150.0	RFS APX16DWV-	3	25.859	43.702	0.00	0.00	0.000	13.000	0.00	0.00	0.00	118.80
									16,240.46			7,054.80



Load Case: No Ice — 80.00 mph Wind with No Ice — 22 Iterations

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

Linear Appurtenance Segment Forces

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Weight (lb/ft)	CaAa (sf/ft)	qz (psf)	FX (lb)	Dead Load (lb)
5.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	16.384	0.00	0.35
5.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	16.384	0.00	5.90
5.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	16.384	48.46	37.90
5.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
5.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	16.384	27.69	12.30
5.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	16.384	0.00	1.65
5.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	16.384	55.38	49.20
5.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
10.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	16.384	0.00	0.35
10.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	16.384	0.00	5.90
10.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	16.384	48.46	37.90
10.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
10.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	16.384	27.69	12.30
10.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	16.384	0.00	1.65
10.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	16.384	55.38	49.20
10.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
15.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	16.384	0.00	0.35
15.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	16.384	0.00	5.90
15.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	16.384	48.46	37.90
15.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
15.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	16.384	27.69	12.30
15.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	16.384	0.00	1.65
15.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	16.384	55.38	49.20
15.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
20.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	16.384	0.00	0.35
20.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	16.384	0.00	5.90
20.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	16.384	48.46	37.90
20.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
20.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	16.384	27.69	12.30
20.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	16.384	0.00	1.65
20.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	16.384	55.38	49.20
20.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
25.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	16.384	0.00	0.35
25.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	16.384	0.00	5.90
25.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	16.384	48.46	37.90
25.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
25.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	16.384	27.69	12.30
25.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	16.384	0.00	1.65
25.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	16.384	55.38	49.20
25.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
30.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	16.384	0.00	0.35
30.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	16.384	0.00	5.90
30.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	16.384	48.46	37.90
30.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
30.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	16.384	27.69	12.30
30.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	16.384	0.00	1.65
30.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	16.384	55.38	49.20
30.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
35.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	16.662	0.00	0.35
35.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	16.662	0.00	5.90
35.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	16.662	49.28	37.90

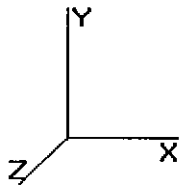
Pole :	302483		Code: TIA/EIA-222 Rev F				9/13/2012 12:36:35 PM	
Location :	Brln - Berlin, CT						Page: 7	
Height :	150.0 (ft)							
Base Dia :	51.30 (in)							
Top Dia :	15.00 (in)		Base Elev : 0.000 (ft)					
Shape :	12 Sides							
Taper :	0.189701 (in/ft)							

Load Case: No Ice — 80.00 mph Wind with No Ice — 22 Iterations

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

35.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.662	28.16	24.60
35.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	16.662	28.16	12.30
35.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	16.662	0.00	1.65
35.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	16.662	56.32	49.20
35.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.662	28.16	24.60
40.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	17.310	0.00	0.35
40.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	17.310	0.00	5.90
40.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	17.310	51.19	37.90
40.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	17.310	29.25	24.60
40.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	17.310	29.25	12.30
40.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	17.310	0.00	1.65
40.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	17.310	58.51	49.20
40.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	17.310	29.25	24.60
45.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	17.902	0.00	0.35
45.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	17.902	0.00	5.90
45.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	17.902	52.95	37.90
45.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	17.902	30.25	24.60
45.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	17.902	30.25	12.30
45.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	17.902	0.00	1.65
45.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	17.902	60.51	49.20
45.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	17.902	30.25	24.60
50.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	18.449	0.00	0.35
50.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	18.449	0.00	5.90
50.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	18.449	54.56	37.90
50.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	18.449	31.18	24.60
50.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	18.449	31.18	12.30
50.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	18.449	0.00	1.65
50.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	18.449	62.36	49.20
50.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	18.449	31.18	24.60
55.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	18.959	0.00	0.35
55.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	18.959	0.00	5.90
55.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	18.959	56.07	37.90
55.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	18.959	32.04	24.60
55.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	18.959	32.04	12.30
55.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	18.959	0.00	1.65
55.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	18.959	64.08	49.20
55.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	18.959	32.04	24.60
60.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	19.436	0.00	0.35
60.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	19.436	0.00	5.90
60.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	19.436	57.48	37.90
60.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	19.436	32.85	24.60
60.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	19.436	32.85	12.30
60.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	19.436	0.00	1.65
60.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	19.436	65.69	49.20
60.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	19.436	32.85	24.60
65.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	19.885	0.00	0.35
65.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	19.885	0.00	5.90
65.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	19.885	58.81	37.90
65.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	19.885	33.61	24.60
65.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	19.885	33.61	12.30
65.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	19.885	0.00	1.65
65.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	19.885	67.21	49.20
65.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	19.885	33.61	24.60
70.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	20.311	0.00	0.35
70.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	20.311	0.00	5.90
70.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	20.311	60.07	37.90
70.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	20.311	34.33	24.60

Pole :	302483			Code: TIA/EIA-222 Rev F				9/13/2012 12:36:35 PM	
Location :	Brin - Berlin, CT							Page: 8	
Height :	150.0 (ft)								
Base Dia :	51.30 (in)								
Top Dia :	15.00 (in)			Base Elev : 0.000 (ft)					
Shape :	12 Sides								
Taper :	0.189701 (in/ft)								



Load Case: No Ice — 80.00 mph Wind with No Ice — 22 Iterations

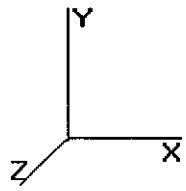
Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

70.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	20.311	34.33	12.30
70.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	20.311	0.00	1.65
70.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	20.311	68.65	49.20
70.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	20.311	34.33	24.60
75.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	20.715	0.00	0.35
75.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	20.715	0.00	5.90
75.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	20.715	61.27	37.90
75.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	20.715	35.01	24.60
75.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	20.715	35.01	12.30
75.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	20.715	0.00	1.65
75.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	20.715	70.02	49.20
75.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	20.715	35.01	24.60
80.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	21.101	0.00	0.35
80.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	21.101	0.00	5.90
80.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	21.101	62.41	37.90
80.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	21.101	35.66	24.60
80.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	21.101	35.66	12.30
80.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	21.101	0.00	1.65
80.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	21.101	71.32	49.20
80.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	21.101	35.66	24.60
85.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	21.469	0.00	0.35
85.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	21.469	0.00	5.90
85.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	21.469	63.50	37.90
85.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	21.469	36.28	24.60
85.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	21.469	36.28	12.30
85.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	21.469	0.00	1.65
85.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	21.469	72.57	49.20
85.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	21.469	36.28	24.60
90.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	21.823	0.00	0.35
90.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	21.823	0.00	5.90
90.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	21.823	64.54	37.90
90.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	21.823	36.88	24.60
90.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	21.823	36.88	12.30
90.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	21.823	0.00	1.65
90.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	21.823	73.76	49.20
90.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	21.823	36.88	24.60
95.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	22.163	0.00	0.35
95.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	22.163	0.00	5.90
95.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	22.163	65.55	37.90
95.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	22.163	37.45	24.60
95.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	22.163	37.45	12.30
95.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	22.163	0.00	1.65
95.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	22.163	74.91	49.20
95.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	22.163	37.45	24.60
96.00	(1) 10 mm Cable	Yes	1.00	0.07	0.00	22.229	0.00	0.07
96.00	(2) 19.7 mm Cable	Yes	1.00	1.18	0.00	22.229	0.00	1.18
96.00	(1) 3" Conduit	Yes	1.00	7.58	0.35	22.229	13.15	7.58
96.00	(6) 1 5/8" Coax	Yes	1.00	4.92	0.20	22.229	7.51	4.92
96.00	(3) 1 5/8" Coax	Yes	1.00	2.46	0.20	22.229	7.51	2.46
96.00	(1) 7/8" Coax	Yes	1.00	0.33	0.00	22.229	0.00	0.33
96.00	(18) 1 5/8" Coax	Yes	1.00	9.84	0.40	22.229	15.03	9.84
96.00	(6) 1 5/8" Coax	Yes	1.00	4.92	0.20	22.229	7.51	4.92
100.0	(1) 10 mm Cable	Yes	4.00	0.07	0.00	22.490	0.00	0.28
100.0	(2) 19.7 mm Cable	Yes	4.00	1.18	0.00	22.490	0.00	4.72
100.0	(1) 3" Conduit	Yes	4.00	7.58	0.35	22.490	53.21	30.32
100.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.20	22.490	30.41	19.68
100.0	(3) 1 5/8" Coax	Yes	4.00	2.46	0.20	22.490	30.41	9.84

Pole : 302483
Location : Brln - Berlin, CT
Height : 150.0 (ft)
Base Dia : 51.30 (in)
Top Dia : 15.00 (in)
Shape : 12 Sides
Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

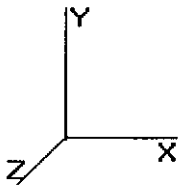


Load Case: No Ice — 80.00 mph Wind with No Ice — 22 Iterations

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

100.0	(1) 7/8" Coax	Yes	4.00	0.33	0.00	22.490	0.00	1.32
100.0	(18) 1 5/8" Coax	Yes	4.00	9.84	0.40	22.490	60.81	39.36
105.0	(1) 10 mm Cable	Yes	5.00	0.07	0.00	22.806	0.00	0.35
105.0	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	22.806	0.00	5.90
105.0	(1) 3" Conduit	Yes	5.00	7.58	0.35	22.806	67.45	37.90
105.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	22.806	38.54	24.60
105.0	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	22.806	38.54	12.30
105.0	(1) 7/8" Coax	Yes	5.00	0.33	0.00	22.806	0.00	1.65
105.0	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	22.806	77.08	49.20
106.0	(1) 10 mm Cable	Yes	1.00	0.07	0.00	22.867	0.00	0.07
106.0	(2) 19.7 mm Cable	Yes	1.00	1.18	0.00	22.867	0.00	1.18
106.0	(1) 3" Conduit	Yes	1.00	7.58	0.35	22.867	13.53	7.58
106.0	(6) 1 5/8" Coax	Yes	1.00	4.92	0.20	22.867	7.73	4.92
106.0	(3) 1 5/8" Coax	Yes	1.00	2.46	0.20	22.867	7.73	2.46
106.0	(1) 7/8" Coax	Yes	1.00	0.33	0.00	22.867	0.00	0.33
106.0	(18) 1 5/8" Coax	Yes	1.00	9.84	0.40	22.867	15.46	9.84
110.0	(1) 10 mm Cable	Yes	4.00	0.07	0.00	23.111	0.00	0.28
110.0	(2) 19.7 mm Cable	Yes	4.00	1.18	0.00	23.111	0.00	4.72
110.0	(1) 3" Conduit	Yes	4.00	7.58	0.35	23.111	54.68	30.32
110.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.20	23.111	31.25	19.68
110.0	(3) 1 5/8" Coax	Yes	4.00	2.46	0.20	23.111	31.25	9.84
110.0	(1) 7/8" Coax	Yes	4.00	0.33	0.00	23.111	0.00	1.32
110.0	(18) 1 5/8" Coax	Yes	4.00	9.84	0.40	23.111	62.49	39.36
115.0	(1) 10 mm Cable	Yes	5.00	0.07	0.00	23.406	0.00	0.35
115.0	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	23.406	0.00	5.90
115.0	(1) 3" Conduit	Yes	5.00	7.58	0.35	23.406	69.22	37.90
115.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	23.406	39.56	24.60
115.0	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	23.406	39.56	12.30
115.0	(1) 7/8" Coax	Yes	5.00	0.33	0.00	23.406	0.00	1.65
115.0	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	23.406	79.11	49.20
116.0	(1) 10 mm Cable	Yes	1.00	0.07	0.00	23.464	0.00	0.07
116.0	(2) 19.7 mm Cable	Yes	1.00	1.18	0.00	23.464	0.00	1.18
116.0	(1) 3" Conduit	Yes	1.00	7.58	0.35	23.464	13.88	7.58
116.0	(6) 1 5/8" Coax	Yes	1.00	4.92	0.20	23.464	7.93	4.92
116.0	(3) 1 5/8" Coax	Yes	1.00	2.46	0.20	23.464	7.93	2.46
116.0	(1) 7/8" Coax	Yes	1.00	0.33	0.00	23.464	0.00	0.33
116.0	(18) 1 5/8" Coax	Yes	1.00	9.84	0.40	23.464	15.86	9.84
120.0	(1) 10 mm Cable	Yes	4.00	0.07	0.00	23.692	0.00	0.28
120.0	(2) 19.7 mm Cable	Yes	4.00	1.18	0.00	23.692	0.00	4.72
120.0	(1) 3" Conduit	Yes	4.00	7.58	0.35	23.692	56.06	30.32
120.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.20	23.692	32.03	19.68
120.0	(3) 1 5/8" Coax	Yes	4.00	2.46	0.20	23.692	32.03	9.84
120.0	(1) 7/8" Coax	Yes	4.00	0.33	0.00	23.692	0.00	1.32
121.0	(1) 10 mm Cable	Yes	1.00	0.07	0.00	23.749	0.00	0.07
121.0	(2) 19.7 mm Cable	Yes	1.00	1.18	0.00	23.749	0.00	1.18
121.0	(1) 3" Conduit	Yes	1.00	7.58	0.35	23.749	14.05	7.58
121.0	(6) 1 5/8" Coax	Yes	1.00	4.92	0.20	23.749	8.03	4.92
121.0	(3) 1 5/8" Coax	Yes	1.00	2.46	0.20	23.749	8.03	2.46
121.0	(1) 7/8" Coax	Yes	1.00	0.33	0.00	23.749	0.00	0.33
123.0	(1) 10 mm Cable	Yes	2.00	0.07	0.00	23.860	0.00	0.14
123.0	(2) 19.7 mm Cable	Yes	2.00	1.18	0.00	23.860	0.00	2.36
123.0	(1) 3" Conduit	Yes	2.00	7.58	0.35	23.860	28.23	15.16
123.0	(6) 1 5/8" Coax	Yes	2.00	4.92	0.20	23.860	16.13	9.84
123.0	(3) 1 5/8" Coax	Yes	2.00	2.46	0.20	23.860	16.13	4.92
125.0	(1) 10 mm Cable	Yes	2.00	0.07	0.00	23.970	0.00	0.14
125.0	(2) 19.7 mm Cable	Yes	2.00	1.18	0.00	23.970	0.00	2.36
125.0	(1) 3" Conduit	Yes	2.00	7.58	0.35	23.970	28.36	15.16

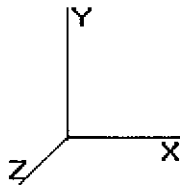
Pole :	302483	Code: TIA/EIA-222 Rev F	9/13/2012 12:36:35 PM
Location :	Brln - Berlin, CT		Page: 10
Height :	150.0 (ft)		
Base Dia :	51.30 (in)		
Top Dia :	15.00 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.189701 (in/ft)		



Load Case: No Ice — 80.00 mph Wind with No Ice — 22 Iterations

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

125.0	(6) 1 5/8" Coax	Yes	2.00	4.92	0.20	23.970		16.20	9.84
127.0	(1) 10 mm Cable	Yes	2.00	0.07	0.00	24.079		0.00	0.14
127.0	(2) 19.7 mm Cable	Yes	2.00	1.18	0.00	24.079		0.00	2.36
127.0	(1) 3" Conduit	Yes	2.00	7.58	0.35	24.079		28.49	15.16
127.0	(6) 1 5/8" Coax	Yes	2.00	4.92	0.20	24.079		16.28	9.84
130.0	(1) 10 mm Cable	Yes	3.00	0.07	0.00	24.241		0.00	0.21
130.0	(2) 19.7 mm Cable	Yes	3.00	1.18	0.00	24.241		0.00	3.54
130.0	(1) 3" Conduit	Yes	3.00	7.58	0.35	24.241		43.01	22.74
130.0	(6) 1 5/8" Coax	Yes	3.00	4.92	0.20	24.241		24.58	14.76
135.0	(1) 10 mm Cable	Yes	5.00	0.07	0.00	24.503		0.00	0.35
135.0	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	24.503		0.00	5.90
135.0	(1) 3" Conduit	Yes	5.00	7.58	0.35	24.503		72.47	37.90
135.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	24.503		41.41	24.60
139.0	(1) 10 mm Cable	Yes	4.00	0.07	0.00	24.709		0.00	0.28
139.0	(2) 19.7 mm Cable	Yes	4.00	1.18	0.00	24.709		0.00	4.72
139.0	(1) 3" Conduit	Yes	4.00	7.58	0.35	24.709		58.46	30.32
139.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.20	24.709		33.41	19.68
140.0	(1) 10 mm Cable	Yes	1.00	0.07	0.00	24.759		0.00	0.07
140.0	(2) 19.7 mm Cable	Yes	1.00	1.18	0.00	24.759		0.00	1.18
140.0	(1) 3" Conduit	Yes	1.00	7.58	0.35	24.759		14.65	7.58
140.0	(6) 1 5/8" Coax	Yes	1.00	4.92	0.20	24.759		8.37	4.92
142.0	(1) 10 mm Cable	Yes	2.00	0.07	0.00	24.860		0.00	0.14
142.0	(2) 19.7 mm Cable	Yes	2.00	1.18	0.00	24.860		0.00	2.36
142.0	(1) 3" Conduit	Yes	2.00	7.58	0.35	24.860		29.41	15.16
142.0	(6) 1 5/8" Coax	Yes	2.00	4.92	0.20	24.860		16.81	9.84
145.0	(1) 10 mm Cable	Yes	3.00	0.07	0.00	25.009		0.00	0.21
145.0	(2) 19.7 mm Cable	Yes	3.00	1.18	0.00	25.009		0.00	3.54
145.0	(1) 3" Conduit	Yes	3.00	7.58	0.35	25.009		44.38	22.74
150.0	(1) 10 mm Cable	Yes	5.00	0.07	0.00	25.252		0.00	0.35
150.0	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	25.252		0.00	5.90
150.0	(1) 3" Conduit	Yes	5.00	7.58	0.35	25.252		74.68	37.90
							Totals:	5,749.82	3,979.41



Load Case: No Ice — 80.00 mph Wind with No Ice — 22 Iterations

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

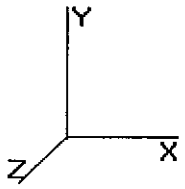
Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	790.87	2,378.94	0.00	0.00
10.00	779.60	2,339.96	0.00	0.00
15.00	768.33	2,300.99	0.00	0.00
20.00	757.06	2,262.02	0.00	0.00
25.00	745.79	2,223.04	0.00	0.00
30.00	734.51	2,184.07	0.00	0.00
35.00	735.50	2,145.10	0.00	0.00
40.00	752.20	2,106.13	0.00	0.00
45.00	765.21	1,779.38	0.00	0.00
50.00	775.91	1,746.91	0.00	0.00
55.00	784.28	1,714.43	0.00	0.00
60.00	790.66	1,681.95	0.00	0.00
65.00	795.27	1,649.48	0.00	0.00
70.00	798.31	1,617.00	0.00	0.00
75.00	799.95	1,584.52	0.00	0.00
80.00	800.33	1,552.04	0.00	0.00
85.00	799.54	1,283.36	0.00	0.00
90.00	797.69	1,257.38	0.00	0.00
95.00	794.87	1,231.40	0.00	0.00
96.00	3,368.53	1,935.16	0.00	0.00
100.0	601.26	913.06	0.00	0.00
105.0	748.00	1,117.94	0.00	0.00
106.0	878.53	355.47	0.00	0.00
110.0	592.42	858.37	0.00	0.00
115.0	735.50	1,049.57	0.00	0.00
116.0	5,602.15	2,045.40	0.00	0.00
120.0	517.19	777.43	0.00	0.00
121.0	168.11	179.95	0.00	0.00
123.0	530.74	376.11	0.00	0.00
125.0	237.51	333.95	0.00	0.00
127.0	514.04	363.91	0.00	0.00
130.0	631.24	514.87	0.00	0.00
135.0	578.31	771.62	0.00	0.00
139.0	454.29	600.93	0.00	0.00
140.0	82.78	64.95	0.00	0.00
142.0	670.72	194.94	0.00	0.00
145.0	218.69	176.25	0.00	0.00
150.0	5,819.13	3,502.72	0.00	10,221.96
Totals:	37,715.02	51,170.70	0.00	10,221.96

Pole : 302483
Location : Brln - Berlin, CT
Height : 150.0 (ft)
Base Dia : 51.30 (in)
Top Dia : 15.00 (in)
Shape : 12 Sides
Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Load Case: No Ice — 80.00 mph Wind with No Ice — 22 Iterations

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

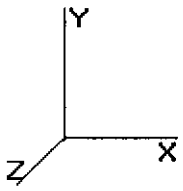
Calculated Shaft Forces and Deflections

Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-37.773	-51.127	0.000	0.000	0.000	-3,664.004	0.000	0.000	0.000	0.000
5.00	-37.088	-48.667	0.000	0.000	0.000	-3,475.143	-0.069	0.000	0.069	-0.128
10.00	-36.404	-46.248	0.000	0.000	0.000	-3,289.706	-0.271	0.000	0.271	-0.255
15.00	-35.721	-43.872	0.000	0.000	0.000	-3,107.689	-0.608	0.000	0.608	-0.384
20.00	-35.039	-41.537	0.000	0.000	0.000	-2,929.087	-1.078	0.000	1.078	-0.512
25.00	-34.359	-39.245	0.000	0.000	0.000	-2,753.892	-1.684	0.000	1.684	-0.640
30.00	-33.680	-36.995	0.000	0.000	0.000	-2,582.100	-2.423	0.000	2.423	-0.768
35.00	-32.991	-34.788	0.000	0.000	0.000	-2,413.700	-3.297	0.000	3.297	-0.896
40.00	-32.276	-32.623	0.000	0.000	0.000	-2,248.746	-4.303	0.000	4.303	-1.023
45.00	-31.551	-30.783	0.000	0.000	0.000	-2,087.369	-5.443	0.000	5.443	-1.149
50.00	-30.813	-28.973	0.000	0.000	0.000	-1,929.614	-6.727	0.000	6.727	-1.298
55.00	-30.057	-27.202	0.000	0.000	0.000	-1,775.550	-8.166	0.000	8.166	-1.445
60.00	-29.286	-25.468	0.000	0.000	0.000	-1,625.265	-9.758	0.000	9.758	-1.590
65.00	-28.502	-23.773	0.000	0.000	0.000	-1,478.835	-11.500	0.000	11.500	-1.732
70.00	-27.706	-22.116	0.000	0.000	0.000	-1,336.328	-13.389	0.000	13.389	-1.871
75.00	-26.900	-20.497	0.000	0.000	0.000	-1,197.800	-15.421	0.000	15.421	-2.005
80.00	-26.086	-18.917	0.000	0.000	0.000	-1,063.302	-17.591	0.000	17.591	-2.135
85.00	-25.279	-17.606	0.000	0.000	0.000	-932.873	-19.894	0.000	19.894	-2.259
90.00	-24.471	-16.323	0.000	0.000	0.000	-806.477	-22.338	0.000	22.338	-2.404
95.00	-23.645	-15.094	0.000	0.000	0.000	-684.123	-24.929	0.000	24.929	-2.539
96.00	-20.208	-13.289	0.000	0.000	0.000	-660.479	-25.464	0.000	25.464	-2.565
100.0	-19.589	-12.367	0.000	0.000	0.000	-579.648	-27.656	0.000	27.656	-2.665
105.0	-18.802	-11.264	0.000	0.000	0.000	-481.704	-30.508	0.000	30.508	-2.779
106.0	-17.917	-10.935	0.000	0.000	0.000	-462.902	-31.093	0.000	31.093	-2.801
110.0	-17.298	-10.081	0.000	0.000	0.000	-391.234	-33.475	0.000	33.475	-2.883
115.0	-16.518	-9.056	0.000	0.000	0.000	-304.744	-36.543	0.000	36.543	-2.973
116.0	-10.822	-7.297	0.000	0.000	0.000	-288.226	-37.168	0.000	37.168	-2.990
120.0	-10.269	-6.541	0.000	0.000	0.000	-244.938	-39.699	0.000	39.699	-3.052
121.0	-10.094	-6.366	0.000	0.000	0.000	-234.668	-40.340	0.000	40.340	-3.067
123.0	-9.548	-6.014	0.000	0.000	0.000	-214.480	-41.631	0.000	41.631	-3.100
125.0	-9.295	-5.688	0.000	0.000	0.000	-195.385	-42.936	0.000	42.936	-3.131
127.0	-8.765	-5.348	0.000	0.000	0.000	-176.795	-44.254	0.000	44.254	-3.161
130.0	-8.111	-4.862	0.000	0.000	0.000	-150.499	-46.253	0.000	46.253	-3.201
135.0	-7.493	-4.118	0.000	0.000	0.000	-109.945	-49.636	0.000	49.636	-3.259
139.0	-7.007	-3.541	0.000	0.000	0.000	-79.972	-52.382	0.000	52.382	-3.296
140.0	-6.924	-3.474	0.000	0.000	0.000	-72.966	-53.073	0.000	53.073	-3.305
142.0	-6.250	-3.305	0.000	0.000	0.000	-59.117	-54.482	0.000	54.482	-3.416
145.0	-6.029	-3.128	0.000	0.000	0.000	-40.366	-56.672	0.000	56.672	-3.549
150.0	-5.819	0.000	0.000	0.000	0.000	-10.222	-60.466	0.000	60.466	-3.672

Pole : 302483
Location : Brln - Berlin, CT
Height : 150.0 (ft)
Base Dia : 51.30 (in)
Top Dia : 15.00 (in)
Shape : 12 Sides
Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



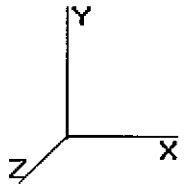
Load Case: No Ice — 80.00 mph Wind with No Ice — 22 Iterations

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

Calculated Stresses

Seg Elev (ft)	Applied Stresses: Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)	Allowable Stress (Fb) (ksi)		Stress Ratio
0.00	0.42	0.63	0.00	0.00	0.00	29.32	29.76	33.4	0.0	0.890
5.00	0.41	0.63	0.00	0.00	0.00	28.89	29.32	33.4	0.0	0.877
10.00	0.39	0.63	0.00	0.00	0.00	28.44	28.85	33.4	0.0	0.863
15.00	0.38	0.63	0.00	0.00	0.00	27.95	28.35	33.4	0.0	0.848
20.00	0.37	0.63	0.00	0.00	0.00	27.43	27.82	33.4	0.0	0.832
25.00	0.35	0.63	0.00	0.00	0.00	26.88	27.26	33.4	0.0	0.815
30.00	0.34	0.63	0.00	0.00	0.00	26.29	26.65	33.4	0.0	0.797
35.00	0.33	0.63	0.00	0.00	0.00	25.66	26.01	33.4	0.0	0.778
40.00	0.31	0.63	0.00	0.00	0.00	24.98	25.32	33.4	0.0	0.757
40.00	0.38	0.76	0.00	0.00	0.00	29.76	30.17	31.4	0.0	0.962
45.00	0.36	0.76	0.00	0.00	0.00	28.89	29.29	31.4	0.0	0.934
50.00	0.35	0.76	0.00	0.00	0.00	27.96	28.34	31.4	0.0	0.904
55.00	0.34	0.75	0.00	0.00	0.00	26.97	27.34	31.4	0.0	0.872
60.00	0.32	0.75	0.00	0.00	0.00	25.90	26.26	31.4	0.0	0.837
65.00	0.31	0.75	0.00	0.00	0.00	24.76	25.10	31.4	0.0	0.801
70.00	0.29	0.75	0.00	0.00	0.00	23.53	23.86	31.4	0.0	0.761
75.00	0.28	0.75	0.00	0.00	0.00	22.22	22.53	31.4	0.0	0.719
80.00	0.27	0.74	0.00	0.00	0.00	20.80	21.11	31.4	0.0	0.673
80.00	0.33	0.92	0.00	0.00	0.00	25.73	26.11	28.7	0.0	0.909
85.00	0.32	0.92	0.00	0.00	0.00	23.83	24.20	28.7	0.0	0.843
90.00	0.30	0.92	0.00	0.00	0.00	21.79	22.15	28.7	0.0	0.771
95.00	0.29	0.91	0.00	0.00	0.00	19.58	19.93	28.7	0.0	0.694
96.00	0.25	0.78	0.00	0.00	0.00	19.12	19.43	28.7	0.0	0.676
100.00	0.24	0.78	0.00	0.00	0.00	17.60	17.89	28.7	0.0	0.623
105.00	0.23	0.77	0.00	0.00	0.00	15.55	15.83	28.7	0.0	0.551
106.00	0.22	0.74	0.00	0.00	0.00	15.13	15.40	28.7	0.0	0.536
110.00	0.21	0.73	0.00	0.00	0.00	13.45	13.72	28.7	0.0	0.478
115.00	0.19	0.72	0.00	0.00	0.00	11.18	11.44	28.7	0.0	0.398
116.00	0.16	0.47	0.00	0.00	0.00	10.71	10.90	28.7	0.0	0.380
120.00	0.15	0.46	0.00	0.00	0.00	9.61	9.79	28.7	0.0	0.341
120.00	0.17	0.53	0.00	0.00	0.00	10.91	11.11	38.1	0.0	0.292
121.00	0.16	0.52	0.00	0.00	0.00	10.60	10.80	38.1	0.0	0.284
123.00	0.16	0.50	0.00	0.00	0.00	9.96	10.15	38.1	0.0	0.267
125.00	0.15	0.49	0.00	0.00	0.00	9.33	9.51	38.1	0.0	0.250
127.00	0.14	0.47	0.00	0.00	0.00	8.68	8.86	38.1	0.0	0.233
130.00	0.13	0.45	0.00	0.00	0.00	7.72	7.89	38.1	0.0	0.207
135.00	0.12	0.43	0.00	0.00	0.00	6.07	6.23	38.1	0.0	0.164
139.00	0.10	0.41	0.00	0.00	0.00	4.70	4.86	38.1	0.0	0.128
139.00	0.35	1.43	0.00	0.00	0.00	23.85	24.33	52.0	0.0	0.468
140.00	0.35	1.42	0.00	0.00	0.00	22.18	22.67	52.0	0.0	0.436
142.00	0.34	1.31	0.00	0.00	0.00	18.68	19.16	52.0	0.0	0.368
145.00	0.33	1.30	0.00	0.00	0.00	13.54	14.05	52.0	0.0	0.270
150.00	0.00	1.32	0.00	0.00	0.00	3.80	4.44	52.0	0.0	0.085

Pole :	302483	Code: TIA/EIA-222 Rev F	9/13/2012 12:36:36 PM
Location :	Brln - Berlin, CT		Page: 14
Height :	150.0 (ft)		
Base Dia :	51.30 (in)		
Top Dia :	15.00 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.189701 (in/ft)		

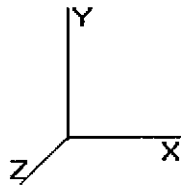


Load Case: Ice — 69.28 mph Wind with Ice — 22 Iterations

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

Shaft Segment Forces

Seg Top Elev (ft)	Description		Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		0.00	1.00	12.287	20.76	296.17	1.030	0.500	0.00	0.000	0.00	0.0	0.0	0.0
5.00		0.00	1.00	12.287	20.76	290.69	1.030	0.500	5.00	21.594	22.24	461.9	159.2	2,216.7
10.00		0.00	1.00	12.287	20.76	285.21	1.030	0.500	5.00	21.199	21.83	453.4	156.2	2,174.8
15.00		0.00	1.00	12.287	20.76	279.74	1.030	0.500	5.00	20.804	21.43	445.0	153.3	2,132.8
20.00		0.00	1.00	12.287	20.76	274.26	1.030	0.500	5.00	20.408	21.02	436.5	150.3	2,090.9
25.00		0.00	1.00	12.287	20.76	268.79	1.030	0.500	5.00	20.013	20.61	428.1	147.3	2,049.0
30.00		0.00	1.00	12.287	20.76	263.31	1.030	0.500	5.00	19.618	20.21	419.6	144.3	2,007.0
35.00		0.00	1.01	12.496	21.11	260.01	1.030	0.500	5.00	19.223	19.80	418.1	141.4	1,965.1
40.00	Top - Section 1	0.00	1.05	12.982	21.93	259.39	1.030	0.500	5.00	18.828	19.39	425.4	138.4	1,923.1
45.00		0.00	1.09	13.426	22.69	257.88	1.030	0.500	5.00	18.419	18.97	430.5	135.3	1,593.3
50.00		0.00	1.12	13.836	23.38	255.98	1.030	0.500	5.00	18.024	18.56	434.1	132.4	1,557.9
55.00		0.00	1.15	14.218	24.02	253.59	1.030	0.500	5.00	17.629	18.16	436.3	129.4	1,522.4
60.00		0.00	1.18	14.576	24.63	250.80	1.030	0.500	5.00	17.233	17.75	437.3	126.4	1,487.0
65.00		0.00	1.21	14.913	25.20	247.65	1.030	0.500	5.00	16.838	17.34	437.1	123.5	1,451.5
70.00		0.00	1.24	15.232	25.74	244.19	1.030	0.500	5.00	16.443	16.94	436.0	120.5	1,416.1
75.00		0.00	1.26	15.536	26.25	240.45	1.030	0.500	5.00	16.048	16.53	434.0	117.5	1,380.6
80.00	Top - Section 2	0.00	1.28	15.825	26.74	236.47	1.030	0.500	5.00	15.653	16.12	431.2	114.6	1,345.2
85.00		0.00	1.31	16.101	27.21	232.26	1.030	0.500	5.00	15.257	15.72	427.6	111.6	1,073.5
90.00		0.00	1.33	16.366	27.65	227.84	1.030	0.500	5.00	14.862	15.31	423.4	108.6	1,044.6
95.00		0.00	1.35	16.621	28.09	223.24	1.030	0.500	5.00	14.467	14.90	418.6	105.6	1,015.6
96.00	Appertunance(s)	0.00	1.35	16.671	28.17	222.30	1.030	0.500	1.00	2.846	2.93	82.6	21.0	199.9
100.0		0.00	1.37	16.866	28.50	218.46	1.030	0.500	4.00	11.226	11.56	329.6	82.1	787.3
105.0		0.00	1.39	17.103	28.90	213.53	1.030	0.500	5.00	13.677	14.09	407.2	99.7	957.7
106.0	Appertunance(s)	0.00	1.39	17.150	28.98	212.53	1.030	0.500	1.00	2.688	2.77	80.2	19.8	188.3
110.0		0.00	1.41	17.332	29.29	208.45	1.030	0.500	4.00	10.594	10.91	319.6	77.4	741.0
115.0		0.00	1.42	17.554	29.66	203.23	1.030	0.500	5.00	12.886	13.27	393.7	93.8	899.8
116.0	Appertunance(s)	0.00	1.43	17.597	29.73	202.18	1.030	0.500	1.00	2.530	2.61	77.5	18.6	176.7
120.0	Top - Section 3	0.00	1.44	17.768	30.02	197.89	1.030	0.500	4.00	9.961	10.26	308.1	72.6	694.6
121.0	Appertunance(s)	0.00	1.45	17.811	30.10	196.80	1.030	0.500	1.00	2.451	2.52	76.0	18.0	152.1
123.0	Appertunance(s)	0.00	1.45	17.894	30.24	194.62	1.030	0.500	2.00	4.854	5.00	151.2	35.6	301.1
125.0		0.00	1.46	17.977	30.38	192.42	1.030	0.500	2.00	4.791	4.93	149.9	35.1	296.9
127.0	Appertunance(s)	0.00	1.47	18.058	30.51	190.20	1.030	0.500	2.00	4.728	4.87	148.6	34.7	292.8
130.0	Appertunance(s)	0.00	1.48	18.179	30.72	186.84	1.030	0.500	3.00	6.973	7.18	220.7	50.9	431.4
135.0		0.00	1.49	18.376	31.05	181.16	1.030	0.500	5.00	11.305	11.64	361.6	81.9	697.8
139.0	Top - Section 4	0.00	1.50	18.530	31.31	176.53	1.030	0.500	4.00	8.760	9.02	282.6	63.6	539.9
140.0		0.00	1.51	18.568	31.38	117.55	1.030	0.500	1.00	1.470	1.51	47.5	10.7	44.5
142.0	Appertunance(s)	0.00	1.51	18.644	31.50	115.56	1.030	0.500	2.00	2.901	2.99	94.2	21.0	87.6
145.0		0.00	1.52	18.755	31.69	112.56	1.030	0.500	3.00	4.254	4.38	138.9	30.6	128.1
150.0	Appertunance(s)	0.00	1.54	18.938	32.00	107.51	1.030	0.500	5.00	6.830	7.03	225.1	48.5	204.7
							Totals:		150.00			12,128.7	3,431.6	39,269.7



Load Case: Ice — 69.28 mph Wind with Ice — 22 Iterations

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

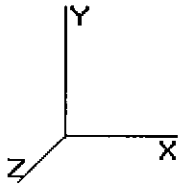
Discrete Appurtenance Segment Forces

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
96.00	Decibel	12	16.671	28.174	0.85	66.30	0.000	0.000	1,867.92	0.00	0.00	660.00
96.00	Flat Low Profile Pla	1	16.671	28.174	1.00	31.60	0.000	0.000	890.29	0.00	0.00	1,700.00
106.0	72" x 12" Panel	3	17.150	28.983	0.75	20.77	0.000	0.000	601.90	0.00	0.00	276.84
116.0	Andrew LNX-6514DS-	2	17.597	29.739	0.82	15.15	0.000	0.000	450.65	0.00	0.00	177.80
116.0	Antel LPA-171063-12C	6	17.597	29.739	1.00	40.14	0.000	0.000	1,193.72	0.00	0.00	0.00
116.0	Antel LPA-80063-6CF-	6	17.597	29.739	0.93	63.33	0.000	0.000	1,883.46	0.00	0.00	611.40
116.0	RFS APX75-866514-	1	17.597	29.739	0.74	7.91	0.000	0.000	235.25	0.00	0.00	81.10
116.0	Round Low Profile Pl	1	17.597	29.739	1.00	27.20	0.000	0.000	808.90	0.00	0.00	1,700.00
121.0	GPS	1	17.811	30.100	1.00	1.30	0.000	0.000	39.13	0.00	0.00	15.00
123.0	Allgon 7184	3	17.894	30.241	0.87	8.56	0.000	0.000	258.88	0.00	0.00	81.29
127.0	Allgon 7184	3	18.058	30.519	0.87	8.56	0.000	0.000	261.26	0.00	0.00	81.29
130.0	Allgon 7184	3	18.179	30.723	0.87	8.56	0.000	0.000	263.01	0.00	0.00	81.29
142.0	RFS APXV18-	3	18.644	31.508	0.82	14.02	0.000	0.000	441.81	0.00	0.00	144.39
150.0	Andrew	6	19.393	32.774	0.00	0.00	0.000	13.000	0.00	0.00	0.00	87.12
150.0	Concealment Canister	1	19.169	32.396	1.00	20.00	0.000	6.500	647.91	0.00	4,211.42	300.00
150.0	Ericsson RRUS 11	6	19.010	32.127	0.67	13.23	0.000	2.000	424.90	0.00	849.80	445.80
150.0	Flat Platform w/ Han	1	18.938	32.005	1.00	48.40	0.000	0.000	1,549.05	0.00	0.00	2,450.00
150.0	KMW AM-X-CD-16-65-	6	19.010	32.127	0.78	42.49	0.000	2.000	1,365.20	0.00	2,730.40	570.00
150.0	Powerwave 7770.00	3	19.010	32.127	0.76	14.89	0.000	2.000	478.31	0.00	956.63	203.24
150.0	Powerwave LGP21401	6	19.010	32.127	0.67	6.15	0.000	2.000	197.60	0.00	395.20	127.56
150.0	Raycap DC6-48-60-18-	1	19.010	32.127	1.00	1.46	0.000	2.000	46.90	0.00	93.81	35.10
150.0	RFS APX16DWV-	3	19.393	32.774	0.00	0.00	0.000	13.000	0.00	0.00	0.00	208.14
									13,906.07			10,037.35

Pole : 302483
Location : Brln - Berlin, CT
Height : 150.0 (ft)
Base Dia : 51.30 (in)
Top Dia : 15.00 (in)
Shape : 12 Sides
Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



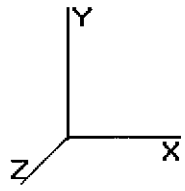
9/13/2012 12:36:36 PM
Page: 16

Load Case: Ice — 69.28 mph Wind with Ice — 22 Iterations

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

Linear Appurtenance Segment Forces

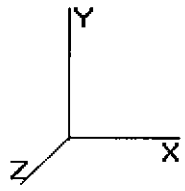
Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Weight (lb/ft)	CaAa (sf/ft)	qz (psf)	FX (lb)	Dead Load (lb)
5.00	(1) 10 mm Cable	Yes	5.00	0.00	0.00	12.287	0.00	0.00
5.00	(2) 19.7 mm Cable	Yes	5.00	0.00	0.00	12.287	0.00	0.00
5.00	(1) 3" Conduit	Yes	5.00	8.80	0.40	12.287	41.53	44.00
5.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	47.30
5.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	12.287	25.96	23.65
5.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	12.287	0.00	2.50
5.00	(18) 1 5/8" Coax	Yes	5.00	18.93	0.50	12.287	51.91	94.65
5.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	47.30
10.00	(1) 10 mm Cable	Yes	5.00	0.00	0.00	12.287	0.00	0.00
10.00	(2) 19.7 mm Cable	Yes	5.00	0.00	0.00	12.287	0.00	0.00
10.00	(1) 3" Conduit	Yes	5.00	8.80	0.40	12.287	41.53	44.00
10.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	47.30
10.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	12.287	25.96	23.65
10.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	12.287	0.00	2.50
10.00	(18) 1 5/8" Coax	Yes	5.00	18.93	0.50	12.287	51.91	94.65
10.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	47.30
15.00	(1) 10 mm Cable	Yes	5.00	0.00	0.00	12.287	0.00	0.00
15.00	(2) 19.7 mm Cable	Yes	5.00	0.00	0.00	12.287	0.00	0.00
15.00	(1) 3" Conduit	Yes	5.00	8.80	0.40	12.287	41.53	44.00
15.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	47.30
15.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	12.287	25.96	23.65
15.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	12.287	0.00	2.50
15.00	(18) 1 5/8" Coax	Yes	5.00	18.93	0.50	12.287	51.91	94.65
15.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	47.30
20.00	(1) 10 mm Cable	Yes	5.00	0.00	0.00	12.287	0.00	0.00
20.00	(2) 19.7 mm Cable	Yes	5.00	0.00	0.00	12.287	0.00	0.00
20.00	(1) 3" Conduit	Yes	5.00	8.80	0.40	12.287	41.53	44.00
20.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	47.30
20.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	12.287	25.96	23.65
20.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	12.287	0.00	2.50
20.00	(18) 1 5/8" Coax	Yes	5.00	18.93	0.50	12.287	51.91	94.65
20.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	47.30
25.00	(1) 10 mm Cable	Yes	5.00	0.00	0.00	12.287	0.00	0.00
25.00	(2) 19.7 mm Cable	Yes	5.00	0.00	0.00	12.287	0.00	0.00
25.00	(1) 3" Conduit	Yes	5.00	8.80	0.40	12.287	41.53	44.00
25.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	47.30
25.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	12.287	25.96	23.65
25.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	12.287	0.00	2.50
25.00	(18) 1 5/8" Coax	Yes	5.00	18.93	0.50	12.287	51.91	94.65
25.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	47.30
30.00	(1) 10 mm Cable	Yes	5.00	0.00	0.00	12.287	0.00	0.00
30.00	(2) 19.7 mm Cable	Yes	5.00	0.00	0.00	12.287	0.00	0.00
30.00	(1) 3" Conduit	Yes	5.00	8.80	0.40	12.287	41.53	44.00
30.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	47.30
30.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	12.287	25.96	23.65
30.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	12.287	0.00	2.50
30.00	(18) 1 5/8" Coax	Yes	5.00	18.93	0.50	12.287	51.91	94.65
30.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	47.30
35.00	(1) 10 mm Cable	Yes	5.00	0.00	0.00	12.496	0.00	0.00
35.00	(2) 19.7 mm Cable	Yes	5.00	0.00	0.00	12.496	0.00	0.00
35.00	(1) 3" Conduit	Yes	5.00	8.80	0.40	12.496	42.24	44.00



Load Case: Ice — 69.28 mph Wind with Ice — 22 Iterations

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

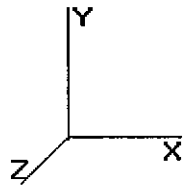
35.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.496	26.40	47.30
35.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	12.496	26.40	23.65
35.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	12.496	0.00	2.50
35.00	(18) 1 5/8" Coax	Yes	5.00	18.93	0.50	12.496	52.79	94.65
35.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.496	26.40	47.30
40.00	(1) 10 mm Cable	Yes	5.00	0.00	0.00	12.982	0.00	0.00
40.00	(2) 19.7 mm Cable	Yes	5.00	0.00	0.00	12.982	0.00	0.00
40.00	(1) 3" Conduit	Yes	5.00	8.80	0.40	12.982	43.88	44.00
40.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.982	27.42	47.30
40.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	12.982	27.42	23.65
40.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	12.982	0.00	2.50
40.00	(18) 1 5/8" Coax	Yes	5.00	18.93	0.50	12.982	54.85	94.65
40.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.982	27.42	47.30
45.00	(1) 10 mm Cable	Yes	5.00	0.00	0.00	13.426	0.00	0.00
45.00	(2) 19.7 mm Cable	Yes	5.00	0.00	0.00	13.426	0.00	0.00
45.00	(1) 3" Conduit	Yes	5.00	8.80	0.40	13.426	45.38	44.00
45.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	13.426	28.36	47.30
45.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	13.426	28.36	23.65
45.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	13.426	0.00	2.50
45.00	(18) 1 5/8" Coax	Yes	5.00	18.93	0.50	13.426	56.72	94.65
45.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	13.426	28.36	47.30
50.00	(1) 10 mm Cable	Yes	5.00	0.00	0.00	13.836	0.00	0.00
50.00	(2) 19.7 mm Cable	Yes	5.00	0.00	0.00	13.836	0.00	0.00
50.00	(1) 3" Conduit	Yes	5.00	8.80	0.40	13.836	46.77	44.00
50.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	13.836	29.23	47.30
50.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	13.836	29.23	23.65
50.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	13.836	0.00	2.50
50.00	(18) 1 5/8" Coax	Yes	5.00	18.93	0.50	13.836	58.46	94.65
50.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	13.836	29.23	47.30
55.00	(1) 10 mm Cable	Yes	5.00	0.00	0.00	14.218	0.00	0.00
55.00	(2) 19.7 mm Cable	Yes	5.00	0.00	0.00	14.218	0.00	0.00
55.00	(1) 3" Conduit	Yes	5.00	8.80	0.40	14.218	48.06	44.00
55.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	14.218	30.04	47.30
55.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	14.218	30.04	23.65
55.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	14.218	0.00	2.50
55.00	(18) 1 5/8" Coax	Yes	5.00	18.93	0.50	14.218	60.07	94.65
55.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	14.218	30.04	47.30
60.00	(1) 10 mm Cable	Yes	5.00	0.00	0.00	14.576	0.00	0.00
60.00	(2) 19.7 mm Cable	Yes	5.00	0.00	0.00	14.576	0.00	0.00
60.00	(1) 3" Conduit	Yes	5.00	8.80	0.40	14.576	49.27	44.00
60.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	14.576	30.79	47.30
60.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	14.576	30.79	23.65
60.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	14.576	0.00	2.50
60.00	(18) 1 5/8" Coax	Yes	5.00	18.93	0.50	14.576	61.58	94.65
60.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	14.576	30.79	47.30
65.00	(1) 10 mm Cable	Yes	5.00	0.00	0.00	14.913	0.00	0.00
65.00	(2) 19.7 mm Cable	Yes	5.00	0.00	0.00	14.913	0.00	0.00
65.00	(1) 3" Conduit	Yes	5.00	8.80	0.40	14.913	50.41	44.00
65.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	14.913	31.50	47.30
65.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	14.913	31.50	23.65
65.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	14.913	0.00	2.50
65.00	(18) 1 5/8" Coax	Yes	5.00	18.93	0.50	14.913	63.01	94.65
65.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	14.913	31.50	47.30
70.00	(1) 10 mm Cable	Yes	5.00	0.00	0.00	15.232	0.00	0.00
70.00	(2) 19.7 mm Cable	Yes	5.00	0.00	0.00	15.232	0.00	0.00
70.00	(1) 3" Conduit	Yes	5.00	8.80	0.40	15.232	51.49	44.00
70.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	15.232	32.18	47.30



Load Case: Ice — 69.28 mph Wind with Ice — 22 Iterations

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

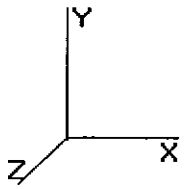
70.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	15.232	32.18	23.65
70.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	15.232	0.00	2.50
70.00	(18) 1 5/8" Coax	Yes	5.00	18.93	0.50	15.232	64.36	94.65
70.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	15.232	32.18	47.30
75.00	(1) 10 mm Cable	Yes	5.00	0.00	0.00	15.536	0.00	0.00
75.00	(2) 19.7 mm Cable	Yes	5.00	0.00	0.00	15.536	0.00	0.00
75.00	(1) 3" Conduit	Yes	5.00	8.80	0.40	15.536	52.51	44.00
75.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	15.536	32.82	47.30
75.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	15.536	32.82	23.65
75.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	15.536	0.00	2.50
75.00	(18) 1 5/8" Coax	Yes	5.00	18.93	0.50	15.536	65.64	94.65
75.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	15.536	32.82	47.30
80.00	(1) 10 mm Cable	Yes	5.00	0.00	0.00	15.825	0.00	0.00
80.00	(2) 19.7 mm Cable	Yes	5.00	0.00	0.00	15.825	0.00	0.00
80.00	(1) 3" Conduit	Yes	5.00	8.80	0.40	15.825	53.49	44.00
80.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	15.825	33.43	47.30
80.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	15.825	33.43	23.65
80.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	15.825	0.00	2.50
80.00	(18) 1 5/8" Coax	Yes	5.00	18.93	0.50	15.825	66.86	94.65
80.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	15.825	33.43	47.30
85.00	(1) 10 mm Cable	Yes	5.00	0.00	0.00	16.101	0.00	0.00
85.00	(2) 19.7 mm Cable	Yes	5.00	0.00	0.00	16.101	0.00	0.00
85.00	(1) 3" Conduit	Yes	5.00	8.80	0.40	16.101	54.42	44.00
85.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	16.101	34.01	47.30
85.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	16.101	34.01	23.65
85.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	16.101	0.00	2.50
85.00	(18) 1 5/8" Coax	Yes	5.00	18.93	0.50	16.101	68.03	94.65
85.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	16.101	34.01	47.30
90.00	(1) 10 mm Cable	Yes	5.00	0.00	0.00	16.366	0.00	0.00
90.00	(2) 19.7 mm Cable	Yes	5.00	0.00	0.00	16.366	0.00	0.00
90.00	(1) 3" Conduit	Yes	5.00	8.80	0.40	16.366	55.32	44.00
90.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	16.366	34.57	47.30
90.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	16.366	34.57	23.65
90.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	16.366	0.00	2.50
90.00	(18) 1 5/8" Coax	Yes	5.00	18.93	0.50	16.366	69.15	94.65
90.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	16.366	34.57	47.30
95.00	(1) 10 mm Cable	Yes	5.00	0.00	0.00	16.621	0.00	0.00
95.00	(2) 19.7 mm Cable	Yes	5.00	0.00	0.00	16.621	0.00	0.00
95.00	(1) 3" Conduit	Yes	5.00	8.80	0.40	16.621	56.18	44.00
95.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	16.621	35.11	47.30
95.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	16.621	35.11	23.65
95.00	(1) 7/8" Coax	Yes	5.00	0.50	0.00	16.621	0.00	2.50
95.00	(18) 1 5/8" Coax	Yes	5.00	18.93	0.50	16.621	70.22	94.65
95.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	16.621	35.11	47.30
96.00	(1) 10 mm Cable	Yes	1.00	0.00	0.00	16.671	0.00	0.00
96.00	(2) 19.7 mm Cable	Yes	1.00	0.00	0.00	16.671	0.00	0.00
96.00	(1) 3" Conduit	Yes	1.00	8.80	0.40	16.671	11.27	8.80
96.00	(6) 1 5/8" Coax	Yes	1.00	9.46	0.25	16.671	7.04	9.46
96.00	(3) 1 5/8" Coax	Yes	1.00	4.73	0.25	16.671	7.04	4.73
96.00	(1) 7/8" Coax	Yes	1.00	0.50	0.00	16.671	0.00	0.50
96.00	(18) 1 5/8" Coax	Yes	1.00	18.93	0.50	16.671	14.09	18.93
96.00	(6) 1 5/8" Coax	Yes	1.00	9.46	0.25	16.671	7.04	9.46
100.0	(1) 10 mm Cable	Yes	4.00	0.00	0.00	16.866	0.00	0.00
100.0	(2) 19.7 mm Cable	Yes	4.00	0.00	0.00	16.866	0.00	0.00
100.0	(1) 3" Conduit	Yes	4.00	8.80	0.40	16.866	45.61	35.20
100.0	(6) 1 5/8" Coax	Yes	4.00	9.46	0.25	16.866	28.50	37.84
100.0	(3) 1 5/8" Coax	Yes	4.00	4.73	0.25	16.866	28.50	18.92



Load Case: Ice — 69.28 mph Wind with Ice — 22 Iterations

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

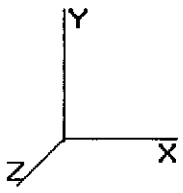
100.0	(1) 7/8" Coax	Yes	4.00	0.50	0.00	16.866	0.00	2.00
100.0	(18) 1 5/8" Coax	Yes	4.00	18.93	0.50	16.866	57.01	75.72
105.0	(1) 10 mm Cable	Yes	5.00	0.00	0.00	17.103	0.00	0.00
105.0	(2) 19.7 mm Cable	Yes	5.00	0.00	0.00	17.103	0.00	0.00
105.0	(1) 3" Conduit	Yes	5.00	8.80	0.40	17.103	57.81	44.00
105.0	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	17.103	36.13	47.30
105.0	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	17.103	36.13	23.65
105.0	(1) 7/8" Coax	Yes	5.00	0.50	0.00	17.103	0.00	2.50
105.0	(18) 1 5/8" Coax	Yes	5.00	18.93	0.50	17.103	72.26	94.65
106.0	(1) 10 mm Cable	Yes	1.00	0.00	0.00	17.150	0.00	0.00
106.0	(2) 19.7 mm Cable	Yes	1.00	0.00	0.00	17.150	0.00	0.00
106.0	(1) 3" Conduit	Yes	1.00	8.80	0.40	17.150	11.59	8.80
106.0	(6) 1 5/8" Coax	Yes	1.00	9.46	0.25	17.150	7.25	9.46
106.0	(3) 1 5/8" Coax	Yes	1.00	4.73	0.25	17.150	7.25	4.73
106.0	(1) 7/8" Coax	Yes	1.00	0.50	0.00	17.150	0.00	0.50
106.0	(18) 1 5/8" Coax	Yes	1.00	18.93	0.50	17.150	14.49	18.93
110.0	(1) 10 mm Cable	Yes	4.00	0.00	0.00	17.332	0.00	0.00
110.0	(2) 19.7 mm Cable	Yes	4.00	0.00	0.00	17.332	0.00	0.00
110.0	(1) 3" Conduit	Yes	4.00	8.80	0.40	17.332	46.87	35.20
110.0	(6) 1 5/8" Coax	Yes	4.00	9.46	0.25	17.332	29.29	37.84
110.0	(3) 1 5/8" Coax	Yes	4.00	4.73	0.25	17.332	29.29	18.92
110.0	(1) 7/8" Coax	Yes	4.00	0.50	0.00	17.332	0.00	2.00
110.0	(18) 1 5/8" Coax	Yes	4.00	18.93	0.50	17.332	58.58	75.72
115.0	(1) 10 mm Cable	Yes	5.00	0.00	0.00	17.554	0.00	0.00
115.0	(2) 19.7 mm Cable	Yes	5.00	0.00	0.00	17.554	0.00	0.00
115.0	(1) 3" Conduit	Yes	5.00	8.80	0.40	17.554	59.33	44.00
115.0	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	17.554	37.08	47.30
115.0	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	17.554	37.08	23.65
115.0	(1) 7/8" Coax	Yes	5.00	0.50	0.00	17.554	0.00	2.50
115.0	(18) 1 5/8" Coax	Yes	5.00	18.93	0.50	17.554	74.16	94.65
116.0	(1) 10 mm Cable	Yes	1.00	0.00	0.00	17.597	0.00	0.00
116.0	(2) 19.7 mm Cable	Yes	1.00	0.00	0.00	17.597	0.00	0.00
116.0	(1) 3" Conduit	Yes	1.00	8.80	0.40	17.597	11.90	8.80
116.0	(6) 1 5/8" Coax	Yes	1.00	9.46	0.25	17.597	7.43	9.46
116.0	(3) 1 5/8" Coax	Yes	1.00	4.73	0.25	17.597	7.43	4.73
116.0	(1) 7/8" Coax	Yes	1.00	0.50	0.00	17.597	0.00	0.50
116.0	(18) 1 5/8" Coax	Yes	1.00	18.93	0.50	17.597	14.87	18.93
120.0	(1) 10 mm Cable	Yes	4.00	0.00	0.00	17.768	0.00	0.00
120.0	(2) 19.7 mm Cable	Yes	4.00	0.00	0.00	17.768	0.00	0.00
120.0	(1) 3" Conduit	Yes	4.00	8.80	0.40	17.768	48.05	35.20
120.0	(6) 1 5/8" Coax	Yes	4.00	9.46	0.25	17.768	30.03	37.84
120.0	(3) 1 5/8" Coax	Yes	4.00	4.73	0.25	17.768	30.03	18.92
120.0	(1) 7/8" Coax	Yes	4.00	0.50	0.00	17.768	0.00	2.00
121.0	(1) 10 mm Cable	Yes	1.00	0.00	0.00	17.811	0.00	0.00
121.0	(2) 19.7 mm Cable	Yes	1.00	0.00	0.00	17.811	0.00	0.00
121.0	(1) 3" Conduit	Yes	1.00	8.80	0.40	17.811	12.04	8.80
121.0	(6) 1 5/8" Coax	Yes	1.00	9.46	0.25	17.811	7.52	9.46
121.0	(3) 1 5/8" Coax	Yes	1.00	4.73	0.25	17.811	7.52	4.73
121.0	(1) 7/8" Coax	Yes	1.00	0.50	0.00	17.811	0.00	0.50
123.0	(1) 10 mm Cable	Yes	2.00	0.00	0.00	17.894	0.00	0.00
123.0	(2) 19.7 mm Cable	Yes	2.00	0.00	0.00	17.894	0.00	0.00
123.0	(1) 3" Conduit	Yes	2.00	8.80	0.40	17.894	24.19	17.60
123.0	(6) 1 5/8" Coax	Yes	2.00	9.46	0.25	17.894	15.12	18.92
123.0	(3) 1 5/8" Coax	Yes	2.00	4.73	0.25	17.894	15.12	9.46
125.0	(1) 10 mm Cable	Yes	2.00	0.00	0.00	17.977	0.00	0.00
125.0	(2) 19.7 mm Cable	Yes	2.00	0.00	0.00	17.977	0.00	0.00
125.0	(1) 3" Conduit	Yes	2.00	8.80	0.40	17.977	24.30	17.60



Load Case: Ice — 69.28 mph Wind with Ice — 22 Iterations

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

125.0	(6) 1 5/8" Coax	Yes	2.00	9.46	0.25	17.977		15.19	18.92
127.0	(1) 10 mm Cable	Yes	2.00	0.00	0.00	18.058		0.00	0.00
127.0	(2) 19.7 mm Cable	Yes	2.00	0.00	0.00	18.058		0.00	0.00
127.0	(1) 3" Conduit	Yes	2.00	8.80	0.40	18.058		24.42	17.60
127.0	(6) 1 5/8" Coax	Yes	2.00	9.46	0.25	18.058		15.26	18.92
130.0	(1) 10 mm Cable	Yes	3.00	0.00	0.00	18.179		0.00	0.00
130.0	(2) 19.7 mm Cable	Yes	3.00	0.00	0.00	18.179		0.00	0.00
130.0	(1) 3" Conduit	Yes	3.00	8.80	0.40	18.179		36.87	26.40
130.0	(6) 1 5/8" Coax	Yes	3.00	9.46	0.25	18.179		23.04	28.38
135.0	(1) 10 mm Cable	Yes	5.00	0.00	0.00	18.376		0.00	0.00
135.0	(2) 19.7 mm Cable	Yes	5.00	0.00	0.00	18.376		0.00	0.00
135.0	(1) 3" Conduit	Yes	5.00	8.80	0.40	18.376		62.11	44.00
135.0	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	18.376		38.82	47.30
139.0	(1) 10 mm Cable	Yes	4.00	0.00	0.00	18.530		0.00	0.00
139.0	(2) 19.7 mm Cable	Yes	4.00	0.00	0.00	18.530		0.00	0.00
139.0	(1) 3" Conduit	Yes	4.00	8.80	0.40	18.530		50.11	35.20
139.0	(6) 1 5/8" Coax	Yes	4.00	9.46	0.25	18.530		31.32	37.84
140.0	(1) 10 mm Cable	Yes	1.00	0.00	0.00	18.568		0.00	0.00
140.0	(2) 19.7 mm Cable	Yes	1.00	0.00	0.00	18.568		0.00	0.00
140.0	(1) 3" Conduit	Yes	1.00	8.80	0.40	18.568		12.55	8.80
140.0	(6) 1 5/8" Coax	Yes	1.00	9.46	0.25	18.568		7.85	9.46
142.0	(1) 10 mm Cable	Yes	2.00	0.00	0.00	18.644		0.00	0.00
142.0	(2) 19.7 mm Cable	Yes	2.00	0.00	0.00	18.644		0.00	0.00
142.0	(1) 3" Conduit	Yes	2.00	8.80	0.40	18.644		25.21	17.60
142.0	(6) 1 5/8" Coax	Yes	2.00	9.46	0.25	18.644		15.75	18.92
145.0	(1) 10 mm Cable	Yes	3.00	0.00	0.00	18.755		0.00	0.00
145.0	(2) 19.7 mm Cable	Yes	3.00	0.00	0.00	18.755		0.00	0.00
145.0	(1) 3" Conduit	Yes	3.00	8.80	0.40	18.755		38.04	26.40
150.0	(1) 10 mm Cable	Yes	5.00	0.00	0.00	18.938		0.00	0.00
150.0	(2) 19.7 mm Cable	Yes	5.00	0.00	0.00	18.938		0.00	0.00
150.0	(1) 3" Conduit	Yes	5.00	8.80	0.40	18.938		64.01	44.00
							Totals:	5,243.43	6,409.65



Load Case: Ice — 69.28 mph Wind with Ice — 22 Iterations

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

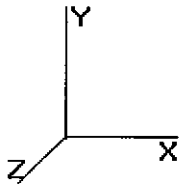
Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	633.18	2,641.03	0.00	0.00
10.00	624.73	2,599.09	0.00	0.00
15.00	616.27	2,557.14	0.00	0.00
20.00	607.82	2,515.20	0.00	0.00
25.00	599.37	2,473.26	0.00	0.00
30.00	590.91	2,431.32	0.00	0.00
35.00	592.34	2,389.38	0.00	0.00
40.00	606.44	2,347.43	0.00	0.00
45.00	617.65	2,017.62	0.00	0.00
50.00	627.01	1,982.18	0.00	0.00
55.00	634.53	1,946.73	0.00	0.00
60.00	640.48	1,911.28	0.00	0.00
65.00	645.04	1,875.84	0.00	0.00
70.00	648.36	1,840.39	0.00	0.00
75.00	650.58	1,804.94	0.00	0.00
80.00	651.80	1,769.50	0.00	0.00
85.00	652.12	1,497.85	0.00	0.00
90.00	651.59	1,468.90	0.00	0.00
95.00	650.30	1,439.95	0.00	0.00
96.00	2,887.28	2,644.75	0.00	0.00
100.0	489.21	1,059.36	0.00	0.00
105.0	609.51	1,297.84	0.00	0.00
106.0	722.72	533.17	0.00	0.00
110.0	483.64	999.92	0.00	0.00
115.0	601.40	1,223.54	0.00	0.00
116.0	4,691.11	2,811.77	0.00	0.00
120.0	416.20	877.87	0.00	0.00
121.0	142.20	212.94	0.00	0.00
123.0	464.51	472.96	0.00	0.00
125.0	189.41	378.10	0.00	0.00
127.0	449.54	455.28	0.00	0.00
130.0	543.58	627.00	0.00	0.00
135.0	462.57	876.07	0.00	0.00
139.0	363.98	682.58	0.00	0.00
140.0	67.92	80.15	0.00	0.00
142.0	576.92	303.33	0.00	0.00
145.0	176.92	206.74	0.00	0.00
150.0	4,999.03	4,762.65	0.00	9,237.26
Totals:	31,278.15	60,015.05	0.00	9,237.26

Pole : 302483
Location : Brln - Berlin, CT
Height : 150.0 (ft)
Base Dia : 51.30 (in)
Top Dia : 15.00 (in)
Shape : 12 Sides
Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Load Case: Ice — 69.28 mph Wind with Ice — 22 Iterations

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

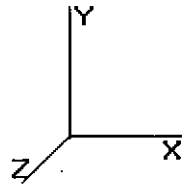
Calculated Shaft Forces and Deflections

Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-31.335	-59.985	0.000	0.000	0.000	-3,083.960	0.000	0.000	0.000	0.000
5.00	-30.807	-57.287	0.000	0.000	0.000	-2,927.286	-0.058	0.000	0.058	-0.107
10.00	-30.278	-54.632	0.000	0.000	0.000	-2,773.252	-0.228	0.000	0.228	-0.215
15.00	-29.748	-52.022	0.000	0.000	0.000	-2,621.863	-0.512	0.000	0.512	-0.323
20.00	-29.217	-49.456	0.000	0.000	0.000	-2,473.125	-0.909	0.000	0.909	-0.432
25.00	-28.686	-46.934	0.000	0.000	0.000	-2,327.041	-1.419	0.000	1.419	-0.540
30.00	-28.154	-44.456	0.000	0.000	0.000	-2,183.615	-2.043	0.000	2.043	-0.648
35.00	-27.611	-42.022	0.000	0.000	0.000	-2,042.849	-2.780	0.000	2.780	-0.756
40.00	-27.046	-39.633	0.000	0.000	0.000	-1,904.795	-3.630	0.000	3.630	-0.864
45.00	-26.473	-37.571	0.000	0.000	0.000	-1,769.569	-4.592	0.000	4.592	-0.971
50.00	-25.888	-35.544	0.000	0.000	0.000	-1,637.209	-5.677	0.000	5.677	-1.097
55.00	-25.287	-33.556	0.000	0.000	0.000	-1,507.772	-6.893	0.000	6.893	-1.222
60.00	-24.671	-31.607	0.000	0.000	0.000	-1,381.340	-8.239	0.000	8.239	-1.345
65.00	-24.042	-29.697	0.000	0.000	0.000	-1,257.988	-9.713	0.000	9.713	-1.466
70.00	-23.401	-27.828	0.000	0.000	0.000	-1,137.781	-11.312	0.000	11.312	-1.584
75.00	-22.750	-25.997	0.000	0.000	0.000	-1,020.777	-13.033	0.000	13.033	-1.698
80.00	-22.090	-24.207	0.000	0.000	0.000	-907.027	-14.871	0.000	14.871	-1.809
85.00	-21.436	-22.688	0.000	0.000	0.000	-796.577	-16.823	0.000	16.823	-1.915
90.00	-20.778	-21.199	0.000	0.000	0.000	-689.401	-18.895	0.000	18.895	-2.038
95.00	-20.099	-19.760	0.000	0.000	0.000	-585.513	-21.093	0.000	21.093	-2.154
96.00	-17.130	-17.210	0.000	0.000	0.000	-565.415	-21.546	0.000	21.546	-2.176
100.0	-16.626	-16.144	0.000	0.000	0.000	-496.897	-23.407	0.000	23.407	-2.262
105.0	-15.979	-14.856	0.000	0.000	0.000	-413.768	-25.829	0.000	25.829	-2.360
106.0	-15.247	-14.341	0.000	0.000	0.000	-397.789	-26.325	0.000	26.325	-2.379
110.0	-14.739	-13.343	0.000	0.000	0.000	-336.803	-28.348	0.000	28.348	-2.449
115.0	-14.094	-12.136	0.000	0.000	0.000	-263.110	-30.956	0.000	30.956	-2.527
116.0	-9.289	-9.529	0.000	0.000	0.000	-249.016	-31.487	0.000	31.487	-2.542
120.0	-8.839	-8.665	0.000	0.000	0.000	-211.860	-33.639	0.000	33.639	-2.595
121.0	-8.690	-8.456	0.000	0.000	0.000	-203.021	-34.184	0.000	34.184	-2.608
123.0	-8.208	-8.001	0.000	0.000	0.000	-185.641	-35.283	0.000	35.283	-2.637
125.0	-8.005	-7.628	0.000	0.000	0.000	-169.224	-36.393	0.000	36.393	-2.664
127.0	-7.539	-7.190	0.000	0.000	0.000	-153.214	-37.514	0.000	37.514	-2.689
130.0	-6.971	-6.584	0.000	0.000	0.000	-130.597	-39.215	0.000	39.215	-2.724
135.0	-6.471	-5.727	0.000	0.000	0.000	-95.741	-42.095	0.000	42.095	-2.774
139.0	-6.076	-5.061	0.000	0.000	0.000	-69.856	-44.434	0.000	44.434	-2.807
140.0	-6.009	-4.978	0.000	0.000	0.000	-63.780	-45.022	0.000	45.022	-2.814
142.0	-5.427	-4.694	0.000	0.000	0.000	-51.761	-46.223	0.000	46.223	-2.911
145.0	-5.249	-4.486	0.000	0.000	0.000	-35.481	-48.091	0.000	48.091	-3.028
150.0	-4.999	0.000	0.000	0.000	0.000	-9.237	-51.331	0.000	51.331	-3.137

Pole : 302483
Location : Brln - Berlin, CT
Height : 150.0 (ft)
Base Dia : 51.30 (in)
Top Dia : 15.00 (in)
Shape : 12 Sides
Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



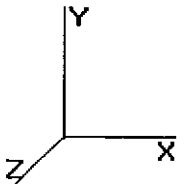
Load Case: Ice — 69.28 mph Wind with Ice — 22 Iterations

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

Calculated Stresses

Seg Elev (ft)	Applied Stresses Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)	Allowable Stress (Fb) (ksi)		Stress Ratio
0.00	0.49	0.52	0.00	0.00	0.00	24.68	25.19	33.4	0.0	0.753
5.00	0.48	0.52	0.00	0.00	0.00	24.34	24.83	33.4	0.0	0.743
10.00	0.46	0.52	0.00	0.00	0.00	23.97	24.45	33.4	0.0	0.731
15.00	0.45	0.52	0.00	0.00	0.00	23.58	24.05	33.4	0.0	0.719
20.00	0.44	0.53	0.00	0.00	0.00	23.16	23.62	33.4	0.0	0.706
25.00	0.42	0.53	0.00	0.00	0.00	22.71	23.16	33.4	0.0	0.693
30.00	0.41	0.53	0.00	0.00	0.00	22.23	22.66	33.4	0.0	0.678
35.00	0.40	0.53	0.00	0.00	0.00	21.72	22.13	33.4	0.0	0.662
40.00	0.38	0.53	0.00	0.00	0.00	21.16	21.56	33.4	0.0	0.645
40.00	0.46	0.63	0.00	0.00	0.00	25.21	25.69	31.4	0.0	0.819
45.00	0.44	0.63	0.00	0.00	0.00	24.49	24.96	31.4	0.0	0.796
50.00	0.43	0.64	0.00	0.00	0.00	23.73	24.18	31.4	0.0	0.771
55.00	0.41	0.63	0.00	0.00	0.00	22.90	23.34	31.4	0.0	0.744
60.00	0.40	0.63	0.00	0.00	0.00	22.02	22.44	31.4	0.0	0.716
65.00	0.39	0.63	0.00	0.00	0.00	21.06	21.48	31.4	0.0	0.685
70.00	0.37	0.63	0.00	0.00	0.00	20.04	20.44	31.4	0.0	0.652
75.00	0.35	0.63	0.00	0.00	0.00	18.93	19.32	31.4	0.0	0.616
80.00	0.34	0.63	0.00	0.00	0.00	17.74	18.12	31.4	0.0	0.578
80.00	0.42	0.78	0.00	0.00	0.00	21.95	22.41	28.7	0.0	0.780
85.00	0.41	0.78	0.00	0.00	0.00	20.35	20.80	28.7	0.0	0.724
90.00	0.39	0.78	0.00	0.00	0.00	18.63	19.06	28.7	0.0	0.664
95.00	0.37	0.77	0.00	0.00	0.00	16.76	17.18	28.7	0.0	0.598
96.00	0.33	0.66	0.00	0.00	0.00	16.37	16.74	28.7	0.0	0.583
100.00	0.32	0.66	0.00	0.00	0.00	15.09	15.45	28.7	0.0	0.538
105.00	0.30	0.65	0.00	0.00	0.00	13.35	13.70	28.7	0.0	0.477
106.00	0.29	0.63	0.00	0.00	0.00	13.00	13.33	28.7	0.0	0.464
110.00	0.28	0.62	0.00	0.00	0.00	11.58	11.90	28.7	0.0	0.414
115.00	0.26	0.61	0.00	0.00	0.00	9.65	9.97	28.7	0.0	0.347
116.00	0.21	0.41	0.00	0.00	0.00	9.26	9.49	28.7	0.0	0.330
120.00	0.19	0.40	0.00	0.00	0.00	8.31	8.53	28.7	0.0	0.297
120.00	0.22	0.45	0.00	0.00	0.00	9.44	9.69	38.1	0.0	0.254
121.00	0.22	0.45	0.00	0.00	0.00	9.17	9.41	38.1	0.0	0.247
123.00	0.21	0.43	0.00	0.00	0.00	8.62	8.85	38.1	0.0	0.233
125.00	0.20	0.43	0.00	0.00	0.00	8.08	8.31	38.1	0.0	0.218
127.00	0.19	0.41	0.00	0.00	0.00	7.52	7.75	38.1	0.0	0.203
130.00	0.18	0.38	0.00	0.00	0.00	6.70	6.91	38.1	0.0	0.181
135.00	0.16	0.37	0.00	0.00	0.00	5.29	5.49	38.1	0.0	0.144
139.00	0.15	0.36	0.00	0.00	0.00	4.10	4.30	38.1	0.0	0.113
139.00	0.51	1.24	0.00	0.00	0.00	20.84	21.45	52.0	0.0	0.413
140.00	0.50	1.23	0.00	0.00	0.00	19.39	20.01	52.0	0.0	0.385
142.00	0.48	1.14	0.00	0.00	0.00	16.36	16.96	52.0	0.0	0.326
145.00	0.48	1.13	0.00	0.00	0.00	11.90	12.53	52.0	0.0	0.241
150.00	0.00	1.14	0.00	0.00	0.00	3.44	3.96	52.0	0.0	0.076

Pole :	302483	Code: TIA/EIA-222 Rev F	9/13/2012 12:36:37 PM
Location :	Brln - Berlin, CT		Page: 24
Height :	150.0 (ft)		
Base Dia :	51.30 (in)		
Top Dia :	15.00 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.189701 (in/ft)		

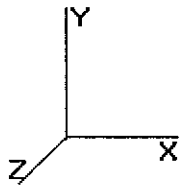


Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 21 Iterations

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

Shaft Segment Forces

Seg Top Elev (ft)	Description		Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		0.00	1.00	6.400	10.81	213.75	1.030	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		0.00	1.00	6.400	10.81	209.79	1.030	0.000	5.00	21.177	21.81	235.9	0.0	2,057.5
10.00		0.00	1.00	6.400	10.81	205.84	1.030	0.000	5.00	20.782	21.41	231.5	0.0	2,018.6
15.00		0.00	1.00	6.400	10.81	201.89	1.030	0.000	5.00	20.387	21.00	227.1	0.0	1,979.6
20.00		0.00	1.00	6.400	10.81	197.94	1.030	0.000	5.00	19.992	20.59	222.7	0.0	1,940.6
25.00		0.00	1.00	6.400	10.81	193.98	1.030	0.000	5.00	19.597	20.18	218.3	0.0	1,901.6
30.00		0.00	1.00	6.400	10.81	190.03	1.030	0.000	5.00	19.201	19.78	213.9	0.0	1,862.7
35.00		0.00	1.01	6.509	10.99	187.65	1.030	0.000	5.00	18.806	19.37	213.1	0.0	1,823.7
40.00	Top - Section 1	0.00	1.05	6.762	11.42	187.20	1.030	0.000	5.00	18.411	18.96	216.7	0.0	1,784.7
45.00		0.00	1.09	6.993	11.81	186.11	1.030	0.000	5.00	18.002	18.54	219.1	0.0	1,458.0
50.00		0.00	1.12	7.207	12.17	184.74	1.030	0.000	5.00	17.607	18.14	220.9	0.0	1,425.5
55.00		0.00	1.15	7.406	12.51	183.02	1.030	0.000	5.00	17.212	17.73	221.9	0.0	1,393.0
60.00		0.00	1.18	7.592	12.83	181.00	1.030	0.000	5.00	16.817	17.32	222.2	0.0	1,360.6
65.00		0.00	1.21	7.768	13.12	178.73	1.030	0.000	5.00	16.422	16.91	222.0	0.0	1,328.1
70.00		0.00	1.24	7.934	13.40	176.23	1.030	0.000	5.00	16.026	16.51	221.3	0.0	1,295.6
75.00		0.00	1.26	8.092	13.67	173.54	1.030	0.000	5.00	15.631	16.10	220.2	0.0	1,263.1
80.00	Top - Section 2	0.00	1.28	8.242	13.93	170.66	1.030	0.000	5.00	15.236	15.69	218.6	0.0	1,230.6
85.00		0.00	1.31	8.387	14.17	167.62	1.030	0.000	5.00	14.841	15.29	216.7	0.0	962.0
90.00		0.00	1.33	8.525	14.40	164.43	1.030	0.000	5.00	14.446	14.88	214.4	0.0	936.0
95.00		0.00	1.35	8.657	14.63	161.11	1.030	0.000	5.00	14.050	14.47	211.7	0.0	910.0
96.00	Appertunance(s)	0.00	1.35	8.683	14.67	160.43	1.030	0.000	1.00	2.763	2.85	41.8	0.0	178.9
100.0		0.00	1.37	8.785	14.84	157.67	1.030	0.000	4.00	10.893	11.22	166.6	0.0	705.1
105.0		0.00	1.39	8.908	15.05	154.11	1.030	0.000	5.00	13.260	13.66	205.6	0.0	858.0
106.0	Appertunance(s)	0.00	1.39	8.933	15.09	153.38	1.030	0.000	1.00	2.605	2.68	40.5	0.0	168.5
110.0		0.00	1.41	9.028	15.25	150.44	1.030	0.000	4.00	10.260	10.57	161.2	0.0	663.6
115.0		0.00	1.42	9.143	15.45	146.67	1.030	0.000	5.00	12.470	12.84	198.5	0.0	806.1
116.0	Appertunance(s)	0.00	1.43	9.166	15.49	145.91	1.030	0.000	1.00	2.446	2.52	39.0	0.0	158.1
120.0	Top - Section 3	0.00	1.44	9.255	15.64	142.82	1.030	0.000	4.00	9.628	9.92	155.1	0.0	622.0
121.0	Appertunance(s)	0.00	1.45	9.277	15.67	142.03	1.030	0.000	1.00	2.367	2.44	38.2	0.0	134.1
123.0	Appertunance(s)	0.00	1.45	9.320	15.75	140.46	1.030	0.000	2.00	4.687	4.83	76.0	0.0	265.4
125.0		0.00	1.46	9.363	15.82	138.87	1.030	0.000	2.00	4.624	4.76	75.4	0.0	261.8
127.0	Appertunance(s)	0.00	1.47	9.406	15.89	137.27	1.030	0.000	2.00	4.561	4.70	74.7	0.0	258.2
130.0	Appertunance(s)	0.00	1.48	9.469	16.00	134.84	1.030	0.000	3.00	6.723	6.92	110.8	0.0	380.4
135.0		0.00	1.49	9.572	16.17	130.74	1.030	0.000	5.00	10.889	11.22	181.4	0.0	615.9
139.0	Top - Section 4	0.00	1.50	9.652	16.31	127.40	1.030	0.000	4.00	8.426	8.68	141.6	0.0	476.3
140.0		0.00	1.51	9.672	16.34	84.840	1.030	0.000	1.00	1.387	1.43	23.3	0.0	33.8
142.0	Appertunance(s)	0.00	1.51	9.711	16.41	83.407	1.030	0.000	2.00	2.735	2.82	46.2	0.0	66.6
145.0		0.00	1.52	9.769	16.51	81.242	1.030	0.000	3.00	4.004	4.12	68.1	0.0	97.6
150.0	Appertunance(s)	0.00	1.54	9.864	16.67	77.592	1.030	0.000	5.00	6.413	6.61	110.1	0.0	156.2
							Totals:		150.00			6,142.5	0.0	35,838.1

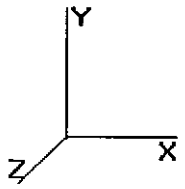


Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 21 Iterations

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

Discrete Appurtenance Segment Forces

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
96.00	Decibel	12	8.683	14.675	0.84	59.37	0.000	0.000	871.25	0.00	0.00	192.00
96.00	Flat Low Profile Pla	1	8.683	14.675	1.00	26.10	0.000	0.000	383.01	0.00	0.00	1,500.00
106.0	72" x 12" Panel	3	8.933	15.096	0.75	18.90	0.000	0.000	285.32	0.00	0.00	135.00
116.0	Andrew LNX-6514DS-	2	9.166	15.490	0.82	13.79	0.000	0.000	213.64	0.00	0.00	76.80
116.0	Antel LPA-171063-12C	6	9.166	15.490	1.00	36.30	0.000	0.000	562.29	0.00	0.00	69.00
116.0	Antel LPA-80063-6CF-	6	9.166	15.490	0.93	58.59	0.000	0.000	907.56	0.00	0.00	162.00
116.0	RFS APX75-866514-	1	9.166	15.490	0.74	7.22	0.000	0.000	111.87	0.00	0.00	30.80
116.0	Round Low Profile Pl	1	9.166	15.490	1.00	21.70	0.000	0.000	336.13	0.00	0.00	1,500.00
121.0	GPS	1	9.277	15.678	1.00	1.00	0.000	0.000	15.68	0.00	0.00	7.00
123.0	Allgon 7184	3	9.320	15.751	0.85	6.83	0.000	0.000	107.65	0.00	0.00	33.60
127.0	Allgon 7184	3	9.406	15.896	0.85	6.83	0.000	0.000	108.63	0.00	0.00	33.60
130.0	Allgon 7184	3	9.469	16.003	0.85	6.83	0.000	0.000	109.36	0.00	0.00	33.60
142.0	RFS APXV18-	3	9.711	16.411	0.80	12.05	0.000	0.000	197.72	0.00	0.00	66.00
150.0	Andrew	6	10.101	17.071	0.00	0.00	0.000	13.000	0.00	0.00	0.00	66.00
150.0	Concealment Canister	1	9.984	16.874	1.00	15.00	0.000	6.500	253.11	0.00	1,645.18	200.00
150.0	Ericsson RRUS 11	6	9.902	16.734	0.67	11.82	0.000	2.000	197.77	0.00	395.54	330.00
150.0	Flat Platform w/ Han	1	9.864	16.670	1.00	42.40	0.000	0.000	706.82	0.00	0.00	2,000.00
150.0	KMW AM-X-CD-16-65-	6	9.902	16.734	0.78	38.66	0.000	2.000	646.87	0.00	1,293.74	291.00
150.0	Powerwave 7770.00	3	9.902	16.734	0.75	13.23	0.000	2.000	221.39	0.00	442.77	105.00
150.0	Powerwave LGP21401	6	9.902	16.734	0.67	5.19	0.000	2.000	86.78	0.00	173.55	84.60
150.0	Raycap DC6-48-60-18-	1	9.902	16.734	1.00	1.26	0.000	2.000	21.08	0.00	42.17	20.00
150.0	RFS APX16DWV-	3	10.101	17.071	0.00	0.00	0.000	13.000	0.00	0.00	0.00	118.80
									6,343.93			7,054.80



Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 21 Iterations

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

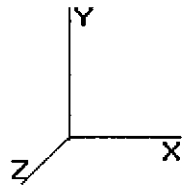
Linear Appurtenance Segment Forces

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Weight (lb/ft)	CaAa (sf/ft)	qz (psf)	FX (lb)	Dead Load (lb)
5.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	6.400	0.00	0.35
5.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	6.400	0.00	5.90
5.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	6.400	18.93	37.90
5.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	6.400	10.82	24.60
5.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	6.400	10.82	12.30
5.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	6.400	0.00	1.65
5.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	6.400	21.63	49.20
5.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	6.400	10.82	24.60
10.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	6.400	0.00	0.35
10.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	6.400	0.00	5.90
10.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	6.400	18.93	37.90
10.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	6.400	10.82	24.60
10.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	6.400	10.82	12.30
10.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	6.400	0.00	1.65
10.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	6.400	21.63	49.20
10.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	6.400	10.82	24.60
15.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	6.400	0.00	0.35
15.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	6.400	0.00	5.90
15.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	6.400	18.93	37.90
15.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	6.400	10.82	24.60
15.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	6.400	10.82	12.30
15.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	6.400	0.00	1.65
15.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	6.400	21.63	49.20
15.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	6.400	10.82	24.60
20.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	6.400	0.00	0.35
20.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	6.400	0.00	5.90
20.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	6.400	18.93	37.90
20.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	6.400	10.82	24.60
20.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	6.400	10.82	12.30
20.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	6.400	0.00	1.65
20.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	6.400	21.63	49.20
20.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	6.400	10.82	24.60
25.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	6.400	0.00	0.35
25.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	6.400	0.00	5.90
25.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	6.400	18.93	37.90
25.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	6.400	10.82	24.60
25.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	6.400	10.82	12.30
25.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	6.400	0.00	1.65
25.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	6.400	21.63	49.20
25.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	6.400	10.82	24.60
30.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	6.400	0.00	0.35
30.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	6.400	0.00	5.90
30.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	6.400	18.93	37.90
30.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	6.400	10.82	24.60
30.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	6.400	10.82	12.30
30.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	6.400	0.00	1.65
30.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	6.400	21.63	49.20
30.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	6.400	10.82	24.60
35.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	6.509	0.00	0.35
35.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	6.509	0.00	5.90
35.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	6.509	19.25	37.90

Pole : 302483
Location : Brln - Berlin, CT
Height : 150.0 (ft)
Base Dia : 51.30 (in)
Top Dia : 15.00 (in)
Shape : 12 Sides
Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

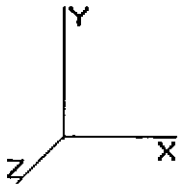
Base Elev : 0.000 (ft)



Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 21 Iterations

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

35.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	6.509	11.00	24.60
35.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	6.509	11.00	12.30
35.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	6.509	0.00	1.65
35.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	6.509	22.00	49.20
35.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	6.509	11.00	24.60
40.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	6.762	0.00	0.35
40.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	6.762	0.00	5.90
40.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	6.762	20.00	37.90
40.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	6.762	11.43	24.60
40.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	6.762	11.43	12.30
40.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	6.762	0.00	1.65
40.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	6.762	22.85	49.20
40.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	6.762	11.43	24.60
45.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	6.993	0.00	0.35
45.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	6.993	0.00	5.90
45.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	6.993	20.68	37.90
45.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	6.993	11.82	24.60
45.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	6.993	11.82	12.30
45.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	6.993	0.00	1.65
45.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	6.993	23.64	49.20
45.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	6.993	11.82	24.60
50.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	7.207	0.00	0.35
50.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	7.207	0.00	5.90
50.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	7.207	21.31	37.90
50.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	7.207	12.18	24.60
50.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	7.207	12.18	12.30
50.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	7.207	0.00	1.65
50.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	7.207	24.36	49.20
50.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	7.207	12.18	24.60
55.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	7.406	0.00	0.35
55.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	7.406	0.00	5.90
55.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	7.406	21.90	37.90
55.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	7.406	12.52	24.60
55.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	7.406	12.52	12.30
55.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	7.406	0.00	1.65
55.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	7.406	25.03	49.20
55.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	7.406	12.52	24.60
60.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	7.592	0.00	0.35
60.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	7.592	0.00	5.90
60.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	7.592	22.45	37.90
60.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	7.592	12.83	24.60
60.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	7.592	12.83	12.30
60.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	7.592	0.00	1.65
60.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	7.592	25.66	49.20
60.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	7.592	12.83	24.60
65.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	7.768	0.00	0.35
65.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	7.768	0.00	5.90
65.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	7.768	22.97	37.90
65.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	7.768	13.13	24.60
65.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	7.768	13.13	12.30
65.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	7.768	0.00	1.65
65.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	7.768	26.25	49.20
65.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	7.768	13.13	24.60
70.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	7.934	0.00	0.35
70.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	7.934	0.00	5.90
70.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	7.934	23.46	37.90
70.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	7.934	13.41	24.60



Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 21 Iterations

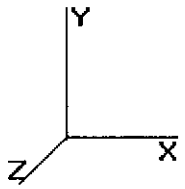
Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

70.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	7.934	13.41	12.30
70.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	7.934	0.00	1.65
70.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	7.934	26.82	49.20
70.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	7.934	13.41	24.60
75.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	8.092	0.00	0.35
75.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	8.092	0.00	5.90
75.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	8.092	23.93	37.90
75.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	8.092	13.68	24.60
75.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	8.092	13.68	12.30
75.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	8.092	0.00	1.65
75.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	8.092	27.35	49.20
75.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	8.092	13.68	24.60
80.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	8.242	0.00	0.35
80.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	8.242	0.00	5.90
80.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	8.242	24.38	37.90
80.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	8.242	13.93	24.60
80.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	8.242	13.93	12.30
80.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	8.242	0.00	1.65
80.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	8.242	27.86	49.20
80.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	8.242	13.93	24.60
85.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	8.387	0.00	0.35
85.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	8.387	0.00	5.90
85.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	8.387	24.80	37.90
85.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	8.387	14.17	24.60
85.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	8.387	14.17	12.30
85.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	8.387	0.00	1.65
85.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	8.387	28.35	49.20
85.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	8.387	14.17	24.60
90.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	8.525	0.00	0.35
90.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	8.525	0.00	5.90
90.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	8.525	25.21	37.90
90.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	8.525	14.41	24.60
90.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	8.525	14.41	12.30
90.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	8.525	0.00	1.65
90.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	8.525	28.81	49.20
90.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	8.525	14.41	24.60
95.00	(1) 10 mm Cable	Yes	5.00	0.07	0.00	8.657	0.00	0.35
95.00	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	8.657	0.00	5.90
95.00	(1) 3" Conduit	Yes	5.00	7.58	0.35	8.657	25.60	37.90
95.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	8.657	14.63	24.60
95.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	8.657	14.63	12.30
95.00	(1) 7/8" Coax	Yes	5.00	0.33	0.00	8.657	0.00	1.65
95.00	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	8.657	29.26	49.20
95.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	8.657	14.63	24.60
96.00	(1) 10 mm Cable	Yes	1.00	0.07	0.00	8.683	0.00	0.07
96.00	(2) 19.7 mm Cable	Yes	1.00	1.18	0.00	8.683	0.00	1.18
96.00	(1) 3" Conduit	Yes	1.00	7.58	0.35	8.683	5.14	7.58
96.00	(6) 1 5/8" Coax	Yes	1.00	4.92	0.20	8.683	2.93	4.92
96.00	(3) 1 5/8" Coax	Yes	1.00	2.46	0.20	8.683	2.93	2.46
96.00	(1) 7/8" Coax	Yes	1.00	0.33	0.00	8.683	0.00	0.33
96.00	(18) 1 5/8" Coax	Yes	1.00	9.84	0.40	8.683	5.87	9.84
96.00	(6) 1 5/8" Coax	Yes	1.00	4.92	0.20	8.683	2.93	4.92
100.0	(1) 10 mm Cable	Yes	4.00	0.07	0.00	8.785	0.00	0.28
100.0	(2) 19.7 mm Cable	Yes	4.00	1.18	0.00	8.785	0.00	4.72
100.0	(1) 3" Conduit	Yes	4.00	7.58	0.35	8.785	20.79	30.32
100.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.20	8.785	11.88	19.68
100.0	(3) 1 5/8" Coax	Yes	4.00	2.46	0.20	8.785	11.88	9.84

Pole : 302483
Location : Brln - Berlin, CT
Height : 150.0 (ft)
Base Dia : 51.30 (in)
Top Dia : 15.00 (in)
Shape : 12 Sides
Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

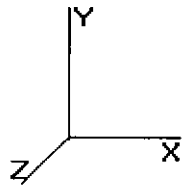


Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 21 Iterations

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

100.0	(1) 7/8" Coax	Yes	4.00	0.33	0.00	8.785	0.00	1.32
100.0	(18) 1 5/8" Coax	Yes	4.00	9.84	0.40	8.785	23.75	39.36
105.0	(1) 10 mm Cable	Yes	5.00	0.07	0.00	8.908	0.00	0.35
105.0	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	8.908	0.00	5.90
105.0	(1) 3" Conduit	Yes	5.00	7.58	0.35	8.908	26.35	37.90
105.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	8.908	15.06	24.60
105.0	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	8.908	15.06	12.30
105.0	(1) 7/8" Coax	Yes	5.00	0.33	0.00	8.908	0.00	1.65
105.0	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	8.908	30.11	49.20
106.0	(1) 10 mm Cable	Yes	1.00	0.07	0.00	8.933	0.00	0.07
106.0	(2) 19.7 mm Cable	Yes	1.00	1.18	0.00	8.933	0.00	1.18
106.0	(1) 3" Conduit	Yes	1.00	7.58	0.35	8.933	5.28	7.58
106.0	(6) 1 5/8" Coax	Yes	1.00	4.92	0.20	8.933	3.02	4.92
106.0	(3) 1 5/8" Coax	Yes	1.00	2.46	0.20	8.933	3.02	2.46
106.0	(1) 7/8" Coax	Yes	1.00	0.33	0.00	8.933	0.00	0.33
106.0	(18) 1 5/8" Coax	Yes	1.00	9.84	0.40	8.933	6.04	9.84
110.0	(1) 10 mm Cable	Yes	4.00	0.07	0.00	9.028	0.00	0.28
110.0	(2) 19.7 mm Cable	Yes	4.00	1.18	0.00	9.028	0.00	4.72
110.0	(1) 3" Conduit	Yes	4.00	7.58	0.35	9.028	21.36	30.32
110.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.20	9.028	12.21	19.68
110.0	(3) 1 5/8" Coax	Yes	4.00	2.46	0.20	9.028	12.21	9.84
110.0	(1) 7/8" Coax	Yes	4.00	0.33	0.00	9.028	0.00	1.32
110.0	(18) 1 5/8" Coax	Yes	4.00	9.84	0.40	9.028	24.41	39.36
115.0	(1) 10 mm Cable	Yes	5.00	0.07	0.00	9.143	0.00	0.35
115.0	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	9.143	0.00	5.90
115.0	(1) 3" Conduit	Yes	5.00	7.58	0.35	9.143	27.04	37.90
115.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	9.143	15.45	24.60
115.0	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	9.143	15.45	12.30
115.0	(1) 7/8" Coax	Yes	5.00	0.33	0.00	9.143	0.00	1.65
115.0	(18) 1 5/8" Coax	Yes	5.00	9.84	0.40	9.143	30.90	49.20
116.0	(1) 10 mm Cable	Yes	1.00	0.07	0.00	9.166	0.00	0.07
116.0	(2) 19.7 mm Cable	Yes	1.00	1.18	0.00	9.166	0.00	1.18
116.0	(1) 3" Conduit	Yes	1.00	7.58	0.35	9.166	5.42	7.58
116.0	(6) 1 5/8" Coax	Yes	1.00	4.92	0.20	9.166	3.10	4.92
116.0	(3) 1 5/8" Coax	Yes	1.00	2.46	0.20	9.166	3.10	2.46
116.0	(1) 7/8" Coax	Yes	1.00	0.33	0.00	9.166	0.00	0.33
116.0	(18) 1 5/8" Coax	Yes	1.00	9.84	0.40	9.166	6.20	9.84
120.0	(1) 10 mm Cable	Yes	4.00	0.07	0.00	9.255	0.00	0.28
120.0	(2) 19.7 mm Cable	Yes	4.00	1.18	0.00	9.255	0.00	4.72
120.0	(1) 3" Conduit	Yes	4.00	7.58	0.35	9.255	21.90	30.32
120.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.20	9.255	12.51	19.68
120.0	(3) 1 5/8" Coax	Yes	4.00	2.46	0.20	9.255	12.51	9.84
120.0	(1) 7/8" Coax	Yes	4.00	0.33	0.00	9.255	0.00	1.32
121.0	(1) 10 mm Cable	Yes	1.00	0.07	0.00	9.277	0.00	0.07
121.0	(2) 19.7 mm Cable	Yes	1.00	1.18	0.00	9.277	0.00	1.18
121.0	(1) 3" Conduit	Yes	1.00	7.58	0.35	9.277	5.49	7.58
121.0	(6) 1 5/8" Coax	Yes	1.00	4.92	0.20	9.277	3.14	4.92
121.0	(3) 1 5/8" Coax	Yes	1.00	2.46	0.20	9.277	3.14	2.46
121.0	(1) 7/8" Coax	Yes	1.00	0.33	0.00	9.277	0.00	0.33
123.0	(1) 10 mm Cable	Yes	2.00	0.07	0.00	9.320	0.00	0.14
123.0	(2) 19.7 mm Cable	Yes	2.00	1.18	0.00	9.320	0.00	2.36
123.0	(1) 3" Conduit	Yes	2.00	7.58	0.35	9.320	11.03	15.16
123.0	(6) 1 5/8" Coax	Yes	2.00	4.92	0.20	9.320	6.30	9.84
123.0	(3) 1 5/8" Coax	Yes	2.00	2.46	0.20	9.320	6.30	4.92
125.0	(1) 10 mm Cable	Yes	2.00	0.07	0.00	9.363	0.00	0.14
125.0	(2) 19.7 mm Cable	Yes	2.00	1.18	0.00	9.363	0.00	2.36
125.0	(1) 3" Conduit	Yes	2.00	7.58	0.35	9.363	11.08	15.16

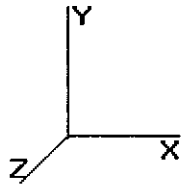
Pole :	302483	Code: TIA/EIA-222 Rev F	9/13/2012 12:36:37 PM
Location :	Brln - Berlin, CT		Page: 30
Height :	150.0 (ft)		
Base Dia :	51.30 (in)		
Top Dia :	15.00 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.189701 (in/ft)		



Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 21 Iterations

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

125.0	(6) 1 5/8" Coax	Yes	2.00	4.92	0.20	9.363		6.33	9.84
127.0	(1) 10 mm Cable	Yes	2.00	0.07	0.00	9.406		0.00	0.14
127.0	(2) 19.7 mm Cable	Yes	2.00	1.18	0.00	9.406		0.00	2.36
127.0	(1) 3" Conduit	Yes	2.00	7.58	0.35	9.406		11.13	15.16
127.0	(6) 1 5/8" Coax	Yes	2.00	4.92	0.20	9.406		6.36	9.84
130.0	(1) 10 mm Cable	Yes	3.00	0.07	0.00	9.469		0.00	0.21
130.0	(2) 19.7 mm Cable	Yes	3.00	1.18	0.00	9.469		0.00	3.54
130.0	(1) 3" Conduit	Yes	3.00	7.58	0.35	9.469		16.80	22.74
130.0	(6) 1 5/8" Coax	Yes	3.00	4.92	0.20	9.469		9.60	14.76
135.0	(1) 10 mm Cable	Yes	5.00	0.07	0.00	9.572		0.00	0.35
135.0	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	9.572		0.00	5.90
135.0	(1) 3" Conduit	Yes	5.00	7.58	0.35	9.572		28.31	37.90
135.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	9.572		16.18	24.60
139.0	(1) 10 mm Cable	Yes	4.00	0.07	0.00	9.652		0.00	0.28
139.0	(2) 19.7 mm Cable	Yes	4.00	1.18	0.00	9.652		0.00	4.72
139.0	(1) 3" Conduit	Yes	4.00	7.58	0.35	9.652		22.84	30.32
139.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.20	9.652		13.05	19.68
140.0	(1) 10 mm Cable	Yes	1.00	0.07	0.00	9.672		0.00	0.07
140.0	(2) 19.7 mm Cable	Yes	1.00	1.18	0.00	9.672		0.00	1.18
140.0	(1) 3" Conduit	Yes	1.00	7.58	0.35	9.672		5.72	7.58
140.0	(6) 1 5/8" Coax	Yes	1.00	4.92	0.20	9.672		3.27	4.92
142.0	(1) 10 mm Cable	Yes	2.00	0.07	0.00	9.711		0.00	0.14
142.0	(2) 19.7 mm Cable	Yes	2.00	1.18	0.00	9.711		0.00	2.36
142.0	(1) 3" Conduit	Yes	2.00	7.58	0.35	9.711		11.49	15.16
142.0	(6) 1 5/8" Coax	Yes	2.00	4.92	0.20	9.711		6.56	9.84
145.0	(1) 10 mm Cable	Yes	3.00	0.07	0.00	9.769		0.00	0.21
145.0	(2) 19.7 mm Cable	Yes	3.00	1.18	0.00	9.769		0.00	3.54
145.0	(1) 3" Conduit	Yes	3.00	7.58	0.35	9.769		17.34	22.74
150.0	(1) 10 mm Cable	Yes	5.00	0.07	0.00	9.864		0.00	0.35
150.0	(2) 19.7 mm Cable	Yes	5.00	1.18	0.00	9.864		0.00	5.90
150.0	(1) 3" Conduit	Yes	5.00	7.58	0.35	9.864		29.17	37.90
							Totals:	2,246.02	3,979.41



Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 21 Iterations

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

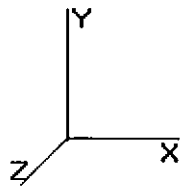
Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	308.93	2,378.94	0.00	0.00
10.00	304.53	2,339.96	0.00	0.00
15.00	300.13	2,300.99	0.00	0.00
20.00	295.73	2,262.02	0.00	0.00
25.00	291.32	2,223.04	0.00	0.00
30.00	286.92	2,184.07	0.00	0.00
35.00	287.31	2,145.10	0.00	0.00
40.00	293.83	2,106.13	0.00	0.00
45.00	298.91	1,779.38	0.00	0.00
50.00	303.09	1,746.91	0.00	0.00
55.00	306.36	1,714.43	0.00	0.00
60.00	308.85	1,681.95	0.00	0.00
65.00	310.65	1,649.48	0.00	0.00
70.00	311.84	1,617.00	0.00	0.00
75.00	312.48	1,584.52	0.00	0.00
80.00	312.63	1,552.04	0.00	0.00
85.00	312.32	1,283.36	0.00	0.00
90.00	311.60	1,257.38	0.00	0.00
95.00	310.49	1,231.40	0.00	0.00
96.00	1,315.83	1,935.16	0.00	0.00
100.0	234.87	913.06	0.00	0.00
105.0	292.19	1,117.94	0.00	0.00
106.0	343.17	355.47	0.00	0.00
110.0	231.41	858.37	0.00	0.00
115.0	287.30	1,049.57	0.00	0.00
116.0	2,188.34	2,045.40	0.00	0.00
120.0	202.03	777.43	0.00	0.00
121.0	65.67	179.95	0.00	0.00
123.0	207.32	376.11	0.00	0.00
125.0	92.78	333.95	0.00	0.00
127.0	200.80	363.91	0.00	0.00
130.0	246.58	514.87	0.00	0.00
135.0	225.90	771.62	0.00	0.00
139.0	177.46	600.93	0.00	0.00
140.0	32.34	64.95	0.00	0.00
142.0	262.00	194.94	0.00	0.00
145.0	85.42	176.25	0.00	0.00
150.0	2,273.10	3,502.72	0.00	3,992.95
Totals:	14,732.43	51,170.70	0.00	3,992.95

Pole : 302483
Location : Brln - Berlin, CT
Height : 150.0 (ft)
Base Dia : 51.30 (in)
Top Dia : 15.00 (in)
Shape : 12 Sides
Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



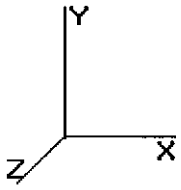
Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 21 Iterations

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

Calculated Shaft Forces and Deflections

Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-14.754	-51.164	0.000	0.000	0.000	-1,431.749	0.000	0.000	0.000	0.000
5.00	-14.487	-48.773	0.000	0.000	0.000	-1,357.979	-0.027	0.000	0.027	-0.050
10.00	-14.220	-46.421	0.000	0.000	0.000	-1,285.546	-0.106	0.000	0.106	-0.100
15.00	-13.953	-44.108	0.000	0.000	0.000	-1,214.449	-0.237	0.000	0.237	-0.150
20.00	-13.687	-41.835	0.000	0.000	0.000	-1,144.684	-0.421	0.000	0.421	-0.200
25.00	-13.422	-39.602	0.000	0.000	0.000	-1,076.249	-0.658	0.000	0.658	-0.250
30.00	-13.157	-37.407	0.000	0.000	0.000	-1,009.142	-0.947	0.000	0.947	-0.300
35.00	-12.888	-35.253	0.000	0.000	0.000	-943.358	-1.288	0.000	1.288	-0.350
40.00	-12.609	-33.138	0.000	0.000	0.000	-878.919	-1.682	0.000	1.682	-0.400
45.00	-12.326	-31.349	0.000	0.000	0.000	-815.874	-2.127	0.000	2.127	-0.449
50.00	-12.039	-29.593	0.000	0.000	0.000	-754.243	-2.629	0.000	2.629	-0.507
55.00	-11.744	-27.869	0.000	0.000	0.000	-694.050	-3.191	0.000	3.191	-0.565
60.00	-11.443	-26.180	0.000	0.000	0.000	-635.331	-3.814	0.000	3.814	-0.622
65.00	-11.138	-24.523	0.000	0.000	0.000	-578.115	-4.494	0.000	4.494	-0.677
70.00	-10.827	-22.900	0.000	0.000	0.000	-522.428	-5.233	0.000	5.233	-0.731
75.00	-10.513	-21.310	0.000	0.000	0.000	-468.292	-6.027	0.000	6.027	-0.784
80.00	-10.196	-19.754	0.000	0.000	0.000	-415.728	-6.876	0.000	6.876	-0.834
85.00	-9.881	-18.466	0.000	0.000	0.000	-364.750	-7.776	0.000	7.776	-0.883
90.00	-9.566	-17.205	0.000	0.000	0.000	-315.346	-8.732	0.000	8.732	-0.940
95.00	-9.243	-15.974	0.000	0.000	0.000	-267.516	-9.745	0.000	9.745	-0.992
96.00	-7.900	-14.059	0.000	0.000	0.000	-258.273	-9.954	0.000	9.954	-1.003
100.0	-7.659	-13.144	0.000	0.000	0.000	-226.673	-10.811	0.000	10.811	-1.042
105.0	-7.351	-12.029	0.000	0.000	0.000	-188.380	-11.926	0.000	11.926	-1.086
106.0	-7.006	-11.677	0.000	0.000	0.000	-181.029	-12.155	0.000	12.155	-1.095
110.0	-6.764	-10.819	0.000	0.000	0.000	-153.006	-13.086	0.000	13.086	-1.127
115.0	-6.459	-9.774	0.000	0.000	0.000	-119.186	-14.286	0.000	14.286	-1.162
116.0	-4.232	-7.772	0.000	0.000	0.000	-112.727	-14.530	0.000	14.530	-1.169
120.0	-4.016	-6.998	0.000	0.000	0.000	-95.799	-15.520	0.000	15.520	-1.193
121.0	-3.948	-6.819	0.000	0.000	0.000	-91.783	-15.771	0.000	15.771	-1.199
123.0	-3.734	-6.446	0.000	0.000	0.000	-83.888	-16.276	0.000	16.276	-1.212
125.0	-3.635	-6.114	0.000	0.000	0.000	-76.421	-16.786	0.000	16.786	-1.224
127.0	-3.428	-5.753	0.000	0.000	0.000	-69.150	-17.301	0.000	17.301	-1.236
130.0	-3.172	-5.243	0.000	0.000	0.000	-58.866	-18.083	0.000	18.083	-1.252
135.0	-2.931	-4.475	0.000	0.000	0.000	-43.005	-19.406	0.000	19.406	-1.274
139.0	-2.741	-3.878	0.000	0.000	0.000	-31.281	-20.480	0.000	20.480	-1.289
140.0	-2.709	-3.813	0.000	0.000	0.000	-28.541	-20.751	0.000	20.751	-1.292
142.0	-2.445	-3.622	0.000	0.000	0.000	-23.123	-21.302	0.000	21.302	-1.335
145.0	-2.359	-3.445	0.000	0.000	0.000	-15.788	-22.158	0.000	22.158	-1.387
150.0	-2.273	0.000	0.000	0.000	0.000	-3.993	-23.642	0.000	23.642	-1.435

Pole :	302483	Code: TIA/EIA-222 Rev F	9/13/2012 12:36:37 PM
Location :	Brln - Berlin, CT		Page: 33
Height :	150.0 (ft)		
Base Dia :	51.30 (in)		
Top Dia :	15.00 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.189701 (in/ft)		



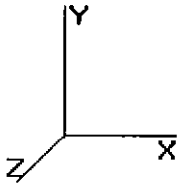
Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 21 Iterations

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

Calculated Stresses

Seg Elev (ft)	Applied Stresses Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)	Allowable Stress (Fb) (ksi)		Stress Ratio
0.00	0.42	0.25	0.00	0.00	0.00	11.46	11.89	33.4	0.0	0.355
5.00	0.41	0.25	0.00	0.00	0.00	11.29	11.71	33.4	0.0	0.350
10.00	0.40	0.25	0.00	0.00	0.00	11.11	11.52	33.4	0.0	0.344
15.00	0.38	0.25	0.00	0.00	0.00	10.92	11.31	33.4	0.0	0.338
20.00	0.37	0.25	0.00	0.00	0.00	10.72	11.10	33.4	0.0	0.332
25.00	0.36	0.25	0.00	0.00	0.00	10.51	10.87	33.4	0.0	0.325
30.00	0.35	0.25	0.00	0.00	0.00	10.27	10.63	33.4	0.0	0.318
35.00	0.33	0.25	0.00	0.00	0.00	10.03	10.37	33.4	0.0	0.310
40.00	0.32	0.25	0.00	0.00	0.00	9.76	10.09	33.4	0.0	0.302
40.00	0.38	0.30	0.00	0.00	0.00	11.63	12.03	31.4	0.0	0.383
45.00	0.37	0.30	0.00	0.00	0.00	11.29	11.67	31.4	0.0	0.372
50.00	0.36	0.30	0.00	0.00	0.00	10.93	11.30	31.4	0.0	0.360
55.00	0.34	0.29	0.00	0.00	0.00	10.54	10.90	31.4	0.0	0.348
60.00	0.33	0.29	0.00	0.00	0.00	10.13	10.47	31.4	0.0	0.334
65.00	0.32	0.29	0.00	0.00	0.00	9.68	10.01	31.4	0.0	0.319
70.00	0.30	0.29	0.00	0.00	0.00	9.20	9.52	31.4	0.0	0.304
75.00	0.29	0.29	0.00	0.00	0.00	8.69	8.99	31.4	0.0	0.287
80.00	0.28	0.29	0.00	0.00	0.00	8.13	8.42	31.4	0.0	0.269
80.00	0.34	0.36	0.00	0.00	0.00	10.06	10.42	28.7	0.0	0.363
85.00	0.33	0.36	0.00	0.00	0.00	9.32	9.67	28.7	0.0	0.337
90.00	0.32	0.36	0.00	0.00	0.00	8.52	8.86	28.7	0.0	0.308
95.00	0.30	0.36	0.00	0.00	0.00	7.66	7.98	28.7	0.0	0.278
96.00	0.27	0.31	0.00	0.00	0.00	7.48	7.76	28.7	0.0	0.270
100.00	0.26	0.30	0.00	0.00	0.00	6.88	7.16	28.7	0.0	0.249
105.00	0.24	0.30	0.00	0.00	0.00	6.08	6.34	28.7	0.0	0.221
106.00	0.24	0.29	0.00	0.00	0.00	5.92	6.17	28.7	0.0	0.215
110.00	0.22	0.29	0.00	0.00	0.00	5.26	5.51	28.7	0.0	0.192
115.00	0.21	0.28	0.00	0.00	0.00	4.37	4.61	28.7	0.0	0.160
116.00	0.17	0.19	0.00	0.00	0.00	4.19	4.37	28.7	0.0	0.152
120.00	0.16	0.18	0.00	0.00	0.00	3.76	3.93	28.7	0.0	0.137
120.00	0.18	0.21	0.00	0.00	0.00	4.27	4.46	38.1	0.0	0.117
121.00	0.17	0.20	0.00	0.00	0.00	4.14	4.33	38.1	0.0	0.114
123.00	0.17	0.20	0.00	0.00	0.00	3.89	4.07	38.1	0.0	0.107
125.00	0.16	0.19	0.00	0.00	0.00	3.65	3.82	38.1	0.0	0.100
127.00	0.15	0.18	0.00	0.00	0.00	3.40	3.56	38.1	0.0	0.094
130.00	0.14	0.17	0.00	0.00	0.00	3.02	3.18	38.1	0.0	0.083
135.00	0.13	0.17	0.00	0.00	0.00	2.38	2.52	38.1	0.0	0.066
139.00	0.11	0.16	0.00	0.00	0.00	1.84	1.97	38.1	0.0	0.052
139.00	0.39	0.56	0.00	0.00	0.00	9.33	9.77	52.0	0.0	0.188
140.00	0.39	0.56	0.00	0.00	0.00	8.68	9.11	52.0	0.0	0.175
142.00	0.37	0.51	0.00	0.00	0.00	7.31	7.73	52.0	0.0	0.149
145.00	0.37	0.51	0.00	0.00	0.00	5.30	5.73	52.0	0.0	0.110
150.00	0.00	0.52	0.00	0.00	0.00	1.49	1.73	52.0	0.0	0.033

Pole :	302483	Code: TIA/EIA-222 Rev F	9/13/2012 12:36:38 PM
Location :	Brln - Berlin, CT		Page: 34
Height :	150.0 (ft)		
Base Dia :	51.30 (in)		
Top Dia :	15.00 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.189701 (in/ft)		



Analysis Summary

	Reactions						Max Stresses			
Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Combined Stress (ksi)	Allowable Stress (ksi)	Elev (ft)	Stress Ratio
No Ice	37.8	0.00	51.13	0.00	0.00	3664.00	30.17	31.4	40.00	0.962
Ice	31.3	0.00	59.98	0.00	0.00	3083.96	25.69	31.4	40.00	0.819
Twist/Sway	14.8	0.00	51.16	0.00	0.00	1431.75	12.03	31.4	40.00	0.383

Base/Flange Plate	Plate Type	***Baseplate***	
	Pole Diameter	37.38	in
	Pole Thickness		in
	Plate Length	62	in
	Plate Thickness	2	in
	Plate Fy	60	ksi
	Weld Length	0.25	in
	Allowable	664.01	k-in
	Applied	450.27	k-in
Stiffeners	#	***0***	

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	#18J	
	Fy	75	ksi
	Fu	100	ksi
	Allowable	194.86	k
	Applied	120.23	k
Reinforcement ●	#	***0***	
Extra Bolts O	#	***12***	
	Bolt Circle	55.5	in
	(R)adial / (S)quare	S	
	Bolt Gap	6	in
	Offset Angle	30	°
	Diameter	1.75	in
	Type	R71	
	Fu	390	ksi
	Allowable	412.75	k
	Applied	107.09	k

Code Rev.	***F***	**Date**	9/13/2012
A.S.I.	1.33	**Engineer**	EM
		Site #	302483
Moment *	2379.7 k-ft	**Carrier**	Verizon
Axial *	33.2 k		

* Factored by 0.65, see attached calcs

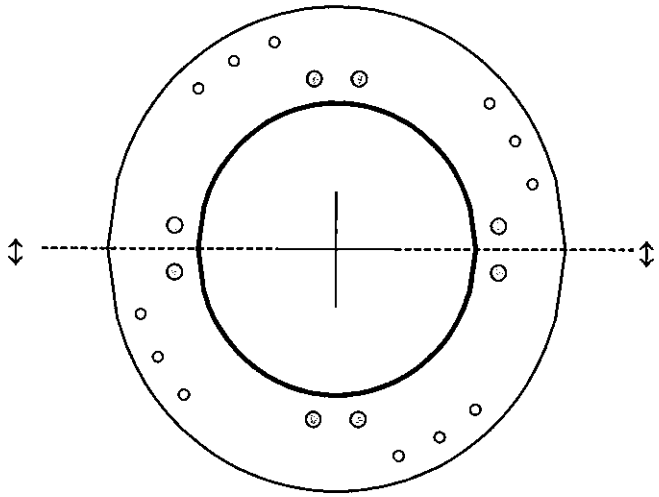


Plate Stress Ratio:
0.68 (Pass)

Bolt Stress Ratio:
0.62 (Pass)

Extra Bolt Stress Ratio:
0.26 (Pass)

Quick Calculation of Face Width, Area, Moment of Inertia & Radius of Gyration

# of Sides: 12 E_M: 29000 ksi

Original Tower

Elevation	Diameter	Thickness	F_y	Area	Inertia	S_{min}	F_{cr}	$M_{Capacity}$	θ
(ft)	(in)	(in)	(ksi)	(in^2)	(in^4)	(in^3)	(ksi)	(k-in)	(radians)
0	37.38	0.375	65	44.6	7821.2	404.2	65.0	26274	0.000116
5	36.60	0.375	65	43.7	7339.9	387.4	65.0	25179	0.000118
10	35.83	0.375	65	42.8	6878.8	370.9	65.0	24108	0.000121
15	35.05	0.375	65	41.8	6437.5	354.8	65.0	23060	0.000124
20	34.28	0.375	65	40.9	6015.4	339.0	65.0	22035	0.000126
25	33.50	0.375	65	39.9	5612.2	323.6	65.0	21034	0.000129
30	32.73	0.375	65	39.0	5227.4	308.6	65.0	20056	0.000132
35	31.95	0.375	65	38.1	4860.7	293.9	65.0	19101	0.000136
40	31.77	0.3125	65	31.6	4005.6	243.5	65.0	15830	0.000136
45	30.99	0.3125	65	30.8	3715.1	231.6	65.0	15051	0.000140
50	30.21	0.3125	65	30.0	3439.0	219.9	65.0	14292	0.000143
55	29.44	0.3125	65	29.3	3176.9	208.5	65.0	13553	0.000147
60	28.66	0.3125	65	28.5	2928.5	197.4	65.0	12833	0.000151
65	27.88	0.3125	65	27.7	2693.4	186.7	65.0	12133	0.000155
70	27.10	0.3125	65	26.9	2471.3	176.2	65.0	11453	0.000160
75	26.82	0.25	65	21.4	1929.0	139.0	65.0	9033	0.000161
80	26.02	0.25	65	20.7	1760.9	130.7	65.0	8498	0.000166
85	25.23	0.25	65	20.1	1602.9	122.8	65.0	7979	0.000172
90	24.43	0.25	65	19.4	1454.7	115.0	65.0	7477	0.000177
95	23.64	0.25	65	18.8	1315.9	107.6	65.0	6991	0.000183
100	22.84	0.25	65	18.2	1186.2	100.3	65.0	6522	0.000190
105	22.05	0.25	65	17.5	1065.3	93.4	65.0	6068	0.000196
110	21.25	0.1875	65	12.7	721.1	65.6	64.5	4227	0.000202
115	20.47	0.1875	65	12.2	643.8	60.8	65.0	3949	0.000212
120	19.69	0.1875	65	11.8	572.2	56.1	65.0	3650	0.000220
125	18.91	0.1875	65	11.3	506.2	51.7	65.0	3362	0.000229
130	18.13	0.1875	65	10.8	445.4	47.5	65.0	3086	0.000239
135	17.34	0.1875	65	10.3	389.7	43.4	65.0	2821	0.000250
139	16.72	0.1875	65	10.0	348.6	40.3	65.0	2619	0.000259
140	16.56	0.1875	65	9.9	338.9	39.5	65.0	2569	0.000261
145	15.78	0.1875	65	9.4	292.6	35.8	65.0	2329	0.000274
150	15.00	0.1875	65	8.9	250.8	32.3	65.0	2100	0.000289

Sleeve

Elevation	Diameter	Thickness	F_y	Area	Inertia	S_{min}	F_{cr}	$M_{Capacity}$	θ
(ft)	(in)	(in)	(ksi)	(in^2)	(in^4)	(in^3)	(ksi)	(k-in)	(radians)
0	51.30	0.375	65	61.4	20382.8	767.6	58.3	44764	0.000076
5	50.55	0.375	65	60.5	19495.4	745.0	58.8	43842	0.000078
10	49.80	0.375	65	59.6	18634.2	722.9	59.4	42916	0.000079
15	49.05	0.375	65	58.7	17798.8	701.0	59.9	41987	0.000081
20	48.30	0.375	65	57.8	16988.7	679.5	60.4	41055	0.000083
25	47.55	0.375	65	56.9	16203.5	658.3	60.9	40121	0.000085
30	46.80	0.375	65	56.0	15443.0	637.5	61.5	39186	0.000087
35	46.05	0.375	65	55.1	14706.6	617.0	62.0	38249	0.000090
40	45.50	0.3125	65	45.4	11867.0	503.9	56.0	28220	0.000082
45	44.75	0.3125	65	44.7	11285.9	487.2	56.6	27595	0.000084
50	44.00	0.3125	65	43.9	10724.0	470.8	57.3	26965	0.000087
55	43.25	0.3125	65	43.1	10181.2	454.8	57.9	26330	0.000089
60	42.50	0.3125	65	42.4	9657.0	439.0	58.5	25692	0.000092
65	41.75	0.3125	65	41.6	9151.0	423.4	59.2	25050	0.000094
70	41.00	0.3125	65	40.9	8663.1	408.2	59.8	24406	0.000097
75	40.25	0.3125	65	40.1	8192.8	393.2	60.4	23759	0.000100
80	39.70	0.25	65	31.7	6317.0	307.4	52.5	16151	0.000088
85	38.94	0.25	65	31.1	5957.8	295.6	53.3	15767	0.000091
90	38.18	0.25	65	30.5	5612.4	284.0	54.1	15378	0.000094
95	37.41	0.25	65	29.9	5280.7	272.7	54.9	14982	0.000098
100	36.65	0.25	65	29.3	4962.3	261.6	55.7	14581	0.000101
105	35.89	0.25	65	28.6	4656.9	250.7	56.5	14175	0.000105
110	35.13	0.25	65	28.0	4364.4	240.0	57.3	13765	0.000109
115	34.36	0.25	65	27.4	4084.3	229.6	58.1	13352	0.000113
120	27.30	0.25	65	21.7	2036.5	144.1	65.0	9367	0.000159
125	26.67	0.25	65	21.2	1897.2	137.4	65.0	8933	0.000162
130	26.04	0.25	65	20.7	1764.4	130.9	65.0	8509	0.000166
135	25.41	0.25	65	20.2	1637.9	124.5	65.0	8096	0.000170
139	24.90	0.25	65	19.8	1541.2	119.6	65.0	7772	0.000174

Combined Section Strength Assuming Composite Strength

Elevation (ft)	Diameter (in)	Thickness (in)	F_y (ksi)	Area (in^2)	Inertia (in^4)	S_{min} (in^3)	F_{cr} (ksi)	$M_{Capacity}$ (k-in)
0	51.30	0.75	65	121.9	39878.2	1501.7	65.0	97612
5	50.55	0.75	65	120.1	38129.6	1457.2	65.0	94717
10	49.80	0.75	65	118.3	36433.0	1413.3	65.0	91866
15	49.05	0.75	65	116.5	34787.4	1370.1	65.0	89057
20	48.30	0.75	65	114.7	33192.2	1327.6	65.0	86293
25	47.55	0.75	65	112.9	31646.5	1285.7	65.0	83572
30	46.80	0.75	65	111.1	30149.5	1244.5	65.0	80895
35	46.05	0.75	65	109.2	28700.5	1204.0	65.0	78261
40	45.50	0.625	65	90.2	23248.4	987.1	65.0	64161
45	44.75	0.625	65	88.7	22102.2	954.2	65.0	62020
50	44.00	0.625	65	87.2	20994.4	921.8	65.0	59915
55	43.25	0.625	65	85.7	19924.2	890.0	65.0	57847
60	42.50	0.625	65	84.2	18891.1	858.7	65.0	55815
65	41.75	0.625	65	82.6	17894.2	828.0	65.0	53820
70	41.00	0.625	65	81.1	16933.1	797.9	65.0	51861
75	40.25	0.5625	65	71.8	14473.9	694.7	65.0	45155
80	39.70	0.5	65	63.0	12396.9	603.2	65.0	39211
85	38.94	0.5	65	61.8	11687.6	579.9	65.0	37691
90	38.18	0.5	66	60.6	11005.8	556.9	66.0	36759
95	37.41	0.5	67	59.3	10351.1	534.5	67.0	35811
100	36.65	0.5	68	58.1	9722.8	512.5	68.0	34850
105	35.89	0.5	69	56.9	9120.6	491.0	69.0	33877
110	35.13	0.4375	70	48.8	7515.9	413.4	70.0	28936
115	34.36	0.4375	71	47.7	7031.1	395.3	71.0	28065
120	27.30	0.4375	72	37.8	3491.0	247.0	72.0	17787
125	26.67	0.4375	73	36.9	3250.5	235.5	73.0	17189
130	26.04	0.4375	74	36.0	3021.4	224.2	74.0	16589
135	25.41	0.4375	75	35.1	2803.3	213.2	75.0	15987
139	24.90	0.4375	76	34.4	2636.5	204.6	76.0	15546

Actual Combined Section Strength

Elevation (ft)	$\Sigma M_{Capacity}$ (k-in)	Ori. Str. Red. Ratio	2_{nd} Str. Red. Ratio	Eq. F_{cr} (ksi)	$M_{Capacity}$ (k-in)	Average Fy (ksi)
0	61941	**0.65**	0.63	41.2	61941	
5	60348	0.66	0.64	41.4	60348	
10	58759	0.66	0.64	41.6	58759	
15	57173	0.66	0.64	41.7	57173	
20	55592	0.66	0.64	41.9	55592	
25	54018	0.66	0.65	42.0	54018	
30	52450	0.66	0.65	42.1	52450	
35	50891	0.66	0.65	42.3	50891	
40	37745	0.60	0.59	38.2	37745	41.8
45	36678	0.60	0.59	38.4	36678	
50	35612	0.61	0.59	38.6	35612	
55	34546	0.61	0.60	38.8	34546	
60	33483	0.61	0.60	39.0	33483	
65	32423	0.61	0.60	39.2	32423	
70	31368	0.61	0.60	39.3	31368	
75	29353	0.62	0.65	42.3	29353	
80	20653	0.53	0.53	34.2	20653	39.2
85	20010	0.53	0.53	34.5	20010	
90	19363	0.53	0.53	34.8	19363	
95	18715	0.53	0.52	35.0	18715	
100	18066	0.53	0.52	35.3	18066	
105	17418	0.53	0.51	35.5	17418	
110	16040	0.54	0.55	38.8	16040	
115	15457	0.53	0.55	39.1	15457	
120	11999	0.72	0.67	48.6	11999	35.9
125	11316	0.71	0.66	48.1	11316	
130	10657	0.70	0.64	47.5	10657	
135	10022	0.68	0.63	47.0	10022	
139	9530	0.67	0.61	46.6	9530	47.6

9/13/2012

EM

#302483

Foundation Check:

M= 3664.0 K-ft

V= 37.8k

P= 51.1k

Sliding Factor of Safety

V = 37.8k

Total weight = Wt. Of Concrete + Wt. Of Soil + P = 86.7 + 47.8 + 51.1 = 185.6k

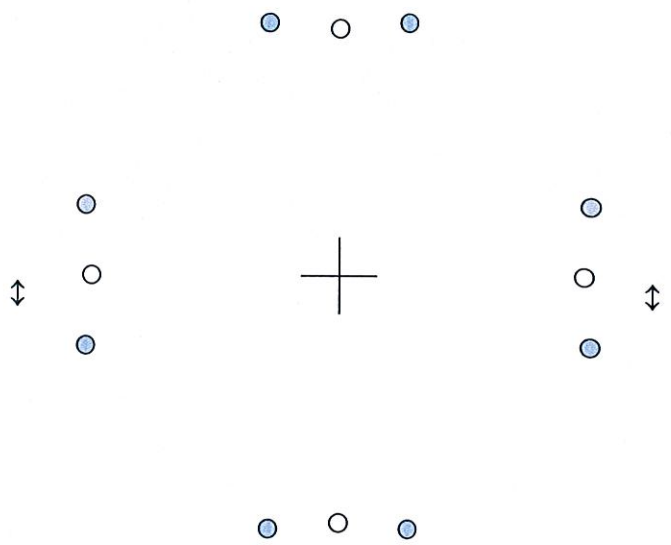
Ultimate friction resistance = 0.41 x (wt.) = 0.41 x 185.6 = 76k

Ultimate passive sliding resistance = 11' x 2.58' x 1.33 = 37.7k

Factor of Safety = 113.7/37.8 = 3 Thus OK

(12) R71 Williams 150 ksi rock anchor check (next page)

Code Rev.	F	Date	9/13/2012
A.S.I.	1.33	Engineer	EM
		Site #	302483
Moment	3664.0 k-ft	Carrier	Verizon
Axial	51.1 k		



Bolts ●	#	8	
	Bolt Circle	44.25	in
	(R)adial / (S)quare	S	
	Bolt Gap	12	in
	Diameter	1.75	in
	Hole Diameter	3.625	in
	Type	R71 William	
	Fu	390	ksi
	Allowable	446.16	k
	Applied	332.94	k
Reinforcement ●	#	0	
Extra Bolts O	#	4	
	Bolt Circle	41.63	in
	(R)adial / (S)quare	R	
	Offset Angle	90	°
	Diameter	1.75	in
	Type	R71 William	
	Fu	390	ksi
	Allowable	412.75	k
	Applied	319.30	k

Bolt Stress Ratio:
0.75 (Pass)

Extra Bolt Stress Ratio:
0.77 (Pass)