

EM-VER-066-080513

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ORIGINAL

May 12, 2008

Via Hand Delivery

S. Derek Phelps
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

RECEIVED
MAY 13 2008
CONNECTICUT
SITING COUNCIL

Re: **Notice of Exempt Modification – Antenna Swap
Weingart Road, Harwinton, Connecticut**

Dear Mr. Phelps:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains a wireless telecommunications facility at the above-referenced address. The Council approved Cellco's shared use of the existing 180-foot monopole tower on December 9, 2003. Cellco intends to modify its installation by replacing six (6) DB950G85E-M antennas with six (6) LPA-80063/6CF antennas at the 175-foot level on the existing American Tower Corporation tower. Attached behind Tab 1 are the specifications for the proposed 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 Frank Chiaramonte, First Selectman of the Town of Harwinton. Pursuant to a Council directive a copy of this letter is also being sent to Jamie L. Clemente & Dorothy M. Lauria, the owners of the property on which the facility 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 any increase in the overall height of the existing structures. Cellco's replacement antennas will be located at the 175-foot level on the existing 180-foot tower.



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2. The proposed modifications will not involve any modifications 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) power density levels at the facility to a level at or above the Federal Communications Commission (FCC) adopted safety standard. A cumulative power density table for the modified facility is included behind Tab 2.

Also attached is a Structural Analysis Report confirming that the tower can support the proposed 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:

Frank Chiaramonte, Harwinton First Selectman
Jamie L. Clemente & Dorothy M. Lauria
Sandy M. Carter



Vertically Polarized, Log Periodic 63° / 14.5 dBd

LPA-80063/6CF

When ordering replace "___" with connector type.

Mechanical specifications

Length	1800 mm	70.9 in
Width	380 mm	15.0 in
Depth	332 mm	13.1 in
Depth with z-bracket	372 mm	14.6 in
4) Weight	12.3 kg	27.0 lbs
Wind Area		
Fore/Aft	0.68 m ²	7.4 ft ²
Side	0.60 m ²	6.5 ft ²
Rated Wind Velocity (Safety factor 2.0)	>235 km/hr >146 mph	
Wind Load @ 100 mph (161 km/hr)		
Fore/Aft	993 N	223.3 lbs
Side	872 N	196.1 lbs

Antenna consisting of aluminum alloy with brass feedlines covered by a UV safe fiberglass radome.

Mounting and Downtilting

Mounting brackets attach to a pipe diameter of Ø50-102 mm (2.0-4.0 in). If the lock-down brace is used, the maximum diameter is Ø88.9 mm (3.5 in)

Mounting Bracket & Downtilt Bracket Kit
#21699999

Electrical specifications

Frequency Range	806-960 MHz
Impedance	50Ω
3) Connector(s)	NE or E-DIN 1 port / center
1) VSWR	≤ 1.4:1
Polarization	Vertical
1) Gain	14.5 dBd
2) Power Rating	500 W
1) Half Power Angle	
H-Plane	63°
E-Plane	10°
1) Electrical Downtilt	0°
1) Null Fill	10%
Lightning Protection	Direct Ground

1) Typical values.

2) Power rating limited by connector only.

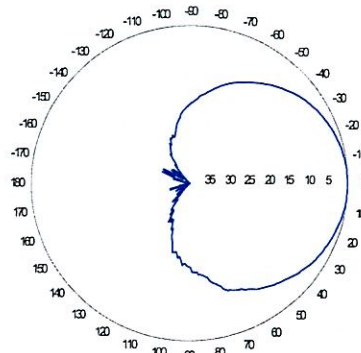
3) NE indicates an elongated N connector.

E-DIN indicates an elongated DIN connector.

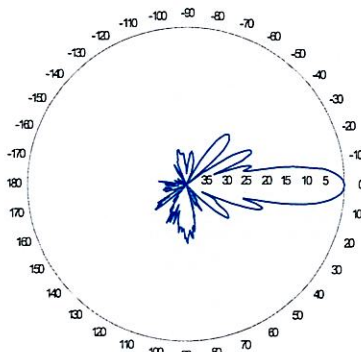
4) The antenna weight listed above does not include the bracket weight.

Improvements to mechanical and/or electrical performance of the antenna may be made without notice.

Radiation pattern¹⁾



Horizontal

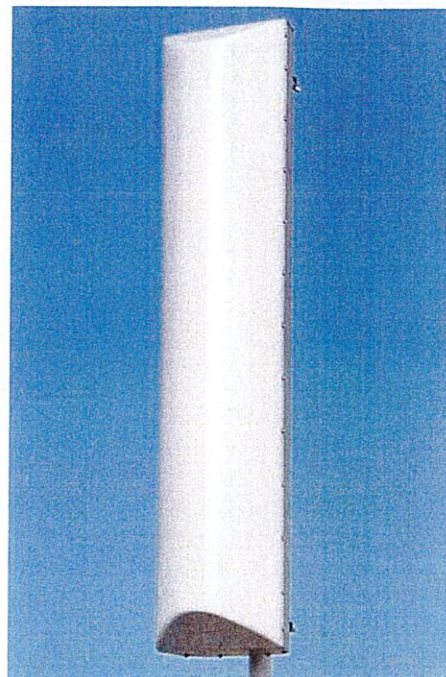


Vertical

Featuring upper side lobe suppression.

Radiation patterns for all antennas are measured with the antenna mounted on a fiberglass pole.

Mounting on a metal pole will typically improve the Front-to-Back ratio.



**Amphenol Antel's
Exclusive 3T (True
Transmission Line
Technology)
Antenna Design:**

- True log-periodic design allows for superior front-to-side characteristics to minimize sector overlap.
- Unique feedline design eliminates the need for conventional solder joints in the signal path.
- A non-collinear system with access to every radiating element for broad bandwidth and superior performance.
- Air as insulation for virtually no internal signal loss.

This Amphenol Antel antenna is under a five-year limited warranty for repair or replacement.

Antenna available with center-fed connector only.

CF Denotes a Center-Fed Connector.

806-960 MHz

**Amphenol
Antel, Inc.**
The Antenna Technology Company

Revision Date: 7/5/07

	General	Power	Density						
Site Name: Harwinton									
Tower Height: Verizon @ 175Ft.									
CARRIER	# OF CHAN.	WATTS ERP	HEIGHT	CALC. POWER DENS	FREQ.	MAX. PERMISS. EXP.	FRACTION MPE	Total	
*Cingular/TDMA	16	100	185	0.0168	880	0.5867	2.87%		
*Cingular/GSM	2	296	185	0.0062	880	0.5867	1.06%		
*Cingular/GSM	2	427	185	0.0090	1930	1.0000	0.90%		
Verizon	9	485	175	0.0513	1970	1.0000	5.13%		
Verizon	9	200	175	0.0211	875	0.5830	3.62%		
* Source: Siting Council								13.58%	

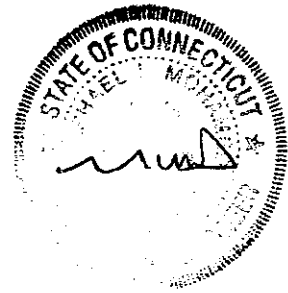


AMERICAN TOWER

Structural Analysis Report

Structure : 180 ft Monopole
ATC Site Name : Harwinton, CT
ATC Site Number : 302502
Proposed Carrier : Verizon
Carrier Site Name : Harwington North
Carrier Site Number : N/A
County : Litchfield
Eng. Number : 41658121
Date : March 25, 2008
Usage : 83 %
Portholes Required : No

Submitted by:
Joseph R. Johnston, E.I.
Design Engineer



3/26/08

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

Introduction

The purpose of this report is to summarize results of the structural analysis performed on the 180 ft Monopole located at 159 Weingart Road, Harwinton, CT 06791, Litchfield County (ATC Site # 302502). The tower dimensions and geometry were obtained from a mapping completed by Smith Cullum Inc. (Steel Data Report Number CT-0038, dated February 13, 2002). Tower modifications per design by Hutter Frankina Engineering Co. (HTE Job No. 03320B, dated December 30, 2003) have been completed and were considered in this analysis.

Analysis

The tower was analyzed using Semaan Engineering Solutions, Inc., Software. The analysis assumes that the tower is in good, undamaged, and non-corroded condition.

Basic Wind Speed: 95.0 mph (3-Second Gust)
Radial Ice: 40.0 mph (3-Second Gust) w/ 1 1/4" ice
Code: ANSI/TIA-22-G / 2003 International Building Code
w/ 2005 Connecticut Supplements

Antenna Loads

The following antenna loads were used in the tower analysis.

Existing Antennas

Elev. (ft)	Qty	Antennas	Mount	Coax	Carrier
185.0	11	CSS DUO4-8670	Round Platform with Handrails	(9) 7/8"	AT&T Mobility
	9	6.8" x 4.7" Radio		(2) 1 1/4"	
175.0	6	Decibel DB950G85E-KL	Flat Low Profile Platform	(6) 1 5/8"	Verizon
50.0	1	Lucent KS-24019	Pipe	(1) 7/8"	

Proposed Antennas

Elev. (ft)	Qty	Antennas	Mount	Coax	Carrier
175.0	6	Antel LPA-80063/6CF	Flat Low Profile Platform	(6) 1 5/8"	Verizon

Install proposed coax inside monopole.

Results

The maximum structure usage is: 83 %

Pole Reactions	Original Design Reactions	Original Design Reactions x 1.35	Current Analysis Reactions	% Of Design
Moment (ft-kips)	N/A	N/A	3,232.8	N/A
Shear (kips)	N/A	N/A	28.2	N/A
Axial (kips)	N/A	N/A	93.1	N/A

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.

Conclusion

Based on the analysis results, the structure meets the requirements per ANSI/TIA-222-G and 2003 IBC w/ 2005 Connecticut Supplements standards. The tower and foundation can support the existing and proposed antennas with the TX line distribution as described in this report.

If you have any questions or require additional information, please call 919-466-5842.

Standard Conditions

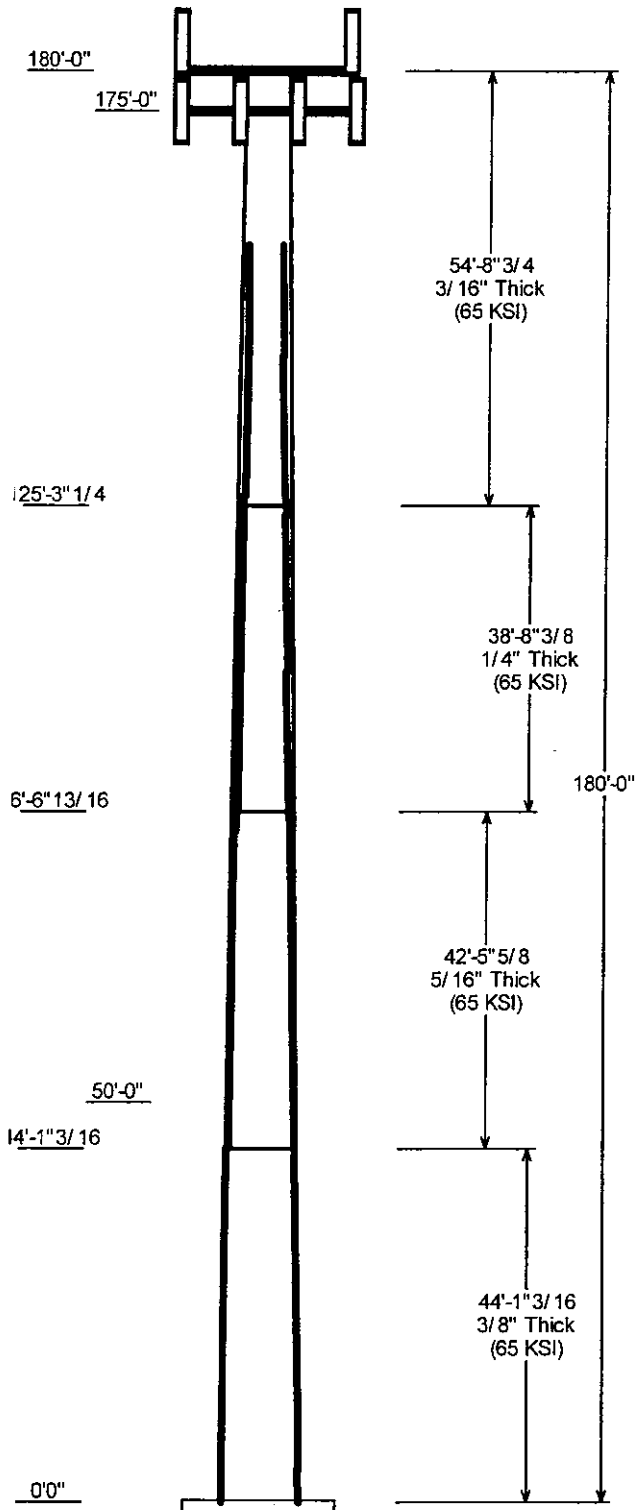
All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessary limited, to:

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

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

All services will be performed to the codes specified by the client, and we do not imply to meet any other codes or requirements unless explicitly agreed in writing. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes, the client shall specify the exact requirement. In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/EIA-222.

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

**Job Information**

Pole :	302502	Code: ANSI/TIA-222 Rev G
Description :	180 ft Monopole	Struct Class : II
Client :	Verizon	Exposure : B
Location :	Harwinton, CT	Topo : 1
Shape :	12 Sides	Base Elev (ft): 0.00
Height :	180.00 (ft)	Taper: 0.158333(in/ft)

Sections Properties

Shaft Section	Length (ft)	Diameter (in)		Thick (in)	Joint Type	Overlap Length (in)	Taper (in/ft)	Steel Grade (ksi)
		Across Flats Top	Across Flats Bottom					
1	44.100	36.017	43.000	0.375		0.000	0.158333	65
2	42.470	29.293	36.017	0.313	Butt Joint	0.000	0.158333	65
3	38.700	23.166	29.293	0.250	Butt Joint	0.000	0.158333	65
4	54.730	14.500	23.166	0.188	Butt Joint	0.000	0.158333	65

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
180.000	185.000	1	Round Platform with Handrails
180.000	185.000	9	CDA Diplexer
180.000	185.000	11	CSS DUO4-8670
175.000	175.000	1	Flat Low Profile Platform
175.000	175.000	6	Antel LPA-80063/6CF
175.000	175.000	6	Decibel DB950G85E-KL
50.000	50.000	1	Lucent KS-24019

Linear Appurtenance

Elev (ft)		Description	Exposed To Wind
From	To		
140.00	160.00	3.0" Solid Rod	Yes
120.00	140.00	3.5" Solid Rod	Yes
80.000	120.00	4.0" Solid Rod	Yes
5.000	50.000	7/8" Coax	No
5.000	175.00	1 5/8" Coax	No
5.000	175.00	1 5/8" Coax	No
5.000	180.00	1 1/4" Coax	No
5.000	180.00	7/8" Coax	No
0.000	80.000	4.25" Solid Rod	Yes

Load Cases

1.2D + 1.6W	95.00 mph with No Ice
0.9D + 1.6W	95.00 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	40.00 mph with 1.25 in Radial Ice
1.0D + 1.0W	60.00 mph Serviceability

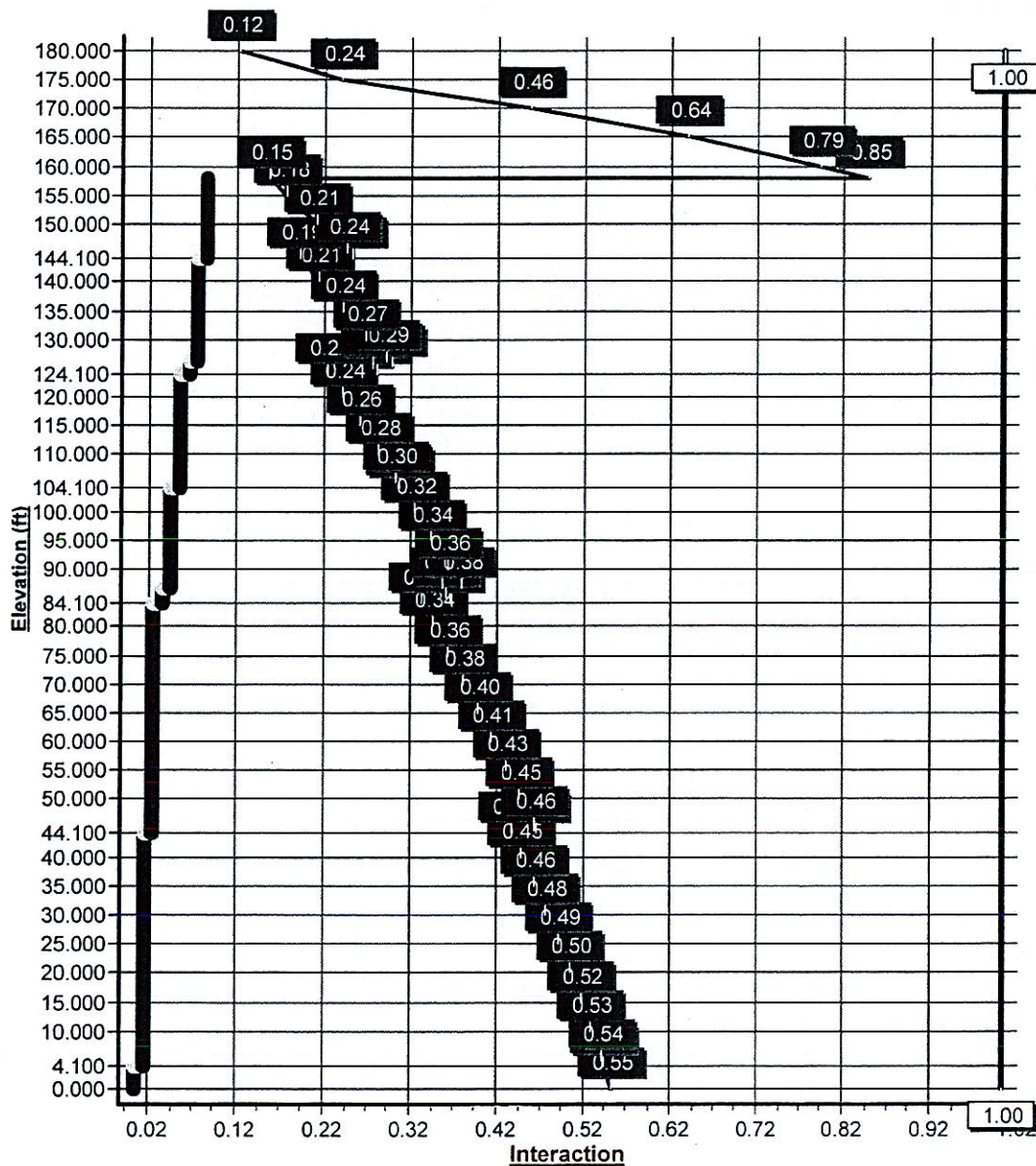
Reactions

Load Case	Moment (Kip-ft)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W	3232.83	28.20	51.66
0.9D + 1.6W	3206.24	27.91	43.81
1.2D + 1.0Di + 1.0Wi	681.27	4.99	93.14
1.0D + 1.0W	832.46	7.29	46.46

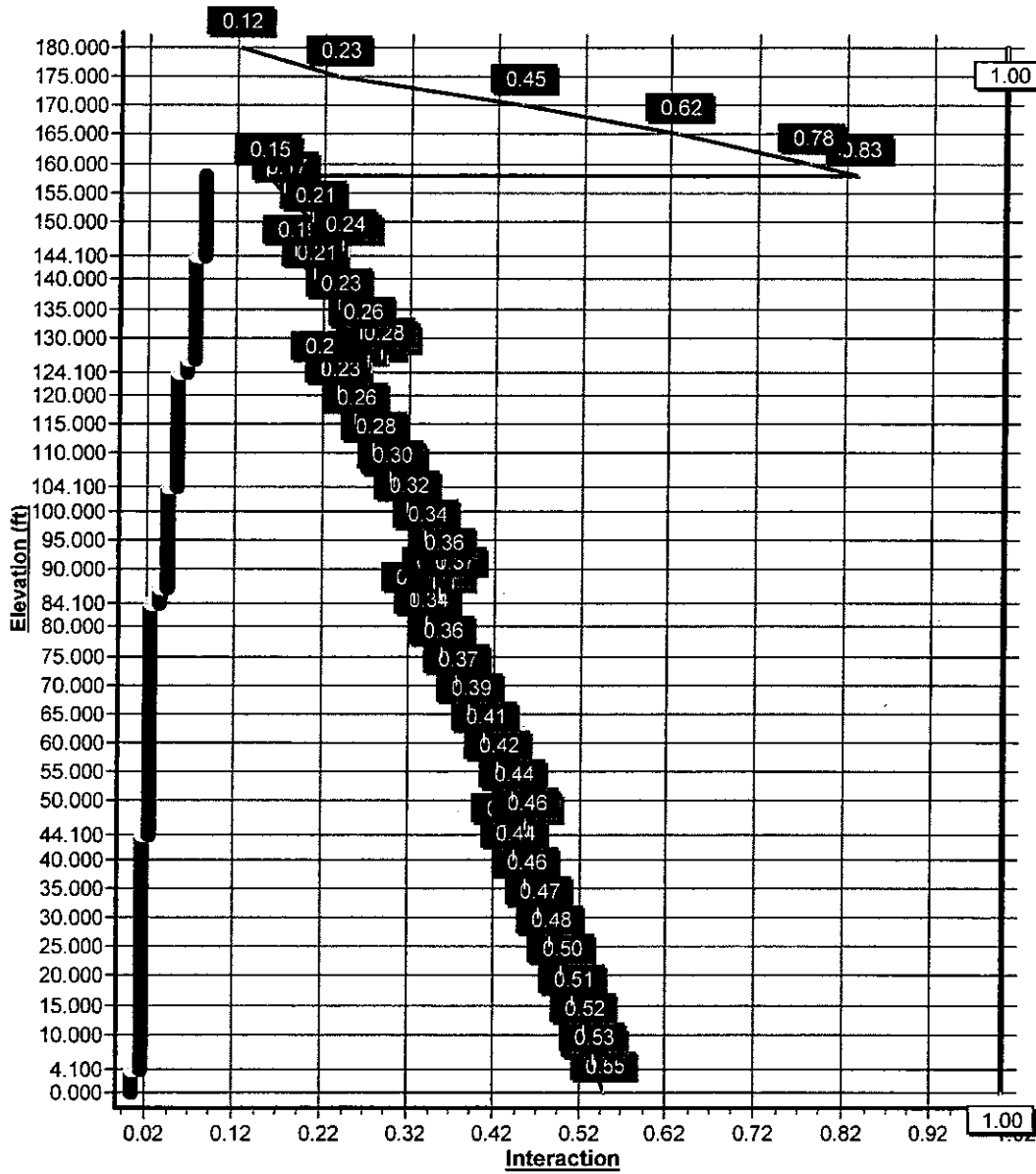
Dish Deflections

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
1.0D + 1.0W	0.00	0.000	0.000

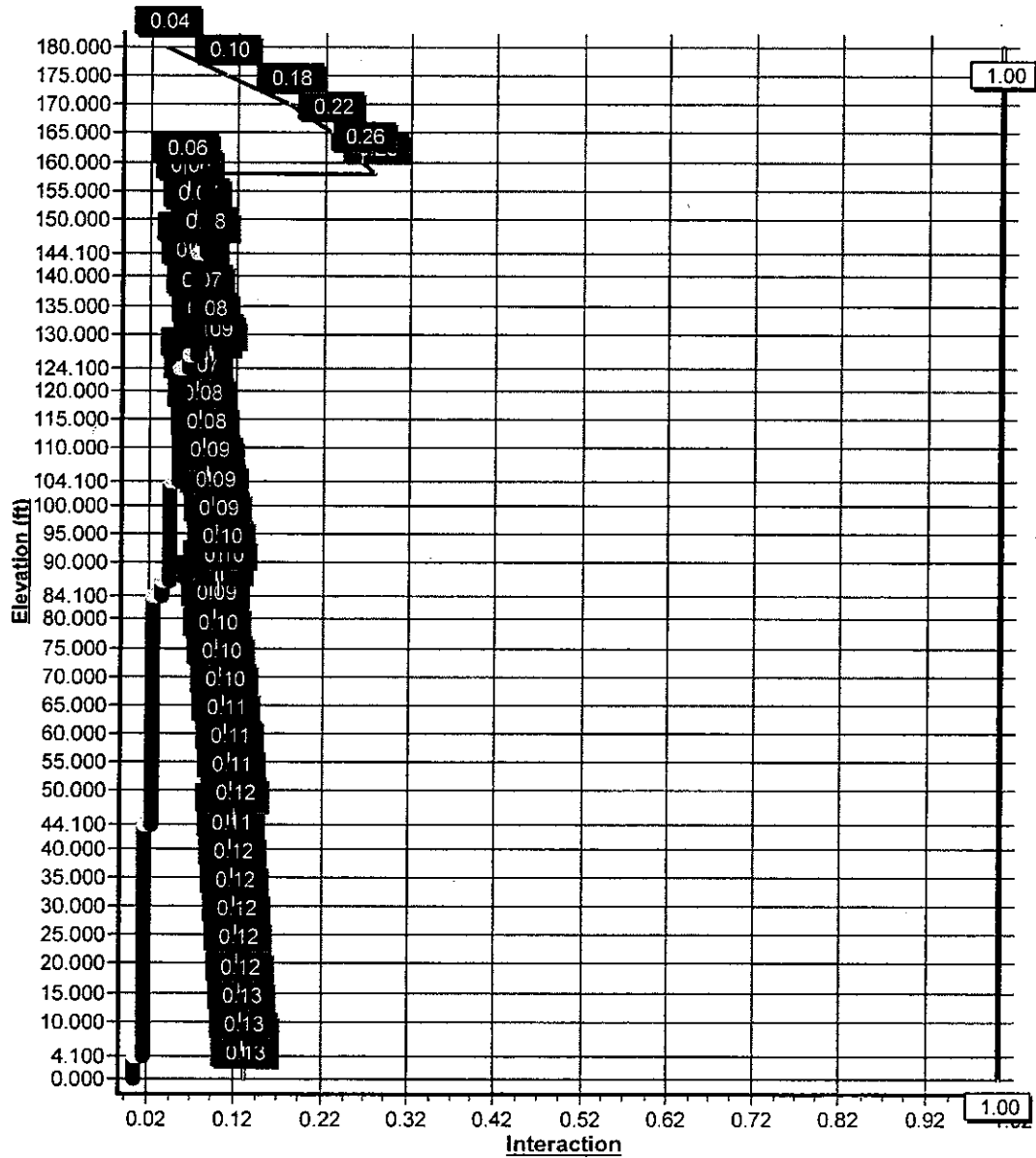
Load Case : 1.2D + 1.6W
Max Ratio 84.52% at 158.0ft



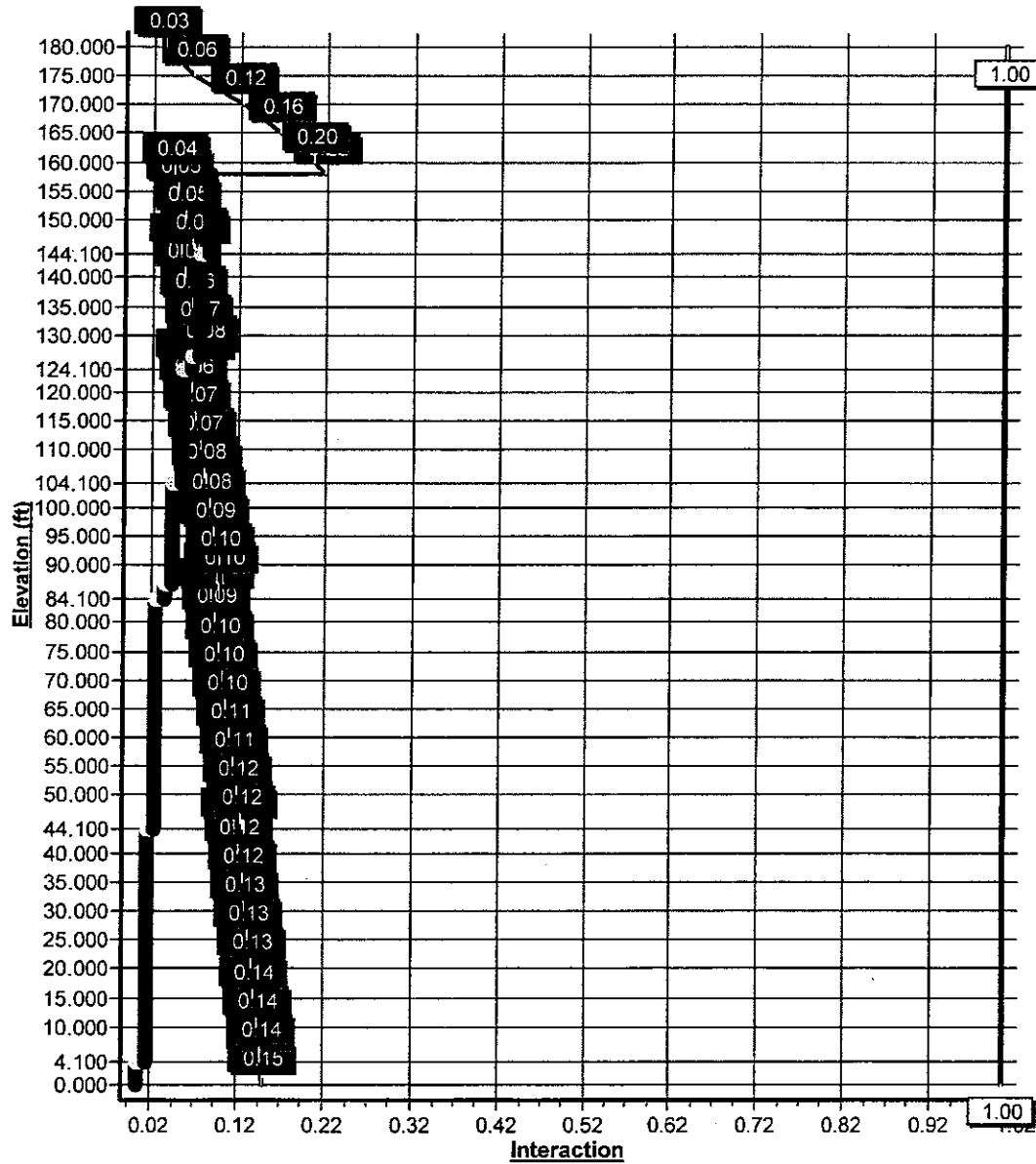
Load Case : 0.9D + 1.6W
 Max Ratio 83.01% at 158.0ft

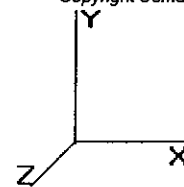


Load Case : 1.2D + 1.0Di + 1.0Wi
Max Ratio 27.58% at 158.0ft



Load Case : 1.0D + 1.0W
Max Ratio 21.56% at 158.0ft





Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Offset (in)	Hole Dia (in)	Linear Weight (lb/ft)	Thick (in)	Weight (lb)	Len (ft)
0.00	4.10	3	SOL 4 1/4" SOLID	50	3.13	1.50	48.27	4.250	593.7	12.30
4.10	44.10	3	SOL 4 1/4" SOLID	50	3.13	1.50	48.27	4.250	5,792.4	120.00
44.10	84.10	3	SOL 4 1/4" SOLID	50	3.13	1.50	48.27	4.250	5,792.4	120.00
84.10	86.60	3	SOL 4" SOLID	50	3.13	1.50	42.76	4.000	320.7	7.50
86.60	104.10	3	SOL 4" SOLID	50	3.13	1.50	42.76	4.000	2,244.9	52.50
104.10	124.10	3	SOL 4" SOLID	50	3.13	1.50	42.76	4.000	2,565.6	60.00
124.10	126.30	3	SOL 3 1/2" SOLID	50	3.13	1.50	32.74	3.500	216.1	6.60
126.30	144.10	3	SOL 3 1/2" SOLID	50	3.13	1.50	32.74	3.500	1,748.3	53.40
144.10	158.00	3	SOL 3" SOLID	65	3.13	1.50	24.05	3.000	1,002.9	41.70
									20,277.0	474.00

Pole : 302502
 Location : Harwinton, CT
 Height : 180.0 (ft)
 Shape : 12 Sides
 Base Dia : 43.000 (in)
 Top Dia : 14.500 (in)
 Taper : 0.158333 (in/ft)

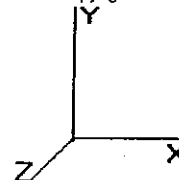
Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1

Base Elev : 0.000 (ft)

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Segment Properties

(Max Len : 5 ft)

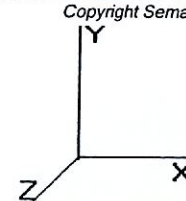
Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in3)	Weight (lb)	Additional Reinforcing		
											Area (in^2)	Ix (in^4)	Weight (lb)
0.00		0.3750	43.000	51.470	11,936.2	28.58	114.67	65.0	536.3	0.0	42.55	15,27	0.0
4.10	Reinf. Top Reinf	0.3750	42.351	50.686	11,399.1	28.12	112.94	65.0	520.0	712.6	42.55	14,90	593.7
5.00		0.3750	42.208	50.514	11,283.4	28.02	112.56	65.0	516.4	155.0	42.55	14,82	130.3
10.00		0.3750	41.417	49.558	10,654.9	27.45	110.44	65.0	497.0	851.3	42.55	14,38	724.0
15.00		0.3750	40.625	48.602	10,050.1	26.88	108.33	65.0	477.9	835.0	42.55	13,95	724.0
20.00		0.3750	39.833	47.646	9,468.7	26.32	106.22	65.0	459.2	818.8	42.55	13,52	724.0
25.00		0.3750	39.042	46.690	8,910.1	25.75	104.11	65.0	440.9	802.5	42.55	13,10	724.0
30.00		0.3750	38.250	45.734	8,374.0	25.19	102.00	65.0	422.9	786.2	42.55	12,69	724.0
35.00		0.3750	37.458	44.778	7,859.8	24.62	99.89	65.0	405.4	770.0	42.55	12,28	724.0
40.00		0.3750	36.667	43.822	7,367.1	24.06	97.78	65.0	388.1	753.7	42.55	11,88	724.0
44.10	Top - Section 1	0.3750	36.018	43.038	6,978.8	23.59	96.05	65.0	374.3	605.9	42.55	11,55	593.7
44.10	Bot - Section 2	0.3130	36.018	35.985	5,855.4	28.69	115.07	65.0	314.1		42.55	11,55	
45.00		0.3130	35.875	35.842	5,785.6	28.57	114.62	65.0	311.5	110.0	42.55	11,48	130.3
50.00		0.3130	35.083	35.044	5,407.7	27.89	112.09	65.0	297.8	603.0	42.55	11,10	724.0
55.00		0.3130	34.292	34.246	5,046.7	27.21	109.56	65.0	284.3	589.4	42.55	10,72	724.0
60.00		0.3130	33.500	33.448	4,702.1	26.53	107.03	65.0	271.2	575.9	42.55	10,34	724.0
65.00		0.3130	32.708	32.650	4,373.5	25.86	104.50	65.0	258.3	562.3	42.55	9,979.	724.0
70.00		0.3130	31.917	31.852	4,060.7	25.18	101.97	65.0	245.8	548.7	42.55	9,619.	724.0
75.00		0.3130	31.125	31.054	3,763.1	24.50	99.44	65.0	233.6	535.1	42.55	9,265.	724.0
80.00		0.3130	30.333	30.256	3,480.4	23.82	96.91	65.0	221.7	521.6	42.55	8,918.	724.0
84.10	Reinf. Top Reinf	0.3130	29.684	29.602	3,259.5	23.27	94.84	65.0	212.1	417.5	42.55	8,638.	593.7
85.00		0.3130	29.542	29.458	3,212.3	23.15	94.38	65.0	210.1	90.4	37.69	7,499.	115.5
86.57	Top - Section 2	0.3130	29.293	29.208	3,131.0	22.93	93.59	65.0	206.5	156.7	37.69	7,406.	201.4
86.57	Bot - Section 3	0.2500	29.293	23.380	2,517.2	29.25	117.17	65.0	166.0		37.69	7,406.	
86.60	Reinf. Top Reinf	0.2500	29.288	23.376	2,515.9	29.25	117.15	65.0	165.9	2.4	37.69	7,404.	3.8
90.00		0.2500	28.750	22.943	2,378.6	28.67	115.00	65.0	159.8	267.9	37.69	7,205.	436.2
95.00		0.2500	27.958	22.305	2,185.8	27.82	111.83	65.0	151.0	384.9	37.69	6,917.	641.4
100.00		0.2500	27.167	21.668	2,003.8	26.97	108.67	65.0	142.5	374.1	37.69	6,634.	641.4
104.10	Reinf. Top Reinf	0.2500	26.518	21.145	1,862.3	26.28	106.07	65.0	135.7	298.6	37.69	6,408.	525.9
105.00		0.2500	26.375	21.031	1,832.1	26.13	105.50	65.0	134.2	64.6	37.69	6,358.	115.5
110.00		0.2500	25.583	20.393	1,670.5	25.28	102.33	65.0	126.1	352.4	37.69	6,088.	641.4
115.00		0.2500	24.792	19.756	1,518.8	24.43	99.17	65.0	118.3	341.5	37.69	5,824.	641.4
120.00		0.2500	24.000	19.119	1,376.5	23.58	96.00	65.0	110.8	330.7	37.69	5,565.	641.4
124.10	Reinf. Top Reinf	0.2500	23.351	18.596	1,266.7	22.88	93.40	65.0	104.8	263.1	37.69	5,357.	525.9
125.00		0.2500	23.208	18.481	1,243.4	22.73	92.83	65.0	103.5	56.8	28.86	3,941.	88.4
125.27	Top - Section 3	0.2500	23.166	18.447	1,236.4	22.69	92.66	65.0	103.1	17.0	28.86	3,931.	26.5
125.27	Bot - Section 4	0.1880	23.166	13.910	937.4	30.87	123.22	63.9	78.2		28.86	3,931.	
126.30	Reinf. Top Reinf	0.1880	23.003	13.811	917.6	30.64	122.35	64.2	77.1	48.6	28.86	3,892.	101.2
130.00		0.1880	22.417	13.456	848.7	29.81	119.24	65.0	73.1	171.7	28.86	3,755.	363.4
135.00		0.1880	21.625	12.977	761.2	28.68	115.03	65.0	68.0	224.9	28.86	3,573.	491.1
140.00		0.1880	20.833	12.498	679.9	27.55	110.82	65.0	63.0	216.7	28.86	3,396.	491.1
144.10	Reinf. Top Reinf	0.1880	20.184	12.105	617.8	26.62	107.36	65.0	59.1	171.6	28.86	3,255.	402.7
145.00		0.1880	20.042	12.019	604.7	26.42	106.60	65.0	58.3	36.9	21.20	2,286.	64.9
150.00		0.1880	19.250	11.539	535.2	25.29	102.39	65.0	53.7	200.4	21.20	2,165.	360.8
155.00		0.1880	18.458	11.060	471.2	24.16	98.18	65.0	49.3	192.3	21.20	2,047.	360.8
158.00	Reinf. Top	0.1880	17.983	10.773	435.4	23.49	95.66	65.0	46.8	111.4	21.20	1,978.	216.4
160.00		0.1880	17.667	10.581	412.6	23.04	93.97	65.0	45.1	72.7			
165.00		0.1880	16.875	10.102	359.0	21.91	89.76	65.0	41.1	175.9			
170.00		0.1880	16.083	9.622	310.3	20.78	85.55	65.0	37.3	167.8			
175.00		0.1880	15.292	9.143	266.2	19.65	81.34	65.0	33.6	159.6			
180.00		0.1880	14.500	8.664	226.5	18.52	77.13	65.0	30.2	151.5			
										16,657.8			
											20,277.		

Pole : 302502
 Location : Harwinton, CT
 Height : 180.0 (ft)
 Shape : 12 Sides
 Base Dia : 43.000 (in)
 Top Dia : 14.500 (in)
 Taper : 0.158333 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1

Base Elev : 0.000 (ft)

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Load Case: 1.2D + 1.6W

95.00 mph with No Ice

26 Iterations

Gust Response Factor 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.20

Wind Load Factor : 1.60

Shaft Segment Forces (Factored)

Seg Top Elev (ft)	Description	Kzt	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		1.00	0.70	15.364	16.901	294.86	1.000	0.000	0.00	0.000	0.00	0.0	0.0	0.0
4.10	Reinf. Top Reinf	1.00	0.70	15.364	16.901	290.40	1.277	* 0.000	4.10	15.095	19.28	521.3	0.0	1,448.8
5.00		1.00	0.70	15.364	16.901	289.43	1.283	* 0.000	0.90	3.283	4.21	113.9	0.0	316.3
10.00		1.00	0.70	15.364	16.901	284.00	1.289	* 0.000	5.00	18.036	23.25	628.7	0.0	1,745.6
15.00		1.00	0.70	15.364	16.901	278.57	1.200	* 0.000	5.00	17.695	21.23	574.2	0.0	1,726.1
20.00		1.00	0.70	15.364	16.901	273.14	1.200	* 0.000	5.00	17.353	20.82	563.1	0.0	1,706.6
25.00		1.00	0.70	15.364	16.901	267.71	1.200	* 0.000	5.00	17.012	20.41	552.0	0.0	1,687.1
30.00		1.00	0.70	15.377	16.915	262.39	1.200	* 0.000	5.00	16.670	20.00	541.4	0.0	1,667.5
35.00		1.00	0.73	16.070	17.676	262.69	1.200	* 0.000	5.00	16.329	19.59	554.2	0.0	1,648.0
40.00		1.00	0.76	16.694	18.364	262.09	1.200	* 0.000	5.00	15.987	19.18	563.7	0.0	1,628.5
44.10	Top - Section 1 Reinf.	1.00	0.78	17.166	18.883	261.06	1.200	* 0.000	4.10	12.855	15.43	466.1	0.0	1,320.8
45.00		1.00	0.78	17.266	18.992	260.78	1.200	* 0.000	0.90	2.791	3.35	101.8	0.0	262.3
50.00	Appertunance(s)	1.00	0.81	17.793	19.573	258.89	1.200	* 0.000	5.00	15.304	18.37	575.1	0.0	1,447.7
55.00		1.00	0.83	18.285	20.113	256.52	1.200	* 0.000	5.00	14.963	17.96	577.8	0.0	1,431.4
60.00		1.00	0.85	18.745	20.619	253.73	1.200	* 0.000	5.00	14.621	17.55	578.9	0.0	1,415.1
65.00		1.00	0.87	19.179	21.096	250.58	1.200	* 0.000	5.00	14.280	17.14	578.4	0.0	1,398.8
70.00		1.00	0.89	19.589	21.548	247.12	1.200	* 0.000	5.00	13.938	16.73	576.7	0.0	1,382.5
75.00		1.00	0.91	19.979	21.977	243.38	1.200	* 0.000	5.00	13.597	16.32	573.7	0.0	1,366.2
80.00		1.00	0.92	20.351	22.386	239.38	1.200	* 0.000	5.00	13.255	15.91	569.7	0.0	1,349.9
84.10	Reinf. Top Reinf	1.00	0.94	20.643	22.708	235.94	1.200	* 0.000	4.10	10.614	12.74	462.8	0.0	1,094.8
85.00		1.00	0.94	20.706	22.777	235.16	1.200	* 0.000	0.90	2.300	2.76	100.6	0.0	224.0
86.57	Top - Section 2	1.00	0.94	20.815	22.896	233.80	1.200	* 0.000	1.57	3.984	4.78	175.2	0.0	389.4
86.60	Reinf. Top Reinf	1.00	0.94	20.817	22.899	233.77	1.200	* 0.000	0.03	0.076	0.09	3.3	0.0	6.7
90.00		1.00	0.95	21.047	23.152	230.74	1.200	* 0.000	3.40	8.512	10.21	378.4	0.0	757.7
95.00		1.00	0.97	21.375	23.512	226.12	1.200	* 0.000	5.00	12.231	14.68	552.2	0.0	1,103.3
100.0		1.00	0.98	21.690	23.860	221.34	1.200	* 0.000	5.00	11.890	14.27	544.7	0.0	1,090.3
104.1	Reinf. Top Reinf	1.00	1.00	21.941	24.135	217.29	1.200	* 0.000	4.10	9.494	11.39	440.0	0.0	884.3
105.0		1.00	1.00	21.995	24.194	216.39	1.200	* 0.000	0.90	2.054	2.46	95.4	0.0	193.0
110.0		1.00	1.01	22.289	24.518	211.29	1.200	* 0.000	5.00	11.207	13.45	527.5	0.0	1,064.3
115.0		1.00	1.02	22.574	24.832	206.06	1.200	* 0.000	5.00	10.865	13.04	518.0	0.0	1,051.3
120.0		1.00	1.04	22.850	25.135	200.70	1.200	* 0.000	5.00	10.524	12.63	507.9	0.0	1,038.2
124.1	Reinf. Top Reinf	1.00	1.05	23.071	25.378	196.21	1.200	* 0.000	4.10	8.374	10.05	408.0	0.0	841.6
125.0		1.00	1.05	23.118	25.430	195.21	1.200	* 0.000	0.90	1.808	2.17	88.3	0.0	156.5
125.2	Top - Section 3	1.00	1.05	23.133	25.446	194.91	1.200	* 0.000	0.27	0.540	0.65	26.4	0.0	46.9
126.3	Reinf. Top Reinf	1.00	1.05	23.187	25.506	193.77	1.200	* 0.000	1.03	2.051	2.46	100.5	0.0	159.5
130.0		1.00	1.06	23.379	25.717	189.61	1.200	* 0.000	3.70	7.249	8.70	357.9	0.0	569.4
135.0		1.00	1.07	23.632	25.996	183.90	1.200	* 0.000	5.00	9.499	11.40	474.1	0.0	760.9
140.0		1.00	1.08	23.879	26.267	178.09	1.200	* 0.000	5.00	9.158	10.99	461.8	0.0	751.2
144.1	Reinf. Top Reinf	1.00	1.09	24.077	26.485	173.26	1.200	* 0.000	4.10	7.254	8.71	368.9	0.0	608.6
145.0		1.00	1.09	24.120	26.532	172.19	1.200	* 0.000	0.90	1.562	1.87	79.6	0.0	109.3
150.0		1.00	1.11	24.355	26.790	166.19	1.200	* 0.000	5.00	8.475	10.17	435.9	0.0	601.2
155.0		1.00	1.12	24.584	27.042	160.10	1.200	* 0.000	5.00	8.133	9.76	422.3	0.0	591.5
158.0	Reinf. Top	1.00	1.12	24.719	27.191	156.41	1.200	* 0.000	3.00	4.716	5.66	246.2	0.0	350.2
160.0		1.00	1.13	24.808	27.289	153.93	1.200	* 0.000	2.00	3.076	3.69	161.1	0.0	87.2
165.0		1.00	1.14	25.027	27.530	147.68	1.000	0.000	5.00	7.450	7.45	328.2	0.0	211.1
170.0		1.00	1.15	25.241	27.765	141.36	1.000	0.000	5.00	7.109	7.11	315.8	0.0	201.3
175.0	Appertunance(s)	1.00	1.16	25.451	27.996	134.95	1.000	0.000	5.00	6.767	6.77	303.1	0.0	191.6
180.0	Appertunance(s)	1.00	1.16	25.657	28.223	128.48	1.000	0.000	5.00	6.426	6.43	290.2	0.0	181.8
* = Cf Adjusted By Linear Load Ra Effect														
		Totals:							180.00			18,384.7	0.0	40,266.3

Pole : 302502
 Location : Harwinton, CT
 Height : 180.0 (ft)
 Shape : 12 Sides
 Base Dia : 43.000 (in)
 Top Dia : 14.500 (in)
 Taper : 0.158333 (in/ft)

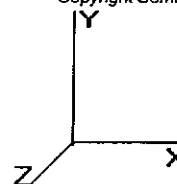
Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1

Base Elev : 0.000 (ft)

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Load Case: 1.2D + 1.6W

95.00 mph with No Ice

26 Iterations

Gust Response Factor 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.20

Wind Load Factor : 1.60

Discrete Appurtenance Segment Forces (Factored)

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Ka	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
50.00	Lucent KS-24019	1	17.793	19.573	1.00	1.00	1.00	0.000	0.000	31.32	0.00	0.00	8.40
175.0	Flat Low Profile Pla	1	25.451	27.996	1.00	1.00	26.10	0.000	0.000	1,169.13	0.00	0.00	1,800.00
175.0	Antel LPA-80063/6CF	6	25.451	27.996	0.75	0.80	46.65	0.000	0.000	2,089.83	0.00	0.00	194.40
175.0	Decibel DB950G85E-	6	25.451	27.996	0.62	0.80	15.67	0.000	0.000	701.97	0.00	0.00	82.80
180.0	Round Platform with	1	25.859	28.444	1.00	1.00	27.20	0.000	5.000	1,237.90	0.00	6,189.48	2,400.00
180.0	CDA Diplexer	9	25.859	28.444	0.50	0.75	5.34	0.000	5.000	242.87	0.00	1,214.36	108.00
180.0	CSS DUO4-8670	11	25.859	28.444	0.62	0.75	44.58	0.000	5.000	2,028.94	0.00	10,144.72	508.20
										7,501.96			5,101.80

Pole : 302502
 Location : Harwinton, CT
 Height : 180.0 (ft)
 Shape : 12 Sides
 Base Dia : 43.000 (in)
 Top Dia : 14.500 (in)
 Taper : 0.158333 (in/ft)

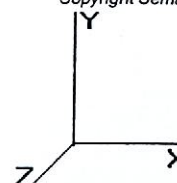
Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1

Base Elev : 0.000 (ft)

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Load Case: 1.2D + 1.6W

95.00 mph with No Ice

26 Iterations

Gust Response Factor 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.20

Wind Load Factor : 1.60

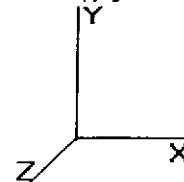
Linear Appurtenance Segment Forces (Factored)

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	F X (lb)	Dead Load (lb)
4.10	(3) 4.25" Solid Rod	Yes	4.10	0.000	8.50	2.90	0.00	15.364	0.192	1.277	0.00	145.09
5.00	(3) 4.25" Solid Rod	Yes	0.90	0.000	8.50	0.64	0.00	15.364	0.194	1.283	0.00	31.85
10.00	(3) 4.25" Solid Rod	Yes	5.00	0.000	8.50	3.54	0.00	15.364	0.196	1.289	0.00	176.94
15.00	(3) 4.25" Solid Rod	Yes	5.00	0.682	8.50	3.54	2.42	15.364	0.200	0.000	65.32	176.94
20.00	(3) 4.25" Solid Rod	Yes	5.00	0.682	8.50	3.54	2.42	15.364	0.204	0.000	65.32	176.94
25.00	(3) 4.25" Solid Rod	Yes	5.00	0.682	8.50	3.54	2.42	15.364	0.208	0.000	65.32	176.94
30.00	(3) 4.25" Solid Rod	Yes	5.00	0.682	8.50	3.54	2.41	15.377	0.212	0.000	65.35	176.94
35.00	(3) 4.25" Solid Rod	Yes	5.00	0.667	8.50	3.54	2.36	16.070	0.217	0.000	66.80	176.94
40.00	(3) 4.25" Solid Rod	Yes	5.00	0.654	8.50	3.54	2.32	16.694	0.222	0.000	68.09	176.94
44.10	(3) 4.25" Solid Rod	Yes	4.10	0.645	8.50	2.90	1.87	17.166	0.226	0.000	56.62	145.09
45.00	(3) 4.25" Solid Rod	Yes	0.90	0.643	8.50	0.64	0.41	17.266	0.228	0.000	12.46	31.85
50.00	(3) 4.25" Solid Rod	Yes	5.00	0.634	8.50	3.54	2.24	17.793	0.231	0.000	70.30	176.94
55.00	(3) 4.25" Solid Rod	Yes	5.00	0.625	8.50	3.54	2.21	18.285	0.237	0.000	71.26	176.94
60.00	(3) 4.25" Solid Rod	Yes	5.00	0.617	8.50	3.54	2.19	18.745	0.242	0.000	72.15	176.94
65.00	(3) 4.25" Solid Rod	Yes	5.00	0.610	8.50	3.54	2.16	19.179	0.248	0.000	72.98	176.94
70.00	(3) 4.25" Solid Rod	Yes	5.00	0.604	8.50	3.54	2.14	19.589	0.254	0.000	73.76	176.94
75.00	(3) 4.25" Solid Rod	Yes	5.00	0.600	8.50	3.54	2.13	19.979	0.260	0.000	74.72	176.94
80.00	(3) 4.25" Solid Rod	Yes	5.00	0.600	8.50	3.54	2.13	20.351	0.267	0.000	76.11	176.94
84.10	(3) 4.0" Solid Rod	Yes	4.10	0.625	8.00	2.73	1.71	20.643	0.258	0.000	62.09	36.90
85.00	(3) 4.0" Solid Rod	Yes	0.90	0.624	8.00	0.60	0.37	20.706	0.261	0.000	13.65	8.10
86.57	(3) 4.0" Solid Rod	Yes	1.57	0.623	8.00	1.05	0.65	20.815	0.263	0.000	23.87	14.13
86.60	(3) 4.0" Solid Rod	Yes	0.03	0.623	8.00	0.02	0.01	20.817	0.264	0.000	0.46	0.27
90.00	(3) 4.0" Solid Rod	Yes	3.40	0.619	8.00	2.27	1.40	21.047	0.266	0.000	51.99	30.60
95.00	(3) 4.0" Solid Rod	Yes	5.00	0.614	8.00	3.33	2.05	21.375	0.273	0.000	77.05	45.00
100.0	(3) 4.0" Solid Rod	Yes	5.00	0.610	8.00	3.33	2.03	21.690	0.280	0.000	77.61	45.00
104.1	(3) 4.0" Solid Rod	Yes	4.10	0.606	8.00	2.73	1.66	21.941	0.288	0.000	64.01	36.90
105.0	(3) 4.0" Solid Rod	Yes	0.90	0.606	8.00	0.60	0.36	21.995	0.292	0.000	14.07	8.10
110.0	(3) 4.0" Solid Rod	Yes	5.00	0.602	8.00	3.33	2.01	22.289	0.297	0.000	78.68	45.00
115.0	(3) 4.0" Solid Rod	Yes	5.00	0.600	8.00	3.33	2.00	22.574	0.307	0.000	79.46	45.00
120.0	(3) 4.0" Solid Rod	Yes	5.00	0.600	8.00	3.33	2.00	22.850	0.317	0.000	80.43	45.00
124.1	(3) 3.5" Solid Rod	Yes	4.10	0.676	7.00	2.39	1.62	23.071	0.286	0.000	65.63	19.19
125.0	(3) 3.5" Solid Rod	Yes	0.90	0.675	7.00	0.53	0.35	23.118	0.290	0.000	14.42	4.21
125.2	(3) 3.5" Solid Rod	Yes	0.27	0.675	7.00	0.16	0.11	23.133	0.292	0.000	4.33	1.26
126.3	(3) 3.5" Solid Rod	Yes	1.03	0.674	7.00	0.60	0.41	23.187	0.293	0.000	16.53	4.82
130.0	(3) 3.5" Solid Rod	Yes	3.70	0.671	7.00	2.16	1.45	23.379	0.298	0.000	59.63	17.32
135.0	(3) 3.5" Solid Rod	Yes	5.00	0.668	7.00	2.92	1.95	23.632	0.307	0.000	81.01	23.40
140.0	(3) 3.5" Solid Rod	Yes	5.00	0.664	7.00	2.92	1.94	23.879	0.318	0.000	81.43	23.40
144.1	(3) 3.0" Solid Rod	Yes	4.10	0.772	6.00	2.05	1.58	24.077	0.283	0.000	67.05	26.27
145.0	(3) 3.0" Solid Rod	Yes	0.90	0.771	6.00	0.45	0.35	24.120	0.288	0.000	14.73	5.77
150.0	(3) 3.0" Solid Rod	Yes	5.00	0.767	6.00	2.50	1.92	24.355	0.295	0.000	82.24	32.04
155.0	(3) 3.0" Solid Rod	Yes	5.00	0.764	6.00	2.50	1.91	24.584	0.307	0.000	82.63	32.04
158.0	(3) 3.0" Solid Rod	Yes	3.00	0.762	6.00	1.50	1.14	24.719	0.318	0.000	49.71	19.22
160.0	(3) 3.0" Solid Rod	Yes	2.00	0.760	6.00	1.00	0.76	24.808	0.325	0.000	33.20	12.82
Totals:											2,252.47	3,412.76

Pole : 302502
 Location : Harwinton, CT
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 Shape : 12 Sides
 Base Dia : 43.000 (in)
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 Taper : 0.158333 (in/ft)

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Load Case: 1.2D + 1.6W

95.00 mph with No Ice

26 Iterations

Gust Response Factor 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.20

Wind Load Factor : 1.60

Applied Segment Forces Summary

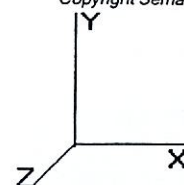
Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
4.10	521.32	1,593.94	0.00	0.00
5.00	113.86	348.13	0.00	0.00
10.00	628.72	2,008.94	0.00	0.00
15.00	639.51	1,989.43	0.00	0.00
20.00	628.42	1,969.91	0.00	0.00
25.00	617.34	1,950.39	0.00	0.00
30.00	606.75	1,930.88	0.00	0.00
35.00	620.99	1,911.36	0.00	0.00
40.00	631.79	1,891.84	0.00	0.00
44.10	522.68	1,536.75	0.00	0.00
45.00	114.24	309.71	0.00	0.00
50.00	676.75	1,719.40	0.00	0.00
55.00	649.09	1,692.73	0.00	0.00
60.00	651.00	1,676.44	0.00	0.00
65.00	651.39	1,660.15	0.00	0.00
70.00	650.42	1,643.86	0.00	0.00
75.00	648.45	1,627.57	0.00	0.00
80.00	645.84	1,611.28	0.00	0.00
84.10	524.86	1,200.87	0.00	0.00
85.00	114.22	247.30	0.00	0.00
86.57	199.03	430.06	0.00	0.00
86.60	3.79	7.49	0.00	0.00
90.00	430.38	845.70	0.00	0.00
95.00	629.20	1,232.72	0.00	0.00
100.0	622.27	1,219.70	0.00	0.00
104.1	503.97	990.42	0.00	0.00
105.0	109.47	216.27	0.00	0.00
110.0	606.22	1,193.68	0.00	0.00
115.0	597.47	1,180.67	0.00	0.00
120.0	588.30	1,167.66	0.00	0.00
124.1	473.67	930.04	0.00	0.00
125.0	102.69	175.95	0.00	0.00
125.2	30.70	52.68	0.00	0.00
126.3	116.99	181.69	0.00	0.00
130.0	417.56	649.18	0.00	0.00
135.0	555.12	868.75	0.00	0.00
140.0	543.27	858.97	0.00	0.00
144.1	435.93	704.12	0.00	0.00
145.0	94.30	130.24	0.00	0.00
150.0	518.14	717.69	0.00	0.00
155.0	504.90	707.90	0.00	0.00
158.0	295.91	420.05	0.00	0.00
160.0	194.35	133.77	0.00	0.00
165.0	328.15	295.55	0.00	0.00
170.0	315.79	285.76	0.00	0.00
175.0	4,264.05	2,353.18	0.00	0.00
180.0	3,799.86	3,223.36	0.00	17,548.56
Totals:	28,139.15	51,694.10	0.00	17,548.56

Pole : 302502
 Location : Harwinton, CT
 Height : 180.0 (ft)
 Shape : 12 Sides
 Base Dia : 43.000 (in)
 Top Dia : 14.500 (in)
 Taper : 0.158333 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1

Base Elev : 0.000 (ft)

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Load Case: 1.2D + 1.6W

95.00 mph with No Ice

26 Iterations

Gust Response Factor 1.10
 Dead Load Factor : 1.20
 Wind Load Factor : 1.60

Wind Importance Factor : 1.00

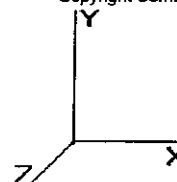
Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-51.66	-28.20	0.00	-3,232.83	0.00	3,232.83	3,010.98	1,505.49	5,293.47	2,614.24	0.00	0.00	0.552
4.10	-50.03	-27.75	0.00	-3,117.20	0.00	3,117.20	3,010.98	1,505.49	5,293.47	2,614.24	0.06	-0.14	0.542
4.10	-50.03	-27.75	0.00	-3,117.20	0.00	3,117.20	3,010.98	1,505.49	5,293.47	2,614.24	0.06	-0.14	0.542
5.00	-49.63	-27.72	0.00	-3,092.23	0.00	3,092.23	2,955.05	1,477.53	5,097.82	2,517.62	0.09	-0.17	0.540
10.00	-47.55	-27.22	0.00	-2,953.63	0.00	2,953.63	2,899.13	1,449.57	4,905.86	2,422.82	0.35	-0.33	0.528
15.00	-45.49	-26.70	0.00	-2,817.53	0.00	2,817.53	2,843.21	1,421.60	4,717.59	2,329.84	0.79	-0.49	0.515
20.00	-43.45	-26.17	0.00	-2,684.05	0.00	2,684.05	2,787.29	1,393.64	4,532.99	2,238.67	1.39	-0.66	0.502
25.00	-41.43	-25.65	0.00	-2,553.19	0.00	2,553.19	2,731.36	1,365.68	4,352.08	2,149.33	2.17	-0.82	0.489
30.00	-39.44	-25.12	0.00	-2,424.97	0.00	2,424.97	2,675.44	1,337.72	4,174.86	2,061.81	3.12	-0.98	0.476
35.00	-37.48	-24.57	0.00	-2,299.38	0.00	2,299.38	2,619.52	1,309.76	4,001.32	1,976.10	4.23	-1.14	0.462
40.00	-35.54	-23.98	0.00	-2,176.55	0.00	2,176.55	2,563.60	1,281.80	3,831.46	1,892.22	5.51	-1.30	0.448
44.10	-33.98	-23.47	0.00	-2,078.22	0.00	2,078.22	2,563.60	1,281.80	3,831.46	1,892.22	6.68	-1.43	0.436
44.10	-33.98	-23.47	0.00	-2,078.22	0.00	2,078.22	2,563.60	1,281.80	3,831.46	1,892.22	6.68	-1.43	0.000
45.00	-33.64	-23.41	0.00	-2,057.09	0.00	2,057.09	2,096.73	1,048.36	3,075.36	1,518.80	6.96	-1.46	0.461
50.00	-31.87	-22.77	0.00	-1,940.06	0.00	1,940.06	2,050.05	1,025.03	2,939.37	1,451.64	8.57	-1.62	0.445
55.00	-30.14	-22.16	0.00	-1,826.19	0.00	1,826.19	2,003.38	1,001.69	2,806.46	1,386.01	10.35	-1.78	0.429
60.00	-28.42	-21.53	0.00	-1,715.40	0.00	1,715.40	1,956.70	978.35	2,676.63	1,321.89	12.31	-1.94	0.412
65.00	-26.73	-20.90	0.00	-1,607.73	0.00	1,607.73	1,910.02	955.01	2,549.87	1,259.28	14.43	-2.10	0.396
70.00	-25.06	-20.25	0.00	-1,503.25	0.00	1,503.25	1,863.35	931.67	2,426.18	1,198.20	16.71	-2.25	0.379
75.00	-23.41	-19.60	0.00	-1,402.00	0.00	1,402.00	1,816.67	908.33	2,305.57	1,138.64	19.15	-2.40	0.362
80.00	-21.78	-18.93	0.00	-1,304.01	0.00	1,304.01	1,769.99	885.00	2,188.04	1,080.59	21.75	-2.55	0.344
84.10	-20.58	-18.38	0.00	-1,226.39	0.00	1,226.39	1,769.99	885.00	2,188.04	1,080.59	23.99	-2.67	0.330
84.10	-20.58	-18.38	0.00	-1,226.39	0.00	1,226.39	1,769.99	885.00	2,188.04	1,080.59	23.99	-2.67	0.363
85.00	-20.33	-18.27	0.00	-1,209.84	0.00	1,209.84	1,723.32	861.66	2,073.58	1,024.06	24.50	-2.70	0.360
86.57	-19.90	-18.06	0.00	-1,181.17	0.00	1,181.17	1,708.66	854.33	2,038.28	1,006.63	25.40	-2.75	0.354
86.57	-19.90	-18.06	0.00	-1,181.17	0.00	1,181.17	1,708.66	854.33	2,038.28	1,006.63	25.40	-2.75	0.377
86.60	-19.87	-18.07	0.00	-1,180.62	0.00	1,180.62	1,708.66	854.33	2,038.28	1,006.63	25.41	-2.75	0.376
86.60	-19.87	-18.07	0.00	-1,180.62	0.00	1,180.62	1,708.66	854.33	2,038.28	1,006.63	25.41	-2.75	0.376
90.00	-19.01	-17.65	0.00	-1,119.17	0.00	1,119.17	1,342.14	671.07	1,577.69	779.16	27.41	-2.86	0.363
95.00	-17.76	-17.00	0.00	-1,030.94	0.00	1,030.94	1,304.85	652.43	1,490.89	736.29	30.49	-3.02	0.342
100.00	-16.54	-16.36	0.00	-945.92	0.00	945.92	1,267.57	633.79	1,406.54	694.64	33.74	-3.17	0.321
104.10	-15.56	-15.82	0.00	-878.85	0.00	878.85	1,267.57	633.79	1,406.54	694.64	36.52	-3.30	0.304
104.10	-15.56	-15.82	0.00	-878.85	0.00	878.85	1,267.57	633.79	1,406.54	694.64	36.52	-3.30	0.304
105.00	-15.33	-15.72	0.00	-864.62	0.00	864.62	1,230.29	615.15	1,324.65	654.19	37.15	-3.32	0.301
110.00	-14.13	-15.08	0.00	-786.02	0.00	786.02	1,193.01	596.51	1,245.21	614.96	40.71	-3.47	0.280
115.00	-12.96	-14.44	0.00	-710.63	0.00	710.63	1,155.73	577.86	1,168.24	576.95	44.41	-3.61	0.259
120.00	-11.80	-13.80	0.00	-638.43	0.00	638.43	1,118.45	559.22	1,093.71	540.14	48.26	-3.74	0.239
124.10	-10.89	-13.28	0.00	-581.85	0.00	581.85	1,118.45	559.22	1,093.71	540.14	51.51	-3.84	0.222
124.10	-10.89	-13.28	0.00	-581.85	0.00	581.85	1,118.45	559.22	1,093.71	540.14	51.51	-3.84	0.280
125.00	-10.72	-13.17	0.00	-569.90	0.00	569.90	1,081.17	540.58	1,021.65	504.55	52.23	-3.86	0.275
125.27	-10.66	-13.14	0.00	-566.34	0.00	566.34	1,079.15	539.58	1,017.83	502.67	52.45	-3.87	0.274
125.27	-10.66	-13.14	0.00	-566.34	0.00	566.34	1,079.15	539.58	1,017.83	502.67	52.45	-3.87	0.296
126.30	-10.47	-13.02	0.00	-552.81	0.00	552.81	1,079.15	539.58	1,017.83	502.67	53.29	-3.90	0.290
126.30	-10.47	-13.02	0.00	-552.81	0.00	552.81	1,079.15	539.58	1,017.83	502.67	53.29	-3.90	0.290
130.00	-9.83	-12.58	0.00	-504.63	0.00	504.63	787.08	393.54	721.85	356.50	56.36	-4.02	0.266
135.00	-8.97	-11.99	0.00	-441.71	0.00	441.71	759.16	379.58	671.24	331.50	60.65	-4.16	0.239
140.00	-8.13	-11.40	0.00	-381.77	0.00	381.77	731.12	365.56	622.37	307.37	65.08	-4.30	0.211
144.10	-7.45	-10.92	0.00	-335.02	0.00	335.02	731.12	365.56	622.37	307.37	68.81	-4.40	0.189
144.10	-7.45	-10.92	0.00	-335.02	0.00	335.02	731.12	365.56	622.37	307.37	68.81	-4.40	0.250
145.00	-7.31	-10.83	0.00	-325.19	0.00	325.19	703.09	351.54	575.35	284.14	69.64	-4.42	0.244
150.00	-6.61	-10.27	0.00	-271.06	0.00	271.06	675.05	337.53	530.17	261.83	74.35	-4.57	0.210

Pole : 302502
 Location : Harwinton, CT
 Height : 180.0 (ft)
 Shape : 12 Sides
 Base Dia : 43.000 (in)
 Top Dia : 14.500 (in)
 Taper : 0.158333 (in/ft)

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

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Load Case: 1.2D + 1.6W	95.00 mph with No Ice	26 Iterations
Gust Response Factor 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 1.20		
Wind Load Factor : 1.60		

155.00	-5.93	-9.72	0.00	-219.70	0.00	219.70	647.02	323.51	486.84	240.43	79.21	-4.70	0.175
158.00	-5.53	-9.40	0.00	-190.54	0.00	190.54	647.02	323.51	486.84	240.43	82.18	-4.77	0.155
158.00	-5.53	-9.40	0.00	-190.54	0.00	190.54	647.02	323.51	486.84	240.43	82.18	-4.77	0.845
160.00	-5.36	-9.22	0.00	-171.75	0.00	171.75	618.98	309.49	445.36	219.95	84.18	-4.81	0.790
165.00	-5.03	-8.91	0.00	-125.65	0.00	125.65	590.95	295.47	405.73	200.37	89.50	-5.32	0.636
170.00	-4.72	-8.59	0.00	-81.12	0.00	81.12	562.91	281.46	367.94	181.71	95.30	-5.73	0.456
175.00	-2.80	-4.12	0.00	-38.15	0.00	38.15	534.87	267.44	332.00	163.96	101.46	-6.01	0.238
180.00	0.00	-3.80	0.00	-17.55	0.00	17.55	506.84	253.42	297.90	147.12	107.82	-6.16	0.120

Pole : 302502
 Location : Harwinton, CT
 Height : 180.0 (ft)
 Shape : 12 Sides
 Base Dia : 43.000 (in)
 Top Dia : 14.500 (in)
 Taper : 0.158333 (in/ft)

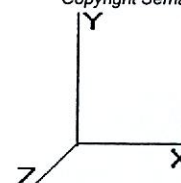
Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1

Base Elev : 0.000 (ft)

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Load Case: 0.9D + 1.6W

95.00 mph with No Ice (Reduced DL)

26 Iterations

Gust Response Factor 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 0.90

Wind Load Factor : 1.60

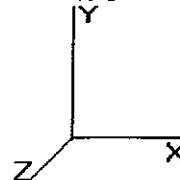
Shaft Segment Forces (Factored)

Seg Top Elev (ft)	Description	Kzt	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		1.00	0.70	15.364	16.901	294.86	1.000	0.000	0.00	0.000	0.00	0.0	0.0	0.0
4.10	Reinf. Top Reinf	1.00	0.70	15.364	16.901	290.40	1.000	* 0.000	4.10	15.095	15.10	408.2	0.0	1,235.1
5.00		1.00	0.70	15.364	16.901	289.43	1.000	* 0.000	0.90	3.283	3.28	88.8	0.0	269.8
10.00		1.00	0.70	15.364	16.901	284.00	1.000	* 0.000	5.00	18.036	18.04	487.7	0.0	1,490.2
15.00		1.00	0.70	15.364	16.901	278.57	1.200	* 0.000	5.00	17.695	21.23	574.2	0.0	1,475.6
20.00		1.00	0.70	15.364	16.901	273.14	1.200	* 0.000	5.00	17.353	20.82	563.1	0.0	1,460.9
25.00		1.00	0.70	15.364	16.901	267.71	1.200	* 0.000	5.00	17.012	20.41	552.0	0.0	1,446.3
30.00		1.00	0.70	15.377	16.915	262.39	1.200	* 0.000	5.00	16.670	20.00	541.4	0.0	1,431.7
35.00		1.00	0.73	16.070	17.676	262.69	1.200	* 0.000	5.00	16.329	19.59	554.2	0.0	1,417.0
40.00		1.00	0.76	16.694	18.364	262.09	1.200	* 0.000	5.00	15.987	19.18	563.7	0.0	1,402.4
44.10	Top - Section 1 Reinf.	1.00	0.78	17.166	18.883	261.06	1.200	* 0.000	4.10	12.855	15.43	466.1	0.0	1,139.0
45.00		1.00	0.78	17.266	18.992	260.78	1.200	* 0.000	0.90	2.791	3.35	101.8	0.0	229.3
50.00	Appertunance(s)	1.00	0.81	17.793	19.573	258.89	1.200	* 0.000	5.00	15.304	18.37	575.1	0.0	1,266.8
55.00		1.00	0.83	18.285	20.113	256.52	1.200	* 0.000	5.00	14.963	17.96	577.8	0.0	1,254.5
60.00		1.00	0.85	18.745	20.619	253.73	1.200	* 0.000	5.00	14.621	17.55	578.9	0.0	1,242.3
65.00		1.00	0.87	19.179	21.096	250.58	1.200	* 0.000	5.00	14.280	17.14	578.4	0.0	1,230.1
70.00		1.00	0.89	19.589	21.548	247.12	1.200	* 0.000	5.00	13.938	16.73	576.7	0.0	1,217.9
75.00		1.00	0.91	19.979	21.977	243.38	1.200	* 0.000	5.00	13.597	16.32	573.7	0.0	1,205.7
80.00		1.00	0.92	20.351	22.386	239.38	1.200	* 0.000	5.00	13.255	15.91	569.7	0.0	1,193.5
84.10	Reinf. Top Reinf	1.00	0.94	20.643	22.708	235.94	1.200	* 0.000	4.10	10.614	12.74	462.8	0.0	969.5
85.00		1.00	0.94	20.706	22.777	235.16	1.200	* 0.000	0.90	2.300	2.76	100.6	0.0	196.9
86.57	Top - Section 2	1.00	0.94	20.815	22.896	233.80	1.200	* 0.000	1.57	3.984	4.78	175.2	0.0	342.4
86.60	Reinf. Top Reinf	1.00	0.94	20.817	22.899	233.77	1.200	* 0.000	0.03	0.076	0.09	3.3	0.0	6.0
90.00		1.00	0.95	21.047	23.152	230.74	1.200	* 0.000	3.40	8.512	10.21	378.4	0.0	677.3
95.00		1.00	0.97	21.375	23.512	226.12	1.200	* 0.000	5.00	12.231	14.68	552.2	0.0	987.8
100.0		1.00	0.98	21.690	23.860	221.34	1.200	* 0.000	5.00	11.890	14.27	544.7	0.0	978.1
104.1	Reinf. Top Reinf	1.00	1.00	21.941	24.135	217.29	1.200	* 0.000	4.10	9.494	11.39	440.0	0.0	794.7
105.0		1.00	1.00	21.995	24.194	216.39	1.200	* 0.000	0.90	2.054	2.46	95.4	0.0	173.6
110.0		1.00	1.01	22.289	24.518	211.29	1.200	* 0.000	5.00	11.207	13.45	527.5	0.0	958.6
115.0		1.00	1.02	22.574	24.832	206.06	1.200	* 0.000	5.00	10.865	13.04	518.0	0.0	948.8
120.0		1.00	1.04	22.850	25.135	200.70	1.200	* 0.000	5.00	10.524	12.63	507.9	0.0	939.0
124.1	Reinf. Top Reinf	1.00	1.05	23.071	25.378	196.21	1.200	* 0.000	4.10	8.374	10.05	408.0	0.0	762.7
125.0		1.00	1.05	23.118	25.430	195.21	1.200	* 0.000	0.90	1.808	2.17	88.3	0.0	139.5
125.2	Top - Section 3	1.00	1.05	23.133	25.446	194.91	1.200	* 0.000	0.27	0.540	0.65	26.4	0.0	41.8
126.3	Reinf. Top Reinf	1.00	1.05	23.187	25.506	193.77	1.200	* 0.000	1.03	2.051	2.46	100.5	0.0	144.9
130.0		1.00	1.06	23.379	25.717	189.61	1.200	* 0.000	3.70	7.249	8.70	357.9	0.0	517.9
135.0		1.00	1.07	23.632	25.996	183.90	1.200	* 0.000	5.00	9.499	11.40	474.1	0.0	693.5
140.0		1.00	1.08	23.879	26.267	178.09	1.200	* 0.000	5.00	9.158	10.99	461.8	0.0	686.1
144.1	Reinf. Top Reinf	1.00	1.09	24.077	26.485	173.26	1.200	* 0.000	4.10	7.254	8.71	368.9	0.0	557.1
145.0		1.00	1.09	24.120	26.532	172.19	1.200	* 0.000	0.90	1.562	1.87	79.6	0.0	98.2
150.0		1.00	1.11	24.355	26.790	166.19	1.200	* 0.000	5.00	8.475	10.17	435.9	0.0	541.1
155.0		1.00	1.12	24.584	27.042	160.10	1.200	* 0.000	5.00	8.133	9.76	422.3	0.0	533.8
158.0	Reinf. Top	1.00	1.12	24.719	27.191	156.41	1.200	* 0.000	3.00	4.716	5.66	246.2	0.0	316.7
160.0		1.00	1.13	24.808	27.289	153.93	1.200	* 0.000	2.00	3.076	3.69	161.1	0.0	65.4
165.0		1.00	1.14	25.027	27.530	147.68	1.000	0.000	5.00	7.450	7.45	328.2	0.0	158.4
170.0		1.00	1.15	25.241	27.765	141.36	1.000	0.000	5.00	7.109	7.11	315.8	0.0	151.0
175.0	Appertunance(s)	1.00	1.16	25.451	27.996	134.95	1.000	0.000	5.00	6.767	6.77	303.1	0.0	143.7
180.0	Appertunance(s)	1.00	1.16	25.657	28.223	128.48	1.000	0.000	5.00	6.426	6.43	290.2	0.0	136.3
* = Cf Adjusted By Linear Load Ra Effect								Totals:	180.00			18,105.5	0.0	35,269.0

Pole : 302502
 Location : Harwinton, CT
 Height : 180.0 (ft)
 Shape : 12 Sides
 Base Dia : 43.000 (in)
 Top Dia : 14.500 (in)
 Taper : 0.158333 (in/ft)

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

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Load Case: 0.9D + 1.6W	95.00 mph with No Ice (Reduced DL)	26 Iterations
Gust Response Factor 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 0.90		
Wind Load Factor : 1.60		

Discrete Appurtenance Segment Forces (Factored)

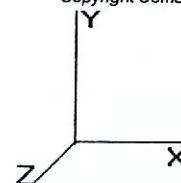
Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Ka	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
50.00	Lucent KS-24019	1	17.793	19.573	1.00	1.00	1.00	0.000	0.000	31.32	0.00	0.00	6.30
175.0	Flat Low Profile Pla	1	25.451	27.996	1.00	1.00	26.10	0.000	0.000	1,169.13	0.00	0.00	1,350.00
175.0	Antel LPA-80063/6CF	6	25.451	27.996	0.75	0.80	46.65	0.000	0.000	2,089.83	0.00	0.00	145.80
175.0	Decibel DB950G85E-	6	25.451	27.996	0.62	0.80	15.67	0.000	0.000	701.97	0.00	0.00	62.10
180.0	Round Platform with	1	25.859	28.444	1.00	1.00	27.20	0.000	5.000	1,237.90	0.00	6,189.48	1,800.00
180.0	CDA Diplexer	9	25.859	28.444	0.50	0.75	5.34	0.000	5.000	242.87	0.00	1,214.36	81.00
180.0	CSS DUO4-8670	11	25.859	28.444	0.62	0.75	44.58	0.000	5.000	2,028.94	0.00	10,144.72	381.15
										7,501.96			3,826.35

Pole : 302502
 Location : Harwinton, CT
 Height : 180.0 (ft)
 Shape : 12 Sides
 Base Dia : 43.000 (in)
 Top Dia : 14.500 (in)
 Taper : 0.158333 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1

Base Elev : 0.000 (ft)

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Load Case: 0.9D + 1.6W

95.00 mph with No Ice (Reduced DL)

26 Iterations

Gust Response Factor 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 0.90

Wind Load Factor : 1.60

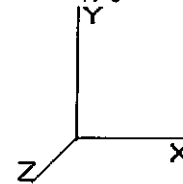
Linear Appurtenance Segment Forces (Factored)

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	F X (lb)	Dead Load (lb)
4.10	(3) 4.25" Solid Rod	Yes	4.10	0.000	8.50	2.90	0.00	15.364	0.192	1.277	0.00	108.82
5.00	(3) 4.25" Solid Rod	Yes	0.90	0.000	8.50	0.64	0.00	15.364	0.194	1.283	0.00	23.89
10.00	(3) 4.25" Solid Rod	Yes	5.00	0.000	8.50	3.54	0.00	15.364	0.196	1.289	0.00	132.70
15.00	(3) 4.25" Solid Rod	Yes	5.00	0.682	8.50	3.54	2.42	15.364	0.200	0.000	65.32	132.70
20.00	(3) 4.25" Solid Rod	Yes	5.00	0.682	8.50	3.54	2.42	15.364	0.204	0.000	65.32	132.70
25.00	(3) 4.25" Solid Rod	Yes	5.00	0.682	8.50	3.54	2.42	15.364	0.208	0.000	65.32	132.70
30.00	(3) 4.25" Solid Rod	Yes	5.00	0.682	8.50	3.54	2.41	15.377	0.212	0.000	65.35	132.70
35.00	(3) 4.25" Solid Rod	Yes	5.00	0.667	8.50	3.54	2.36	16.070	0.217	0.000	66.80	132.70
40.00	(3) 4.25" Solid Rod	Yes	5.00	0.654	8.50	3.54	2.32	16.694	0.222	0.000	68.09	132.70
44.10	(3) 4.25" Solid Rod	Yes	4.10	0.645	8.50	2.90	1.87	17.166	0.226	0.000	56.62	108.82
45.00	(3) 4.25" Solid Rod	Yes	0.90	0.643	8.50	0.64	0.41	17.266	0.228	0.000	12.46	23.89
50.00	(3) 4.25" Solid Rod	Yes	5.00	0.634	8.50	3.54	2.24	17.793	0.231	0.000	70.30	132.70
55.00	(3) 4.25" Solid Rod	Yes	5.00	0.625	8.50	3.54	2.21	18.285	0.237	0.000	71.26	132.70
60.00	(3) 4.25" Solid Rod	Yes	5.00	0.617	8.50	3.54	2.19	18.745	0.242	0.000	72.15	132.70
65.00	(3) 4.25" Solid Rod	Yes	5.00	0.610	8.50	3.54	2.16	19.179	0.248	0.000	72.98	132.70
70.00	(3) 4.25" Solid Rod	Yes	5.00	0.604	8.50	3.54	2.14	19.589	0.254	0.000	73.76	132.70
75.00	(3) 4.25" Solid Rod	Yes	5.00	0.600	8.50	3.54	2.13	19.979	0.260	0.000	74.72	132.70
80.00	(3) 4.25" Solid Rod	Yes	5.00	0.600	8.50	3.54	2.13	20.351	0.267	0.000	76.11	132.70
84.10	(3) 4.0" Solid Rod	Yes	4.10	0.625	8.00	2.73	1.71	20.643	0.258	0.000	62.09	27.67
85.00	(3) 4.0" Solid Rod	Yes	0.90	0.624	8.00	0.60	0.37	20.706	0.261	0.000	13.65	6.08
86.57	(3) 4.0" Solid Rod	Yes	1.57	0.623	8.00	1.05	0.65	20.815	0.263	0.000	23.87	10.60
86.60	(3) 4.0" Solid Rod	Yes	0.03	0.623	8.00	0.02	0.01	20.817	0.264	0.000	0.46	0.20
90.00	(3) 4.0" Solid Rod	Yes	3.40	0.619	8.00	2.27	1.40	21.047	0.266	0.000	51.99	22.95
95.00	(3) 4.0" Solid Rod	Yes	5.00	0.614	8.00	3.33	2.05	21.375	0.273	0.000	77.05	33.75
100.0	(3) 4.0" Solid Rod	Yes	5.00	0.610	8.00	3.33	2.03	21.690	0.280	0.000	77.61	33.75
104.1	(3) 4.0" Solid Rod	Yes	4.10	0.606	8.00	2.73	1.66	21.941	0.288	0.000	64.01	27.67
105.0	(3) 4.0" Solid Rod	Yes	0.90	0.606	8.00	0.60	0.36	21.995	0.292	0.000	14.07	6.08
110.0	(3) 4.0" Solid Rod	Yes	5.00	0.602	8.00	3.33	2.01	22.289	0.297	0.000	78.68	33.75
115.0	(3) 4.0" Solid Rod	Yes	5.00	0.600	8.00	3.33	2.00	22.574	0.307	0.000	79.46	33.75
120.0	(3) 4.0" Solid Rod	Yes	5.00	0.600	8.00	3.33	2.00	22.850	0.317	0.000	80.43	33.75
124.1	(3) 3.5" Solid Rod	Yes	4.10	0.676	7.00	2.39	1.62	23.071	0.286	0.000	65.63	14.39
125.0	(3) 3.5" Solid Rod	Yes	0.90	0.675	7.00	0.53	0.35	23.118	0.290	0.000	14.42	3.16
125.2	(3) 3.5" Solid Rod	Yes	0.27	0.675	7.00	0.16	0.11	23.133	0.292	0.000	4.33	0.95
126.3	(3) 3.5" Solid Rod	Yes	1.03	0.674	7.00	0.60	0.41	23.187	0.293	0.000	16.53	3.62
130.0	(3) 3.5" Solid Rod	Yes	3.70	0.671	7.00	2.16	1.45	23.379	0.298	0.000	59.63	12.99
135.0	(3) 3.5" Solid Rod	Yes	5.00	0.668	7.00	2.92	1.95	23.632	0.307	0.000	81.01	17.55
140.0	(3) 3.5" Solid Rod	Yes	5.00	0.664	7.00	2.92	1.94	23.879	0.318	0.000	81.43	17.55
144.1	(3) 3.0" Solid Rod	Yes	4.10	0.772	6.00	2.05	1.58	24.077	0.283	0.000	67.05	19.70
145.0	(3) 3.0" Solid Rod	Yes	0.90	0.771	6.00	0.45	0.35	24.120	0.288	0.000	14.73	4.33
150.0	(3) 3.0" Solid Rod	Yes	5.00	0.767	6.00	2.50	1.92	24.355	0.295	0.000	82.24	24.03
155.0	(3) 3.0" Solid Rod	Yes	5.00	0.764	6.00	2.50	1.91	24.584	0.307	0.000	82.63	24.03
158.0	(3) 3.0" Solid Rod	Yes	3.00	0.762	6.00	1.50	1.14	24.719	0.318	0.000	49.71	14.42
160.0	(3) 3.0" Solid Rod	Yes	2.00	0.760	6.00	1.00	0.76	24.808	0.325	0.000	33.20	9.61
Totals:											2,252.47	2,559.57

Pole : 302502
 Location : Harwinton, CT
 Height : 180.0 (ft)
 Shape : 12 Sides
 Base Dia : 43.000 (in)
 Top Dia : 14.500 (in)
 Taper : 0.158333 (in/ft)

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

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Load Case: 0.9D + 1.6W	95.00 mph with No Ice (Reduced DL)	26 Iterations
Gust Response Factor 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 0.90		
Wind Load Factor : 1.60		

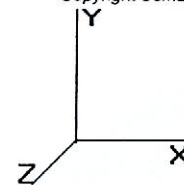
Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
4.10	408.19	1,343.88	0.00	0.00
5.00	88.77	293.68	0.00	0.00
10.00	487.72	1,687.72	0.00	0.00
15.00	639.51	1,673.08	0.00	0.00
20.00	628.42	1,658.44	0.00	0.00
25.00	617.34	1,643.81	0.00	0.00
30.00	606.75	1,629.17	0.00	0.00
35.00	620.99	1,614.53	0.00	0.00
40.00	631.79	1,599.89	0.00	0.00
44.10	522.68	1,300.99	0.00	0.00
45.00	114.24	264.87	0.00	0.00
50.00	676.75	1,470.56	0.00	0.00
55.00	649.09	1,450.56	0.00	0.00
60.00	651.00	1,438.34	0.00	0.00
65.00	651.39	1,426.12	0.00	0.00
70.00	650.42	1,413.91	0.00	0.00
75.00	648.45	1,401.69	0.00	0.00
80.00	645.84	1,389.47	0.00	0.00
84.10	524.86	1,049.08	0.00	0.00
85.00	114.22	214.34	0.00	0.00
86.57	199.03	372.89	0.00	0.00
86.60	3.79	6.58	0.00	0.00
90.00	430.38	743.32	0.00	0.00
95.00	629.20	1,084.89	0.00	0.00
100.0	622.27	1,075.13	0.00	0.00
104.1	503.97	874.30	0.00	0.00
105.0	109.47	191.07	0.00	0.00
110.0	606.22	1,055.61	0.00	0.00
115.0	597.47	1,045.85	0.00	0.00
120.0	588.30	1,036.09	0.00	0.00
124.1	473.67	829.01	0.00	0.00
125.0	102.69	154.07	0.00	0.00
125.2	30.70	46.14	0.00	0.00
126.3	116.99	161.56	0.00	0.00
130.0	417.56	577.74	0.00	0.00
135.0	555.12	774.34	0.00	0.00
140.0	543.27	767.00	0.00	0.00
144.1	435.93	628.76	0.00	0.00
145.0	94.30	113.91	0.00	0.00
150.0	518.14	628.45	0.00	0.00
155.0	504.90	621.11	0.00	0.00
158.0	295.91	369.15	0.00	0.00
160.0	194.35	100.33	0.00	0.00
165.0	328.15	221.66	0.00	0.00
170.0	315.79	214.32	0.00	0.00
175.0	4,264.05	1,764.88	0.00	0.00
180.0	3,799.86	2,417.52	0.00	17,548.56
Totals:	27,859.94	43,839.82	0.00	17,548.56

Pole : 302502
 Location : Harwinton, CT
 Height : 180.0 (ft)
 Shape : 12 Sides
 Base Dia : 43.000 (in)
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Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1
 Base Elev : 0.000 (ft)

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Load Case: 0.9D + 1.6W

95.00 mph with No Ice (Reduced DL)

26 Iterations

Gust Response Factor 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 0.90

Wind Load Factor : 1.60

Calculated Forces

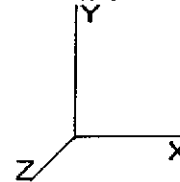
Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-43.81	-27.91	0.00	-3,206.24	0.00	3,206.24	3,010.98	1,505.49	5,293.47	2,614.24	0.00	0.00	0.546
4.10	-42.42	-27.56	0.00	-3,091.80	0.00	3,091.80	3,010.98	1,505.49	5,293.47	2,614.24	0.06	-0.13	0.537
4.10	-42.42	-27.56	0.00	-3,091.80	0.00	3,091.80	3,010.98	1,505.49	5,293.47	2,614.24	0.06	-0.13	0.537
5.00	-42.08	-27.55	0.00	-3,066.99	0.00	3,066.99	2,955.05	1,477.53	5,097.82	2,517.62	0.09	-0.16	0.535
10.00	-40.32	-27.17	0.00	-2,929.26	0.00	2,929.26	2,899.13	1,449.57	4,905.86	2,422.82	0.35	-0.33	0.522
15.00	-38.58	-26.62	0.00	-2,793.44	0.00	2,793.44	2,843.21	1,421.60	4,717.59	2,329.84	0.78	-0.49	0.510
20.00	-36.85	-26.08	0.00	-2,660.32	0.00	2,660.32	2,787.29	1,393.64	4,532.99	2,238.67	1.38	-0.65	0.497
25.00	-35.14	-25.54	0.00	-2,529.92	0.00	2,529.92	2,731.36	1,365.68	4,352.08	2,149.33	2.15	-0.81	0.483
30.00	-33.46	-25.00	0.00	-2,402.21	0.00	2,402.21	2,675.44	1,337.72	4,174.86	2,061.81	3.09	-0.97	0.470
35.00	-31.79	-24.44	0.00	-2,277.20	0.00	2,277.20	2,619.52	1,309.76	4,001.32	1,976.10	4.20	-1.13	0.456
40.00	-30.14	-23.85	0.00	-2,155.01	0.00	2,155.01	2,563.60	1,281.80	3,831.46	1,892.22	5.46	-1.29	0.442
44.10	-28.82	-23.33	0.00	-2,057.23	0.00	2,057.23	2,563.60	1,281.80	3,831.46	1,892.22	6.63	-1.41	0.431
44.10	-28.82	-23.33	0.00	-2,057.23	0.00	2,057.23	2,563.60	1,281.80	3,831.46	1,892.22	6.63	-1.41	0.000
45.00	-28.52	-23.26	0.00	-2,036.23	0.00	2,036.23	2,096.73	1,048.36	3,075.36	1,518.80	6.90	-1.44	0.456
50.00	-27.00	-22.62	0.00	-1,919.93	0.00	1,919.93	2,050.05	1,025.03	2,939.37	1,451.64	8.49	-1.61	0.440
55.00	-25.51	-22.00	0.00	-1,806.82	0.00	1,806.82	2,003.38	1,001.69	2,806.46	1,386.01	10.26	-1.77	0.423
60.00	-24.04	-21.37	0.00	-1,696.81	0.00	1,696.81	1,956.70	978.35	2,676.63	1,321.89	12.20	-1.92	0.407
65.00	-22.58	-20.73	0.00	-1,589.96	0.00	1,589.96	1,910.02	955.01	2,549.87	1,259.28	14.30	-2.08	0.390
70.00	-21.14	-20.08	0.00	-1,486.31	0.00	1,486.31	1,863.35	931.67	2,426.18	1,198.20	16.56	-2.23	0.374
75.00	-19.71	-19.43	0.00	-1,385.90	0.00	1,385.90	1,816.67	908.33	2,305.57	1,138.64	18.98	-2.38	0.357
80.00	-18.31	-18.77	0.00	-1,288.76	0.00	1,288.76	1,769.99	885.00	2,188.04	1,080.59	21.55	-2.53	0.340
84.10	-17.26	-18.22	0.00	-1,211.82	0.00	1,211.82	1,769.99	885.00	2,188.04	1,080.59	23.77	-2.64	0.326
84.10	-17.26	-18.22	0.00	-1,211.82	0.00	1,211.82	1,769.99	885.00	2,188.04	1,080.59	23.77	-2.64	0.358
85.00	-17.04	-18.10	0.00	-1,195.42	0.00	1,195.42	1,723.32	861.66	2,073.58	1,024.06	24.27	-2.67	0.355
86.57	-16.67	-17.89	0.00	-1,167.00	0.00	1,167.00	1,708.66	854.33	2,038.28	1,006.63	25.16	-2.72	0.349
86.57	-16.67	-17.89	0.00	-1,167.00	0.00	1,167.00	1,708.66	854.33	2,038.28	1,006.63	25.16	-2.72	0.371
86.60	-16.65	-17.91	0.00	-1,166.47	0.00	1,166.47	1,708.66	854.33	2,038.28	1,006.63	25.18	-2.72	0.371
86.60	-16.65	-17.91	0.00	-1,166.47	0.00	1,166.47	1,708.66	854.33	2,038.28	1,006.63	25.18	-2.72	0.371
90.00	-15.88	-17.48	0.00	-1,105.58	0.00	1,105.58	1,342.14	671.07	1,577.69	779.16	27.16	-2.83	0.357
95.00	-14.79	-16.83	0.00	-1,018.19	0.00	1,018.19	1,304.85	652.43	1,490.89	736.29	30.21	-2.99	0.337
100.00	-13.71	-16.19	0.00	-934.02	0.00	934.02	1,267.57	633.79	1,406.54	694.64	33.42	-3.14	0.316
104.10	-12.84	-15.65	0.00	-867.65	0.00	867.65	1,267.57	633.79	1,406.54	694.64	36.17	-3.26	0.300
104.10	-12.84	-15.65	0.00	-867.65	0.00	867.65	1,267.57	633.79	1,406.54	694.64	36.17	-3.26	0.300
105.00	-12.64	-15.55	0.00	-853.56	0.00	853.56	1,230.29	615.15	1,324.65	654.19	36.79	-3.29	0.296
110.00	-11.58	-14.91	0.00	-775.81	0.00	775.81	1,193.01	596.51	1,245.21	614.96	40.31	-3.43	0.276
115.00	-10.54	-14.28	0.00	-701.24	0.00	701.24	1,155.73	577.86	1,168.24	576.95	43.98	-3.57	0.255
120.00	-9.52	-13.64	0.00	-629.86	0.00	629.86	1,118.45	559.22	1,093.71	540.14	47.78	-3.70	0.235
124.10	-8.71	-13.13	0.00	-573.93	0.00	573.93	1,118.45	559.22	1,093.71	540.14	51.00	-3.80	0.218
124.10	-8.71	-13.13	0.00	-573.93	0.00	573.93	1,118.45	559.22	1,093.71	540.14	51.00	-3.80	0.275
125.00	-8.56	-13.01	0.00	-562.12	0.00	562.12	1,081.17	540.58	1,021.65	504.55	51.72	-3.82	0.271
125.27	-8.51	-12.98	0.00	-558.60	0.00	558.60	1,079.15	539.58	1,017.83	502.67	51.94	-3.83	0.270
125.27	-8.51	-12.98	0.00	-558.60	0.00	558.60	1,079.15	539.58	1,017.83	502.67	51.94	-3.83	0.291
126.30	-8.34	-12.87	0.00	-545.23	0.00	545.23	1,079.15	539.58	1,017.83	502.67	52.77	-3.86	0.285
126.30	-8.34	-12.87	0.00	-545.23	0.00	545.23	1,079.15	539.58	1,017.83	502.67	52.77	-3.86	0.285
130.00	-7.76	-12.43	0.00	-497.62	0.00	497.62	787.08	393.54	721.85	356.50	55.80	-3.97	0.261
135.00	-7.00	-11.84	0.00	-435.48	0.00	435.48	759.16	379.58	671.24	331.50	60.04	-4.12	0.235
140.00	-6.25	-11.25	0.00	-376.29	0.00	376.29	731.12	365.56	622.37	307.37	64.42	-4.25	0.208
144.10	-5.65	-10.78	0.00	-330.16	0.00	330.16	731.12	365.56	622.37	307.37	68.12	-4.35	0.186
144.10	-5.65	-10.78	0.00	-330.16	0.00	330.16	731.12	365.56	622.37	307.37	68.12	-4.35	0.246
145.00	-5.53	-10.68	0.00	-320.46	0.00	320.46	703.09	351.54	575.35	284.14	68.94	-4.37	0.240
150.00	-4.91	-10.13	0.00	-267.05	0.00	267.05	675.05	337.53	530.17	261.83	73.59	-4.52	0.206

Pole : 302502
 Location : Harwinton, CT
 Height : 180.0 (ft)
 Shape : 12 Sides
 Base Dia : 43.000 (in)
 Top Dia : 14.500 (in)
 Taper : 0.158333 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1

Base Elev : 0.000 (ft)

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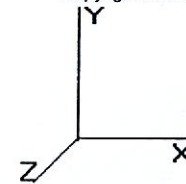
Load Case: 0.9D + 1.6W	95.00 mph with No Ice (Reduced DL)	26 Iterations
Gust Response Factor 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 0.90		
Wind Load Factor : 1.60		

155.00	-4.32	-9.58	0.00	-216.41	0.00	216.41	647.02	323.51	486.84	240.43	78.39	-4.64	0.172
158.00	-3.97	-9.26	0.00	-187.66	0.00	187.66	647.02	323.51	486.84	240.43	81.33	-4.71	0.151
158.00	-3.97	-9.26	0.00	-187.66	0.00	187.66	647.02	323.51	486.84	240.43	81.33	-4.71	0.830
160.00	-3.84	-9.08	0.00	-169.14	0.00	169.14	618.98	309.49	445.36	219.95	83.31	-4.76	0.776
165.00	-3.58	-8.76	0.00	-123.75	0.00	123.75	590.95	295.47	405.73	200.37	88.57	-5.26	0.625
170.00	-3.34	-8.45	0.00	-79.94	0.00	79.94	562.91	281.46	367.94	181.71	94.30	-5.66	0.447
175.00	-2.01	-4.03	0.00	-37.71	0.00	37.71	534.87	267.44	332.00	163.96	100.38	-5.93	0.234
180.00	0.00	-3.80	0.00	-17.55	0.00	17.55	506.84	253.42	297.90	147.12	106.67	-6.08	0.120

Pole : 302502
 Location : Harwinton, CT
 Height : 180.0 (ft)
 Shape : 12 Sides
 Base Dia : 43.000 (in)
 Top Dia : 14.500 (in)
 Taper : 0.158333 (in/ft)

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

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Load Case: 1.2D + 1.0Di + 1.0Wi	40.00 mph with 1.25 in Radial Ice	25 Iterations
Gust Response Factor 1.10	Ice Dead Load Factor : 1.00	Wind Importance Factor : 1.00
Dead Load Factor : 1.20		Ice Importance Factor : 1.00
Wind Load Factor : 1.00		

Shaft Segment Forces (Factored)

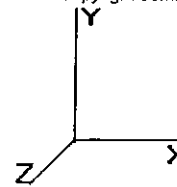
Seg Top Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	2.724	2.996	0.000	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
4.10	Reinf. Top Reinf	1.00	0.70	2.724	2.996	0.000	1.200	* 2.029	4.10	16.482	19.78	59.3	478.0	1,926.8
5.00		1.00	0.70	2.724	2.996	0.000	1.200	* 2.070	0.90	3.593	4.31	12.9	106.8	423.1
10.00		1.00	0.70	2.724	2.996	0.000	1.200	* 2.219	5.00	19.885	23.86	71.5	626.4	2,372.1
15.00		1.00	0.70	2.724	2.996	0.000	1.200	* 2.310	5.00	19.620	23.54	70.5	641.8	2,367.9
20.00		1.00	0.70	2.724	2.996	0.000	1.200	* 2.378	5.00	19.335	23.20	69.5	649.4	2,356.0
25.00		1.00	0.70	2.724	2.996	0.000	1.200	* 2.432	5.00	19.038	22.85	68.5	652.4	2,339.4
30.00		1.00	0.70	2.726	2.999	0.000	1.200	* 2.476	5.00	18.734	22.48	67.4	652.4	2,319.9
35.00		1.00	0.73	2.849	3.134	0.000	1.200	* 2.515	5.00	18.425	22.11	69.3	650.2	2,298.2
40.00		1.00	0.76	2.960	3.256	0.000	1.200	* 2.549	5.00	18.111	21.73	70.8	646.4	2,274.9
44.10	Top - Section 1 Reinf.	1.00	0.78	3.043	3.348	0.000	1.200	* 2.574	4.10	14.613	17.54	58.7	526.7	1,847.5
45.00		1.00	0.78	3.061	3.367	0.000	1.200	* 2.579	0.90	3.178	3.81	12.8	115.4	377.7
50.00	Appertunance(s)	1.00	0.81	3.155	3.470	0.000	1.200	* 2.606	5.00	17.476	20.97	72.8	635.2	2,082.8
55.00		1.00	0.83	3.242	3.566	0.000	1.200	* 2.631	5.00	17.155	20.59	73.4	628.2	2,059.5
60.00		1.00	0.85	3.323	3.656	0.000	1.200	* 2.654	5.00	16.833	20.20	73.8	620.4	2,035.5
65.00		1.00	0.87	3.400	3.740	0.000	1.200	* 2.675	5.00	16.509	19.81	74.1	612.0	2,010.8
70.00		1.00	0.89	3.473	3.820	0.000	1.200	* 2.695	5.00	16.185	19.42	74.2	603.1	1,985.6
75.00		1.00	0.91	3.542	3.896	0.000	1.200	* 2.714	5.00	15.859	19.03	74.1	593.6	1,959.9
80.00		1.00	0.92	3.608	3.969	0.000	1.200	* 2.731	5.00	15.532	18.64	74.0	583.8	1,933.7
84.10	Reinf. Top Reinf	1.00	0.94	3.660	4.026	0.000	1.200	* 2.745	4.10	12.490	14.99	60.3	471.8	1,566.6
85.00		1.00	0.94	3.671	4.038	0.000	1.200	* 2.748	0.90	2.712	3.25	13.1	103.2	327.2
86.57	Top - Section 2	1.00	0.94	3.690	4.059	0.000	1.200	* 2.753	1.57	4.705	5.65	22.9	179.0	568.5
86.60	Reinf. Top Reinf	1.00	0.94	3.691	4.060	0.000	1.200	* 2.753	0.03	0.090	0.11	0.4	3.4	10.1
90.00		1.00	0.95	3.731	4.105	0.000	1.200	* 2.764	3.40	10.079	12.09	49.6	382.8	1,140.5
95.00		1.00	0.97	3.789	4.168	0.000	1.200	* 2.779	5.00	14.547	17.46	72.8	551.9	1,655.2
100.0		1.00	0.98	3.845	4.230	0.000	1.200	* 2.793	5.00	14.217	17.06	72.2	540.7	1,631.0
104.1	Reinf. Top Reinf	1.00	1.00	3.890	4.279	0.000	1.200	* 2.804	4.10	11.411	13.69	58.6	435.6	1,319.9
105.0		1.00	1.00	3.899	4.289	0.000	1.200	* 2.807	0.90	2.475	2.97	12.7	95.3	288.2
110.0		1.00	1.01	3.952	4.347	0.000	1.200	* 2.820	5.00	13.556	16.27	70.7	517.4	1,581.7
115.0		1.00	1.02	4.002	4.402	0.000	1.200	* 2.832	5.00	13.225	15.87	69.9	505.4	1,556.7
120.0		1.00	1.04	4.051	4.456	0.000	1.200	* 2.845	5.00	12.894	15.47	68.9	493.2	1,531.4
124.1	Reinf. Top Reinf	1.00	1.05	4.090	4.499	0.000	1.200	* 2.854	4.10	10.324	12.39	55.7	396.0	1,237.7
125.0		1.00	1.05	4.099	4.508	0.000	1.200	* 2.856	0.90	2.236	2.68	12.1	86.5	243.1
125.2	Top - Section 3	1.00	1.05	4.101	4.511	0.000	1.200	* 2.857	0.27	0.668	0.80	3.6	25.9	72.8
126.3	Reinf. Top Reinf	1.00	1.05	4.111	4.522	0.000	1.200	* 2.859	1.03	2.542	3.05	13.8	98.4	257.8
130.0		1.00	1.06	4.145	4.559	0.000	1.200	* 2.867	3.70	9.017	10.82	49.3	346.4	915.8
135.0		1.00	1.07	4.190	4.609	0.000	1.200	* 2.878	5.00	11.898	14.28	65.8	455.3	1,216.3
140.0		1.00	1.08	4.233	4.657	0.000	1.200	* 2.889	5.00	11.565	13.88	64.6	442.3	1,193.5
144.1	Reinf. Top Reinf	1.00	1.09	4.268	4.695	0.000	1.200	* 2.897	4.10	9.234	11.08	52.0	353.9	962.5
145.0		1.00	1.09	4.276	4.704	0.000	1.200	* 2.899	0.90	1.997	2.40	11.3	77.3	186.5
150.0		1.00	1.11	4.318	4.749	0.000	1.200	* 2.909	5.00	10.898	13.08	62.1	415.9	1,017.2
155.0		1.00	1.12	4.358	4.794	0.000	1.200	* 2.918	5.00	10.565	12.68	60.8	402.5	993.9
158.0	Reinf. Top	1.00	1.12	4.382	4.821	0.000	1.200	* 2.924	3.00	6.178	7.41	35.7	236.6	586.8
160.0		1.00	1.13	4.398	4.838	0.000	1.200	* 2.928	2.00	4.051	4.86	23.5	155.6	242.8
165.0		1.00	1.14	4.437	4.881	0.000	1.200	* 2.937	5.00	9.897	11.88	58.0	375.2	586.3
170.0		1.00	1.15	4.475	4.922	0.000	1.200	* 2.945	5.00	9.563	11.48	56.5	361.4	562.7
175.0	Appertunance(s)	1.00	1.16	4.512	4.963	0.000	1.200	* 2.954	5.00	9.229	11.07	55.0	347.4	539.0
180.0	Appertunance(s)	1.00	1.16	4.549	5.003	0.000	1.200	* 2.962	5.00	8.894	10.67	53.4	333.4	515.1
* = Cf Adjusted By Linear Load Ra Effect								Totals:	180.00			2,453.1	19,211.9	59,478.2

Pole : 302502
 Location : Harwinton, CT
 Height : 180.0 (ft)
 Shape : 12 Sides
 Base Dia : 43.000 (in)
 Top Dia : 14.500 (in)
 Taper : 0.158333 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1

Base Elev : 0.000 (ft)

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Load Case: 1.2D + 1.0Di + 1.0Wi 40.00 mph with 1.25 in Radial Ice

25 Iterations

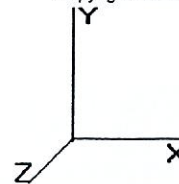
Gust Response Factor 1.10
 Dead Load Factor : 1.20
 Wind Load Factor : 1.00

Ice Dead Load Factor : 1.00

Wind Importance Factor : 1.00
 Ice Importance Factor : 1.00

Discrete Appurtenance Segment Forces (Factored)

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Ka	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
50.00	Lucent KS-24019	1	3.155	3.470	1.00	1.00	2.04	0.000	0.000	7.09	0.00	0.00	7.70
175.0	Flat Low Profile Pla	1	4.512	4.963	1.00	1.00	58.48	0.000	0.000	290.26	0.00	0.00	2,698.84
175.0	Antel LPA-80063/6CF	6	4.512	4.963	0.75	0.80	53.78	0.000	0.000	266.95	0.00	0.00	3,404.81
175.0	Decibel DB950G85E-	6	4.512	4.963	0.62	0.80	22.56	0.000	0.000	111.99	0.00	0.00	1,311.30
180.0	Round Platform with	1	4.584	5.043	1.00	1.00	68.77	0.000	5.000	346.82	0.00	1,734.08	4,203.88
180.0	CDA Diplexer	9	4.584	5.043	0.50	0.75	87.83	0.000	5.000	442.91	0.00	2,214.53	5,664.17
180.0	CSS DUO4-8670	11	4.584	5.043	0.62	0.75	51.88	0.000	5.000	261.64	0.00	1,308.20	4,090.37
										1,727.64			21,381.07

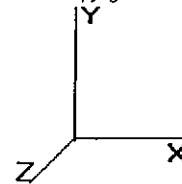


Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Exposed			CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	F X (lb)	Dead Load (lb)
				Ca	Width (in)	Area (sqft)						
4.10	(3) 4.25" Solid Rod	Yes	4.10	0.000	8.50	4.29	0.00	2.724	0.192	1.277	0.00	266.77
5.00	(3) 4.25" Solid Rod	Yes	0.90	0.000	8.50	0.95	0.00	2.724	0.194	1.283	0.00	59.11
10.00	(3) 4.25" Solid Rod	Yes	5.00	0.000	8.50	5.39	0.00	2.724	0.196	1.289	0.00	339.63
15.00	(3) 4.25" Solid Rod	Yes	5.00	1.200	8.50	5.47	6.56	2.724	0.200	0.000	19.66	346.72
20.00	(3) 4.25" Solid Rod	Yes	5.00	1.200	8.50	5.52	6.63	2.724	0.204	0.000	19.86	351.99
25.00	(3) 4.25" Solid Rod	Yes	5.00	1.200	8.50	5.57	6.68	2.724	0.208	0.000	20.02	356.23
30.00	(3) 4.25" Solid Rod	Yes	5.00	1.200	8.50	5.61	6.73	2.726	0.212	0.000	20.17	359.79
35.00	(3) 4.25" Solid Rod	Yes	5.00	1.200	8.50	5.64	6.76	2.849	0.217	0.000	21.20	362.87
40.00	(3) 4.25" Solid Rod	Yes	5.00	1.200	8.50	5.67	6.80	2.960	0.222	0.000	22.13	365.59
44.10	(3) 4.25" Solid Rod	Yes	4.10	1.200	8.50	4.66	5.60	3.043	0.226	0.000	18.73	301.44
45.00	(3) 4.25" Solid Rod	Yes	0.90	1.200	8.50	1.02	1.23	3.061	0.228	0.000	4.14	66.25
50.00	(3) 4.25" Solid Rod	Yes	5.00	1.200	8.50	5.71	6.86	3.155	0.231	0.000	23.79	370.25
55.00	(3) 4.25" Solid Rod	Yes	5.00	1.200	8.50	5.73	6.88	3.242	0.237	0.000	24.54	372.29
60.00	(3) 4.25" Solid Rod	Yes	5.00	1.200	8.50	5.75	6.90	3.323	0.242	0.000	25.24	374.17
65.00	(3) 4.25" Solid Rod	Yes	5.00	1.200	8.50	5.77	6.93	3.400	0.248	0.000	25.90	375.92
70.00	(3) 4.25" Solid Rod	Yes	5.00	1.200	8.50	5.79	6.95	3.473	0.254	0.000	26.53	377.56
75.00	(3) 4.25" Solid Rod	Yes	5.00	1.200	8.50	5.80	6.96	3.542	0.260	0.000	27.13	379.11
80.00	(3) 4.25" Solid Rod	Yes	5.00	1.200	8.50	5.82	6.98	3.608	0.267	0.000	27.71	380.56
84.10	(3) 4.0" Solid Rod	Yes	4.10	1.200	8.00	4.61	5.53	3.660	0.258	0.000	22.27	196.12
85.00	(3) 4.0" Solid Rod	Yes	0.90	1.200	8.00	1.01	1.21	3.671	0.261	0.000	4.91	43.10
86.57	(3) 4.0" Solid Rod	Yes	1.57	1.200	8.00	1.77	2.12	3.690	0.263	0.000	8.61	75.30
86.60	(3) 4.0" Solid Rod	Yes	0.03	1.200	8.00	0.03	0.04	3.691	0.264	0.000	0.16	1.44
90.00	(3) 4.0" Solid Rod	Yes	3.40	1.200	8.00	3.83	4.60	3.731	0.266	0.000	18.88	163.66
95.00	(3) 4.0" Solid Rod	Yes	5.00	1.200	8.00	5.65	6.78	3.789	0.273	0.000	28.26	241.88
100.0	(3) 4.0" Solid Rod	Yes	5.00	1.200	8.00	5.66	6.79	3.845	0.280	0.000	28.73	243.03
104.1	(3) 4.0" Solid Rod	Yes	4.10	1.200	8.00	4.65	5.58	3.890	0.288	0.000	23.87	200.03
105.0	(3) 4.0" Solid Rod	Yes	0.90	1.200	8.00	1.02	1.23	3.899	0.292	0.000	5.26	43.95
110.0	(3) 4.0" Solid Rod	Yes	5.00	1.200	8.00	5.68	6.82	3.952	0.297	0.000	29.64	245.20
115.0	(3) 4.0" Solid Rod	Yes	5.00	1.200	8.00	5.69	6.83	4.002	0.307	0.000	30.08	246.22
120.0	(3) 4.0" Solid Rod	Yes	5.00	1.200	8.00	5.70	6.84	4.051	0.317	0.000	30.50	247.20
124.1	(3) 3.5" Solid Rod	Yes	4.10	1.200	7.00	4.34	5.21	4.090	0.286	0.000	23.44	168.13
125.0	(3) 3.5" Solid Rod	Yes	0.90	1.200	7.00	0.95	1.14	4.099	0.290	0.000	5.16	36.94
125.2	(3) 3.5" Solid Rod	Yes	0.27	1.200	7.00	0.29	0.34	4.101	0.292	0.000	1.55	11.08
126.3	(3) 3.5" Solid Rod	Yes	1.03	1.200	7.00	1.09	1.31	4.111	0.293	0.000	5.92	42.32
130.0	(3) 3.5" Solid Rod	Yes	3.70	1.200	7.00	3.93	4.71	4.145	0.298	0.000	21.48	152.47
135.0	(3) 3.5" Solid Rod	Yes	5.00	1.200	7.00	5.32	6.38	4.190	0.307	0.000	29.39	206.87
140.0	(3) 3.5" Solid Rod	Yes	5.00	1.200	7.00	5.32	6.39	4.233	0.318	0.000	29.75	207.66
144.1	(3) 3.0" Solid Rod	Yes	4.10	1.200	6.00	4.03	4.84	4.268	0.283	0.000	22.70	160.69
145.0	(3) 3.0" Solid Rod	Yes	0.90	1.200	6.00	0.88	1.06	4.276	0.288	0.000	4.99	35.30
150.0	(3) 3.0" Solid Rod	Yes	5.00	1.200	6.00	4.92	5.91	4.318	0.295	0.000	28.06	196.79
155.0	(3) 3.0" Solid Rod	Yes	5.00	1.200	6.00	4.93	5.92	4.358	0.307	0.000	28.37	197.47
158.0	(3) 3.0" Solid Rod	Yes	3.00	1.200	6.00	2.96	3.55	4.382	0.318	0.000	17.13	118.72
160.0	(3) 3.0" Solid Rod	Yes	2.00	1.200	6.00	1.98	2.37	4.398	0.325	0.000	11.47	79.25
Totals:											787.35	9,367.06

Pole : 302502
 Location : Harwinton, CT
 Height : 180.0 (ft)
 Shape : 12 Sides
 Base Dia : 43.000 (in)
 Top Dia : 14.500 (in)
 Taper : 0.158333 (in/ft)

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

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Load Case: 1.2D + 1.0Di + 1.0Wi	40.00 mph with 1.25 in Radial Ice	25 Iterations
Gust Response Factor 1.10	Ice Dead Load Factor : 1.00	Wind Importance Factor : 1.00
Dead Load Factor : 1.20		Ice Importance Factor : 1.00
Wind Load Factor : 1.00		

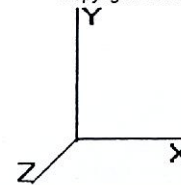
Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
4.10	59.26	2,193.59	0.00	0.00
5.00	12.92	482.16	0.00	0.00
10.00	71.50	2,798.08	0.00	0.00
15.00	90.20	2,801.04	0.00	0.00
20.00	89.38	2,794.34	0.00	0.00
25.00	88.47	2,782.05	0.00	0.00
30.00	87.58	2,766.08	0.00	0.00
35.00	90.49	2,747.48	0.00	0.00
40.00	92.89	2,726.88	0.00	0.00
44.10	77.44	2,219.79	0.00	0.00
45.00	16.98	459.54	0.00	0.00
50.00	103.65	2,547.18	0.00	0.00
55.00	97.94	2,516.24	0.00	0.00
60.00	99.08	2,494.09	0.00	0.00
65.00	100.00	2,471.16	0.00	0.00
70.00	100.72	2,447.57	0.00	0.00
75.00	101.28	2,423.39	0.00	0.00
80.00	101.68	2,398.68	0.00	0.00
84.10	82.61	1,831.90	0.00	0.00
85.00	18.05	385.54	0.00	0.00
86.57	31.52	670.26	0.00	0.00
86.60	0.60	12.08	0.00	0.00
90.00	68.52	1,361.54	0.00	0.00
95.00	101.02	1,981.53	0.00	0.00
100.0	100.90	1,958.43	0.00	0.00
104.1	82.46	1,589.18	0.00	0.00
105.0	17.99	347.38	0.00	0.00
110.0	100.35	1,911.28	0.00	0.00
115.0	99.94	1,887.29	0.00	0.00
120.0	99.45	1,863.03	0.00	0.00
124.1	79.18	1,475.02	0.00	0.00
125.0	17.26	295.22	0.00	0.00
125.2	5.17	88.41	0.00	0.00
126.3	19.72	317.56	0.00	0.00
130.0	70.82	1,130.74	0.00	0.00
135.0	95.19	1,507.53	0.00	0.00
140.0	94.38	1,485.57	0.00	0.00
144.1	74.73	1,192.43	0.00	0.00
145.0	16.27	237.04	0.00	0.00
150.0	90.18	1,298.35	0.00	0.00
155.0	89.15	1,275.81	0.00	0.00
158.0	52.87	756.15	0.00	0.00
160.0	34.99	355.77	0.00	0.00
165.0	57.96	670.75	0.00	0.00
170.0	56.49	647.13	0.00	0.00
175.0	724.16	8,038.35	0.00	0.00
180.0	1,104.76	14,498.94	0.00	5,256.81
Totals:	4,968.14	93,139.52	0.00	5,256.81

Pole : 302502
 Location : Harwinton, CT
 Height : 180.0 (ft)
 Shape : 12 Sides
 Base Dia : 43.000 (in)
 Top Dia : 14.500 (in)
 Taper : 0.158333 (in/ft)

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

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Load Case: 1.2D + 1.0Di + 1.0Wi	40.00 mph with 1.25 in Radial Ice	25 Iterations
Gust Response Factor 1.10	Ice Dead Load Factor : 1.00	Wind Importance Factor : 1.00
Dead Load Factor : 1.20		Ice Importance Factor : 1.00
Wind Load Factor : 1.00		

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-93.14	-4.99	0.00	-681.27	0.00	681.27	3,010.98	1,505.49	5,293.47	2,614.24	0.00	0.00	0.131
4.10	-90.94	-4.96	0.00	-660.81	0.00	660.81	3,010.98	1,505.49	5,293.47	2,614.24	0.01	-0.03	0.130
4.10	-90.94	-4.96	0.00	-660.81	0.00	660.81	3,010.98	1,505.49	5,293.47	2,614.24	0.01	-0.03	0.130
5.00	-90.46	-4.98	0.00	-656.34	0.00	656.34	2,955.05	1,477.53	5,097.82	2,517.62	0.02	-0.04	0.129
10.00	-87.66	-4.96	0.00	-631.45	0.00	631.45	2,899.13	1,449.57	4,905.86	2,422.82	0.07	-0.07	0.127
15.00	-84.85	-4.92	0.00	-606.66	0.00	606.66	2,843.21	1,421.60	4,717.59	2,329.84	0.17	-0.11	0.125
20.00	-82.06	-4.87	0.00	-582.08	0.00	582.08	2,787.29	1,393.64	4,532.99	2,238.67	0.30	-0.14	0.123
25.00	-79.27	-4.82	0.00	-557.72	0.00	557.72	2,731.36	1,365.68	4,352.08	2,149.33	0.46	-0.18	0.120
30.00	-76.50	-4.77	0.00	-533.60	0.00	533.60	2,675.44	1,337.72	4,174.86	2,061.81	0.67	-0.21	0.118
35.00	-73.75	-4.72	0.00	-509.73	0.00	509.73	2,619.52	1,309.76	4,001.32	1,976.10	0.91	-0.25	0.115
40.00	-71.02	-4.65	0.00	-486.14	0.00	486.14	2,563.60	1,281.80	3,831.46	1,892.22	1.18	-0.28	0.112
44.10	-68.80	-4.58	0.00	-467.07	0.00	467.07	2,563.60	1,281.80	3,831.46	1,892.22	1.44	-0.31	0.110
44.10	-68.80	-4.58	0.00	-467.07	0.00	467.07	2,563.60	1,281.80	3,831.46	1,892.22	1.44	-0.31	0.000
45.00	-68.34	-4.59	0.00	-462.94	0.00	462.94	2,096.73	1,048.36	3,075.36	1,518.80	1.50	-0.32	0.117
50.00	-65.79	-4.52	0.00	-439.99	0.00	439.99	2,050.05	1,025.03	2,939.37	1,451.64	1.85	-0.35	0.114
55.00	-63.27	-4.44	0.00	-417.41	0.00	417.41	2,003.38	1,001.69	2,806.46	1,386.01	2.24	-0.39	0.110
60.00	-60.78	-4.36	0.00	-395.21	0.00	395.21	1,956.70	978.35	2,676.63	1,321.89	2.67	-0.43	0.107
65.00	-58.31	-4.28	0.00	-373.39	0.00	373.39	1,910.02	955.01	2,549.87	1,259.28	3.14	-0.46	0.104
70.00	-55.86	-4.19	0.00	-351.99	0.00	351.99	1,863.35	931.67	2,426.18	1,198.20	3.64	-0.50	0.100
75.00	-53.43	-4.10	0.00	-331.02	0.00	331.02	1,816.67	908.33	2,305.57	1,138.64	4.18	-0.54	0.096
80.00	-51.03	-4.01	0.00	-310.50	0.00	310.50	1,769.99	885.00	2,188.04	1,080.59	4.76	-0.57	0.093
84.10	-49.20	-3.92	0.00	-294.07	0.00	294.07	1,769.99	885.00	2,188.04	1,080.59	5.27	-0.60	0.090
84.10	-49.20	-3.92	0.00	-294.07	0.00	294.07	1,769.99	885.00	2,188.04	1,080.59	5.27	-0.60	0.098
85.00	-48.81	-3.91	0.00	-290.54	0.00	290.54	1,723.32	861.66	2,073.58	1,024.06	5.38	-0.61	0.098
86.57	-48.14	-3.87	0.00	-284.41	0.00	284.41	1,708.66	854.33	2,038.28	1,006.63	5.58	-0.62	0.096
86.57	-48.14	-3.87	0.00	-284.41	0.00	284.41	1,708.66	854.33	2,038.28	1,006.63	5.58	-0.62	0.103
86.60	-48.13	-3.88	0.00	-284.29	0.00	284.29	1,708.66	854.33	2,038.28	1,006.63	5.59	-0.62	0.103
86.60	-48.13	-3.88	0.00	-284.29	0.00	284.29	1,708.66	854.33	2,038.28	1,006.63	5.59	-0.62	0.103
90.00	-46.77	-3.83	0.00	-271.09	0.00	271.09	1,342.14	671.07	1,577.69	779.16	6.04	-0.64	0.100
95.00	-44.78	-3.73	0.00	-251.95	0.00	251.95	1,304.85	652.43	1,490.89	736.29	6.73	-0.68	0.095
100.00	-42.83	-3.63	0.00	-233.28	0.00	233.28	1,267.57	633.79	1,406.54	694.64	7.47	-0.72	0.090
104.10	-41.24	-3.54	0.00	-218.38	0.00	218.38	1,267.57	633.79	1,406.54	694.64	8.10	-0.75	0.086
104.10	-41.24	-3.54	0.00	-218.38	0.00	218.38	1,267.57	633.79	1,406.54	694.64	8.10	-0.75	0.086
105.00	-40.89	-3.54	0.00	-215.19	0.00	215.19	1,230.29	615.15	1,324.65	654.19	8.24	-0.76	0.086
110.00	-38.98	-3.44	0.00	-197.51	0.00	197.51	1,193.01	596.51	1,245.21	614.96	9.06	-0.79	0.081
115.00	-37.09	-3.33	0.00	-180.33	0.00	180.33	1,155.73	577.86	1,168.24	576.95	9.91	-0.83	0.076
120.00	-35.23	-3.22	0.00	-163.68	0.00	163.68	1,118.45	559.22	1,093.71	540.14	10.79	-0.86	0.071
124.10	-33.75	-3.13	0.00	-150.47	0.00	150.47	1,118.45	559.22	1,093.71	540.14	11.55	-0.89	0.067
124.10	-33.75	-3.13	0.00	-150.47	0.00	150.47	1,118.45	559.22	1,093.71	540.14	11.55	-0.89	0.083
125.00	-33.46	-3.11	0.00	-147.66	0.00	147.66	1,081.17	540.58	1,021.65	504.55	11.71	-0.89	0.082
125.27	-33.37	-3.11	0.00	-146.82	0.00	146.82	1,079.15	539.58	1,017.83	502.67	11.77	-0.90	0.082
125.27	-33.37	-3.11	0.00	-146.82	0.00	146.82	1,079.15	539.58	1,017.83	502.67	11.77	-0.90	0.089
126.30	-33.05	-3.09	0.00	-143.62	0.00	143.62	1,079.15	539.58	1,017.83	502.67	11.96	-0.90	0.087
126.30	-33.05	-3.09	0.00	-143.62	0.00	143.62	1,079.15	539.58	1,017.83	502.67	11.96	-0.90	0.087
130.00	-31.92	-3.02	0.00	-132.18	0.00	132.18	787.08	393.54	721.85	356.50	12.67	-0.93	0.081
135.00	-30.41	-2.92	0.00	-117.06	0.00	117.06	759.16	379.58	671.24	331.50	13.67	-0.97	0.074
140.00	-28.92	-2.82	0.00	-102.45	0.00	102.45	731.12	365.56	622.37	307.37	14.71	-1.01	0.068
144.10	-27.73	-2.73	0.00	-90.89	0.00	90.89	731.12	365.56	622.37	307.37	15.59	-1.04	0.062
144.10	-27.73	-2.73	0.00	-90.89	0.00	90.89	731.12	365.56	622.37	307.37	15.59	-1.04	0.081
145.00	-27.50	-2.72	0.00	-88.43	0.00	88.43	703.09	351.54	575.35	284.14	15.79	-1.04	0.079
150.00	-26.20	-2.62	0.00	-74.82	0.00	74.82	675.05	337.53	530.17	261.83	16.90	-1.08	0.070

Pole : 302502
 Location : Harwinton, CT
 Height : 180.0 (ft)
 Shape : 12 Sides
 Base Dia : 43.000 (in)
 Top Dia : 14.500 (in)
 Taper : 0.158333 (in/ft)

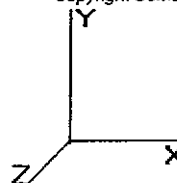
Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1

Base Elev : 0.000 (ft)

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Load Case: 1.2D + 1.0Di + 1.0Wi		40.00 mph with 1.25 in Radial Ice	25 Iterations
Gust Response Factor : 1.10	Ice Dead Load Factor : 1.00		Wind Importance Factor : 1.00
Dead Load Factor : 1.20			Ice Importance Factor : 1.00
Wind Load Factor : 1.00			

155.00	-24.92	-2.52	0.00	-61.70	0.00	61.70	647.02	323.51	486.84	240.43	18.06	-1.12	0.061
158.00	-24.17	-2.46	0.00	-54.13	0.00	54.13	647.02	323.51	486.84	240.43	18.77	-1.14	0.056
158.00	-24.17	-2.46	0.00	-54.13	0.00	54.13	647.02	323.51	486.84	240.43	18.77	-1.14	0.276
160.00	-23.81	-2.45	0.00	-49.21	0.00	49.21	618.98	309.49	445.36	219.95	19.25	-1.15	0.262
165.00	-23.13	-2.44	0.00	-36.94	0.00	36.94	590.95	295.47	405.73	200.37	20.54	-1.30	0.224
170.00	-22.48	-2.41	0.00	-24.75	0.00	24.75	562.91	281.46	367.94	181.71	21.97	-1.42	0.176
175.00	-14.46	-1.49	0.00	-12.72	0.00	12.72	534.87	267.44	332.00	163.96	23.51	-1.51	0.105
180.00	0.00	-1.10	0.00	-5.26	0.00	5.26	506.84	253.42	297.90	147.12	25.11	-1.56	0.036

Pole : 302502
 Location : Harwinton, CT
 Height : 180.0 (ft)
 Shape : 12 Sides
 Base Dia : 43.000 (in)
 Top Dia : 14.500 (in)
 Taper : 0.158333 (in/ft)

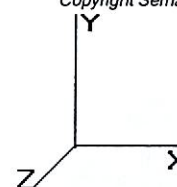
Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1

Base Elev : 0.000 (ft)

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Load Case: 1.2D + 1.0E

Dead Load with Seismic

0 Iterations

Gust Response Factor 1.10

Sds : 0.34

Ss : 0.33

Dead Load Factor : 1.20

Seismic Load Factor : 1.00

Sd1 : 0.06

S1 : 0.04

Wind Load Factor : 0.00

Structure Frequency : 0.2327

SA : 0.01

Seismic Importance Factor : 1.00

Total Segment Forces (Factored)

R : 1.50

Seg Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)
0.00		0.00	0.00	0.00	0.00	0.00
4.10	Reinf. Top Reinf	712.61	0.00	0.02	0.01	31.40
5.00		154.96	0.00	0.03	0.02	7.47
10.00		851.30	0.01	0.05	0.03	53.59
15.00		835.04	0.01	0.06	0.03	59.67
20.00		818.77	0.02	0.07	0.04	64.38
25.00		802.51	0.04	0.08	0.04	70.11
30.00		786.25	0.05	0.10	0.05	78.46
35.00		769.98	0.07	0.12	0.05	90.50
40.00		753.72	0.09	0.14	0.05	106.68
44.10	Top - Section 1 Reinf.	605.91	0.11	0.17	0.05	100.58
45.00		109.98	0.12	0.18	0.05	18.91
50.00	Appertunance(s)	2603.02	0.15	0.22	0.05	541.18
55.00		589.44	0.18	0.27	0.06	146.14
60.00		575.87	0.21	0.33	0.06	166.97
65.00		562.29	0.25	0.40	0.07	186.60
70.00		548.72	0.29	0.47	0.08	204.00
75.00		535.14	0.33	0.55	0.09	218.40
80.00		521.56	0.37	0.62	0.10	229.31
84.10	Reinf. Top Reinf	417.54	0.41	0.68	0.11	192.60
85.00		90.45	0.42	0.70	0.11	42.10
86.57	Top - Section 2	156.70	0.44	0.72	0.12	74.00
86.60	Reinf. Top Reinf	2.39	0.44	0.72	0.12	1.13
90.00		267.95	0.47	0.77	0.13	129.87
95.00		384.92	0.53	0.82	0.14	191.19
100.0		374.08	0.58	0.87	0.15	187.38
104.1	Reinf. Top Reinf	298.64	0.63	0.90	0.16	148.77
105.0		64.59	0.64	0.90	0.17	32.09
110.0		352.39	0.71	0.92	0.18	170.54
115.0		341.55	0.77	0.91	0.19	157.89
120.0		330.71	0.84	0.88	0.21	142.88
124.1	Reinf. Top Reinf	263.08	0.90	0.84	0.22	105.58
125.0		56.78	0.91	0.83	0.23	22.37
125.2	Top - Section 3	16.96	0.92	0.83	0.23	6.64
126.3	Reinf. Top Reinf	48.58	0.93	0.82	0.23	18.60
130.0		171.65	0.99	0.77	0.24	60.00
135.0		224.87	1.06	0.69	0.27	67.78
140.0		216.71	1.14	0.61	0.29	54.84
144.1	Reinf. Top Reinf	171.62	1.21	0.54	0.32	37.16
145.0		36.94	1.23	0.53	0.33	7.73
150.0		200.41	1.31	0.47	0.37	35.09
155.0		192.25	1.40	0.45	0.43	30.03
158.0	Reinf. Top	111.44	1.46	0.47	0.48	17.19
160.0		72.66	1.49	0.50	0.51	11.44
165.0		175.95	1.59	0.63	0.61	32.09
170.0		167.79	1.69	0.89	0.75	39.19
175.0	Appertunance(s)	2673.14	1.79	1.33	0.92	834.27
180.0	Appertunance(s)	2664.98	1.89	1.98	1.14	1114.46

Pole : 302502
Location : Harwinton, CT
Height : 180.0 (ft)
Shape : 12 Sides
Base Dia : 43.000 (in)
Top Dia : 14.500 (in)
Taper : 0.158333 (in/ft)

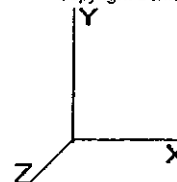
Code: ANSI/TIA-222 Rev G
Struct Class : II
Exposure Category : B
Topographic Category : 1

Base Elev : 0.000 (ft)

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Load Case: 1.2D + 1.0E

Dead Load with Seismic

0 Iterations

Gust Response Factor 1.10

Sds : 0.34

Ss : 0.33

Dead Load Factor : 1.20

Seismic Load Factor : 1.00

Sd1 : 0.06

S1 : 0.04

Wind Load Factor : 0.00

Structure Frequency : 0.2327

SA : 0.01

Seismic Importance Factor : 1.00

Totals: 23,684.78

6,339.25

Total Wind : 28,139.2

Seismic Base Shear Is Less Than 50% Of Wind Force - Analysis Not Required

Pole : 302502
 Location : Harwinton, CT
 Height : 180.0 (ft)
 Shape : 12 Sides
 Base Dia : 43.000 (in)
 Top Dia : 14.500 (in)
 Taper : 0.158333 (in/ft)

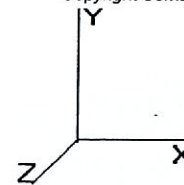
Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1

Base Elev : 0.000 (ft)

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Load Case: 0.9D + 1.0E

Dead Load with Seismic (Reduced DL)

0 Iterations

Gust Response Factor 1.10

Sds : 0.34

Ss : 0.33

Dead Load Factor : 0.90

Seismic Load Factor : 1.00

Sd1 : 0.06

S1 : 0.04

Wind Load Factor : 0.00

Structure Frequency : 0.2327

SA : 0.01

Seismic Importance Factor : 1.00

Total Segment Forces (Factored)

R : 1.50

Seg Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)
0.00		0.00	0.00	0.00	0.00	0.00
4.10	Reinf. Top Reinf	712.61	0.00	0.02	0.01	31.40
5.00		154.96	0.00	0.03	0.02	7.47
10.00		851.30	0.01	0.05	0.03	53.59
15.00		835.04	0.01	0.06	0.03	59.67
20.00		818.77	0.02	0.07	0.04	64.38
25.00		802.51	0.04	0.08	0.04	70.11
30.00		786.25	0.05	0.10	0.05	78.46
35.00		769.98	0.07	0.12	0.05	90.50
40.00		753.72	0.09	0.14	0.05	106.68
44.10	Top - Section 1 Reinf.	605.91	0.11	0.17	0.05	100.58
45.00		109.98	0.12	0.18	0.05	18.91
50.00	Appertunance(s)	2603.02	0.15	0.22	0.05	541.18
55.00		589.44	0.18	0.27	0.06	146.14
60.00		575.87	0.21	0.33	0.06	166.97
65.00		562.29	0.25	0.40	0.07	186.60
70.00		548.72	0.29	0.47	0.08	204.00
75.00		535.14	0.33	0.55	0.09	218.40
80.00		521.56	0.37	0.62	0.10	229.31
84.10	Reinf. Top Reinf	417.54	0.41	0.68	0.11	192.60
85.00		90.45	0.42	0.70	0.11	42.10
86.57	Top - Section 2	156.70	0.44	0.72	0.12	74.00
86.60	Reinf. Top Reinf	2.39	0.44	0.72	0.12	1.13
90.00		267.95	0.47	0.77	0.13	129.87
95.00		384.92	0.53	0.82	0.14	191.19
100.0		374.08	0.58	0.87	0.15	187.38
104.1	Reinf. Top Reinf	298.64	0.63	0.90	0.16	148.77
105.0		64.59	0.64	0.90	0.17	32.09
110.0		352.39	0.71	0.92	0.18	170.54
115.0		341.55	0.77	0.91	0.19	157.89
120.0		330.71	0.84	0.88	0.21	142.88
124.1	Reinf. Top Reinf	263.08	0.90	0.84	0.22	105.58
125.0		56.78	0.91	0.83	0.23	22.37
125.2	Top - Section 3	16.96	0.92	0.83	0.23	6.64
126.3	Reinf. Top Reinf	48.58	0.93	0.82	0.23	18.60
130.0		171.65	0.99	0.77	0.24	60.00
135.0		224.87	1.06	0.69	0.27	67.78
140.0		216.71	1.14	0.61	0.29	54.84
144.1	Reinf. Top Reinf	171.62	1.21	0.54	0.32	37.16
145.0		36.94	1.23	0.53	0.33	7.73
150.0		200.41	1.31	0.47	0.37	35.09
155.0		192.25	1.40	0.45	0.43	30.03
158.0	Reinf. Top	111.44	1.46	0.47	0.48	17.19
160.0		72.66	1.49	0.50	0.51	11.44
165.0		175.95	1.59	0.63	0.61	32.09
170.0		167.79	1.69	0.89	0.75	39.19
175.0	Appertunance(s)	2673.14	1.79	1.33	0.92	834.27
180.0	Appertunance(s)	2664.98	1.89	1.98	1.14	1114.46

Pole : 302502
Location : Harwinton, CT
Height : 180.0 (ft)
Shape : 12 Sides
Base Dia : 43.000 (in)
Top Dia : 14.500 (in)
Taper : 0.158333 (in/ft)

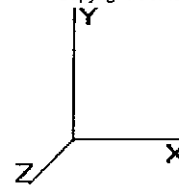
Code: ANSI/TIA-222 Rev G
Struct Class : II
Exposure Category : B
Topographic Category : 1

Base Elev : 0.000 (ft)

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Load Case: 0.9D + 1.0E

Dead Load with Seismic (Reduced DL)

0 Iterations

Gust Response Factor 1.10

Sds : 0.34

Ss : 0.33

Dead Load Factor : 0.90

Seismic Load Factor : 1.00

Sd1 : 0.06

S1 : 0.04

Wind Load Factor : 0.00

Structure Frequency : 0.2327

SA : 0.01

Seismic Importance Factor : 1.00

Totals: 23,684.78

6,339.25

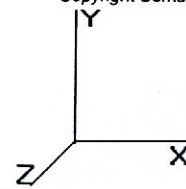
Total Wind : 28,139.2

Seismic Base Shear Is Less Than 50% Of Wind Force - Analysis Not Required

Pole : 302502
 Location : Harwinton, CT
 Height : 180.0 (ft)
 Shape : 12 Sides
 Base Dia : 43.000 (in)
 Top Dia : 14.500 (in)
 Taper : 0.158333 (in/ft)

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

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Load Case: 1.0D + 1.0W

60.00 mph Serviceability

25 Iterations

Gust Response Factor 1.10
 Dead Load Factor : 1.00
 Wind Load Factor : 1.00

Wind Importance Factor : 1.00

Shaft Segment Forces (Factored)

Seg Top Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	6.129	6.742	186.22	1.000	0.000	0.00	0.000	0.00	0.0	0.0	0.0
4.10	Reinf. Top Reinf	1.00	0.70	6.129	6.742	183.41	1.000	* 0.000	4.10	15.095	15.10	101.8	0.0	1,306.3
5.00		1.00	0.70	6.129	6.742	182.79	1.000	* 0.000	0.90	3.283	3.28	22.1	0.0	285.3
10.00		1.00	0.70	6.129	6.742	179.37	1.000	* 0.000	5.00	18.036	18.04	121.6	0.0	1,575.4
15.00		1.00	0.70	6.129	6.742	175.94	1.200	* 0.000	5.00	17.695	21.23	143.1	0.0	1,559.1
20.00		1.00	0.70	6.129	6.742	172.51	1.200	* 0.000	5.00	17.353	20.82	140.4	0.0	1,542.8
25.00		1.00	0.70	6.129	6.742	169.08	1.200	* 0.000	5.00	17.012	20.41	137.6	0.0	1,526.6
30.00		1.00	0.70	6.134	6.747	165.72	1.200	* 0.000	5.00	16.670	20.00	135.0	0.0	1,510.3
35.00		1.00	0.73	6.410	7.051	165.90	1.200	* 0.000	5.00	16.329	19.59	138.2	0.0	1,494.0
40.00		1.00	0.76	6.659	7.325	165.53	1.200	* 0.000	5.00	15.987	19.18	140.5	0.0	1,477.8
44.10	Top - Section 1 Reinf.	1.00	0.78	6.848	7.532	164.88	1.200	* 0.000	4.10	12.855	15.43	116.2	0.0	1,199.6
45.00		1.00	0.78	6.887	7.576	164.70	1.200	* 0.000	0.90	2.791	3.35	25.4	0.0	240.3
50.00	Appertunance(s)	1.00	0.81	7.098	7.807	163.51	1.200	* 0.000	5.00	15.304	18.37	143.4	0.0	1,327.1
55.00		1.00	0.83	7.294	8.023	162.01	1.200	* 0.000	5.00	14.963	17.96	144.1	0.0	1,313.5
60.00		1.00	0.85	7.477	8.225	160.25	1.200	* 0.000	5.00	14.621	17.55	144.3	0.0	1,299.9
65.00		1.00	0.87	7.650	8.415	158.26	1.200	* 0.000	5.00	14.280	17.14	144.2	0.0	1,286.3
70.00		1.00	0.89	7.814	8.595	156.07	1.200	* 0.000	5.00	13.938	16.73	143.8	0.0	1,272.8
75.00		1.00	0.91	7.969	8.766	153.71	1.200	* 0.000	5.00	13.597	16.32	143.0	0.0	1,259.2
80.00		1.00	0.92	8.118	8.930	151.19	1.200	* 0.000	5.00	13.255	15.91	142.0	0.0	1,245.6
84.10	Reinf. Top Reinf	1.00	0.94	8.235	9.058	149.01	1.200	* 0.000	4.10	10.614	12.74	115.4	0.0	1,011.2
85.00		1.00	0.94	8.260	9.086	148.52	1.200	* 0.000	0.90	2.300	2.76	25.1	0.0	205.9
86.57	Top - Section 2	1.00	0.94	8.303	9.133	147.66	1.200	* 0.000	1.57	3.984	4.78	43.7	0.0	358.1
86.60	Reinf. Top Reinf	1.00	0.94	8.304	9.134	147.64	1.200	* 0.000	0.03	0.076	0.09	0.8	0.0	6.2
90.00		1.00	0.95	8.396	9.235	145.73	1.200	* 0.000	3.40	8.512	10.21	94.3	0.0	704.1
95.00		1.00	0.97	8.526	9.379	142.81	1.200	* 0.000	5.00	12.231	14.68	137.7	0.0	1,026.3
100.0		1.00	0.98	8.652	9.517	139.79	1.200	* 0.000	5.00	11.890	14.27	135.8	0.0	1,015.5
104.1	Reinf. Top Reinf	1.00	1.00	8.752	9.627	137.24	1.200	* 0.000	4.10	9.494	11.39	109.7	0.0	824.6
105.0		1.00	1.00	8.774	9.651	136.67	1.200	* 0.000	0.90	2.054	2.46	23.8	0.0	180.1
110.0		1.00	1.01	8.891	9.780	133.45	1.200	* 0.000	5.00	11.207	13.45	131.5	0.0	993.8
115.0		1.00	1.02	9.005	9.905	130.14	1.200	* 0.000	5.00	10.865	13.04	129.1	0.0	982.9
120.0		1.00	1.04	9.115	10.026	126.75	1.200	* 0.000	5.00	10.524	12.63	126.6	0.0	972.1
124.1	Reinf. Top Reinf	1.00	1.05	9.203	10.123	123.92	1.200	* 0.000	4.10	8.374	10.05	101.7	0.0	789.0
125.0		1.00	1.05	9.222	10.144	123.29	1.200	* 0.000	0.90	1.808	2.17	22.0	0.0	145.2
125.2	Top - Section 3	1.00	1.05	9.227	10.150	123.10	1.200	* 0.000	0.27	0.540	0.65	6.6	0.0	43.5
126.3	Reinf. Top Reinf	1.00	1.05	9.249	10.174	122.38	1.200	* 0.000	1.03	2.051	2.46	25.0	0.0	149.8
130.0		1.00	1.06	9.326	10.258	119.75	1.200	* 0.000	3.70	7.249	8.70	89.2	0.0	535.1
135.0		1.00	1.07	9.427	10.369	116.15	1.200	* 0.000	5.00	9.499	11.40	118.2	0.0	716.0
140.0		1.00	1.08	9.525	10.478	112.48	1.200	* 0.000	5.00	9.158	10.99	115.1	0.0	707.8
144.1	Reinf. Top Reinf	1.00	1.09	9.604	10.565	109.42	1.200	* 0.000	4.10	7.254	8.71	92.0	0.0	574.3
145.0		1.00	1.09	9.621	10.583	108.75	1.200	* 0.000	0.90	1.562	1.87	19.8	0.0	101.9
150.0		1.00	1.11	9.715	10.686	104.96	1.200	* 0.000	5.00	8.475	10.17	108.7	0.0	561.2
155.0		1.00	1.12	9.806	10.787	101.12	1.200	* 0.000	5.00	8.133	9.76	105.3	0.0	553.0
158.0	Reinf. Top	1.00	1.12	9.860	10.846	98.788	1.200	* 0.000	3.00	4.716	5.66	61.4	0.0	327.9
160.0		1.00	1.13	9.896	10.885	97.223	1.200	* 0.000	2.00	3.076	3.69	40.2	0.0	72.7
165.0		1.00	1.14	9.983	10.981	93.276	1.000	0.000	5.00	7.450	7.45	81.8	0.0	175.9
170.0		1.00	1.15	10.069	11.075	89.280	1.000	0.000	5.00	7.109	7.11	78.7	0.0	167.8
175.0	Appertunance(s)	1.00	1.16	10.152	11.168	85.237	1.000	0.000	5.00	6.767	6.77	75.6	0.0	159.6
180.0	Appertunance(s)	1.00	1.16	10.234	11.258	81.150	1.000	0.000	5.00	6.426	6.43	72.3	0.0	151.5

* = Cf Adjusted By Linear Load Ra Effect

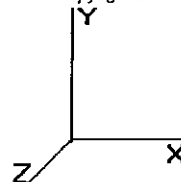
Totals: 540.00 60,792.1 0.0 112,470.1

Pole : 302502
 Location : Harwinton, CT
 Height : 180.0 (ft)
 Shape : 12 Sides
 Base Dia : 43.000 (in)
 Top Dia : 14.500 (in)
 Taper : 0.158333 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1

Base Elev : 0.000 (ft)

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Load Case: 1.0D + 1.0W

60.00 mph Serviceability

25 Iterations

Gust Response Factor 1.10

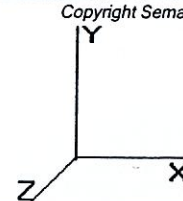
Wind Importance Factor : 1.00

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Discrete Appurtenance Segment Forces (Factored)

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Ka	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
50.00	Lucent KS-24019	1	7.098	7.807	1.00	1.00	1.00	0.000	0.000	7.81	0.00	0.00	7.00
175.0	Flat Low Profile Pla	1	10.152	11.168	1.00	1.00	26.10	0.000	0.000	291.47	0.00	0.00	1,500.00
175.0	Antel LPA-80063/6CF	6	10.152	11.168	0.75	0.80	46.65	0.000	0.000	521.01	0.00	0.00	162.00
175.0	Decibel DB950G85E-	6	10.152	11.168	0.62	0.80	15.67	0.000	0.000	175.01	0.00	0.00	69.00
180.0	Round Platform with	1	10.315	11.346	1.00	1.00	27.20	0.000	5.000	308.62	0.00	1,543.08	2,000.00
180.0	CDA Diplexer	9	10.315	11.346	0.50	0.75	5.34	0.000	5.000	60.55	0.00	302.75	90.00
180.0	CSS DUO4-8670	11	10.315	11.346	0.62	0.75	44.58	0.000	5.000	505.83	0.00	2,529.15	423.50
										1,870.29			4,251.50



Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Ca	Exposed			CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	F X (lb)	Dead Load (lb)
					Width (in)	Area (sqft)							
4.10	(3) 4.25" Solid Rod	Yes	4.10	0.000	8.50	2.90	0.00	6.129	0.192	1.277	0.00	120.91	
5.00	(3) 4.25" Solid Rod	Yes	0.90	0.000	8.50	0.64	0.00	6.129	0.194	1.283	0.00	26.54	
10.00	(3) 4.25" Solid Rod	Yes	5.00	0.000	8.50	3.54	0.00	6.129	0.196	1.289	0.00	147.45	
15.00	(3) 4.25" Solid Rod	Yes	5.00	1.080	8.50	3.54	3.82	6.129	0.200	0.000	25.78	147.45	
20.00	(3) 4.25" Solid Rod	Yes	5.00	1.080	8.50	3.54	3.82	6.129	0.204	0.000	25.78	147.45	
25.00	(3) 4.25" Solid Rod	Yes	5.00	1.080	8.50	3.54	3.82	6.129	0.208	0.000	25.78	147.45	
30.00	(3) 4.25" Solid Rod	Yes	5.00	1.079	8.50	3.54	3.82	6.134	0.212	0.000	25.80	147.45	
35.00	(3) 4.25" Solid Rod	Yes	5.00	1.056	8.50	3.54	3.74	6.410	0.217	0.000	26.37	147.45	
40.00	(3) 4.25" Solid Rod	Yes	5.00	1.036	8.50	3.54	3.67	6.659	0.222	0.000	26.88	147.45	
44.10	(3) 4.25" Solid Rod	Yes	4.10	1.022	8.50	2.90	2.97	6.848	0.226	0.000	22.35	120.91	
45.00	(3) 4.25" Solid Rod	Yes	0.90	1.019	8.50	0.64	0.65	6.887	0.228	0.000	4.92	26.54	
50.00	(3) 4.25" Solid Rod	Yes	5.00	1.003	8.50	3.54	3.55	7.098	0.231	0.000	27.75	147.45	
55.00	(3) 4.25" Solid Rod	Yes	5.00	0.990	8.50	3.54	3.51	7.294	0.237	0.000	28.13	147.45	
60.00	(3) 4.25" Solid Rod	Yes	5.00	0.978	8.50	3.54	3.46	7.477	0.242	0.000	28.48	147.45	
65.00	(3) 4.25" Solid Rod	Yes	5.00	0.967	8.50	3.54	3.42	7.650	0.248	0.000	28.81	147.45	
70.00	(3) 4.25" Solid Rod	Yes	5.00	0.956	8.50	3.54	3.39	7.814	0.254	0.000	29.11	147.45	
75.00	(3) 4.25" Solid Rod	Yes	5.00	0.947	8.50	3.54	3.35	7.969	0.260	0.000	29.40	147.45	
80.00	(3) 4.25" Solid Rod	Yes	5.00	0.938	8.50	3.54	3.32	8.118	0.267	0.000	29.68	147.45	
84.10	(3) 4.0" Solid Rod	Yes	4.10	0.990	8.00	2.73	2.71	8.235	0.258	0.000	24.51	30.75	
85.00	(3) 4.0" Solid Rod	Yes	0.90	0.988	8.00	0.60	0.59	8.260	0.261	0.000	5.39	6.75	
86.57	(3) 4.0" Solid Rod	Yes	1.57	0.986	8.00	1.05	1.03	8.303	0.263	0.000	9.42	11.77	
86.60	(3) 4.0" Solid Rod	Yes	0.03	0.986	8.00	0.02	0.02	8.304	0.264	0.000	0.18	0.22	
90.00	(3) 4.0" Solid Rod	Yes	3.40	0.980	8.00	2.27	2.22	8.396	0.266	0.000	20.52	25.50	
95.00	(3) 4.0" Solid Rod	Yes	5.00	0.973	8.00	3.33	3.24	8.526	0.273	0.000	30.41	37.50	
100.0	(3) 4.0" Solid Rod	Yes	5.00	0.966	8.00	3.33	3.22	8.652	0.280	0.000	30.64	37.50	
104.1	(3) 4.0" Solid Rod	Yes	4.10	0.960	8.00	2.73	2.62	8.752	0.288	0.000	25.27	30.75	
105.0	(3) 4.0" Solid Rod	Yes	0.90	0.959	8.00	0.60	0.58	8.774	0.292	0.000	5.55	6.75	
110.0	(3) 4.0" Solid Rod	Yes	5.00	0.953	8.00	3.33	3.18	8.891	0.297	0.000	31.06	37.50	
115.0	(3) 4.0" Solid Rod	Yes	5.00	0.947	8.00	3.33	3.16	9.005	0.307	0.000	31.25	37.50	
120.0	(3) 4.0" Solid Rod	Yes	5.00	0.941	8.00	3.33	3.14	9.115	0.317	0.000	31.44	37.50	
124.1	(3) 3.5" Solid Rod	Yes	4.10	1.070	7.00	2.39	2.56	9.203	0.286	0.000	25.91	15.99	
125.0	(3) 3.5" Solid Rod	Yes	0.90	1.069	7.00	0.53	0.56	9.222	0.290	0.000	5.69	3.51	
125.2	(3) 3.5" Solid Rod	Yes	0.27	1.069	7.00	0.16	0.17	9.227	0.292	0.000	1.71	1.05	
126.3	(3) 3.5" Solid Rod	Yes	1.03	1.067	7.00	0.60	0.64	9.249	0.293	0.000	6.53	4.02	
130.0	(3) 3.5" Solid Rod	Yes	3.70	1.063	7.00	2.16	2.29	9.326	0.298	0.000	23.54	14.43	
135.0	(3) 3.5" Solid Rod	Yes	5.00	1.057	7.00	2.92	3.08	9.427	0.307	0.000	31.98	19.50	
140.0	(3) 3.5" Solid Rod	Yes	5.00	1.052	7.00	2.92	3.07	9.525	0.318	0.000	32.15	19.50	
144.1	(3) 3.0" Solid Rod	Yes	4.10	1.200	6.00	2.05	2.46	9.604	0.283	0.000	25.99	21.89	
145.0	(3) 3.0" Solid Rod	Yes	0.90	1.200	6.00	0.45	0.54	9.621	0.288	0.000	5.72	4.81	
150.0	(3) 3.0" Solid Rod	Yes	5.00	1.200	6.00	2.50	3.00	9.715	0.295	0.000	32.06	26.70	
155.0	(3) 3.0" Solid Rod	Yes	5.00	1.200	6.00	2.50	3.00	9.806	0.307	0.000	32.36	26.70	
158.0	(3) 3.0" Solid Rod	Yes	3.00	1.200	6.00	1.50	1.80	9.860	0.318	0.000	19.52	16.02	
160.0	(3) 3.0" Solid Rod	Yes	2.00	1.200	6.00	1.00	1.20	9.896	0.325	0.000	13.06	10.68	
Totals:											886.87	2,843.97	

Pole : 302502
 Location : Harwinton, CT
 Height : 180.0 (ft)
 Shape : 12 Sides
 Base Dia : 43.000 (in)
 Top Dia : 14.500 (in)
 Taper : 0.158333 (in/ft)

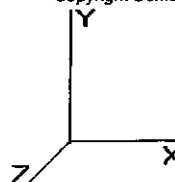
Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1

Base Elev : 0.000 (ft)

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Load Case: 1.0D + 1.0W

60.00 mph Serviceability

25 Iterations

Gust Response Factor 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.00

Wind Load Factor : 1.00

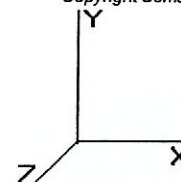
Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
4.10	101.76	1,427.23	0.00	0.00
5.00	22.13	311.83	0.00	0.00
10.00	121.59	1,794.79	0.00	0.00
15.00	168.93	1,778.53	0.00	0.00
20.00	166.17	1,762.27	0.00	0.00
25.00	163.41	1,746.00	0.00	0.00
30.00	160.77	1,729.74	0.00	0.00
35.00	164.53	1,713.47	0.00	0.00
40.00	167.41	1,697.21	0.00	0.00
44.10	138.54	1,379.57	0.00	0.00
45.00	30.29	279.81	0.00	0.00
50.00	178.94	1,553.51	0.00	0.00
55.00	172.19	1,531.28	0.00	0.00
60.00	172.79	1,517.71	0.00	0.00
65.00	173.01	1,504.13	0.00	0.00
70.00	172.88	1,490.56	0.00	0.00
75.00	172.44	1,476.98	0.00	0.00
80.00	171.71	1,463.41	0.00	0.00
84.10	139.88	1,099.68	0.00	0.00
85.00	30.46	225.33	0.00	0.00
86.57	53.09	391.95	0.00	0.00
86.60	1.01	6.88	0.00	0.00
90.00	114.86	777.45	0.00	0.00
95.00	168.07	1,134.16	0.00	0.00
100.0	166.42	1,123.32	0.00	0.00
104.1	134.95	913.01	0.00	0.00
105.0	29.34	199.47	0.00	0.00
110.0	162.58	1,101.63	0.00	0.00
115.0	160.40	1,090.79	0.00	0.00
120.0	158.06	1,079.95	0.00	0.00
124.1	127.64	862.69	0.00	0.00
125.0	27.70	161.36	0.00	0.00
125.2	8.28	48.32	0.00	0.00
126.3	31.57	168.27	0.00	0.00
130.0	112.77	601.55	0.00	0.00
135.0	150.18	805.81	0.00	0.00
140.0	147.29	797.66	0.00	0.00
144.1	117.95	653.88	0.00	0.00
145.0	25.55	119.35	0.00	0.00
150.0	140.73	658.20	0.00	0.00
155.0	137.64	650.04	0.00	0.00
158.0	80.90	386.11	0.00	0.00
160.0	53.24	111.48	0.00	0.00
165.0	81.81	246.29	0.00	0.00
170.0	78.73	238.13	0.00	0.00
175.0	1,063.06	1,960.98	0.00	0.00
180.0	947.33	2,686.13	0.00	4,374.99
Totals:	7,271.01	46,457.91	0.00	4,374.99

Pole : 302502
 Location : Harwinton, CT
 Height : 180.0 (ft)
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Load Case: 1.0D + 1.0W

60.00 mph Serviceability

25 Iterations

Gust Response Factor 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-46.46	-7.29	0.00	-832.46	0.00	832.46	3,010.98	1,505.49	5,293.47	2,614.24	0.00	0.00	0.148
4.10	-45.03	-7.20	0.00	-802.59	0.00	802.59	3,010.98	1,505.49	5,293.47	2,614.24	0.02	-0.04	0.145
4.10	-45.03	-7.20	0.00	-802.59	0.00	802.59	3,010.98	1,505.49	5,293.47	2,614.24	0.02	-0.04	0.145
5.00	-44.71	-7.20	0.00	-796.11	0.00	796.11	2,955.05	1,477.53	5,097.82	2,517.62	0.02	-0.04	0.145
10.00	-42.91	-7.11	0.00	-760.13	0.00	760.13	2,899.13	1,449.57	4,905.86	2,422.82	0.09	-0.09	0.141
15.00	-41.13	-6.96	0.00	-724.60	0.00	724.60	2,843.21	1,421.60	4,717.59	2,329.84	0.20	-0.13	0.138
20.00	-39.36	-6.82	0.00	-689.79	0.00	689.79	2,787.29	1,393.64	4,532.99	2,238.67	0.36	-0.17	0.134
25.00	-37.61	-6.68	0.00	-655.68	0.00	655.68	2,731.36	1,365.68	4,352.08	2,149.33	0.56	-0.21	0.131
30.00	-35.88	-6.54	0.00	-622.29	0.00	622.29	2,675.44	1,337.72	4,174.86	2,061.81	0.80	-0.25	0.127
35.00	-34.16	-6.39	0.00	-589.61	0.00	589.61	2,619.52	1,309.76	4,001.32	1,976.10	1.09	-0.29	0.123
40.00	-32.46	-6.23	0.00	-557.66	0.00	557.66	2,563.60	1,281.80	3,831.46	1,892.22	1.42	-0.33	0.119
44.10	-31.08	-6.10	0.00	-532.11	0.00	532.11	2,563.60	1,281.80	3,831.46	1,892.22	1.72	-0.37	0.116
44.10	-31.08	-6.10	0.00	-532.11	0.00	532.11	2,563.60	1,281.80	3,831.46	1,892.22	1.72	-0.37	0.000
45.00	-30.80	-6.08	0.00	-526.62	0.00	526.62	2,096.73	1,048.36	3,075.36	1,518.80	1.79	-0.37	0.123
50.00	-29.24	-5.91	0.00	-496.24	0.00	496.24	2,050.05	1,025.03	2,939.37	1,451.64	2.20	-0.42	0.118
55.00	-27.71	-5.75	0.00	-466.69	0.00	466.69	2,003.38	1,001.69	2,806.46	1,386.01	2.66	-0.46	0.114
60.00	-26.19	-5.58	0.00	-437.96	0.00	437.96	1,956.70	978.35	2,676.63	1,321.89	3.16	-0.50	0.109
65.00	-24.68	-5.41	0.00	-410.07	0.00	410.07	1,910.02	955.01	2,549.87	1,259.28	3.71	-0.54	0.105
70.00	-23.19	-5.24	0.00	-383.02	0.00	383.02	1,863.35	931.67	2,426.18	1,198.20	4.29	-0.58	0.100
75.00	-21.71	-5.06	0.00	-356.84	0.00	356.84	1,816.67	908.33	2,305.57	1,138.64	4.92	-0.62	0.096
80.00	-20.24	-4.89	0.00	-331.52	0.00	331.52	1,769.99	885.00	2,188.04	1,080.59	5.58	-0.65	0.091
84.10	-19.14	-4.74	0.00	-311.48	0.00	311.48	1,769.99	885.00	2,188.04	1,080.59	6.16	-0.68	0.087
84.10	-19.14	-4.74	0.00	-311.48	0.00	311.48	1,769.99	885.00	2,188.04	1,080.59	6.16	-0.68	0.096
85.00	-18.92	-4.71	0.00	-307.21	0.00	307.21	1,723.32	861.66	2,073.58	1,024.06	6.29	-0.69	0.095
86.57	-18.53	-4.66	0.00	-299.82	0.00	299.82	1,708.66	854.33	2,038.28	1,006.63	6.52	-0.70	0.093
86.57	-18.53	-4.66	0.00	-299.82	0.00	299.82	1,708.66	854.33	2,038.28	1,006.63	6.52	-0.70	0.099
86.60	-18.52	-4.66	0.00	-299.68	0.00	299.68	1,708.66	854.33	2,038.28	1,006.63	6.52	-0.70	0.099
86.60	-18.52	-4.66	0.00	-299.68	0.00	299.68	1,708.66	854.33	2,038.28	1,006.63	6.52	-0.70	0.099
90.00	-17.74	-4.55	0.00	-283.83	0.00	283.83	1,342.14	671.07	1,577.69	779.16	7.03	-0.73	0.095
95.00	-16.61	-4.37	0.00	-261.11	0.00	261.11	1,304.85	652.43	1,490.89	736.29	7.82	-0.77	0.090
100.00	-15.48	-4.20	0.00	-239.24	0.00	239.24	1,267.57	633.79	1,406.54	694.64	8.65	-0.81	0.084
104.10	-14.57	-4.06	0.00	-222.01	0.00	222.01	1,267.57	633.79	1,406.54	694.64	9.36	-0.84	0.080
104.10	-14.57	-4.06	0.00	-222.01	0.00	222.01	1,267.57	633.79	1,406.54	694.64	9.36	-0.84	0.080
105.00	-14.37	-4.03	0.00	-218.36	0.00	218.36	1,230.29	615.15	1,324.65	654.19	9.52	-0.85	0.079
110.00	-13.27	-3.86	0.00	-198.20	0.00	198.20	1,193.01	596.51	1,245.21	614.96	10.43	-0.89	0.073
115.00	-12.18	-3.69	0.00	-178.90	0.00	178.90	1,155.73	577.86	1,168.24	576.95	11.38	-0.92	0.068
120.00	-11.10	-3.52	0.00	-160.46	0.00	160.46	1,118.45	559.22	1,093.71	540.14	12.36	-0.95	0.062
124.10	-10.24	-3.38	0.00	-146.02	0.00	146.02	1,118.45	559.22	1,093.71	540.14	13.19	-0.98	0.058
124.10	-10.24	-3.38	0.00	-146.02	0.00	146.02	1,118.45	559.22	1,093.71	540.14	13.19	-0.98	0.073
125.00	-10.08	-3.35	0.00	-142.98	0.00	142.98	1,081.17	540.58	1,021.65	504.55	13.38	-0.98	0.072
125.27	-10.03	-3.34	0.00	-142.08	0.00	142.08	1,079.15	539.58	1,017.83	502.67	13.43	-0.99	0.071
125.27	-10.03	-3.34	0.00	-142.08	0.00	142.08	1,079.15	539.58	1,017.83	502.67	13.43	-0.99	0.077
126.30	-9.86	-3.31	0.00	-138.63	0.00	138.63	1,079.15	539.58	1,017.83	502.67	13.65	-0.99	0.075
126.30	-9.86	-3.31	0.00	-138.63	0.00	138.63	1,079.15	539.58	1,017.83	502.67	13.65	-0.99	0.075
130.00	-9.26	-3.19	0.00	-126.38	0.00	126.38	787.08	393.54	721.85	356.50	14.43	-1.02	0.069
135.00	-8.45	-3.03	0.00	-110.42	0.00	110.42	759.16	379.58	671.24	331.50	15.52	-1.06	0.062
140.00	-7.66	-2.88	0.00	-95.25	0.00	95.25	731.12	365.56	622.37	307.37	16.65	-1.09	0.055
144.10	-7.00	-2.75	0.00	-83.46	0.00	83.46	731.12	365.56	622.37	307.37	17.60	-1.12	0.049
144.10	-7.00	-2.75	0.00	-83.46	0.00	83.46	731.12	365.56	622.37	307.37	17.60	-1.12	0.065
145.00	-6.88	-2.72	0.00	-80.99	0.00	80.99	703.09	351.54	575.35	284.14	17.82	-1.12	0.063
150.00	-6.23	-2.57	0.00	-67.38	0.00	67.38	675.05	337.53	530.17	261.83	19.01	-1.16	0.054

Pole : 302502
 Location : Harwinton, CT
 Height : 180.0 (ft)
 Shape : 12 Sides
 Base Dia : 43.000 (in)
 Top Dia : 14.500 (in)
 Taper : 0.158333 (in/ft)

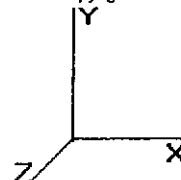
Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1

Base Elev : 0.000 (ft)

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Load Case: 1.0D + 1.0W

60.00 mph Serviceability

25 Iterations

Gust Response Factor 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.00

Wind Load Factor : 1.00

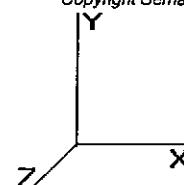
155.00	-5.58	-2.42	0.00	-54.53	0.00	54.53	647.02	323.51	486.84	240.43	20.25	-1.19	0.045
158.00	-5.19	-2.33	0.00	-47.26	0.00	47.26	647.02	323.51	486.84	240.43	21.00	-1.21	0.040
158.00	-5.19	-2.33	0.00	-47.26	0.00	47.26	647.02	323.51	486.84	240.43	21.00	-1.21	0.216
160.00	-5.08	-2.29	0.00	-42.59	0.00	42.59	618.98	309.49	445.36	219.95	21.51	-1.22	0.202
165.00	-4.83	-2.21	0.00	-31.16	0.00	31.16	590.95	295.47	405.73	200.37	22.86	-1.35	0.164
170.00	-4.59	-2.13	0.00	-20.12	0.00	20.12	562.91	281.46	367.94	181.71	24.33	-1.45	0.119
175.00	-2.66	-1.02	0.00	-9.47	0.00	9.47	534.87	267.44	332.00	163.96	25.89	-1.52	0.063
180.00	0.00	-0.95	0.00	-4.37	0.00	4.37	506.84	253.42	297.90	147.12	27.50	-1.55	0.030

Pole : 302502
 Location : Harwinton, CT
 Height : 180.0 (ft)
 Shape : 12 Sides
 Base Dia : 43.000 (in)
 Top Dia : 14.500 (in)
 Taper : 0.158333 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : B
 Topographic Category : 1

Base Elev : 0.000 (ft)

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Analysis Summary

Load Case	Reactions						Max Usage	
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.6W	28.20	0.00	51.66	0.00	0.00	3232.83	160.00	0.79
0.9D + 1.6W	27.91	0.00	43.81	0.00	0.00	3206.24	160.00	0.78
1.2D + 1.0Di + 1.0Wi	4.99	0.00	93.14	0.00	0.00	681.27	160.00	0.26
1.0D + 1.0W	7.29	0.00	46.46	0.00	0.00	832.46	160.00	0.20

Additional Steel Summary

Elev From (ft)	Elev To (ft)	Member	Stitch Weld				Upper Terminal Weld				Lower Terminal Weld				Max Member		
			Len (in)	Spacing (in)	Size (in)	Fu (ksi)	Moment (ft-kips)	Q (in^3)	Tot I (in^4)	Len (in)	Moment (ft-kips)	Q (in^3)	Tot I (in^4)	Len (in)	Pu (kip)	phi (kip)	Pn Ratio
0.00	4.10	(3) SOL-4 1/4" SOLID	17.50	2.50	0.188	70	3,117.2	374.9	26,306	63.8	3,232.8	379.5	27,211	64.7	548.8	636.0	0.86
4.10	44.10	(3) SOL-4 1/4" SOLID	17.50	2.50	0.188	70	2,078.2	329.9	18,538	53.1	3,117.2	374.9	26,306	63.8	540.7	636.0	0.85
44.10	84.10	(3) SOL-4 1/4" SOLID	17.50	2.50	0.188	70	1,226.4	285.0	11,898	42.2	2,078.2	329.9	17,415	56.5	476.1	636.0	0.75
84.10	86.60	(3) SOL-4" SOLID	14.00	5.50	0.188	70	1,180.6	248.4	9,920	42.4	1,226.4	250.9	10,812	40.8	358.9	564.7	0.64
86.60	104.1	(3) SOL-4" SOLID	14.00	5.50	0.188	70	878.9	231.0	8,270	35.2	1,180.6	248.4	9,920	42.4	358.9	564.7	0.64
104.1	124.1	(3) SOL-4" SOLID	14.00	5.50	0.188	70	581.8	211.1	6,625	26.6	878.9	231.0	8,270	35.2	297.9	564.7	0.53
124.1	126.3	(3) SOL-3 1/2" SOLID	14.00	5.50	0.188	70	552.8	157.6	4,810	26.0	581.8	159.2	5,242	25.4	219.7	432.2	0.51
126.3	144.1	(3) SOL-3 1/2" SOLID	14.00	5.50	0.188	70	335.0	144.0	3,873	17.9	552.8	157.6	4,810	26.0	219.7	432.2	0.51
144.1	158.1	(3) SOL-3" SOLID	14.00	5.50	0.188	70	190.5	96.3	2,413	10.9	335.0	104.0	2,926	17.1	144.5	412.3	0.35

Base/Flange Plate	Plate Type	Baseplate
	Pole Diameter	43 in
	Pole Thickness	0.375 in
	Plate Diameter	55 in
	Plate Thickness	2.5 in
	Plate Fy	60 ksi
	Weld Length	0.25 in
	ϕ_s Resistance	840.32 k-in
	Applied	224.39 k-in
	#	0
Stiffeners		

Bolts	#	12
	Bolt Circle (R)adial / (S)quare	49.25 in R
	Diameter	2.25 in
	Hole Diameter	2.375 in
	Type	#18J
	Fy	75 ksi
	Fu	100 ksi
	ϕ_s Resistance	259.82 k
	Applied	132.97 k
	#	3
Reinforcement	DYW. Circle	49.25 in
	Offset Angle	45°
	Type	Other
	Diameter	4.25 in
	Fu	65 ksi
Extra Bolts O	#	0

Code Rev. **G**

Date **3/25/2008**

Engineer **JOEJ**

Site # **302502**

Carrier **Verizon**

Moment **3232.8 k-ft**

Axial **93.1 k**

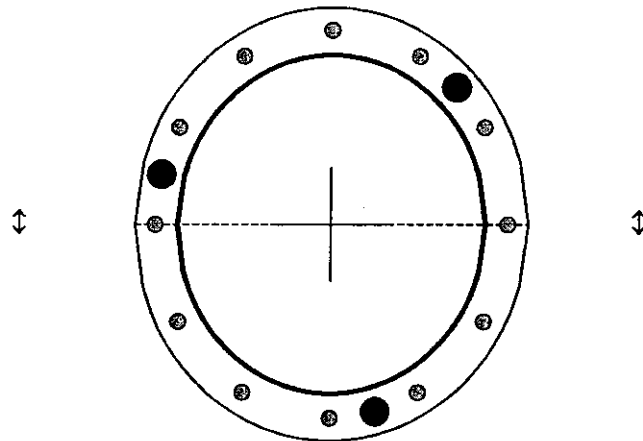


Plate Stress Ratio:
0.27 (Pass)

Bolt Stress Ratio:
0.51 (Pass)

Base/Flange Plate	Plate Type	Flange @ 125.3 ft
	Pole Diameter	22.86 in
	Pole Thickness	0.188 in
	Plate Diameter	30 in
	Plate Thickness	1.25 in
	Plate Fy	60 ksi
	Weld Length	0.25 in
	ϕ_s Resistance	94.68 k-in
	Applied	14.96 k-in
	#	0
Stiffeners		

Code Rev. **G**

Date **3/25/2008**
 Engineer **JOEJ**
 Site # **302502**
 Carrier **Verizon**

Moment **566.3 k-ft**
 Axial **10.7 k**

Required Flange Thickness:

0.50 in OK

Bolts	#	16
	Bolt Circle (R)adial / (S)quare	26.43 in R
	Diameter	1 in
	Hole Diameter	1.125 in
	Type	A325
	Fy	92 ksi
	Fu	120 ksi
	ϕ_s Resistance	54.52 k
	Applied	15.39 k
	#	3
Reinforcement	DYW. Circle	26.43 in
	Offset Angle	33°
	Type	Other
	Diameter	3.5 in
	Fu	65 ksi
Extra Bolts O	#	0

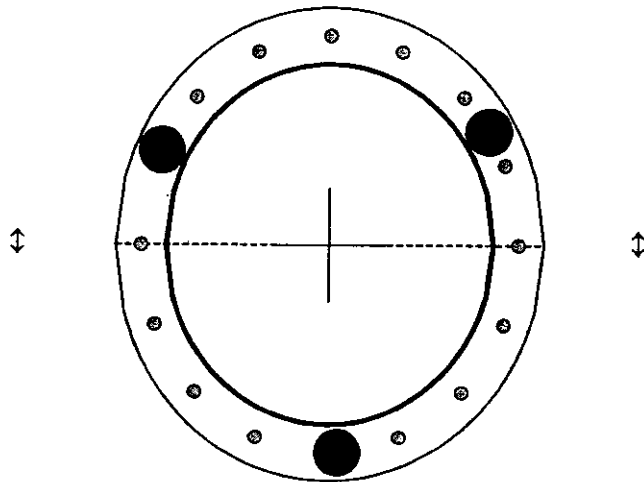


Plate Stress Ratio:
0.16 (Pass)

Bolt Stress Ratio:
0.28 (Pass)

FOUNDATION TYPE: PAD & PIER

Site Name: Harwinton, CT
Site Number: 302502
Engineer: JOEJ
Date: 3/11/2008

Design Loads (Factored)

O.T. Moment: 3232.83 k-ft
Compression: 93.14 k
Shear: 28.20 k

Tower Type:

Code Revision:

Allowable Capacity Increase (Transient Loads):

Pedestal Shape - (R)ound / (S)quare

Width of Prismatic Portion of Pedestal (d):

Length of Pedestal (l):

Height of Pedestal above Ground (h):

Length of Pad (L):

Width of Pad (W):

Thickness of Pad (t):

Depth Below Ground Surface to Water Table (w):

Unit Weight of Soil Above Water Table:

Friction Angle of Uplift (A):

Ultimate Coefficient of Shear Friction:

Ultimate Cohesion of Soil:

Allowable Concrete Compressive Strength:

Unit Weight of Water:

Unit Weight of Concrete:

Ultimate Compressive Bearing Pressure:

MP	
G	
1.33	
S	
6	ft
5.5	ft
0.5	ft
20	ft
20	ft
3	ft
20	ft
110	pcf
30	°
0	psf
3000	psi
62.4	pcf
150	pcf
12000	psf

Volume of Concrete: 1398.0 ft³
Volume of Soil: 2441.0 ft³
Weight of Concrete (Buoyancy Effect Considered): 209.7 k
Weight of Soil (Buoyancy Effect Considered): 268.5 k
Weight of Soil (Buoyancy Effect, w/o Friction Angle Cone): 200.2 k

q_{ult} : 5414.43 psf
 q_{net} : 4534.43 psf
Eccentricity: 6.90 ft > 3.33 ft (L/6)
Resultant is Outside Middle Third of Pad
L-Prime: 9.29 ft

One-Way Shear Check

Top of Concrete to Middle of Bottom Rebar Mat: 33.00 in
Factored Shear at Face of Pier: 613.64 k
 ΦV_n , Concrete 1-way Shear Resistance: 780.83 k

Mat Thickness is Acceptable**Overturning Check**

Overturning Moment at Foundation Base: 3472.53 k-ft
Increment: 330.00 psf/ft
Lateral Bearing Resistance: 168.96 k
Overturning Moment Capacity: 6132.67 k-ft
Total Vertical Load: 503.04 k

Bearing Design Load / Bearing Capacity:

O.T. Design / O.T. Capacity:

0.50	Acceptable
0.75	Acceptable

