

ROBINSON & COLE LLP

KENNETH C. BALDWIN

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August 13, 2009

Michael Perrone
Siting Analyst
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **Cellco Partnership d/b/a Verizon Wireless
Exempt Modification Approval**

Dear Mr. Perrone:

Enclosed you will find a Structural Analysis Report confirming that the tower and foundation is capable of supporting the existing and proposed antenna configurations. The attached report relates specifically to the following Siting Council filing.

1. EM-VER-046-090417
Easton- 206 Everett Road, Easton, CT

If you have any questions regarding any of these materials, please do not hesitate to contact me or Rachel Mayo.



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www.rc.com

Sincerely,

A handwritten signature in blue ink, appearing to read "Kenneth C. Baldwin".

Kenneth C. Baldwin

Enclosures

Copy to:

Sandy M. Carter
Brian Ragozzine
Mark Gauger

HART1-1562869-1



PASS
(Shaft, 94% capacity)



May 7, 2009

Mr. Stephen Rambeau
TowerCo, LLC
5000 Vallestone Drive
Cary, NC 27519
(919) 653-5722

Vertical Solutions, Inc.
PO Box 579
Holly Springs, NC 27540
(888) 321-6167
operations@verticalsolutions-inc.com

Subject: Rigorous Structural Analysis

Carrier Designation Verizon, Collocation
Site Number: N/A
Site Name: N/A

TowerCo Designation Site Number: CT2007
Site Name: Easton-Everetts Rd

Engineering Firm Designation Vertical Solutions Project: 090545.01 Rev0

Site Data 206 Everett Road, Easton, Fairfield County, CT 06612
Latitude: N41° 17' 25.22"±; Longitude: W073° 16' 57.63"±
Elevation: 443 ft±, Topography Category: 1;
Exposure Category: "C"; Structure Class II;
158-ft Self Supporting Pole Structure (Monopole)

Dear Mr. Rambeau,

To your request, we present our structural analysis.

Our work indicates that with the proposed appurtenance configuration, the tower and foundation will satisfy the structural strength requirements of EIA/TIA-222-F-1996, *Structural Standards for Steel Antenna Towers and Antenna Supporting Structures* (industry standard) and the 2006 *International Building Code* (local building code) for:

- 85-mph fastest mile basic wind speed
- 74-mph fastest mile basic wind speed with 1/2" radial ice

We trust you find our work satisfactory. Please do not hesitate to call should you have any questions.

Sincerely,

Holly R. Sanford, E.I.
Structural Engineer In Training



Michael L. Lassiter, S.E., P.E., C.W.I.
Structural Engineer, Civil Engineer, Certified Weld Inspector
& President
CT PE License 25064

MAY 07 2009

Table 1: Existing, Proposed and Reserved Appurtenance Configuration

Elevation (AGL, ft)	Carrier	Mount	Equipment	Coax	Location
158	Sprint Nextel	Low Profile Platform	(6) Decibel DB980F90E-M (existing) (6) Decibel DB980F90E-M (reserved)	(12) 1 5/8	Inside
148		Low Profile Platform	(12) Decibel DB844H90	(12) 1 1/4	Inside
138	T-Mobile	Low Profile Platform	(12) EMS RR90-17-02DP (6) TMAs	(18) 1 1/4	Inside
128	Verizon	Low Profile Platform	(6) Andrew DB846F65ZAXY (6) Antel LPA 185063/8CF (6) ADC TMAs	(12) 1 5/8	Outside
118	Cingular	Stand-off Mount	(6) Powerwave 7770 (6) 21401 TMA (6) 21901 Diplexer	(12) 1 1/4	Inside
75	Sprint	Pipe Mount	(1) GPS	(1) 1/2	Inside

Table 2: Tower Structure Results – Percent Capacity Utilized¹

Elevation (ft)	Shaft	Result	Connections	Result
158.5 to 123.5	51	O. K.	-	-
123.5 to 79.5	80	O. K.	88	O. K.
79.5 to 39.5	82	O. K.	-	-
39.5 to 0	94	O. K.	88	O. K.

¹ –Utilization of 105% or less considered acceptable.

Table 3: Foundation Results, Percent Capacity Utilized¹

Component	Design Reactions	Analysis Reactions	Percent Utilized	Result
Moment (kip-ft)	2888	3507	93	O. K.
Axial (kip)	30	39	93	O. K.
Shear (kip)	27	31	93	O. K.

¹ –Utilization of 105% or less considered acceptable.

Attachments:

- Project History
- Program input and output
- Base plate and anchor rod calculations
- Foundation calculations

Project History, 090545.01 Easton-Everetts Rd CT2007

TowerCo Document ID	File	By: / For:	Description
486338	20000330_GEO_CT2007.pdf	Techtonic/ Nextel Partners	Geotechnical Investigation
705214	20021219_TDD_CT2007.pdf	Paul J Ford/ PennSummit Tubular	Tower Design Drawings with Calculations
705215	20021219_FDD_CT2007.pdf	Paul J Ford/ PennSummit Tubular	Foundation Design Drawings
183247	20021219_SAR_CT2007.pdf	Paul J Ford/ PennSummit Tubular	Structural Analysis
242319	20021219_SAR(2)_CT2007.pdf	Paul J Ford/ PennSummit Tubular	Structural Analysis
242261	20080709_SAR_CT2007.pdf	Semaan Engineering/ Sprint Sites USA	Structural Analysis
503396	20080902_SAR_CT2007.pdf	Semaan Engineering/ Sprint Sites USA	Structural Analysis
492963	20081015_SAR_CT2007.pdf	Semaan Engineering/ Sprint Sites USA	Structural Analysis
506521	20081106_SAR_CT2007.pdf	Semaan Engineering/ Sprint Sites USA	Structural Analysis

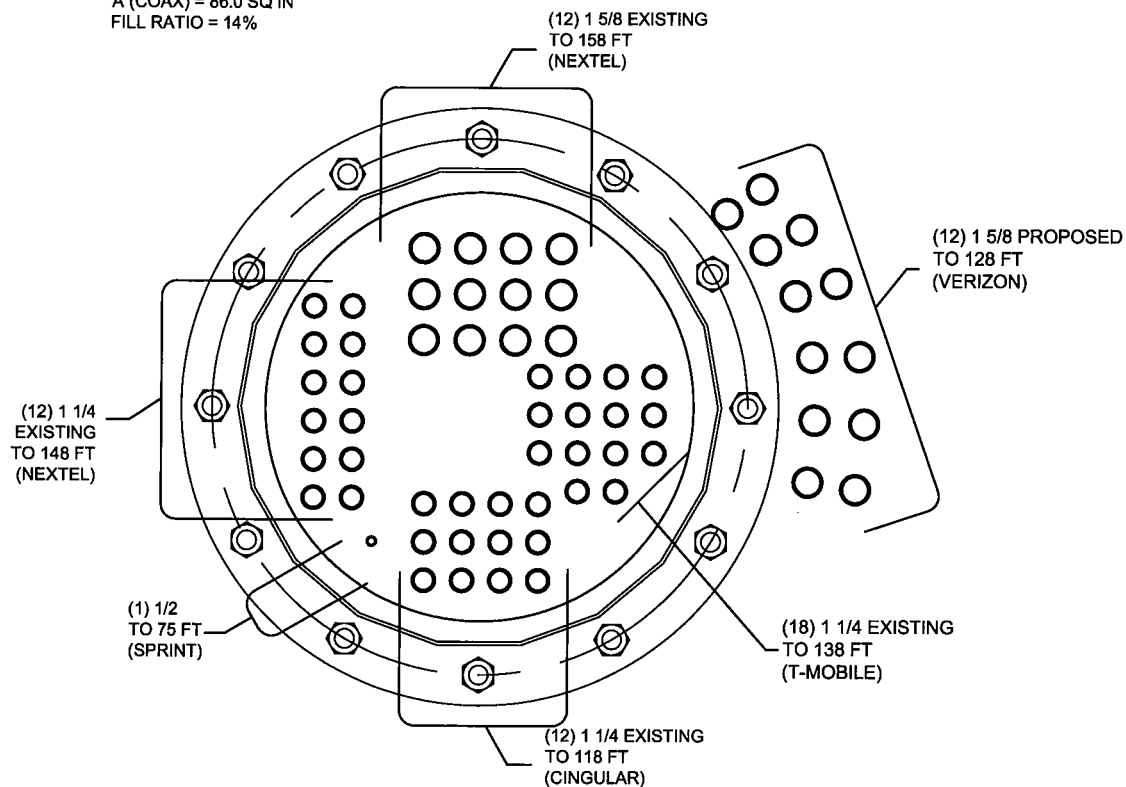
Table Note:

Files name format YYYYMMDD-XXX-ZZZZZZ.pdf

Where:

YYYY=year
MM=month
DD=day published/issued
XXX=file describer
ZZZZZ=TowerCo Site ID

A(INSIDE) = 615 SQ IN
A (COAX) = 86.0 SQ IN
FILL RATIO = 14%



DRAWN BY:	HRS	CHECKED BY:	MILL
SHEET NUMBER:		REVISION:	
QP-P		0	
		VSI #: 090321.01	

REV	DATE
0	04/01/2009

PREPARED FOR:

TowerCo

5000 Valley Stone Drive
Cary, NC 27519
Office: (919) 469-5559
Fax: (919) 469-5530
www.towerco.com

PROJECT NAME:

SILVER NUGGET

TOWERCO JOB #:

NV2036

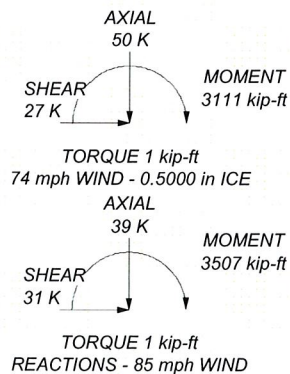
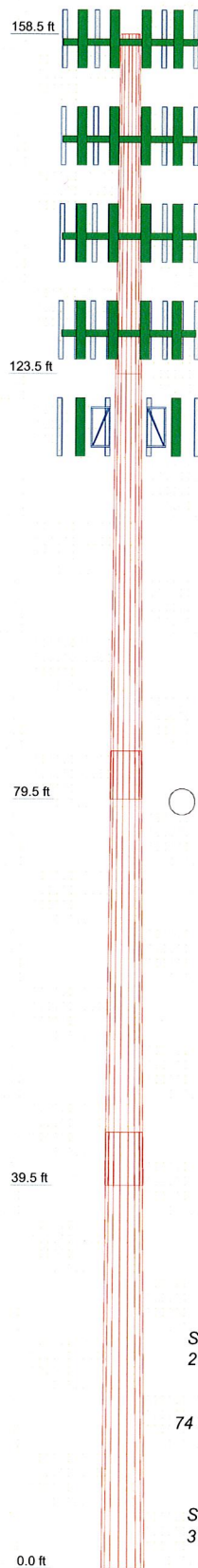
PREPARED BY:

2002 Production Drive
Apex, NC 27539
Office: (888) 321-6167
Fax: (919) 321-1788
www.verticalsolutions-inc.com

COAX CONFIGURATION PLAN AT 123-FT

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

Section	1	2	3	4
Length (ft)	35.00	44.00	45.00	45.00
Number of Sides	18	18	18	18
Thickness (in)	0.2188	0.3125	0.3750	0.3750
Lap Splice (ft)		5.00	5.50	
Top Dia (in)	24.0000	31.1120	38.4120	45.6875
Bot Dia (in)	31.1120	40.0530	47.5550	54.7300
Grade		A572-60	A572-65	
Weight (K)	2.3	5.2	7.8	9.1



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
PIROD 15' Low Profile Platform	158	(2) LPA-185063/BCF w/ 2" Mount Pipe	128
(4) DB980F90E-M w/Mount Pipe	158	(2) LPA-185063/BCF w/ 2" Mount Pipe	128
(4) DB980F90E-M w/Mount Pipe	158	(2) LPA-185063/BCF w/ 2" Mount Pipe	128
(4) DB980F90E-M w/Mount Pipe	158	(2) ADC DD1900	128
PIROD 15' Low Profile Platform	148	(2) ADC DD1900	128
(4) DB844H90E-XY w/Mount Pipe	148	(2) ADC DD1900	128
(4) DB844H90E-XY w/Mount Pipe	148	(2) 7770.00	118
PIROD 15' Low Profile Platform	138	(2) 7770.00	118
(4) RR90-17-02DP w/Mount Pipe	138	(2) Power Wave LGP21401	118
(4) RR90-17-02DP w/Mount Pipe	138	(2) Power Wave LGP21401	118
(4) RR90-17-02DP w/Mount Pipe	138	(2) Power Wave LGP21401	118
(2) 14" x 12" x 5" TMA	138	(2) Power Wave LGP21901	118
(2) 14" x 12" x 5" TMA	138	(2) Power Wave LGP21901	118
(2) 14" x 12" x 5" TMA	138	(2) Power Wave LGP21901	118
PIROD 15' Low Profile Platform	128	Piroad 4' Side Mount Standoff (1)	118
(2) DB846F65ZAXY w/Mount Pipe	128	Piroad 4' Side Mount Standoff (1)	118
(2) DB846F65ZAXY w/Mount Pipe	128	Piroad 4' Side Mount Standoff (1)	118
(2) DB846F65ZAXY w/Mount Pipe	128	GPS	75

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-60	60 ksi	75 ksi	A572-65	65 ksi	80 ksi

TOWER DESIGN NOTES

1. Tower is located in Fairfield County, Connecticut.
2. Tower designed for a 85 mph basic wind in accordance with the TIA/EIA-222-F Standard.
3. Tower is also designed for a 74 mph basic wind with 0.50 in ice.
4. Deflections are based upon a 60 mph wind.
5. TOWER RATING: 94.4%

Vertical Solutions, Inc.

2002 Production Drive
Apex, NC 27539
Phone: 888-321-6167
FAX: 919-321-1768

Job: **Easton-Everetts CT2007**

Project: **090545.01**

Client: TowerCo	Drawn by: hsanford	App'd:
Code: TIA/EIA-222-F	Date: 05/07/09	Scale: NTS
Path: L:\2009\0545_Easton-Everetts Rd CT2007\1\Drawings\TIA/EIA-222-F\CT2007.ctb		Dwg No. E-1

<i>RISA</i>Tower Vertical Solutions, Inc. 2002 Production Drive Apex, NC 27539 Phone: 888-321-6167 FAX: 919-321-1768	Job	Easton-Everetts CT2007	Page	1 of 6
	Project	090545.01	Date	14:01:14 05/07/09
	Client	TowerCo	Designed by	hsanford

Tower Input Data

There is a pole section.

This tower is designed using the TIA/EIA-222-F standard.

The following design criteria apply:

Tower is located in Fairfield County, Connecticut.

Basic wind speed of 85 mph.

Nominal ice thickness of 0.5000 in.

Ice density of 56 pcf.

A wind speed of 74 mph is used in combination with ice.

Deflections calculated using a wind speed of 60 mph.

A non-linear (P-delta) analysis was used.

Pressures are calculated at each section.

Stress ratio used in pole design is 1.333.

Local bending stresses due to climbing loads, feedline supports, and appurtenance mounts are not considered.

Tapered Pole Section Geometry

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	158.50-123.50	35.00	0.00	18	24.0000	31.1120	0.2188	0.8752	A572-60 (60 ksi)
L2	123.50-79.50	44.00	5.00	18	31.1120	40.0530	0.3125	1.2500	A572-60 (60 ksi)
L3	79.50-39.50	45.00	5.50	18	38.4120	47.5550	0.3750	1.5000	A572-65 (65 ksi)
L4	39.50-0.00	45.00		18	45.6875	54.7300	0.3750	1.5000	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	It/Q in ²	w in	w/t
L1	24.3702	16.5154	1180.0298	8.4423	12.1920	96.7872	2361.6124	8.2592	3.8389	17.545
	31.5920	21.4544	2586.9044	10.9671	15.8049	163.6774	5177.2127	10.7293	5.0906	23.266
L2	31.5920	30.5493	3661.2163	10.9338	15.8049	231.6508	7327.2502	15.2775	4.9257	15.762
	40.6709	39.4176	7864.9212	14.1079	20.3469	386.5410	15740.1912	19.7125	6.4993	20.798
L3	40.0361	45.2735	8275.4883	13.5031	19.5133	424.0951	16561.8658	22.6411	6.1005	16.268
	48.2886	56.1560	15792.4478	16.7489	24.1579	653.7167	31605.6757	28.0833	7.7097	20.559
L4	47.5146	53.9332	13990.4045	16.0859	23.2093	602.7941	27999.2179	26.9717	7.3810	19.683
	55.5743	64.6960	24148.7214	19.2960	27.8028	868.5703	48329.2182	32.3542	8.9725	23.927

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A _f	Adjust. Factor A _r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals	Double Angle Stitch Bolt Spacing Horizontals
ft	ft ²	in					in	in
L1				1	1	1		

RISATower Vertical Solutions, Inc. 2002 Production Drive Apex, NC 27539 Phone: 888-321-6167 FAX: 919-321-1768	Job	Easton-Everetts CT2007	Page	2 of 6
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	Client	TowerCo	Designed by	hsanford

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in
ft	ft ²	in						
158.50-123.50								
L2				1	1	1		
123.50-79.50								
L3 79.50-39.50				1	1	1		
L4 39.50-0.00				1	1	1		

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Component Type	Placement	Total Number		$C_A A_A$	Weight
				ft			ft ² /ft	klf
LDF7-50A (1-5/8 FOAM)	C	No	Inside Pole	158.00 - 8.00	12	No Ice	0.00	0.00
						1/2" Ice	0.00	0.00
LDF6-50A (1-1/4 FOAM)	C	No	Inside Pole	148.00 - 8.00	12	No Ice	0.00	0.00
						1/2" Ice	0.00	0.00
LDF6-50A (1-1/4 FOAM)	C	No	Inside Pole	138.00 - 8.00	18	No Ice	0.00	0.00
						1/2" Ice	0.00	0.00
LDF7-50A (1-5/8 FOAM)	C	No	CaAa (Out Of Face)	128.00 - 8.00	2	No Ice	0.20	0.00
						1/2" Ice	0.30	0.00
LDF7-50A (1-5/8 FOAM)	C	No	CaAa (Out Of Face)	128.00 - 8.00	10	No Ice	0.00	0.00
						1/2" Ice	0.00	0.00
LDF6-50A (1-1/4 FOAM)	C	No	Inside Pole	118.00 - 8.00	12	No Ice	0.00	0.00
						1/2" Ice	0.00	0.00
LDF4RN-50A (1/2 FOAM)	C	No	Inside Pole	75.00 - 8.00	1	No Ice	0.00	0.00
						1/2" Ice	0.00	0.00

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation	Face	A_R	A_F	$C_A A_A$ In Face	$C_A A_A$ Out Face	Weight
	ft		ft ²	ft ²	ft ²	ft ²	K
L1	158.50-123.50	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	1.782	0.75
L2	123.50-79.50	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	17.424	2.04
L3	79.50-39.50	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	15.840	1.90
L4	39.50-0.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	12.474	1.50

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation	Face or Leg	Ice Thickness	A_R	A_F	$C_A A_A$ In Face	$C_A A_A$ Out Face	Weight
	ft		in	ft ²	ft ²	ft ²	ft ²	K

<i>RISATower</i> <i>Vertical Solutions, Inc.</i> 2002 Production Drive Apex, NC 27539 Phone: 888-321-6167 FAX: 919-321-1768	Job	Easton-Everetts CT2007	Page	3 of 6
	Project	090545.01	Date	14:01:14 05/07/09
	Client	TowerCo	Designed by	hsanford

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft ²	A_F ft ²	C_{AA} In Face ft ²	C_{AA} Out Face ft ²	Weight K
L1	158.50-123.50	A	0.500	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	2.682	0.83
L2	123.50-79.50	A	0.500	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	26.224	2.84
L3	79.50-39.50	A	0.500	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	23.840	2.63
L4	39.50-0.00	A	0.500	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	18.774	2.07

Feed Line Center of Pressure

Section	Elevation ft	CP_x in	CP_z in	CP_x Ice in	CP_z Ice in
L1	158.50-123.50	-0.0720	0.0416	-0.1035	0.0598
L2	123.50-79.50	-0.4538	0.2620	-0.6299	0.3637
L3	79.50-39.50	-0.4637	0.2677	-0.6520	0.3764
L4	39.50-0.00	-0.3757	0.2169	-0.5368	0.3099

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C_{AA} Front ft ²	C_{AA} Side ft ²	Weight K
PiROD 15' Low Profile Platform	C	None		0.0000	158.00	No Ice 17.30 1/2" Ice 22.10	17.30 22.10	1.50 2.03
(4) DB980F90E-M w/Mount Pipe	A	From Face	4.00 0.00 0.00	0.0000	158.00	No Ice 4.37 1/2" Ice 4.96	3.95 5.04	0.03 0.07
(4) DB980F90E-M w/Mount Pipe	B	From Face	4.00 0.00 0.00	0.0000	158.00	No Ice 4.37 1/2" Ice 4.96	3.95 5.04	0.03 0.07
(4) DB980F90E-M w/Mount Pipe	C	From Face	4.00 0.00 0.00	0.0000	158.00	No Ice 4.37 1/2" Ice 4.96	3.95 5.04	0.03 0.07
PiROD 15' Low Profile Platform	C	None		0.0000	148.00	No Ice 17.30 1/2" Ice 22.10	17.30 22.10	1.50 2.03
(4) DB844H90E-XY w/Mount Pipe	A	From Face	4.00 0.00 0.00	0.0000	148.00	No Ice 3.58 1/2" Ice 4.20	5.40 6.49	0.04 0.08
(4) DB844H90E-XY w/Mount Pipe	B	From Face	4.00 0.00 0.00	0.0000	148.00	No Ice 3.58 1/2" Ice 4.20	5.40 6.49	0.04 0.08
(4) DB844H90E-XY	C	From Face	4.00	0.0000	148.00	No Ice 3.58	5.40	0.04

<i>RISATower</i> <i>Vertical Solutions, Inc.</i> 2002 Production Drive Apex, NC 27539 Phone: 888-321-6167 FAX: 919-321-1768	Job	Easton-Everetts CT2007	Page	4 of 6
	Project	090545.01	Date	14:01:14 05/07/09
	Client	TowerCo	Designed by	hsanford

<i>Description</i>	<i>Face or Leg</i>	<i>Offset Type</i>	<i>Offsets: Horz Lateral Vert ft ft ft</i>	<i>Azimuth Adjustment °</i>	<i>Placement ft</i>		<i>C_AA_A Front ft²</i>	<i>C_AA_A Side ft²</i>	<i>Weight K</i>
w/Mount Pipe			0.00 0.00			1/2" Ice	4.20	6.49	0.08
PiROD 15' Low Profile Platform	C	None		0.0000	138.00	No Ice	17.30	17.30	1.50
(4) RR90-17-02DP w/Mount Pipe	A	From Face	4.00 0.00 0.00	0.0000	138.00	1/2" Ice	22.10 4.91 5.57	22.10 3.64 4.70	2.03 0.04 0.08
(4) RR90-17-02DP w/Mount Pipe	B	From Face	4.00 0.00 0.00	0.0000	138.00	No Ice 1/2" Ice	4.91 5.57	3.64 4.70	0.04 0.08
(4) RR90-17-02DP w/Mount Pipe	C	From Face	4.00 0.00 0.00	0.0000	138.00	No Ice 1/2" Ice	4.91 5.57	3.64 4.70	0.04 0.08
(2) 14" x 12" x 5" TMA	A	From Face	4.00 0.00 0.00	0.0000	138.00	No Ice 1/2" Ice	1.63 1.81	0.68 0.81	0.01 0.02
(2) 14" x 12" x 5" TMA	B	From Face	4.00 0.00 0.00	0.0000	138.00	No Ice 1/2" Ice	1.63 1.81	0.68 0.81	0.01 0.02
(2) 14" x 12" x 5" TMA	C	From Face	4.00 0.00 0.00	0.0000	138.00	No Ice 1/2" Ice	1.63 1.81	0.68 0.81	0.01 0.02
PiROD 15' Low Profile Platform	C	None		0.0000	128.00	No Ice	17.30	17.30	1.50
(2) DB846F65ZAXY w/Mount Pipe	A	From Face	4.00 0.00 0.00	0.0000	128.00	No Ice 1/2" Ice	22.10 7.27 7.88	22.10 7.82 9.01	2.03 0.05 0.11
(2) DB846F65ZAXY w/Mount Pipe	B	From Face	4.00 0.00 0.00	0.0000	128.00	No Ice 1/2" Ice	7.27 7.88	7.82 9.01	0.05 0.11
(2) DB846F65ZAXY w/Mount Pipe	C	From Face	4.00 0.00 0.00	0.0000	128.00	No Ice 1/2" Ice	7.27 7.88	7.82 9.01	0.05 0.11
(2) LPA-185063/8CF w/ 2" Mount Pipe	A	From Face	4.00 0.00 0.00	0.0000	128.00	No Ice 1/2" Ice	3.05 3.40	3.60 4.15	0.02 0.05
(2) LPA-185063/8CF w/ 2" Mount Pipe	B	From Face	4.00 0.00 0.00	0.0000	128.00	No Ice 1/2" Ice	3.05 3.40	3.60 4.15	0.02 0.05
(2) LPA-185063/8CF w/ 2" Mount Pipe	C	From Face	4.00 0.00 0.00	0.0000	128.00	No Ice 1/2" Ice	3.05 3.40	3.60 4.15	0.02 0.05
PiROD 4' Side Mount Standoff (1)	A	From Face	2.00 0.00 0.00	0.0000	118.00	No Ice 1/2" Ice	2.72 4.91	2.72 4.91	0.05 0.09
PiROD 4' Side Mount Standoff (1)	B	From Face	2.00 0.00 0.00	0.0000	118.00	No Ice 1/2" Ice	2.72 4.91	2.72 4.91	0.05 0.09
PiROD 4' Side Mount Standoff (1)	C	From Face	2.00 0.00 0.00	0.0000	118.00	No Ice 1/2" Ice	2.72 4.91	2.72 4.91	0.05 0.09
(2) 7770.00	A	From Face	4.00 0.00 0.00	0.0000	118.00	No Ice 1/2" Ice	5.88 6.31	2.93 3.27	0.04 0.07
(2) 7770.00	B	From Face	4.00 0.00 0.00	0.0000	118.00	No Ice 1/2" Ice	5.88 6.31	2.93 3.27	0.04 0.07

<i>RISATower</i> Vertical Solutions, Inc. 2002 Production Drive Apex, NC 27539 Phone: 888-321-6167 FAX: 919-321-1768	Job	Easton-Everetts CT2007	Page	5 of 6
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	Client	TowerCo	Designed by	hsanford

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K
(2) 7770.00	C	From Face	4.00 0.00 0.00	0.0000	118.00	No Ice 1/2" Ice	5.88 6.31	2.93 3.27	0.04 0.07
(2) Power Wave LGP21401	A	From Face	4.00 0.00 0.00	0.0000	118.00	No Ice 1/2" Ice	0.23 0.31	1.29 1.45	0.01 0.02
(2) Power Wave LGP21401	B	From Face	4.00 0.00 0.00	0.0000	118.00	No Ice 1/2" Ice	0.23 0.31	1.29 1.45	0.01 0.02
(2) Power Wave LGP21401	C	From Face	4.00 0.00 0.00	0.0000	118.00	No Ice 1/2" Ice	0.23 0.31	1.29 1.45	0.01 0.02
(2) Power Wave LGP21901	A	From Face	4.00 0.00 0.00	0.0000	118.00	No Ice 1/2" Ice	0.23 0.31	1.29 1.45	0.01 0.02
(2) Power Wave LGP21901	B	From Face	4.00 0.00 0.00	0.0000	118.00	No Ice 1/2" Ice	0.23 0.31	1.29 1.45	0.01 0.02
(2) Power Wave LGP21901	C	From Face	4.00 0.00 0.00	0.0000	118.00	No Ice 1/2" Ice	0.23 0.31	1.29 1.45	0.01 0.02
GPS	C	None		0.0000	75.00	No Ice 1/2" Ice	3.54 3.80	2.27 2.51	0.01 0.03
(2) ADC DD1900	A	From Face	4.00 0.00 0.00	0.0000	128.00	No Ice 1/2" Ice	1.28 1.44	0.31 0.41	0.02 0.02
(2) ADC DD1900	B	From Face	4.00 0.00 0.00	0.0000	128.00	No Ice 1/2" Ice	1.28 1.44	0.31 0.41	0.02 0.02
(2) ADC DD1900	C	From Face	4.00 0.00 0.00	0.0000	128.00	No Ice 1/2" Ice	1.28 1.44	0.31 0.41	0.02 0.02

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	F _a ksi	A in ²	Actual P K	Allow. P _a K	Ratio P P _a
L1	158.5 - 123.5 (1)	TP31.112x24x0.2188	35.00	0.00	0.0	36.000	21.4544	-9.46	772.36	0.012
L2	123.5 - 79.5 (2)	TP40.053x31.112x0.3125	44.00	0.00	0.0	36.000	38.4098	-16.45	1382.75	0.012
L3	79.5 - 39.5 (3)	TP47.555x38.412x0.375	45.00	0.00	0.0	39.000	54.8259	-26.22	2138.21	0.012
L4	39.5 - 0 (4)	TP54.73x45.6875x0.375	45.00	0.00	0.0	39.000	64.6960	-38.95	2523.15	0.015

Pole Bending Design Data

RISATower Vertical Solutions, Inc. 2002 Production Drive Apex, NC 27539 Phone: 888-321-6167 FAX: 919-321-1768	Job	Easton-Everetts CT2007	Page	6 of 6
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	Client	TowerCo	Designed by	hsanford

Section No.	Elevation ft	Size	Actual M_x kip-ft	Actual f_{bx} ksi	Allow. F_{bx} ksi	Ratio $\frac{f_{bx}}{F_{bx}}$	Actual M_y kip-ft	Actual f_{by} ksi	Allow. F_{by} ksi	Ratio $\frac{f_{by}}{F_{by}}$
L1	158.5 - 123.5 (1)	TP31.112x24x0.2188	326.80	23.959	36.000	0.666	0.00	0.000	36.000	0.000
L2	123.5 - 79.5 (2)	TP40.053x31.112x0.3125	1161.29	37.976	36.000	1.055	0.00	0.000	36.000	0.000
L3	79.5 - 39.5 (3)	TP47.555x38.412x0.375	2179.57	41.982	39.000	1.076	0.00	0.000	39.000	0.000
L4	39.5 - 0 (4)	TP54.73x45.6875x0.375	3506.53	48.446	39.000	1.242	0.00	0.000	39.000	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V K	Actual f_v ksi	Allow. F_v ksi	Ratio $\frac{f_v}{F_v}$	Actual T kip-ft	Actual f_{vt} ksi	Allow. F_{vt} ksi	Ratio $\frac{f_{vt}}{F_{vt}}$
L1	158.5 - 123.5 (1)	TP31.112x24x0.2188	17.70	0.825	24.000	0.069	0.00	0.000	24.000	0.000
L2	123.5 - 79.5 (2)	TP40.053x31.112x0.3125	23.67	0.616	24.000	0.051	0.00	0.000	24.000	0.000
L3	79.5 - 39.5 (3)	TP47.555x38.412x0.375	27.67	0.505	26.000	0.039	0.00	0.000	26.000	0.000
L4	39.5 - 0 (4)	TP54.73x45.6875x0.375	31.19	0.482	26.000	0.037	0.00	0.000	26.000	0.000

Pole Interaction Design Data

Section No.	Elevation ft	Ratio $\frac{P}{P_a}$	Ratio $\frac{f_{bx}}{F_{bx}}$	Ratio $\frac{f_{by}}{F_{by}}$	Ratio $\frac{f_v}{F_v}$	Ratio $\frac{f_{vt}}{F_{vt}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	158.5 - 123.5 (1)	0.012	0.666	0.000	0.069	0.000	0.679 ✓	1.333	H1-3+VT ✓
L2	123.5 - 79.5 (2)	0.012	1.055	0.000	0.051	0.000	1.067 ✓	1.333	H1-3+VT ✓
L3	79.5 - 39.5 (3)	0.012	1.076	0.000	0.039	0.000	1.089 ✓	1.333	H1-3+VT ✓
L4	39.5 - 0 (4)	0.015	1.242	0.000	0.037	0.000	1.258 ✓	1.333	H1-3+VT ✓

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	SF* P_{allow} K	% Capacity	Pass Fail
L1	158.5 - 123.5	Pole	TP31.112x24x0.2188	1	-9.46	1029.56	50.9	Pass
L2	123.5 - 79.5	Pole	TP40.053x31.112x0.3125	2	-16.45	1843.21	80.1	Pass
L3	79.5 - 39.5	Pole	TP47.555x38.412x0.375	3	-26.22	2850.23	81.7	Pass
L4	39.5 - 0	Pole	TP54.73x45.6875x0.375	4	-38.95	3363.36	94.4	Pass
							Summary	
							Pole (L4)	94.4 Pass
							RATING =	94.4 Pass



VSi Job No.: 090545
Date: 05/07/2009
Calculated by: HRS

FLANGE PLATE DESIGN, DEFORMATION METHOD (DIFFERENT AREAS)

Input - $M := 3507 \cdot \text{kip} \cdot \text{ft}$ = moment at top of flange plate
 $P := 39 \cdot \text{kip}$ = axial load (use zero if base plate is grouted)
 $F_y := 50 \cdot \text{ksi}$ = yield stress of flange plate
 $b_{\text{eff}} := 26.0 \cdot \text{in}$ = effective width of flange plate in flexure
 $t := 3.25 \cdot \text{in}$ = thickness of flange plate
 $\text{ASI} := 133\%$ = allowable stress increase

CONSTANTS:

$\text{psi} \equiv \frac{\text{lb}}{\text{in}^2}$
 $\text{ksi} \equiv 1000 \cdot \text{psi}$
 $\text{kip} \equiv 1000 \cdot \text{lb}$

$$Q := \begin{pmatrix} 4 \\ 4 \\ 4 \\ 4 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{pmatrix} \quad d := \begin{pmatrix} 2 \cdot 12 + 6 + \frac{7}{8} \\ 2 \cdot 12 + 5 + \frac{11}{16} \\ 8 + \frac{7}{8} \\ 3 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{pmatrix} \cdot \text{in} \quad A_{\text{stiff}} := \begin{pmatrix} 3.98 \\ 3.98 \\ 3.98 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{pmatrix} \text{in}^2 \quad A_{\text{stress}} := \begin{pmatrix} 3.25 \\ 3.25 \\ 3.25 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{pmatrix} \text{in}^2 \quad F_t := \begin{pmatrix} 0.6 \cdot 75 \\ 0.6 \cdot 75 \\ 0.6 \cdot 75 \\ 0.6 \cdot 75 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{pmatrix} \cdot \text{ksi}$$

$$\sum \overrightarrow{(Q)} = 16 \quad \text{sumQAd} := \sum \overrightarrow{(Q \cdot d^2 \cdot A_{\text{stiff}})}$$

$$\text{sumQAd} = 30604 \cdot \text{in}^4$$

$$\overrightarrow{R} := \frac{M \cdot \overrightarrow{(d \cdot A_{\text{stiff}})}}{\text{sumQAd}} + \frac{P \cdot A_{\text{stiff}}}{\sum (A_{\text{stiff}} \cdot Q)}$$

$$f_t := \left(\frac{R}{A_{\text{stress}}} \right) \quad r := \left(\frac{f_t}{\text{ASI} \cdot F_t} \right)$$

$$R = \begin{pmatrix} 171.4 \\ 164.9 \\ 51.0 \\ 18.9 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \end{pmatrix} \cdot \text{kip} \quad f_t = \begin{pmatrix} 52.7 \\ 50.7 \\ 15.7 \\ 5.8 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \end{pmatrix} \cdot \text{ksi} \quad r = \begin{pmatrix} 88 \\ 85 \\ 26 \\ 10 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{pmatrix} \cdot \%$$

Q = quantity of fasteners

d = distance from center

A = area of fastener

Ft = allowable tension stress

$$M_{PL} := \begin{pmatrix} 3.125 \\ 1 + \frac{15}{16} \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{pmatrix} \cdot \text{in} \quad M_{PL} := \overrightarrow{\left[\left(\frac{Q}{2} \right) \cdot R \cdot m \right]}$$

$$M_{PL} = \begin{pmatrix} 89.3 \\ 53.3 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \end{pmatrix} \cdot \text{kip} \cdot \text{ft} \quad \sum M_{PL} = 1710.4 \cdot \text{kip} \cdot \text{in}$$

$$f_b := \frac{\sum M_{PL}}{\left(\frac{b_{eff} \cdot t^2}{6} \right)} \quad f_b = 37.4 \cdot \text{ksi}$$

$$F'_b := ASI \cdot 0.75 \cdot F_y$$

$$r_b := \frac{f_b}{F'_b}$$

$$r_b = 75. \%$$

FLANGE PLATE DESIGN, DEFORMATION METHOD (DIFFERENT AREAS)

Input - $M := 327 \cdot \text{kip} \cdot \text{ft}$ = moment at top of flange plate
 $P := 0 \cdot \text{kip}$ = axial load (use zero if base plate is grouted)
 $F_y := 50 \cdot \text{ksi}$ = yield stress of flange plate
 $b_{\text{eff}} := 8.14 \cdot \text{in}$ = effective width of flange plate in flexure
 $t := 1.5 \cdot \text{in}$ = thickness of flange plate
 $\text{ASI} := 133 \cdot \%$ = allowable stress increase

CONSTANTS:

$$\text{psi} \equiv \frac{\text{lb}}{\text{in}^2}$$

$$\text{ksi} \equiv 1000 \cdot \text{psi}$$

$$\text{kip} \equiv 1000 \cdot \text{lb}$$

$$Q := \begin{pmatrix} 2 \\ 4 \\ 4 \\ 2 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{pmatrix} \quad d := \begin{pmatrix} 1 \cdot 12 + 5 + \frac{1}{2} \\ 1 \cdot 12 + 3 + \frac{1}{8} \\ 8 + \frac{3}{4} \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{pmatrix} \cdot \text{in} \quad A_{\text{stiff}} := \begin{pmatrix} 1.23 \\ 1.23 \\ 1.23 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{pmatrix} \text{in}^2 \quad A_{\text{stress}} := \begin{pmatrix} 0.92 \\ 0.92 \\ 0.92 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{pmatrix} \text{in}^2 \quad F_t := \begin{pmatrix} 34.65 \\ 34.65 \\ 34.65 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{pmatrix} \cdot \text{ksi}$$

$$\sum \overrightarrow{(Q)} = 12 \quad \text{sumQAd} := \sum \overrightarrow{(Q \cdot d^2 \cdot A_{\text{stiff}})}$$

$$\text{sumQAd} = 2256 \cdot \text{in}^4$$

$$R := \frac{M \cdot \overrightarrow{(d \cdot A_{\text{stiff}})}}{\text{sumQAd}} + \frac{P \cdot A_{\text{stiff}}}{\sum \overrightarrow{(A_{\text{stiff}} \cdot Q)}}$$

$$f_t := \overrightarrow{\left(\frac{R}{A_{\text{stress}}} \right)} \quad r := \overrightarrow{\left(\frac{f_t}{\text{ASI} \cdot F_t} \right)}$$

$$R = \begin{pmatrix} 37.4 \\ 32.4 \\ 18.7 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \end{pmatrix} \cdot \text{kip}$$

$$f_t = \begin{pmatrix} 40.7 \\ 35.2 \\ 20.4 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \end{pmatrix} \cdot \text{ksi}$$

$$r = \begin{pmatrix} 88 \\ 76 \\ 44 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{pmatrix} \cdot \%$$

Q = quantity of fasteners

d = distance from center

A = area of fastener

Ft = allowable tension stress

$$\mathbf{m} := \begin{pmatrix} 1 + \frac{15}{16} \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{pmatrix} \cdot \text{in} \quad M_{PL} := \overline{\left[\left(\frac{Q}{2} \right) \cdot R \cdot m \right]}$$

$$M_{PL} = \begin{pmatrix} 6.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \end{pmatrix} \cdot \text{kip} \cdot \text{ft} \quad \sum M_{PL} = 72.6 \cdot \text{kip} \cdot \text{in}$$

$$f_b := \frac{\sum M_{PL}}{\left(\frac{b_{eff} \cdot t^2}{6} \right)} \quad f_b = 23.8 \cdot \text{ksi}$$

$$F'_b := ASI \cdot 0.75 \cdot F_y$$

$$r_b := \frac{f_b}{F'_b}$$

$$r_b = 48. \%$$

Vertical Solutions Inc.

 * PIER FOUNDATIONS ANALYSIS AND DESIGN - (C) 1995,2002 POWER LINE SYSTEMS, INC.*

*** ANALYSIS IDENTIFICATION : CT2007
 NOTES : 090545.01

*** PIER PROPERTIES CONCRETE STRENGTH (ksi) = 4.00 STEEL STRENGTH (ksi) = 60.00
 DIAMETER (ft) = 7.000 DISTANCE FROM TOP OF PIER TO GROUND LEVEL (ft) = 0.50

*** SOIL PROPERTIES	LAYER	TYPE	THICKNESS (ft)	DEPTH AT TOP OF LAYER (ft)	DENSITY (pcf)	CU (psf)	KP	PHI (degrees)
	1	S	4.00	0.00	115.0		1.000	-0.00
	2	S	16.00	4.00	125.0		4.204	38.00
	3	S	5.00	20.00	62.6		4.204	38.00

*** DESIGN (FACTORED) LOADS AT TOP OF PIER MOMENT (ft-k) = 4559.0 VERTICAL (k) = 50.7 SHEAR (k) = 40.3
 ADDITIONAL SAFETY FACTOR AGAINST SOIL FAILURE = 1.54

*** CALCULATED PIER LENGTH (ft) = 21.000

*** CHECK OF SOILS PROPERTIES AND ULTIMATE RESISTING FORCES ALONG PIER

TYPE	TOP OF LAYER BELOW TOP OF PIER (ft)	THICKNESS (ft)	DENSITY (pcf)	CU (psf)	KP	FORCE (k)	ARM (ft)
S	0.50	4.00	115.0		1.000	19.32	3.17
S	4.50	10.96	125.0		4.204	1107.37	11.07
S	15.46	5.04	125.0		4.204	-954.95	18.10
S	20.50	0.50	62.6		4.204	-109.28	20.75

*** SHEAR AND MOMENTS ALONG PIER

DISTANCE BELOW TOP OF PIER (ft)	WITH THE ADDITIONAL SAFETY FACTOR			WITHOUT ADDITIONAL SAFETY FACTOR		
	SHEAR (k)	MOMENT (ft-k)		SHEAR (k)	MOMENT (ft-k)	
0.00	62.5	7233.5		40.6	4697.0	
2.10	59.4	7363.0		38.6	4781.1	
4.20	45.9	7475.4		29.8	4854.2	
6.30	-47.8	7489.9		-31.1	4863.6	
8.40	-199.2	7239.1		-129.3	4700.7	
10.50	-399.2	6619.3		-259.2	4298.3	
12.60	-647.8	5528.5		-420.7	3589.9	
14.70	-945.2	3864.4		-613.7	2509.3	
16.80	-837.3	1825.1		-543.7	1185.2	
18.90	-442.6	472.7		-287.4	306.9	
21.00	0.7	0.1		0.4	0.1	

*** TOTAL REINFORCEMENT PCT = 0.58 REINFORCEMENT AREA (in^2) = 32.14

*** USABLE AXIAL CAP. (k) = 50.7 USABLE MOMENT CAP. (ft-k) = 4958.3

*** US Standard Re-Bars (Select one of the following):

161 BARS #4	(AREA = 0.20 in^2	DIA = 0.500 in)	AT SPACING (in) = 1.44
104 BARS #5	(AREA = 0.31 in^2	DIA = 0.625 in)	AT SPACING (in) = 2.24
74 BARS #6	(AREA = 0.44 in^2	DIA = 0.750 in)	AT SPACING (in) = 3.14
54 BARS #7	(AREA = 0.60 in^2	DIA = 0.875 in)	AT SPACING (in) = 4.31
41 BARS #8	(AREA = 0.79 in^2	DIA = 1.000 in)	AT SPACING (in) = 5.67
33 BARS #9	(AREA = 1.00 in^2	DIA = 1.128 in)	AT SPACING (in) = 7.04
26 BARS #10	(AREA = 1.27 in^2	DIA = 1.270 in)	AT SPACING (in) = 8.94
21 BARS #11	(AREA = 1.56 in^2	DIA = 1.410 in)	AT SPACING (in) = 11.07
15 BARS #14	(AREA = 2.25 in^2	DIA = 1.693 in)	AT SPACING (in) = 15.50

*** WEIGHT OF CAISSON (kips) = 121.226

*** PRESSURE UNDER CAISSON DUE TO INPUT DESIGN AXIAL LOAD (psf) = 1317.4



Daniel F. Caruso
Chairman

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

Internet: ct.gov/csc

May 1, 2009

Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597

RE: **EM-VER-046-090417** - Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at Everett Road, Easton, Connecticut.

Dear Attorney Baldwin:

The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies with the following conditions:

- The applicant shall take steps to ensure that the foundation does not exceed 100 percent of its post-construction structural rating; and
- A signed letter from a Professional Engineer duly licensed in the State of Connecticut shall be submitted to the Council to certify that the foundation does not exceed 100 percent of its post-construction structural rating.

The proposed modifications are to be implemented as specified here and in your notice dated April 17, 2009, including the placement of all necessary equipment and shelters within the tower compound. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

May 1, 2009

Page 2

Thank you for your attention and cooperation.

Very truly yours,


S. Derek Phelps
Executive Director

SDP/MP/laf

c: The Honorable Thomas A. Herrmann, First Selectman, Town of Easton
Philip Doremus, Planning & Zoning Official, Town of Easton
Thomas J. Regan, Esq., Brown Rudnick LLP

EM-VER-046-090417

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

April 17, 2009

Via Hand Delivery

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



Re: **Notice of Exempt Modification**
206 Everett Road, Easton, Connecticut

Dear Mr. Phelps:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") intends to install antennas on an existing monopole tower owned by TowerCo and located at 206 Everett Road in Easton, Connecticut. Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, of 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 Thomas A. Herrmann, Jr., First Selectman of the Town of Easton. Pursuant to a Council directive, a copy of this letter is also being sent to representatives of the Barney Family Trust, the owner of the property on which the tower is located.

The existing facility consists of a 158-foot monopole tower capable of supporting multiple carriers at 206 Everett Road in Easton. The tower is shared by Sprint with antennas at the 158-foot level; Nextel with antennas at the 148-foot level; and T-Mobile with antennas at the 138-foot level. Currently, AT&T maintains antennas at the 100' level on the Everett Road tower. AT&T intends to relocate its antennas to the 118' level. This future modification is contemplated in the attached Structural Analysis. Cellco is not however, seeking acknowledgement of the AT&T modification as a part of this filing.

Cellco intends to install six (6) DB846F65ZAXY antennas; six (6) LPA-185063/8CF antennas and six (6) tower mounted amplifiers, all at the 128-foot level on the tower. Equipment associated with Cellco's antennas would be located in a 10' x 20' shelter installed on the ground in the northeast corner of the fenced compound. A stand alone diesel-fueled back-up generator would be located on the ground in the



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S. Derek Phelps
April 17, 2009
Page 2

southwest corner of the site compound. Attached behind Tab 1 are Project Plans for the proposed Cellco facility.¹

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

1. The proposed modification will not increase the overall height of the existing tower. Cellco's antennas will be mounted with their centerline at the 128-foot level on the 158-foot tower.
2. The proposed installation of Cellco's equipment shelter and generator will not require an extension of the fenced compound or the lease area.
3. The proposed installation will not increase the noise levels at the facility by six decibels or more.
4. The operation of the 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. The RF power density calculations for Cellco antennas would be 55.91% of the FCC standard. A power density calculations table is included behind Tab 2.

Included behind Tab 3 is a Structural Analysis confirming that the tower can support the existing and Cellco antennas, and associated equipment.

In accordance with the Council's April 9, 2009 decision in EM-VER-046-090203, Cellco requests that the Council apply Cellco's \$500 fee to this filing.

¹ On February 3, 2009, Cellco filed Notice of Exempt Modification (EM-VER-046-090203) calling for the installation of antennas on the tower and the stacking of Cellco's equipment shelter above the Nextel shelter. Following the Council's decision to deny acknowledgement of that filing, Cellco reconfigured its facility as described herein.



ROBINSON & COLE^{LLP}

S. Derek Phelps
April 17, 2009
Page 3

For the foregoing reasons, Cellco respectfully submits that the proposed antenna installation at the facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

A handwritten signature in blue ink, appearing to read "Kenneth C. Baldwin", written in a cursive style.

Kenneth C. Baldwin

Attachments

Copy to:

Thomas A. Herrmann, Jr., First Selectman of Easton
Barney Family Trust
Sandy M. Carter
Michelle Kababik



CELCO PARTNERSHIP

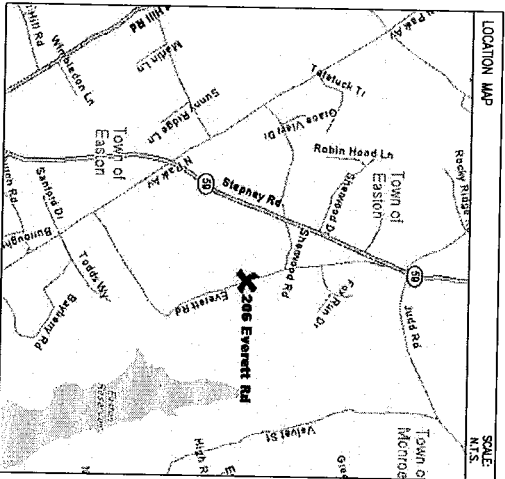
CELCO PARTNERSHIP
d.b.a. **verizon** wireless

On Air Engineering, LLC
88 FOUNDRY POND ROAD
COLD SPRING, NY 10516
(845) 265-3395 OFFICE
(845) 622-4917 FAX

d.b.a. **verizon** wireless

WIRELESS COMMUNICATIONS FACILITY

206 EVERETT ROAD
EASTON, CT 06612



NOTE:
THIS DOCUMENT WAS DEVELOPED TO REFLECT A SPECIFIC SITE AND ITS SITE CONDITIONS AND IS NOT TO BE USED FOR ANOTHER SITE OR WHEN OTHER CONDITIONS PERTAIN. REUSE OF THIS DOCUMENT IS AT THE SOLE RISK OF THE USER.

DRAWING SCHEDULE

SHT. NO.	DESCRIPTION
T-1	TITLE SHEET
A-1	COMPOUND PLAN, NORTH ELEVATION & ANTENNA PLAN

DRIVING DIRECTIONS

- START OUT GOING EAST ON E RIVER DR TOWARD PITKIN ST.
- MERGE ONTO US-5 S/CT-15 S TOWARD I-95 S/NEW HAVEN.
- MERGE ONTO I-91 S VIA EXIT 86 TOWARD NEW HAVEN/N.Y. CITY.
- MERGE ONTO CT-15 S VIA EXIT 17.
- MERGE ONTO CT-25 N VIA EXIT 49 TOWARD DANBURY.
- TURN LEFT ONTO EASTON RD/CT-59. CONTINUE TO FOLLOW CT-59.
- TURN SLIGHT LEFT ONTO EVERETT RD.
- END AT 206 EVERETT RD EASTON, CT 06612-1258

PROJECT SUMMARY

SITE NAME:	EASTON CT
SITE ADDRESS:	206 EVERETT ROAD EASTON, CT 06612
PROPERTY OWNER:	THE BARNEY FAMILY TRUST 206 EVERETT RD. EASTON, CT 06612
TOWER MANAGER:	TOWERCO 5000 VALLESTONE DRIVE CARY, NC 27519
UNIQUE ID:	00010600
APPLICANT/LESSEE ADDRESS:	CELCO PARTNERSHIP d.b.a. VERIZON WIRELESS 99 EAST RIVER DR., 9TH FL. EAST HARTFORD, CT 06108
CONSTRUCTION CONTACT:	MARK GAUGER CELCO PARTNERSHIP d.b.a. VERIZON WIRELESS (203) 494-0023
COORDINATES:	41° 17' 258.03 N 73° 16' 57.32 W
GROUND ELEVATION:	436 FT. AMSL

LITERATURE

DWG. NUMBER, P.E.
CT DEC. NO. 22144

NO. DATE SUBMISSIONS

1. 01/20/01 ACTION

2. 02/27/01 ACTION/REVISION, ETERN.

3. 04/18/01 REVISION TO ORIGINAL SUBMITTED EQUIP

4. 05/18/01 REVISION TO ORIGINAL SUBMITTED EQUIP

5. 06/18/01 REVISION TO ORIGINAL SUBMITTED EQUIP

6. 07/18/01 REVISION TO ORIGINAL SUBMITTED EQUIP

7. 08/18/01 REVISION TO ORIGINAL SUBMITTED EQUIP

8. 09/18/01 REVISION TO ORIGINAL SUBMITTED EQUIP

9. 10/18/01 REVISION TO ORIGINAL SUBMITTED EQUIP

10. 11/18/01 REVISION TO ORIGINAL SUBMITTED EQUIP

11. 12/18/01 REVISION TO ORIGINAL SUBMITTED EQUIP

12. 01/19/02 REVISION TO ORIGINAL SUBMITTED EQUIP

13. 02/19/02 REVISION TO ORIGINAL SUBMITTED EQUIP

14. 03/19/02 REVISION TO ORIGINAL SUBMITTED EQUIP

15. 04/19/02 REVISION TO ORIGINAL SUBMITTED EQUIP

16. 05/19/02 REVISION TO ORIGINAL SUBMITTED EQUIP

17. 06/19/02 REVISION TO ORIGINAL SUBMITTED EQUIP

18. 07/19/02 REVISION TO ORIGINAL SUBMITTED EQUIP

19. 08/19/02 REVISION TO ORIGINAL SUBMITTED EQUIP

20. 09/19/02 REVISION TO ORIGINAL SUBMITTED EQUIP

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23. 12/19/02 REVISION TO ORIGINAL SUBMITTED EQUIP

24. 01/20/03 REVISION TO ORIGINAL SUBMITTED EQUIP

25. 02/20/03 REVISION TO ORIGINAL SUBMITTED EQUIP

26. 03/20/03 REVISION TO ORIGINAL SUBMITTED EQUIP

27. 04/20/03 REVISION TO ORIGINAL SUBMITTED EQUIP

28. 05/20/03 REVISION TO ORIGINAL SUBMITTED EQUIP

29. 06/20/03 REVISION TO ORIGINAL SUBMITTED EQUIP

30. 07/20/03 REVISION TO ORIGINAL SUBMITTED EQUIP

31. 08/20/03 REVISION TO ORIGINAL SUBMITTED EQUIP

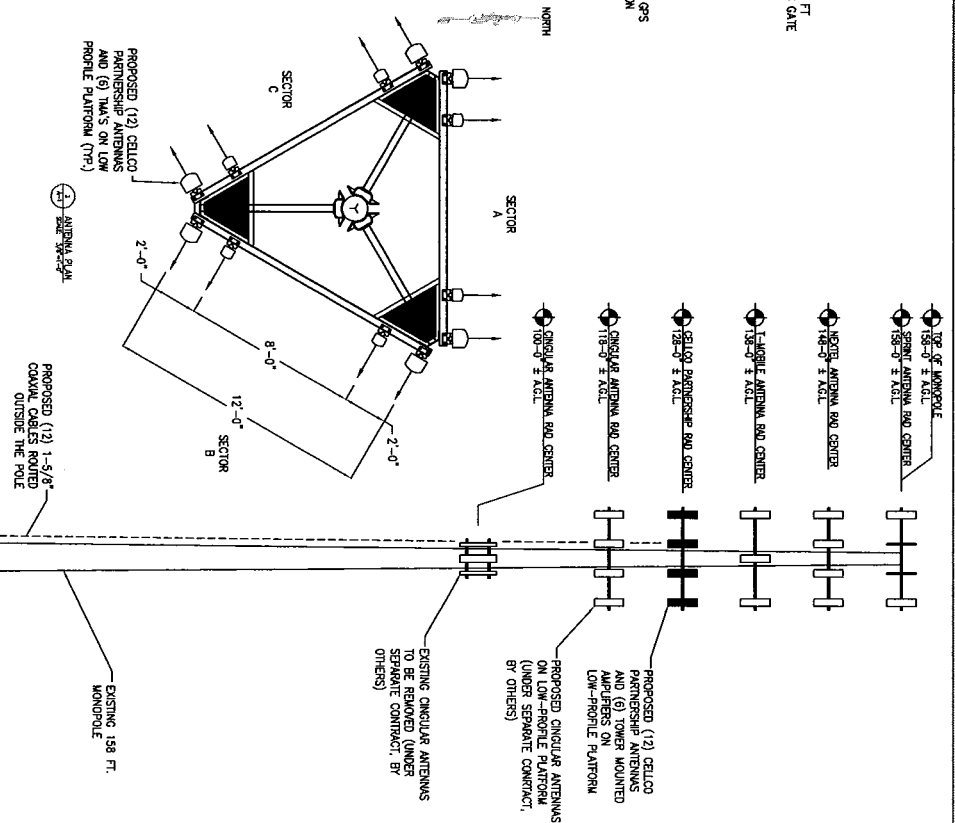
32. 09/20/03 REVISION TO ORIGINAL SUBMITTED EQUIP

33. 10/20/03 REVISION TO ORIGINAL SUBMITTED EQUIP

34. 11/20/03 REVISION TO ORIGINAL SUBMITTED EQUIP

35. 12/20/03 REVISION TO ORIGINAL SUBMITTED EQUIP

T-1



	General	Power	Density					
Site Name: Easton								
Tower Height: Verizon @ 128ft								
CARRIER	# OF CHAN.	WATTS ERP	HEIGHT	CALC. POWER DENS	FREQ.	MAX. PERMISS. EXP.	FRACTION MPE	Total
*Sprint	11	201.84	158	0.0320	1962.5	1.0000	3.20%	
*VoiceStream	8	284	138	0.0429	1935	1.0000	4.29%	
*Cingular GSM	4	296	118	0.0306	880	0.5867	5.21%	
*Cingular GSM	2	427	118	0.0221	1900	1.0000	2.21%	
*Cingular UMTS	1	500	118	0.0129	880	0.5867	2.20%	
*Nextel	9	100	148	0.0148	851	0.5673	2.60%	
Verizon	9	383	128	0.0756	880	0.5866	12.90%	
Verizon	15	708	128	0.2331	1970	1.0000	23.31%	
								55.91%
* Source: Siting Council								

1079 N. 205th Street
Elkhorn, NE 68022
Ph: 402-289-1888
Fax: 402-289-1861

SEMAAN ENGINEERING SOLUTIONS

158 ft PennSummit Monopole Structural Analysis

**Prepared for:
TowerCo LLC
112 Towerview Court
Cary, NC 27513**

**Site: CT2007
For Verizon
Easton, CT**



November 6, 2008

1079 N. 205th Street
Elkhorn, NE 68022
Ph: 402-289-1888
Fax: 402-289-1861

SEMAAN ENGINEERING SOLUTIONS

158 ft PennSummit Monopole Structural Analysis

**Prepared for:
TowerCo LLC
112 Towerview Court
Cary, NC 27513**

**Site: CT2007
For Verizon
Easton, CT**

November 6, 2008

Mr. Stephen Rambeau
TowerCo LLC
112 Towerview Court
Cary, NC 27513

Re: Site Number CT2007 – Easton, CT.

Dear Mr. Rambeau:

We have completed the structural analysis for the existing monopole, located at the above referenced site. The purpose of this analysis is to determine that the existing monopole design is in conformance with the TIA/EIA-222 Rev F standard and local building codes for the proposed antennae loads installation. Refer to the Review and Recommendations section at the end of this report for the analysis results.

Description of Structure:

The structure is a 158 ft PennSummit Monopole.

Refer to PJF Job No29202-0378 dated December 19, 2002 for a detailed description of the structure.

Method of analysis:

The tower was analyzed using Semaan Engineering Solutions' software suite for communication structures. The structural analysis is performed using the SAPS finite element engine. The method is 3D, non-linear, which accounts for the second order geometric effects due to the displacements. It also treats guys as exact cable elements and therefore is ideal for guyed towers. The analysis was performed in conformance with **TIA/EIA-222 Rev F and local building codes for a basic wind speed of 85 mph and 1/2" radial ice with reduced wind speed (fastest mile)**. This is in conformance with the IBC 2006: Section 1609.1.1, Exception (4) and Section 3108.4. Wind is applied to the structure, accessories and antennas.

Structure loading:

The following loads were used in the tower analysis:

Elev (ft)	Qty	Antennas	Mounts	Coax	Carrier
158.0	12	DB980	Low Profile Platform	(12) 1 5/8"	Sprint
148.0	12	DB844H90	Low Profile Platform	(15) 1 5/8"	Sprint-Nextel
138.0	12	RR90-17-02DP	Low Profile Platform	(12) 1 1/4"	T-Mobile
118.0	6	21901 diplexer	Low Profile Platform	(12) 1 1/4"	Cingular
	6	21401 TMA			
	6	Powerwave 7770			
75.0	1	GPS antenna	Pipe mount	(1) 1/2"	Sprint

Proposed Loads:

Elev (ft)	Qty	Antennas	Mounts	Coax	Carrier
128.0	6	ADC TMAs	Low Profile Platform	(12) 1 5/8" (outside)	Verizon
	6	LPA 185063/8CF			
	6	DB846F65ZAXY			

All new access holes shall be reinforced with welded rims that are compatible with the pole and to be sized and supplied by pole manufacturer.

All transmission lines are assumed running inside of pole shaft with the exception of those for the proposed loading. These lines are assumed strapped tightly to the pole.

Results of Analysis:

Refer to the attached Computer Summary sheets for detailed analysis results.

Structure:

The existing monopole is structurally capable of supporting the existing and proposed antennas. The maximum structure usage is: 91.2%.

Foundation:

Pole Reactions	Original Design Reactions	Current Analysis Reactions	% Of Design
Moment (ft-kips)	2,888.00	3,386.01	117.2
Shear (kips)	26.60	30.40	114.3

The reactions calculated from the analysis exceed the ones indicated on the original structural design. However, upon reviewing the foundation documents, they were found to be adequate and therefore the foundation will not require modification.

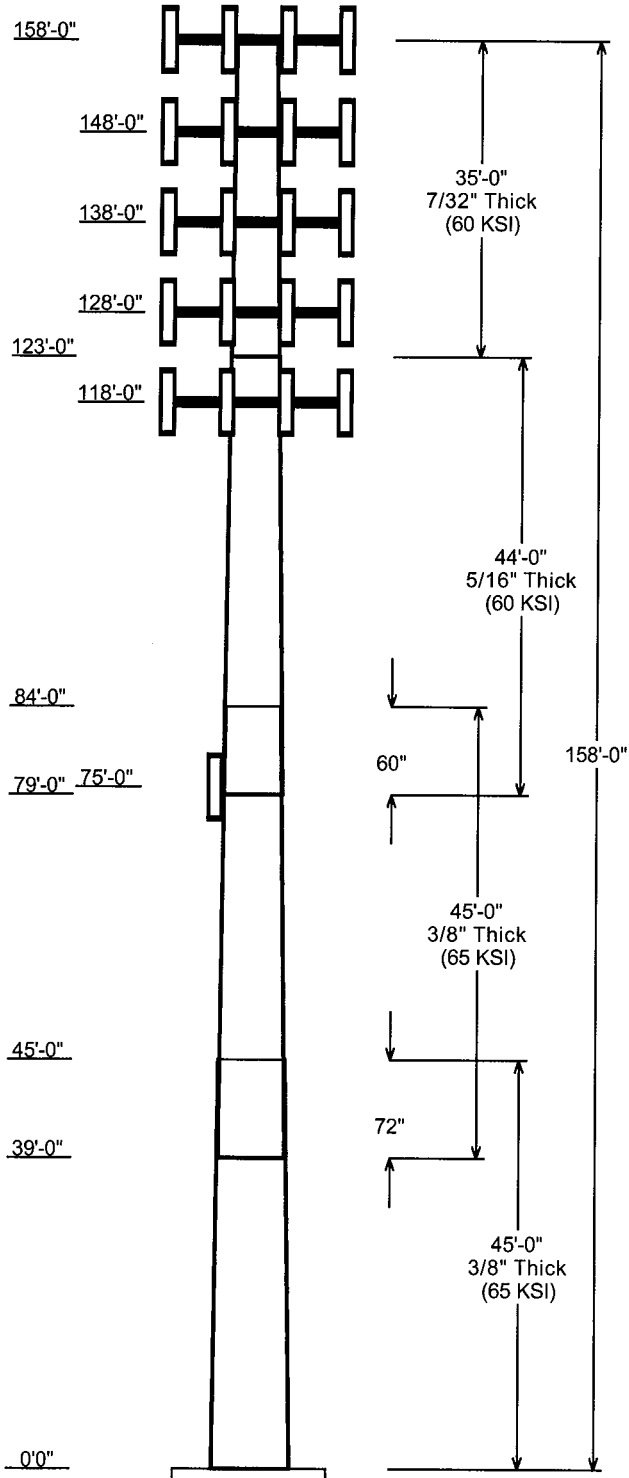
Review and Recommendations:

Based on the analysis results, the existing structure meets the requirements per the TIA/EIA-222 Rev F standards for a basic wind speed of 85 mph and 1/2" radial ice with reduced wind speed.

SEMAAN ENGINEERING SOLUTIONS

1079 N.204th Avenue
Elkhorn, NE 68022
Phone: 402-289-1888
Fax: 402-289-1861

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**Job Information**

Pole : CT2007 Code: TIA/EIA-222 Rev F
Description :
Client : TowerCo LLC
Location : Easton, CT
Shape : 18 Sides Base Elev (ft): 0.00
Height : 158.00 (ft) Taper: 0.203196(in/ft)

Sections Properties

Shaft Section	Length (ft)	Diameter (in)		Thick (in)	Joint Type	Overlap		Steel Grade
		Across Flats Top	Across Flats Bottom			Length (in)	Taper (in/ft)	
1	45.000	45.58	54.73	0.375		0.000	0.203196	65
2	45.000	38.41	47.55	0.375	Slip Joint	72.000	0.203196	65
3	44.000	31.11	40.05	0.313	Slip Joint	60.000	0.203196	60
4	35.000	24.00	31.11	0.219	Butt Joint	0.000	0.203196	60

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
158.000	158.000	1	Low Profile Platform
158.000	158.000	12	DB980
148.000	148.000	1	Low Profile Platform
148.000	148.000	12	DB844H90
138.000	138.000	1	Low Profile Platform
138.000	138.000	12	RR90-17-02DP
128.000	128.000	6	ADC TMAs
128.000	128.000	6	LPA 185063/8CF
128.000	128.000	6	DB846F65ZAXY
128.000	128.000	1	Low Profile Platform
118.000	118.000	6	21901 diplexer
118.000	118.000	6	21401 TMA
118.000	118.000	1	Low Profile Platform
118.000	118.000	6	Powerwave 7770
75.000	75.000	1	GPS antenna

Linear Appurtenance

Elev (ft)		Description	Exposed To Wind
From	To		
0.000	75.000	1/2" Coax	No
0.000	118.0	1 1/4" Coax	No
0.000	128.0	1 5/8" Coax	Yes
0.000	138.0	1 1/4" Coax	No
0.000	148.0	1 5/8" Coax	No
0.000	158.0	1 5/8" Coax	No

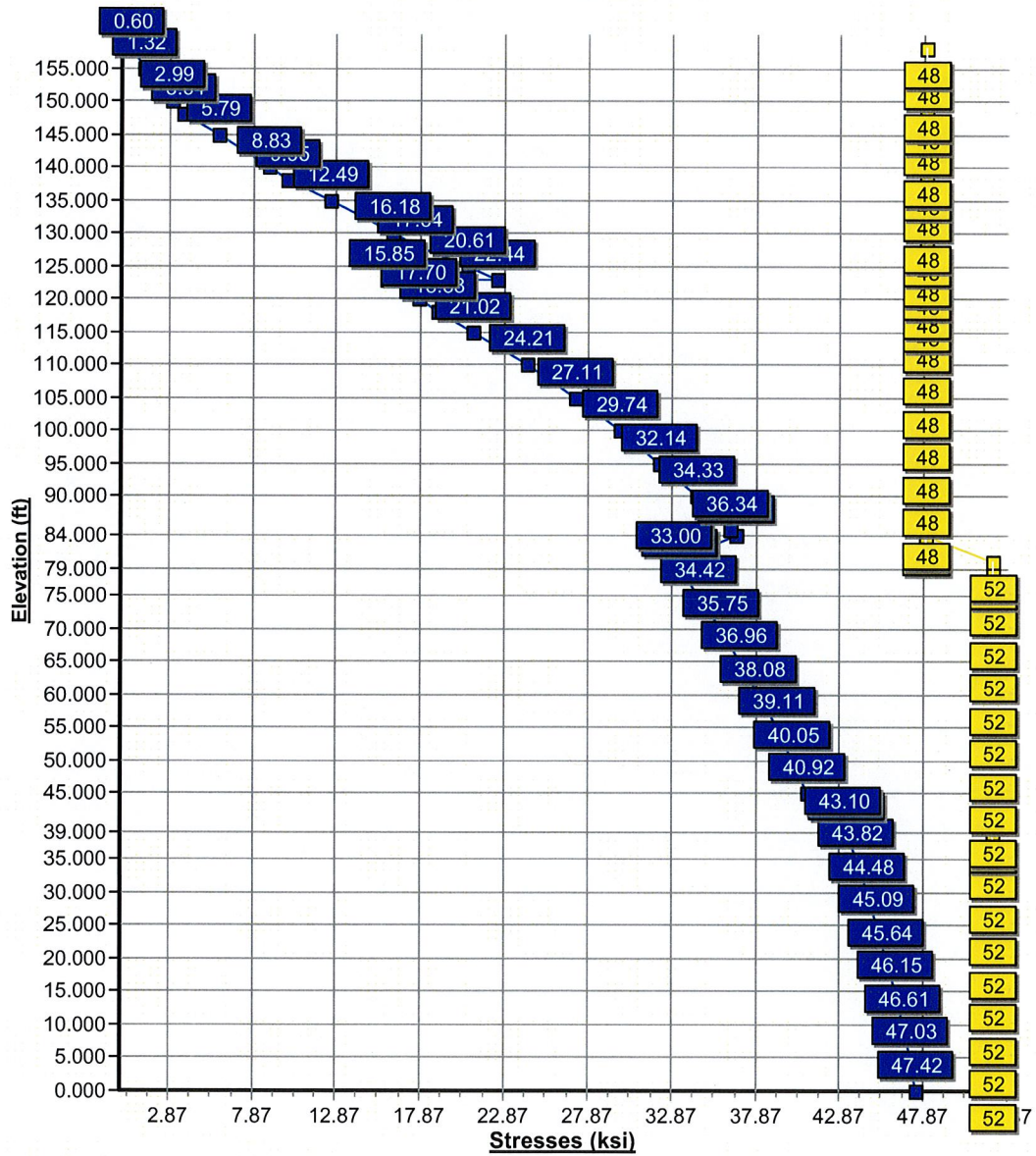
Load Cases

No Ice	85.00 mph Wind with No Ice
Ice	73.61 mph Wind with Ice

Reactions

Load Case	Moment (Kip-ft)	Shear (Kips)	Axial (Kips)
No Ice	3386.01	30.40	41.13
Ice	2860.02	25.25	51.41

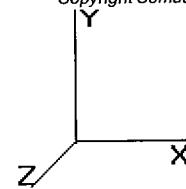
Load Case : No Ice
Max Stress 91.2% at 0.0ft



Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
 Top Dia : 24.00 (in)
 Taper : 0.203196 (in/ft)

Code: TIA/EIA-222 Rev F

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 Page: 1



Base Elev : 0.000 (ft)

Shaft Section Properties

Sect Num	Length (ft)	Thick (in)	Fv (ksi)	Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom				Top				W/t Ratio	D/t Ratio	Taper (in/ft)
							Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)			
1	45.000	0.3750	65		0.00	9,073	54.73	0.000	64.69	24148.6	24.32	145.9	45.58	45.00	53.81	13896.6	20.02 121.56 0.20320
2	45.000	0.3750	65	Slip Joint	72.00	7,765	47.55	39.00	56.15	15792.7	20.95	126.8	38.41	84.00	45.27	8275.1	16.65 102.43 0.20320
3	44.000	0.3125	60	Slip Joint	60.00	5,238	40.05	79.00	39.42	7864.6	21.19	128.1	31.11	123.0	30.55	3661.1	16.14 99.56 0.20320
4	35.000	0.2188	60	Butt Joint	0.00	2,260	31.11	123.0	21.45	2586.3	23.67	142.2	24.00	158.0	16.51	1179.8	17.93 109.71 0.20320
Shaft Weight						24,336											

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	Weight (lb)	No Ice CaAa (sf)	CaAa Factor	Weight (lb)	Ice CaAa (sf)	CaAa Factor	Distance From Face (ft)	Vert Ecc (ft)
158.0	Low Profile Platform	1	1600.00	25.550	1.00	2100.00	27.320	1.00	0.000	0.000
158.0	DB980	12	9.00	3.280	0.73	28.00	3.850	0.73	0.000	0.000
148.0	Low Profile Platform	1	1600.00	25.550	1.00	2100.00	27.320	1.00	0.000	0.000
148.0	DB844H90	12	14.00	3.733	0.91	40.30	4.520	0.91	0.000	0.000
138.0	Low Profile Platform	1	1600.00	25.550	1.00	2100.00	27.320	1.00	0.000	0.000
138.0	RR90-17-02DP	12	15.50	4.356	0.67	37.92	4.988	0.67	0.000	0.000
128.0	ADC TMAs	6	20.00	1.538	0.76	31.01	1.794	0.76	0.000	0.000
128.0	LPA 185063/8CF	6	9.00	2.970	0.95	30.93	3.480	0.95	0.000	0.000
128.0	DB846F65ZAXY	6	21.00	7.033	0.93	70.00	7.807	0.93	0.000	0.000
128.0	Low Profile Platform	1	1600.00	25.550	1.00	2100.00	27.320	1.00	0.000	0.000
118.0	21901 diplexer	6	1.00	0.270	0.84	3.40	0.383	0.84	0.000	0.000
118.0	21401 TMA	6	17.50	0.950	0.67	23.30	1.170	0.67	0.000	0.000
118.0	Low Profile Platform	1	1600.00	25.550	1.00	2100.00	27.320	1.00	0.000	0.000
118.0	Powerwave 7770	6	35.00	5.882	0.73	67.63	6.533	0.73	0.000	0.000
75.00	GPS antenna	1	50.00	2.000	1.00	100.00	3.000	1.00	0.000	0.000
Totals		78	9133.00			13232.26			Number of Loadings : 15	

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	No Ice Weight (lb/ft)	No Ice CaAa (sf/ft)	Ice Weight (lb/ft)	Ice CaAa (sf/ft)	Exposed To Wind
0.00	158.00	(12) 1 5/8" Coax	12.00	0.00	12.00	0.00	N
0.00	148.00	(15) 1 5/8" Coax	15.00	0.00	15.00	0.00	N
0.00	138.00	(12) 1 1/4" Coax	8.00	0.00	8.00	0.00	N
0.00	128.00	(12) 1 5/8" Coax	12.00	0.40	30.00	0.60	Y
0.00	118.00	(12) 1 1/4" Coax	8.00	0.00	8.00	0.00	N
0.00	75.00	(1) 1/2" Coax	0.16	0.00	0.16	0.00	N
Total Weight			7,711.99 (lb)		10,016.00 (lb)		

Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
 Top Dia : 24.00 (in)
 Taper : 0.203196 (in/ft)

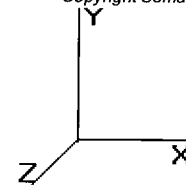
Code: TIA/EIA-222 Rev F

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Page: 2

Base Elev : 0.000 (ft)



Segment Properties (Max Len : 5 ft)

Seq Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	Fb (ksi)	Weight (lb)
0.00		0.3750	54.730	64.694	24,148.6	24.32	145.95	65	52	0.0
5.00		0.3750	53.714	63.484	22,819.6	23.85	143.24	65	52	1,090.4
10.00		0.3750	52.698	62.275	21,540.3	23.37	140.53	65	52	1,069.8
15.00		0.3750	51.682	61.066	20,309.7	22.89	137.82	65	52	1,049.3
20.00		0.3750	50.666	59.857	19,127.0	22.41	135.11	65	52	1,028.7
25.00		0.3750	49.650	58.647	17,991.0	21.94	132.40	65	52	1,008.1
30.00		0.3750	48.634	57.438	16,900.9	21.46	129.69	65	52	987.5
35.00		0.3750	47.618	56.229	15,855.8	20.98	126.98	65	52	967.0
39.00	Bot - Section 2	0.3750	46.805	55.262	15,051.5	20.60	124.81	65	52	758.8
40.00		0.3750	46.602	55.020	14,854.7	20.50	124.27	65	52	378.3
45.00	Top - Section 1	0.3750	46.336	54.703	14,599.8	20.38	123.56	65	52	1,866.8
50.00		0.3750	45.320	53.494	13,652.8	19.90	120.85	65	52	920.4
55.00		0.3750	44.304	52.285	12,747.7	19.42	118.14	65	52	899.9
60.00		0.3750	43.288	51.076	11,883.5	18.94	115.44	65	52	879.3
65.00		0.3750	42.272	49.866	11,059.3	18.47	112.73	65	52	858.7
70.00		0.3750	41.256	48.657	10,274.1	17.99	110.02	65	52	838.1
75.00		0.3750	40.240	47.448	9,527.0	17.51	107.31	65	52	817.6
79.00	Bot - Section 3	0.3750	39.427	46.480	8,956.1	17.13	105.14	65	52	639.2
80.00		0.3750	39.224	46.239	8,817.0	17.03	104.60	65	52	291.5
84.00	Top - Section 2	0.3125	39.036	38.408	7,276.7	20.62	124.92	60	48	1,151.0
85.00		0.3125	38.833	38.206	7,162.7	20.50	124.27	60	48	130.4
90.00		0.3125	37.817	37.199	6,610.8	19.93	121.02	60	48	641.5
95.00		0.3125	36.801	36.191	6,088.0	19.35	117.76	60	48	624.3
100.0		0.3125	35.785	35.183	5,593.5	18.78	114.51	60	48	607.2
105.0		0.3125	34.769	34.176	5,126.5	18.21	111.26	60	48	590.0
110.0		0.3125	33.753	33.168	4,686.2	17.63	108.01	60	48	572.9
115.0		0.3125	32.737	32.160	4,272.0	17.06	104.76	60	48	555.7
118.0		0.3125	32.128	31.556	4,035.5	16.72	102.81	60	48	325.2
120.0		0.3125	31.721	31.153	3,882.9	16.49	101.51	60	48	213.4
123.0	Top - Section 3	0.3125	31.112	30.548	3,661.1	16.14	99.56	60	48	314.9
123.0	Bot - Section 4	0.2188	31.112	21.449	2,586.3	23.67	142.23	60	48	
125.0		0.2188	30.705	21.166	2,485.5	23.34	140.37	60	48	145.0
128.0		0.2188	30.096	20.743	2,339.4	22.85	137.58	60	48	213.9
130.0		0.2188	29.689	20.461	2,245.2	22.52	135.72	60	48	140.2
135.0		0.2188	28.673	19.756	2,020.9	21.70	131.08	60	48	342.1
138.0		0.2188	28.064	19.332	1,893.8	21.21	128.29	60	48	199.5
140.0		0.2188	27.657	19.050	1,812.1	20.88	126.43	60	48	130.6
145.0		0.2188	26.641	18.345	1,618.2	20.06	121.79	60	48	318.1
148.0		0.2188	26.032	17.922	1,508.7	19.57	119.00	60	48	185.1
150.0		0.2188	25.625	17.640	1,438.6	19.25	117.15	60	48	121.0
155.0		0.2188	24.609	16.934	1,272.8	18.43	112.50	60	48	294.1
158.0		0.2188	24.000	16.511	1,179.8	17.93	109.71	60	48	170.7

24,336.3

Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
 Top Dia : 24.00 (in)
 Taper : 0.203196 (in/ft)

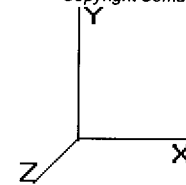
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Base Elev : 0.000 (ft)



Load Case: No Ice

85.00 mph Wind with No Ice

25 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Shaft Segment Forces

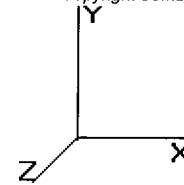
Seg Top Elev (ft)	Description	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		0.00	1.00 18.496	31.25 387.67	0.650		0.00	0.00	0.000	0.00	0.0	0.0	0.0
5.00		0.00	1.00 18.496	31.25 380.47	0.650		0.00	5.00 22.592	14.69	459.0	0.0	1,090.4	
10.00		0.00	1.00 18.496	31.25 373.27	0.650		0.00	5.00 22.169	14.41	450.4	0.0	1,069.8	
15.00		0.00	1.00 18.496	31.25 366.08	0.650		0.00	5.00 21.746	14.13	441.8	0.0	1,049.3	
20.00		0.00	1.00 18.496	31.25 358.88	0.650		0.00	5.00 21.322	13.86	433.2	0.0	1,028.7	
25.00		0.00	1.00 18.496	31.25 351.68	0.650		0.00	5.00 20.899	13.58	424.6	0.0	1,008.1	
30.00		0.00	1.00 18.496	31.25 344.49	0.650		0.00	5.00 20.476	13.31	416.0	0.0	987.5	
35.00		0.00	1.01 18.810	31.78 340.14	0.650		0.00	5.00 20.053	13.03	414.3	0.0	967.0	
39.00	Bot - Section 2	0.00	1.04 19.400	32.78 339.54	0.650		0.00	4.00 15.737	10.23	335.4	0.0	758.8	
40.00		0.00	1.05 19.541	33.02 339.29	0.650		0.00	1.00 3.954	2.57	84.9	0.0	378.3	
45.00	Top - Section 1	0.00	1.09 20.210	34.15 337.53	0.650		0.00	5.00 19.518	12.69	433.3	0.0	1,866.8	
50.00		0.00	1.12 20.827	35.19 340.65	0.650		0.00	5.00 19.095	12.41	436.9	0.0	920.4	
55.00		0.00	1.15 21.402	36.17 337.57	0.650		0.00	5.00 18.672	12.14	439.0	0.0	899.9	
60.00		0.00	1.18 21.941	37.08 333.96	0.650		0.00	5.00 18.248	11.86	439.8	0.0	879.3	
65.00		0.00	1.21 22.449	37.93 329.87	0.650		0.00	5.00 17.825	11.59	439.6	0.0	858.7	
70.00		0.00	1.24 22.929	38.75 325.37	0.650		0.00	5.00 17.402	11.31	438.3	0.0	838.1	
75.00	Appertunance(s)	0.00	1.26 23.386	39.52 320.50	0.650		0.00	5.00 16.978	11.04	436.2	0.0	817.6	
79.00	Bot - Section 3	0.00	1.28 23.735	40.11 316.37	0.650		0.00	4.00 13.278	8.63	346.2	0.0	639.2	
80.00		0.00	1.28 23.821	40.25 315.30	0.650		0.00	1.00 3.329	2.16	87.1	0.0	291.5	
84.00	Top - Section 2	0.00	1.30 24.155	40.82 310.93	0.650		0.00	4.00 13.148	8.55	348.9	0.0	1,151.0	
85.00		0.00	1.31 24.237	40.96 314.87	0.650		0.00	1.00 3.245	2.11	86.4	0.0	130.4	
90.00		0.00	1.33 24.636	41.63 309.15	0.650		0.00	5.00 15.969	10.38	432.2	0.0	641.5	
95.00		0.00	1.35 25.020	42.28 303.18	0.650		0.00	5.00 15.546	10.10	427.3	0.0	624.3	
100.00		0.00	1.37 25.389	42.90 296.97	0.650		0.00	5.00 15.122	9.83	421.8	0.0	607.2	
105.00		0.00	1.39 25.745	43.51 290.56	0.650		0.00	5.00 14.699	9.55	415.7	0.0	590.0	
110.00		0.00	1.41 26.090	44.09 283.95	0.650		0.00	5.00 14.276	9.28	409.1	0.0	572.9	
115.00		0.00	1.42 26.423	44.65 277.16	0.650		0.00	5.00 13.852	9.00	402.1	0.0	555.7	
118.00	Appertunance(s)	0.00	1.43 26.618	44.98 273.00	0.650		0.00	3.00 8.108	5.27	237.1	0.0	325.2	
120.00		0.00	1.44 26.747	45.20 270.20	0.650		0.00	2.00 5.321	3.46	156.3	0.0	213.4	
123.00	Top - Section 3	0.00	1.45 26.936	45.52 265.94	0.650		0.00	3.00 7.854	5.11	232.4	0.0	314.9	
125.00		0.00	1.46 27.060	45.73 263.07	0.650		0.00	2.00 5.151	3.35	153.1	0.0	145.0	
128.00	Appertunance(s)	0.00	1.47 27.244	46.04 258.72	0.650		0.00	3.00 7.600	4.94	227.5	0.0	213.9	
130.00		0.00	1.48 27.365	46.24 255.80	0.650		0.00	2.00 4.982	3.24	149.8	0.0	140.2	
135.00		0.00	1.49 27.662	46.74 248.38	0.650		0.00	5.00 12.159	7.90	369.5	0.0	342.1	
138.00	Appertunance(s)	0.00	1.50 27.836	47.04 243.86	0.650		0.00	3.00 7.092	4.61	216.9	0.0	199.5	
140.00		0.00	1.51 27.951	47.23 240.82	0.650		0.00	2.00 4.643	3.02	142.6	0.0	130.6	
145.00		0.00	1.52 28.233	47.71 233.14	0.650		0.00	5.00 11.312	7.35	350.8	0.0	318.1	
148.00	Appertunance(s)	0.00	1.53 28.398	47.99 228.48	0.650		0.00	3.00 6.584	4.28	205.4	0.0	185.1	
150.00		0.00	1.54 28.507	48.17 225.34	0.650		0.00	2.00 4.305	2.80	134.8	0.0	121.0	
155.00		0.00	1.55 28.776	48.63 217.42	0.650		0.00	5.00 10.466	6.80	330.8	0.0	294.1	
158.00	Appertunance(s)	0.00	1.56 28.934	48.89 212.62	0.650		0.00	3.00 6.076	3.95	193.1	0.0	170.7	
Totals:								158.00		12,999.5	0.0	24,336.3	

Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
 Top Dia : 24.00 (in)
 Taper : 0.203196 (in/ft)

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Base Elev : 0.000 (ft)



Load Case: No Ice	85.00 mph Wind with No Ice	25 Iterations
Gust Response Factor : 1.69		
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

Discrete Appurtenance Segment Forces

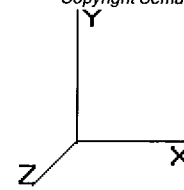
Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
75.00	GPS antenna	1	23.386	39.522	1.00	2.00	0.000	0.000	79.04	0.00	0.00	50.00
118.0	21901 diplexer	6	26.618	44.985	0.84	1.36	0.000	0.000	61.22	0.00	0.00	6.00
118.0	21401 TMA	6	26.618	44.985	0.67	3.82	0.000	0.000	171.80	0.00	0.00	105.00
118.0	Low Profile Platform	1	26.618	44.985	1.00	25.55	0.000	0.000	1,149.37	0.00	0.00	1,600.00
118.0	Powerwave 7770	6	26.618	44.985	0.73	25.76	0.000	0.000	1,158.96	0.00	0.00	210.00
128.0	ADC TMAs	6	27.244	46.043	0.76	7.02	0.000	0.000	323.34	0.00	0.00	120.00
128.0	LPA 185063/8CF	6	27.244	46.043	0.95	16.93	0.000	0.000	779.46	0.00	0.00	54.00
128.0	DB846F65ZAXY	6	27.244	46.043	0.93	39.24	0.000	0.000	1,806.92	0.00	0.00	126.00
128.0	Low Profile Platform	1	27.244	46.043	1.00	25.55	0.000	0.000	1,176.40	0.00	0.00	1,600.00
138.0	Low Profile Platform	1	27.836	47.043	1.00	25.55	0.000	0.000	1,201.96	0.00	0.00	1,600.00
138.0	RR90-17-02DP	12	27.836	47.043	0.67	35.02	0.000	0.000	1,647.56	0.00	0.00	186.00
148.0	Low Profile Platform	1	28.398	47.993	1.00	25.55	0.000	0.000	1,226.22	0.00	0.00	1,600.00
148.0	DB844H90	12	28.398	47.993	0.91	40.76	0.000	0.000	1,956.41	0.00	0.00	168.00
158.0	Low Profile Platform	1	28.934	48.898	1.00	25.55	0.000	0.000	1,249.34	0.00	0.00	1,600.00
158.0	DB980	12	28.934	48.898	0.73	28.73	0.000	0.000	1,404.98	0.00	0.00	108.00
									15,392.97			9,133.00

Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
 Top Dia : 24.00 (in)
 Taper : 0.203196 (in/ft)

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Base Elev : 0.000 (ft)



Load Case: No Ice	85.00 mph Wind with No Ice	25 Iterations
Gust Response Factor : 1.69		
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

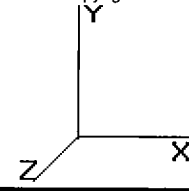
Linear Appurtenance Segment Forces

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Weight (lb/ft)	CaAa (sf/ft)	qz (psf)	F X (lb)	Dead Load (lb)
5.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	18.496	62.52	60.00
10.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	18.496	62.52	60.00
15.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	18.496	62.52	60.00
20.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	18.496	62.52	60.00
25.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	18.496	62.52	60.00
30.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	18.496	62.52	60.00
35.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	18.810	63.58	60.00
39.00	(12) 1 5/8" Coax	Yes	4.00	12.00	0.40	19.400	52.46	48.00
40.00	(12) 1 5/8" Coax	Yes	1.00	12.00	0.40	19.541	13.21	12.00
45.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	20.210	68.31	60.00
50.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	20.827	70.40	60.00
55.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	21.402	72.34	60.00
60.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	21.941	74.16	60.00
65.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	22.449	75.88	60.00
70.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	22.929	77.50	60.00
75.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	23.386	79.04	60.00
79.00	(12) 1 5/8" Coax	Yes	4.00	12.00	0.40	23.735	64.18	48.00
80.00	(12) 1 5/8" Coax	Yes	1.00	12.00	0.40	23.821	16.10	12.00
84.00	(12) 1 5/8" Coax	Yes	4.00	12.00	0.40	24.155	65.32	48.00
85.00	(12) 1 5/8" Coax	Yes	1.00	12.00	0.40	24.237	16.38	12.00
90.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	24.636	83.27	60.00
95.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	25.020	84.57	60.00
100.0	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	25.389	85.81	60.00
105.0	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	25.745	87.02	60.00
110.0	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	26.090	88.18	60.00
115.0	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	26.423	89.31	60.00
118.0	(12) 1 5/8" Coax	Yes	3.00	12.00	0.40	26.618	53.98	36.00
120.0	(12) 1 5/8" Coax	Yes	2.00	12.00	0.40	26.747	36.16	24.00
123.0	(12) 1 5/8" Coax	Yes	3.00	12.00	0.40	26.936	54.63	36.00
125.0	(12) 1 5/8" Coax	Yes	2.00	12.00	0.40	27.060	36.59	24.00
128.0	(12) 1 5/8" Coax	Yes	3.00	12.00	0.40	27.244	55.25	36.00
Totals:							1,938.73	1,536.00

Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
 Top Dia : 24.00 (in)
 Taper : 0.203196 (in/ft)

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Base Elev : 0.000 (ft)

Load Case: No Ice	85.00 mph Wind with No Ice	25 Iterations
Gust Response Factor : 1.69		
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

Applied Segment Forces Summary

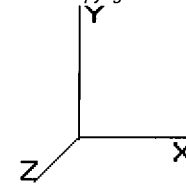
Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	521.55	1,366.20	0.00	0.00
10.00	512.95	1,345.63	0.00	0.00
15.00	504.34	1,325.05	0.00	0.00
20.00	495.74	1,304.48	0.00	0.00
25.00	487.14	1,283.91	0.00	0.00
30.00	478.54	1,263.33	0.00	0.00
35.00	477.91	1,242.76	0.00	0.00
39.00	387.84	979.40	0.00	0.00
40.00	98.10	433.46	0.00	0.00
45.00	501.63	2,142.61	0.00	0.00
50.00	507.27	1,196.23	0.00	0.00
55.00	511.32	1,175.65	0.00	0.00
60.00	513.99	1,155.08	0.00	0.00
65.00	515.44	1,134.51	0.00	0.00
70.00	515.81	1,113.93	0.00	0.00
75.00	594.25	1,143.36	0.00	0.00
79.00	410.38	859.23	0.00	0.00
80.00	103.22	346.53	0.00	0.00
84.00	414.18	1,371.04	0.00	0.00
85.00	102.77	185.35	0.00	0.00
90.00	515.43	916.47	0.00	0.00
95.00	511.82	899.32	0.00	0.00
100.0	507.57	882.18	0.00	0.00
105.0	502.72	865.03	0.00	0.00
110.0	497.32	847.89	0.00	0.00
115.0	491.39	830.74	0.00	0.00
118.0	2,832.41	2,411.22	0.00	0.00
120.0	192.49	307.38	0.00	0.00
123.0	287.02	455.93	0.00	0.00
125.0	189.72	239.01	0.00	0.00
128.0	4,368.82	2,254.91	0.00	0.00
130.0	149.77	210.21	0.00	0.00
135.0	369.47	517.12	0.00	0.00
138.0	3,066.38	2,090.51	0.00	0.00
140.0	142.57	184.61	0.00	0.00
145.0	350.83	453.12	0.00	0.00
148.0	3,388.02	2,034.11	0.00	0.00
150.0	134.81	145.01	0.00	0.00
155.0	330.82	354.12	0.00	0.00
158.0	2,847.44	1,914.71	0.00	0.00
Totals:	30,331.19	41,181.34	0.00	0.00

Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
 Top Dia : 24.00 (in)
 Taper : 0.203196 (in/ft)

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Base Elev : 0.000 (ft)



Load Case: No Ice	85.00 mph Wind with No Ice	25 Iterations
Gust Response Factor : 1.69		
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

Calculated Shaft Forces and Deflections

Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-30.403	-41.128	0.000	0.000	0.000	-3.386.005	0.000	0.000	0.000	0.000
5.00	-30.014	-39.661	0.000	0.000	0.000	-3.233.996	-0.105	0.000	0.105	-0.195
10.00	-29.627	-38.215	0.000	0.000	0.000	-3.083.927	-0.415	0.000	0.415	-0.392
15.00	-29.239	-36.793	0.000	0.000	0.000	-2.935.797	-0.932	0.000	0.932	-0.591
20.00	-28.852	-35.394	0.000	0.000	0.000	-2.789.603	-1.659	0.000	1.659	-0.791
25.00	-28.466	-34.017	0.000	0.000	0.000	-2.645.343	-2.596	0.000	2.596	-0.993
30.00	-28.080	-32.663	0.000	0.000	0.000	-2.503.017	-3.745	0.000	3.745	-1.197
35.00	-27.675	-31.342	0.000	0.000	0.000	-2.362.620	-5.109	0.000	5.109	-1.402
39.00	-27.317	-30.324	0.000	0.000	0.000	-2.251.922	-6.354	0.000	6.354	-1.567
40.00	-27.272	-29.834	0.000	0.000	0.000	-2.224.606	-6.687	0.000	6.687	-1.609
45.00	-26.806	-27.611	0.000	0.000	0.000	-2.088.248	-8.484	0.000	8.484	-1.816
50.00	-26.352	-26.340	0.000	0.000	0.000	-1.954.219	-10.497	0.000	10.497	-2.023
55.00	-25.884	-25.095	0.000	0.000	0.000	-1.822.460	-12.721	0.000	12.721	-2.220
60.00	-25.405	-23.875	0.000	0.000	0.000	-1.693.043	-15.151	0.000	15.151	-2.416
65.00	-24.917	-22.680	0.000	0.000	0.000	-1.566.020	-17.785	0.000	17.785	-2.611
70.00	-24.422	-21.510	0.000	0.000	0.000	-1.441.435	-20.623	0.000	20.623	-2.804
75.00	-23.831	-20.327	0.000	0.000	0.000	-1.319.327	-23.662	0.000	23.662	-2.995
79.00	-23.408	-19.452	0.000	0.000	0.000	-1.224.003	-26.236	0.000	26.236	-3.147
80.00	-23.317	-19.074	0.000	0.000	0.000	-1.200.596	-26.899	0.000	26.899	-3.186
84.00	-22.854	-17.692	0.000	0.000	0.000	-1.107.330	-29.631	0.000	29.631	-3.335
85.00	-22.778	-17.464	0.000	0.000	0.000	-1.084.476	-30.334	0.000	30.334	-3.372
90.00	-22.266	-16.502	0.000	0.000	0.000	-970.588	-33.974	0.000	33.974	-3.576
95.00	-21.750	-15.565	0.000	0.000	0.000	-859.261	-37.825	0.000	37.825	-3.773
100.0	-21.231	-14.651	0.000	0.000	0.000	-750.514	-41.876	0.000	41.876	-3.961
105.0	-20.709	-13.762	0.000	0.000	0.000	-644.362	-46.119	0.000	46.119	-4.139
110.0	-20.186	-12.898	0.000	0.000	0.000	-540.817	-50.540	0.000	50.540	-4.303
115.0	-19.657	-12.068	0.000	0.000	0.000	-439.887	-55.125	0.000	55.125	-4.452
118.0	-16.655	-9.867	0.000	0.000	0.000	-380.918	-57.947	0.000	57.947	-4.534
120.0	-16.449	-9.558	0.000	0.000	0.000	-347.607	-59.856	0.000	59.856	-4.585
123.0	-16.136	-9.111	0.000	0.000	0.000	-298.259	-62.758	0.000	62.758	-4.656
125.0	-15.937	-8.870	0.000	0.000	0.000	-265.988	-64.717	0.000	64.717	-4.700
128.0	-11.405	-6.972	0.000	0.000	0.000	-218.177	-67.695	0.000	67.695	-4.783
130.0	-11.247	-6.759	0.000	0.000	0.000	-195.368	-69.708	0.000	69.708	-4.834
135.0	-10.844	-6.261	0.000	0.000	0.000	-139.132	-74.825	0.000	74.825	-4.940
138.0	-7.611	-4.438	0.000	0.000	0.000	-106.601	-77.943	0.000	77.943	-4.992
140.0	-7.456	-4.261	0.000	0.000	0.000	-91.380	-80.038	0.000	80.038	-5.021
145.0	-7.069	-3.836	0.000	0.000	0.000	-54.099	-85.324	0.000	85.324	-5.078
148.0	-3.515	-2.109	0.000	0.000	0.000	-32.892	-88.519	0.000	88.519	-5.101
150.0	-3.368	-1.976	0.000	0.000	0.000	-25.862	-90.656	0.000	90.656	-5.112
155.0	-3.007	-1.652	0.000	0.000	0.000	-9.022	-96.014	0.000	96.014	-5.130
158.0	-2.847	0.000	0.000	0.000	0.000	0.000	-99.234	0.000	99.234	-5.133

Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
 Top Dia : 24.00 (in)
 Taper : 0.203196 (in/ft)

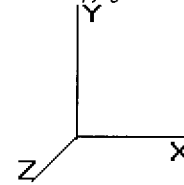
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Base Elev : 0.000 (ft)



Load Case: No Ice

85.00 mph Wind with No Ice

25 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Calculated Stresses

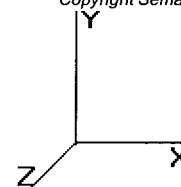
Seg Elev (ft)	Applied Stresses							Allowable Stress (Fb) (ksi)	Stress Ratio	
	Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)			
0.00	0.64	0.95	0.00	0.00	0.00	46.75	47.42	52.0	0.0	0.912
5.00	0.62	0.95	0.00	0.00	0.00	46.38	47.03	52.0	0.0	0.905
10.00	0.61	0.96	0.00	0.00	0.00	45.97	46.61	52.0	0.0	0.897
15.00	0.60	0.97	0.00	0.00	0.00	45.52	46.15	52.0	0.0	0.888
20.00	0.59	0.97	0.00	0.00	0.00	45.02	45.64	52.0	0.0	0.878
25.00	0.58	0.98	0.00	0.00	0.00	44.48	45.09	52.0	0.0	0.868
30.00	0.57	0.99	0.00	0.00	0.00	43.88	44.48	52.0	0.0	0.856
35.00	0.56	0.99	0.00	0.00	0.00	43.23	43.82	52.0	0.0	0.843
39.00	0.55	1.00	0.00	0.00	0.00	42.66	43.25	52.0	0.0	0.832
40.00	0.54	1.00	0.00	0.00	0.00	42.52	43.10	52.0	0.0	0.829
45.00	0.50	0.99	0.00	0.00	0.00	40.38	40.92	52.0	0.0	0.787
50.00	0.49	0.99	0.00	0.00	0.00	39.52	40.05	52.0	0.0	0.771
55.00	0.48	1.00	0.00	0.00	0.00	38.59	39.11	52.0	0.0	0.752
60.00	0.47	1.00	0.00	0.00	0.00	37.57	38.08	52.0	0.0	0.733
65.00	0.45	1.01	0.00	0.00	0.00	36.47	36.96	52.0	0.0	0.711
70.00	0.44	1.01	0.00	0.00	0.00	35.26	35.75	52.0	0.0	0.688
75.00	0.43	1.01	0.00	0.00	0.00	33.95	34.42	52.0	0.0	0.662
79.00	0.42	1.01	0.00	0.00	0.00	32.83	33.29	52.0	0.0	0.641
80.00	0.41	1.02	0.00	0.00	0.00	32.54	33.00	52.0	0.0	0.635
84.00	0.46	1.20	0.00	0.00	0.00	36.19	36.71	48.0	0.0	0.765
85.00	0.46	1.20	0.00	0.00	0.00	35.82	36.34	48.0	0.0	0.757
90.00	0.44	1.21	0.00	0.00	0.00	33.83	34.33	48.0	0.0	0.716
95.00	0.43	1.21	0.00	0.00	0.00	31.65	32.14	48.0	0.0	0.670
100.00	0.42	1.22	0.00	0.00	0.00	29.25	29.74	48.0	0.0	0.620
105.00	0.40	1.22	0.00	0.00	0.00	26.63	27.11	48.0	0.0	0.565
110.00	0.39	1.23	0.00	0.00	0.00	23.73	24.21	48.0	0.0	0.505
115.00	0.38	1.23	0.00	0.00	0.00	20.54	21.02	48.0	0.0	0.438
118.00	0.31	1.06	0.00	0.00	0.00	18.48	18.88	48.0	0.0	0.393
120.00	0.31	1.06	0.00	0.00	0.00	17.30	17.70	48.0	0.0	0.369
123.00	0.30	1.06	0.00	0.00	0.00	15.44	15.85	48.0	0.0	0.330
123.00	0.42	1.52	0.00	0.00	0.00	21.86	22.44	48.0	0.0	0.468
125.00	0.42	1.52	0.00	0.00	0.00	20.02	20.61	48.0	0.0	0.430
128.00	0.34	1.11	0.00	0.00	0.00	17.10	17.54	48.0	0.0	0.366
130.00	0.33	1.11	0.00	0.00	0.00	15.74	16.18	48.0	0.0	0.337
135.00	0.32	1.11	0.00	0.00	0.00	12.03	12.49	48.0	0.0	0.260
138.00	0.23	0.79	0.00	0.00	0.00	9.62	9.95	48.0	0.0	0.207
140.00	0.22	0.79	0.00	0.00	0.00	8.50	8.83	48.0	0.0	0.184
145.00	0.21	0.78	0.00	0.00	0.00	5.43	5.79	48.0	0.0	0.121
148.00	0.12	0.40	0.00	0.00	0.00	3.46	3.64	48.0	0.0	0.076
150.00	0.11	0.38	0.00	0.00	0.00	2.81	2.99	48.0	0.0	0.062
155.00	0.10	0.36	0.00	0.00	0.00	1.06	1.32	48.0	0.0	0.027
158.00	0.00	0.35	0.00	0.00	0.00	0.00	0.60	48.0	0.0	0.013

Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
 Top Dia : 24.00 (in)
 Taper : 0.203196 (in/ft)

Code : TIA/EIA-222 Rev F

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Base Elev : 0.000 (ft)



Load Case: Ice

73.61 mph Wind with Ice

25 Iterations

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

Shaft Segment Forces

Seg Top Elev (ft)	Description	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		0.00	1.00 13.871	23.44 335.72 0.650			0.50	0.00	0.000	0.00	0.0	0.0	0.0
5.00		0.00	1.00 13.871	23.44 329.49 0.650			0.50	5.00	23.009	14.96	350.6	167.3	1,257.7
10.00		0.00	1.00 13.871	23.44 323.25 0.650			0.50	5.00	22.586	14.68	344.2	164.2	1,234.0
15.00		0.00	1.00 13.871	23.44 317.02 0.650			0.50	5.00	22.162	14.41	337.7	161.0	1,210.3
20.00		0.00	1.00 13.871	23.44 310.79 0.650			0.50	5.00	21.739	14.13	331.2	157.9	1,186.6
25.00		0.00	1.00 13.871	23.44 304.56 0.650			0.50	5.00	21.316	13.86	324.8	154.7	1,162.9
30.00		0.00	1.00 13.871	23.44 298.32 0.650			0.50	5.00	20.893	13.58	318.3	151.6	1,139.1
35.00		0.00	1.01 14.106	23.84 294.56 0.650			0.50	5.00	20.469	13.30	317.2	148.5	1,115.4
39.00	Bot - Section 2	0.00	1.04 14.549	24.58 294.04 0.650			0.50	4.00	16.071	10.45	256.8	116.8	875.5
40.00		0.00	1.05 14.655	24.76 293.82 0.650			0.50	1.00	4.038	2.62	65.0	29.5	407.8
45.00	Top - Section 1	0.00	1.09 15.156	25.61 292.30 0.650			0.50	5.00	19.935	12.96	331.9	144.5	2,011.3
50.00		0.00	1.12 15.620	26.39 295.00 0.650			0.50	5.00	19.512	12.68	334.8	141.4	1,061.8
55.00		0.00	1.15 16.051	27.12 292.34 0.650			0.50	5.00	19.088	12.41	336.6	138.3	1,038.1
60.00		0.00	1.18 16.455	27.80 289.21 0.650			0.50	5.00	18.665	12.13	337.4	135.1	1,014.4
65.00		0.00	1.21 16.836	28.45 285.67 0.650			0.50	5.00	18.242	11.86	337.4	132.0	990.7
70.00		0.00	1.24 17.196	29.06 281.77 0.650			0.50	5.00	17.818	11.58	336.6	128.8	967.0
75.00	Appertunance(s)	0.00	1.26 17.538	29.63 277.55 0.650			0.50	5.00	17.395	11.31	335.1	125.7	943.3
79.00	Bot - Section 3	0.00	1.28 17.800	30.08 273.97 0.650			0.50	4.00	13.611	8.85	266.2	98.6	737.8
80.00		0.00	1.28 17.865	30.19 273.05 0.650			0.50	1.00	3.413	2.22	67.0	24.9	316.4
84.00	Top - Section 2	0.00	1.30 18.115	30.61 269.26 0.650			0.50	4.00	13.481	8.76	268.3	97.6	1,248.6
85.00		0.00	1.31 18.177	30.71 272.68 0.650			0.50	1.00	3.328	2.16	66.4	24.3	154.6
90.00		0.00	1.33 18.476	31.22 267.72 0.650			0.50	5.00	16.386	10.65	332.6	118.2	759.7
95.00		0.00	1.35 18.764	31.71 262.55 0.650			0.50	5.00	15.962	10.38	329.0	115.1	739.4
100.0		0.00	1.37 19.041	32.17 257.18 0.650			0.50	5.00	15.539	10.10	325.0	112.0	719.1
105.0		0.00	1.39 19.308	32.63 251.63 0.650			0.50	5.00	15.116	9.83	320.6	108.8	698.9
110.0		0.00	1.41 19.566	33.06 245.90 0.650			0.50	5.00	14.692	9.55	315.8	105.7	678.6
115.0		0.00	1.42 19.816	33.49 240.02 0.650			0.50	5.00	14.269	9.27	310.6	102.6	658.3
118.0	Appertunance(s)	0.00	1.43 19.963	33.73 236.42 0.650			0.50	3.00	8.358	5.43	183.3	60.4	385.6
120.0		0.00	1.44 20.059	33.89 233.99 0.650			0.50	2.00	5.487	3.57	120.9	39.8	253.2
123.0	Top - Section 3	0.00	1.45 20.201	34.13 230.30 0.650			0.50	3.00	8.104	5.27	179.8	58.5	373.5
125.0		0.00	1.46 20.294	34.29 227.82 0.650			0.50	2.00	5.318	3.46	118.6	38.5	183.5
128.0	Appertunance(s)	0.00	1.47 20.432	34.53 224.05 0.650			0.50	3.00	7.850	5.10	176.2	56.6	270.6
130.0		0.00	1.48 20.523	34.68 221.52 0.650			0.50	2.00	5.149	3.35	116.1	37.3	177.5
135.0		0.00	1.49 20.745	35.05 215.09 0.650			0.50	5.00	12.576	8.17	286.6	90.0	432.1
138.0	Appertunance(s)	0.00	1.50 20.876	35.28 211.18 0.650			0.50	3.00	7.342	4.77	168.4	52.9	252.4
140.0		0.00	1.51 20.962	35.42 208.55 0.650			0.50	2.00	4.810	3.13	110.8	34.8	165.4
145.0		0.00	1.52 21.173	35.78 201.90 0.650			0.50	5.00	11.729	7.62	272.8	83.8	401.9
148.0	Appertunance(s)	0.00	1.53 21.297	35.99 197.86 0.650			0.50	3.00	6.834	4.44	159.9	49.1	234.2
150.0		0.00	1.54 21.379	36.13 195.14 0.650			0.50	2.00	4.471	2.91	105.0	32.2	153.3
155.0		0.00	1.55 21.580	36.47 188.29 0.650			0.50	5.00	10.882	7.07	258.0	77.5	371.6
158.0	Appertunance(s)	0.00	1.56 21.699	36.67 184.13 0.650			0.50	3.00	6.326	4.11	150.8	45.4	216.1
Totals:								158.00			10,004.0	3,861.8	28,198.2

Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
 Top Dia : 24.00 (in)
 Taper : 0.203196 (in/ft)

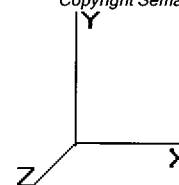
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Base Elev : 0.000 (ft)



Load Case: Ice

73.61 mph Wind with Ice

25 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Discrete Appurtenance Segment Forces

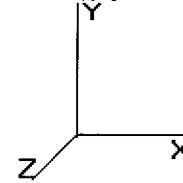
Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
75.00	GPS antenna	1	17.538	29.639	1.00	3.00	0.000	0.000	88.92	0.00	0.00	100.00
118.0	21901 diplexer	6	19.963	33.737	0.84	1.93	0.000	0.000	65.12	0.00	0.00	20.40
118.0	21401 TMA	6	19.963	33.737	0.67	4.70	0.000	0.000	158.68	0.00	0.00	139.80
118.0	Low Profile Platform	1	19.963	33.737	1.00	27.32	0.000	0.000	921.69	0.00	0.00	2,100.00
118.0	Powerwave 7770	6	19.963	33.737	0.73	28.61	0.000	0.000	965.36	0.00	0.00	405.78
128.0	ADC TMAs	6	20.432	34.530	0.76	8.19	0.000	0.000	282.85	0.00	0.00	186.06
128.0	LPA 185063/8CF	6	20.432	34.530	0.95	19.84	0.000	0.000	684.94	0.00	0.00	185.58
128.0	DB846F65ZAXY	6	20.432	34.530	0.93	43.56	0.000	0.000	1,504.24	0.00	0.00	420.00
128.0	Low Profile Platform	1	20.432	34.530	1.00	27.32	0.000	0.000	943.36	0.00	0.00	2,100.00
138.0	Low Profile Platform	1	20.876	35.280	1.00	27.32	0.000	0.000	963.86	0.00	0.00	2,100.00
138.0	RR90-17-02DP	12	20.876	35.280	0.67	40.10	0.000	0.000	1,414.86	0.00	0.00	455.04
148.0	Low Profile Platform	1	21.297	35.993	1.00	27.32	0.000	0.000	983.32	0.00	0.00	2,100.00
148.0	DB844H90	12	21.297	35.993	0.91	49.36	0.000	0.000	1,776.54	0.00	0.00	483.60
158.0	Low Profile Platform	1	21.699	36.671	1.00	27.32	0.000	0.000	1,001.86	0.00	0.00	2,100.00
158.0	DB980	12	21.699	36.671	0.73	33.73	0.000	0.000	1,236.77	0.00	0.00	336.00
									12,992.37			13,232.26

Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
 Top Dia : 24.00 (in)
 Taper : 0.203196 (in/ft)

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Base Elev : 0.000 (ft)



Load Case: Ice	73.61 mph Wind with Ice	25 Iterations
Gust Response Factor : 1.69		
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

Linear Appurtenance Segment Forces

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Weight (lb/ft)	CaAa (sf/ft)	qz (psf)	F X (lb)	Dead Load (lb)
5.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	13.871	70.33	150.00
10.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	13.871	70.33	150.00
15.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	13.871	70.33	150.00
20.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	13.871	70.33	150.00
25.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	13.871	70.33	150.00
30.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	13.871	70.33	150.00
35.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	14.106	71.52	150.00
39.00	(12) 1 5/8" Coax	Yes	4.00	30.00	0.60	14.549	59.01	120.00
40.00	(12) 1 5/8" Coax	Yes	1.00	30.00	0.60	14.655	14.86	30.00
45.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	15.156	76.84	150.00
50.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	15.620	79.19	150.00
55.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	16.051	81.38	150.00
60.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	16.455	83.43	150.00
65.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	16.836	85.36	150.00
70.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	17.196	87.18	150.00
75.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	17.538	88.92	150.00
79.00	(12) 1 5/8" Coax	Yes	4.00	30.00	0.60	17.800	72.20	120.00
80.00	(12) 1 5/8" Coax	Yes	1.00	30.00	0.60	17.865	18.11	30.00
84.00	(12) 1 5/8" Coax	Yes	4.00	30.00	0.60	18.115	73.48	120.00
85.00	(12) 1 5/8" Coax	Yes	1.00	30.00	0.60	18.177	18.43	30.00
90.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	18.476	93.67	150.00
95.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	18.764	95.13	150.00
100.0	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	19.041	96.54	150.00
105.0	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	19.308	97.89	150.00
110.0	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	19.566	99.20	150.00
115.0	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	19.816	100.47	150.00
118.0	(12) 1 5/8" Coax	Yes	3.00	30.00	0.60	19.963	60.73	90.00
120.0	(12) 1 5/8" Coax	Yes	2.00	30.00	0.60	20.059	40.68	60.00
123.0	(12) 1 5/8" Coax	Yes	3.00	30.00	0.60	20.201	61.45	90.00
125.0	(12) 1 5/8" Coax	Yes	2.00	30.00	0.60	20.294	41.16	60.00
128.0	(12) 1 5/8" Coax	Yes	3.00	30.00	0.60	20.432	62.15	90.00
Totals:							2,180.93	3,840.00

Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
 Top Dia : 24.00 (in)
 Taper : 0.203196 (in/ft)

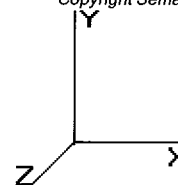
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Base Elev : 0.000 (ft)



Load Case: Ice

73.61 mph Wind with Ice

25 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Applied Segment Forces Summary

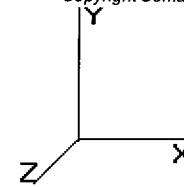
Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	420.93	1,623.49	0.00	0.00
10.00	414.48	1,599.78	0.00	0.00
15.00	408.03	1,576.07	0.00	0.00
20.00	401.58	1,552.37	0.00	0.00
25.00	395.13	1,528.66	0.00	0.00
30.00	388.68	1,504.95	0.00	0.00
35.00	388.71	1,481.24	0.00	0.00
39.00	315.86	1,168.17	0.00	0.00
40.00	79.86	480.99	0.00	0.00
45.00	408.75	2,377.14	0.00	0.00
50.00	413.98	1,427.61	0.00	0.00
55.00	417.94	1,403.91	0.00	0.00
60.00	420.81	1,380.20	0.00	0.00
65.00	422.72	1,356.49	0.00	0.00
70.00	423.76	1,332.78	0.00	0.00
75.00	512.96	1,409.07	0.00	0.00
79.00	338.35	1,029.80	0.00	0.00
80.00	85.08	389.43	0.00	0.00
84.00	341.74	1,540.63	0.00	0.00
85.00	84.88	227.62	0.00	0.00
90.00	426.23	1,124.70	0.00	0.00
95.00	424.14	1,104.42	0.00	0.00
100.0	421.55	1,084.14	0.00	0.00
105.0	418.49	1,063.86	0.00	0.00
110.0	414.99	1,043.58	0.00	0.00
115.0	411.08	1,023.30	0.00	0.00
118.0	2,354.87	3,270.60	0.00	0.00
120.0	161.59	383.15	0.00	0.00
123.0	241.29	568.46	0.00	0.00
125.0	159.71	313.53	0.00	0.00
128.0	3,653.74	3,357.20	0.00	0.00
130.0	116.07	247.47	0.00	0.00
135.0	286.58	607.14	0.00	0.00
138.0	2,547.09	2,912.44	0.00	0.00
140.0	110.76	219.36	0.00	0.00
145.0	272.80	536.87	0.00	0.00
148.0	2,919.74	2,898.83	0.00	0.00
150.0	105.01	177.25	0.00	0.00
155.0	257.98	431.60	0.00	0.00
158.0	2,389.43	2,688.07	0.00	0.00
Totals:	25,177.33	51,446.40	0.00	0.00

Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
 Top Dia : 24.00 (in)
 Taper : 0.203196 (in/ft)

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Base Elev : 0.000 (ft)



Load Case: Ice

73.61 mph Wind with Ice

25 Iterations

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

Calculated Shaft Forces and Deflections

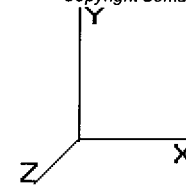
Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-25.253	-51.409	0.000	0.000	0.000	-2.860.020	0.000	0.000	0.000	0.000
5.00	-24.973	-49.714	0.000	0.000	0.000	-2.733.760	-0.089	0.000	0.089	-0.165
10.00	-24.692	-48.044	0.000	0.000	0.000	-2.608.897	-0.351	0.000	0.351	-0.331
15.00	-24.410	-46.399	0.000	0.000	0.000	-2.485.439	-0.788	0.000	0.788	-0.499
20.00	-24.126	-44.780	0.000	0.000	0.000	-2.363.393	-1.402	0.000	1.402	-0.669
25.00	-23.840	-43.185	0.000	0.000	0.000	-2.242.767	-2.195	0.000	2.195	-0.841
30.00	-23.553	-41.616	0.000	0.000	0.000	-2.123.569	-3.168	0.000	3.168	-1.013
35.00	-23.246	-40.079	0.000	0.000	0.000	-2.005.806	-4.323	0.000	4.323	-1.187
39.00	-22.964	-38.882	0.000	0.000	0.000	-1.912.825	-5.378	0.000	5.378	-1.328
40.00	-22.944	-38.361	0.000	0.000	0.000	-1.889.862	-5.660	0.000	5.660	-1.364
45.00	-22.586	-35.926	0.000	0.000	0.000	-1.775.143	-7.182	0.000	7.182	-1.539
50.00	-22.235	-34.444	0.000	0.000	0.000	-1.662.218	-8.888	0.000	8.888	-1.715
55.00	-21.869	-32.990	0.000	0.000	0.000	-1.551.047	-10.774	0.000	10.774	-1.882
60.00	-21.493	-31.563	0.000	0.000	0.000	-1.441.704	-12.835	0.000	12.835	-2.049
65.00	-21.107	-30.162	0.000	0.000	0.000	-1.334.242	-15.071	0.000	15.071	-2.215
70.00	-20.713	-28.788	0.000	0.000	0.000	-1.228.707	-17.479	0.000	17.479	-2.380
75.00	-20.209	-27.351	0.000	0.000	0.000	-1.125.145	-20.060	0.000	20.060	-2.543
79.00	-19.862	-26.310	0.000	0.000	0.000	-1.044.309	-22.246	0.000	22.246	-2.673
80.00	-19.795	-25.897	0.000	0.000	0.000	-1.024.448	-22.809	0.000	22.809	-2.706
84.00	-19.413	-24.348	0.000	0.000	0.000	-945.270	-25.130	0.000	25.130	-2.833
85.00	-19.361	-24.090	0.000	0.000	0.000	-925.858	-25.727	0.000	25.727	-2.865
90.00	-18.946	-22.932	0.000	0.000	0.000	-829.057	-28.821	0.000	28.821	-3.039
95.00	-18.525	-21.799	0.000	0.000	0.000	-734.331	-32.094	0.000	32.094	-3.207
100.0	-18.098	-20.692	0.000	0.000	0.000	-641.710	-35.539	0.000	35.539	-3.368
105.0	-17.666	-19.610	0.000	0.000	0.000	-551.222	-39.147	0.000	39.147	-3.520
110.0	-17.230	-18.554	0.000	0.000	0.000	-462.891	-42.909	0.000	42.909	-3.661
115.0	-16.784	-17.531	0.000	0.000	0.000	-376.741	-46.811	0.000	46.811	-3.788
118.0	-14.230	-14.411	0.000	0.000	0.000	-326.391	-49.213	0.000	49.213	-3.858
120.0	-14.056	-14.027	0.000	0.000	0.000	-297.932	-50.838	0.000	50.838	-3.902
123.0	-13.787	-13.464	0.000	0.000	0.000	-255.765	-53.308	0.000	53.308	-3.963
125.0	-13.619	-13.149	0.000	0.000	0.000	-228.191	-54.976	0.000	54.976	-4.001
128.0	-9.748	-10.048	0.000	0.000	0.000	-187.334	-57.512	0.000	57.512	-4.072
130.0	-9.626	-9.798	0.000	0.000	0.000	-167.839	-59.226	0.000	59.226	-4.115
135.0	-9.307	-9.203	0.000	0.000	0.000	-119.708	-63.584	0.000	63.584	-4.206
138.0	-6.556	-6.482	0.000	0.000	0.000	-91.787	-66.241	0.000	66.241	-4.251
140.0	-6.433	-6.267	0.000	0.000	0.000	-78.676	-68.026	0.000	68.026	-4.277
145.0	-6.124	-5.749	0.000	0.000	0.000	-46.509	-72.529	0.000	72.529	-4.326
148.0	-2.995	-3.079	0.000	0.000	0.000	-28.136	-75.252	0.000	75.252	-4.345
150.0	-2.877	-2.909	0.000	0.000	0.000	-22.147	-77.073	0.000	77.073	-4.355
155.0	-2.587	-2.498	0.000	0.000	0.000	-7.762	-81.639	0.000	81.639	-4.370
158.0	-2.389	0.000	0.000	0.000	0.000	0.000	-84.383	0.000	84.383	-4.372

Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
 Top Dia : 24.00 (in)
 Taper : 0.203196 (in/ft)

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Base Elev : 0.000 (ft)



Load Case: Ice

73.61 mph Wind with Ice

25 Iterations

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

Calculated Stresses

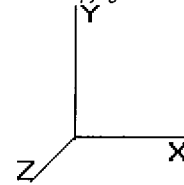
Seg Elev (ft)	Applied Stresses							Allowable Stress (Fb) (ksi)	Stress Ratio	
	Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)			
0.00	0.79	0.79	0.00	0.00	0.00	39.49	40.31	52.0	0.0	0.776
5.00	0.78	0.79	0.00	0.00	0.00	39.20	40.01	52.0	0.0	0.770
10.00	0.77	0.80	0.00	0.00	0.00	38.89	39.68	52.0	0.0	0.763
15.00	0.76	0.81	0.00	0.00	0.00	38.53	39.32	52.0	0.0	0.756
20.00	0.75	0.81	0.00	0.00	0.00	38.14	38.92	52.0	0.0	0.749
25.00	0.74	0.82	0.00	0.00	0.00	37.71	38.47	52.0	0.0	0.740
30.00	0.72	0.83	0.00	0.00	0.00	37.23	37.98	52.0	0.0	0.731
35.00	0.71	0.83	0.00	0.00	0.00	36.70	37.44	52.0	0.0	0.720
39.00	0.70	0.84	0.00	0.00	0.00	36.24	36.97	52.0	0.0	0.711
40.00	0.70	0.84	0.00	0.00	0.00	36.12	36.85	52.0	0.0	0.709
45.00	0.66	0.83	0.00	0.00	0.00	34.32	35.01	52.0	0.0	0.674
50.00	0.64	0.84	0.00	0.00	0.00	33.62	34.29	52.0	0.0	0.660
55.00	0.63	0.84	0.00	0.00	0.00	32.84	33.51	52.0	0.0	0.645
60.00	0.62	0.85	0.00	0.00	0.00	32.00	32.65	52.0	0.0	0.628
65.00	0.60	0.85	0.00	0.00	0.00	31.07	31.71	52.0	0.0	0.610
70.00	0.59	0.86	0.00	0.00	0.00	30.06	30.69	52.0	0.0	0.590
75.00	0.58	0.86	0.00	0.00	0.00	28.95	29.57	52.0	0.0	0.569
79.00	0.57	0.86	0.00	0.00	0.00	28.01	28.61	52.0	0.0	0.551
80.00	0.56	0.86	0.00	0.00	0.00	27.77	28.37	52.0	0.0	0.546
84.00	0.63	1.02	0.00	0.00	0.00	30.90	31.58	48.0	0.0	0.658
85.00	0.63	1.02	0.00	0.00	0.00	30.58	31.26	48.0	0.0	0.652
90.00	0.62	1.03	0.00	0.00	0.00	28.89	29.56	48.0	0.0	0.616
95.00	0.60	1.03	0.00	0.00	0.00	27.04	27.70	48.0	0.0	0.577
100.00	0.59	1.04	0.00	0.00	0.00	25.01	25.66	48.0	0.0	0.535
105.00	0.57	1.04	0.00	0.00	0.00	22.78	23.42	48.0	0.0	0.488
110.00	0.56	1.05	0.00	0.00	0.00	20.31	20.95	48.0	0.0	0.437
115.00	0.55	1.05	0.00	0.00	0.00	17.59	18.23	48.0	0.0	0.380
118.00	0.46	0.91	0.00	0.00	0.00	15.83	16.36	48.0	0.0	0.341
120.00	0.45	0.91	0.00	0.00	0.00	14.83	15.36	48.0	0.0	0.320
123.00	0.44	0.91	0.00	0.00	0.00	13.24	13.77	48.0	0.0	0.287
123.00	0.63	1.30	0.00	0.00	0.00	18.75	19.50	48.0	0.0	0.406
125.00	0.62	1.30	0.00	0.00	0.00	17.17	17.94	48.0	0.0	0.374
128.00	0.48	0.95	0.00	0.00	0.00	14.68	15.26	48.0	0.0	0.318
130.00	0.48	0.95	0.00	0.00	0.00	13.52	14.10	48.0	0.0	0.294
135.00	0.47	0.95	0.00	0.00	0.00	10.35	10.94	48.0	0.0	0.228
138.00	0.34	0.68	0.00	0.00	0.00	8.29	8.70	48.0	0.0	0.181
140.00	0.33	0.68	0.00	0.00	0.00	7.32	7.74	48.0	0.0	0.161
145.00	0.31	0.67	0.00	0.00	0.00	4.67	5.11	48.0	0.0	0.107
148.00	0.17	0.34	0.00	0.00	0.00	2.96	3.18	48.0	0.0	0.066
150.00	0.16	0.33	0.00	0.00	0.00	2.40	2.63	48.0	0.0	0.055
155.00	0.15	0.31	0.00	0.00	0.00	0.91	1.19	48.0	0.0	0.025
158.00	0.00	0.29	0.00	0.00	0.00	0.00	0.51	48.0	0.0	0.011

Pole : CT2007
Location : Easton, CT
Height : 158.0 (ft)
Shape : 18 Sides
Base Dia : 54.73 (in)
Top Dia : 24.00 (in)
Taper : 0.203196 (in/ft)

Code: TIA/EIA-222 Rev F

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Base Elev : 0.000 (ft)



Analysis Summary

Load Case	Reactions						Max Stresses			
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Combined Stress (ksi)	Allowable Stress (ksi)	Elev (ft)	Stress Ratio
No Ice	30.4	0.00	41.13	0.00	0.00	3386.01	47.42	52.0	0.00	0.912
Ice	25.3	0.00	51.41	0.00	0.00	2860.02	40.31	52.0	0.00	0.776

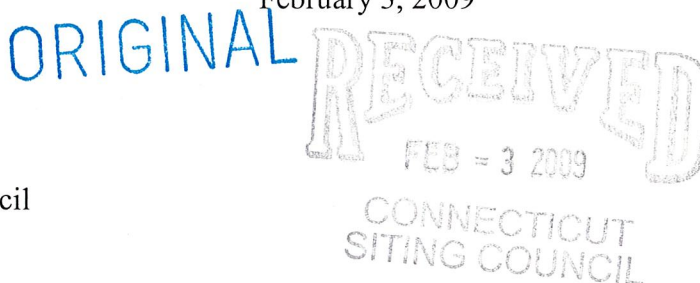
EM-VER-046-090203

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

February 3, 2009

Via Hand Delivery

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



Re: **Notice of Exempt Modification**
206 Everett Road, Easton, Connecticut

Dear Mr. Phelps:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") intends to install antennas on an existing monopole tower owned by TowerCo and located at 206 Everett Road in Easton, Connecticut. Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, of 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 Thomas A. Herrmann, Jr., First Selectman of the Town of Easton. Pursuant to a Council directive, a copy of this letter is also being sent to representatives of the Barney Family Trust, the owner of the property on which the tower is located.

The existing facility consists of a 158-foot monopole tower capable of supporting multiple carriers at 206 Everett Road in Easton. The tower is shared by Sprint with antennas at the 158-foot level; Nextel with antennas at the 148-foot level; T-Mobile with antennas at the 138-foot level; and AT&T with antennas proposed to be located at the 118-foot level on the tower.¹

Cellco intends to install six (6) DB846F65ZAXY antennas; six (6) LPA-185063/8CF antennas and six (6) tower mounted amplifiers, all at the 128-foot level on the tower. Associated equipment, including a diesel-fueled back-up generator, would be located in a 12' x 30' equipment shelter. Due to space limitations within the site compound, Cellco's shelter will be placed on a steel platform above Nextel's

¹ Currently, AT&T maintains antennas at the 100' level on the Everett Road tower. AT&T intends to relocate its antennas to the 118' level. This future modification is contemplated in the attached Structural Analysis. Cellco is not seeking acknowledgement of the AT&T modification as a part of this filing.



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S. Derek Phelps

February 3, 2009

Page 2

equipment shelter. Attached behind Tab 1 are Project Plans for the proposed Cellco facility.

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

1. The proposed modification will not increase the overall height of the existing tower. Cellco's antennas will be mounted with their centerline at the 128-foot level on the 158-foot tower.
2. The proposed installation of Cellco's equipment shelter will not require an extension of the fenced compound or the lease area.
3. The proposed installation will not increase the noise levels at the facility by six decibels or more.
4. The operation of the 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. The RF power density calculations for Cellco antennas would be 55.91% of the FCC standard. A power density calculations table is included behind Tab 2.

Included behind Tab 3 is a Structural Analysis confirming that the tower can support the existing and Cellco antennas, and associated equipment.

For the foregoing reasons, Cellco respectfully submits that the proposed antenna installation at the facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,



Kenneth C. Baldwin

Attachments

Copy to:

Thomas A. Herrmann, Jr., First Selectman of Easton
Barney Family Trust
Sandy M. Carter
Michelle Kababik



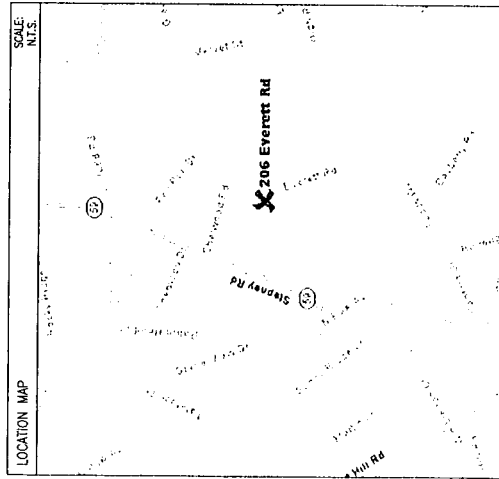
CELLCO PARTNERSHIP



d.b.a. **verizon** wireless

WIRELESS COMMUNICATIONS FACILITY

206 EVERETT ROAD
EASTON, CT 06612



NOTE:

THIS DOCUMENT WAS DEVELOPED TO REFLECT A SPECIFIC SITE AND ITS SITE CONDITIONS AND IS NOT TO BE USED FOR ANOTHER SITE OR WHEN OTHER CONDITIONS PERTAIN. REUSE OF THIS DOCUMENT IS AT THE SOLE RISK OF THE USER.

DRIVING DIRECTIONS

-START OUT GOING EAST ON E RIVER DR TOWARD PITKIN ST.
-MERGE ONTO US-5 S/CT-15 S TOWARD I-95 S/NEW HAVEN.
-MERGE ONTO I-91 S VIA EXIT 86 TOWARD NEW HAVEN/N.Y. CITY.
-MERGE ONTO CT-15 S VIA EXIT 17.
-MERGE ONTO CT-25 N VIA EXIT 49 TOWARD DANBURY.
-TURN LEFT ONTO EASTON RD/CT-59. CONTINUE TO FOLLOW CT-59.
-TURN SLIGHT LEFT ONTO EVERETT RD.
-END AT 206 EVERETT RD EASTON, CT 06612-1258

DRAWING SCHEDULE	
SHT. NO.	DESCRIPTION
T-1	TITLE SHEET
A-1	COMPOUND PLAN & PLATFORM PLAN
A-2	EAST ELEVATION & ANTENNA PLAN

PROJECT SUMMARY

SITE NAME: EASTON CT
SITE ADDRESS: 206 EVERETT ROAD
EASTON, CT 06612
PROPERTY OWNER: THE BARNEY FAMILY TRUST
206 EVERETT RD.
EASTON, CT 06612
UNIQUE ID: 00010600
APPLICANT/LESSEE: CELLCO PARTNERSHIP
ADDRESS: d.b.a. VERIZON WIRELESS
99 EAST RIVER DR., 9TH FL.
EAST HARTFORD, CT 06108
CONSTRUCTION CONTACT: MARK GAUGER
CELLCO PARTNERSHIP
d.b.a. VERIZON WIRELESS
(203) 494-0023
COORDINATES: 41° 17' 258.03" N
73° 16' 57.32" W
GROUND ELEVATION: 436 FT. AMSL

CELLCO PARTNERSHIP
d.b.a. **verizon** wireless

On Air Engineering, LLC
88 POQUONNICK POND ROAD
GOLD SPRING, NY 10316
(945) 265-3385 OFFICE
(945) 622-4917 FAX

LICENSE-RE

DAVID WERNER, P.E.
CT LIC. NO. 22144

NO.	DATE	SUBMISSIONS
1	03/01/01	REVIEW
2	03/27/01	ATTORNEY COUNCIL FILING

DRAWN BY: AG
CHECKED BY: DW

PROJECT ID: 1999002172

PROJECT NAME: EASTON, CT

PROJECT DESCRIPTION: 206 EVERETT ROAD
EASTON, CT 06612

DRAWING TITLE: TITLE SHEET

T-1

CELLCO PARTNERSHIP
d.b.a. **verizon** wireless

On Air Engineering, LLC
88 FOUNDRY POND ROAD
COLD SPRING, NY 10516
(845) 265-3395 OFFICE
(845) 622-4917 FAX

LICENSE

NO.	DATE	REVISION
1	02/28/09	REVISED
2	01/27/09	SETTING COUNCIL FILING

DESIGNED BY:	AG	DW
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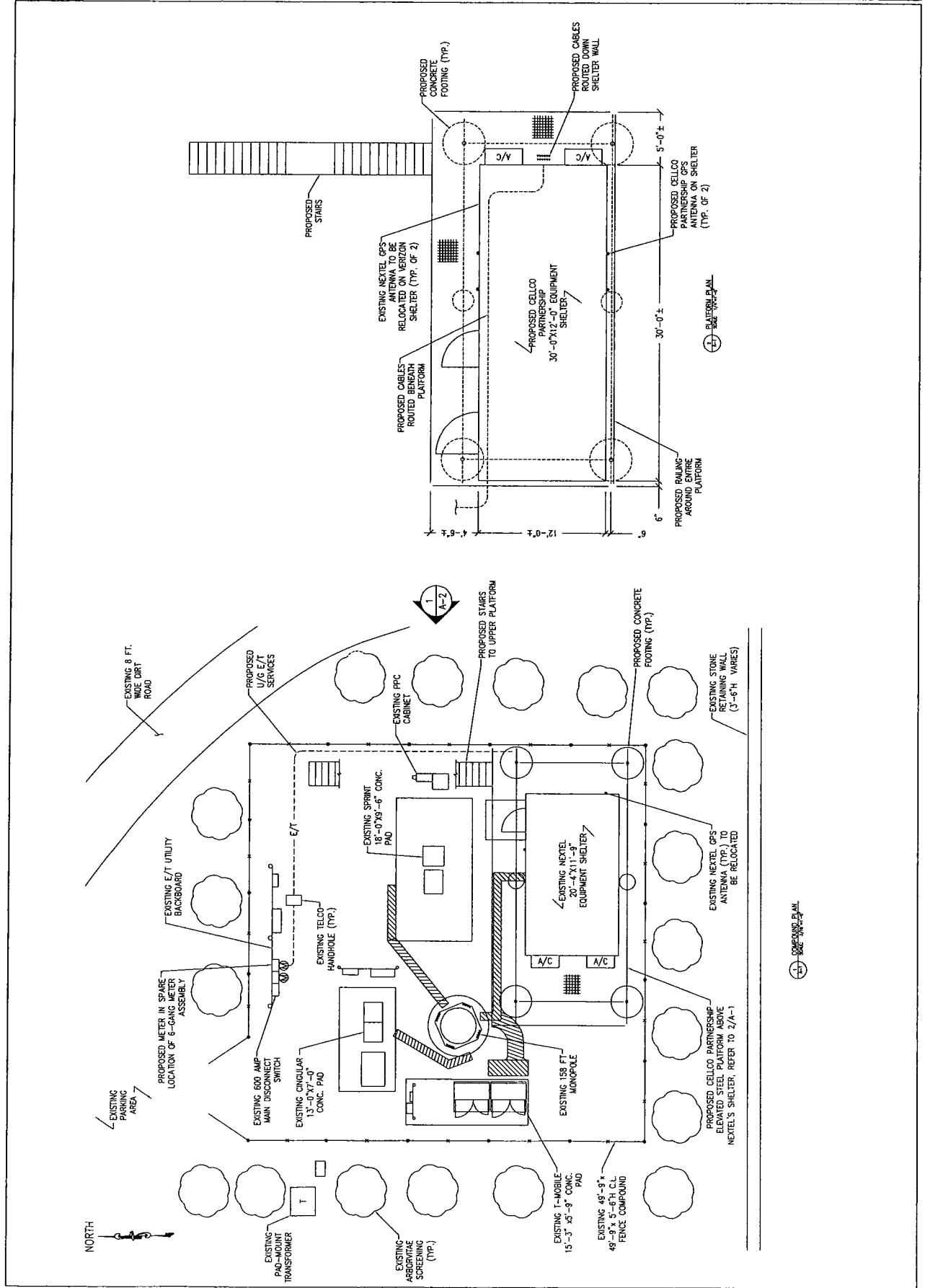
PROJECT ID:
1999002172

PROJECT NAME:
EASTON, CT

PROJECT INFORMATION:
206 EVERETT ROAD
EASTON, CT 06612

DRAWING TITLE:
COMPOUND PLAN &
PLATFORM PLAN

A-1



CELLCO PARTNERSHIP

On Air Engineering, LLC

88 FOUNDRY POND ROAD

COLD SPRING, NY 10516

(845) 265-3395 OFFICE

(845) 622-4917 FAX

1999002172

PROJECT ID

EASTON, CT

PROJECT NAME

206 EVERETT ROAD

EASTON, CT 06612

PROJECT INFORMATION

EAST ELEVATION & ANTENNA PLAN

DRAWING TITLE

A-2

NO. DATE DESCRIPTION

1 03/10/01 REVIEW

2 03/17/01 SETTING COUNCIL FILING

DAVID WERNICK, P.E.

CT LIC. NO. 23144

DATE: 03/10/01

DESCRIPTIONS

AG DW

CHECKED BY

1999002172

PROJECT ID

TOP OF MONOPOLE
 158'-0" ± A.G.L.
 SPRINT ANTENNA RAD CENTER
 156'-0" ± A.G.L.
 NEXTEL ANTENNA RAD CENTER
 148'-0" ± A.G.L.
 T-MOBILE ANTENNA RAD CENTER
 136'-0" ± A.G.L.
 CELCO PARTNERSHIP RAD CENTER
 128'-0" ± A.G.L.
 CIRCULAR ANTENNA RAD CENTER
 118'-0" ± A.G.L.
 CIRCULAR ANTENNA RAD CENTER
 100'-0" ± A.G.L.

PROPOSED (12) CELCO PARTNERSHIP ANTENNAS AND (6) TOWER MOUNTED AMPLIFIERS ON LOW-PROFILE PLATFORM
 PROPOSED CIRCULAR ANTENNAS ON LOW-PROFILE PLATFORM (UNDER SEPARATE CONTRACT, BY OTHERS)
 EXISTING CIRCULAR ANTENNAS TO BE REMOVED (UNDER SEPARATE CONTRACT, BY OTHERS)
 EXISTING 158 FT. MONOPOLE
 PROPOSED (12) 1.5/1.5" CONICAL CABLES ROUTED OUTSIDE THE POLE
 PROPOSED CELCO PARTNERSHIP 30'-0" x 12'-0" EQUIP. SHELTER ON ELEVATED STEEL PLATFORM
 PROPOSED CELCO PARTNERSHIP GPS ANTENNAS (TYP. OF 2)
 TOP OF GPS ANTENNA 28'-0" ± A.G.L.
 TOP OF SHELTER 25'-0" ± A.G.L.
 EXISTING NEXTEL SHELTER
 PROPOSED ACCESS STAIRS
 EXISTING SPRINT PPC
 EXISTING 48'-9" x 5'-6" CL FENCE COMPOUND
 GRADE
 EAST ELEVATION

SECTOR A
 SECTOR B
 SECTOR C
 PROPOSED (12) CELCO PARTNERSHIP ANTENNAS AND (6) TMA'S ON LOW PROFILE PLATFORM (TYP.)
 ANTENNA MOUNT PLAN

Site Name: Easton		General	Power	Density					
Tower Height: Verizon @ 128ft									
CARRIER	# OF CHAN.	WATTS ERP	HEIGHT	CALC. POWER DENS	FREQ.	MAX. PERMISS. EXP.	FRACTION MPE	Total	
*Sprint	11	201.84	158	0.0320	1962.5	1.0000	3.20%		
*VoiceStream	8	284	138	0.0429	1935	1.0000	4.29%		
*Cingular GSM	4	296	118	0.0306	880	0.5867	5.21%		
*Cingular GSM	2	427	118	0.0221	1900	1.0000	2.21%		
*Cingular UMTS	1	500	118	0.0129	880	0.5867	2.20%		
*Nextel	9	100	148	0.0148	851	0.5673	2.60%		
Verizon	9	383	128	0.0756	880	0.5866	12.90%		
Verizon	15	708	128	0.2331	1970	1.0000	23.31%		
* Source: Siting Council								55.91%	

1079 N. 205th Street
Elkhorn, NE 68022
Ph: 402-289-1888
Fax: 402-289-1861

SEMAAN ENGINEERING SOLUTIONS

158 ft PennSummit Monopole Structural Analysis

Prepared for:
TowerCo LLC
112 Towerview Court
Cary, NC 27513

Site: CT2007
For Verizon
Easton, CT



November 6, 2008

Mr. Stephen Rambeau
TowerCo LLC
112 Towerview Court
Cary, NC 27513

Re: Site Number CT2007 – Easton, CT.

Dear Mr. Rambeau:

We have completed the structural analysis for the existing monopole, located at the above referenced site. The purpose of this analysis is to determine that the existing monopole design is in conformance with the TIA/EIA-222 Rev F standard and local building codes for the proposed antennae loads installation. Refer to the Review and Recommendations section at the end of this report for the analysis results.

Description of Structure:

The structure is a 158 ft PennSummit Monopole.

Refer to PJF Job No29202-0378 dated December 19, 2002 for a detailed description of the structure.

Method of analysis:

The tower was analyzed using Semaan Engineering Solutions' software suite for communication structures. The structural analysis is performed using the SAPS finite element engine. The method is 3D, non-linear, which accounts for the second order geometric effects due to the displacements. It also treats guys as exact cable elements and therefore is ideal for guyed towers. The analysis was performed in conformance with **TIA/EIA-222 Rev F and local building codes for a basic wind speed of 85 mph and 1/2" radial ice with reduced wind speed (fastest mile)**. This is in conformance with the IBC 2006: Section 1609.1.1, Exception (4) and Section 3108.4. Wind is applied to the structure, accessories and antennas.

Structure loading:

The following loads were used in the tower analysis:

Elev (ft)	Qty	Antennas	Mounts	Coax	Carrier
158.0	12	DB980	Low Profile Platform	(12) 1 5/8"	Sprint
148.0	12	DB844H90	Low Profile Platform	(15) 1 5/8"	Sprint-Nextel
138.0	12	RR90-17-02DP	Low Profile Platform	(12) 1 1/4"	T-Mobile
118.0	6	21901 diplexer	Low Profile Platform	(12) 1 1/4"	Cingular
	6	21401 TMA			
	6	Powerwave 7770			
75.0	1	GPS antenna	Pipe mount	(1) 1/2"	Sprint

Proposed Loads:

Elev (ft)	Qty	Antennas	Mounts	Coax	Carrier
128.0	6	ADC TMAs	Low Profile Platform	(12) 1 5/8" (outside)	Verizon
	6	LPA 185063/8CF			
	6	DB846F65ZAXY			

All new access holes shall be reinforced with welded rims that are compatible with the pole and to be sized and supplied by pole manufacturer.

All transmission lines are assumed running inside of pole shaft with the exception of those for the proposed loading. These lines are assumed strapped tightly to the pole.

Results of Analysis:

Refer to the attached Computer Summary sheets for detailed analysis results.

Structure:

The existing monopole is structurally capable of supporting the existing and proposed antennas. The maximum structure usage is: 91.2%.

Foundation:

Pole Reactions	Original Design Reactions	Current Analysis Reactions	% Of Design
Moment (ft-kips)	2,888.00	3,386.01	117.2
Shear (kips)	26.60	30.40	114.3

The reactions calculated from the analysis exceed the ones indicated on the original structural design. However, upon reviewing the foundation documents, they were found to be adequate and therefore the foundation will not require modification.

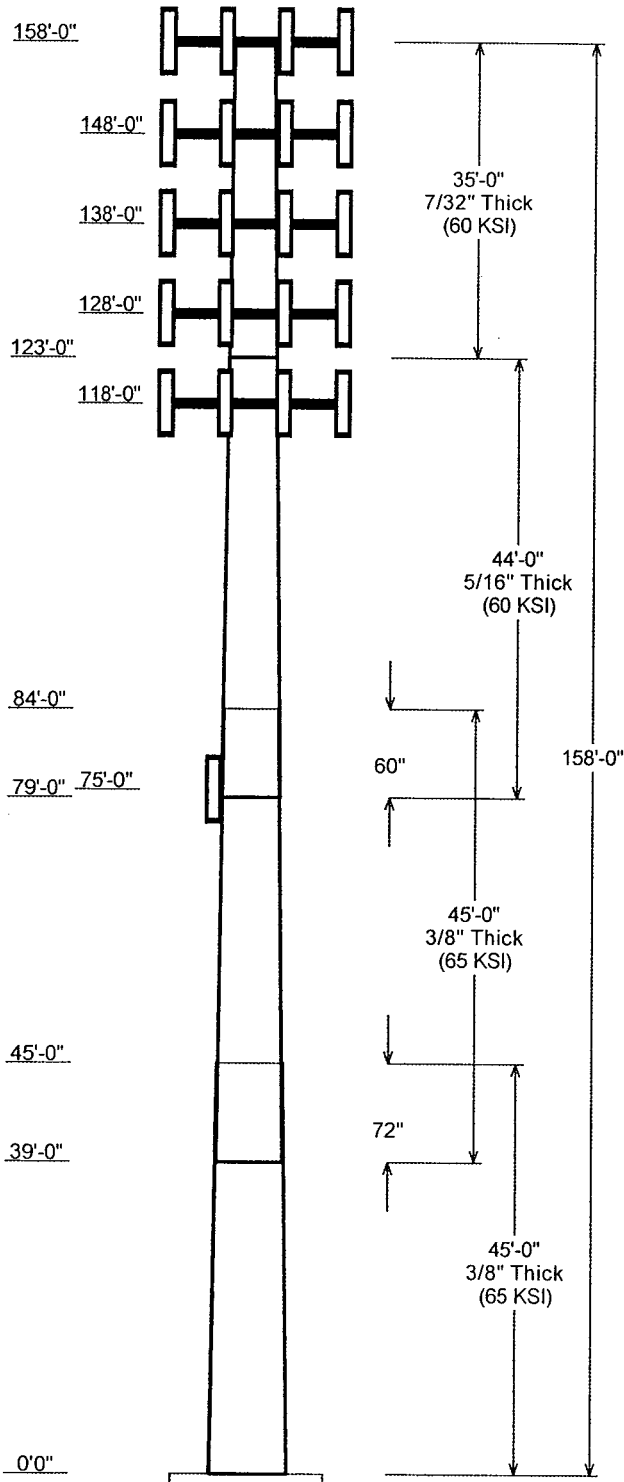
Review and Recommendations:

Based on the analysis results, the existing structure meets the requirements per the TIA/EIA-222 Rev F standards for a basic wind speed of 85 mph and 1/2" radial ice with reduced wind speed.

SEMAAN ENGINEERING SOLUTIONS

1079 N.204th Avenue
 Elkhorn, NE 68022
 Phone: 402-289-1888
 Fax: 402-289-1861

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**Job Information**

Pole: CT2007 Code: TIA/EIA-222 Rev F
 Description:
 Client: TowerCo LLC
 Location: Easton, CT
 Shape: 18 Sides Base Elev (ft): 0.00
 Height: 158.00 (ft) Taper: 0.203196(in/ft)

Sections Properties

Shaft Section	Length (ft)	Diameter (in)		Thick (in)	Joint Type	Overlap Length (in)	Taper (in/ft)	Steel Grade (ksi)
		Top	Bottom					
1	45.000	45.58	54.73	0.375		0.000	0.203196	65
2	45.000	38.41	47.55	0.375	Slip Joint	72.000	0.203196	65
3	44.000	31.11	40.05	0.313	Slip Joint	60.000	0.203196	60
4	35.000	24.00	31.11	0.219	Butt Joint	0.000	0.203196	60

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
158.000	158.000	1	Low Profile Platform
158.000	158.000	12	DB980
148.000	148.000	1	Low Profile Platform
148.000	148.000	12	DB844H90
138.000	138.000	1	Low Profile Platform
138.000	138.000	12	RR90-17-02DP
128.000	128.000	6	ADC TMAs
128.000	128.000	6	LPA 185063/8CF
128.000	128.000	6	DB846F65ZAXY
128.000	128.000	1	Low Profile Platform
118.000	118.000	6	21901 diplexer
118.000	118.000	6	21401 TMA
118.000	118.000	1	Low Profile Platform
118.000	118.000	6	Powerwave 7770
75.000	75.000	1	GPS antenna

Linear Appurtenance

Elev (ft)		Description	Exposed To Wind
From	To		
0.000	75.000	1/2" Coax	No
0.000	118.0	1 1/4" Coax	No
0.000	128.0	1 5/8" Coax	Yes
0.000	138.0	1 1/4" Coax	No
0.000	148.0	1 5/8" Coax	No
0.000	158.0	1 5/8" Coax	No

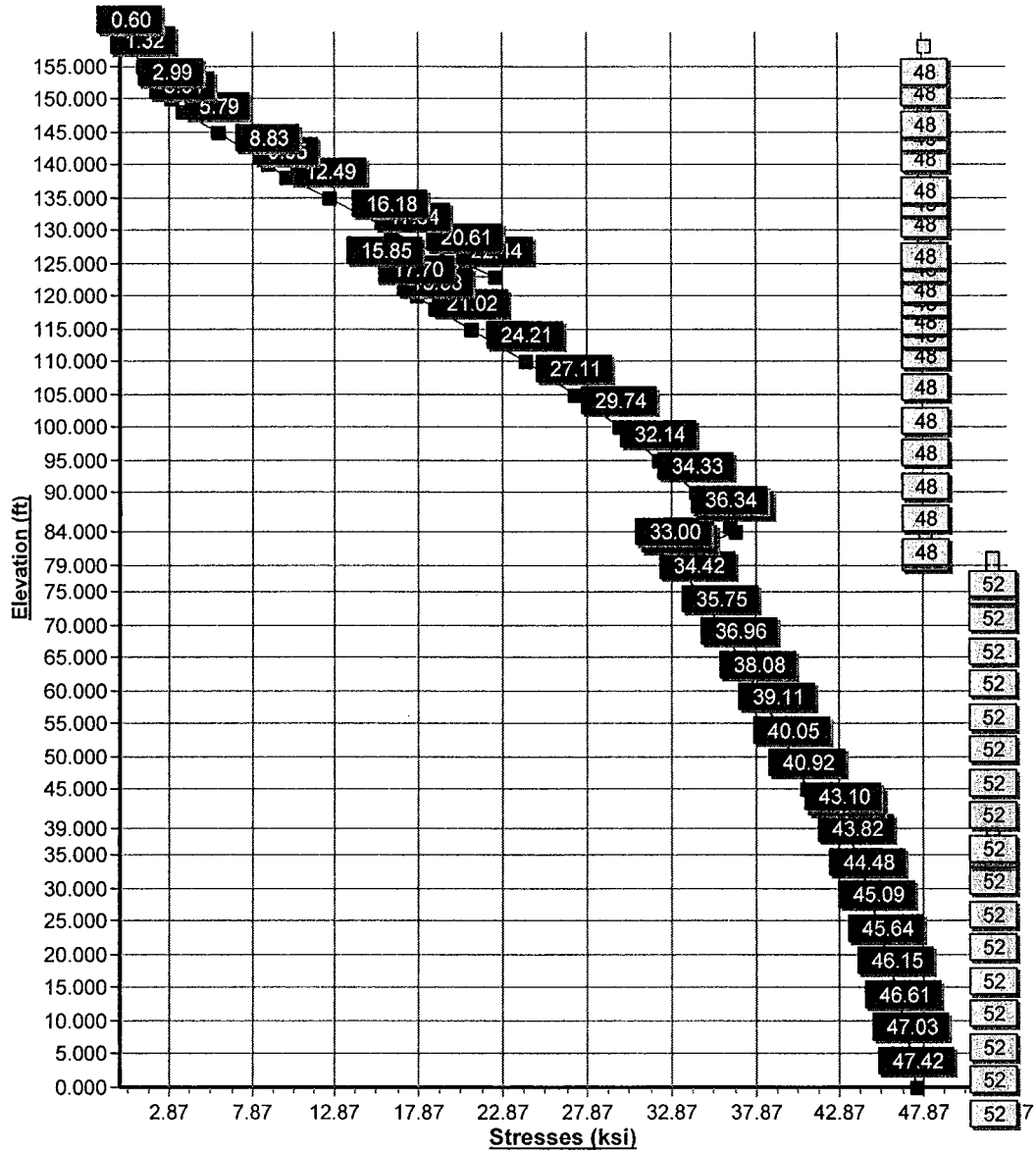
Load Cases

No Ice	85.00 mph Wind with No Ice
Ice	73.61 mph Wind with Ice

Reactions

Load Case	Moment (Kip-ft)	Shear (Kips)	Axial (Kips)
No Ice	3386.01	30.40	41.13
Ice	2860.02	25.25	51.41

Load Case : No Ice
Max Stress 91.2% at 0.0ft

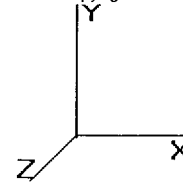


Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
 Top Dia : 24.00 (in)
 Taper : 0.203196 (in/ft)

Code: TIA/EIA-222 Rev F

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 Page: 1

Base Elev : 0.000 (ft)



Shaft Section Properties

Sect Num	Length (ft)	Thick (in)	Fv (ksi)	Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom				W/t Ratio	D/t Ratio	Top				W/t Ratio	D/t Ratio	Taper (in/ft)
							Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)			Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)			
1	45.000	0.3750	65		0.00	9,073	54.73	0.000	64.69	24148.6	24.32	145.9	45.58	45.00	53.81	13896.6	20.02	121.56	0.20320
2	45.000	0.3750	65	Slip Joint	72.00	7,765	47.55	39.00	56.15	15792.7	20.95	126.8	38.41	84.00	45.27	8275.1	16.65	102.43	0.20320
3	44.000	0.3125	60	Slip Joint	60.00	5,238	40.05	79.00	39.42	7864.6	21.19	128.1	31.11	123.0	30.55	3661.1	16.14	99.56	0.20320
4	35.000	0.2188	60	Butt Joint	0.00	2,260	31.11	123.0	21.45	2586.3	23.67	142.2	24.00	158.0	16.51	1179.8	17.93	109.71	0.20320
Shaft Weight						24,336													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	Weight (lb)	No Ice CaAa (sf)	CaAa Factor	Weight (lb)	Ice CaAa (sf)	CaAa Factor	Distance From Face (ft)	Vert Ecc (ft)
158.0	Low Profile Platform	1	1600.00	25.550	1.00	2100.00	27.320	1.00	0.000	0.000
158.0	DB980	12	9.00	3.280	0.73	28.00	3.850	0.73	0.000	0.000
148.0	Low Profile Platform	1	1600.00	25.550	1.00	2100.00	27.320	1.00	0.000	0.000
148.0	DB844H90	12	14.00	3.733	0.91	40.30	4.520	0.91	0.000	0.000
138.0	Low Profile Platform	1	1600.00	25.550	1.00	2100.00	27.320	1.00	0.000	0.000
138.0	RR90-17-02DP	12	15.50	4.356	0.67	37.92	4.988	0.67	0.000	0.000
128.0	ADC TMAs	6	20.00	1.538	0.76	31.01	1.794	0.76	0.000	0.000
128.0	LPA 185063/8CF	6	9.00	2.970	0.95	30.93	3.480	0.95	0.000	0.000
128.0	DB846F65ZAXY	6	21.00	7.033	0.93	70.00	7.807	0.93	0.000	0.000
128.0	Low Profile Platform	1	1600.00	25.550	1.00	2100.00	27.320	1.00	0.000	0.000
118.0	21901 diplexer	6	1.00	0.270	0.84	3.40	0.383	0.84	0.000	0.000
118.0	21401 TMA	6	17.50	0.950	0.67	23.30	1.170	0.67	0.000	0.000
118.0	Low Profile Platform	1	1600.00	25.550	1.00	2100.00	27.320	1.00	0.000	0.000
118.0	Powerwave 7770	6	35.00	5.882	0.73	67.63	6.533	0.73	0.000	0.000
75.00	GPS antenna	1	50.00	2.000	1.00	100.00	3.000	1.00	0.000	0.000
Totals		78	9133.00			13232.26			Number of Loadings :	15

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	No Ice		Ice		Exposed To Wind
			Weight (lb/ft)	CaAa (sf/ft)	Weight (lb/ft)	CaAa (sf/ft)	
0.00	158.00	(12) 1 5/8" Coax	12.00	0.00	12.00	0.00	N
0.00	148.00	(15) 1 5/8" Coax	15.00	0.00	15.00	0.00	N
0.00	138.00	(12) 1 1/4" Coax	8.00	0.00	8.00	0.00	N
0.00	128.00	(12) 1 5/8" Coax	12.00	0.40	30.00	0.60	Y
0.00	118.00	(12) 1 1/4" Coax	8.00	0.00	8.00	0.00	N
0.00	75.00	(1) 1/2" Coax	0.16	0.00	0.16	0.00	N
Total Weight			7,711.99 (lb)		10,016.00 (lb)		

Seq Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	Fb (ksi)	Weight (lb)
0.00		0.3750	54.730	64.694	24,148.6	24.32	145.95	65	52	0.0
5.00		0.3750	53.714	63.484	22,819.6	23.85	143.24	65	52	1,090.4
10.00		0.3750	52.698	62.275	21,540.3	23.37	140.53	65	52	1,069.8
15.00		0.3750	51.682	61.066	20,309.7	22.89	137.82	65	52	1,049.3
20.00		0.3750	50.666	59.857	19,127.0	22.41	135.11	65	52	1,028.7
25.00		0.3750	49.650	58.647	17,991.0	21.94	132.40	65	52	1,008.1
30.00		0.3750	48.634	57.438	16,900.9	21.46	129.69	65	52	987.5
35.00		0.3750	47.618	56.229	15,855.8	20.98	126.98	65	52	967.0
39.00	Bot - Section 2	0.3750	46.805	55.262	15,051.5	20.60	124.81	65	52	758.8
40.00		0.3750	46.602	55.020	14,854.7	20.50	124.27	65	52	378.3
45.00	Top - Section 1	0.3750	46.336	54.703	14,599.8	20.38	123.56	65	52	1,866.8
50.00		0.3750	45.320	53.494	13,652.8	19.90	120.85	65	52	920.4
55.00		0.3750	44.304	52.285	12,747.7	19.42	118.14	65	52	899.9
60.00		0.3750	43.288	51.076	11,883.5	18.94	115.44	65	52	879.3
65.00		0.3750	42.272	49.866	11,059.3	18.47	112.73	65	52	858.7
70.00		0.3750	41.256	48.657	10,274.1	17.99	110.02	65	52	838.1
75.00		0.3750	40.240	47.448	9,527.0	17.51	107.31	65	52	817.6
79.00	Bot - Section 3	0.3750	39.427	46.480	8,956.1	17.13	105.14	65	52	639.2
80.00		0.3750	39.224	46.239	8,817.0	17.03	104.60	65	52	291.5
84.00	Top - Section 2	0.3125	39.036	38.408	7,276.7	20.62	124.92	60	48	1,151.0
85.00		0.3125	38.833	38.206	7,162.7	20.50	124.27	60	48	130.4
90.00		0.3125	37.817	37.199	6,610.8	19.93	121.02	60	48	641.5
95.00		0.3125	36.801	36.191	6,088.0	19.35	117.76	60	48	624.3
100.0		0.3125	35.785	35.183	5,593.5	18.78	114.51	60	48	607.2
105.0		0.3125	34.769	34.176	5,126.5	18.21	111.26	60	48	590.0
110.0		0.3125	33.753	33.168	4,686.2	17.63	108.01	60	48	572.9
115.0		0.3125	32.737	32.160	4,272.0	17.06	104.76	60	48	555.7
118.0		0.3125	32.128	31.556	4,035.5	16.72	102.81	60	48	325.2
120.0		0.3125	31.721	31.153	3,882.9	16.49	101.51	60	48	213.4
123.0	Top - Section 3	0.3125	31.112	30.548	3,661.1	16.14	99.56	60	48	314.9
123.0	Bot - Section 4	0.2188	31.112	21.449	2,586.3	23.67	142.23	60	48	
125.0		0.2188	30.705	21.166	2,485.5	23.34	140.37	60	48	145.0
128.0		0.2188	30.096	20.743	2,339.4	22.85	137.58	60	48	213.9
130.0		0.2188	29.689	20.461	2,245.2	22.52	135.72	60	48	140.2
135.0		0.2188	28.673	19.756	2,020.9	21.70	131.08	60	48	342.1
138.0		0.2188	28.064	19.332	1,893.8	21.21	128.29	60	48	199.5

Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
 Top Dia : 24.00 (in)
 Taper : 0.203196 (in/ft)

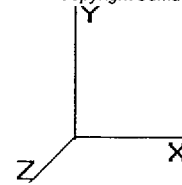
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Base Elev : 0.000 (ft)



Load Case: No Ice

85.00 mph Wind with No Ice

25 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Shaft Segment Forces

Seg Top Elev (ft)	Description	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		0.00	1.00 18.496	31.25 387.67	0.650		0.00	0.00	0.000	0.00	0.0	0.0	0.0
5.00		0.00	1.00 18.496	31.25 380.47	0.650		0.00	5.00	22.592	14.69	459.0	0.0	1,090.4
10.00		0.00	1.00 18.496	31.25 373.27	0.650		0.00	5.00	22.169	14.41	450.4	0.0	1,069.8
15.00		0.00	1.00 18.496	31.25 366.08	0.650		0.00	5.00	21.746	14.13	441.8	0.0	1,049.3
20.00		0.00	1.00 18.496	31.25 358.88	0.650		0.00	5.00	21.322	13.86	433.2	0.0	1,028.7
25.00		0.00	1.00 18.496	31.25 351.68	0.650		0.00	5.00	20.899	13.58	424.6	0.0	1,008.1
30.00		0.00	1.00 18.496	31.25 344.49	0.650		0.00	5.00	20.476	13.31	416.0	0.0	987.5
35.00		0.00	1.01 18.810	31.78 340.14	0.650		0.00	5.00	20.053	13.03	414.3	0.0	967.0
39.00	Bot - Section 2	0.00	1.04 19.400	32.78 339.54	0.650		0.00	4.00	15.737	10.23	335.4	0.0	758.8
40.00		0.00	1.05 19.541	33.02 339.29	0.650		0.00	1.00	3.954	2.57	84.9	0.0	378.3
45.00	Top - Section 1	0.00	1.09 20.210	34.15 337.53	0.650		0.00	5.00	19.518	12.69	433.3	0.0	1,866.8
50.00		0.00	1.12 20.827	35.19 340.65	0.650		0.00	5.00	19.095	12.41	436.9	0.0	920.4
55.00		0.00	1.15 21.402	36.17 337.57	0.650		0.00	5.00	18.672	12.14	439.0	0.0	899.9
60.00		0.00	1.18 21.941	37.08 333.96	0.650		0.00	5.00	18.248	11.86	439.8	0.0	879.3
65.00		0.00	1.21 22.449	37.93 329.87	0.650		0.00	5.00	17.825	11.59	439.6	0.0	858.7
70.00		0.00	1.24 22.929	38.75 325.37	0.650		0.00	5.00	17.402	11.31	438.3	0.0	838.1
75.00	Appertunance(s)	0.00	1.26 23.386	39.52 320.50	0.650		0.00	5.00	16.978	11.04	436.2	0.0	817.6
79.00	Bot - Section 3	0.00	1.28 23.735	40.11 316.37	0.650		0.00	4.00	13.278	8.63	346.2	0.0	639.2
80.00		0.00	1.28 23.821	40.25 315.30	0.650		0.00	1.00	3.329	2.16	87.1	0.0	291.5
84.00	Top - Section 2	0.00	1.30 24.155	40.82 310.93	0.650		0.00	4.00	13.148	8.55	348.9	0.0	1,151.0
85.00		0.00	1.31 24.237	40.96 314.87	0.650		0.00	1.00	3.245	2.11	86.4	0.0	130.4
90.00		0.00	1.33 24.636	41.63 309.15	0.650		0.00	5.00	15.969	10.38	432.2	0.0	641.5
95.00		0.00	1.35 25.020	42.28 303.18	0.650		0.00	5.00	15.546	10.10	427.3	0.0	624.3
100.0		0.00	1.37 25.389	42.90 296.97	0.650		0.00	5.00	15.122	9.83	421.8	0.0	607.2
105.0		0.00	1.39 25.745	43.51 290.56	0.650		0.00	5.00	14.699	9.55	415.7	0.0	590.0
110.0		0.00	1.41 26.090	44.09 283.95	0.650		0.00	5.00	14.276	9.28	409.1	0.0	572.9
115.0		0.00	1.42 26.423	44.65 277.16	0.650		0.00	5.00	13.852	9.00	402.1	0.0	555.7
118.0	Appertunance(s)	0.00	1.43 26.618	44.98 273.00	0.650		0.00	3.00	8.108	5.27	237.1	0.0	325.2
120.0		0.00	1.44 26.747	45.20 270.20	0.650		0.00	2.00	5.321	3.46	156.3	0.0	213.4
123.0	Top - Section 3	0.00	1.45 26.936	45.52 265.94	0.650		0.00	3.00	7.854	5.11	232.4	0.0	314.9
125.0		0.00	1.46 27.060	45.73 263.07	0.650		0.00	2.00	5.151	3.35	153.1	0.0	145.0
128.0	Appertunance(s)	0.00	1.47 27.244	46.04 258.72	0.650		0.00	3.00	7.600	4.94	227.5	0.0	213.9
130.0		0.00	1.48 27.365	46.24 255.80	0.650		0.00	2.00	4.982	3.24	149.8	0.0	140.2
135.0		0.00	1.49 27.662	46.74 248.38	0.650		0.00	5.00	12.159	7.90	369.5	0.0	342.1
138.0	Appertunance(s)	0.00	1.50 27.836	47.04 243.86	0.650		0.00	3.00	7.092	4.61	216.9	0.0	199.5
140.0		0.00	1.51 27.951	47.23 240.82	0.650		0.00	2.00	4.643	3.02	142.6	0.0	130.6
145.0		0.00	1.52 28.233	47.71 233.14	0.650		0.00	5.00	11.312	7.35	350.8	0.0	318.1
148.0	Appertunance(s)	0.00	1.53 28.398	47.99 228.48	0.650		0.00	3.00	6.584	4.28	205.4	0.0	185.1
150.0		0.00	1.54 28.507	48.17 225.34	0.650		0.00	2.00	4.305	2.80	134.8	0.0	121.0
155.0		0.00	1.55 28.776	48.63 217.42	0.650		0.00	5.00	10.466	6.80	330.8	0.0	294.1
158.0	Appertunance(s)	0.00	1.56 28.934	48.89 212.62	0.650		0.00	3.00	6.076	3.95	193.1	0.0	170.7
Totals:								158.00			12,999.5	0.0	24,336.3

Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
 Top Dia : 24.00 (in)
 Taper : 0.203196 (in/ft)

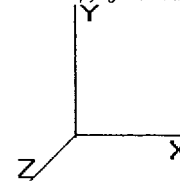
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Base Elev : 0.000 (ft)



Load Case: No Ice	85.00 mph Wind with No Ice	25 Iterations
Gust Response Factor : 1.69		
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

Discrete Appurtenance Segment Forces

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
75.00	GPS antenna	1	23.386	39.522	1.00	2.00	0.000	0.000	79.04	0.00	0.00	50.00
118.0	21901 diplexer	6	26.618	44.985	0.84	1.36	0.000	0.000	61.22	0.00	0.00	6.00
118.0	21401 TMA	6	26.618	44.985	0.67	3.82	0.000	0.000	171.80	0.00	0.00	105.00
118.0	Low Profile Platform	1	26.618	44.985	1.00	25.55	0.000	0.000	1,149.37	0.00	0.00	1,600.00
118.0	Powerwave 7770	6	26.618	44.985	0.73	25.76	0.000	0.000	1,158.96	0.00	0.00	210.00
128.0	ADC TMAs	6	27.244	46.043	0.76	7.02	0.000	0.000	323.34	0.00	0.00	120.00
128.0	LPA 185063/8CF	6	27.244	46.043	0.95	16.93	0.000	0.000	779.46	0.00	0.00	54.00
128.0	DB846F65ZAXY	6	27.244	46.043	0.93	39.24	0.000	0.000	1,806.92	0.00	0.00	126.00
128.0	Low Profile Platform	1	27.244	46.043	1.00	25.55	0.000	0.000	1,176.40	0.00	0.00	1,600.00
138.0	Low Profile Platform	1	27.836	47.043	1.00	25.55	0.000	0.000	1,201.96	0.00	0.00	1,600.00
138.0	RR90-17-02DP	12	27.836	47.043	0.67	35.02	0.000	0.000	1,647.56	0.00	0.00	186.00
148.0	Low Profile Platform	1	28.398	47.993	1.00	25.55	0.000	0.000	1,226.22	0.00	0.00	1,600.00
148.0	DB844H90	12	28.398	47.993	0.91	40.76	0.000	0.000	1,956.41	0.00	0.00	168.00
158.0	Low Profile Platform	1	28.934	48.898	1.00	25.55	0.000	0.000	1,249.34	0.00	0.00	1,600.00
158.0	DB980	12	28.934	48.898	0.73	28.73	0.000	0.000	1,404.98	0.00	0.00	108.00
									15,392.97			9,133.00

Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
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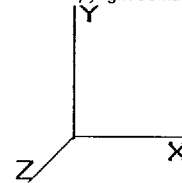
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Base Elev : 0.000 (ft)



Load Case: No Ice	85.00 mph Wind with No Ice	25 Iterations
Gust Response Factor : 1.69		
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

Linear Appurtenance Segment Forces

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Weight (lb/ft)	CaAa (sf/ft)	qz (psf)	F X (lb)	Dead Load (lb)
5.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	18.496	62.52	60.00
10.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	18.496	62.52	60.00
15.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	18.496	62.52	60.00
20.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	18.496	62.52	60.00
25.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	18.496	62.52	60.00
30.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	18.496	62.52	60.00
35.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	18.810	63.58	60.00
39.00	(12) 1 5/8" Coax	Yes	4.00	12.00	0.40	19.400	52.46	48.00
40.00	(12) 1 5/8" Coax	Yes	1.00	12.00	0.40	19.541	13.21	12.00
45.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	20.210	68.31	60.00
50.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	20.827	70.40	60.00
55.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	21.402	72.34	60.00
60.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	21.941	74.16	60.00
65.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	22.449	75.88	60.00
70.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	22.929	77.50	60.00
75.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	23.386	79.04	60.00
79.00	(12) 1 5/8" Coax	Yes	4.00	12.00	0.40	23.735	64.18	48.00
80.00	(12) 1 5/8" Coax	Yes	1.00	12.00	0.40	23.821	16.10	12.00
84.00	(12) 1 5/8" Coax	Yes	4.00	12.00	0.40	24.155	65.32	48.00
85.00	(12) 1 5/8" Coax	Yes	1.00	12.00	0.40	24.237	16.38	12.00
90.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	24.636	83.27	60.00
95.00	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	25.020	84.57	60.00
100.0	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	25.389	85.81	60.00
105.0	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	25.745	87.02	60.00
110.0	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	26.090	88.18	60.00
115.0	(12) 1 5/8" Coax	Yes	5.00	12.00	0.40	26.423	89.31	60.00
118.0	(12) 1 5/8" Coax	Yes	3.00	12.00	0.40	26.618	53.98	36.00
120.0	(12) 1 5/8" Coax	Yes	2.00	12.00	0.40	26.747	36.16	24.00
123.0	(12) 1 5/8" Coax	Yes	3.00	12.00	0.40	26.936	54.63	36.00
125.0	(12) 1 5/8" Coax	Yes	2.00	12.00	0.40	27.060	36.59	24.00
128.0	(12) 1 5/8" Coax	Yes	3.00	12.00	0.40	27.244	55.25	36.00
Totals:							1,938.73	1,536.00

Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
 Top Dia : 24.00 (in)
 Taper : 0.203196 (in/ft)

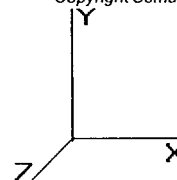
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Base Elev : 0.000 (ft)

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Load Case: No Ice

85.00 mph Wind with No Ice

25 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	521.55	1,366.20	0.00	0.00
10.00	512.95	1,345.63	0.00	0.00
15.00	504.34	1,325.05	0.00	0.00
20.00	495.74	1,304.48	0.00	0.00
25.00	487.14	1,283.91	0.00	0.00
30.00	478.54	1,263.33	0.00	0.00
35.00	477.91	1,242.76	0.00	0.00
39.00	387.84	979.40	0.00	0.00
40.00	98.10	433.46	0.00	0.00
45.00	501.63	2,142.61	0.00	0.00
50.00	507.27	1,196.23	0.00	0.00
55.00	511.32	1,175.65	0.00	0.00
60.00	513.99	1,155.08	0.00	0.00
65.00	515.44	1,134.51	0.00	0.00
70.00	515.81	1,113.93	0.00	0.00
75.00	594.25	1,143.36	0.00	0.00
79.00	410.38	859.23	0.00	0.00
80.00	103.22	346.53	0.00	0.00
84.00	414.18	1,371.04	0.00	0.00
85.00	102.77	185.35	0.00	0.00
90.00	515.43	916.47	0.00	0.00
95.00	511.82	899.32	0.00	0.00
100.0	507.57	882.18	0.00	0.00
105.0	502.72	865.03	0.00	0.00
110.0	497.32	847.89	0.00	0.00
115.0	491.39	830.74	0.00	0.00
118.0	2,832.41	2,411.22	0.00	0.00
120.0	192.49	307.38	0.00	0.00
123.0	287.02	455.93	0.00	0.00
125.0	189.72	239.01	0.00	0.00
128.0	4,368.82	2,254.91	0.00	0.00
130.0	149.77	210.21	0.00	0.00
135.0	369.47	517.12	0.00	0.00
138.0	3,066.38	2,090.51	0.00	0.00
140.0	142.57	184.61	0.00	0.00
145.0	350.83	453.12	0.00	0.00
148.0	3,388.02	2,034.11	0.00	0.00
150.0	134.81	145.01	0.00	0.00
155.0	330.82	354.12	0.00	0.00
158.0	2,847.44	1,914.71	0.00	0.00
Totals:	30,331.19	41,181.34	0.00	0.00

Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
 Top Dia : 24.00 (in)
 Taper : 0.203196 (in/ft)

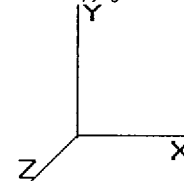
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Base Elev : 0.000 (ft)



Load Case: No Ice

85.00 mph Wind with No Ice

25 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

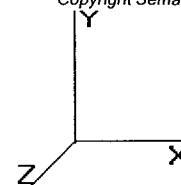
Calculated Shaft Forces and Deflections

Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-30.403	-41.128	0.000	0.000	0.000	-3,386.005	0.000	0.000	0.000	0.000
5.00	-30.014	-39.661	0.000	0.000	0.000	-3,233.996	-0.105	0.000	0.105	-0.195
10.00	-29.627	-38.215	0.000	0.000	0.000	-3,083.927	-0.415	0.000	0.415	-0.392
15.00	-29.239	-36.793	0.000	0.000	0.000	-2,935.797	-0.932	0.000	0.932	-0.591
20.00	-28.852	-35.394	0.000	0.000	0.000	-2,789.603	-1.659	0.000	1.659	-0.791
25.00	-28.466	-34.017	0.000	0.000	0.000	-2,645.343	-2.596	0.000	2.596	-0.993
30.00	-28.080	-32.663	0.000	0.000	0.000	-2,503.017	-3.745	0.000	3.745	-1.197
35.00	-27.675	-31.342	0.000	0.000	0.000	-2,362.620	-5.109	0.000	5.109	-1.402
39.00	-27.317	-30.324	0.000	0.000	0.000	-2,251.922	-6.354	0.000	6.354	-1.567
40.00	-27.272	-29.834	0.000	0.000	0.000	-2,224.606	-6.687	0.000	6.687	-1.609
45.00	-26.806	-27.611	0.000	0.000	0.000	-2,088.248	-8.484	0.000	8.484	-1.816
50.00	-26.352	-26.340	0.000	0.000	0.000	-1,954.219	-10.497	0.000	10.497	-2.023
55.00	-25.884	-25.095	0.000	0.000	0.000	-1,822.460	-12.721	0.000	12.721	-2.220
60.00	-25.405	-23.875	0.000	0.000	0.000	-1,693.043	-15.151	0.000	15.151	-2.416
65.00	-24.917	-22.680	0.000	0.000	0.000	-1,566.020	-17.785	0.000	17.785	-2.611
70.00	-24.422	-21.510	0.000	0.000	0.000	-1,441.435	-20.623	0.000	20.623	-2.804
75.00	-23.831	-20.327	0.000	0.000	0.000	-1,319.327	-23.662	0.000	23.662	-2.995
79.00	-23.408	-19.452	0.000	0.000	0.000	-1,224.003	-26.236	0.000	26.236	-3.147
80.00	-23.317	-19.074	0.000	0.000	0.000	-1,200.596	-26.899	0.000	26.899	-3.186
84.00	-22.854	-17.692	0.000	0.000	0.000	-1,107.330	-29.631	0.000	29.631	-3.335
85.00	-22.778	-17.464	0.000	0.000	0.000	-1,084.476	-30.334	0.000	30.334	-3.372
90.00	-22.266	-16.502	0.000	0.000	0.000	-970.588	-33.974	0.000	33.974	-3.576
95.00	-21.750	-15.565	0.000	0.000	0.000	-859.261	-37.825	0.000	37.825	-3.773
100.0	-21.231	-14.651	0.000	0.000	0.000	-750.514	-41.876	0.000	41.876	-3.961
105.0	-20.709	-13.762	0.000	0.000	0.000	-644.362	-46.119	0.000	46.119	-4.139
110.0	-20.186	-12.898	0.000	0.000	0.000	-540.817	-50.540	0.000	50.540	-4.303
115.0	-19.657	-12.068	0.000	0.000	0.000	-439.887	-55.125	0.000	55.125	-4.452
118.0	-16.655	-9.867	0.000	0.000	0.000	-380.918	-57.947	0.000	57.947	-4.534
120.0	-16.449	-9.558	0.000	0.000	0.000	-347.607	-59.856	0.000	59.856	-4.585
123.0	-16.136	-9.111	0.000	0.000	0.000	-298.259	-62.758	0.000	62.758	-4.656
125.0	-15.937	-8.870	0.000	0.000	0.000	-265.988	-64.717	0.000	64.717	-4.700
128.0	-11.405	-6.972	0.000	0.000	0.000	-218.177	-67.695	0.000	67.695	-4.783
130.0	-11.247	-6.759	0.000	0.000	0.000	-195.368	-69.708	0.000	69.708	-4.834
135.0	-10.844	-6.261	0.000	0.000	0.000	-139.132	-74.825	0.000	74.825	-4.940
138.0	-7.611	-4.438	0.000	0.000	0.000	-106.601	-77.943	0.000	77.943	-4.992
140.0	-7.456	-4.261	0.000	0.000	0.000	-91.380	-80.038	0.000	80.038	-5.021
145.0	-7.069	-3.836	0.000	0.000	0.000	-54.099	-85.324	0.000	85.324	-5.078
148.0	-3.515	-2.109	0.000	0.000	0.000	-32.892	-88.519	0.000	88.519	-5.101
150.0	-3.368	-1.976	0.000	0.000	0.000	-25.862	-90.656	0.000	90.656	-5.112
155.0	-3.007	-1.652	0.000	0.000	0.000	-9.022	-96.014	0.000	96.014	-5.130
158.0	-2.847	0.000	0.000	0.000	0.000	0.000	-99.234	0.000	99.234	-5.133

Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
 Top Dia : 24.00 (in)
 Taper : 0.203196 (in/ft)

Code: TIA/EIA-222 Rev F

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Base Elev : 0.000 (ft)

Load Case: No Ice	85.00 mph Wind with No Ice	25 Iterations
Gust Response Factor : 1.69 Dead Load Factor : 1.00 Wind Load Factor : 1.00		

Calculated Stresses

Seg Elev (ft)	Applied Stresses							Allowable Stress (Fb) (ksi)	Stress Ratio	
	Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)			
0.00	0.64	0.95	0.00	0.00	0.00	46.75	47.42	52.0	0.0	0.912
5.00	0.62	0.95	0.00	0.00	0.00	46.38	47.03	52.0	0.0	0.905
10.00	0.61	0.96	0.00	0.00	0.00	45.97	46.61	52.0	0.0	0.897
15.00	0.60	0.97	0.00	0.00	0.00	45.52	46.15	52.0	0.0	0.888
20.00	0.59	0.97	0.00	0.00	0.00	45.02	45.64	52.0	0.0	0.878
25.00	0.58	0.98	0.00	0.00	0.00	44.48	45.09	52.0	0.0	0.868
30.00	0.57	0.99	0.00	0.00	0.00	43.88	44.48	52.0	0.0	0.856
35.00	0.56	0.99	0.00	0.00	0.00	43.23	43.82	52.0	0.0	0.843
39.00	0.55	1.00	0.00	0.00	0.00	42.66	43.25	52.0	0.0	0.832
40.00	0.54	1.00	0.00	0.00	0.00	42.52	43.10	52.0	0.0	0.829
45.00	0.50	0.99	0.00	0.00	0.00	40.38	40.92	52.0	0.0	0.787
50.00	0.49	0.99	0.00	0.00	0.00	39.52	40.05	52.0	0.0	0.771
55.00	0.48	1.00	0.00	0.00	0.00	38.59	39.11	52.0	0.0	0.752
60.00	0.47	1.00	0.00	0.00	0.00	37.57	38.08	52.0	0.0	0.733
65.00	0.45	1.01	0.00	0.00	0.00	36.47	36.96	52.0	0.0	0.711
70.00	0.44	1.01	0.00	0.00	0.00	35.26	35.75	52.0	0.0	0.688
75.00	0.43	1.01	0.00	0.00	0.00	33.95	34.42	52.0	0.0	0.662
79.00	0.42	1.01	0.00	0.00	0.00	32.83	33.29	52.0	0.0	0.641
80.00	0.41	1.02	0.00	0.00	0.00	32.54	33.00	52.0	0.0	0.635
84.00	0.46	1.20	0.00	0.00	0.00	36.19	36.71	48.0	0.0	0.765
85.00	0.46	1.20	0.00	0.00	0.00	35.82	36.34	48.0	0.0	0.757
90.00	0.44	1.21	0.00	0.00	0.00	33.83	34.33	48.0	0.0	0.716
95.00	0.43	1.21	0.00	0.00	0.00	31.65	32.14	48.0	0.0	0.670
100.00	0.42	1.22	0.00	0.00	0.00	29.25	29.74	48.0	0.0	0.620
105.00	0.40	1.22	0.00	0.00	0.00	26.63	27.11	48.0	0.0	0.565
110.00	0.39	1.23	0.00	0.00	0.00	23.73	24.21	48.0	0.0	0.505
115.00	0.38	1.23	0.00	0.00	0.00	20.54	21.02	48.0	0.0	0.438
118.00	0.31	1.06	0.00	0.00	0.00	18.48	18.88	48.0	0.0	0.393
120.00	0.31	1.06	0.00	0.00	0.00	17.30	17.70	48.0	0.0	0.369
123.00	0.30	1.06	0.00	0.00	0.00	15.44	15.85	48.0	0.0	0.330
123.00	0.42	1.52	0.00	0.00	0.00	21.86	22.44	48.0	0.0	0.468
125.00	0.42	1.52	0.00	0.00	0.00	20.02	20.61	48.0	0.0	0.430
128.00	0.34	1.11	0.00	0.00	0.00	17.10	17.54	48.0	0.0	0.366
130.00	0.33	1.11	0.00	0.00	0.00	15.74	16.18	48.0	0.0	0.337
135.00	0.32	1.11	0.00	0.00	0.00	12.03	12.49	48.0	0.0	0.260
138.00	0.23	0.79	0.00	0.00	0.00	9.62	9.95	48.0	0.0	0.207
140.00	0.22	0.79	0.00	0.00	0.00	8.50	8.83	48.0	0.0	0.184
145.00	0.21	0.78	0.00	0.00	0.00	5.43	5.79	48.0	0.0	0.121
148.00	0.12	0.40	0.00	0.00	0.00	3.46	3.64	48.0	0.0	0.076
150.00	0.11	0.38	0.00	0.00	0.00	2.81	2.99	48.0	0.0	0.062
155.00	0.10	0.36	0.00	0.00	0.00	1.06	1.32	48.0	0.0	0.027
158.00	0.00	0.35	0.00	0.00	0.00	0.00	0.60	48.0	0.0	0.013

Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
 Top Dia : 24.00 (in)
 Taper : 0.203196 (in/ft)

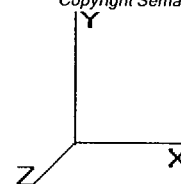
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Base Elev : 0.000 (ft)



Load Case: Ice

73.61 mph Wind with Ice

25 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

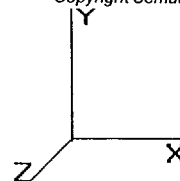
Shaft Segment Forces

Seg Top Elev (ft)	Description	Kz	az (psf)	azGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		0.00	1.00 13.871	23.44 335.72	0.650		0.50	0.00	0.000	0.00	0.0	0.0	0.0
5.00		0.00	1.00 13.871	23.44 329.49	0.650		0.50	5.00	23.009	14.96	350.6	167.3	1,257.7
10.00		0.00	1.00 13.871	23.44 323.25	0.650		0.50	5.00	22.586	14.68	344.2	164.2	1,234.0
15.00		0.00	1.00 13.871	23.44 317.02	0.650		0.50	5.00	22.162	14.41	337.7	161.0	1,210.3
20.00		0.00	1.00 13.871	23.44 310.79	0.650		0.50	5.00	21.739	14.13	331.2	157.9	1,186.6
25.00		0.00	1.00 13.871	23.44 304.56	0.650		0.50	5.00	21.316	13.86	324.8	154.7	1,162.9
30.00		0.00	1.00 13.871	23.44 298.32	0.650		0.50	5.00	20.893	13.58	318.3	151.6	1,139.1
35.00		0.00	1.01 14.106	23.84 294.56	0.650		0.50	5.00	20.469	13.30	317.2	148.5	1,115.4
39.00	Bot - Section 2	0.00	1.04 14.549	24.58 294.04	0.650		0.50	4.00	16.071	10.45	256.8	116.8	875.5
40.00		0.00	1.05 14.655	24.76 293.82	0.650		0.50	1.00	4.038	2.62	65.0	29.5	407.8
45.00	Top - Section 1	0.00	1.09 15.156	25.61 292.30	0.650		0.50	5.00	19.935	12.96	331.9	144.5	2,011.3
50.00		0.00	1.12 15.620	26.39 295.00	0.650		0.50	5.00	19.512	12.68	334.8	141.4	1,061.8
55.00		0.00	1.15 16.051	27.12 292.34	0.650		0.50	5.00	19.088	12.41	336.6	138.3	1,038.1
60.00		0.00	1.18 16.455	27.80 289.21	0.650		0.50	5.00	18.665	12.13	337.4	135.1	1,014.4
65.00		0.00	1.21 16.836	28.45 285.67	0.650		0.50	5.00	18.242	11.86	337.4	132.0	990.7
70.00		0.00	1.24 17.196	29.06 281.77	0.650		0.50	5.00	17.818	11.58	336.6	128.8	967.0
75.00	Appertunance(s)	0.00	1.26 17.538	29.63 277.55	0.650		0.50	5.00	17.395	11.31	335.1	125.7	943.3
79.00	Bot - Section 3	0.00	1.28 17.800	30.08 273.97	0.650		0.50	4.00	13.611	8.85	266.2	98.6	737.8
80.00		0.00	1.28 17.865	30.19 273.05	0.650		0.50	1.00	3.413	2.22	67.0	24.9	316.4
84.00	Top - Section 2	0.00	1.30 18.115	30.61 269.26	0.650		0.50	4.00	13.481	8.76	268.3	97.6	1,248.6
85.00		0.00	1.31 18.177	30.71 272.68	0.650		0.50	1.00	3.328	2.16	66.4	24.3	154.6
90.00		0.00	1.33 18.476	31.22 267.72	0.650		0.50	5.00	16.386	10.65	332.6	118.2	759.7
95.00		0.00	1.35 18.764	31.71 262.55	0.650		0.50	5.00	15.962	10.38	329.0	115.1	739.4
100.0		0.00	1.37 19.041	32.17 257.18	0.650		0.50	5.00	15.539	10.10	325.0	112.0	719.1
105.0		0.00	1.39 19.308	32.63 251.63	0.650		0.50	5.00	15.116	9.83	320.6	108.8	698.9
110.0		0.00	1.41 19.566	33.06 245.90	0.650		0.50	5.00	14.692	9.55	315.8	105.7	678.6
115.0		0.00	1.42 19.816	33.49 240.02	0.650		0.50	5.00	14.269	9.27	310.6	102.6	658.3
118.0	Appertunance(s)	0.00	1.43 19.963	33.73 236.42	0.650		0.50	3.00	8.358	5.43	183.3	60.4	385.6
120.0		0.00	1.44 20.059	33.89 233.99	0.650		0.50	2.00	5.487	3.57	120.9	39.8	253.2
123.0	Top - Section 3	0.00	1.45 20.201	34.13 230.30	0.650		0.50	3.00	8.104	5.27	179.8	58.5	373.5
125.0		0.00	1.46 20.294	34.29 227.82	0.650		0.50	2.00	5.318	3.46	118.6	38.5	183.5
128.0	Appertunance(s)	0.00	1.47 20.432	34.53 224.05	0.650		0.50	3.00	7.850	5.10	176.2	56.6	270.6
130.0		0.00	1.48 20.523	34.68 221.52	0.650		0.50	2.00	5.149	3.35	116.1	37.3	177.5
135.0		0.00	1.49 20.745	35.05 215.09	0.650		0.50	5.00	12.576	8.17	286.6	90.0	432.1
138.0	Appertunance(s)	0.00	1.50 20.876	35.28 211.18	0.650		0.50	3.00	7.342	4.77	168.4	52.9	252.4
140.0		0.00	1.51 20.962	35.42 208.55	0.650		0.50	2.00	4.810	3.13	110.8	34.8	165.4
145.0		0.00	1.52 21.173	35.78 201.90	0.650		0.50	5.00	11.729	7.62	272.8	83.8	401.9
148.0	Appertunance(s)	0.00	1.53 21.297	35.99 197.86	0.650		0.50	3.00	6.834	4.44	159.9	49.1	234.2
150.0		0.00	1.54 21.379	36.13 195.14	0.650		0.50	2.00	4.471	2.91	105.0	32.2	153.3
155.0		0.00	1.55 21.580	36.47 188.29	0.650		0.50	5.00	10.882	7.07	258.0	77.5	371.6
158.0	Appertunance(s)	0.00	1.56 21.699	36.67 184.13	0.650		0.50	3.00	6.326	4.11	150.8	45.4	216.1
Totals:								158.00			10,004.0	3,861.8	28,198.2

Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
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Base Elev : 0.000 (ft)

Load Case: Ice	73.61 mph Wind with Ice	25 Iterations
Gust Response Factor : 1.69		
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

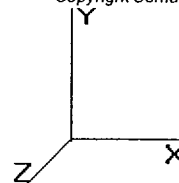
Discrete Appurtenance Segment Forces

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
75.00	GPS antenna	1	17.538	29.639	1.00	3.00	0.000	0.000	88.92	0.00	0.00	100.00
118.0	21901 diplexer	6	19.963	33.737	0.84	1.93	0.000	0.000	65.12	0.00	0.00	20.40
118.0	21401 TMA	6	19.963	33.737	0.67	4.70	0.000	0.000	158.68	0.00	0.00	139.80
118.0	Low Profile Platform	1	19.963	33.737	1.00	27.32	0.000	0.000	921.69	0.00	0.00	2,100.00
118.0	Powerwave 7770	6	19.963	33.737	0.73	28.61	0.000	0.000	965.36	0.00	0.00	405.78
128.0	ADC TMAs	6	20.432	34.530	0.76	8.19	0.000	0.000	282.85	0.00	0.00	186.06
128.0	LPA 185063/8CF	6	20.432	34.530	0.95	19.84	0.000	0.000	684.94	0.00	0.00	185.58
128.0	DB846F65ZAXY	6	20.432	34.530	0.93	43.56	0.000	0.000	1,504.24	0.00	0.00	420.00
128.0	Low Profile Platform	1	20.432	34.530	1.00	27.32	0.000	0.000	943.36	0.00	0.00	2,100.00
138.0	Low Profile Platform	1	20.876	35.280	1.00	27.32	0.000	0.000	963.86	0.00	0.00	2,100.00
138.0	RR90-17-02DP	12	20.876	35.280	0.67	40.10	0.000	0.000	1,414.86	0.00	0.00	455.04
148.0	Low Profile Platform	1	21.297	35.993	1.00	27.32	0.000	0.000	983.32	0.00	0.00	2,100.00
148.0	DB844H90	12	21.297	35.993	0.91	49.36	0.000	0.000	1,776.54	0.00	0.00	483.60
158.0	Low Profile Platform	1	21.699	36.671	1.00	27.32	0.000	0.000	1,001.86	0.00	0.00	2,100.00
158.0	DB980	12	21.699	36.671	0.73	33.73	0.000	0.000	1,236.77	0.00	0.00	336.00
									12,992.37			13,232.26

Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
 Top Dia : 24.00 (in)
 Taper : 0.203196 (in/ft)

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Base Elev : 0.000 (ft)

Load Case: Ice

73.61 mph Wind with Ice

25 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Linear Appurtenance Segment Forces

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Weight (lb/ft)	CaAa (sf/ft)	qz (psf)	F X (lb)	Dead Load (lb)
5.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	13.871	70.33	150.00
10.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	13.871	70.33	150.00
15.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	13.871	70.33	150.00
20.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	13.871	70.33	150.00
25.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	13.871	70.33	150.00
30.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	13.871	70.33	150.00
35.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	14.106	71.52	150.00
39.00	(12) 1 5/8" Coax	Yes	4.00	30.00	0.60	14.549	59.01	120.00
40.00	(12) 1 5/8" Coax	Yes	1.00	30.00	0.60	14.655	14.86	30.00
45.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	15.156	76.84	150.00
50.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	15.620	79.19	150.00
55.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	16.051	81.38	150.00
60.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	16.455	83.43	150.00
65.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	16.836	85.36	150.00
70.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	17.196	87.18	150.00
75.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	17.538	88.92	150.00
79.00	(12) 1 5/8" Coax	Yes	4.00	30.00	0.60	17.800	72.20	120.00
80.00	(12) 1 5/8" Coax	Yes	1.00	30.00	0.60	17.865	18.11	30.00
84.00	(12) 1 5/8" Coax	Yes	4.00	30.00	0.60	18.115	73.48	120.00
85.00	(12) 1 5/8" Coax	Yes	1.00	30.00	0.60	18.177	18.43	30.00
90.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	18.476	93.67	150.00
95.00	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	18.764	95.13	150.00
100.0	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	19.041	96.54	150.00
105.0	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	19.308	97.89	150.00
110.0	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	19.566	99.20	150.00
115.0	(12) 1 5/8" Coax	Yes	5.00	30.00	0.60	19.816	100.47	150.00
118.0	(12) 1 5/8" Coax	Yes	3.00	30.00	0.60	19.963	60.73	90.00
120.0	(12) 1 5/8" Coax	Yes	2.00	30.00	0.60	20.059	40.68	60.00
123.0	(12) 1 5/8" Coax	Yes	3.00	30.00	0.60	20.201	61.45	90.00
125.0	(12) 1 5/8" Coax	Yes	2.00	30.00	0.60	20.294	41.16	60.00
128.0	(12) 1 5/8" Coax	Yes	3.00	30.00	0.60	20.432	62.15	90.00
Totals:							2,180.93	3,840.00

Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
 Top Dia : 24.00 (in)
 Taper : 0.203196 (in/ft)

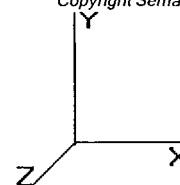
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Base Elev : 0.000 (ft)



Load Case: Ice

73.61 mph Wind with Ice

25 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	420.93	1,623.49	0.00	0.00
10.00	414.48	1,599.78	0.00	0.00
15.00	408.03	1,576.07	0.00	0.00
20.00	401.58	1,552.37	0.00	0.00
25.00	395.13	1,528.66	0.00	0.00
30.00	388.68	1,504.95	0.00	0.00
35.00	388.71	1,481.24	0.00	0.00
39.00	315.86	1,168.17	0.00	0.00
40.00	79.86	480.99	0.00	0.00
45.00	408.75	2,377.14	0.00	0.00
50.00	413.98	1,427.61	0.00	0.00
55.00	417.94	1,403.91	0.00	0.00
60.00	420.81	1,380.20	0.00	0.00
65.00	422.72	1,356.49	0.00	0.00
70.00	423.76	1,332.78	0.00	0.00
75.00	512.96	1,409.07	0.00	0.00
79.00	338.35	1,029.80	0.00	0.00
80.00	85.08	389.43	0.00	0.00
84.00	341.74	1,540.63	0.00	0.00
85.00	84.88	227.62	0.00	0.00
90.00	426.23	1,124.70	0.00	0.00
95.00	424.14	1,104.42	0.00	0.00
100.0	421.55	1,084.14	0.00	0.00
105.0	418.49	1,063.86	0.00	0.00
110.0	414.99	1,043.58	0.00	0.00
115.0	411.08	1,023.30	0.00	0.00
118.0	2,354.87	3,270.60	0.00	0.00
120.0	161.59	383.15	0.00	0.00
123.0	241.29	568.46	0.00	0.00
125.0	159.71	313.53	0.00	0.00
128.0	3,653.74	3,357.20	0.00	0.00
130.0	116.07	247.47	0.00	0.00
135.0	286.58	607.14	0.00	0.00
138.0	2,547.09	2,912.44	0.00	0.00
140.0	110.76	219.36	0.00	0.00
145.0	272.80	536.87	0.00	0.00
148.0	2,919.74	2,898.83	0.00	0.00
150.0	105.01	177.25	0.00	0.00
155.0	257.98	431.60	0.00	0.00
158.0	2,389.43	2,688.07	0.00	0.00
Totals:	25,177.33	51,446.40	0.00	0.00

Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
 Top Dia : 24.00 (in)
 Taper : 0.203196 (in/ft)

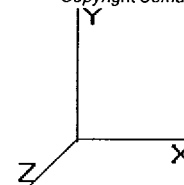
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Base Elev : 0.000 (ft)



Load Case: Ice

73.61 mph Wind with Ice

25 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Calculated Shaft Forces and Deflections

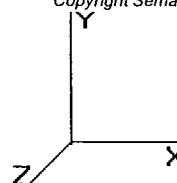
Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-25.253	-51.409	0.000	0.000	0.000	-2,860.020	0.000	0.000	0.000	0.000
5.00	-24.973	-49.714	0.000	0.000	0.000	-2,733.760	-0.089	0.000	0.089	-0.165
10.00	-24.692	-48.044	0.000	0.000	0.000	-2,608.897	-0.351	0.000	0.351	-0.331
15.00	-24.410	-46.399	0.000	0.000	0.000	-2,485.439	-0.788	0.000	0.788	-0.499
20.00	-24.126	-44.780	0.000	0.000	0.000	-2,363.393	-1.402	0.000	1.402	-0.669
25.00	-23.840	-43.185	0.000	0.000	0.000	-2,242.767	-2.195	0.000	2.195	-0.841
30.00	-23.553	-41.616	0.000	0.000	0.000	-2,123.569	-3.168	0.000	3.168	-1.013
35.00	-23.246	-40.079	0.000	0.000	0.000	-2,005.806	-4.323	0.000	4.323	-1.187
39.00	-22.964	-38.882	0.000	0.000	0.000	-1,912.825	-5.378	0.000	5.378	-1.328
40.00	-22.944	-38.361	0.000	0.000	0.000	-1,889.862	-5.660	0.000	5.660	-1.364
45.00	-22.586	-35.926	0.000	0.000	0.000	-1,775.143	-7.182	0.000	7.182	-1.539
50.00	-22.235	-34.444	0.000	0.000	0.000	-1,662.218	-8.888	0.000	8.888	-1.715
55.00	-21.869	-32.990	0.000	0.000	0.000	-1,551.047	-10.774	0.000	10.774	-1.882
60.00	-21.493	-31.563	0.000	0.000	0.000	-1,441.704	-12.835	0.000	12.835	-2.049
65.00	-21.107	-30.162	0.000	0.000	0.000	-1,334.242	-15.071	0.000	15.071	-2.215
70.00	-20.713	-28.788	0.000	0.000	0.000	-1,228.707	-17.479	0.000	17.479	-2.380
75.00	-20.209	-27.351	0.000	0.000	0.000	-1,125.145	-20.060	0.000	20.060	-2.543
79.00	-19.862	-26.310	0.000	0.000	0.000	-1,044.309	-22.246	0.000	22.246	-2.673
80.00	-19.795	-25.897	0.000	0.000	0.000	-1,024.448	-22.809	0.000	22.809	-2.706
84.00	-19.413	-24.348	0.000	0.000	0.000	-945.270	-25.130	0.000	25.130	-2.833
85.00	-19.361	-24.090	0.000	0.000	0.000	-925.858	-25.727	0.000	25.727	-2.865
90.00	-18.946	-22.932	0.000	0.000	0.000	-829.057	-28.821	0.000	28.821	-3.039
95.00	-18.525	-21.799	0.000	0.000	0.000	-734.331	-32.094	0.000	32.094	-3.207
100.0	-18.098	-20.692	0.000	0.000	0.000	-641.710	-35.539	0.000	35.539	-3.368
105.0	-17.666	-19.610	0.000	0.000	0.000	-551.222	-39.147	0.000	39.147	-3.520
110.0	-17.230	-18.554	0.000	0.000	0.000	-462.891	-42.909	0.000	42.909	-3.661
115.0	-16.784	-17.531	0.000	0.000	0.000	-376.741	-46.811	0.000	46.811	-3.788
118.0	-14.230	-14.411	0.000	0.000	0.000	-326.391	-49.213	0.000	49.213	-3.858
120.0	-14.056	-14.027	0.000	0.000	0.000	-297.932	-50.838	0.000	50.838	-3.902
123.0	-13.787	-13.464	0.000	0.000	0.000	-255.765	-53.308	0.000	53.308	-3.963
125.0	-13.619	-13.149	0.000	0.000	0.000	-228.191	-54.976	0.000	54.976	-4.001
128.0	-9.748	-10.048	0.000	0.000	0.000	-187.334	-57.512	0.000	57.512	-4.072
130.0	-9.626	-9.798	0.000	0.000	0.000	-167.839	-59.226	0.000	59.226	-4.115
135.0	-9.307	-9.203	0.000	0.000	0.000	-119.708	-63.584	0.000	63.584	-4.206
138.0	-6.556	-6.482	0.000	0.000	0.000	-91.787	-66.241	0.000	66.241	-4.251
140.0	-6.433	-6.267	0.000	0.000	0.000	-78.676	-68.026	0.000	68.026	-4.277
145.0	-6.124	-5.749	0.000	0.000	0.000	-46.509	-72.529	0.000	72.529	-4.326
148.0	-2.995	-3.079	0.000	0.000	0.000	-28.136	-75.252	0.000	75.252	-4.345
150.0	-2.877	-2.909	0.000	0.000	0.000	-22.147	-77.073	0.000	77.073	-4.355
155.0	-2.587	-2.498	0.000	0.000	0.000	-7.762	-81.639	0.000	81.639	-4.370
158.0	-2.389	0.000	0.000	0.000	0.000	0.000	-84.383	0.000	84.383	-4.372

Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
 Top Dia : 24.00 (in)
 Taper : 0.203196 (in/ft)

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Base Elev : 0.000 (ft)



Load Case: Ice

73.61 mph Wind with Ice

25 Iterations

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

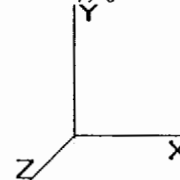
Calculated Stresses

Seg Elev (ft)	Applied Stresses							Allowable Stress (Fb) (ksi)		Stress Ratio
	Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)			
0.00	0.79	0.79	0.00	0.00	0.00	39.49	40.31	52.0	0.0	0.776
5.00	0.78	0.79	0.00	0.00	0.00	39.20	40.01	52.0	0.0	0.770
10.00	0.77	0.80	0.00	0.00	0.00	38.89	39.68	52.0	0.0	0.763
15.00	0.76	0.81	0.00	0.00	0.00	38.53	39.32	52.0	0.0	0.756
20.00	0.75	0.81	0.00	0.00	0.00	38.14	38.92	52.0	0.0	0.749
25.00	0.74	0.82	0.00	0.00	0.00	37.71	38.47	52.0	0.0	0.740
30.00	0.72	0.83	0.00	0.00	0.00	37.23	37.98	52.0	0.0	0.731
35.00	0.71	0.83	0.00	0.00	0.00	36.70	37.44	52.0	0.0	0.720
39.00	0.70	0.84	0.00	0.00	0.00	36.24	36.97	52.0	0.0	0.711
40.00	0.70	0.84	0.00	0.00	0.00	36.12	36.85	52.0	0.0	0.709
45.00	0.66	0.83	0.00	0.00	0.00	34.32	35.01	52.0	0.0	0.674
50.00	0.64	0.84	0.00	0.00	0.00	33.62	34.29	52.0	0.0	0.660
55.00	0.63	0.84	0.00	0.00	0.00	32.84	33.51	52.0	0.0	0.645
60.00	0.62	0.85	0.00	0.00	0.00	32.00	32.65	52.0	0.0	0.628
65.00	0.60	0.85	0.00	0.00	0.00	31.07	31.71	52.0	0.0	0.610
70.00	0.59	0.86	0.00	0.00	0.00	30.06	30.69	52.0	0.0	0.590
75.00	0.58	0.86	0.00	0.00	0.00	28.95	29.57	52.0	0.0	0.569
79.00	0.57	0.86	0.00	0.00	0.00	28.01	28.61	52.0	0.0	0.551
80.00	0.56	0.86	0.00	0.00	0.00	27.77	28.37	52.0	0.0	0.546
84.00	0.63	1.02	0.00	0.00	0.00	30.90	31.58	48.0	0.0	0.658
85.00	0.63	1.02	0.00	0.00	0.00	30.58	31.26	48.0	0.0	0.652
90.00	0.62	1.03	0.00	0.00	0.00	28.89	29.56	48.0	0.0	0.616
95.00	0.60	1.03	0.00	0.00	0.00	27.04	27.70	48.0	0.0	0.577
100.00	0.59	1.04	0.00	0.00	0.00	25.01	25.66	48.0	0.0	0.535
105.00	0.57	1.04	0.00	0.00	0.00	22.78	23.42	48.0	0.0	0.488
110.00	0.56	1.05	0.00	0.00	0.00	20.31	20.95	48.0	0.0	0.437
115.00	0.55	1.05	0.00	0.00	0.00	17.59	18.23	48.0	0.0	0.380
118.00	0.46	0.91	0.00	0.00	0.00	15.83	16.36	48.0	0.0	0.341
120.00	0.45	0.91	0.00	0.00	0.00	14.83	15.36	48.0	0.0	0.320
123.00	0.44	0.91	0.00	0.00	0.00	13.24	13.77	48.0	0.0	0.287
123.00	0.63	1.30	0.00	0.00	0.00	18.75	19.50	48.0	0.0	0.406
125.00	0.62	1.30	0.00	0.00	0.00	17.17	17.94	48.0	0.0	0.374
128.00	0.48	0.95	0.00	0.00	0.00	14.68	15.26	48.0	0.0	0.318
130.00	0.48	0.95	0.00	0.00	0.00	13.52	14.10	48.0	0.0	0.294
135.00	0.47	0.95	0.00	0.00	0.00	10.35	10.94	48.0	0.0	0.228
138.00	0.34	0.68	0.00	0.00	0.00	8.29	8.70	48.0	0.0	0.181
140.00	0.33	0.68	0.00	0.00	0.00	7.32	7.74	48.0	0.0	0.161
145.00	0.31	0.67	0.00	0.00	0.00	4.67	5.11	48.0	0.0	0.107
148.00	0.17	0.34	0.00	0.00	0.00	2.96	3.18	48.0	0.0	0.066
150.00	0.16	0.33	0.00	0.00	0.00	2.40	2.63	48.0	0.0	0.055
155.00	0.15	0.31	0.00	0.00	0.00	0.91	1.19	48.0	0.0	0.025
158.00	0.00	0.29	0.00	0.00	0.00	0.00	0.51	48.0	0.0	0.011

Pole : CT2007
 Location : Easton, CT
 Height : 158.0 (ft)
 Shape : 18 Sides
 Base Dia : 54.73 (in)
 Top Dia : 24.00 (in)
 Taper : 0.203196 (in/ft)

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Base Elev : 0.000 (ft)

Analysis Summary

Load Case	Reactions						Max Stresses			
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Combined Stress (ksi)	Allowable Stress (ksi)	Elev (ft)	Stress Ratio
No Ice	30.4	0.00	41.13	0.00	0.00	3386.01	47.42	52.0	0.00	0.912
Ice	25.3	0.00	51.41	0.00	0.00	2860.02	40.31	52.0	0.00	0.776

ROBINSON & COLE_{LLP}

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Direct (860) 275-8345

March 24, 2009

Michael Perrone
Siting Analyst
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **EM-VER-046-090203 - Cellco Partnership d/b/a Verizon Wireless
Notice of Intent to Modify an Existing Telecommunications Facility
Located at 206 Everett Road, Easton, Connecticut**

Dear Mr. Perrone:

As requested, I write to confirm for you and the Council that Cellco has, through its landlord and the tower owner, TowerCo, LLC, sought approval of the Everett Road property owner to expand the existing facility compound so that Cellco could place its equipment shelter on the ground, near the base of the existing tower. As you and Dr. Bell heard during the March 23, 2009 site inspection, the owner of the Everett Road property is not willing to expand the leased compound, in any way, to accommodate Cellco's equipment shelter.

As is clearly indicated on the project plans, without an expansion of the existing site compound there is no physical space available on the ground to place Cellco's equipment shelter. The only other option, therefore, is to install Cellco's shelter on a steel platform, above another carrier's equipment, as described in our February 3, 2009 Notice of Exempt Modification.

While stacking equipment shelters may not be the norm, it is not unique to the Easton cell site. Similar equipment shelter stacking arrangements are currently in place in Hartford at 439-455 Homestead Avenue; Rocky Hill at 52 New Britain Avenue; and Milford at 311 Old Gate Road.

Please understand that Cellco would much prefer to install its equipment shelter on the ground in an expanded compound at the Easton cell site. Unfortunately, that option is simply not available to us. If Cellco cannot stack its shelter above the Nextel shelter, as shown on the plans, Cellco would effectively be



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Michael Perrone

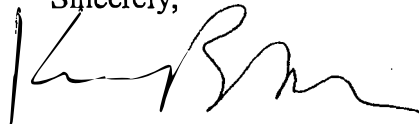
March 24, 2009

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prohibited from sharing this existing multi-carrier tower. In balance, the ability of Cellco to share the existing tower and forgo the construction of another tower in the area, in our view, clearly outweighs the additional, insignificant impacts associated with a stacked shelter.

Please feel free to contact me if you have any additional questions.

Sincerely,



Kenneth C. Baldwin

KCB/kmd

Copy to:

Sandy M. Carter
Aleksey Tyurin
Rachel A. Mayo
Robert L. Marconi, Esq.



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March 24, 2009

ORIGINAL

Michael Perrone
Siting Analyst
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

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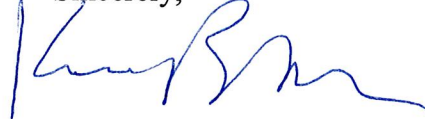
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Sincerely,

A handwritten signature in blue ink, appearing to read 'Ken Baldwin', written over a horizontal line.

Kenneth C. Baldwin

KCB/kmd

Copy to:

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Aleksey Tyurin

Rachel A. Mayo

Robert L. Marconi, Esq.

