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

Daniel F. Caruso
Chairman

July 1, 2009

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

RE: **EM-VER-064-090602** – Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 289H Mountain Street, Hartford, 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 modifications specified on page 2 of the structural analysis report dated May 15, 2009 and sealed by Raphael Mohamed, P.E. shall be performed prior to the antenna installation;
- The tower shall 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 modifications were properly completed and the tower 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 June 2, 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.

Thank you for your attention and cooperation.

Very truly yours,

S. Derek Phelps
Executive Director

SDP/MP/laf

c: The Honorable Eddie A. Perez, Mayor, City of Hartford
Lee C. Erdmann, Chief Operating Officer, City of Hartford
Roger J. O'Brien, Director of Planning, City of Hartford
American Tower Corporation

ROBINSON & COLE

EM-VER-064-090602

ORIGINAL

KENNETH C. BALDWIN

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

June 2, 2009

Via Hand Delivery

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

Re: **Notice of Exempt Modification**
289H Mountain Street, Hartford, Connecticut

Dear Mr. Phelps:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") intends to install antennas on the existing 100-foot monopole tower owned by American Tower Corporation and located at 289H Mountain Street in Hartford, Connecticut. Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Eddie A. Perez, Mayor of the City of Hartford. Pursuant to a Council directive, a copy of this letter is also being sent to Metropolitan District Bureau of Public Works- City of Hartford, the owner of the property on which the tower is located.

The facility consists of a 100-foot monopole tower capable of supporting multiple carriers at 289H Mountain Street in Hartford. The tower is currently shared by AT&T with antennas at the 100-foot level; USA Mobility with a single-whip antenna attached to the tower at the 100-foot level and extending above the tower; T-Mobile with antennas at the 87-foot level; and the Town of West Hartford with antennas at the 77-foot and 60-foot level on the tower. Cellco intends to install six (6) LPA-80063/4CF and six (6) LPA-185063/8CF antennas at the 77-foot level on the tower.[1] Equipment associated with Cellco's antennas, including a propane fueled back-up generator, will be located within a 12' x 30' equipment shelter located on the ground within the limits of the existing fenced compound. Cellco will also install a 500 gallon propane tank adjacent to its shelter. Attached behind Tab 1 are Project Plans for the proposed Cellco facility.

[1] The existing Town of West Hartford antenna at the 77-foot level will be relocated onto Cellco's low profile platform.

The planned modifications to the Hartford 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 77-foot level on the 100-foot tower.

2. The proposed installation of the associated equipment shelter and propane tank will require a minor extension of the fenced compound but not 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 worst-case RF power density calculations for Cellco antennas would be 39.53% of the FCC standard. A cumulative power density calculations table is included behind Tab 2.

Included behind Tab 3 is a Structural Analysis Report confirming that the tower, with modifications, 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:
Eddie A. Perez, Hartford Mayor
Metropolitan District Bureau of Public Works
Sandy M. Carter
Michelle Kababik

CELLCO PARTNERSHIP
DBA
verizon wireless

HARTFORD SOUTH 3

289H MOUNTAIN STREET
HARTFORD, CONNECTICUT 06106

GENERAL NOTES

1. THE TYPE, DIMENSIONS, MOUNTING HARDWARE, AND POSITIONS OF ALL PROJECT OWNER'S EQUIPMENT ARE SHOWN IN ILLUSTRATIVE FASHION. THESE DRAWINGS ARE NOT INTENDED FOR CONSTRUCTION. ACTUAL HARDWARE DETAILS AND FINAL LOCATIONS MAY DIFFER SLIGHTLY FROM WHAT IS SHOWN.

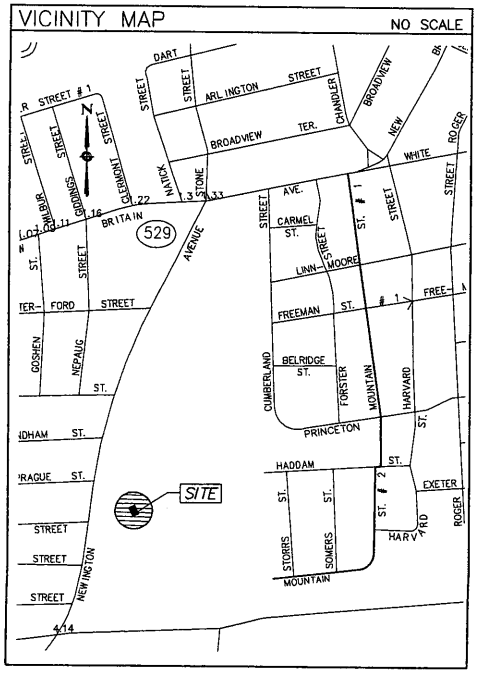
2. THE PROJECT OWNER'S FCS FACILITY IS AN UNMANNED PRIVATE AND SECURED EQUIPMENT INSTALLATION. IT IS ONLY ACCESSED BY TRAINED TECHNICIANS FOR PERIODIC ROUTINE MAINTENANCE AND THEREFORE DOES NOT REQUIRE ANY WATER OR SANITARY SEWER SERVICE. THE FACILITY IS NOT GOVERNED BY REGULATIONS REQUIRING PUBLIC ACCESS PER ADA REQUIREMENTS.

3. THE DESIGN OF THE ANTENNA MOUNTING HARDWARE WILL MEET THE ANSI/EIA/TIA-222-F STANDARDS FOR STRUCTURAL STEEL ANTENNA SUPPORTING STRUCTURES AND STATE BUILDING CODE REQUIREMENTS. DETAILED CONSTRUCTION DRAWINGS AND STRUCTURAL CALCULATIONS WILL BE PREPARED BY A REGISTERED PROFESSIONAL ENGINEER AND SUBMITTED WITH A BUILDING PERMIT APPLICATION FOR REVIEW AND APPROVAL BY THE LOCAL BUILDING CODE ENFORCEMENT OFFICIAL.

4. ONCE THE FACILITY BECOMES FULLY OPERATIONAL, NORMAL AND ROUTINE MAINTENANCE BY PROJECT OWNER'S TECHNICIANS WILL BE PERFORMED ON A MONTHLY BASIS. THEREFORE, THE ESTIMATED VEHICLE TRIP GENERATION RATE IS 2 TRIPS PER MONTH. THE AVERAGE DAILY TRIP GENERATION RATE (ADT) IS 0.07.

VICINITY MAP

NO SCALE



PROJECT SUMMARY

SITE NAME:	HARTFORD SOUTH 3
SITE ADDRESS:	289H MOUNTAIN STREET HARTFORD, CONNECTICUT 06106
CONTACT PERSON:	VERIZON WIRELESS BRIAN RAGOZZINE (860) 982-4246
TOWER OWNER:	AMERICAN TOWER CORP. 10 PRESIDENTIAL WAY WOBURN, MA 01801
GOVERNING CODE:	CONNECTICUT BUILDING CODES CONNECTICUT LIFE SAFETY CODES
JURISDICTION:	CONNECTICUT SITING COUNCIL
APPLICANT:	VERIZON WIRELESS 99 EAST RIVER DRIVE EAST HARTFORD, CT, 06108
ARCHITECT:	URS CORPORATION A.E.S. 500 ENTERPRISE DRIVE, SUITE 3B ROCKY HILL, CT 06067
M/E/P ENGINEER:	URS CORPORATION A.E.S. 500 ENTERPRISE DRIVE, SUITE 3B ROCKY HILL, CT 06067
LATITUDE:	41° 43' 35" NAD 83
LONGITUDE:	-72° 42' 29.5" NAD 83

LEGEND

SYMBOL	DESCRIPTION
	SECTION OR DETAIL NUMBER SHEET WHERE DETAIL/SECTION OCCURS
	ELEVATION NUMBER SHEET WHERE ELEVATION OCCURS

ABBREVIATIONS

MIN.	MINIMUM
V.I.F.	VERIFY IN FIELD
O.C.	ON CENTER
PSF	POUND/SQUARE FOOT
TYP.	TYPICAL
TOC	TOP OF CONCRETE
TOW	TOP OF WALL
FT.	FEET
SQ.FT.	SQUARE FEET
N/A	NOT APPLICABLE

SHEET INDEX

SHT. NO.	DESCRIPTION
T-1	TITLE SHEET - GENERAL NOTES AND LEGENDS
SC-1	COMPOUND PLAN, ELEVATION AND ANTENNA ORIENTATION PLAN

CELLCO PARTNERSHIP
DBA
verizon wireless

A&E FIRM
URS CORPORATION AES
500 ENTERPRISE DRIVE
SUITE 3B
ROCKY HILL, CONNECTICUT
1-(860)-529-8882

A&E SEAL

SITE NAME: HARTFORD SOUTH 3
PROJECT ID: 2008294643
PROJECT TYPE: PCSCO
LOCATION CODE: 188929
SITE ADDRESS:
289H MOUNTAIN STREET
HARTFORD, CONNECTICUT
06106

PROJECT NO:	36931139
JOB NO:	VZ4-063
DRAWN BY:	KAP
CHECKED BY:	MJE

ISSUED FOR

0	05-11-09	SITING COUNCIL
1	05-12-09	SITING COUNCIL
2	06-01-09	SITING COUNCIL

HARTFORD SOUTH 3

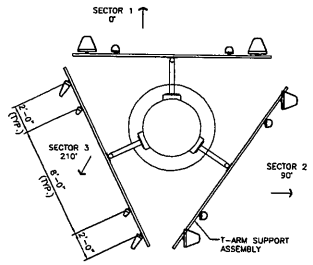
289H MOUNTAIN STREET
HARTFORD, CONNECTICUT
06106

SCALE: AS NOTED

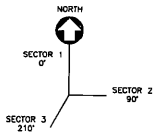
TITLE SHEET - PROJECT SUMMARY AND LEGENDS

T-1

PROPOSED CELLCO PARTNERSHIP T-ARM SUPPORT ASSEMBLY
AND ANTENNAS (4 ANTENNAS PER SECTOR – 3 SECTORS TOTAL)
(4) ANTEL LPA 80063/4CF_5 (SECTORS A AND B)
(2) ANTEL LPA 80080/4CF_5 (SECTOR C)
(4) ANTEL LPA 185063/12CF_2 (SECTORS A AND B)
(2) ANTEL LPA 185080/12CF_2 (SECTOR C)



3 SC-1 ANTENNA ORIENTATION PLAN
SCALE: N.T.S.



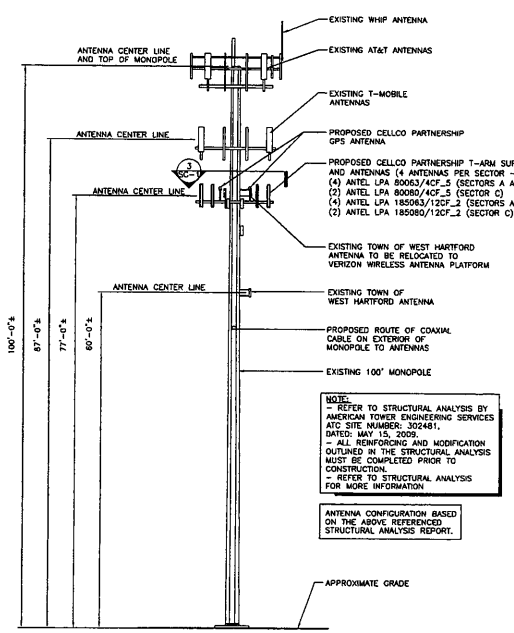
ANTENNA ORIENTATION KEY

SITE PLAN INFORMATION

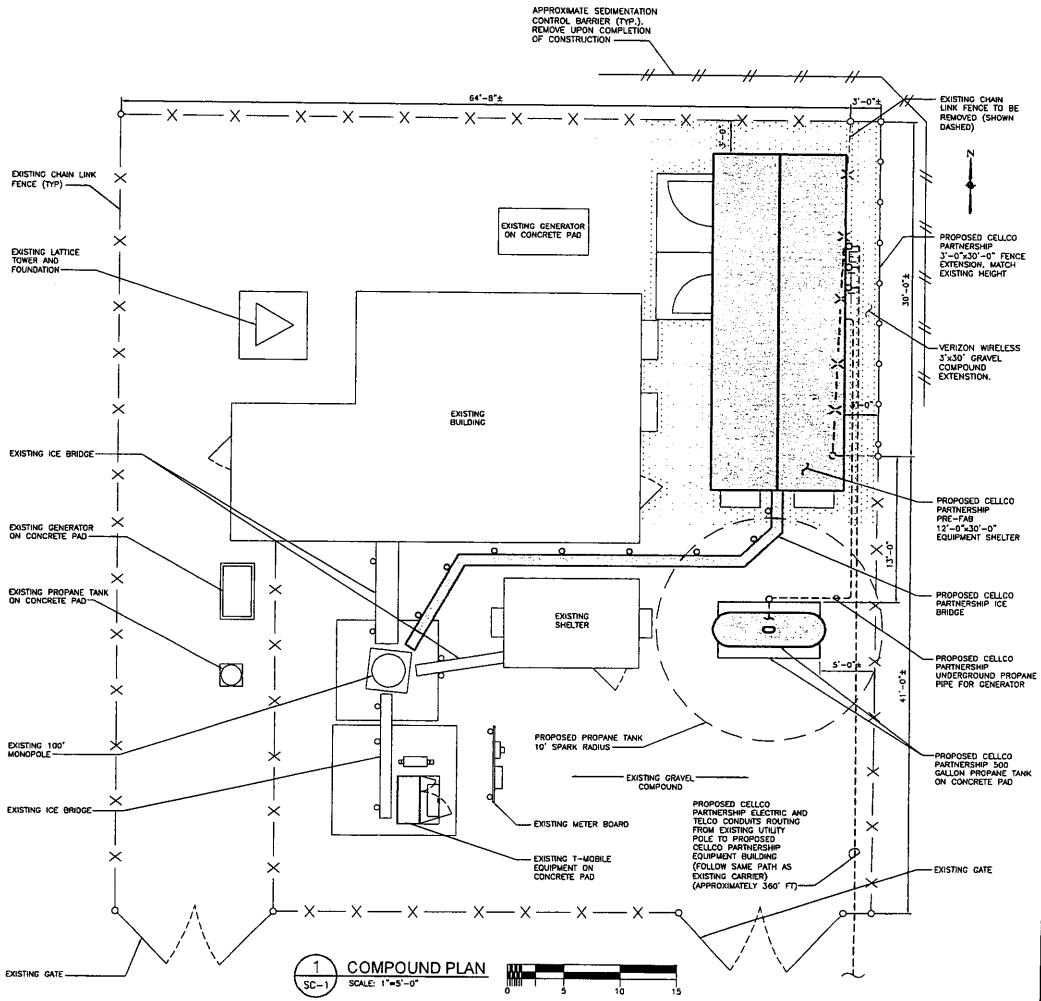
THIS SITE PLAN DRAWING WAS COMPILED FROM DATA COLLECTED IN THE FIELD AND FROM AVAILABLE EXISTING DRAWINGS OF THE SUBJECT AREA.

LEGEND

DESCRIPTION	EXISTING	PROPOSED
PROPERTY LINE		
LEASE LINE		
CHAIN LINK FENCE	—X—X—	
CONTOUR LINES	123	
UNDERGROUND UTILITIES		E/T
UTILITY POLE	ø	
TREE LINE		
SEDIMENTATION FENCE		
SPOT ELEVATION	× 124.5	



2 SC-1 MONOPOLE ELEVATION
SCALE: 1"=10'-0"
0 5 10 20 30



1 SC-1 COMPOUND PLAN
SCALE: 1"=5'-0"
0 5 10 15

CELLCO PARTNERSHIP
DBA
verizon wireless

A&E FIRM
URS CORPORATION AES
500 ENTERPRISE DRIVE
SUITE 3B
ROCKY HILL, CONNECTICUT
1-(860)-529-8882

A&E SEAL

SITE NAME: HARTFORD SOUTH 3
PROJECT ID: 200829463
PROJECT TYPE: PCSCO
LOCATION CODE: 188929
SITE ADDRESS:
289H MOUNTAIN STREET
HARTFORD, CONNECTICUT
06106

PROJECT NO: 36931139
JOB NO: VZ4-063
DRAWN BY: KAP
CHECKED BY: MJE

ISSUED FOR

0	05-11-09	SITING COUNCIL
1	05-12-09	SITING COUNCIL
2	06-01-09	SITING COUNCIL

HARTFORD SOUTH 3
289H MOUNTAIN STREET
HARTFORD, CONNECTICUT
06106

SCALE: AS NOTED

COMPOUND PLAN, ELEVATION AND ANTENNA ORIENTATION PLAN

SC-1

	General	Power	Density					
Site Name: Hartford S 3								
Tower Height: Verizon @ 77ft								
CARRIER	**# OF CHAN.**	**WATTS ERP**	**HEIGHT**	**CALC. POWER DENS**	**FREQ.**	**MAX. PERMISS. EXP.**	**FRACTION MPE**	**Total**
*Cingular UMTS	1	500	102	0.0173	1935	1.0000	1.73%	
*Cingular GSM	2	296	103	0.0201	880	0.5867	3.42%	
*Cingular GSM	2	427	103	0.0289	1930	1.0000	2.89%	
*SNET Paging			110	0.0458		1.0000	4.58%	
*Town of W.Hfd	5	150	75	0.0479	866.075	0.5774	8.30%	
*T-Mobile GSM	8	170	87	0.0646	1945	1.0000	6.46%	
*T-Mobile UMTS	2	741	87	0.0704	2.1 GHz	1.0000	7.04%	
Verizon	**3**	**552**	**77**	**0.1004**	**1970**	**1.0000**	**10.04%**	
Verizon	**9**	**315**	**77**	**0.1719**	**875**	**0.5830**	**29.49%**	
								73.96%
* Source: Siting Council								

AMERICAN TOWER

Structural Analysis Report

Structure	:	**100 ft ITT Meyer Monopole**
ATC Site Name	:	**Hrfr South, CT**
ATC Site Number	:	**302481**
Proposed Carrier	:	**Verizon Wireless**
Carrier Site Name	:	**Hartford South-3**
Carrier Site Number	:	**N/A**
County	:	**Hartford**
Eng. Number	:	**43004023**
Date	:	**May 15, 2009***
Usage	:	**118%**
Portholes Required	:	**No**

Submitted by:
Christina Minor
Design Engineer

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

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

5/18/09

Introduction

The purpose of this report is to summarize results of the structural analysis performed on the 100 ft Monopole located at Mountain Road, Harford, CT 06106, Hartford County (ATC site #302481). The tower was originally designed and manufactured by ITT Meyer, per AT-8935 Type B standards (dated April 13, 1984). Tower dimensions have been verified via mapping by Smith Cullum, Inc. (Acquisition No. CT-0017(A), dated June 6, 2001). This structural considers tower modifications per design by American Tower, Corp (Job # 42719232, dated January 12, 2009) as completed.

Analysis

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

Basic Wind Speed:	95 mph (3-Second Gust)
Radial Ice:	50 mph (3-Second Gust) w/ 1 ¼" ice
Code:	ANSI/TIA-222-G / 2003 International Building Code with 2005 CT Supplement and 2008 CT Amendments

Antenna Loads

The following antenna loads were used in the tower analysis.

Existing Antennas

Elev. (ft)	Qty	Antennas	Mount	Coax	Carrier
100.0	6	RET/ RCU	Platform w/ Rails and Arms	(6) 7/8" (6) 1 5/8"	AT&T Mobility
	12	CSS DUO4-8670			
	12	ADC CG-800DD-FULL-DIN			
	1	10' Omni		(1) 7/8"	USA Mobility
87.0	3	RFS APX16DWV-16DWV-S-E-ACU	Low Profile Platform	(18) 1 5/8"	T-Mobile
	6	CCI DTMA-1819-DD-12			
	3	RFS APXV18-206516S-C			
77.0	1	Scala 840 10212	Flush	(1) 7/8"	Town of W. Hartford
	1	TX RX Systems 421-86A-10-18-12			
60.0	1	Scala 840 10212	Flush	(1) 7/8"	

Proposed Antennas

Elev. (ft)	Qty	Antennas	Mount	Coax	Carrier
77.0	6	Antel LPA-185063/8CF	(3) T-Arm	(12) 1 5/8"	Verizon
	6	Antel LPA-80063/4CF			

Install proposed coax on outside of monopole.

Results

The maximum structure usage is: 118%

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

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

Pole Reactions	Original Design Reactions	Design Reactions w/ 1.35 Multiplier	Current Analysis Reactions	% Of Design w/ 1.35 Multiplier*
Moment (ft-kips)	516.0	696.6	1,114.9	160
Shear (kips)	7.9	10.7	16.2	151

(*) The percentage is factored by 1.35 per ANSI/TIA-222-G

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information. Detailed calculation is shown at the end of this report. Factor of safety of the foundation, base plate and anchor bolts with respect to overturning and bearing exceed two. Therefore no modification or reinforcement of the foundation will be required.

Conclusion

Based on the analysis results, the structure does not meet the requirements per ANSI/TIA-222-G and 2003 IBC standards with 2005 CT supplements and 2008 CT amendments.

The tower and foundation can support the existing and proposed equipment after the modifications listed below are completed:

- Strengthen pole from 47 ft – 55 ft

If you have any questions or require additional information, please call 919-466-5619.

Standard Conditions

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

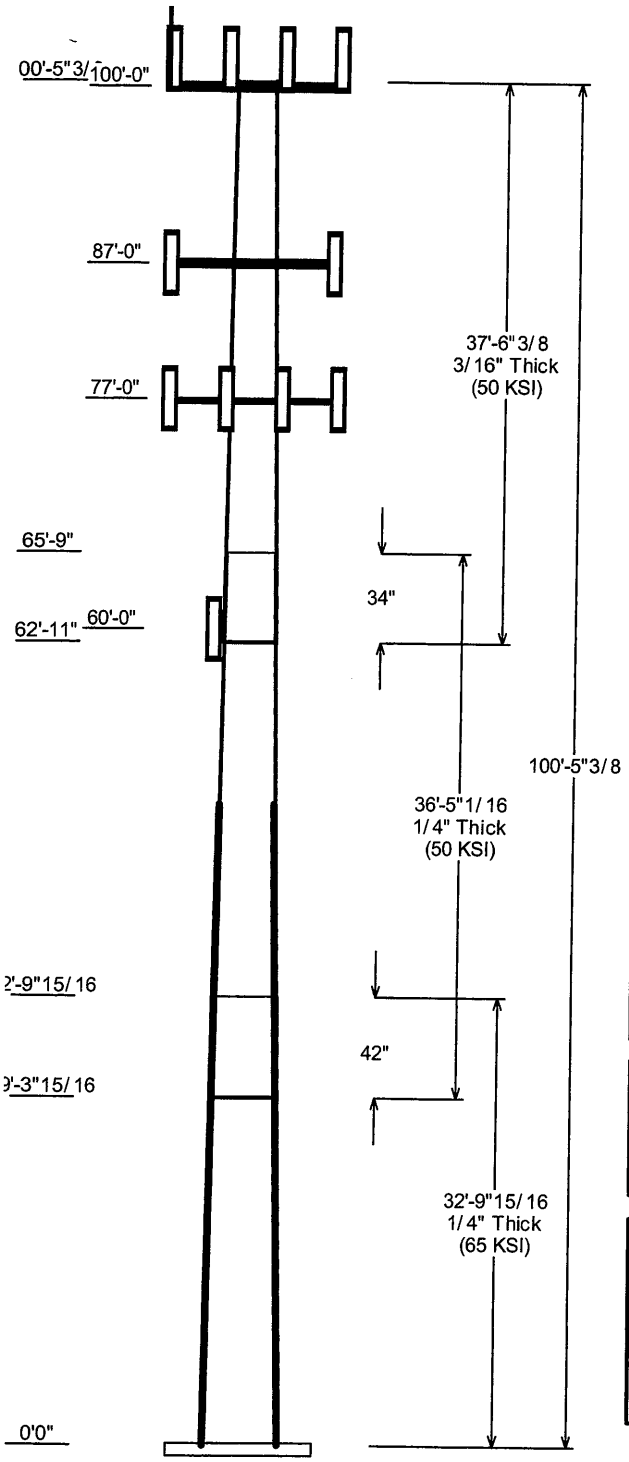
-- Information supplied by the client regarding the structure itself, the antenna and feed line loading on the structure and its components, or other relevant information.

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

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

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

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



Job Information

Pole :	302481	Code: ANSI/TIA-222 Rev G	
Description :	100 ft ITT Meyer Type "D" Monopole		Struct Class : II
Client :	Verizon		Exposure : B
Location :	Hrfr South, CT		Topo : 1
Shape :	12 Sides	Base Elev (ft): 0.00	
Height :	100.45 (ft)	Taper: 0.163016(in/ft)	

Sections Properties

Shaft Section	Length (ft)	Diameter (in) Accross Flats Top	Bottom	Thick (in)	Joint Type	Overlap Length (in)	Taper (in/ft)	Steel Grade (ksi)
1	32.830	24.64	30.00	0.250		0.000	0.163016	65
2	36.420	19.78	25.71	0.250	Slip Joint	42.000	0.163016	50
3	37.533	14.50	20.61	0.188	Slip Joint	34.000	0.163016	50

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
100.000	102.000	6	RET/ RCU
100.000	102.000	12	CSS DUO4-8670
100.000	100.000	1	Platform w/ Rails and Arms
100.000	102.000	12	ADC CG-800DD-FULL-DIN
100.000	105.000	1	10' Omni
87.000	87.000	3	RFS APX16DWV-16DWV-S-E-
87.000	87.000	6	CCI DTMA-1819-DD-12
87.000	87.000	3	RFS APXV18-206516S-C
87.000	87.000	1	Flat Low Profile Platform
77.000	77.000	1	TX RX Systems 421-86A-10-18-
77.000	77.000	1	Scala 840 10212
77.000	77.000	6	Antel LPA-80063/4CF
77.000	77.000	6	Antel LPA-185063/8CF
77.000	77.000	3	Flat T-Arm
60.000	60.000	1	Scala 840 10212

Linear Appurtenance

Elev (ft) From	To	Description	Exposed To Wind
5.000	60.000	7/8" Coax	No
5.000	77.000	1 5/8" Coax	Yes
5.000	77.000	7/8" Coax	No
5.000	87.000	1 5/8" Coax	Yes
5.000	100.0	1 5/8" Coax	No
5.000	100.0	7/8" Coax	No
5.000	100.0	7/8" Coax	No
0.000	47.000	#20 Dywidag	Yes

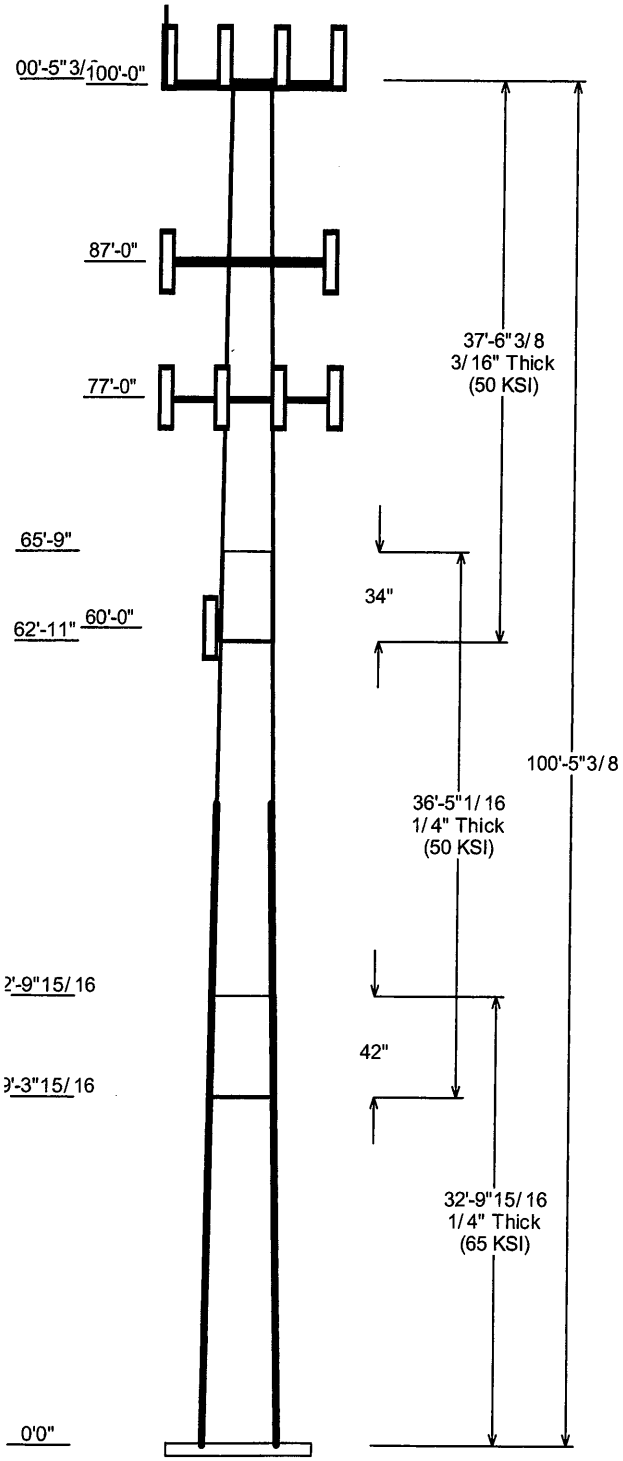
Load Cases

1.2D + 1.6W	95.00 mph with No Ice
0.9D + 1.6W	95.00 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50.00 mph with 1.25 in Radial Ice
1.0D + 1.0W	60.00 mph Serviceability

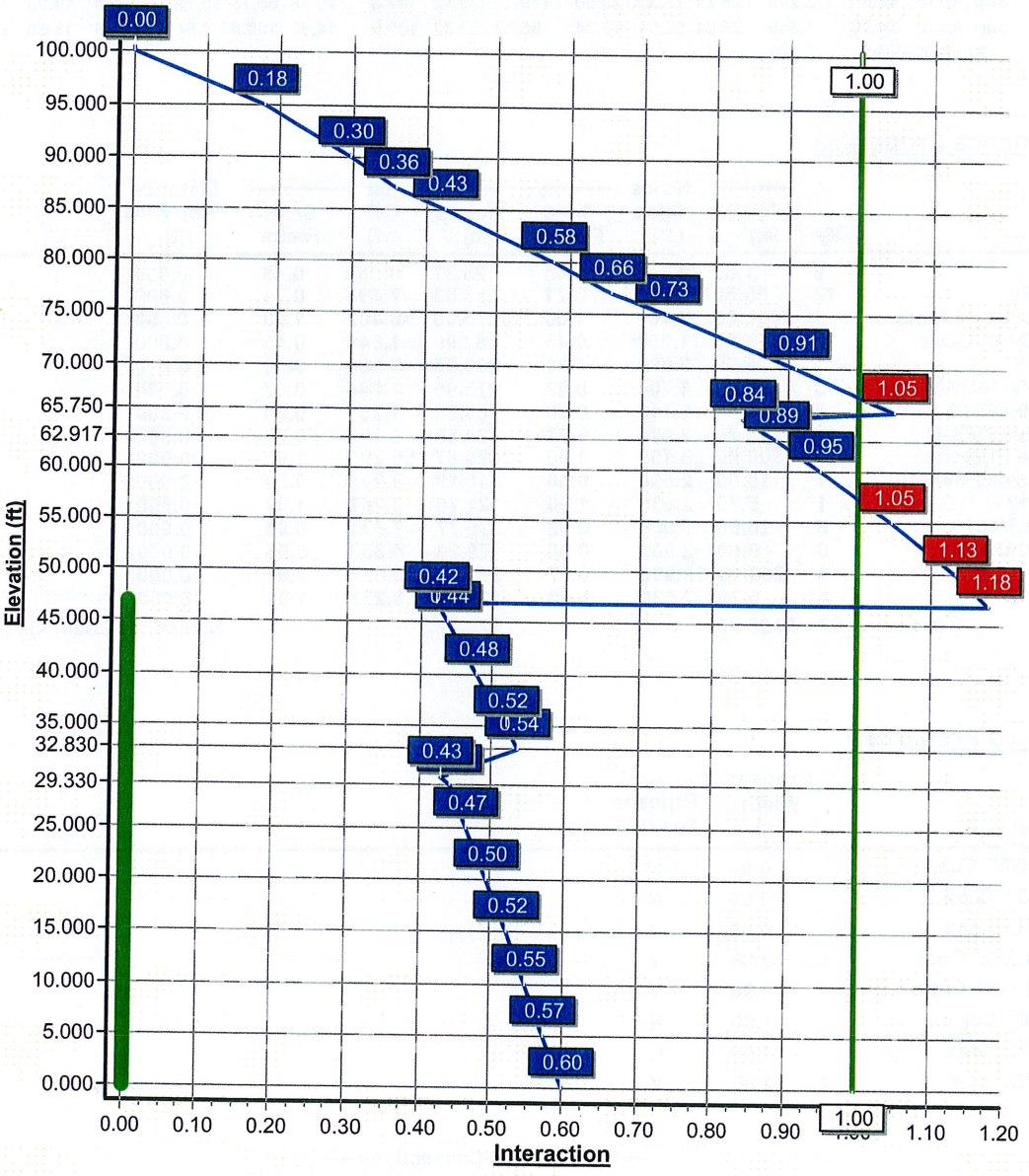
Reactions

Load Case	Moment (Kip-ft)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W	1114.89	16.20	20.35
0.9D + 1.6W	1104.49	16.19	16.04
1.2D + 1.0Di + 1.0Wi	334.29	4.44	54.02
1.0D + 1.0W	276.46	4.04	17.51

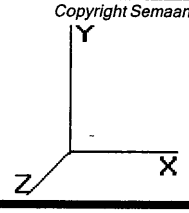
Dish Deflections			
Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
1.0D + 1.0W	0.00	0.000	0.000



Load Case : 1.2D + 1.6W
Max Ratio 118.03% at 47.0ft



Pole : 302481	Code: ANSI/TIA-222 Rev G		
Location : Hrfr South, CT	Struct Class : II		5/15/2009 2:24:58 PM
Height : 100.4 (ft)	Exposure Category : B		Page: 1
Shape : 12 Sides	Topographic Category : 1		
Base Dia : 30.00 (in)			
Top Dia : 14.50 (in)			
Taper : 0.163016 (in/ft)	Base Elev : 0.000 (ft)		



Shaft Section Properties

Sect Num	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom Dia (in)	Bottom Elev (ft)	Bottom Area (sqin)	Bottom Ix (in^4)	Bottom W/t Ratio	Bottom D/t Ratio	Top Dia (in)	Top Elev (ft)	Top Area (sqin)	Top Ix (in^4)	Top W/t Ratio	Top D/t Ratio	Taper (in/ft)
1	32.830	0.2500	65		0.00	2,435	30.00	0.000	23.95	2705.5	30.01	120.0	24.64	32.83	19.64	1492.3	24.27	98.59	0.16302
2	36.420	0.2500	50	Slip Joint	42.00	2,245	25.71	29.33	20.50	1697.5	25.42	102.8	19.78	65.75	15.72	765.6	19.06	79.13	0.16302
3	37.533	0.1875	50	Slip Joint	34.00	1,340	20.61	62.91	12.34	657.2	27.32	109.9	14.50	100.4	8.64	225.9	18.58	77.33	0.16302
				Shaft Weight		6,019													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	No Ice Weight (lb)	No Ice CaAa (sf)	No Ice CaAa Factor	Ice Weight (lb)	Ice CaAa (sf)	Ice CaAa Factor	Distance From Face (ft)	Vert Ecc (ft)
100.0	RET/ RCU	6	1.00	0.160	0.45	25.37	0.558	0.45	0.000	2.000
100.0	CSS DUO4-8670	12	66.50	6.530	0.71	366.63	7.498	0.71	0.000	2.000
100.0	Platform w/ Rails and Arms	1	2000.00	27.200	1.00	4078.08	66.402	1.00	0.000	0.000
100.0	ADC CG-800DD-FULL-DIN	12	13.90	1.250	0.45	82.90	1.841	0.45	0.000	2.000
100.0	10' Omni	1	25.00	3.000	1.00	290.05	7.260	1.00	0.000	5.000
87.00	RFS APX16DWV-16DWV-S-E-	3	39.60	6.700	0.67	273.95	7.844	0.67	0.000	0.000
87.00	CCI DTMA-1819-DD-12	6	14.30	0.710	0.50	64.90	1.253	0.50	0.000	0.000
87.00	RFS APXV18-206516S-C	3	18.70	3.620	0.77	184.80	5.183	0.77	0.000	0.000
87.00	Flat Low Profile Platform	1	1500.00	26.100	1.00	2524.67	56.295	1.00	0.000	0.000
77.00	TX RX Systems 421-86A-10-	1	15.00	2.590	0.50	110.19	3.228	0.50	0.000	0.000
77.00	Scala 840 10212	1	6.70	2.530	1.00	121.70	3.267	1.00	0.000	0.000
77.00	Antel LPA-80063/4CF	6	20.00	7.000	0.93	370.77	7.821	0.93	0.000	0.000
77.00	Antel LPA-185063/8CF	6	9.00	2.960	0.96	179.22	4.353	0.96	0.000	0.000
77.00	Flat T-Arm	3	250.00	12.900	0.67	576.53	25.677	0.67	0.000	0.000
60.00	Scala 840 10212	1	6.70	2.530	1.00	117.70	3.237	1.00	0.000	0.000
	Totals	63	5708.90			7174.17			Number of Loadings :	15

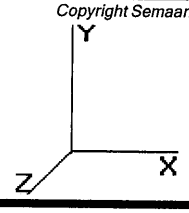
Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Exposed Width (in)	Exposed To Wind
5.00	100.00	(6) 1 5/8" Coax	0.00	N
5.00	100.00	(1) 7/8" Coax	0.00	N
5.00	100.00	(6) 7/8" Coax	0.00	N
5.00	87.00	(18) 1 5/8" Coax	3.96	Y
5.00	77.00	(12) 1 5/8" Coax	3.96	Y
5.00	77.00	(1) 7/8" Coax	1.09	N
5.00	60.00	(1) 7/8" Coax	1.09	N
0.00	47.00	(4) #20 Dywidag	2.00	Y

Additional Steel

Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Offset (in)	Intermediate Connections — Description	Spacing (in)	Len (in)	Connectors	Continuation?
0.00	47.00	4	SOL #20 All Thread	80	2.09	6" Angle Bracket	30.0	3.31	5/8" A36 U-Bolt	Yes

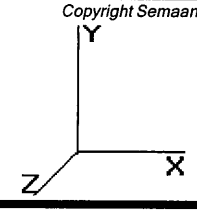
Pole :	302481	Code: ANSI/TIA-222 Rev G	
Location :	Hrfr South, CT	Struct Class : II	
Height :	100.4 (ft)	Exposure Category : B	
Shape :	12 Sides	Topographic Category : 1	
Base Dia :	30.00 (in)		
Top Dia :	14.50 (in)		
Taper :	0.163016 (in/ft)	Base Elev : 0.000 (ft)	



Segment Properties (Max Len : 5 ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	S (in3)	Weight (lb)	Additional Reinforcing Area (in^2)	Additional Reinforcing Ix (in^4)	Additional Reinforcing Weight (lb)
0.00		0.2500	30.000	23.949	2,705.5	30.01	120.00	64.8	174.2	0.0	19.64	3,310	0.0
5.00		0.2500	29.185	23.293	2,489.1	29.14	116.74	65.0	164.8	401.9	19.64	3,165	334.0
10.00		0.2500	28.370	22.636	2,284.7	28.26	113.48	65.0	155.6	390.7	19.64	3,023	334.0
15.00		0.2500	27.555	21.980	2,091.7	27.39	110.22	65.0	146.6	379.6	19.64	2,885	334.0
20.00		0.2500	26.740	21.324	1,909.9	26.52	106.96	65.0	138.0	368.4	19.64	2,749	334.0
25.00		0.2500	25.925	20.668	1,739.0	25.64	103.70	65.0	129.6	357.2	19.64	2,617	334.0
29.33	Bot - Section 2	0.2500	25.219	20.100	1,599.5	24.89	100.87	65.0	122.5	300.3	19.64	2,505	289.2
30.00		0.2500	25.110	20.012	1,578.6	24.77	100.44	65.0	121.4	92.4	19.64	2,567	44.8
32.83	Top - Section 1	0.2500	25.148	20.043	1,585.9	24.81	100.59	50.0	121.8	385.7	19.64	2,494	189.0
35.00		0.2500	24.794	19.758	1,519.3	24.43	99.18	50.0	118.4	147.0	19.64	2,439	145.0
40.00		0.2500	23.979	19.102	1,372.9	23.56	95.92	50.0	110.6	330.6	19.64	2,315	334.0
45.00		0.2500	23.164	18.446	1,236.2	22.68	92.66	50.0	103.1	319.4	19.64	2,194	334.0
47.00	Reinf. Top	0.2500	22.838	18.184	1,184.2	22.33	91.35	50.0	100.2	124.6	19.64	2,146	133.6
50.00		0.2500	22.349	17.790	1,108.9	21.81	89.40	50.0	95.9	183.6			
55.00		0.2500	21.534	17.134	990.7	20.94	86.14	50.0	88.9	297.1			
60.00		0.2500	20.719	16.478	881.2	20.06	82.88	50.0	82.2	285.9			
62.92	Bot - Section 3	0.2500	20.244	16.095	821.2	19.55	80.97	50.0	78.4	161.6			
65.00		0.2500	19.904	15.821	780.1	19.19	79.62	50.0	75.7	199.9			
65.75	Top - Section 2	0.1875	20.157	12.056	613.7	26.66	107.50	50.0	58.8	71.1			
70.00		0.1875	19.464	11.638	552.0	25.67	103.81	50.0	54.8	171.3			
75.00		0.1875	18.649	11.146	484.9	24.51	99.46	50.0	50.2	193.8			
77.00		0.1875	18.323	10.949	459.6	24.04	97.72	50.0	48.5	75.2			
80.00		0.1875	17.834	10.654	423.4	23.34	95.11	50.0	45.9	110.3			
85.00		0.1875	17.019	10.162	367.4	22.18	90.77	50.0	41.7	177.1			
87.00		0.1875	16.693	9.965	346.5	21.71	89.03	50.0	40.1	68.5			
90.00		0.1875	16.204	9.670	316.6	21.01	86.42	50.0	37.7	100.2			
95.00		0.1875	15.388	9.178	270.7	19.85	82.07	50.0	34.0	160.3			
100.0		0.1875	14.573	8.685	229.4	18.68	77.72	50.0	30.4	152.0			
100.4		0.1875	14.500	8.641	225.9	18.58	77.33	50.0	30.1	13.3			
										6,019.0			3,139.6

Pole :	302481	Code: ANSI/TIA-222 Rev G	
Location :	Hrfr South, CT	Struct Class : II	5/15/2009 2:24:58 PM
Height :	100.4 (ft)	Exposure Category : B	
Shape :	12 Sides	Topographic Category : 1	
Base Dia :	30.00 (in)		
Top Dia :	14.50 (in)		
Taper :	0.163016 (in/ft)	Base Elev : 0.000 (ft)	



Load Case: 1.2D + 1.6W — 95.00 mph with No Ice — 23 Iterations

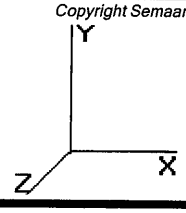
Gust Response Factor : 1.10
Dead Load Factor : 1.20
Wind Load Factor : 1.60
Wind Importance Factor : 1.00

Shaft Segment Forces (Factored)

Seg Top Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf		Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	15.364	16.90	205.71	1.000		0.00	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	15.364	16.90	200.12	1.000		0.00	5.00	12.765	12.77	345.2	0.0	816.3
10.00		1.00	0.70	15.364	16.90	194.53	1.200	*	0.00	5.00	12.414	14.90	402.8	0.0	802.9
15.00		1.00	0.70	15.364	16.90	188.94	1.200	*	0.00	5.00	12.062	14.47	391.4	0.0	789.5
20.00		1.00	0.70	15.364	16.90	183.36	1.200	*	0.00	5.00	11.710	14.05	380.0	0.0	776.1
25.00		1.00	0.70	15.364	16.90	177.77	1.200	*	0.00	5.00	11.359	13.63	368.6	0.0	762.7
29.33	Bot - Section 2	1.00	0.70	15.364	16.90	172.93	1.200	*	0.00	4.33	9.552	11.46	310.0	0.0	649.6
30.00		1.00	0.70	15.377	16.91	172.25	1.200	*	0.00	0.67	1.484	1.78	48.2	0.0	155.6
32.83	Top - Section 1	1.00	0.71	15.778	17.35	171.28	1.200	*	0.00	2.83	6.196	7.44	206.5	0.0	651.9
35.00		1.00	0.73	16.070	17.67	173.88	1.200	*	0.00	2.17	4.675	5.61	158.7	0.0	321.3
40.00		1.00	0.76	16.694	18.36	171.40	1.200	*	0.00	5.00	10.520	12.62	370.9	0.0	730.7
45.00		1.00	0.78	17.266	18.99	168.38	1.200	*	0.00	5.00	10.168	12.20	370.8	0.0	717.3
47.00	Reinf. Top	1.00	0.79	17.482	19.23	167.05	1.200	*	0.00	2.00	3.969	4.76	146.5	0.0	283.2
50.00		1.00	0.81	17.793	19.57	164.92	1.200	*	0.00	3.00	5.848	7.02	219.8	0.0	220.3
55.00		1.00	0.83	18.285	20.11	161.08	1.200	*	0.00	5.00	9.465	11.36	365.5	0.0	356.5
60.00	Appertunance(s)	1.00	0.85	18.745	20.61	156.92	1.200	*	0.00	5.00	9.113	10.94	360.8	0.0	343.1
62.92	Bot - Section 3	1.00	0.86	19.001	20.90	154.37	1.200	*	0.00	2.92	5.154	6.18	206.8	0.0	194.0
65.00		1.00	0.87	19.179	21.09	152.49	1.200	*	0.00	2.08	3.676	4.41	148.9	0.0	239.8
65.75	Top - Section 2	1.00	0.87	19.242	21.16	151.80	1.200	*	0.00	0.75	1.308	1.57	53.2	0.0	85.3
70.00		1.00	0.89	19.589	21.54	150.70	1.200	*	0.00	4.25	7.264	8.72	300.5	0.0	205.6
75.00		1.00	0.91	19.979	21.97	145.82	1.200	*	0.00	5.00	8.220	9.86	346.9	0.0	232.6
77.00	Appertunance(s)	1.00	0.91	20.130	22.14	143.81	1.200	*	0.00	2.00	3.190	3.83	135.6	0.0	90.2
80.00		1.00	0.92	20.351	22.38	140.74	1.200	*	0.00	3.00	4.679	5.61	201.1	0.0	132.3
85.00		1.00	0.94	20.706	22.77	135.47	1.200	*	0.00	5.00	7.517	9.02	328.7	0.0	212.5
87.00	Appertunance(s)	1.00	0.95	20.844	22.92	133.32	1.200	*	0.00	2.00	2.908	3.49	128.0	0.0	82.2
90.00		1.00	0.95	21.047	23.15	130.04	1.000		0.00	3.00	4.257	4.26	157.7	0.0	120.3
95.00		1.00	0.97	21.375	23.51	124.46	1.000		0.00	5.00	6.814	6.81	256.3	0.0	192.4
100.0	Appertunance(s)	1.00	0.98	21.690	23.86	118.73	1.000		0.00	5.00	6.462	6.46	246.7	0.0	182.4
100.4		1.00	0.98	21.718	23.89	118.21	1.000		0.00	0.45	0.564	0.56	21.6	0.0	15.9
							Totals:			100.45			6,977.5	0.0	10,362.3

* = Cf Adjusted By Linear Load Ra Effect

Pole : 302481	Code: ANSI/TIA-222 Rev G		
Location : Hrfr South, CT	Struct Class : II		5/15/2009 2:24:59 PM
Height : 100.4 (ft)	Exposure Category : B		Page : 4
Shape : 12 Sides	Topographic Category : 1		
Base Dia : 30.00 (in)			
Top Dia : 14.50 (in)			
Taper : 0.163016 (in/ft)	Base Elev : 0.000 (ft)		



Load Case: 1.2D + 1.6W — 95.00 mph with No Ice — 23 Iterations

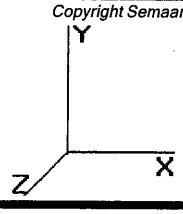
Gust Response Factor : 1.10
Dead Load Factor : 1.20
Wind Load Factor : 1.60
Wind Importance Factor : 1.00

Discrete Appurtenance Segment Forces (Factored)

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Ka	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
60.00	Scala 840 10212	1	18.745	20.619	0.90	0.90	2.28	0.000	0.000	75.12	0.00	0.00	8.04
77.00	TX RX Systems 421-86	1	20.130	22.143	0.45	0.90	1.17	0.000	0.000	41.29	0.00	0.00	18.00
77.00	Scala 840 10212	1	20.130	22.143	0.90	0.90	2.28	0.000	0.000	80.67	0.00	0.00	8.04
77.00	Antel LPA-80063/4CF	6	20.130	22.143	0.74	0.80	31.25	0.000	0.000	1,107.06	0.00	0.00	144.00
77.00	Antel LPA-185063/8CF	6	20.130	22.143	0.77	0.80	13.64	0.000	0.000	483.23	0.00	0.00	64.80
77.00	Flat T-Arm	3	20.130	22.143	0.50	0.75	19.45	0.000	0.000	688.97	0.00	0.00	900.00
87.00	RFS APX16DWV-	3	20.844	22.929	0.54	0.80	10.77	0.000	0.000	395.24	0.00	0.00	142.56
87.00	CCI DTMA-1819-DD-12	6	20.844	22.929	0.40	0.80	1.70	0.000	0.000	62.51	0.00	0.00	102.96
87.00	RFS APXV18-206516S-	3	20.844	22.929	0.62	0.80	6.69	0.000	0.000	245.42	0.00	0.00	67.32
87.00	Flat Low Profile Pla	1	20.844	22.929	1.00	1.00	26.10	0.000	0.000	957.51	0.00	0.00	1,800.00
100.0	RET/ RCU	6	21.814	23.995	0.34	0.75	0.32	0.000	2.000	12.44	0.00	24.88	7.20
100.0	CSS DUO4-8670	12	21.814	23.995	0.53	0.75	41.73	0.000	2.000	1,601.97	0.00	3,203.93	957.60
100.0	Platform w/ Rails an	1	21.690	23.860	1.00	1.00	27.20	0.000	0.000	1,038.36	0.00	0.00	2,400.00
100.0	ADC CG-800DD-FULL-	12	21.814	23.995	0.34	0.75	5.06	0.000	2.000	194.36	0.00	388.72	200.16
100.0	10' Omni	1	21.995	24.194	0.75	0.75	2.25	0.000	5.000	87.10	0.00	435.50	30.00
										7,071.25			6,850.68

Pole : 302481
Location : Hrfr South, CT
Height : 100.4 (ft)
Shape : 12 Sides
Base Dia : 30.00 (in)
Top Dia : 14.50 (in)
Taper : 0.163016 (in/ft)

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



Load Case: 1.2D + 1.6W — 95.00 mph with No Ice — 23 Iterations

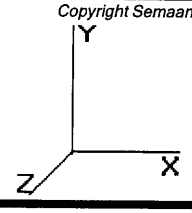
Gust Response Factor : 1.10
Dead Load Factor : 1.20
Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Linear Appurtenance Segment Forces (Factored)

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	F X (lb)	Dead Load (lb)
5.00	(4) #20 Dywidag	Yes	5.00	0.000	2.00	0.83	0.00	15.364	0.065	0.000	0.00	0.00
10.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	15.364	0.333	0.000	53.54	88.55
10.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	15.364	0.333	0.000	53.54	59.03
10.00	(4) #20 Dywidag	Yes	5.00	1.200	2.00	0.83	1.00	15.364	0.333	0.000	27.04	0.00
15.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	15.364	0.343	0.000	53.54	88.55
15.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	15.364	0.343	0.000	53.54	59.03
15.00	(4) #20 Dywidag	Yes	5.00	1.200	2.00	0.83	1.00	15.364	0.343	0.000	27.04	0.00
20.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	15.364	0.353	0.000	53.54	88.55
20.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	15.364	0.353	0.000	53.54	59.03
20.00	(4) #20 Dywidag	Yes	5.00	1.200	2.00	0.83	1.00	15.364	0.353	0.000	27.04	0.00
25.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	15.364	0.364	0.000	53.54	88.55
25.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	15.364	0.364	0.000	53.54	59.03
25.00	(4) #20 Dywidag	Yes	5.00	1.200	2.00	0.83	1.00	15.364	0.364	0.000	27.04	0.00
29.33	(18) 1 5/8" Coax	Yes	4.33	1.200	3.96	1.43	1.71	15.364	0.375	0.000	46.37	76.68
29.33	(12) 1 5/8" Coax	Yes	4.33	1.200	3.96	1.43	1.71	15.364	0.375	0.000	46.37	51.12
29.33	(4) #20 Dywidag	Yes	4.33	1.200	2.00	0.72	0.87	15.364	0.375	0.000	23.42	0.00
30.00	(18) 1 5/8" Coax	Yes	0.67	1.200	3.96	0.22	0.27	15.377	0.381	0.000	7.18	11.87
30.00	(12) 1 5/8" Coax	Yes	0.67	1.200	3.96	0.22	0.27	15.377	0.381	0.000	7.18	7.91
30.00	(4) #20 Dywidag	Yes	0.67	1.200	2.00	0.11	0.13	15.377	0.381	0.000	3.63	0.00
32.83	(18) 1 5/8" Coax	Yes	2.83	1.200	3.96	0.93	1.12	15.778	0.385	0.000	31.12	50.12
32.83	(12) 1 5/8" Coax	Yes	2.83	1.200	3.96	0.93	1.12	15.778	0.385	0.000	31.12	33.41
32.83	(4) #20 Dywidag	Yes	2.83	1.200	2.00	0.47	0.57	15.778	0.385	0.000	15.72	0.00
35.00	(18) 1 5/8" Coax	Yes	2.17	1.200	3.96	0.72	0.86	16.070	0.384	0.000	24.30	38.43
35.00	(12) 1 5/8" Coax	Yes	2.17	1.200	3.96	0.72	0.86	16.070	0.384	0.000	24.30	25.62
35.00	(4) #20 Dywidag	Yes	2.17	1.200	2.00	0.36	0.43	16.070	0.384	0.000	12.28	0.00
40.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	16.694	0.393	0.000	58.18	88.55
40.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	16.694	0.393	0.000	58.18	59.03
40.00	(4) #20 Dywidag	Yes	5.00	1.200	2.00	0.83	1.00	16.694	0.393	0.000	29.38	0.00
45.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	17.266	0.407	0.000	60.17	88.55
45.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	17.266	0.407	0.000	60.17	59.03
45.00	(4) #20 Dywidag	Yes	5.00	1.200	2.00	0.83	1.00	17.266	0.407	0.000	30.39	0.00
47.00	(18) 1 5/8" Coax	Yes	2.00	1.200	3.96	0.66	0.79	17.482	0.417	0.000	24.37	35.42
47.00	(12) 1 5/8" Coax	Yes	2.00	1.200	3.96	0.66	0.79	17.482	0.417	0.000	24.37	23.61
47.00	(4) #20 Dywidag	Yes	2.00	1.200	2.00	0.33	0.40	17.482	0.417	0.000	12.31	0.00
50.00	(18) 1 5/8" Coax	Yes	3.00	1.200	3.96	0.99	1.19	17.793	0.339	0.000	37.20	53.13
50.00	(12) 1 5/8" Coax	Yes	3.00	1.200	3.96	0.99	1.19	17.793	0.339	0.000	37.20	35.42
55.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	18.285	0.349	0.000	63.72	88.55
55.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	18.285	0.349	0.000	63.72	59.03
60.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	18.745	0.362	0.000	65.32	88.55
60.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	18.745	0.362	0.000	65.32	59.03
62.92	(18) 1 5/8" Coax	Yes	2.92	1.200	3.96	0.96	1.15	19.001	0.374	0.000	38.62	51.65
62.92	(12) 1 5/8" Coax	Yes	2.92	1.200	3.96	0.96	1.15	19.001	0.374	0.000	38.62	34.43
65.00	(18) 1 5/8" Coax	Yes	2.08	1.200	3.96	0.69	0.83	19.179	0.381	0.000	27.85	36.90
65.00	(12) 1 5/8" Coax	Yes	2.08	1.200	3.96	0.69	0.83	19.179	0.381	0.000	27.85	24.60
65.75	(18) 1 5/8" Coax	Yes	0.75	1.200	3.96	0.25	0.30	19.242	0.386	0.000	10.06	13.28
65.75	(12) 1 5/8" Coax	Yes	0.75	1.200	3.96	0.25	0.30	19.242	0.386	0.000	10.06	8.85
70.00	(18) 1 5/8" Coax	Yes	4.25	1.200	3.96	1.40	1.68	19.589	0.386	0.000	58.03	75.27
70.00	(12) 1 5/8" Coax	Yes	4.25	1.200	3.96	1.40	1.68	19.589	0.386	0.000	58.03	50.18
75.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	19.979	0.401	0.000	69.62	88.55
75.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	19.979	0.401	0.000	69.62	59.03
77.00	(18) 1 5/8" Coax	Yes	2.00	1.200	3.96	0.66	0.79	20.130	0.414	0.000	28.06	35.42

Pole :	302481	Code: ANSI/TIA-222 Rev G	
Location :	Hrfr South, CT	Struct Class : II	
Height :	100.4 (ft)	Exposure Category : B	
Shape :	12 Sides	Topographic Category : 1	
Base Dia :	30.00 (in)		
Top Dia :	14.50 (in)		
Taper :	0.163016 (in/ft)	Base Elev : 0.000 (ft)	



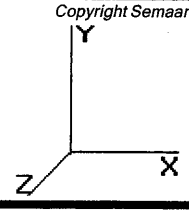
Load Case: 1.2D + 1.6W — 95.00 mph with No Ice — 23 Iterations

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

Wind Importance Factor : 1.00

77.00	(12) 1 5/8" Coax	Yes	2.00	1.200	3.96	0.66	0.79	20.130	0.414	0.000	28.06	23.61
80.00	(18) 1 5/8" Coax	Yes	3.00	1.200	3.96	0.99	1.19	20.351	0.212	0.000	42.55	53.13
85.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	20.706	0.220	0.000	72.16	88.55
87.00	(18) 1 5/8" Coax	Yes	2.00	1.200	3.96	0.66	0.79	20.844	0.227	0.000	29.06	35.42
										Totals:	2,107.70	2,302.28

Pole :	302481	Code: ANSI/TIA-222 Rev G	
Location :	Hrfr South, CT	Struct Class : II	
Height :	100.4 (ft)	Exposure Category : B	
Shape :	12 Sides	Topographic Category : 1	
Base Dia :	30.00 (in)		
Top Dia :	14.50 (in)		
Taper :	0.163016 (in/ft)	Base Elev : 0.000 (ft)	



Load Case: 1.2D + 1.6W — 95.00 mph with No Ice — 23 Iterations

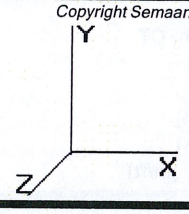
Gust Response Factor : 1.10
Dead Load Factor : 1.20
Wind Load Factor : 1.60

Wind Importance 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		345.18	816.25	0.00	0.00
10.00		536.93	997.78	0.00	0.00
15.00		525.52	984.38	0.00	0.00
20.00		514.11	970.98	0.00	0.00
25.00		502.70	957.59	0.00	0.00
29.33		426.11	818.43	0.00	0.00
30.00		66.18	181.74	0.00	0.00
32.83		284.43	762.21	0.00	0.00
35.00		219.55	405.91	0.00	0.00
40.00		516.64	925.62	0.00	0.00
45.00		521.51	912.22	0.00	0.00
47.00		207.58	361.14	0.00	0.00
50.00		294.16	337.29	0.00	0.00
55.00		492.94	551.43	0.00	0.00
60.00		566.55	546.07	0.00	0.00
62.92		284.06	306.50	0.00	0.00
65.00		204.58	320.23	0.00	0.00
65.75		73.27	114.26	0.00	0.00
70.00		416.57	369.61	0.00	0.00
75.00		486.10	425.53	0.00	0.00
77.00		2,592.95	1,302.24	0.00	0.00
80.00		243.66	211.47	0.00	0.00
85.00		400.89	344.42	0.00	0.00
87.00		1,817.78	2,247.79	0.00	0.00
90.00		157.70	146.29	0.00	0.00
95.00		256.34	235.78	0.00	0.00
100.0		3,180.92	3,820.69	0.00	4,053.03
100.4		21.57	15.92	0.00	0.00
	Totals:	16,156.48	20,389.74	0.00	4,053.03

Pole :	302481	Code: ANSI/TIA-222 Rev G	
Location :	Hrfr South, CT	Struct Class : II	
Height :	100.4 (ft)	Exposure Category : B	
Shape :	12 Sides	Topographic Category : 1	
Base Dia :	30.00 (in)		
Top Dia :	14.50 (in)		
Taper :	0.163016 (in/ft)	Base Elev : 0.000 (ft)	



Load Case: 1.2D + 1.6W — 95.00 mph with No Ice — 23 Iterations

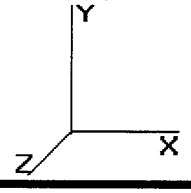
Gust Response Factor : 1.10
Dead Load Factor : 1.20
Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-20.35	-16.20	0.00	-1,114.89	0.00	1,114.89	1,396.48	698.24	1,714.19	846.57	0.00	0.00	0.601
5.00	-19.47	-15.94	0.00	-1,033.88	0.00	1,033.88	1,362.62	681.31	1,626.42	803.23	0.14	-0.25	0.575
10.00	-18.41	-15.48	0.00	-954.17	0.00	954.17	1,324.23	662.12	1,535.70	758.42	0.54	-0.50	0.549
15.00	-17.36	-15.01	0.00	-876.79	0.00	876.79	1,285.85	642.92	1,447.58	714.91	1.20	-0.75	0.523
20.00	-16.34	-14.55	0.00	-801.71	0.00	801.71	1,247.46	623.73	1,362.07	672.67	2.12	-0.99	0.496
25.00	-15.34	-14.09	0.00	-728.94	0.00	728.94	1,209.08	604.54	1,279.15	631.73	3.28	-1.22	0.468
29.33	-14.51	-13.67	0.00	-667.94	0.00	667.94	1,175.84	587.92	1,209.46	597.31	4.48	-1.42	0.442
30.00	-14.31	-13.62	0.00	-658.77	0.00	658.77	1,170.70	585.35	1,198.85	592.07	4.68	-1.45	0.430
32.83	-13.53	-13.34	0.00	-620.22	0.00	620.22	901.94	450.97	925.08	456.86	5.58	-1.58	0.536
35.00	-13.09	-13.15	0.00	-591.26	0.00	591.26	889.12	444.56	898.85	443.91	6.32	-1.67	0.519
40.00	-12.14	-12.64	0.00	-525.53	0.00	525.53	859.60	429.80	839.85	414.77	8.18	-1.87	0.479
45.00	-11.22	-12.12	0.00	-462.31	0.00	462.31	830.07	415.03	782.85	386.62	10.24	-2.06	0.438
47.00	-10.85	-11.91	0.00	-438.08	0.00	438.08	830.07	415.03	782.85	386.62	11.12	-2.14	0.422
47.00	-10.85	-11.91	0.00	-438.08	0.00	438.08	830.07	415.03	782.85	386.62	11.12	-2.14	1.180
50.00	-10.46	-11.66	0.00	-402.34	0.00	402.34	800.54	400.27	727.86	359.46	12.50	-2.24	1.133
55.00	-9.84	-11.23	0.00	-344.04	0.00	344.04	771.02	385.51	674.87	333.29	15.10	-2.72	1.046
60.00	-9.26	-10.69	0.00	-287.91	0.00	287.91	741.49	370.74	623.88	308.11	18.20	-3.18	0.948
62.92	-8.93	-10.42	0.00	-256.74	0.00	256.74	724.27	362.13	595.07	293.88	20.22	-3.43	0.887
65.00	-8.60	-10.21	0.00	-235.03	0.00	235.03	711.96	355.98	574.90	283.92	21.76	-3.61	0.841
65.75	-8.46	-10.16	0.00	-227.37	0.00	227.37	542.54	271.27	446.58	220.55	22.33	-3.67	1.048
70.00	-8.05	-9.78	0.00	-184.17	0.00	184.17	523.71	261.86	415.99	205.44	25.75	-4.00	0.913
75.00	-7.62	-9.30	0.00	-135.29	0.00	135.29	501.57	250.78	381.40	188.36	30.16	-4.41	0.735
77.00	-6.51	-6.63	0.00	-116.70	0.00	116.70	492.71	246.36	367.98	181.73	32.04	-4.56	0.656
80.00	-6.29	-6.40	0.00	-96.81	0.00	96.81	479.42	239.71	348.30	172.01	34.96	-4.76	0.577
85.00	-5.96	-5.98	0.00	-64.84	0.00	64.84	457.28	228.64	316.71	156.41	40.09	-5.03	0.428
87.00	-3.87	-3.98	0.00	-52.87	0.00	52.87	448.42	224.21	304.49	150.38	42.21	-5.12	0.361
90.00	-3.73	-3.82	0.00	-40.92	0.00	40.92	435.14	217.57	286.61	141.55	45.46	-5.23	0.298
95.00	-3.52	-3.55	0.00	-21.81	0.00	21.81	412.99	206.50	258.02	127.43	51.02	-5.37	0.180
100.00	-0.01	-0.02	0.00	-0.01	0.00	0.01	390.85	195.42	230.93	114.05	56.68	-5.44	0.000
100.45	0.00	-0.02	0.00	0.00	0.00	0.00	388.85	194.43	228.57	112.88	57.19	-5.44	0.000

Pole : 302481	Code: ANSI/TIA-222 Rev G		
Location : Hrfr South, CT	Struct Class : II		5/15/2009 2:25:00 PM
Height : 100.4 (ft)	Exposure Category : B		Page: 9
Shape : 12 Sides	Topographic Category : 1		
Base Dia : 30.00 (in)			
Top Dia : 14.50 (in)			
Taper : 0.163016 (in/ft)	Base Elev : 0.000 (ft)		



Load Case: 0.9D + 1.6W — 95.00 mph with No Ice (Reduced DL) — 23 Iterations

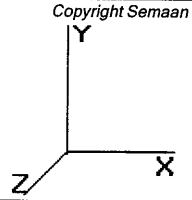
Gust Response Factor : 1.10
Dead Load Factor : 0.90
Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Shaft Segment Forces (Factored)

Seg Top Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf		Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	15.364	16.90	205.71	1.000		0.00	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	15.364	16.90	200.12	1.000		0.00	5.00	12.765	12.77	345.2	0.0	695.7
10.00		1.00	0.70	15.364	16.90	194.53	1.200	*	0.00	5.00	12.414	14.90	402.8	0.0	685.6
15.00		1.00	0.70	15.364	16.90	188.94	1.200	*	0.00	5.00	12.062	14.47	391.4	0.0	675.6
20.00		1.00	0.70	15.364	16.90	183.36	1.200	*	0.00	5.00	11.710	14.05	380.0	0.0	665.5
25.00		1.00	0.70	15.364	16.90	177.77	1.200	*	0.00	5.00	11.359	13.63	368.6	0.0	655.5
29.33	Bot - Section 2	1.00	0.70	15.364	16.90	172.93	1.200	*	0.00	4.33	9.552	11.46	310.0	0.0	559.5
30.00		1.00	0.70	15.377	16.91	172.25	1.200	*	0.00	0.67	1.484	1.78	48.2	0.0	127.9
32.83	Top - Section 1	1.00	0.71	15.778	17.35	171.28	1.200	*	0.00	2.83	6.196	7.44	206.5	0.0	536.2
35.00		1.00	0.73	16.070	17.67	173.88	1.200	*	0.00	2.17	4.675	5.61	158.7	0.0	277.2
40.00		1.00	0.76	16.694	18.36	171.40	1.200	*	0.00	5.00	10.520	12.62	370.9	0.0	631.5
45.00		1.00	0.78	17.266	18.99	168.38	1.200	*	0.00	5.00	10.168	12.20	370.8	0.0	621.5
47.00	Reinf. Top	1.00	0.79	17.482	19.23	167.05	1.200	*	0.00	2.00	3.969	4.76	146.5	0.0	245.8
50.00		1.00	0.81	17.793	19.57	164.92	1.200	*	0.00	3.00	5.848	7.02	219.8	0.0	165.3
55.00		1.00	0.83	18.285	20.11	161.08	1.200	*	0.00	5.00	9.465	11.36	365.5	0.0	267.4
60.00	Appertunance(s)	1.00	0.85	18.745	20.61	156.92	1.200	*	0.00	5.00	9.113	10.94	360.8	0.0	257.3
62.92	Bot - Section 3	1.00	0.86	19.001	20.90	154.37	1.200	*	0.00	2.92	5.154	6.18	206.8	0.0	145.5
65.00		1.00	0.87	19.179	21.09	152.49	1.200	*	0.00	2.08	3.676	4.41	148.9	0.0	179.9
65.75	Top - Section 2	1.00	0.87	19.242	21.16	151.80	1.200	*	0.00	0.75	1.308	1.57	53.2	0.0	64.0
70.00		1.00	0.89	19.589	21.54	150.70	1.200	*	0.00	4.25	7.264	8.72	300.5	0.0	154.2
75.00		1.00	0.91	19.979	21.97	145.82	1.200	*	0.00	5.00	8.220	9.86	346.9	0.0	174.4
77.00	Appertunance(s)	1.00	0.91	20.130	22.14	143.81	1.200	*	0.00	2.00	3.190	3.83	135.6	0.0	67.7
80.00		1.00	0.92	20.351	22.38	140.74	1.200	*	0.00	3.00	4.679	5.61	201.1	0.0	99.2
85.00		1.00	0.94	20.706	22.77	135.47	1.200	*	0.00	5.00	7.517	9.02	328.7	0.0	159.4
87.00	Appertunance(s)	1.00	0.95	20.844	22.92	133.32	1.200	*	0.00	2.00	2.908	3.49	128.0	0.0	61.6
90.00		1.00	0.95	21.047	23.15	130.04	1.000		0.00	3.00	4.257	4.26	157.7	0.0	90.2
95.00		1.00	0.97	21.375	23.51	124.46	1.000		0.00	5.00	6.814	6.81	256.3	0.0	144.3
100.0	Appertunance(s)	1.00	0.98	21.690	23.86	118.73	1.000		0.00	5.00	6.462	6.46	246.7	0.0	136.8
100.4		1.00	0.98	21.718	23.89	118.21	1.000		0.00	0.45	0.564	0.56	21.6	0.0	11.9
* = Cf Adjusted By Linear Load Ra Effect						Totals:				100.45			6,977.5	0.0	8,556.6

Pole :	302481	Code: ANSI/TIA-222 Rev G	
Location :	Hrfr South, CT	Struct Class : II	
Height :	100.4 (ft)	Exposure Category : B	
Shape :	12 Sides	Topographic Category : 1	
Base Dia :	30.00 (in)		
Top Dia :	14.50 (in)		
Taper :	0.163016 (in/ft)	Base Elev : 0.000 (ft)	



Load Case: 0.9D + 1.6W — 95.00 mph with No Ice (Reduced DL) — 23 Iterations

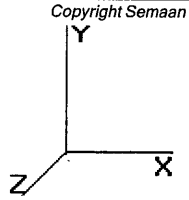
Gust Response Factor : 1.10
Dead Load Factor : 0.90
Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Discrete Appurtenance Segment Forces (Factored)

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Ka	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
60.00	Scala 840 10212	1	18.745	20.619	0.90	0.90	2.28	0.000	0.000	75.12	0.00	0.00	6.03
77.00	TX RX Systems 421-86	1	20.130	22.143	0.45	0.90	1.17	0.000	0.000	41.29	0.00	0.00	13.50
77.00	Scala 840 10212	1	20.130	22.143	0.90	0.90	2.28	0.000	0.000	80.67	0.00	0.00	6.03
77.00	Antel LPA-80063/4CF	6	20.130	22.143	0.74	0.80	31.25	0.000	0.000	1,107.06	0.00	0.00	108.00
77.00	Antel LPA-185063/8CF	6	20.130	22.143	0.77	0.80	13.64	0.000	0.000	483.23	0.00	0.00	48.60
77.00	Flat T-Arm	3	20.130	22.143	0.50	0.75	19.45	0.000	0.000	688.97	0.00	0.00	675.00
87.00	RFS APX16DWV-	3	20.844	22.929	0.54	0.80	10.77	0.000	0.000	395.24	0.00	0.00	106.92
87.00	CCI DTMA-1819-DD-12	6	20.844	22.929	0.40	0.80	1.70	0.000	0.000	62.51	0.00	0.00	77.22
87.00	RFS APXV18-206516S-	3	20.844	22.929	0.62	0.80	6.69	0.000	0.000	245.42	0.00	0.00	50.49
87.00	Flat Low Profile Pla	1	20.844	22.929	1.00	1.00	26.10	0.000	0.000	957.51	0.00	0.00	1,350.00
100.0	RET/ RCU	6	21.814	23.995	0.34	0.75	0.32	0.000	2.000	12.44	0.00	24.88	5.40
100.0	CSS DUO4-8670	12	21.814	23.995	0.53	0.75	41.73	0.000	2.000	1,601.97	0.00	3,203.93	718.20
100.0	Platform w/ Rails an	1	21.690	23.860	1.00	1.00	27.20	0.000	0.000	1,038.36	0.00	0.00	1,800.00
100.0	ADC CG-800DD-FULL-	12	21.814	23.995	0.34	0.75	5.06	0.000	2.000	194.36	0.00	388.72	150.12
100.0	10' Omni	1	21.995	24.194	0.75	0.75	2.25	0.000	5.000	87.10	0.00	435.50	22.50
										7,071.25			5,138.01

Pole :	302481	Code: ANSI/TIA-222 Rev G	
Location :	Hrfr South, CT	Struct Class : II	
Height :	100.4 (ft)	Exposure Category : B	
Shape :	12 Sides	Topographic Category : 1	
Base Dia :	30.00 (in)		
Top Dia :	14.50 (in)		
Taper :	0.163016 (in/ft)	Base Elev : 0.000 (ft)	



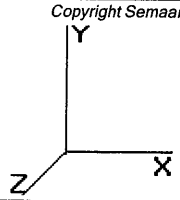
Load Case: 0.9D + 1.6W — 95.00 mph with No Ice (Reduced DL) — 23 Iterations

Gust Response Factor : 1.10
Dead Load Factor : 0.90
Wind Load Factor : 1.60
Wind Importance Factor : 1.00

Linear Appurtenance Segment Forces (Factored)

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	F X (lb)	Dead Load (lb)
5.00	(4) #20 Dywidag	Yes	5.00	0.000	2.00	0.83	0.00	15.364	0.065	0.000	0.00	0.00
10.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	15.364	0.333	0.000	53.54	66.41
10.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	15.364	0.333	0.000	53.54	44.27
10.00	(4) #20 Dywidag	Yes	5.00	1.200	2.00	0.83	1.00	15.364	0.333	0.000	27.04	0.00
15.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	15.364	0.343	0.000	53.54	66.41
15.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	15.364	0.343	0.000	53.54	44.27
15.00	(4) #20 Dywidag	Yes	5.00	1.200	2.00	0.83	1.00	15.364	0.343	0.000	27.04	0.00
20.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	15.364	0.353	0.000	53.54	66.41
20.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	15.364	0.353	0.000	53.54	44.27
20.00	(4) #20 Dywidag	Yes	5.00	1.200	2.00	0.83	1.00	15.364	0.353	0.000	27.04	0.00
25.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	15.364	0.364	0.000	53.54	66.41
25.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	15.364	0.364	0.000	53.54	44.27
25.00	(4) #20 Dywidag	Yes	5.00	1.200	2.00	0.83	1.00	15.364	0.364	0.000	27.04	0.00
29.33	(18) 1 5/8" Coax	Yes	4.33	1.200	3.96	1.43	1.71	15.364	0.375	0.000	46.37	57.51
29.33	(12) 1 5/8" Coax	Yes	4.33	1.200	3.96	1.43	1.71	15.364	0.375	0.000	46.37	38.34
29.33	(4) #20 Dywidag	Yes	4.33	1.200	2.00	0.72	0.87	15.364	0.375	0.000	23.42	0.00
30.00	(18) 1 5/8" Coax	Yes	0.67	1.200	3.96	0.22	0.27	15.377	0.381	0.000	7.18	8.90
30.00	(12) 1 5/8" Coax	Yes	0.67	1.200	3.96	0.22	0.27	15.377	0.381	0.000	7.18	5.93
30.00	(4) #20 Dywidag	Yes	0.67	1.200	2.00	0.11	0.13	15.377	0.381	0.000	3.63	0.00
32.83	(18) 1 5/8" Coax	Yes	2.83	1.200	3.96	0.93	1.12	15.778	0.385	0.000	31.12	37.59
32.83	(12) 1 5/8" Coax	Yes	2.83	1.200	3.96	0.93	1.12	15.778	0.385	0.000	31.12	25.06
32.83	(4) #20 Dywidag	Yes	2.83	1.200	2.00	0.47	0.57	15.778	0.385	0.000	15.72	0.00
35.00	(18) 1 5/8" Coax	Yes	2.17	1.200	3.96	0.72	0.86	16.070	0.384	0.000	24.30	28.82
35.00	(12) 1 5/8" Coax	Yes	2.17	1.200	3.96	0.72	0.86	16.070	0.384	0.000	24.30	19.22
35.00	(4) #20 Dywidag	Yes	2.17	1.200	2.00	0.36	0.43	16.070	0.384	0.000	12.28	0.00
40.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	16.694	0.393	0.000	58.18	66.41
40.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	16.694	0.393	0.000	58.18	44.27
40.00	(4) #20 Dywidag	Yes	5.00	1.200	2.00	0.83	1.00	16.694	0.393	0.000	29.38	0.00
45.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	17.266	0.407	0.000	60.17	66.41
45.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	17.266	0.407	0.000	60.17	44.27
45.00	(4) #20 Dywidag	Yes	5.00	1.200	2.00	0.83	1.00	17.266	0.407	0.000	30.39	0.00
47.00	(18) 1 5/8" Coax	Yes	2.00	1.200	3.96	0.66	0.79	17.482	0.417	0.000	24.37	26.56
47.00	(12) 1 5/8" Coax	Yes	2.00	1.200	3.96	0.66	0.79	17.482	0.417	0.000	24.37	17.71
47.00	(4) #20 Dywidag	Yes	2.00	1.200	2.00	0.33	0.40	17.482	0.417	0.000	12.31	0.00
50.00	(18) 1 5/8" Coax	Yes	3.00	1.200	3.96	0.99	1.19	17.793	0.339	0.000	37.20	39.85
50.00	(12) 1 5/8" Coax	Yes	3.00	1.200	3.96	0.99	1.19	17.793	0.339	0.000	37.20	26.56
55.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	18.285	0.349	0.000	63.72	66.41
55.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	18.285	0.349	0.000	63.72	44.27
60.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	18.745	0.362	0.000	65.32	66.41
60.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	18.745	0.362	0.000	65.32	44.27
62.92	(18) 1 5/8" Coax	Yes	2.92	1.200	3.96	0.96	1.15	19.001	0.374	0.000	38.62	38.74
62.92	(12) 1 5/8" Coax	Yes	2.92	1.200	3.96	0.96	1.15	19.001	0.374	0.000	38.62	25.83
65.00	(18) 1 5/8" Coax	Yes	2.08	1.200	3.96	0.69	0.83	19.179	0.381	0.000	27.85	27.67
65.00	(12) 1 5/8" Coax	Yes	2.08	1.200	3.96	0.69	0.83	19.179	0.381	0.000	27.85	18.45
65.75	(18) 1 5/8" Coax	Yes	0.75	1.200	3.96	0.25	0.30	19.242	0.386	0.000	10.06	9.96
65.75	(12) 1 5/8" Coax	Yes	0.75	1.200	3.96	0.25	0.30	19.242	0.386	0.000	10.06	6.64
70.00	(18) 1 5/8" Coax	Yes	4.25	1.200	3.96	1.40	1.68	19.589	0.386	0.000	58.03	56.45
70.00	(12) 1 5/8" Coax	Yes	4.25	1.200	3.96	1.40	1.68	19.589	0.386	0.000	58.03	37.63
75.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	19.979	0.401	0.000	69.62	66.41
75.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	19.979	0.401	0.000	69.62	44.27
77.00	(18) 1 5/8" Coax	Yes	2.00	1.200	3.96	0.66	0.79	20.130	0.414	0.000	28.06	26.56

Pole :	302481	Code: ANSI/TIA-222 Rev G	
Location :	Hrfr South, CT	Struct Class : II	
Height :	100.4 (ft)	Exposure Category : B	
Shape :	12 Sides	Topographic Category : 1	
Base Dia :	30.00 (in)		
Top Dia :	14.50 (in)		
Taper :	0.163016 (in/ft)	Base Elev : 0.000 (ft)	

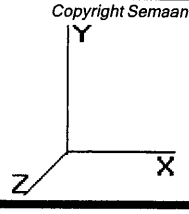


Load Case: 0.9D + 1.6W — 95.00 mph with No Ice (Reduced DL) — 23 Iterations

Gust Response Factor : 1.10
Dead Load Factor : 0.90
Wind Load Factor : 1.60
Wind Importance Factor : 1.00

77.00	(12) 1 5/8" Coax	Yes	2.00	1.200	3.96	0.66	0.79	20.130	0.414	0.000	28.06	17.71
80.00	(18) 1 5/8" Coax	Yes	3.00	1.200	3.96	0.99	1.19	20.351	0.212	0.000	42.55	39.85
85.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	20.706	0.220	0.000	72.16	66.41
87.00	(18) 1 5/8" Coax	Yes	2.00	1.200	3.96	0.66	0.79	20.844	0.227	0.000	29.06	26.56
										Totals:	2,107.70	1,726.71

Pole : 302481	Code: ANSI/TIA-222 Rev G		
Location : Hrfr South, CT	Struct Class : II		5/15/2009 2:25:00 PM
Height : 100.4 (ft)	Exposure Category : B		Page: 13
Shape : 12 Sides	Topographic Category : 1		
Base Dia : 30.00 (in)			
Top Dia : 14.50 (in)			
Taper : 0.163016 (in/ft)	Base Elev : 0.000 (ft)		



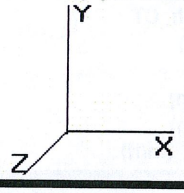
Load Case: 0.9D + 1.6W — 95.00 mph with No Ice (Reduced DL) — 23 Iterations

Gust Response Factor : 1.10
Dead Load Factor : 0.90
Wind Load Factor : 1.60
Wind Importance 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	345.18	695.69	0.00	0.00
10.00	536.93	831.83	0.00	0.00
15.00	525.52	821.78	0.00	0.00
20.00	514.11	811.74	0.00	0.00
25.00	502.70	801.69	0.00	0.00
29.33	426.11	686.13	0.00	0.00
30.00	66.18	147.50	0.00	0.00
32.83	284.43	618.91	0.00	0.00
35.00	219.55	340.67	0.00	0.00
40.00	516.64	777.71	0.00	0.00
45.00	521.51	767.66	0.00	0.00
47.00	207.58	304.25	0.00	0.00
50.00	294.16	252.97	0.00	0.00
55.00	492.94	413.57	0.00	0.00
60.00	566.55	409.55	0.00	0.00
62.92	284.06	229.87	0.00	0.00
65.00	204.58	240.17	0.00	0.00
65.75	73.27	85.70	0.00	0.00
70.00	416.57	277.20	0.00	0.00
75.00	486.10	319.14	0.00	0.00
77.00	2,592.95	976.68	0.00	0.00
80.00	243.66	158.61	0.00	0.00
85.00	400.89	258.31	0.00	0.00
87.00	1,817.78	1,685.85	0.00	0.00
90.00	157.70	109.72	0.00	0.00
95.00	256.34	176.83	0.00	0.00
100.0	3,180.92	2,865.52	0.00	4,053.03
100.4	21.57	11.94	0.00	0.00
Totals:	16,156.48	16,077.20	0.00	4,053.03

Pole :	302481	Code: ANSI/TIA-222 Rev G	
Location :	Hrfr South, CT	Struct Class : II	
Height :	100.4 (ft)	Exposure Category : B	
Shape :	12 Sides	Topographic Category : 1	
Base Dia :	30.00 (in)		
Top Dia :	14.50 (in)		
Taper :	0.163016 (in/ft)	Base Elev : 0.000 (ft)	



Load Case: 0.9D + 1.6W — 95.00 mph with No Ice (Reduced DL) — 23 Iterations

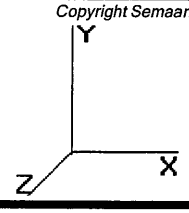
Gust Response Factor : 1.10
Dead Load Factor : 0.90
Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-16.04	-16.19	0.00	-1,104.49	0.00	1,104.49	1,396.48	698.24	1,714.19	846.57	0.00	0.00	0.594
5.00	-15.28	-15.91	0.00	-1,023.53	0.00	1,023.53	1,362.62	681.31	1,626.42	803.23	0.14	-0.25	0.568
10.00	-14.38	-15.43	0.00	-943.97	0.00	943.97	1,324.23	662.12	1,535.70	758.42	0.53	-0.50	0.542
15.00	-13.50	-14.95	0.00	-866.81	0.00	866.81	1,285.85	642.92	1,447.58	714.91	1.19	-0.74	0.516
20.00	-12.64	-14.48	0.00	-792.04	0.00	792.04	1,247.46	623.73	1,362.07	672.67	2.09	-0.98	0.488
25.00	-11.80	-14.01	0.00	-719.64	0.00	719.64	1,209.08	604.54	1,279.15	631.73	3.24	-1.21	0.460
29.33	-11.09	-13.59	0.00	-659.00	0.00	659.00	1,175.84	587.92	1,209.46	597.31	4.43	-1.40	0.435
30.00	-10.93	-13.53	0.00	-649.90	0.00	649.90	1,170.70	585.35	1,198.85	592.07	4.63	-1.43	0.423
32.83	-10.29	-13.25	0.00	-611.61	0.00	611.61	901.94	450.97	925.08	456.86	5.52	-1.56	0.527
35.00	-9.93	-13.05	0.00	-582.86	0.00	582.86	889.12	444.56	898.85	443.91	6.25	-1.65	0.510
40.00	-9.12	-12.54	0.00	-517.64	0.00	517.64	859.60	429.80	839.85	414.77	8.09	-1.85	0.471
45.00	-8.35	-12.01	0.00	-454.96	0.00	454.96	830.07	415.03	782.85	386.62	10.12	-2.04	0.430
47.00	-8.03	-11.80	0.00	-430.94	0.00	430.94	830.07	415.03	782.85	386.62	10.99	-2.11	0.413
47.00	-8.03	-11.80	0.00	-430.94	0.00	430.94	830.07	415.03	782.85	386.62	10.99	-2.11	1.158
50.00	-7.73	-11.54	0.00	-395.54	0.00	395.54	800.54	400.27	727.86	359.46	12.35	-2.21	1.111
55.00	-7.25	-11.09	0.00	-337.85	0.00	337.85	771.02	385.51	674.87	333.29	14.93	-2.68	1.024
60.00	-6.81	-10.54	0.00	-282.42	0.00	282.42	741.49	370.74	623.88	308.11	17.98	-3.13	0.927
62.92	-6.56	-10.27	0.00	-251.68	0.00	251.68	724.27	362.13	595.07	293.88	19.97	-3.38	0.866
65.00	-6.31	-10.06	0.00	-230.29	0.00	230.29	711.96	355.98	574.90	283.92	21.48	-3.56	0.821
65.75	-6.19	-10.00	0.00	-222.74	0.00	222.74	542.54	271.27	446.58	220.55	22.05	-3.62	1.023
70.00	-5.88	-9.61	0.00	-180.22	0.00	180.22	523.71	261.86	415.99	205.44	25.41	-3.94	0.890
75.00	-5.56	-9.13	0.00	-132.18	0.00	132.18	501.57	250.78	381.40	188.36	29.76	-4.34	0.714
77.00	-4.76	-6.48	0.00	-113.93	0.00	113.93	492.71	246.36	367.98	181.73	31.60	-4.48	0.637
80.00	-4.60	-6.24	0.00	-94.49	0.00	94.49	479.42	239.71	348.30	172.01	34.48	-4.68	0.560
85.00	-4.36	-5.84	0.00	-63.27	0.00	63.27	457.28	228.64	316.71	156.41	39.52	-4.94	0.415
87.00	-2.83	-3.88	0.00	-51.60	0.00	51.60	448.42	224.21	304.49	150.38	41.61	-5.03	0.350
90.00	-2.73	-3.72	0.00	-39.95	0.00	39.95	435.14	217.57	286.61	141.55	44.80	-5.14	0.289
95.00	-2.57	-3.46	0.00	-21.34	0.00	21.34	412.99	206.50	258.02	127.43	50.26	-5.28	0.174
100.00	-0.01	-0.02	0.00	-0.01	0.00	0.01	390.85	195.42	230.93	114.05	55.83	-5.35	0.000
100.45	0.00	-0.02	0.00	0.00	0.00	0.00	388.85	194.43	228.57	112.88	56.33	-5.35	0.000

Pole : 302481	Code: ANSI/TIA-222 Rev G		
Location : Hrfr South, CT	Struct Class : II		5/15/2009 2:25:01 PM
Height : 100.4 (ft)	Exposure Category : B		Page: 15
Shape : 12 Sides	Topographic Category : 1		
Base Dia : 30.00 (in)			
Top Dia : 14.50 (in)			
Taper : 0.163016 (in/ft)	Base Elev : 0.000 (ft)		



Load Case: 1.2D + 1.0Di + 1.0Wi — 50.00 mph with 1.25 in Radial Ice — 23 Iterations

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

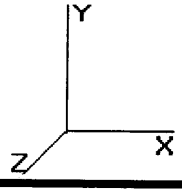
Dead Load Factor : 1.20 — Ice Importance Factor : 1.00

Wind Load Factor : 1.00

Shaft Segment Forces (Factored)

Seg Top Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf		Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	4.256	4.682	0.000	1.200		0.00	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	4.256	4.682	0.000	1.200		2.07	5.00	14.490	17.39	81.4	418.4	1,234.7
10.00		1.00	0.70	4.256	4.682	0.000	1.200	*	2.21	5.00	14.262	17.11	80.1	438.8	1,241.7
15.00		1.00	0.70	4.256	4.682	0.000	1.200	*	2.31	5.00	13.987	16.78	78.6	446.1	1,235.6
20.00		1.00	0.70	4.256	4.682	0.000	1.200	*	2.37	5.00	13.692	16.43	76.9	447.6	1,223.6
25.00		1.00	0.70	4.256	4.682	0.000	1.200	*	2.43	5.00	13.385	16.06	75.2	445.6	1,208.3
29.33	Bot - Section 2	1.00	0.70	4.256	4.682	0.000	1.200	*	2.47	4.33	11.335	13.60	63.7	382.8	1,032.5
30.00		1.00	0.70	4.260	4.686	0.000	1.200	*	2.47	0.67	1.760	2.11	9.9	60.2	215.9
32.83	Top - Section 1	1.00	0.71	4.371	4.808	0.000	1.200	*	2.49	2.83	7.375	8.85	42.5	252.7	904.5
35.00		1.00	0.73	4.451	4.897	0.000	1.200	*	2.51	2.17	5.585	6.70	32.8	192.6	513.9
40.00		1.00	0.76	4.625	5.087	0.000	1.200	*	2.54	5.00	12.643	15.17	77.2	436.8	1,167.5
45.00		1.00	0.78	4.783	5.261	0.000	1.200	*	2.57	5.00	12.317	14.78	77.8	428.8	1,146.1
47.00	Reinf. Top	1.00	0.79	4.843	5.327	0.000	1.200	*	2.59	2.00	4.832	5.80	30.9	170.2	453.3
50.00		1.00	0.81	4.929	5.422	0.000	1.200	*	2.60	3.00	7.151	8.58	46.5	252.0	472.4
55.00		1.00	0.83	5.065	5.572	0.000	1.200	*	2.63	5.00	11.657	13.99	77.9	410.6	767.1
60.00	Appertunance(s)	1.00	0.85	5.193	5.712	0.000	1.200	*	2.65	5.00	11.325	13.59	77.6	400.5	743.7
62.92	Bot - Section 3	1.00	0.86	5.263	5.790	0.000	1.200	*	2.66	2.92	6.450	7.74	44.8	230.1	424.0
65.00		1.00	0.87	5.313	5.844	0.000	1.200	*	2.67	2.08	4.605	5.53	32.3	165.2	405.0
65.75	Top - Section 2	1.00	0.87	5.330	5.863	0.000	1.200	*	2.67	0.75	1.643	1.97	11.6	59.2	144.5
70.00		1.00	0.89	5.426	5.969	0.000	1.200	*	2.69	4.25	9.173	11.01	65.7	327.7	533.3
75.00		1.00	0.91	5.534	6.088	0.000	1.200	*	2.71	5.00	10.482	12.58	76.6	374.2	606.8
77.00	Appertunance(s)	1.00	0.91	5.576	6.134	0.000	1.200	*	2.72	2.00	4.097	4.92	30.2	147.8	238.0
80.00		1.00	0.92	5.637	6.201	0.000	1.200	*	2.73	3.00	6.045	7.25	45.0	217.5	349.8
85.00		1.00	0.94	5.736	6.309	0.000	1.200	*	2.74	5.00	9.807	11.77	74.3	350.4	562.9
87.00	Appertunance(s)	1.00	0.95	5.774	6.351	0.000	1.200	*	2.75	2.00	3.827	4.59	29.2	138.2	220.4
90.00		1.00	0.95	5.830	6.413	0.000	1.200		2.76	3.00	5.639	6.77	43.4	202.9	323.1
95.00		1.00	0.97	5.921	6.513	0.000	1.200		2.77	5.00	9.130	10.96	71.4	325.5	517.9
100.0	Appertunance(s)	1.00	0.98	6.008	6.609	0.000	1.200		2.79	5.00	8.790	10.55	69.7	312.7	495.0
100.4		1.00	0.98	6.016	6.618	0.000	1.200		2.79	0.45	0.774	0.93	6.1	28.0	44.0
* = Cf Adjusted By Linear Load Ra Effect							Totals:			100.45			1,529.2	8,063.3	18,425.6

Pole :	302481	Code: ANSI/TIA-222 Rev G	
Location :	Hrfr South, CT	Struct Class : II	
Height :	100.4 (ft)	Exposure Category : B	
Shape :	12 Sides	Topographic Category : 1	
Base Dia :	30.00 (in)		
Top Dia :	14.50 (in)		
Taper :	0.163016 (in/ft)	Base Elev : 0.000 (ft)	



Load Case: 1.2D + 1.0Di + 1.0Wi — 50.00 mph with 1.25 in Radial Ice — 23 Iterations

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

Ice Dead Load Factor : 1.00

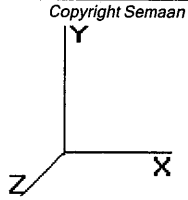
Wind Importance Factor : 1.00
Ice Importance Factor : 1.00

Discrete Appurtenance Segment Forces (Factored)

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Ka	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
60.00	Scala 840 10212	1	5.193	5.712	0.90	0.90	2.91	0.000	0.000	16.64	0.00	0.00	119.04
77.00	TX RX Systems 421-86	1	5.576	6.134	0.45	0.90	1.45	0.000	0.000	8.91	0.00	0.00	113.19
77.00	Scala 840 10212	1	5.576	6.134	0.90	0.90	2.94	0.000	0.000	18.04	0.00	0.00	123.04
77.00	Antel LPA-80063/4CF	6	5.576	6.134	0.74	0.80	34.91	0.000	0.000	214.14	0.00	0.00	2,248.65
77.00	Antel LPA-185063/8CF	6	5.576	6.134	0.77	0.80	20.06	0.000	0.000	123.04	0.00	0.00	1,086.09
77.00	Flat T-Arm	3	5.576	6.134	0.50	0.75	38.71	0.000	0.000	237.42	0.00	0.00	1,687.58
87.00	RFS APX16DWV-	3	5.774	6.351	0.53	0.80	12.56	0.000	0.000	79.75	0.00	0.00	845.60
87.00	CCI DTMA-1819-DD-12	6	5.774	6.351	0.40	0.80	3.01	0.000	0.000	19.10	0.00	0.00	406.57
87.00	RFS APXV18-206516S-	3	5.774	6.351	0.62	0.80	9.58	0.000	0.000	60.83	0.00	0.00	565.61
87.00	Flat Low Profile Pla	1	5.774	6.351	1.00	1.00	56.29	0.000	0.000	357.55	0.00	0.00	2,624.67
100.0	RET/ RCU	6	6.043	6.647	0.34	0.75	1.13	0.000	2.000	7.52	0.00	15.03	153.43
100.0	CSS DUO4-8670	12	6.043	6.647	0.53	0.75	47.91	0.000	2.000	318.46	0.00	636.92	4,559.10
100.0	Platform w/ Rails an	1	6.008	6.609	1.00	1.00	66.40	0.000	0.000	438.87	0.00	0.00	4,078.08
100.0	ADC CG-800DD-FULL-	12	6.043	6.647	0.34	0.75	7.46	0.000	2.000	49.56	0.00	99.13	1,028.16
100.0	10' Omni	1	6.093	6.702	0.75	0.75	5.44	0.000	5.000	36.49	0.00	182.46	295.05
										1,986.33			19,933.86

Pole : 302481
Location : Hrfr South, CT
Height : 100.4 (ft)
Shape : 12 Sides
Base Dia : 30.00 (in)
Top Dia : 14.50 (in)
Taper : 0.163016 (in/ft)

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



Load Case: 1.2D + 1.0Di + 1.0Wi — 50.00 mph with 1.25 in Radial Ice — 23 Iterations

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

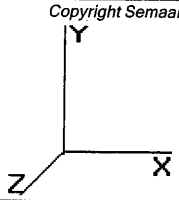
Ice Dead Load Factor : 1.00

Wind Importance Factor : 1.00
Ice Importance Factor : 1.00

Linear Appurtenance Segment Forces (Factored)

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	F X (lb)	Dead Load (lb)
5.00	(4) #20 Dywidag	Yes	5.00	0.000	2.00	2.56	0.00	4.256	0.065	0.000	0.00	117.11
10.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	3.50	4.20	4.256	0.333	0.000	19.66	455.57
10.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	3.50	4.20	4.256	0.333	0.000	19.66	313.74
10.00	(4) #20 Dywidag	Yes	5.00	1.200	2.00	2.68	3.22	4.256	0.333	0.000	15.07	126.78
15.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	3.58	4.29	4.256	0.343	0.000	20.09	470.83
15.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	3.58	4.29	4.256	0.343	0.000	20.09	324.76
15.00	(4) #20 Dywidag	Yes	5.00	1.200	2.00	2.76	3.31	4.256	0.343	0.000	15.50	132.89
20.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	3.63	4.36	4.256	0.353	0.000	20.40	482.11
20.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	3.63	4.36	4.256	0.353	0.000	20.40	332.92
20.00	(4) #20 Dywidag	Yes	5.00	1.200	2.00	2.81	3.38	4.256	0.353	0.000	15.81	137.45
25.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	3.68	4.41	4.256	0.364	0.000	20.65	491.12
25.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	3.68	4.41	4.256	0.364	0.000	20.65	339.46
25.00	(4) #20 Dywidag	Yes	5.00	1.200	2.00	2.86	3.43	4.256	0.364	0.000	16.07	141.11
29.33	(18) 1 5/8" Coax	Yes	4.33	1.200	3.96	3.21	3.85	4.256	0.375	0.000	18.04	431.02
29.33	(12) 1 5/8" Coax	Yes	4.33	1.200	3.96	3.21	3.85	4.256	0.375	0.000	18.04	298.11
29.33	(4) #20 Dywidag	Yes	4.33	1.200	2.00	2.50	3.01	4.256	0.375	0.000	14.07	124.53
30.00	(18) 1 5/8" Coax	Yes	0.67	1.200	3.96	0.50	0.60	4.260	0.381	0.000	2.80	66.83
30.00	(12) 1 5/8" Coax	Yes	0.67	1.200	3.96	0.50	0.60	4.260	0.381	0.000	2.80	46.23
30.00	(4) #20 Dywidag	Yes	0.67	1.200	2.00	0.39	0.47	4.260	0.381	0.000	2.18	19.32
32.83	(18) 1 5/8" Coax	Yes	2.83	1.200	3.96	2.11	2.53	4.371	0.385	0.000	12.19	284.38
32.83	(12) 1 5/8" Coax	Yes	2.83	1.200	3.96	2.11	2.53	4.371	0.385	0.000	12.19	196.78
32.83	(4) #20 Dywidag	Yes	2.83	1.200	2.00	1.65	1.98	4.371	0.385	0.000	9.52	82.49
35.00	(18) 1 5/8" Coax	Yes	2.17	1.200	3.96	1.63	1.95	4.451	0.384	0.000	9.55	219.25
35.00	(12) 1 5/8" Coax	Yes	2.17	1.200	3.96	1.63	1.95	4.451	0.384	0.000	9.55	151.76
35.00	(4) #20 Dywidag	Yes	2.17	1.200	2.00	1.27	1.53	4.451	0.384	0.000	7.47	63.74
40.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	3.77	4.53	4.625	0.393	0.000	23.04	510.90
40.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	3.77	4.53	4.625	0.393	0.000	23.04	353.83
40.00	(4) #20 Dywidag	Yes	5.00	1.200	2.00	2.96	3.55	4.625	0.393	0.000	18.05	149.22
45.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	3.80	4.56	4.783	0.407	0.000	23.98	516.03
45.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	3.80	4.56	4.783	0.407	0.000	23.98	357.56
45.00	(4) #20 Dywidag	Yes	5.00	1.200	2.00	2.98	3.58	4.783	0.407	0.000	18.83	151.34
47.00	(18) 1 5/8" Coax	Yes	2.00	1.200	3.96	1.52	1.83	4.843	0.417	0.000	9.74	207.18
47.00	(12) 1 5/8" Coax	Yes	2.00	1.200	3.96	1.52	1.83	4.843	0.417	0.000	9.74	143.58
47.00	(4) #20 Dywidag	Yes	2.00	1.200	2.00	1.20	1.44	4.843	0.417	0.000	7.65	60.85
50.00	(18) 1 5/8" Coax	Yes	3.00	1.200	3.96	2.29	2.75	4.929	0.339	0.000	14.92	312.41
50.00	(12) 1 5/8" Coax	Yes	3.00	1.200	3.96	2.29	2.75	4.929	0.339	0.000	14.92	216.57
55.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	3.84	4.61	5.065	0.349	0.000	25.69	524.94
55.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	3.84	4.61	5.065	0.349	0.000	25.69	364.06
60.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	3.86	4.63	5.193	0.362	0.000	26.47	528.87
60.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	3.86	4.63	5.193	0.362	0.000	26.47	366.92
62.92	(18) 1 5/8" Coax	Yes	2.92	1.200	3.96	2.26	2.71	5.263	0.374	0.000	15.69	309.76
62.92	(12) 1 5/8" Coax	Yes	2.92	1.200	3.96	2.26	2.71	5.263	0.374	0.000	15.69	214.95
65.00	(18) 1 5/8" Coax	Yes	2.08	1.200	3.96	1.62	1.94	5.313	0.381	0.000	11.34	221.90
65.00	(12) 1 5/8" Coax	Yes	2.08	1.200	3.96	1.62	1.94	5.313	0.381	0.000	11.34	154.00
65.75	(18) 1 5/8" Coax	Yes	0.75	1.200	3.96	0.58	0.70	5.330	0.386	0.000	4.10	79.95
65.75	(12) 1 5/8" Coax	Yes	0.75	1.200	3.96	0.58	0.70	5.330	0.386	0.000	4.10	55.49
70.00	(18) 1 5/8" Coax	Yes	4.25	1.200	3.96	3.31	3.97	5.426	0.386	0.000	23.72	455.55
70.00	(12) 1 5/8" Coax	Yes	4.25	1.200	3.96	3.31	3.97	5.426	0.386	0.000	23.72	316.28
75.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	3.91	4.69	5.534	0.401	0.000	28.58	539.13
75.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	3.91	4.69	5.534	0.401	0.000	28.58	374.42
77.00	(18) 1 5/8" Coax	Yes	2.00	1.200	3.96	1.57	1.88	5.576	0.414	0.000	11.53	216.15

Pole :	302481	Code: ANSI/TIA-222 Rev G	
Location :	Hrfr South, CT	Struct Class : II	
Height :	100.4 (ft)	Exposure Category : B	
Shape :	12 Sides	Topographic Category : 1	
Base Dia :	30.00 (in)		
Top Dia :	14.50 (in)		
Taper :	0.163016 (in/ft)	Base Elev : 0.000 (ft)	



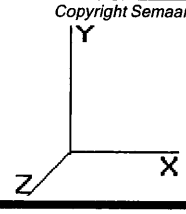
Load Case: 1.2D + 1.0Di + 1.0Wi — 50.00 mph with 1.25 in Radial Ice — 23 Iterations

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

Dead Load Factor : 1.20 — Ice Importance Factor : 1.00

Wind Load Factor : 1.00

77.00	(12) 1 5/8" Coax	Yes	2.00	1.200	3.96	1.57	1.88	5.576	0.414	0.000	11.53	150.13
80.00	(18) 1 5/8" Coax	Yes	3.00	1.200	3.96	2.36	2.83	5.637	0.212	0.000	17.53	325.29
85.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	3.94	4.73	5.736	0.220	0.000	29.83	545.01
87.00	(18) 1 5/8" Coax	Yes	2.00	1.200	3.96	1.58	1.89	5.774	0.227	0.000	12.03	218.45
										Totals:	883.95	14,791.02



Load Case: 1.2D + 1.0Di + 1.0Wi — 50.00 mph with 1.25 in Radial Ice — 23 Iterations

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

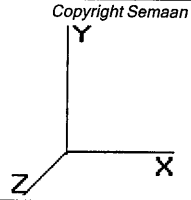
Ice Dead Load Factor : 1.00

Wind Importance Factor : 1.00
Ice Importance Factor : 1.00

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		81.40	1,351.80	0.00	0.00
10.00		134.51	2,185.09	0.00	0.00
15.00		134.25	2,211.38	0.00	0.00
20.00		133.54	2,223.43	0.00	0.00
25.00		132.57	2,227.32	0.00	0.00
29.33		113.84	1,927.13	0.00	0.00
30.00		17.68	354.59	0.00	0.00
32.83		76.44	1,494.99	0.00	0.00
35.00		59.39	969.20	0.00	0.00
40.00		141.30	2,228.78	0.00	0.00
45.00		144.56	2,218.41	0.00	0.00
47.00		58.01	883.88	0.00	0.00
50.00		76.36	1,029.75	0.00	0.00
55.00		129.32	1,703.43	0.00	0.00
60.00		147.20	1,805.82	0.00	0.00
62.92		76.20	975.20	0.00	0.00
65.00		54.96	799.84	0.00	0.00
65.75		19.75	286.78	0.00	0.00
70.00		113.15	1,343.69	0.00	0.00
75.00		133.72	1,565.67	0.00	0.00
77.00		654.77	5,881.00	0.00	0.00
80.00		62.51	701.12	0.00	0.00
85.00		104.08	1,151.32	0.00	0.00
87.00		558.43	4,898.65	0.00	0.00
90.00		43.40	349.16	0.00	0.00
95.00		71.35	561.30	0.00	0.00
100.0		920.61	10,652.24	0.00	933.54
100.4		6.15	43.96	0.00	0.00
	Totals:	4,399.46	54,024.95	0.00	933.54

Pole :	302481	Code: ANSI/TIA-222 Rev G	
Location :	Hrfr South, CT	Struct Class : II	
Height :	100.4 (ft)	Exposure Category : B	
Shape :	12 Sides	Topographic Category : 1	
Base Dia :	30.00 (in)		
Top Dia :	14.50 (in)		
Taper :	0.163016 (in/ft)	Base Elev : 0.000 (ft)	



Load Case: 1.2D + 1.0Di + 1.0Wi — 50.00 mph with 1.25 in Radial Ice — 23 Iterations

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

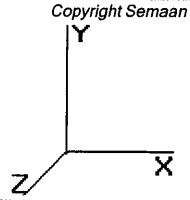
Dead Load Factor : 1.20 — Ice Importance Factor : 1.00

Wind Load Factor : 1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-54.02	-4.44	0.00	-334.29	0.00	334.29	1,396.48	698.24	1,714.19	846.57	0.00	0.00	0.199
5.00	-52.66	-4.42	0.00	-312.11	0.00	312.11	1,362.62	681.31	1,626.42	803.23	0.04	-0.08	0.192
10.00	-50.47	-4.35	0.00	-289.99	0.00	289.99	1,324.23	662.12	1,535.70	758.42	0.16	-0.15	0.185
15.00	-48.26	-4.27	0.00	-268.23	0.00	268.23	1,285.85	642.92	1,447.58	714.91	0.36	-0.23	0.178
20.00	-46.03	-4.19	0.00	-246.87	0.00	246.87	1,247.46	623.73	1,362.07	672.67	0.64	-0.30	0.170
25.00	-43.80	-4.09	0.00	-225.94	0.00	225.94	1,209.08	604.54	1,279.15	631.73	0.99	-0.37	0.161
29.33	-41.87	-3.99	0.00	-208.22	0.00	208.22	1,175.84	587.92	1,209.46	597.31	1.36	-0.43	0.154
30.00	-41.51	-3.99	0.00	-205.55	0.00	205.55	1,170.70	585.35	1,198.85	592.07	1.42	-0.44	0.150
32.83	-40.02	-3.92	0.00	-194.26	0.00	194.26	901.94	450.97	925.08	456.86	1.70	-0.48	0.188
35.00	-39.04	-3.89	0.00	-185.75	0.00	185.75	889.12	444.56	898.85	443.91	1.92	-0.51	0.183
40.00	-36.81	-3.76	0.00	-166.31	0.00	166.31	859.60	429.80	839.85	414.77	2.49	-0.58	0.170
45.00	-34.59	-3.62	0.00	-147.49	0.00	147.49	830.07	415.03	782.85	386.62	3.13	-0.64	0.158
47.00	-33.71	-3.57	0.00	-140.25	0.00	140.25	830.07	415.03	782.85	386.62	3.40	-0.66	0.153
47.00	-33.71	-3.57	0.00	-140.25	0.00	140.25	830.07	415.03	782.85	386.62	3.40	-0.66	0.415
50.00	-32.67	-3.54	0.00	-129.54	0.00	129.54	800.54	400.27	727.86	359.46	3.83	-0.69	0.401
55.00	-30.96	-3.47	0.00	-111.85	0.00	111.85	771.02	385.51	674.87	333.29	4.64	-0.85	0.376
60.00	-29.15	-3.35	0.00	-94.52	0.00	94.52	741.49	370.74	623.88	308.11	5.61	-1.00	0.346
62.92	-28.18	-3.29	0.00	-84.75	0.00	84.75	724.27	362.13	595.07	293.88	6.24	-1.08	0.327
65.00	-27.38	-3.24	0.00	-77.90	0.00	77.90	711.96	355.98	574.90	283.92	6.73	-1.14	0.313
65.75	-27.09	-3.24	0.00	-75.47	0.00	75.47	542.54	271.27	446.58	220.55	6.91	-1.16	0.392
70.00	-25.74	-3.16	0.00	-61.68	0.00	61.68	523.71	261.86	415.99	205.44	7.99	-1.27	0.350
75.00	-24.17	-3.03	0.00	-45.89	0.00	45.89	501.57	250.78	381.40	188.36	9.40	-1.41	0.292
77.00	-18.31	-2.24	0.00	-39.83	0.00	39.83	492.71	246.36	367.98	181.73	10.00	-1.46	0.256
80.00	-17.60	-2.19	0.00	-33.10	0.00	33.10	479.42	239.71	348.30	172.01	10.94	-1.53	0.229
85.00	-16.45	-2.07	0.00	-22.15	0.00	22.15	457.28	228.64	316.71	156.41	12.59	-1.62	0.178
87.00	-11.57	-1.38	0.00	-18.01	0.00	18.01	448.42	224.21	304.49	150.38	13.27	-1.65	0.146
90.00	-11.22	-1.33	0.00	-13.88	0.00	13.88	435.14	217.57	286.61	141.55	14.32	-1.69	0.124
95.00	-10.66	-1.25	0.00	-7.20	0.00	7.20	412.99	206.50	258.02	127.43	16.12	-1.74	0.082
100.00	-0.04	-0.01	0.00	0.00	0.00	0.00	390.85	195.42	230.93	114.05	17.95	-1.76	0.000
100.45	0.00	-0.01	0.00	0.00	0.00	0.00	388.85	194.43	228.57	112.88	18.12	-1.76	0.000

Pole : 302481	Code: ANSI/TIA-222 Rev G		
Location : Hrfr South, CT	Struct Class : II		5/15/2009 2:25:02 PM
Height : 100.4 (ft)	Exposure Category : B		Page: 21
Shape : 12 Sides	Topographic Category : 1		
Base Dia : 30.00 (in)			
Top Dia : 14.50 (in)			
Taper : 0.163016 (in/ft)	Base Elev : 0.000 (ft)		



Load Case: 1.2D + 1.0E — Dead Load with Seismic — 0 Iterations

Gust Response Factor : 1.10		Sds : 0.39	Ss : 0.40
Dead Load Factor : 1.20	Seismic Load Factor : 1.00	Sd1 : 0.10	S1 : 0.06
Wind Load Factor : 0.00	Structure Frequency : 0.2611	SA : 0.03	Seismic Importance Factor : 1.00

Total Segment Forces (Factored)

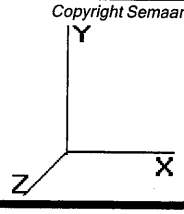
R : 1.50

Seg Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)
0.00		0.00	0.00	0.00	0.00	0.00
5.00		401.88	0.00	0.04	0.02	27.15
10.00		390.72	0.02	0.07	0.04	33.43
15.00		379.55	0.04	0.09	0.04	39.50
20.00		368.39	0.07	0.12	0.05	50.85
25.00		357.23	0.12	0.17	0.05	69.58
29.33	Bot - Section 2	300.33	0.16	0.24	0.06	78.35
30.00		92.38	0.17	0.26	0.06	25.14
32.83	Top - Section 1	385.71	0.20	0.32	0.06	123.86
35.00		146.95	0.23	0.37	0.07	52.79
40.00		330.58	0.30	0.50	0.08	146.39
45.00		319.42	0.38	0.63	0.10	163.55
47.00	Reinf. Top	124.64	0.41	0.69	0.11	66.56
50.00		183.61	0.47	0.76	0.12	102.76
55.00		297.09	0.57	0.86	0.15	172.46
60.00	Appertunance(s)	291.93	0.67	0.91	0.17	166.62
62.92	Bot - Section 3	161.63	0.74	0.91	0.19	88.89
65.00		199.86	0.79	0.90	0.20	105.58
65.75	Top - Section 2	71.10	0.81	0.90	0.20	36.91
70.00		171.34	0.92	0.83	0.23	77.88
75.00		193.82	1.05	0.70	0.26	69.50
77.00	Appertunance(s)	3070.98	1.11	0.64	0.28	976.72
80.00		110.27	1.20	0.55	0.32	28.74
85.00		177.08	1.35	0.46	0.40	34.10
87.00	Appertunance(s)	3039.29	1.42	0.46	0.44	552.39
90.00		100.22	1.52	0.52	0.53	18.99
95.00		160.33	1.69	0.91	0.75	44.45
100.0	Appertunance(s)	3147.76	1.87	1.86	1.10	1469.83
100.4		13.27	1.89	1.98	1.14	6.49
	Totals:	14,987.36				4,829.45

Total Wind : 16,156.5

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

Pole :	302481	Code: ANSI/TIA-222 Rev G	
Location :	Hrfr South, CT	Struct Class : II	
Height :	100.4 (ft)	Exposure Category : B	
Shape :	12 Sides	Topographic Category : 1	
Base Dia :	30.00 (in)		
Top Dia :	14.50 (in)		
Taper :	0.163016 (in/ft)	Base Elev : 0.000 (ft)	



Load Case: 0.9D + 1.0E — Dead Load with Seismic (Reduced DL) — 0 Iterations

Gust Response Factor : 1.10
Dead Load Factor : 0.90
Wind Load Factor : 0.00

Seismic Load Factor : 1.00
Structure Frequency : 0.2611

Sds : 0.39
Sd1 : 0.10
SA : 0.03

Ss : 0.40
S1 : 0.06
Seismic Importance Factor : 1.00

Total Segment Forces (Factored)

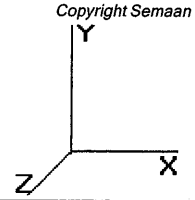
R : 1.50

Seg Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)
0.00		0.00	0.00	0.00	0.00	0.00
5.00		401.88	0.00	0.04	0.02	27.15
10.00		390.72	0.02	0.07	0.04	33.43
15.00		379.55	0.04	0.09	0.04	39.50
20.00		368.39	0.07	0.12	0.05	50.85
25.00		357.23	0.12	0.17	0.05	69.58
29.33	Bot - Section 2	300.33	0.16	0.24	0.06	78.35
30.00		92.38	0.17	0.26	0.06	25.14
32.83	Top - Section 1	385.71	0.20	0.32	0.06	123.86
35.00		146.95	0.23	0.37	0.07	52.79
40.00		330.58	0.30	0.50	0.08	146.39
45.00		319.42	0.38	0.63	0.10	163.55
47.00	Reinf. Top	124.64	0.41	0.69	0.11	66.56
50.00		183.61	0.47	0.76	0.12	102.76
55.00		297.09	0.57	0.86	0.15	172.46
60.00	Appertunance(s)	291.93	0.67	0.91	0.17	166.62
62.92	Bot - Section 3	161.63	0.74	0.91	0.19	88.89
65.00		199.86	0.79	0.90	0.20	105.58
65.75	Top - Section 2	71.10	0.81	0.90	0.20	36.91
70.00		171.34	0.92	0.83	0.23	77.88
75.00		193.82	1.05	0.70	0.26	69.50
77.00	Appertunance(s)	3070.98	1.11	0.64	0.28	976.72
80.00		110.27	1.20	0.55	0.32	28.74
85.00		177.08	1.35	0.46	0.40	34.10
87.00	Appertunance(s)	3039.29	1.42	0.46	0.44	552.39
90.00		100.22	1.52	0.52	0.53	18.99
95.00		160.33	1.69	0.91	0.75	44.45
100.0	Appertunance(s)	3147.76	1.87	1.86	1.10	1469.83
100.4		13.27	1.89	1.98	1.14	6.49
	Totals:	14,987.36				4,829.45

Total Wind : 16,156.5

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

Pole : 302481	Code: ANSI/TIA-222 Rev G		
Location : Hrfr South, CT	Struct Class : II		5/15/2009 2:25:03 PM
Height : 100.4 (ft)	Exposure Category : B		Page: 23
Shape : 12 Sides	Topographic Category : 1		
Base Dia : 30.00 (in)			
Top Dia : 14.50 (in)			
Taper : 0.163016 (in/ft)	Base Elev : 0.000 (ft)		



Load Case: 1.0D + 1.0W — 60.00 mph Serviceability — 22 Iterations

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

Wind Importance Factor : 1.00

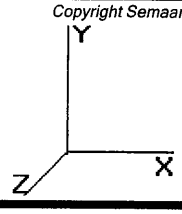
Shaft Segment Forces (Factored)

Seg Top Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf		Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	6.129	6.742	129.92	1.000		0.00	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	6.129	6.742	126.39	1.000		0.00	5.00	12.765	12.77	86.1	0.0	735.9
10.00		1.00	0.70	6.129	6.742	122.86	1.200	*	0.00	5.00	12.414	14.90	100.4	0.0	724.7
15.00		1.00	0.70	6.129	6.742	119.33	1.200	*	0.00	5.00	12.062	14.47	97.6	0.0	713.6
20.00		1.00	0.70	6.129	6.742	115.80	1.200	*	0.00	5.00	11.710	14.05	94.7	0.0	702.4
25.00		1.00	0.70	6.129	6.742	112.27	1.200	*	0.00	5.00	11.359	13.63	91.9	0.0	691.2
29.33	Bot - Section 2	1.00	0.70	6.129	6.742	109.21	1.200	*	0.00	4.33	9.552	11.46	77.3	0.0	589.6
30.00		1.00	0.70	6.134	6.747	108.79	1.200	*	0.00	0.67	1.484	1.78	12.0	0.0	137.1
32.83	Top - Section 1	1.00	0.71	6.294	6.923	108.17	1.200	*	0.00	2.83	6.196	7.44	51.5	0.0	574.7
35.00		1.00	0.73	6.410	7.051	109.81	1.200	*	0.00	2.17	4.675	5.61	39.6	0.0	291.9
40.00		1.00	0.76	6.659	7.325	108.25	1.200	*	0.00	5.00	10.520	12.62	92.5	0.0	664.6
45.00		1.00	0.78	6.887	7.576	106.34	1.200	*	0.00	5.00	10.168	12.20	92.4	0.0	653.4
47.00	Reinf. Top	1.00	0.79	6.973	7.671	105.50	1.200	*	0.00	2.00	3.969	4.76	36.5	0.0	258.2
50.00		1.00	0.81	7.098	7.807	104.16	1.200	*	0.00	3.00	5.848	7.02	54.8	0.0	183.6
55.00		1.00	0.83	7.294	8.023	101.74	1.200	*	0.00	5.00	9.465	11.36	91.1	0.0	297.1
60.00	Appertunance(s)	1.00	0.85	7.477	8.225	99.113	1.200	*	0.00	5.00	9.113	10.94	89.9	0.0	285.9
62.92	Bot - Section 3	1.00	0.86	7.579	8.337	97.498	1.200	*	0.00	2.92	5.154	6.18	51.6	0.0	161.6
65.00		1.00	0.87	7.650	8.415	96.309	1.200	*	0.00	2.08	3.676	4.41	37.1	0.0	199.9
65.75	Top - Section 2	1.00	0.87	7.675	8.443	95.875	1.200	*	0.00	0.75	1.308	1.57	13.3	0.0	71.1
70.00		1.00	0.89	7.814	8.595	95.182	1.200	*	0.00	4.25	7.264	8.72	74.9	0.0	171.3
75.00		1.00	0.91	7.969	8.766	92.099	1.200	*	0.00	5.00	8.220	9.86	86.5	0.0	193.8
77.00	Appertunance(s)	1.00	0.91	8.030	8.833	90.830	1.200	*	0.00	2.00	3.190	3.83	33.8	0.0	75.2
80.00		1.00	0.92	8.118	8.930	88.890	1.200	*	0.00	3.00	4.679	5.61	50.1	0.0	110.3
85.00		1.00	0.94	8.260	9.086	85.565	1.200	*	0.00	5.00	7.517	9.02	82.0	0.0	177.1
87.00	Appertunance(s)	1.00	0.95	8.315	9.146	84.205	1.200	*	0.00	2.00	2.908	3.49	31.9	0.0	68.5
90.00		1.00	0.95	8.396	9.235	82.135	1.000		0.00	3.00	4.257	4.26	39.3	0.0	100.2
95.00		1.00	0.97	8.526	9.379	78.608	1.000		0.00	5.00	6.814	6.81	63.9	0.0	160.3
100.0	Appertunance(s)	1.00	0.98	8.652	9.517	74.992	1.000		0.00	5.00	6.462	6.46	61.5	0.0	152.0
100.4		1.00	0.98	8.663	9.530	74.662	1.000		0.00	0.45	0.564	0.56	5.4	0.0	13.3
							Totals:			301.35			34,052.5	0.0	28,077.5

* = Cf Adjusted By Linear Load Ra Effect

Pole : 302481
Location : Hrfr South, CT
Height : 100.4 (ft)
Shape : 12 Sides
Base Dia : 30.00 (in)
Top Dia : 14.50 (in)
Taper : 0.163016 (in/ft)

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



Load Case: 1.0D + 1.0W

60.00 mph Serviceability

22 Iterations

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

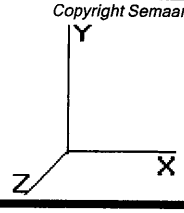
Wind Importance Factor : 1.00

Discrete Appurtenance Segment Forces (Factored)

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Ka	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
60.00	Scala 840 10212	1	7.477	8.225	0.90	0.90	2.28	0.000	0.000	18.73	0.00	0.00	6.70
77.00	TX RX Systems 421-86	1	8.030	8.833	0.45	0.90	1.17	0.000	0.000	10.29	0.00	0.00	15.00
77.00	Scala 840 10212	1	8.030	8.833	0.90	0.90	2.28	0.000	0.000	20.11	0.00	0.00	6.70
77.00	Antel LPA-80063/4CF	6	8.030	8.833	0.74	0.80	31.25	0.000	0.000	276.00	0.00	0.00	120.00
77.00	Antel LPA-185063/8CF	6	8.030	8.833	0.77	0.80	13.64	0.000	0.000	120.47	0.00	0.00	54.00
77.00	Flat T-Arm	3	8.030	8.833	0.50	0.75	19.45	0.000	0.000	171.76	0.00	0.00	750.00
87.00	RFS APX16DWV-	3	8.315	9.146	0.54	0.80	10.77	0.000	0.000	98.54	0.00	0.00	118.80
87.00	CCI DTMA-1819-DD-12	6	8.315	9.146	0.40	0.80	1.70	0.000	0.000	15.58	0.00	0.00	85.80
87.00	RFS APXV18-206516S-	3	8.315	9.146	0.62	0.80	6.69	0.000	0.000	61.19	0.00	0.00	56.10
87.00	Flat Low Profile Pla	1	8.315	9.146	1.00	1.00	26.10	0.000	0.000	238.71	0.00	0.00	1,500.00
100.0	RET/ RCU	6	8.701	9.571	0.34	0.75	0.32	0.000	2.000	3.10	0.00	6.20	6.00
100.0	CSS DUO4-8670	12	8.701	9.571	0.53	0.75	41.73	0.000	2.000	399.38	0.00	798.76	798.00
100.0	Platform w/ Rails an	1	8.652	9.517	1.00	1.00	27.20	0.000	0.000	258.87	0.00	0.00	2,000.00
100.0	ADC CG-800DD-FULL-	12	8.701	9.571	0.34	0.75	5.06	0.000	2.000	48.46	0.00	96.91	166.80
100.0	10' Omni	1	8.774	9.651	0.75	0.75	2.25	0.000	5.000	21.71	0.00	108.57	25.00
										1,762.92			5,708.90

Pole : 302481
Location : Hrfr South, CT
Height : 100.4 (ft)
Shape : 12 Sides
Base Dia : 30.00 (in)
Top Dia : 14.50 (in)
Taper : 0.163016 (in/ft)

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



Load Case: 1.0D + 1.0W — 60.00 mph Serviceability — 22 Iterations

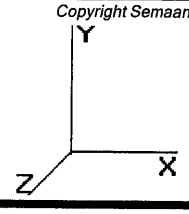
Gust Response Factor : 1.10
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Wind Importance Factor : 1.00

Linear Appurtenance Segment Forces (Factored)

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	F X (lb)	Dead Load (lb)
5.00	(4) #20 Dywidag	Yes	5.00	0.000	2.00	0.83	0.00	6.129	0.065	0.000	0.00	0.00
10.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	6.129	0.333	0.000	13.35	73.79
10.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	6.129	0.333	0.000	13.35	49.19
10.00	(4) #20 Dywidag	Yes	5.00	1.200	2.00	0.83	1.00	6.129	0.333	0.000	6.74	0.00
15.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	6.129	0.343	0.000	13.35	73.79
15.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	6.129	0.343	0.000	13.35	49.19
15.00	(4) #20 Dywidag	Yes	5.00	1.200	2.00	0.83	1.00	6.129	0.343	0.000	6.74	0.00
20.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	6.129	0.353	0.000	13.35	73.79
20.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	6.129	0.353	0.000	13.35	49.19
20.00	(4) #20 Dywidag	Yes	5.00	1.200	2.00	0.83	1.00	6.129	0.353	0.000	6.74	0.00
25.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	6.129	0.364	0.000	13.35	73.79
25.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	6.129	0.364	0.000	13.35	49.19
25.00	(4) #20 Dywidag	Yes	5.00	1.200	2.00	0.83	1.00	6.129	0.364	0.000	6.74	0.00
29.33	(18) 1 5/8" Coax	Yes	4.33	1.200	3.96	1.43	1.71	6.129	0.375	0.000	11.56	63.90
29.33	(12) 1 5/8" Coax	Yes	4.33	1.200	3.96	1.43	1.71	6.129	0.375	0.000	11.56	42.60
29.33	(4) #20 Dywidag	Yes	4.33	1.200	2.00	0.72	0.87	6.129	0.375	0.000	5.84	0.00
30.00	(18) 1 5/8" Coax	Yes	0.67	1.200	3.96	0.22	0.27	6.134	0.381	0.000	1.79	9.89
30.00	(12) 1 5/8" Coax	Yes	0.67	1.200	3.96	0.22	0.27	6.134	0.381	0.000	1.79	6.59
30.00	(4) #20 Dywidag	Yes	0.67	1.200	2.00	0.11	0.13	6.134	0.381	0.000	0.90	0.00
32.83	(18) 1 5/8" Coax	Yes	2.83	1.200	3.96	0.93	1.12	6.294	0.385	0.000	7.76	41.76
32.83	(12) 1 5/8" Coax	Yes	2.83	1.200	3.96	0.93	1.12	6.294	0.385	0.000	7.76	27.84
32.83	(4) #20 Dywidag	Yes	2.83	1.200	2.00	0.47	0.57	6.294	0.385	0.000	3.92	0.00
35.00	(18) 1 5/8" Coax	Yes	2.17	1.200	3.96	0.72	0.86	6.410	0.384	0.000	6.06	32.03
35.00	(12) 1 5/8" Coax	Yes	2.17	1.200	3.96	0.72	0.86	6.410	0.384	0.000	6.06	21.35
35.00	(4) #20 Dywidag	Yes	2.17	1.200	2.00	0.36	0.43	6.410	0.384	0.000	3.06	0.00
40.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	6.659	0.393	0.000	14.50	73.79
40.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	6.659	0.393	0.000	14.50	49.19
40.00	(4) #20 Dywidag	Yes	5.00	1.200	2.00	0.83	1.00	6.659	0.393	0.000	7.33	0.00
45.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	6.887	0.407	0.000	15.00	73.79
45.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	6.887	0.407	0.000	15.00	49.19
45.00	(4) #20 Dywidag	Yes	5.00	1.200	2.00	0.83	1.00	6.887	0.407	0.000	7.58	0.00
47.00	(18) 1 5/8" Coax	Yes	2.00	1.200	3.96	0.66	0.79	6.973	0.417	0.000	6.08	29.52
47.00	(12) 1 5/8" Coax	Yes	2.00	1.200	3.96	0.66	0.79	6.973	0.417	0.000	6.08	19.68
47.00	(4) #20 Dywidag	Yes	2.00	1.200	2.00	0.33	0.40	6.973	0.417	0.000	3.07	0.00
50.00	(18) 1 5/8" Coax	Yes	3.00	1.200	3.96	0.99	1.19	7.098	0.339	0.000	9.28	44.27
50.00	(12) 1 5/8" Coax	Yes	3.00	1.200	3.96	0.99	1.19	7.098	0.339	0.000	9.28	29.52
55.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	7.294	0.349	0.000	15.89	73.79
55.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	7.294	0.349	0.000	15.89	49.19
60.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	7.477	0.362	0.000	16.29	73.79
60.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	7.477	0.362	0.000	16.29	49.19
62.92	(18) 1 5/8" Coax	Yes	2.92	1.200	3.96	0.96	1.15	7.579	0.374	0.000	9.63	43.04
62.92	(12) 1 5/8" Coax	Yes	2.92	1.200	3.96	0.96	1.15	7.579	0.374	0.000	9.63	28.70
65.00	(18) 1 5/8" Coax	Yes	2.08	1.200	3.96	0.69	0.83	7.650	0.381	0.000	6.94	30.75
65.00	(12) 1 5/8" Coax	Yes	2.08	1.200	3.96	0.69	0.83	7.650	0.381	0.000	6.94	20.50
65.75	(18) 1 5/8" Coax	Yes	0.75	1.200	3.96	0.25	0.30	7.675	0.386	0.000	2.51	11.07
65.75	(12) 1 5/8" Coax	Yes	0.75	1.200	3.96	0.25	0.30	7.675	0.386	0.000	2.51	7.38
70.00	(18) 1 5/8" Coax	Yes	4.25	1.200	3.96	1.40	1.68	7.814	0.386	0.000	14.47	62.72
70.00	(12) 1 5/8" Coax	Yes	4.25	1.200	3.96	1.40	1.68	7.814	0.386	0.000	14.47	41.82
75.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	7.969	0.401	0.000	17.36	73.79
75.00	(12) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	7.969	0.401	0.000	17.36	49.19
77.00	(18) 1 5/8" Coax	Yes	2.00	1.200	3.96	0.66	0.79	8.030	0.414	0.000	7.00	29.52

Pole :	302481	Code: ANSI/TIA-222 Rev G	
Location :	Hrfr South, CT	Struct Class : II	
Height :	100.4 (ft)	Exposure Category : B	
Shape :	12 Sides	Topographic Category : 1	
Base Dia :	30.00 (in)		
Top Dia :	14.50 (in)		
Taper :	0.163016 (in/ft)	Base Elev : 0.000 (ft)	

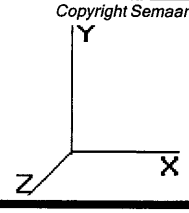


Load Case: 1.0D + 1.0W — 60.00 mph Serviceability — 22 Iterations

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

Wind Importance Factor : 1.00

77.00	(12) 1 5/8" Coax	Yes	2.00	1.200	3.96	0.66	0.79	8.030	0.414	0.000	7.00	19.68
80.00	(18) 1 5/8" Coax	Yes	3.00	1.200	3.96	0.99	1.19	8.118	0.212	0.000	10.61	44.27
85.00	(18) 1 5/8" Coax	Yes	5.00	1.200	3.96	1.65	1.98	8.260	0.220	0.000	17.99	73.79
87.00	(18) 1 5/8" Coax	Yes	2.00	1.200	3.96	0.66	0.79	8.315	0.227	0.000	7.24	29.52
										Totals:	525.47	1,918.57



Load Case: 1.0D + 1.0W — 60.00 mph Serviceability — 22 Iterations

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

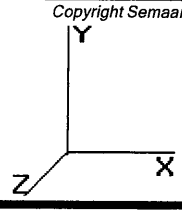
Wind Importance Factor : 1.00

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	86.06	735.88	0.00	0.00
10.00	133.86	887.15	0.00	0.00
15.00	131.02	875.98	0.00	0.00
20.00	128.17	864.82	0.00	0.00
25.00	125.33	853.66	0.00	0.00
29.33	106.23	730.23	0.00	0.00
30.00	16.50	158.91	0.00	0.00
32.83	70.91	666.68	0.00	0.00
35.00	54.74	362.41	0.00	0.00
40.00	128.80	827.01	0.00	0.00
45.00	130.02	815.85	0.00	0.00
47.00	51.75	323.21	0.00	0.00
50.00	73.34	281.07	0.00	0.00
55.00	122.89	459.52	0.00	0.00
60.00	141.25	455.06	0.00	0.00
62.92	70.82	255.42	0.00	0.00
65.00	51.00	266.85	0.00	0.00
65.75	18.27	95.22	0.00	0.00
70.00	103.85	308.00	0.00	0.00
75.00	121.19	354.60	0.00	0.00
77.00	646.44	1,085.20	0.00	0.00
80.00	60.75	176.23	0.00	0.00
85.00	99.95	287.02	0.00	0.00
87.00	453.18	1,873.16	0.00	0.00
90.00	39.31	121.91	0.00	0.00
95.00	63.91	196.48	0.00	0.00
100.0	793.03	3,183.91	0.00	1,010.45
100.4	5.38	13.27	0.00	0.00
Totals:	4,027.93	17,514.71	0.00	1,010.45

Pole : 302481
Location : Hrfr South, CT
Height : 100.4 (ft)
Shape : 12 Sides
Base Dia : 30.00 (in)
Top Dia : 14.50 (in)
Taper : 0.163016 (in/ft)

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



Load Case: 1.0D + 1.0W — 60.00 mph Serviceability — 22 Iterations

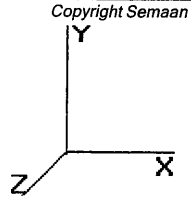
Gust Response Factor : 1.10
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Wind Importance Factor : 1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-17.51	-4.04	0.00	-276.46	0.00	276.46	1,396.48	698.24	1,714.19	846.57	0.00	0.00	0.154
5.00	-16.77	-3.97	0.00	-256.27	0.00	256.27	1,362.62	681.31	1,626.42	803.23	0.03	-0.06	0.147
10.00	-15.88	-3.85	0.00	-236.42	0.00	236.42	1,324.23	662.12	1,535.70	758.42	0.13	-0.12	0.141
15.00	-15.00	-3.73	0.00	-217.17	0.00	217.17	1,285.85	642.92	1,447.58	714.91	0.30	-0.19	0.134
20.00	-14.13	-3.62	0.00	-198.50	0.00	198.50	1,247.46	623.73	1,362.07	672.67	0.52	-0.25	0.127
25.00	-13.28	-3.50	0.00	-180.42	0.00	180.42	1,209.08	604.54	1,279.15	631.73	0.81	-0.30	0.120
29.33	-12.55	-3.40	0.00	-165.27	0.00	165.27	1,175.84	587.92	1,209.46	597.31	1.11	-0.35	0.113
30.00	-12.39	-3.38	0.00	-162.99	0.00	162.99	1,170.70	585.35	1,198.85	592.07	1.16	-0.36	0.110
32.83	-11.72	-3.31	0.00	-153.42	0.00	153.42	901.94	450.97	925.08	456.86	1.38	-0.39	0.137
35.00	-11.35	-3.26	0.00	-146.24	0.00	146.24	889.12	444.56	898.85	443.91	1.57	-0.41	0.133
40.00	-10.53	-3.14	0.00	-129.93	0.00	129.93	859.60	429.80	839.85	414.77	2.03	-0.46	0.123
45.00	-9.71	-3.00	0.00	-114.25	0.00	114.25	830.07	415.03	782.85	386.62	2.54	-0.51	0.112
47.00	-9.39	-2.95	0.00	-108.24	0.00	108.24	830.07	415.03	782.85	386.62	2.75	-0.53	0.108
47.00	-9.39	-2.95	0.00	-108.24	0.00	108.24	830.07	415.03	782.85	386.62	2.75	-0.53	0.300
50.00	-9.10	-2.89	0.00	-99.38	0.00	99.38	800.54	400.27	727.86	359.46	3.10	-0.56	0.288
55.00	-8.64	-2.78	0.00	-84.94	0.00	84.94	771.02	385.51	674.87	333.29	3.74	-0.67	0.266
60.00	-8.18	-2.64	0.00	-71.04	0.00	71.04	741.49	370.74	623.88	308.11	4.51	-0.79	0.242
62.92	-7.92	-2.58	0.00	-63.33	0.00	63.33	724.27	362.13	595.07	293.88	5.01	-0.85	0.227
65.00	-7.66	-2.53	0.00	-57.97	0.00	57.97	711.96	355.98	574.90	283.92	5.39	-0.89	0.215
65.75	-7.56	-2.51	0.00	-56.07	0.00	56.07	542.54	271.27	446.58	220.55	5.53	-0.91	0.268
70.00	-7.25	-2.42	0.00	-45.39	0.00	45.39	523.71	261.86	415.99	205.44	6.37	-0.99	0.235
75.00	-6.89	-2.30	0.00	-33.32	0.00	33.32	501.57	250.78	381.40	188.36	7.47	-1.09	0.191
77.00	-5.82	-1.63	0.00	-28.73	0.00	28.73	492.71	246.36	367.98	181.73	7.93	-1.13	0.170
80.00	-5.64	-1.57	0.00	-23.83	0.00	23.83	479.42	239.71	348.30	172.01	8.65	-1.17	0.150
85.00	-5.36	-1.47	0.00	-15.96	0.00	15.96	457.28	228.64	316.71	156.41	9.92	-1.24	0.114
87.00	-3.49	-0.98	0.00	-13.01	0.00	13.01	448.42	224.21	304.49	150.38	10.45	-1.26	0.094
90.00	-3.37	-0.94	0.00	-10.08	0.00	10.08	435.14	217.57	286.61	141.55	11.25	-1.29	0.079
95.00	-3.18	-0.87	0.00	-5.38	0.00	5.38	412.99	206.50	258.02	127.43	12.62	-1.33	0.050
100.00	-0.01	-0.01	0.00	0.00	0.00	0.00	390.85	195.42	230.93	114.05	14.03	-1.34	0.000
100.45	0.00	-0.01	0.00	0.00	0.00	0.00	388.85	194.43	228.57	112.88	14.15	-1.34	0.000

Pole : 302481	Code: ANSI/TIA-222 Rev G		
Location : Hrfr South, CT	Struct Class : II		5/15/2009 2:25:04 PM
Height : 100.4 (ft)	Exposure Category : B		Page: 29
Shape : 12 Sides	Topographic Category : 1		
Base Dia : 30.00 (in)			
Top Dia : 14.50 (in)			
Taper : 0.163016 (in/ft)	Base Elev : 0.000 (ft)		



Analysis Summary

	Reactions						Max Usage	
Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.6W	16.20	0.00	20.35	0.00	0.00	1114.89	50.00	1.13
0.9D + 1.6W	16.19	0.00	16.04	0.00	0.00	1104.49	50.00	1.11
1.2D + 1.0Di + 1.0Wi	4.44	0.00	54.02	0.00	0.00	334.29	50.00	0.40
1.0D + 1.0W	4.04	0.00	17.51	0.00	0.00	276.46	50.00	0.29

Additional Steel Summary

		Intermediate Connectors			Upper Termination Connectors				Lower Termination Connectors				Max Member		
Elev From (ft)	Elev To (ft) Member	VQ/I (lb/in)	Shear Applied (kips)	Shear phiVn (kips)	MQ/I (kips)	phiVn (kips)	Num Reqd	Num Actual	MQ/I (kips)	phiVn (kips)	Num Reqd	Num Actual	Pu (kip)	phiPn (kip)	Ratio
0.00	47.0 (4) SOL-#20 All Thre	261.5	7.8	16.8	114.4	12.0	10	8	0.0	12.0	0	0	202.5	330.5	0.61

Base/Flange Plate	Plate Type	***Baseplate***	
	Pole Diameter	31	in
	Pole Thickness	0.281	in
	Plate Length	44	in
	Plate Thickness	2	in
	Plate Fy	60	ksi
	Weld Length	0.375	in
	ϕ_s Resistance	1469.75	k-in
	Applied	912.73	k-in
Stiffeners	#	***0***	

Bolts	#	***8***	
	Bolt Circle	44	in
	(R)adial / (S)quare	S	
	Bolt Gap	6	in
●	Diameter	2.25	in
	Hole Diameter	2.375	in
	Type	18J	
	Fy	75	ksi
	Fu	100	ksi
	ϕ_s Resistance	259.82	k
	Applied	92.43	k
Reinforcement ●	#	***4***	
	DYW. Circle	44	in
	Offset Angle	22.5	°
	Type	#20	
	Diameter	2.5	in
	Fu	100	ksi
Extra Bolts O	#	***0***	

Code Rev. **G**

Moment 1114.9 k-ft
Axial 54.0 k

Date 5/15/2009
Engineer CM
Site # 302481
Carrier Verizon

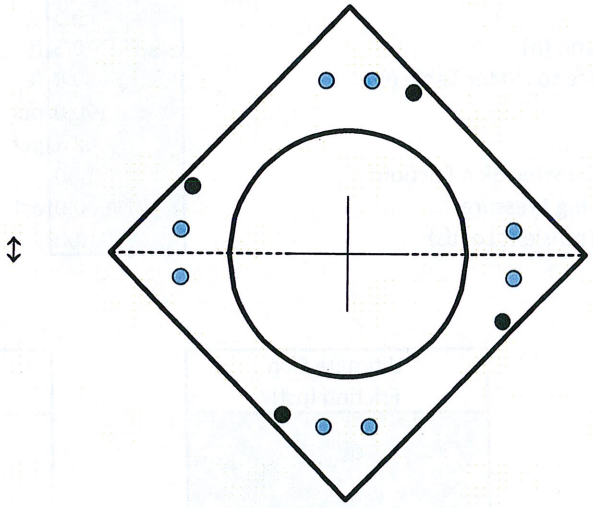
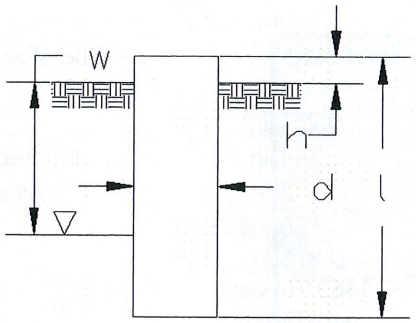


Plate Stress Ratio:
0.62 (Pass)

Bolt Stress Ratio:
0.36 (Pass)

Site Name:	Hrfr-South, CT
Site Number:	302481
Engineer:	CM
Date:	5/15/2009



Design Base Loads (Factored)

Moment (Mu):	1114.9	k-ft
Shear (Vu):	16.2	k
Compression (Pu):	54.0	k
Uplift (Tu):		k

Tower Type (MP, SST, GT):	MP	
Diameter of Caisson (d):	6.0	ft
Length of Caisson (l):	6.5	ft
Caisson Height Above Ground (h):	0.5	ft
Depth Below Ground Surface to Water Table (w):	50.0	ft
Unit Weight of Concrete:	150.0	pcf
Unit Weight of Water:	62.4	pcf
Tension Skin Friction/Compression Skin Friction:	1.00	
Ultimate Compressive Bearing Pressure:	15000.0	psf
Capacity Increase (Due to Transient Loads):	1.00	

Axial Capacities

Depth (ft) Top	Depth (ft) Bottom	Ultimate Skin Friction (psf)	Resistance per Depth (k)

Volume of Concrete:	183.8	ft^3
Weight of Concrete (Buoyancy Effect Considered):	27.6	k
Skin Friction Resistance:	0.0	k
Compressive Bearing Resistance:	424.1	k
Nominal Uplift Capacity per Leg (f_sT_n) (w/ 2/3 factor):	13.8	k
Nominal Compressive Capacity per Leg (f_sP_n):	318.1	k
T_u/f_sT_n:	0.00	Result: OK
P_u/f_sP_n:	0.17	Result: OK

Lateral Capacity

Lateral Bearing Pressure/Depth

Depth (ft) Top	Depth (ft) Bottom	Ultimate Lateral Bearing Pressure (psf)	Increment (psf/ft)	g_{Soil} (pcf)	f (degree)	Cohesion (psf)
0.0	1.0	0.0	325.5	100	32	0
1.0	3.0	325.5	358.0	110	32	0
2.0	3.0	1041.5	358.0	110	32	0
3.0	5.0	1521.0	371.4	105	34	0
5.0	6.0	2465.2	462.2	120	36	0

Total Lateral Resistance:	55.4	k
Inflection Point (Below Ground Surface):	4.7	ft
Design Overturning Moment At Inflection Point (M_{uip}):	1199.8	k-ft
Nominal Moment Capacity per Leg (f_sM_n) (adjusted for Rock Anchors):	1297.4	k-ft
M_{uip}/f_sM_n:	0.92	Result: OK

Caisson Strength Capacity

Concrete Compressive Strength (f'_c):	3000	psi
Vertical Steel Rebar Area:	1.56	in^2
# of Vertical Steel Rebars:	52	Minimum # of vertical rebar met
Vertical Steel Rebar Yield Strength (F_y):	60	ksi
Horizontal Tie / Stirrup Area:	0.20	in^2
Horizontal Tie / Stirrup Spacing:	12.0	in
Horizontal Tie / Stirrup Steel Yield Strength (F_y):	60	ksi
Rebar Cage Diameter:	66.0	in
Strength Bending/Tension Reduction Factor (f_B):	0.90	ACI318-005 - 9.3.2.1
Strength Shear Reduction Factor (f_V):	0.75	ACI318-005 - 9.3.2.3
Strength Compression Reduction Factor (f_V):	0.65	ACI318-005 - 9.3.2.2
Steel Elastic Modulus:	29000	ksi
Maximum Allowable Strain in Rebar:	0.004	ACI318-005 - 10.3.5
Design Moment (M_u):	1276.9	k-ft
Nominal Moment Capacity ($f_B M_n$):	12192.8	k-ft - ACI318-005 - 10.2
$M_u/f_B M_n$:	0.10	Result: OK
Design Shear (V_u):	18.1	k
Nominal Shear Capacity ($f_V V_n$):	420.9	k - ACI318-005 - 11.3.1.1 or 11.5.7.2
$V_u/f_V V_n$:	0.04	Result: OK
Design Tension (T_u):	0.0	k
Nominal Tension Capacity ($f_T T_n$):	4380.5	k - ACI318-005 - 10.2
$T_u/f_T T_n$:	0.00	Result: OK
Design Compression (P_u):	54.0	k
Nominal Compression Capacity ($f_P P_n$):	6614.1	k - ACI318-005 - 10.3.6.2
$P_u/f_P P_n$:	0.01	Result: OK
Bending Reinforcement Ratio:	0.020	Reinforcement Ratio is Satisfactory - ACI318-005 - 10.5.1

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

Daniel F. Caruso
Chairman

June 9, 2009

The Honorable Eddie A. Perez
Mayor
City of Hartford
Municipal Building
550 Main Street
Hartford, CT 06103

RE: **EM-VER-064-090602** – Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 289H Mountain Street, Hartford, Connecticut.

Dear Mayor Perez:

The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

If you have any questions or comments regarding this proposal, please call me or inform the Council by June 23, 2009.

Thank you for your cooperation and consideration.

Very truly yours,

S. Derek Phelps
Executive Director

SDP/jb

Enclosure: Notice of Intent

c: Roger J. O'Brien, Director of Planning, City of Hartford
Lee C. Erdmann, Chief Operating Officer, City of Hartford