



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

www.ct.gov/csc

VIA ELECTRONIC MAIL

July 6, 2018

Arthur Perkowski
Airosmith Development Incorporated
32 Clinton Street
Saratoga Springs, NY 12866

RE: **EM-SPRINT-092-180314** - Sprint notice of intent to modify an existing telecommunications facility located at 20 Antolini Road, New Hartford, Connecticut.

Dear Mr. Perkowski:

The Connecticut Siting Council (Council) is in receipt of your correspondence of July 5, 2018 submitted in response to the Council's March 26, 2018 notification of an incomplete request for exempt modification with regard to the above-referenced matter.

The submission renders the request for exempt modification complete and the Council will process the request in accordance with the Federal Communications Commission 60-day timeframe.

Thank you for your attention and cooperation.

Sincerely,

Melanie A. Bachman
Executive Director

MAB/FOC/jmb



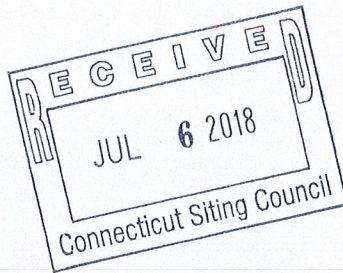
CONNECTICUT SITING COUNCIL

Affirmative Action / Equal Opportunity Employer



July 5th, 2018

Melanie Bachman, Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051



RE: Notice of Exempt Modification Extension- EM-SPRINT-092-180314 – Antenna Swap for wireless facility located at 20 ANTOLINI ROAD, NEW HARTFORD, CONNECTICUT – CT33XC022 (lat. 41° 49' 40.97" N, long. -73° 0' 56.4" W)

Dear Ms. Bachman:

Please find along with this letter the Structural Analysis for the Connecticut Siting Council project EM-SPRINT-092-180314. This structural analysis incorporates the new mount which is required within the mount analysis.

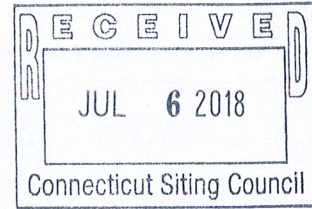
If you have any questions or require any additional information regarding this request, please do not hesitate to give me a call at (518) 350-4222 or email me to aperkowski@airosmithdevelopment.com

Kind Regards,

Arthur Perkowski
Airosmith Development Inc.
32 Clinton Street
Saratoga Springs, NY 12866
518-306-1711 desk & fax
518-871-3707 cell
aperkowski@airosmithdevelopment.com



AMERICAN TOWER®
CORPORATION



This report was prepared for American Tower Corporation by



**TOWER
ENGINEERING
PROFESSIONALS**

Structural Analysis Report

Structure : 145 ft Monopole

ATC Site Name : Nepaug CT, CT

ATC Site Number : 411182

Engineering Number : OAA714420_C3_02

Proposed Carrier : Sprint Nextel

Carrier Site Name : Bakersville

Carrier Site Number : CT33XC022

Site Location : 20 Antolini Road
New Hartford, CT 06057-3326
41.828100,-73.015700

County : Litchfield

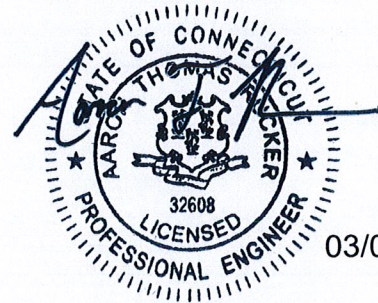
Date : March 6, 2018

Max Usage : 75%

Result : Pass

Prepared By:
Connor Klein
TEP

Reviewed By:



03/06/2018

COA: PEC.0001553



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Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 145 ft monopole to reflect the change in loading by Sprint Nextel.

Supporting Documents

Tower Drawings	EEl Project #8859 Rev. 2, dated March 30, 2001
Foundation Drawing	URS Grenier Woodward Clyde Project #F301682.04, dated October 13, 2000
Geotechnical Report	Dr. Clarence Welti Site Location: 20 Antolini Road, New Hartford, CT., dated March 27, 2000

Analysis

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

Basic Wind Speed:	93 mph (3-Second Gust, V_{asd}) / 120 mph (3-Second Gust, V_{ult})
Basic Wind Speed w/ Ice:	40 mph (3-Second Gust) w/ 1" radial ice concurrent
Code:	ANSI/TIA-222-G / 2012 IBC / 2016 Connecticut State Building Code
Structure Class:	II
Exposure Category:	B
Topographic Category:	1
Spectral Response:	$S_s = 0.18, S_1 = 0.06$
Site Class:	D - Stiff Soil

Conclusion

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

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



Existing and Reserved Equipment

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
145.0	160.0	1	RFS PD620-2	Platform w/ Handrails Site Pro Part No. RMQP-496-HK	(1) 7/8" Coax	Other
	155.0	1	12' Omni		(1) 7/8" Coax	
	151.0	1	PCTEL GPS-TMG-HR-26N		(3) 1 1/4" Hybriflex (1) 1/2" Coax	Sprint Nextel
		3	Alcatel-Lucent ALU 800MHz External Notch Filter			
		3	Alcatel-Lucent 800MHz RRH			
		3	Alcatel-Lucent 1900MHz RRH			
		3	RFS APXVSP18-C-A20			
141.0	141.0	1	GPS	T-Arms	(12) 1 5/8" Coax (1) 7/8" Coax	Verizon
		6	TTA			
		6	Antel LPA-80040-4CF-EDIN-X			
		3	Antel BXA-171040-8CF			
		3	Antel BXA-70040/6CF			
125.0	125.0	1	E-911 GPS	T-Arms	(18) 1 5/8" Coax (1) 1/2" Coax	T-Mobile
		3	RFS ATM1900D-1CWA			
		3	RFS ATMAA1412D-1A20			
		6	RFS APX16DWV-16DWV-S-E-ACU			
		3	Commscope LNX-6515DS-A1M			
115.0	115.0	1	GPS	Flush	(6) 1 5/8" Coax	Metro PCS
		3	RFS APXV18-206517			
90.0	90.0	-	-	Empty Low Profile Platform	-	--
80.0	80.0	3	Spinner Bias-T	Low Profile Platform	(12) 7/8" Coax (2) 0.78" 8 AWG 6 (1) 3" conduit (1) 0.39" Fiber Trunk	AT&T Mobility
		6	Powerwave LGP21901			
		6	Powerwave LGP21401			
		1	Raycap DC6-48-60-18-8F(32.8 lbs)			
		6	Ericsson RRUS 11 (Band 12)			
		6	Powerwave 7770.00			
		2	KMW AM-X-CD-16-65-00T-RET			
		1	Powerwave P65-17-XLH-RR (50 lbs)			

Equipment to be Removed

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
145.0	145.0	2	Andrew DB980F65E-M	Low Profile Platform	(6) 1 5/8" Coax	Sprint Nextel
		2	RFS APXVSP18-C-A20			



Proposed Equipment

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
145.0	151.0	3	Alcatel-Lucent RRH2x50-08	Platform w/ Handrails Site Pro Part No. RMQP-496-HK	(1) 1 1/4" Hybriflex	Sprint Nextel
		3	Alcatel-Lucent TD-RRH8x20-25 w/ Solar Shield			
		3	Commscope DT465B-2XR			
52.0	52.0	1	PCTEL GPS-TMG-HR-26N	Stand-Off	(1) 1/2" Coax	

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

Install proposed coax inside the pole shaft.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	29%	Pass
Shaft	50%	Pass
Base Plate	75%	Pass
Flanges	63%	Pass

Foundations

Reaction Component	Original Design Reactions	Factored Design Reactions*	Analysis Reactions	% of Design
Moment (Kips-Ft)	3,128.4	4,223.3	2,131.6	50%
Shear (Kips)	29.2	39.4	20.4	52%

* The design reactions are factored by 1.35 per ANSI/TIA-222-G, Sec. 15.5.1

The structure base reactions resulting from this analysis are acceptable when compared to those shown on the original structure drawings, therefore no modification or reinforcement of the foundation will be required.

Deflection and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
145.0	Alcatel-Lucent RRH2x50-08	Sprint Nextel	1.614	1.323
	Alcatel-Lucent TD-RRH8x20-25 w/ Solar Shield			
	Commscope DT465B-2XR			

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



Standard Conditions

All engineering services performed by A.T. Engineering Service, PLLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of A.T. Engineering Service, PLLC

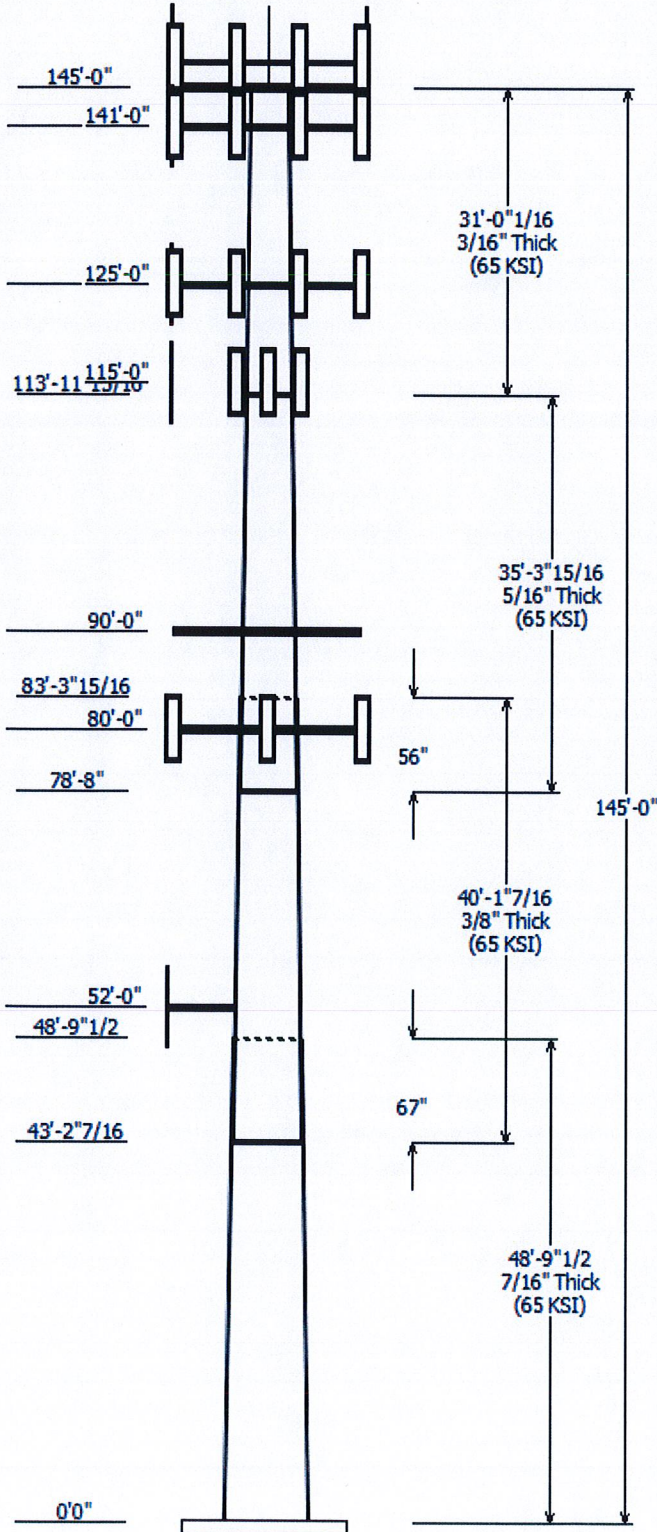
It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete.

All assets of American Tower Corporation, its affiliates and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

Unless explicitly agreed by both the client and A.T. Engineering Service, PLLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. A.T. Engineering Service, PLLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

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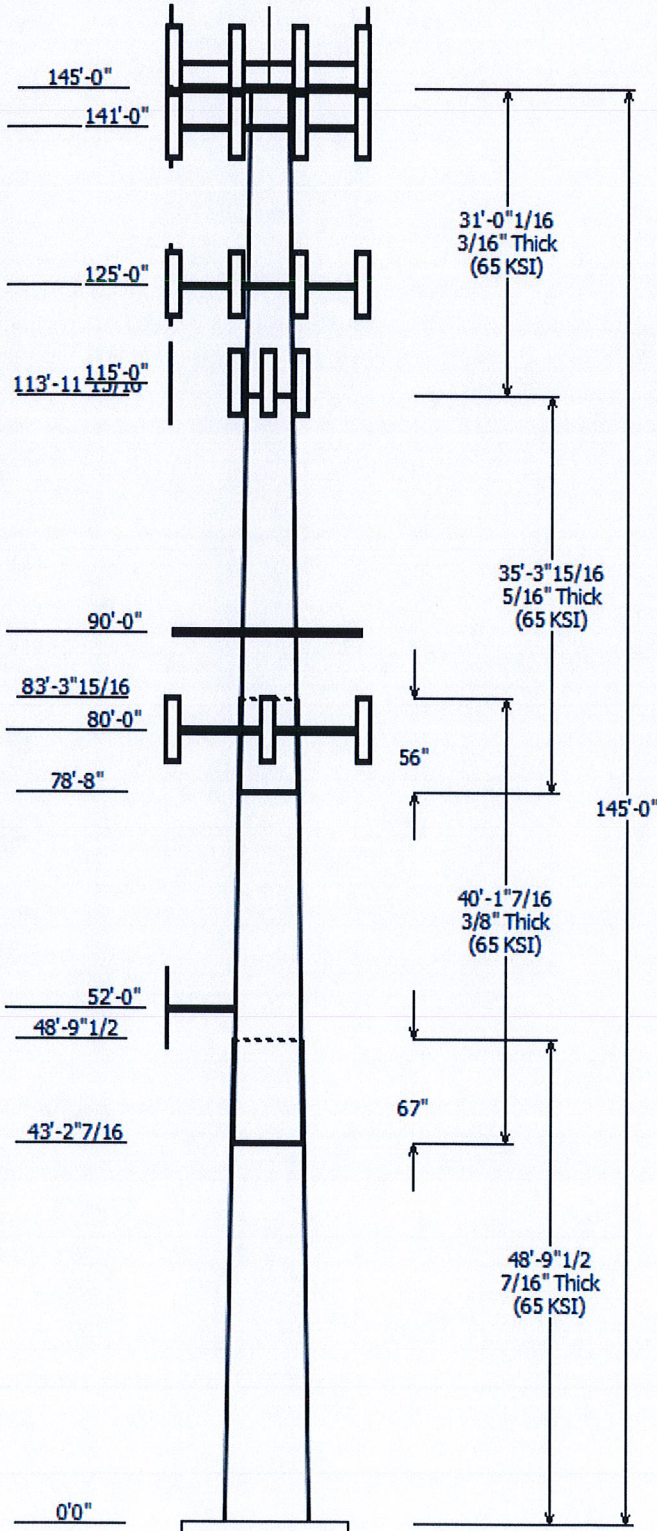


Job Information	
Pole : 411182	Code: ANSI/TIA-222-G
Location : Nepaug CT, CT	
Description : 145' EEI Monopole	
Client : SPRINT NEXTEL	Struct Class : II
Shape : 18 Sides	Exposure : B
Height : 145.00 (ft)	Topo : 1
Base Elev (ft): 0.00	
Taper: 0.22844 in/ft	

Sections Properties						
Shaft Section	Length (ft)	Diameter (in)		Thick Joint Type	Overlap Length (in)	Steel Grade
		Across Flats Top	Across Flats Bottom			
1	48.794	38.60	49.75	0.438	0.000	18 Sides 65
2	40.122	31.46	40.63	0.375 Slip Joint	67.063	18 Sides 65
3	35.328	25.08	33.15	0.313 Slip Joint	55.906	18 Sides 65
4	31.003	18.00	25.08	0.188 Butt Joint	0.000	18 Sides 65

Discrete Appurtenance			
Attach Elev (ft)	Force Elev (ft)	Qty	Description
145.000	151.000	1	PCTEL GPS-TMG-HR-26N
145.000	145.000	1	Round Platform w/ Handrails
145.000	155.000	1	12' Omni
145.000	160.000	1	RFS PD620-2
145.000	151.000	3	Commscope DT465B-2XR
145.000	151.000	3	Alcatel-Lucent TD-RRH8x20-25
145.000	151.000	3	Alcatel-Lucent RRH2x50-08
145.000	151.000	3	Alcatel-Lucent ALU 800MHz
145.000	151.000	3	RFS APXVSP18-C-A20
145.000	151.000	3	Alcatel-Lucent 1900MHz RRH
145.000	151.000	3	Alcatel-Lucent 800 MHz RRH
141.000	141.000	3	Amphenol Antel BXA-
141.000	141.000	3	Round T-Arm
141.000	141.000	3	Amphenol Antel BXA-171040-
141.000	141.000	6	Amphenol Antel LPA-80040-
141.000	141.000	6	TTA
141.000	141.000	1	GPS
125.000	125.000	3	Commscope LNX-6515DS-A1M
125.000	125.000	3	RFS ATMAA1412D-1A20
125.000	125.000	3	RFS ATM1900D-1CWA
125.000	125.000	3	Round T-Arm
125.000	125.000	6	RFS APX16DWV-16DWV-S-E-
125.000	125.000	1	E-911 GPS
115.000	115.000	3	RFS APXV18-206517
115.000	115.000	1	GPS
90.000	90.000	1	Empty Flat Low Profile Platfor
80.000	80.000	1	Flat Low Profile Platform
80.000	80.000	1	Powerwave Allgon P65-17-
80.000	80.000	2	KMW AM-X-CD-16-65-00T-RET
80.000	80.000	6	Powerwave Allgon 7770.00
80.000	80.000	6	Ericsson RRUS 11 (Band 12)
80.000	80.000	1	Raycap DC6-48-60-18-8F(32.8 lb
80.000	80.000	6	Powerwave Allgon LGP21401
80.000	80.000	6	Powerwave Allgon LGP21901
80.000	80.000	3	Spinner Bias-T
52.000	52.000	1	Stand-Off
52.000	52.000	1	PCTEL GPS-TMG-HR-26N

Linear Appurtenance			
Elev (ft)	From	To	Exposed To Wind
0.000	0.000	52.000	1/2" Coax Yes



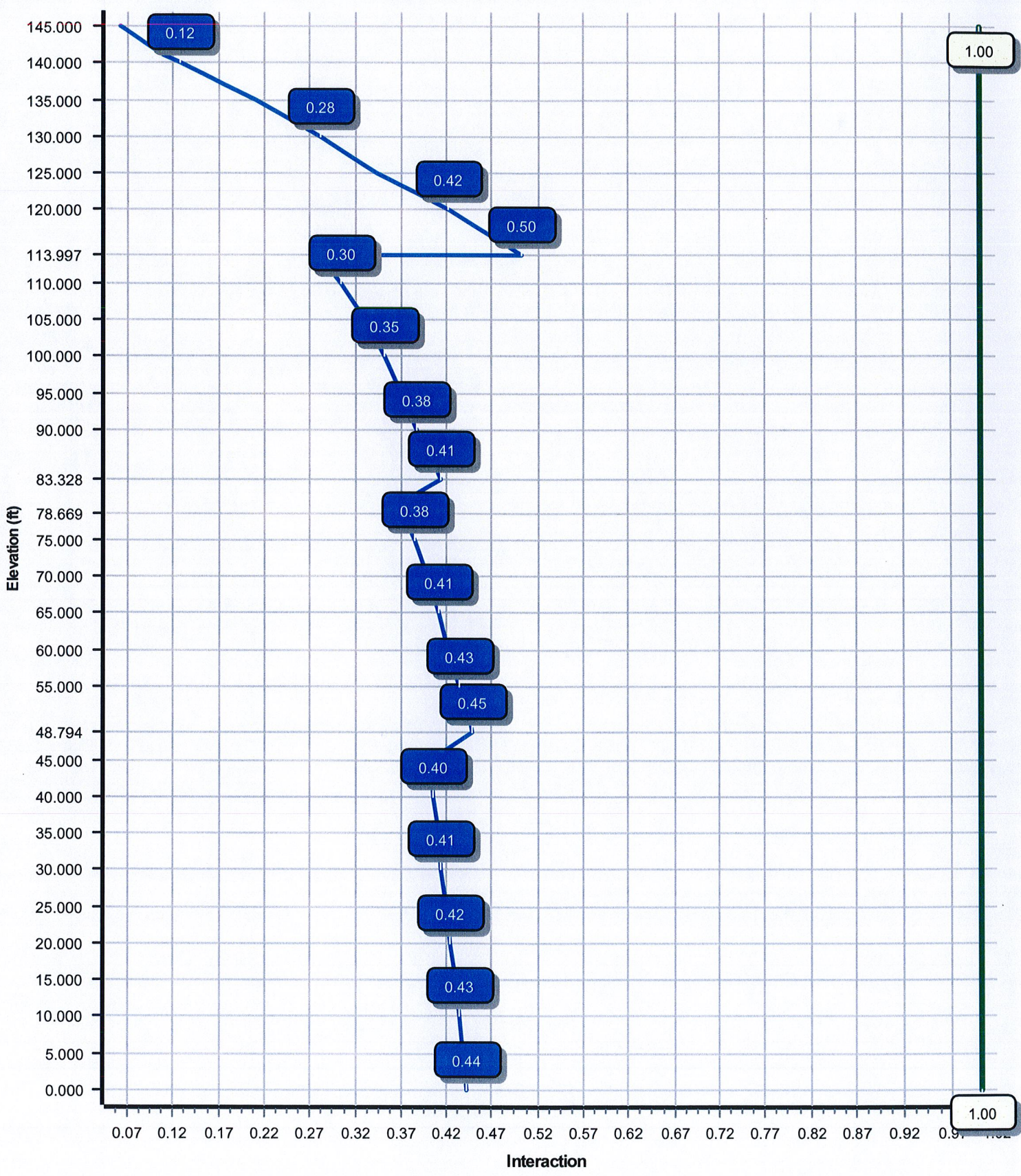
0.000	80.000	0.39" Fiber Trunk	No
0.000	80.000	0.78" 8 AWG 6	No
0.000	80.000	3" conduit	No
0.000	80.000	7/8" Coax	No
0.000	115.0	1 5/8" Coax	No
0.000	125.0	1 5/8" Coax	Yes
0.000	125.0	1 5/8" Coax	No
0.000	125.0	1/2" Coax	No
0.000	141.0	1 5/8" Coax	No
0.000	141.0	7/8" Coax	No
0.000	145.0	1 1/4" Hybriflex	No
0.000	145.0	1 1/4" Hybriflex	No
0.000	145.0	1/2" Coax	No
0.000	145.0	7/8" Coax	No
0.000	145.0	7/8" Coax	No

Load Cases	
1.2D + 1.6W	93 mph with No Ice
0.9D + 1.6W	93 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	40 mph with 1.00 in Radial Ice
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2Sds) * DL + E	Seismic (Reduced DL) Equivalent Lateral
(0.9 - 0.2Sds) * DL + E	Seismic (Reduced DL) Equivalent Modal
1.0D + 1.0W	Serviceability 60 mph

Reactions			
Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
1.2D + 1.6W	2131.58	20.38	42.74
0.9D + 1.6W	2108.97	20.37	32.05
1.2D + 1.0Di + 1.0Wi	469.79	4.36	73.69
(1.2 + 0.2Sds) * DL + E ELFM	168.42	1.48	42.42
(1.2 + 0.2Sds) * DL + E EMAM	250.75	2.12	42.42
(0.9 - 0.2Sds) * DL + E ELFM	166.27	1.48	29.50
(0.9 - 0.2Sds) * DL + E EMAM	247.17	2.12	29.50
1.0D + 1.0W	550.92	5.30	35.64

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

Load Case : 1.2D + 1.6W
Max Ratio 49.90% at 114.0 ft



Site Number: 411182

Code: ANSI/TIA-222-G © 2007 - 2018 by ATC IP LLC. All rights reserved.

Site Name: Nepaug CT, CT

Engineering Number: OAA714420_C3_02

3/6/2018 8:08:46 AM

Customer: SPRINT NEXTEL

Analysis Parameters

Location :	LITCHFIELD County, CT	Height (ft) :	145
Code :	ANSI/TIA-222-G	Base Diameter (in) :	49.75
Shape :	18 Sides	Top Diameter (in) :	18.00
Pole Type :	Taper	Taper (in/ft) :	0.228
Pole Manufacturer :	EEl	Rotation (deg) :	0.00

Ice & Wind Parameters

Structure Class:	II	Design Wind Speed Without Ice:	93 mph
Exposure Category:	B	Design Wind Speed With Ice:	40 mph
Topographic Category:	1	Operational Wind Speed:	60 mph
Crest Height:	0 ft	Design Ice Thickness:	1.00 in

Seismic Parameters

Analysis Method:	Equivalent Modal Analysis & Equivalent Lateral Force Methods		
Site Class:	D - Stiff Soil		
Period Based on Rayleigh Method (sec):	2.18		
T_L (sec):	6	p :	1.3
S_s :	0.181	S_1 :	0.065
F_a :	1.600	F_v :	2.400
S_{ds} :	0.193	S_{d1} :	0.104
		C_s :	0.032
		C_s Max:	0.032
		C_s Min:	0.030

Load Cases

1.2D + 1.6W	93 mph with No Ice
0.9D + 1.6W	93 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	40 mph with 1.00 in Radial Ice
(1.2 + 0.2Sds) * DL + E ELFM	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2Sds) * DL + E EMAM	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2Sds) * DL + E ELFM	Seismic (Reduced DL) Equivalent Lateral Forces Method
(0.9 - 0.2Sds) * DL + E EMAM	Seismic (Reduced DL) Equivalent Modal Analysis Method
1.0D + 1.0W	Serviceability 60 mph

Site Number: 411182

Code: ANSI/TIA-222-G

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Site Name: Nepaug CT, CT

Engineering Number: OAA714420_C3_02

3/6/2018 8:08:46 AM

Customer: SPRINT NEXTEL

Shaft Section Properties

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom						Top						
							Dia (in)	Elev (ft)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Taper (in/ft)
1-18	48.794	0.4375	65		0.00	10,084	49.75	0.00	68.47	21037.5	18.64	113.71	38.60	48.79	53.00	9753.0	14.15	88.24	0.228448
2-18	40.122	0.3750	65	Slip	67.06	5,797	40.63	43.21	47.91	9809.0	17.69	108.35	31.46	83.33	37.00	4518.4	13.38	83.90	0.228448
3-18	35.328	0.3125	65	Slip	55.91	3,435	33.15	78.67	32.57	4438.4	17.30	106.09	25.08	114.00	24.57	1904.5	12.74	80.26	0.228448
4-18	31.003	0.1875	65	Butt	0.00	1,341	25.08	114.00	14.82	1160.1	22.18	133.77	18.00	145.00	10.60	424.9	15.52	96.00	0.228448
Shaft Weight						20,656													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	Distance From Face (ft)	Vert Ecc (ft)	Weight (lb)	No Ice EPAa (sf)	Orientation Factor
145.00	12' Omni	1	0.000	10.000	40.00	3.600	1.00
145.00	Alcatel-Lucent 1900MHz RRH	3	0.000	6.000	44.00	3.260	0.67
145.00	Alcatel-Lucent 800 MHz RRH	3	0.000	6.000	53.00	2.130	0.67
145.00	Alcatel-Lucent ALU 800MHz Exte	3	0.000	6.000	8.80	0.780	0.50
145.00	Alcatel-Lucent RRH2x50-08	3	0.000	6.000	52.90	1.700	0.50
145.00	Alcatel-Lucent TD-RRH8x20-25 w	3	0.000	6.000	70.00	4.050	0.67
145.00	Commscope DT465B-2XR	3	0.000	6.000	58.00	9.100	0.69
145.00	PCTEL GPS-TMG-HR-26N	1	0.000	6.000	0.60	0.090	1.00
145.00	RFS APXVSP18-C-A20	3	0.000	6.000	57.00	8.020	0.69
145.00	RFS PD620-2	1	0.000	15.000	53.00	7.170	1.00
145.00	Round Platform w/ Handrails	1	0.000	0.000	2000.00	27.200	1.00
141.00	Amphenol Antel BXA-171040-8CF	3	0.000	0.000	13.00	5.090	0.64
141.00	Amphenol Antel BXA-70040/6CF	3	0.000	0.000	37.50	14.250	0.62
141.00	Amphenol Antel LPA-80040-4CF-	6	0.000	0.000	18.00	4.990	0.74
141.00	GPS	1	0.000	0.000	10.00	1.000	1.00
141.00	Round T-Arm	3	0.000	0.000	250.00	9.700	0.67
141.00	TTA	6	0.000	0.000	10.00	1.200	0.50
125.00	Commscope LNX-6515DS-A1M	3	0.000	0.000	43.70	11.450	0.70
125.00	E-911 GPS	1	0.000	0.000	5.00	0.580	1.00
125.00	RFS APX16DWV-16DWV-S-E-ACU	6	0.000	0.000	39.60	6.080	0.60
125.00	RFS ATM1900D-1CWA	3	0.000	0.000	8.40	0.840	0.50
125.00	RFS ATMAA1412D-1A20	3	0.000	0.000	13.00	1.000	0.50
125.00	Round T-Arm	3	0.000	0.000	250.00	9.700	0.67
115.00	GPS	1	0.000	0.000	10.00	1.000	1.00
115.00	RFS APXV18-206517	3	0.000	0.000	26.40	5.050	0.68
90.00	Empty Flat Low Profile Platfor	1	0.000	0.000	1500.00	26.100	1.00
80.00	Ericsson RRUS 11 (Band 12)	6	0.000	0.000	50.00	2.570	0.67
80.00	Flat Low Profile Platform	1	0.000	0.000	1500.00	26.100	1.00
80.00	KMW AM-X-CD-16-65-00T-RET	2	0.000	0.000	48.50	8.020	0.67
80.00	Powerwave Allgon 7770.00	6	0.000	0.000	35.00	5.510	0.65
80.00	Powerwave Allgon LGP21401	6	0.000	0.000	14.10	1.100	0.50
80.00	Powerwave Allgon LGP21901	6	0.000	0.000	5.50	0.230	0.50
80.00	Powerwave Allgon P65-17-XLH-	1	0.000	0.000	50.00	11.470	0.67
80.00	Raycap DC6-48-60-18-8F(32.8 lb	1	0.000	0.000	32.80	1.280	1.00
80.00	Spinner Bias-T	3	0.000	0.000	1.50	0.170	0.50
52.00	PCTEL GPS-TMG-HR-26N	1	0.000	0.000	0.60	0.090	1.00
52.00	Stand-Off	1	0.000	0.000	100.00	3.000	1.00
Totals	Num Loadings:37	105			9393.80		

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Diameter (in)	Coax Weight (lb/ft)	Projected Width Flat (in)	Exposed To Wind	Carrier	
0.00	145.00	3	1 1/4" Hybriflex Cable	1.54	1.00	N	0.00	N	Sprint Nextel

Site Number: 411182

Code: ANSI/TIA-222-G

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Site Name: Nepaug CT, CT

Engineering Number: OAA714420_C3_02

3/6/2018 8:08:46 AM

Customer: SPRINT NEXTEL

0.00	145.00	1	1 1/4" Hybriflex Cable	1.54	1.00	N	0.00	N	Sprint Nextel
0.00	145.00	1	1/2" Coax	0.63	0.15	N	0.00	N	Sprint Nextel
0.00	145.00	1	7/8" Coax	1.09	0.33	N	0.00	N	Unknown
0.00	145.00	1	7/8" Coax	1.09	0.33	N	0.00	N	Unknown
0.00	141.00	12	1 5/8" Coax	1.98	0.82	N	0.00	N	Verizon
0.00	141.00	1	7/8" Coax	1.09	0.33	N	0.00	N	Verizon
0.00	125.00	6	1 5/8" Coax	1.98	0.82	N	1.98	Y	T-Mobile
0.00	125.00	12	1 5/8" Coax	1.98	0.82	N	0.00	N	T-Mobile
0.00	125.00	1	1/2" Coax	0.63	0.15	N	0.00	N	T-Mobile
0.00	115.00	6	1 5/8" Coax	1.98	0.82	N	0.00	N	Metro PCS
0.00	80.00	1	0.39" Fiber Trunk	0.39	0.06	N	0.00	N	AT&T Mobility
0.00	80.00	2	0.78" 8 AWG 6	0.78	0.59	N	0.00	N	AT&T Mobility
0.00	80.00	1	3" conduit	3.50	7.58	N	0.00	N	AT&T Mobility
0.00	80.00	12	7/8" Coax	1.09	0.33	N	0.00	N	AT&T Mobility
0.00	52.00	1	1/2" Coax	0.63	0.15	N	0.00	Y	Sprint Nextel

Site Number: 411182

Code: ANSI/TIA-222-G

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Site Name: Nepaug CT, CT

Engineering Number: OAA714420_C3_02

3/6/2018 8:08:46 AM

Customer: SPRINT NEXTEL

Segment Properties (Max Len : 5. ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in ³)	Z (in ³)	Weight (lb)
0.00		0.4375	49.750	68.474	21,037.5	18.64	113.71	79.5	832.9	0.0	0.0
5.00		0.4375	48.608	66.888	19,609.2	18.18	111.10	80.0	794.6	0.0	1,151.5
10.00		0.4375	47.466	65.302	18,247.0	17.72	108.49	80.6	757.2	0.0	1,124.5
15.00		0.4375	46.323	63.716	16,949.5	17.26	105.88	81.1	720.7	0.0	1,097.5
20.00		0.4375	45.181	62.130	15,715.0	16.80	103.27	81.6	685.1	0.0	1,070.6
25.00		0.4375	44.039	60.544	14,541.9	16.34	100.66	82.2	650.4	0.0	1,043.6
30.00		0.4375	42.897	58.958	13,428.7	15.88	98.05	82.6	616.6	0.0	1,016.6
35.00		0.4375	41.754	57.371	12,373.8	15.42	95.44	82.6	583.7	0.0	989.6
40.00		0.4375	40.612	55.785	11,375.6	14.96	92.83	82.6	551.7	0.0	962.6
43.21	Bot - Section 2	0.4375	39.880	54.768	10,764.8	14.66	91.15	82.6	531.7	0.0	603.0
45.00		0.4375	39.470	54.199	10,432.7	14.50	90.22	82.6	520.6	0.0	623.7
48.79	Top - Section 1	0.3750	39.353	46.392	8,905.0	17.09	104.94	81.3	445.7	0.0	1,297.6
50.00		0.3750	39.078	46.064	8,717.6	16.96	104.21	81.4	439.4	0.0	189.7
52.00		0.3750	38.621	45.520	8,412.5	16.75	102.99	81.7	429.0	0.0	311.6
55.00		0.3750	37.935	44.705	7,968.3	16.43	101.16	82.1	413.7	0.0	460.5
60.00		0.3750	36.793	43.345	7,263.2	15.89	98.11	82.6	388.8	0.0	749.0
65.00		0.3750	35.651	41.986	6,601.0	15.35	95.07	82.6	364.7	0.0	725.9
70.00		0.3750	34.509	40.626	5,980.3	14.82	92.02	82.6	341.3	0.0	702.8
75.00		0.3750	33.366	39.267	5,399.8	14.28	88.98	82.6	318.7	0.0	679.6
78.67	Bot - Section 3	0.3750	32.528	38.269	4,998.6	13.88	86.74	82.6	302.7	0.0	484.0
80.00		0.3750	32.224	37.907	4,858.1	13.74	85.93	82.6	296.9	0.0	319.3
83.33	Top - Section 2	0.3125	32.089	31.517	4,020.7	16.70	102.68	81.8	246.8	0.0	785.4
85.00		0.3125	31.707	31.138	3,877.5	16.48	101.46	82.0	240.9	0.0	178.2
90.00		0.3125	30.565	30.005	3,469.5	15.84	97.81	82.6	223.6	0.0	520.1
95.00		0.3125	29.422	28.872	3,091.1	15.19	94.15	82.6	206.9	0.0	500.9
100.00		0.3125	28.280	27.739	2,741.3	14.55	90.50	82.6	190.9	0.0	481.6
105.00		0.3125	27.138	26.607	2,419.0	13.90	86.84	82.6	175.6	0.0	462.3
110.00		0.3125	25.996	25.474	2,123.0	13.26	83.19	82.6	160.9	0.0	443.0
114.00	Top - Section 3	0.3125	25.082	24.568	1,904.5	12.74	80.26	82.6	149.5	0.0	340.3
114.00	Bot - Section 4	0.1875	25.082	14.815	1,160.1	22.18	133.77	75.3	91.1	0.0	
115.00		0.1875	24.853	14.679	1,128.3	21.96	132.55	75.6	89.4	0.0	50.3
120.00		0.1875	23.711	13.999	978.7	20.89	126.46	76.8	81.3	0.0	244.0
125.00		0.1875	22.569	13.319	843.0	19.81	120.37	78.1	73.6	0.0	232.4
130.00		0.1875	21.427	12.640	720.4	18.74	114.28	79.4	66.2	0.0	220.8
135.00		0.1875	20.284	11.960	610.3	17.67	108.18	80.6	59.3	0.0	209.3
140.00		0.1875	19.142	11.280	512.0	16.59	102.09	81.9	52.7	0.0	197.7
141.00		0.1875	18.914	11.144	493.7	16.38	100.87	82.1	51.4	0.0	38.2
145.00		0.1875	18.000	10.600	424.9	15.52	96.00	82.6	46.5	0.0	148.0
20,655.8											

Site Number: 411182

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Site Name: Nepaug CT, CT

Engineering Number: OAA714420_C3_02

3/6/2018 8:08:46 AM

Customer: SPRINT NEXTEL

Load Case: 1.2D + 1.6W	93 mph with No Ice	24 Iterations
Gust Response Factor :1.10		Wind Importance Factor :1.00
Dead Load Factor :1.20		
Wind Load Factor :1.60		

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		175.2	0.0					0.0	0.0	175.2	0.0	0.0	0.0
5.00		346.4	1,381.8					0.0	286.4	346.4	1,668.3	0.0	0.0
10.00		338.3	1,349.4					0.0	286.4	338.3	1,635.9	0.0	0.0
15.00		330.1	1,317.1					0.0	286.4	330.1	1,603.5	0.0	0.0
20.00		322.0	1,284.7					0.0	286.4	322.0	1,571.1	0.0	0.0
25.00		313.9	1,252.3					0.0	286.4	313.9	1,538.7	0.0	0.0
30.00		309.3	1,219.9					0.0	286.4	309.3	1,506.3	0.0	0.0
35.00		311.0	1,187.5					0.0	286.4	311.0	1,474.0	0.0	0.0
40.00		257.6	1,155.1					0.0	286.4	257.6	1,441.6	0.0	0.0
43.21	Bot - Section 2	158.8	723.6					0.0	183.6	158.8	907.2	0.0	0.0
45.00		180.1	748.4					0.0	102.8	180.1	851.2	0.0	0.0
48.79	Top - Section 1	161.2	1,557.2					0.0	217.4	161.2	1,774.5	0.0	0.0
50.00		103.4	227.6					0.0	69.1	103.4	296.7	0.0	0.0
52.00	Appurtenance(s)	161.1	374.0	93.8	0.0	0.0	120.7	0.0	114.6	254.9	609.3	0.0	0.0
55.00		257.1	552.6					0.0	171.3	257.1	724.0	0.0	0.0
60.00		319.8	898.8					0.0	285.5	319.8	1,184.4	0.0	0.0
65.00		317.0	871.1					0.0	285.5	317.0	1,156.6	0.0	0.0
70.00		313.5	843.3					0.0	285.5	313.5	1,128.9	0.0	0.0
75.00		268.6	815.6					0.0	285.5	268.6	1,101.1	0.0	0.0
78.67	Bot - Section 3	154.2	580.9					0.0	209.5	154.2	790.4	0.0	0.0
80.00	Appurtenance(s)	144.0	383.1	2,427.5	0.0	0.0	2,774.3	0.0	76.0	2,571.5	3,233.4	0.0	0.0
83.33	Top - Section 2	153.7	942.4					0.0	139.0	153.7	1,081.5	0.0	0.0
85.00		201.8	213.9					0.0	69.8	201.8	283.7	0.0	0.0
90.00	Appurtenance(s)	298.3	624.2	926.5	0.0	0.0	1,800.0	0.0	208.9	1,224.9	2,633.0	0.0	0.0
95.00		291.7	601.0					0.0	208.9	291.7	809.9	0.0	0.0
100.00		284.5	577.9					0.0	208.9	284.5	786.8	0.0	0.0
105.00		276.8	554.8					0.0	208.9	276.8	763.6	0.0	0.0
110.00		242.5	531.7					0.0	208.9	242.5	740.5	0.0	0.0
114.00	Top - Section 3	132.3	408.4					0.0	167.0	132.3	575.4	0.0	0.0
115.00	Appurtenance(s)	154.1	60.4	430.3	0.0	0.0	107.0	0.0	41.9	584.4	209.3	0.0	0.0
120.00		251.3	292.8					0.0	179.3	251.3	472.1	0.0	0.0
125.00	Appurtenance(s)	242.0	278.9	2,107.2	0.0	0.0	1,425.5	0.0	179.3	2,349.2	1,883.7	0.0	0.0
130.00		232.3	265.0					0.0	89.9	232.3	354.9	0.0	0.0
135.00		222.3	251.1					0.0	89.9	222.3	341.0	0.0	0.0
140.00		129.7	237.2					0.0	89.9	129.7	327.1	0.0	0.0
141.00	Appurtenance(s)	103.4	45.8	2,625.3	0.0	0.0	1,295.4	0.0	18.0	2,728.7	1,359.2	0.0	0.0
145.00	Appurtenance(s)	82.3	177.6	3,353.9	0.0	16,781.6	3,749.6	0.0	23.1	3,436.2	3,950.3	0.0	0.0
Totals:										20,506.1	42,768.9	0.00	0.00

Site Number: 411182

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Site Name: Nepaug CT, CT

Engineering Number: OAA714420_C3_02

3/6/2018 8:08:51 AM

Customer: SPRINT NEXTEL

Load Case: 1.2D + 1.6W	93 mph with No Ice	24 Iterations
Gust Response Factor :1.10		Wind Importance Factor :1.00
Dead Load Factor :1.20		
Wind Load Factor :1.60		

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-42.74	-20.38	0.00	-2,131.58	0.00	2,131.58	4,897.86	2,448.93	9,914.38	4,964.56	0.00	0.00	0.438
5.00	-41.03	-20.14	0.00	-2,029.66	0.00	2,029.66	4,817.00	2,408.50	9,522.86	4,768.51	0.08	-0.14	0.434
10.00	-39.34	-19.89	0.00	-1,928.97	0.00	1,928.97	4,734.60	2,367.30	9,136.02	4,574.80	0.30	-0.28	0.430
15.00	-37.69	-19.65	0.00	-1,829.51	0.00	1,829.51	4,650.66	2,325.33	8,754.06	4,383.53	0.68	-0.43	0.426
20.00	-36.07	-19.41	0.00	-1,731.26	0.00	1,731.26	4,565.16	2,282.58	8,377.20	4,194.83	1.21	-0.58	0.421
25.00	-34.48	-19.17	0.00	-1,634.22	0.00	1,634.22	4,478.12	2,239.06	8,005.67	4,008.78	1.90	-0.73	0.415
30.00	-32.93	-18.93	0.00	-1,538.37	0.00	1,538.37	4,380.25	2,190.13	7,623.52	3,817.43	2.75	-0.89	0.411
35.00	-31.41	-18.68	0.00	-1,443.72	0.00	1,443.72	4,262.42	2,131.21	7,216.83	3,613.78	3.76	-1.05	0.407
40.00	-29.93	-18.47	0.00	-1,350.31	0.00	1,350.31	4,144.58	2,072.29	6,821.28	3,415.71	4.94	-1.21	0.403
43.21	-29.00	-18.33	0.00	-1,291.12	0.00	1,291.12	4,069.03	2,034.51	6,573.54	3,291.66	5.79	-1.31	0.399
45.00	-28.12	-18.17	0.00	-1,258.23	0.00	1,258.23	4,026.74	2,013.37	6,436.88	3,223.22	6.29	-1.37	0.397
48.79	-26.33	-18.01	0.00	-1,189.27	0.00	1,189.27	3,394.32	1,697.16	5,426.90	2,717.49	7.44	-1.50	0.446
50.00	-26.02	-17.92	0.00	-1,167.56	0.00	1,167.56	3,376.65	1,688.32	5,360.14	2,684.05	7.82	-1.54	0.443
52.00	-25.38	-17.69	0.00	-1,131.72	0.00	1,131.72	3,347.13	1,673.57	5,249.96	2,628.88	8.48	-1.62	0.438
55.00	-24.62	-17.48	0.00	-1,078.64	0.00	1,078.64	3,302.40	1,651.20	5,086.09	2,546.82	9.53	-1.73	0.431
60.00	-23.39	-17.20	0.00	-991.25	0.00	991.25	3,220.32	1,610.16	4,807.35	2,407.25	11.44	-1.91	0.419
65.00	-22.19	-16.91	0.00	-905.27	0.00	905.27	3,119.32	1,559.66	4,509.03	2,257.87	13.55	-2.10	0.408
70.00	-21.02	-16.62	0.00	-820.71	0.00	820.71	3,018.31	1,509.16	4,220.27	2,113.27	15.84	-2.28	0.395
75.00	-19.89	-16.37	0.00	-737.59	0.00	737.59	2,917.31	1,458.66	3,941.06	1,973.46	18.33	-2.47	0.381
78.67	-19.08	-16.21	0.00	-677.54	0.00	677.54	2,843.19	1,421.59	3,742.24	1,873.90	20.29	-2.61	0.368
80.00	-15.95	-13.51	0.00	-655.97	0.00	655.97	2,816.31	1,408.15	3,671.40	1,838.43	21.02	-2.66	0.363
83.33	-14.85	-13.33	0.00	-611.00	0.00	611.00	2,319.25	1,159.63	3,022.32	1,513.41	22.92	-2.78	0.410
85.00	-14.55	-13.15	0.00	-588.71	0.00	588.71	2,298.48	1,149.24	2,958.90	1,481.65	23.90	-2.84	0.404
90.00	-11.94	-11.84	0.00	-522.95	0.00	522.95	2,229.24	1,114.62	2,764.32	1,384.22	26.99	-3.05	0.383
95.00	-11.11	-11.54	0.00	-463.77	0.00	463.77	2,145.07	1,072.54	2,558.49	1,281.15	30.29	-3.25	0.367
100.00	-10.30	-11.25	0.00	-406.07	0.00	406.07	2,060.90	1,030.45	2,360.62	1,182.06	33.80	-3.45	0.349
105.00	-9.52	-10.95	0.00	-349.84	0.00	349.84	1,976.73	988.37	2,170.71	1,086.97	37.51	-3.65	0.327
110.00	-8.76	-10.69	0.00	-295.07	0.00	295.07	1,892.56	946.28	1,988.77	995.86	41.43	-3.84	0.301
114.00	-8.18	-10.53	0.00	-252.35	0.00	252.35	1,825.27	912.63	1,849.04	925.89	44.71	-3.98	0.277
114.00	-8.18	-10.53	0.00	-252.35	0.00	252.35	1,004.24	502.12	1,027.61	514.57	44.71	-3.98	0.499
115.00	-7.99	-9.96	0.00	-241.79	0.00	241.79	998.34	499.17	1,012.11	506.81	45.55	-4.02	0.485
120.00	-7.49	-9.70	0.00	-192.01	0.00	192.01	968.03	484.02	935.59	468.49	49.90	-4.29	0.418
125.00	-5.76	-7.24	0.00	-143.49	0.00	143.49	936.17	468.09	860.51	430.90	54.53	-4.54	0.339
130.00	-5.41	-7.00	0.00	-107.29	0.00	107.29	902.76	451.38	787.11	394.14	59.39	-4.75	0.278
135.00	-5.07	-6.76	0.00	-72.30	0.00	72.30	867.81	433.91	715.59	358.32	64.46	-4.93	0.208
140.00	-4.74	-6.61	0.00	-38.49	0.00	38.49	831.32	415.66	646.17	323.57	69.69	-5.05	0.125
141.00	-3.63	-3.77	0.00	-31.88	0.00	31.88	823.83	411.92	632.56	316.75	70.75	-5.07	0.105
145.00	0.00	-3.44	0.00	-16.78	0.00	16.78	787.55	393.77	574.90	287.88	75.02	-5.13	0.058

Site Number: 411182

Code: ANSI/TIA-222-G

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Site Name: Nepaug CT, CT

Engineering Number: OAA714420_C3_02

3/6/2018 8:08:51 AM

Customer: SPRINT NEXTEL

Load Case: 0.9D + 1.6W	93 mph with No Ice (Reduced DL)	24 Iterations
Gust Response Factor :1.10		Wind Importance Factor :1.00
Dead Load Factor :0.90		
Wind Load Factor :1.60		

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces					
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)			
0.00		175.2	0.0					0.0	0.0	175.2	0.0	0.0	0.0	
5.00		346.4	1,036.4					0.0	214.8	346.4	1,251.2	0.0	0.0	
10.00		338.3	1,012.1					0.0	214.8	338.3	1,226.9	0.0	0.0	
15.00		330.1	987.8					0.0	214.8	330.1	1,202.6	0.0	0.0	
20.00		322.0	963.5					0.0	214.8	322.0	1,178.3	0.0	0.0	
25.00		313.9	939.2					0.0	214.8	313.9	1,154.0	0.0	0.0	
30.00		309.3	914.9					0.0	214.8	309.3	1,129.8	0.0	0.0	
35.00		311.0	890.6					0.0	214.8	311.0	1,105.5	0.0	0.0	
40.00		257.6	866.4					0.0	214.8	257.6	1,081.2	0.0	0.0	
43.21	Bot - Section 2	158.8	542.7					0.0	137.7	158.8	680.4	0.0	0.0	
45.00		180.1	561.3					0.0	77.1	180.1	638.4	0.0	0.0	
48.79	Top - Section 1	161.2	1,167.9					0.0	163.0	161.2	1,330.9	0.0	0.0	
50.00		103.4	170.7					0.0	51.8	103.4	222.5	0.0	0.0	
52.00	Appurtenance(s)	161.1	280.5	93.8	0.0	0.0	90.5	0.0	85.9	254.9	456.9	0.0	0.0	
55.00		257.1	414.5					0.0	128.5	257.1	543.0	0.0	0.0	
60.00		319.8	674.1					0.0	214.2	319.8	888.3	0.0	0.0	
65.00		317.0	653.3					0.0	214.2	317.0	867.5	0.0	0.0	
70.00		313.5	632.5					0.0	214.2	313.5	846.7	0.0	0.0	
75.00		268.6	611.7					0.0	214.2	268.6	825.8	0.0	0.0	
78.67	Bot - Section 3	154.2	435.6					0.0	157.2	154.2	592.8	0.0	0.0	
80.00	Appurtenance(s)	144.0	287.4	2,427.5	0.0	0.0	2,080.7	0.0	57.0	2,571.5	2,425.1	0.0	0.0	
83.33	Top - Section 2	153.7	706.8					0.0	104.3	153.7	811.1	0.0	0.0	
85.00		201.8	160.4					0.0	52.4	201.8	212.8	0.0	0.0	
90.00	Appurtenance(s)	298.3	468.1	926.5	0.0	0.0	1,350.0	0.0	156.6	1,224.9	1,974.8	0.0	0.0	
95.00		291.7	450.8					0.0	156.6	291.7	607.4	0.0	0.0	
100.00		284.5	433.4					0.0	156.6	284.5	590.1	0.0	0.0	
105.00		276.8	416.1					0.0	156.6	276.8	572.7	0.0	0.0	
110.00		242.5	398.7					0.0	156.6	242.5	555.4	0.0	0.0	
114.00	Top - Section 3	132.3	306.3					0.0	125.2	132.3	431.5	0.0	0.0	
115.00	Appurtenance(s)	154.1	45.3	430.3	0.0	0.0	80.3	0.0	31.4	584.4	157.0	0.0	0.0	
120.00		251.3	219.6					0.0	134.5	251.3	354.1	0.0	0.0	
125.00	Appurtenance(s)	242.0	209.2	2,107.2	0.0	0.0	1,069.1	0.0	134.5	2,349.2	1,412.8	0.0	0.0	
130.00		232.3	198.7					0.0	67.4	232.3	266.2	0.0	0.0	
135.00		222.3	188.3					0.0	67.4	222.3	255.7	0.0	0.0	
140.00		129.7	177.9					0.0	67.4	129.7	245.3	0.0	0.0	
141.00	Appurtenance(s)	103.4	34.3	2,625.3	0.0	0.0	971.5	0.0	13.5	2,728.7	1,019.4	0.0	0.0	
145.00	Appurtenance(s)	82.3	133.2	3,353.9	0.0	16,781.6	2,812.2	0.0	17.3	3,436.2	2,962.7	0.0	0.0	
							Totals:				20,506.1	32,076.7	0.00	0.00

Site Number: 411182

Code: ANSI/TIA-222-G

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Site Name: Nepaug CT, CT

Engineering Number: OAA714420_C3_02

3/6/2018 8:08:55 AM

Customer: SPRINT NEXTEL

Load Case: 0.9D + 1.6W	93 mph with No Ice (Reduced DL)	24 Iterations
Gust Response Factor :1.10		Wind Importance Factor :1.00
Dead Load Factor :0.90		
Wind Load Factor :1.60		

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-32.05	-20.37	0.00	-2,108.97	0.00	2,108.97	4,897.86	2,448.93	9,914.38	4,964.56	0.00	0.00	0.431
5.00	-30.75	-20.10	0.00	-2,007.11	0.00	2,007.11	4,817.00	2,408.50	9,522.86	4,768.51	0.07	-0.14	0.427
10.00	-29.48	-19.83	0.00	-1,906.63	0.00	1,906.63	4,734.60	2,367.30	9,136.02	4,574.80	0.30	-0.28	0.423
15.00	-28.23	-19.56	0.00	-1,807.48	0.00	1,807.48	4,650.66	2,325.33	8,754.06	4,383.53	0.67	-0.43	0.418
20.00	-27.00	-19.30	0.00	-1,709.67	0.00	1,709.67	4,565.16	2,282.58	8,377.20	4,194.83	1.19	-0.57	0.414
25.00	-25.80	-19.04	0.00	-1,613.16	0.00	1,613.16	4,478.12	2,239.06	8,005.67	4,008.78	1.88	-0.72	0.408
30.00	-24.62	-18.78	0.00	-1,517.94	0.00	1,517.94	4,380.25	2,190.13	7,623.52	3,817.43	2.72	-0.88	0.403
35.00	-23.47	-18.52	0.00	-1,424.02	0.00	1,424.02	4,262.42	2,131.21	7,216.83	3,613.78	3.72	-1.03	0.400
40.00	-22.35	-18.29	0.00	-1,331.43	0.00	1,331.43	4,144.58	2,072.29	6,821.28	3,415.71	4.88	-1.19	0.395
43.21	-21.65	-18.15	0.00	-1,272.79	0.00	1,272.79	4,069.03	2,034.51	6,573.54	3,291.66	5.72	-1.30	0.392
45.00	-20.99	-17.99	0.00	-1,240.22	0.00	1,240.22	4,026.74	2,013.37	6,436.88	3,223.22	6.22	-1.36	0.390
48.79	-19.64	-17.82	0.00	-1,171.97	0.00	1,171.97	3,394.32	1,697.16	5,426.90	2,717.49	7.35	-1.48	0.437
50.00	-19.40	-17.73	0.00	-1,150.48	0.00	1,150.48	3,376.65	1,688.32	5,360.14	2,684.05	7.73	-1.52	0.434
52.00	-18.92	-17.50	0.00	-1,115.02	0.00	1,115.02	3,347.13	1,673.57	5,249.96	2,628.88	8.38	-1.59	0.430
55.00	-18.34	-17.27	0.00	-1,062.53	0.00	1,062.53	3,302.40	1,651.20	5,086.09	2,546.82	9.42	-1.71	0.423
60.00	-17.41	-16.98	0.00	-976.17	0.00	976.17	3,220.32	1,610.16	4,807.35	2,407.25	11.30	-1.89	0.411
65.00	-16.50	-16.68	0.00	-891.28	0.00	891.28	3,119.32	1,559.66	4,509.03	2,257.87	13.38	-2.07	0.400
70.00	-15.61	-16.39	0.00	-807.86	0.00	807.86	3,018.31	1,509.16	4,220.27	2,113.27	15.64	-2.25	0.388
75.00	-14.76	-16.13	0.00	-725.91	0.00	725.91	2,917.31	1,458.66	3,941.06	1,973.46	18.10	-2.44	0.373
78.67	-14.14	-15.97	0.00	-666.73	0.00	666.73	2,843.19	1,421.59	3,742.24	1,873.90	20.02	-2.57	0.361
80.00	-11.82	-13.31	0.00	-645.48	0.00	645.48	2,816.31	1,408.15	3,671.40	1,838.43	20.75	-2.62	0.355
83.33	-11.00	-13.14	0.00	-601.18	0.00	601.18	2,319.25	1,159.63	3,022.32	1,513.41	22.62	-2.74	0.402
85.00	-10.76	-12.95	0.00	-579.22	0.00	579.22	2,298.48	1,149.24	2,958.90	1,481.65	23.59	-2.80	0.396
90.00	-8.81	-11.66	0.00	-514.48	0.00	514.48	2,229.24	1,114.62	2,764.32	1,384.22	26.63	-3.00	0.376
95.00	-8.18	-11.36	0.00	-456.20	0.00	456.20	2,145.07	1,072.54	2,558.49	1,281.15	29.88	-3.20	0.360
100.00	-7.57	-11.07	0.00	-399.39	0.00	399.39	2,060.90	1,030.45	2,360.62	1,182.06	33.34	-3.40	0.342
105.00	-6.98	-10.78	0.00	-344.05	0.00	344.05	1,976.73	988.37	2,170.71	1,086.97	37.01	-3.59	0.320
110.00	-6.41	-10.52	0.00	-290.15	0.00	290.15	1,892.56	946.28	1,988.77	995.86	40.87	-3.78	0.295
114.00	-5.97	-10.37	0.00	-248.09	0.00	248.09	1,825.27	912.63	1,849.04	925.89	44.09	-3.92	0.271
114.00	-5.97	-10.37	0.00	-248.09	0.00	248.09	1,004.24	502.12	1,027.61	514.57	44.09	-3.92	0.489
115.00	-5.83	-9.79	0.00	-237.70	0.00	237.70	998.34	499.17	1,012.11	506.81	44.92	-3.96	0.475
120.00	-5.45	-9.54	0.00	-188.74	0.00	188.74	968.03	484.02	935.59	468.49	49.21	-4.23	0.409
125.00	-4.20	-7.11	0.00	-141.04	0.00	141.04	936.17	468.09	860.51	430.90	53.77	-4.47	0.332
130.00	-3.93	-6.87	0.00	-105.51	0.00	105.51	902.76	451.38	787.11	394.14	58.56	-4.68	0.272
135.00	-3.67	-6.63	0.00	-71.17	0.00	71.17	867.81	433.91	715.59	358.32	63.55	-4.85	0.203
140.00	-3.43	-6.49	0.00	-38.00	0.00	38.00	831.32	415.66	646.17	323.57	68.70	-4.98	0.122
141.00	-2.65	-3.68	0.00	-31.51	0.00	31.51	823.83	411.92	632.56	316.75	69.74	-5.00	0.103
145.00	0.00	-3.44	0.00	-16.78	0.00	16.78	787.55	393.77	574.90	287.88	73.95	-5.05	0.058

Site Number: 411182

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Site Name: Nepaug CT, CT

Engineering Number: OAA714420_C3_02

3/6/2018 8:08:56 AM

Customer: SPRINT NEXTEL

Load Case: 1.2D + 1.0Di + 1.0Wi	40 mph with 1.00 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		

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces			Sum of Forces			
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		39.7	0.0					0.0	0.0	39.7	0.0	0.0	0.0
5.00		78.8	1,867.2					0.0	400.8	78.8	2,268.0	0.0	0.0
10.00		77.5	1,880.8					0.0	416.7	77.5	2,297.4	0.0	0.0
15.00		76.0	1,864.3					0.0	425.0	76.0	2,289.2	0.0	0.0
20.00		74.4	1,837.9					0.0	430.8	74.4	2,268.7	0.0	0.0
25.00		72.8	1,806.4					0.0	435.3	72.8	2,241.7	0.0	0.0
30.00		72.0	1,771.6					0.0	439.1	72.0	2,210.7	0.0	0.0
35.00		72.7	1,734.7					0.0	442.3	72.7	2,177.0	0.0	0.0
40.00		60.4	1,696.0					0.0	445.1	60.4	2,141.1	0.0	0.0
43.21	Bot - Section 2	37.3	1,068.1					0.0	286.7	37.3	1,354.8	0.0	0.0
45.00		42.4	944.0					0.0	160.9	42.4	1,104.9	0.0	0.0
48.79	Top - Section 1	38.0	1,964.9					0.0	341.2	38.0	2,306.1	0.0	0.0
50.00		24.4	357.0					0.0	108.7	24.4	465.7	0.0	0.0
52.00	Appurtenance(s)	38.1	587.0	18.2	0.0	0.0	133.7	0.0	180.5	56.3	901.2	0.0	0.0
55.00		60.9	868.3					0.0	251.5	60.9	1,119.9	0.0	0.0
60.00		76.0	1,413.9					0.0	420.3	76.0	1,834.2	0.0	0.0
65.00		75.7	1,375.4					0.0	421.6	75.7	1,797.0	0.0	0.0
70.00		75.1	1,336.4					0.0	422.8	75.1	1,759.2	0.0	0.0
75.00		64.6	1,296.9					0.0	423.9	64.6	1,720.8	0.0	0.0
78.67	Bot - Section 3	37.2	927.9					0.0	311.8	37.2	1,239.6	0.0	0.0
80.00	Appurtenance(s)	34.8	510.6	450.0	0.0	0.0	5,642.0	0.0	113.2	484.8	6,265.8	0.0	0.0
83.33	Top - Section 2	37.2	1,255.2					0.0	232.4	37.2	1,487.6	0.0	0.0
85.00		49.1	369.7					0.0	116.9	49.1	486.6	0.0	0.0
90.00	Appurtenance(s)	72.8	1,076.5	206.3	0.0	0.0	2,420.2	0.0	350.2	279.1	3,846.9	0.0	0.0
95.00		71.5	1,040.2					0.0	351.1	71.5	1,391.3	0.0	0.0
100.00		70.2	1,003.6					0.0	352.0	70.2	1,355.6	0.0	0.0
105.00		68.7	966.7					0.0	352.8	68.7	1,319.5	0.0	0.0
110.00		60.6	929.6					0.0	353.6	60.6	1,283.2	0.0	0.0
114.00	Top - Section 3	33.2	717.6					0.0	283.2	33.2	1,000.8	0.0	0.0
115.00	Appurtenance(s)	38.9	137.5	81.4	0.0	0.0	415.0	0.0	71.1	120.4	623.6	0.0	0.0
120.00		63.8	662.0					0.0	325.6	63.8	987.6	0.0	0.0
125.00	Appurtenance(s)	62.0	633.5	375.9	0.0	0.0	3,811.8	0.0	326.3	437.8	4,771.6	0.0	0.0
130.00		60.0	604.8					0.0	89.9	60.0	694.6	0.0	0.0
135.00		58.1	575.9					0.0	89.9	58.1	665.7	0.0	0.0
140.00		34.1	546.8					0.0	89.9	34.1	636.7	0.0	0.0
141.00	Appurtenance(s)	27.5	107.2	479.6	0.0	0.0	4,270.5	0.0	18.0	507.0	4,395.6	0.0	0.0
145.00	Appurtenance(s)	21.9	413.0	714.6	0.0	3,514.3	8,544.5	0.0	23.1	736.5	8,980.7	0.0	0.0
Totals:										4,384.29	73,690.9	0.00	0.00

Site Number: 411182

Code: ANSI/TIA-222-G

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Site Name: Nepaug CT, CT

Engineering Number: OAA714420_C3_02

3/6/2018 8:09:00 AM

Customer: SPRINT NEXTEL

Load Case: 1.2D + 1.0Di + 1.0Wi	40 mph with 1.00 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	-73.69	-4.36	0.00	-469.79	0.00	469.79	4,897.86	2,448.93	9,914.38	4,964.56	0.00	0.00	0.110
5.00	-71.42	-4.32	0.00	-447.97	0.00	447.97	4,817.00	2,408.50	9,522.86	4,768.51	0.02	-0.03	0.109
10.00	-69.12	-4.28	0.00	-426.35	0.00	426.35	4,734.60	2,367.30	9,136.02	4,574.80	0.07	-0.06	0.108
15.00	-66.83	-4.24	0.00	-404.93	0.00	404.93	4,650.66	2,325.33	8,754.06	4,383.53	0.15	-0.10	0.107
20.00	-64.56	-4.20	0.00	-383.72	0.00	383.72	4,565.16	2,282.58	8,377.20	4,194.83	0.27	-0.13	0.106
25.00	-62.31	-4.16	0.00	-362.71	0.00	362.71	4,478.12	2,239.06	8,005.67	4,008.78	0.42	-0.16	0.104
30.00	-60.10	-4.12	0.00	-341.91	0.00	341.91	4,380.25	2,190.13	7,623.52	3,817.43	0.61	-0.20	0.103
35.00	-57.92	-4.07	0.00	-321.33	0.00	321.33	4,262.42	2,131.21	7,216.83	3,613.78	0.83	-0.23	0.103
40.00	-55.78	-4.03	0.00	-300.96	0.00	300.96	4,144.58	2,072.29	6,821.28	3,415.71	1.09	-0.27	0.102
43.21	-54.42	-4.01	0.00	-288.04	0.00	288.04	4,069.03	2,034.51	6,573.54	3,291.66	1.28	-0.29	0.101
45.00	-53.32	-3.98	0.00	-280.85	0.00	280.85	4,026.74	2,013.37	6,436.88	3,223.22	1.39	-0.30	0.100
48.79	-51.01	-3.94	0.00	-265.77	0.00	265.77	3,994.32	1,997.16	6,299.90	3,164.99	1.51	-0.31	0.100
50.00	-50.54	-3.93	0.00	-261.01	0.00	261.01	3,976.65	1,993.32	6,270.97	3,158.31	1.55	-0.32	0.100
52.00	-49.64	-3.88	0.00	-253.16	0.00	253.16	3,947.13	1,983.57	6,229.70	3,143.14	1.60	-0.33	0.100
55.00	-48.52	-3.84	0.00	-241.51	0.00	241.51	3,902.40	1,969.20	6,173.60	3,128.82	1.66	-0.34	0.100
60.00	-46.68	-3.79	0.00	-222.29	0.00	222.29	3,740.32	1,899.16	5,949.48	3,030.25	1.85	-0.37	0.100
65.00	-44.88	-3.73	0.00	-203.35	0.00	203.35	3,559.32	1,809.66	5,669.98	2,900.87	2.10	-0.41	0.100
70.00	-43.12	-3.67	0.00	-184.69	0.00	184.69	3,347.13	1,599.16	5,220.27	2,613.27	2.45	-0.46	0.100
75.00	-41.40	-3.62	0.00	-166.33	0.00	166.33	2,917.31	1,458.66	3,941.06	1,973.46	3.00	-0.51	0.100
78.67	-40.16	-3.58	0.00	-153.05	0.00	153.05	2,843.19	1,421.59	3,742.24	1,873.90	3.20	-0.52	0.100
80.00	-33.90	-3.05	0.00	-148.29	0.00	148.29	2,816.31	1,408.15	3,671.40	1,838.43	3.30	-0.53	0.100
83.33	-32.41	-3.01	0.00	-138.15	0.00	138.15	2,319.25	1,159.63	3,022.32	1,513.41	3.50	-0.54	0.100
85.00	-31.92	-2.97	0.00	-133.12	0.00	133.12	2,298.48	1,149.24	2,958.90	1,481.65	3.55	-0.54	0.100
90.00	-28.08	-2.67	0.00	-118.28	0.00	118.28	2,229.24	1,114.62	2,764.32	1,384.22	3.70	-0.56	0.100
95.00	-26.68	-2.60	0.00	-104.95	0.00	104.95	2,145.07	1,072.54	2,558.49	1,281.15	3.80	-0.57	0.100
100.00	-25.33	-2.53	0.00	-91.95	0.00	91.95	2,060.90	1,030.45	2,360.62	1,182.06	3.85	-0.57	0.100
105.00	-24.01	-2.46	0.00	-79.29	0.00	79.29	1,976.73	988.37	2,170.71	1,086.97	3.88	-0.57	0.100
110.00	-22.72	-2.40	0.00	-66.98	0.00	66.98	1,892.56	946.28	1,988.77	995.86	3.88	-0.57	0.100
114.00	-21.72	-2.36	0.00	-57.39	0.00	57.39	1,825.27	912.63	1,849.04	925.89	3.85	-0.57	0.100
114.00	-21.72	-2.36	0.00	-57.39	0.00	57.39	1,004.24	502.12	1,027.61	514.57	9.97	-0.89	0.133
115.00	-21.10	-2.24	0.00	-55.02	0.00	55.02	998.34	499.17	1,012.11	506.81	10.16	-0.90	0.130
120.00	-20.11	-2.18	0.00	-43.82	0.00	43.82	968.03	484.02	935.59	468.49	11.14	-0.96	0.114
125.00	-15.35	-1.68	0.00	-32.90	0.00	32.90	936.17	468.09	860.51	430.90	12.18	-1.02	0.093
130.00	-14.65	-1.61	0.00	-24.52	0.00	24.52	902.76	451.38	787.11	394.14	13.28	-1.07	0.078
135.00	-13.99	-1.55	0.00	-16.45	0.00	16.45	867.81	433.91	715.59	358.32	14.42	-1.11	0.062
140.00	-13.35	-1.51	0.00	-8.69	0.00	8.69	831.32	415.66	646.17	323.57	15.59	-1.14	0.043
141.00	-8.96	-0.92	0.00	-7.18	0.00	7.18	823.83	411.92	632.56	316.75	15.83	-1.14	0.034
145.00	0.00	-0.74	0.00	-3.51	0.00	3.51	787.55	393.77	574.90	287.88	16.80	-1.15	0.012

Site Number: 411182

Code: ANSI/TIA-222-G

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Site Name: Nepaug CT, CT

Engineering Number: OAA714420_C3_02

3/6/2018 8:09:00 AM

Customer: SPRINT NEXTEL

Load Case: 1.0D + 1.0W	Serviceability 60 mph	22 Iterations
Gust Response Factor :1.10		Wind Importance Factor :1.00
Dead Load Factor :1.00		
Wind Load Factor :1.00		

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		45.6	0.0					0.0	0.0	45.6	0.0	0.0	0.0
5.00		90.1	1,151.5					0.0	238.7	90.1	1,390.2	0.0	0.0
10.00		88.0	1,124.5					0.0	238.7	88.0	1,363.2	0.0	0.0
15.00		85.9	1,097.5					0.0	238.7	85.9	1,336.2	0.0	0.0
20.00		83.8	1,070.6					0.0	238.7	83.8	1,309.3	0.0	0.0
25.00		81.6	1,043.6					0.0	238.7	81.6	1,282.3	0.0	0.0
30.00		80.5	1,016.6					0.0	238.7	80.5	1,255.3	0.0	0.0
35.00		80.9	989.6					0.0	238.7	80.9	1,228.3	0.0	0.0
40.00		67.0	962.6					0.0	238.7	67.0	1,201.3	0.0	0.0
43.21	Bot - Section 2	41.3	603.0					0.0	153.0	41.3	756.0	0.0	0.0
45.00		46.9	623.7					0.0	85.7	46.9	709.3	0.0	0.0
48.79	Top - Section 1	41.9	1,297.6					0.0	181.1	41.9	1,478.8	0.0	0.0
50.00		26.9	189.7					0.0	57.6	26.9	247.2	0.0	0.0
52.00	Appurtenance(s)	41.9	311.6	24.4	0.0	0.0	100.6	0.0	95.5	66.3	507.7	0.0	0.0
55.00		66.9	460.5					0.0	142.8	66.9	603.3	0.0	0.0
60.00		83.2	749.0					0.0	238.0	83.2	987.0	0.0	0.0
65.00		82.5	725.9					0.0	238.0	82.5	963.9	0.0	0.0
70.00		81.5	702.8					0.0	238.0	81.5	940.7	0.0	0.0
75.00		69.9	679.6					0.0	238.0	69.9	917.6	0.0	0.0
78.67	Bot - Section 3	40.1	484.0					0.0	174.6	40.1	658.7	0.0	0.0
80.00	Appurtenance(s)	37.5	319.3	631.5	0.0	0.0	2,311.9	0.0	63.3	669.0	2,694.5	0.0	0.0
83.33	Top - Section 2	40.0	785.4					0.0	115.9	40.0	901.2	0.0	0.0
85.00		52.5	178.2					0.0	58.2	52.5	236.4	0.0	0.0
90.00	Appurtenance(s)	77.6	520.1	241.0	0.0	0.0	1,500.0	0.0	174.1	318.6	2,194.2	0.0	0.0
95.00		75.9	500.9					0.0	174.1	75.9	674.9	0.0	0.0
100.00		74.0	481.6					0.0	174.1	74.0	655.6	0.0	0.0
105.00		72.0	462.3					0.0	174.1	72.0	636.4	0.0	0.0
110.00		63.1	443.0					0.0	174.1	63.1	617.1	0.0	0.0
114.00	Top - Section 3	34.4	340.3					0.0	139.1	34.4	479.5	0.0	0.0
115.00	Appurtenance(s)	40.1	50.3	111.9	0.0	0.0	89.2	0.0	34.9	152.0	174.4	0.0	0.0
120.00		65.4	244.0					0.0	149.5	65.4	393.4	0.0	0.0
125.00	Appurtenance(s)	62.9	232.4	548.2	0.0	0.0	1,187.9	0.0	149.5	611.1	1,569.7	0.0	0.0
130.00		60.4	220.8					0.0	74.9	60.4	295.7	0.0	0.0
135.00		57.8	209.3					0.0	74.9	57.8	284.2	0.0	0.0
140.00		33.7	197.7					0.0	74.9	33.7	272.6	0.0	0.0
141.00	Appurtenance(s)	26.9	38.2	683.0	0.0	0.0	1,079.5	0.0	15.0	709.8	1,132.6	0.0	0.0
145.00	Appurtenance(s)	21.4	148.0	872.5	0.0	4,365.7	3,124.7	0.0	19.2	893.9	3,291.9	0.0	0.0
Totals:										5,334.58	35,640.8	0.00	0.00

Site Number: 411182
 Site Name: Nepaug CT, CT
 Customer: SPRINT NEXTEL

Code: ANSI/TIA-222-G
 Engineering Number: OAA714420_C3_02

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Load Case: 1.0D + 1.0W	Serviceability 60 mph	22 Iterations
Gust Response Factor :1.10		Wind Importance Factor 1.00
Dead Load Factor :1.00		
Wind Load Factor :1.00		

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-35.64	-5.30	0.00	-550.92	0.00	550.92	4,897.86	2,448.93	9,914.38	4,964.56	0.00	0.00	0.118
5.00	-34.25	-5.23	0.00	-524.43	0.00	524.43	4,817.00	2,408.50	9,522.86	4,768.51	0.02	-0.04	0.117
10.00	-32.88	-5.16	0.00	-498.27	0.00	498.27	4,734.60	2,367.30	9,136.02	4,574.80	0.08	-0.07	0.116
15.00	-31.54	-5.10	0.00	-472.46	0.00	472.46	4,650.66	2,325.33	8,754.06	4,383.53	0.17	-0.11	0.115
20.00	-30.23	-5.03	0.00	-446.98	0.00	446.98	4,565.16	2,282.58	8,377.20	4,194.83	0.31	-0.15	0.113
25.00	-28.94	-4.96	0.00	-421.83	0.00	421.83	4,478.12	2,239.06	8,005.67	4,008.78	0.49	-0.19	0.112
30.00	-27.68	-4.90	0.00	-397.01	0.00	397.01	4,380.25	2,190.13	7,623.52	3,817.43	0.71	-0.23	0.110
35.00	-26.45	-4.83	0.00	-372.51	0.00	372.51	4,262.42	2,131.21	7,216.83	3,613.78	0.97	-0.27	0.109
40.00	-25.25	-4.77	0.00	-348.35	0.00	348.35	4,144.58	2,072.29	6,821.28	3,415.71	1.28	-0.31	0.108
43.21	-24.49	-4.74	0.00	-333.05	0.00	333.05	4,069.03	2,034.51	6,573.54	3,291.66	1.50	-0.34	0.107
45.00	-23.78	-4.70	0.00	-324.55	0.00	324.55	4,026.74	2,013.37	6,436.88	3,223.22	1.63	-0.35	0.107
48.79	-22.30	-4.65	0.00	-306.73	0.00	306.73	3,394.32	1,697.16	5,426.90	2,717.49	1.92	-0.39	0.119
50.00	-22.05	-4.63	0.00	-301.12	0.00	301.12	3,376.65	1,688.32	5,360.14	2,684.05	2.02	-0.40	0.119
52.00	-21.54	-4.57	0.00	-291.86	0.00	291.86	3,347.13	1,673.57	5,249.96	2,628.88	2.19	-0.42	0.117
55.00	-20.94	-4.51	0.00	-278.15	0.00	278.15	3,302.40	1,651.20	5,086.09	2,546.82	2.46	-0.45	0.116
60.00	-19.95	-4.44	0.00	-255.59	0.00	255.59	3,220.32	1,610.16	4,807.35	2,407.25	2.95	-0.49	0.112
65.00	-18.98	-4.36	0.00	-233.41	0.00	233.41	3,119.32	1,559.66	4,509.03	2,257.87	3.50	-0.54	0.109
70.00	-18.04	-4.29	0.00	-211.60	0.00	211.60	3,018.31	1,509.16	4,220.27	2,113.27	4.09	-0.59	0.106
75.00	-17.12	-4.22	0.00	-190.17	0.00	190.17	2,917.31	1,458.66	3,941.06	1,973.46	4.73	-0.64	0.102
78.67	-16.46	-4.18	0.00	-174.68	0.00	174.68	2,843.19	1,421.59	3,742.24	1,873.90	5.24	-0.67	0.099
80.00	-13.77	-3.48	0.00	-169.12	0.00	169.12	2,816.31	1,408.15	3,671.40	1,838.43	5.43	-0.69	0.097
83.33	-12.87	-3.44	0.00	-157.53	0.00	157.53	2,319.25	1,159.63	3,022.32	1,513.41	5.92	-0.72	0.110
85.00	-12.63	-3.39	0.00	-151.79	0.00	151.79	2,298.48	1,149.24	2,958.90	1,481.65	6.17	-0.73	0.108
90.00	-10.44	-3.05	0.00	-134.84	0.00	134.84	2,229.24	1,114.62	2,764.32	1,384.22	6.97	-0.79	0.102
95.00	-9.76	-2.97	0.00	-119.58	0.00	119.58	2,145.07	1,072.54	2,558.49	1,281.15	7.82	-0.84	0.098
100.00	-9.10	-2.90	0.00	-104.71	0.00	104.71	2,060.90	1,030.45	2,360.62	1,182.06	8.72	-0.89	0.093
105.00	-8.46	-2.82	0.00	-90.21	0.00	90.21	1,976.73	988.37	2,170.71	1,086.97	9.68	-0.94	0.087
110.00	-7.85	-2.76	0.00	-76.09	0.00	76.09	1,892.56	946.28	1,988.77	995.86	10.70	-0.99	0.081
114.00	-7.37	-2.72	0.00	-65.07	0.00	65.07	1,825.27	912.63	1,849.04	925.89	11.54	-1.03	0.074
114.00	-7.37	-2.72	0.00	-65.07	0.00	65.07	1,004.24	502.12	1,027.61	514.57	11.54	-1.03	0.134
115.00	-7.19	-2.57	0.00	-62.35	0.00	62.35	998.34	499.17	1,012.11	506.81	11.76	-1.04	0.130
120.00	-6.80	-2.50	0.00	-49.51	0.00	49.51	968.03	484.02	935.59	468.49	12.88	-1.11	0.113
125.00	-5.24	-1.87	0.00	-37.00	0.00	37.00	936.17	468.09	860.51	430.90	14.08	-1.17	0.091
130.00	-4.94	-1.80	0.00	-27.68	0.00	27.68	902.76	451.38	787.11	394.14	15.33	-1.22	0.076
135.00	-4.66	-1.74	0.00	-18.66	0.00	18.66	867.81	433.91	715.59	358.32	16.64	-1.27	0.057
140.00	-4.39	-1.70	0.00	-9.95	0.00	9.95	831.32	415.66	646.17	323.57	17.99	-1.30	0.036
141.00	-3.27	-0.97	0.00	-8.24	0.00	8.24	823.83	411.92	632.56	316.75	18.26	-1.31	0.030
145.00	0.00	-0.89	0.00	-4.37	0.00	4.37	787.55	393.77	574.90	287.88	19.37	-1.32	0.015

Site Number: 411182
 Site Name: Nepaug CT, CT
 Customer: SPRINT NEXTEL

Code: ANSI/TIA-222-G
 Engineering Number: OAA714420_C3_02

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Equivalent Lateral Forces Method Analysis

(Based on ASCE7-10 Chapters 11, 12, 15)

Spectral Response Acceleration for Short Period (S_d):	0.18
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.06
Long-Period Transition Period (T_L):	6
Importance Factor (I_E):	1.00
Site Coefficient F_a :	1.60
Site Coefficient F_v :	2.40
Response Modification Coefficient (R):	1.50
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.19
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.10
Seismic Response Coefficient (C_s):	0.03
Upper Limit C_s	0.03
Lower Limit C_s	0.03
Period based on Rayleigh Method (sec):	2.18
Redundancy Factor (p):	1.30
Seismic Force Distribution Exponent (k):	1.84
Total Unfactored Dead Load:	35.64 k
Seismic Base Shear (E):	1.47 k

Load Case (1.2 + 0.2Sds) * DL + E ELFM

Seismic Equivalent Lateral Forces Method

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
36	143.00	167	1,544	0.013	19	207
35	140.50	53	475	0.004	6	66
34	137.50	273	2,341	0.020	29	338
33	132.50	284	2,280	0.019	29	352
32	127.50	296	2,211	0.019	28	366
31	122.50	382	2,652	0.023	33	473
30	117.50	393	2,530	0.022	32	487
29	114.50	85	523	0.004	7	106
28	112.00	479	2,824	0.024	35	594
27	107.50	617	3,370	0.029	42	764
26	102.50	636	3,184	0.027	40	788
25	97.50	656	2,992	0.025	38	812
24	92.50	675	2,795	0.024	35	836
23	87.50	694	2,596	0.022	33	860
22	84.16	236	823	0.007	10	293
21	81.66	901	2,968	0.025	37	1,116
20	79.33	383	1,195	0.010	15	474
19	76.83	659	1,939	0.017	24	816
18	72.50	918	2,428	0.021	30	1,137
17	67.50	941	2,182	0.019	27	1,165
16	62.50	964	1,941	0.017	24	1,194
15	57.50	987	1,705	0.015	21	1,222
14	53.50	603	913	0.008	11	747

Site Number: 411182

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Site Name: Nepaug CT, CT

Engineering Number: OAA714420_C3_02

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Customer: SPRINT NEXTEL

13	51.00	407	564	0.005	7	504
12	49.40	247	323	0.003	4	306
11	46.90	1,479	1,755	0.015	22	1,832
10	44.10	709	752	0.006	9	879
9	41.60	756	720	0.006	9	936
8	37.50	1,201	945	0.008	12	1,488
7	32.50	1,228	743	0.006	9	1,521
6	27.50	1,255	558	0.005	7	1,555
5	22.50	1,282	394	0.003	5	1,588
4	17.50	1,309	253	0.002	3	1,622
3	12.50	1,336	139	0.001	2	1,655
2	7.50	1,363	56	0.000	1	1,689
1	2.50	1,390	8	0.000	0	1,722
PCTEL GPS-TMG-HR-26N	145.00	1	6	0.000	0	1
Alcatel-Lucent ALU 8	145.00	26	250	0.002	3	33
Alcatel-Lucent RRH2x	145.00	159	1,503	0.013	19	197
Alcatel-Lucent 800 M	145.00	159	1,506	0.013	19	197
Alcatel-Lucent 1900M	145.00	132	1,250	0.011	16	163
12' Omni	145.00	40	379	0.003	5	50
Alcatel-Lucent TD-RR	145.00	210	1,989	0.017	25	260
RFS PD620-2	145.00	53	502	0.004	6	66
RFS APXVSP18-C-A20	145.00	171	1,619	0.014	20	212
Commscope DT465B-2XR	145.00	174	1,648	0.014	21	216
Round Platform w/ Ha	145.00	2,000	18,941	0.161	238	2,477
GPS	141.00	10	90	0.001	1	12
TTA	141.00	60	540	0.005	7	74
Amphenol Antel LPA-8	141.00	108	971	0.008	12	134
Amphenol Antel BXA-1	141.00	39	351	0.003	4	48
Round T-Arm	141.00	750	6,746	0.057	85	929
Amphenol Antel BXA-7	141.00	112	1,012	0.009	13	139
E-911 GPS	125.00	5	36	0.000	0	6
RFS ATM1900D-1CWA	125.00	25	182	0.002	2	31
RFS ATMAA1412D-1A20	125.00	39	281	0.002	4	48
RFS APX16DWV-16DWV-S	125.00	238	1,712	0.015	21	294
Round T-Arm	125.00	750	5,406	0.046	68	929
Commscope LNX-6515DS	125.00	131	945	0.008	12	162
GPS	115.00	10	62	0.001	1	12
RFS APXV18-206517	115.00	79	490	0.004	6	98
Empty Flat Low Profi	90.00	1,500	5,907	0.050	74	1,858
Spinner Bias-T	80.00	4	14	0.000	0	6
Powerwave Allgon LGP	80.00	33	105	0.001	1	41
Powerwave Allgon LGP	80.00	85	268	0.002	3	105
Raycap DC6-48-60-18-	80.00	33	104	0.001	1	41
Ericsson RRUS 11 (Ba	80.00	300	951	0.008	12	372
Powerwave Allgon 777	80.00	210	666	0.006	8	260
KMW AM-X-CD-16-65-00	80.00	97	308	0.003	4	120
Powerwave Allgon P65	80.00	50	159	0.001	2	62
Flat Low Profile Pla	80.00	1,500	4,757	0.041	60	1,858
PCTEL GPS-TMG-HR-26N	52.00	1	1	0.000	0	1
Stand-Off	52.00	100	144	0.001	2	124
		35,641	117,417	1.000	1,474	44,145

Load Case (0.9 - 0.2Sds) * DL + E ELFM

Seismic (Reduced DL) Equivalent Lateral Forces Method

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
36	143.00	167	1,544	0.013	19	144
35	140.50	53	475	0.004	6	46
34	137.50	273	2,341	0.020	29	235
33	132.50	284	2,280	0.019	29	245

Site Number: 411182

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Site Name: Nepaug CT, CT

Engineering Number: OAA714420_C3_02

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Customer: SPRINT NEXTEL

32	127.50	296	2,211	0.019	28	255
31	122.50	382	2,652	0.023	33	329
30	117.50	393	2,530	0.022	32	339
29	114.50	85	523	0.004	7	73
28	112.00	479	2,824	0.024	35	413
27	107.50	617	3,370	0.029	42	532
26	102.50	636	3,184	0.027	40	548
25	97.50	656	2,992	0.025	38	565
24	92.50	675	2,795	0.024	35	581
23	87.50	694	2,596	0.022	33	598
22	84.16	236	823	0.007	10	204
21	81.66	901	2,968	0.025	37	776
20	79.33	383	1,195	0.010	15	330
19	76.83	659	1,939	0.017	24	567
18	72.50	918	2,428	0.021	30	790
17	67.50	941	2,182	0.019	27	810
16	62.50	964	1,941	0.017	24	830
15	57.50	987	1,705	0.015	21	850
14	53.50	603	913	0.008	11	520
13	51.00	407	564	0.005	7	351
12	49.40	247	323	0.003	4	213
11	46.90	1,479	1,755	0.015	22	1,274
10	44.10	709	752	0.006	9	611
9	41.60	756	720	0.006	9	651
8	37.50	1,201	945	0.008	12	1,035
7	32.50	1,228	743	0.006	9	1,058
6	27.50	1,255	558	0.005	7	1,081
5	22.50	1,282	394	0.003	5	1,105
4	17.50	1,309	253	0.002	3	1,128
3	12.50	1,336	139	0.001	2	1,151
2	7.50	1,363	56	0.000	1	1,174
1	2.50	1,390	8	0.000	0	1,198
PCTEL GPS-TMG-HR-26N	145.00	1	6	0.000	0	1
Alcatel-Lucent ALU 8	145.00	26	250	0.002	3	23
Alcatel-Lucent RRH2x	145.00	159	1,503	0.013	19	137
Alcatel-Lucent 800 M	145.00	159	1,506	0.013	19	137
Alcatel-Lucent 1900M	145.00	132	1,250	0.011	16	114
12' Omni	145.00	40	379	0.003	5	34
Alcatel-Lucent TD-RR	145.00	210	1,989	0.017	25	181
RFS PD620-2	145.00	53	502	0.004	6	46
RFS APXVSP18-C-A20	145.00	171	1,619	0.014	20	147
Commscope DT465B-2XR	145.00	174	1,648	0.014	21	150
Round Platform w/ Ha	145.00	2,000	18,941	0.161	238	1,723
GPS	141.00	10	90	0.001	1	9
TTA	141.00	60	540	0.005	7	52
Amphenol Antel LPA-8	141.00	108	971	0.008	12	93
Amphenol Antel BXA-1	141.00	39	351	0.003	4	34
Round T-Arm	141.00	750	6,746	0.057	85	646
Amphenol Antel BXA-7	141.00	112	1,012	0.009	13	97
E-911 GPS	125.00	5	36	0.000	0	4
RFS ATM1900D-1CWA	125.00	25	182	0.002	2	22
RFS ATMAA1412D-1A20	125.00	39	281	0.002	4	34
RFS APX16DWV-16DWV-S	125.00	238	1,712	0.015	21	205
Round T-Arm	125.00	750	5,406	0.046	68	646
Commscope LNX-6515DS	125.00	131	945	0.008	12	113
GPS	115.00	10	62	0.001	1	9
RFS APXV18-206517	115.00	79	490	0.004	6	68
Empty Flat Low Profi	90.00	1,500	5,907	0.050	74	1,292
Spinner Bias-T	80.00	4	14	0.000	0	4
Powerwave Allgon LGP	80.00	33	105	0.001	1	28
Powerwave Allgon LGP	80.00	85	268	0.002	3	73
Raycap DC6-48-60-18-	80.00	33	104	0.001	1	28
Ericsson RRUS 11 (Ba	80.00	300	951	0.008	12	258
Powerwave Allgon 777	80.00	210	666	0.006	8	181

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KMW AM-X-CD-16-65-00	80.00	97	308	0.003	4	84
Powerwave Allgon P65	80.00	50	159	0.001	2	43
Flat Low Profile Pla	80.00	1,500	4,757	0.041	60	1,292
PCTEL GPS-TMG-HR-26N	52.00	1	1	0.000	0	1
Stand-Off	52.00	100	144	0.001	2	86
		35,641	117,417	1.000	1,474	30,701

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Site Name: Nepaug CT, CT

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Customer: SPRINT NEXTEL

Load Case (1.2 + 0.2Sds) * DL + E EFLM Seismic Equivalent Lateral Forces Method

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	-42.42	-1.48	0.00	-168.42	0.00	168.42	4,897.86	2,448.93	9,914.38	4,964.56	0.00	0.00	0.043
5.00	-40.73	-1.48	0.00	-161.04	0.00	161.04	4,817.00	2,408.50	9,522.86	4,768.51	0.01	-0.01	0.042
10.00	-39.08	-1.49	0.00	-153.62	0.00	153.62	4,734.60	2,367.30	9,136.02	4,574.80	0.02	-0.02	0.042
15.00	-37.46	-1.49	0.00	-146.17	0.00	146.17	4,650.66	2,325.33	8,754.06	4,383.53	0.05	-0.03	0.041
20.00	-35.87	-1.50	0.00	-138.70	0.00	138.70	4,565.16	2,282.58	8,377.20	4,194.83	0.10	-0.05	0.041
25.00	-34.31	-1.49	0.00	-131.23	0.00	131.23	4,478.12	2,239.06	8,005.67	4,008.78	0.15	-0.06	0.040
30.00	-32.79	-1.49	0.00	-123.76	0.00	123.76	4,380.25	2,190.13	7,623.52	3,817.43	0.22	-0.07	0.040
35.00	-31.30	-1.48	0.00	-116.31	0.00	116.31	4,262.42	2,131.21	7,216.83	3,613.78	0.30	-0.08	0.040
40.00	-30.37	-1.48	0.00	-108.89	0.00	108.89	4,144.58	2,072.29	6,821.28	3,415.71	0.39	-0.10	0.039
43.21	-29.49	-1.47	0.00	-104.15	0.00	104.15	4,069.03	2,034.51	6,573.54	3,291.66	0.46	-0.11	0.039
45.00	-27.66	-1.45	0.00	-101.51	0.00	101.51	4,026.74	2,013.37	6,436.88	3,223.22	0.50	-0.11	0.038
48.79	-27.35	-1.45	0.00	-96.01	0.00	96.01	3,394.32	1,697.16	5,426.90	2,717.49	0.59	-0.12	0.043
50.00	-26.85	-1.44	0.00	-94.27	0.00	94.27	3,376.65	1,688.32	5,360.14	2,684.05	0.62	-0.12	0.043
52.00	-25.97	-1.43	0.00	-91.39	0.00	91.39	3,347.13	1,673.57	5,249.96	2,628.88	0.68	-0.13	0.043
55.00	-24.75	-1.41	0.00	-87.10	0.00	87.10	3,302.40	1,651.20	5,086.09	2,546.82	0.76	-0.14	0.042
60.00	-23.56	-1.39	0.00	-80.04	0.00	80.04	3,220.32	1,610.16	4,807.35	2,407.25	0.92	-0.15	0.041
65.00	-22.39	-1.36	0.00	-73.09	0.00	73.09	3,119.32	1,559.66	4,509.03	2,257.87	1.08	-0.17	0.040
70.00	-21.25	-1.34	0.00	-66.27	0.00	66.27	3,018.31	1,509.16	4,220.27	2,113.27	1.27	-0.18	0.038
75.00	-20.44	-1.31	0.00	-59.59	0.00	59.59	2,917.31	1,458.66	3,941.06	1,973.46	1.47	-0.20	0.037
78.67	-19.96	-1.30	0.00	-54.76	0.00	54.76	2,843.19	1,421.59	3,742.24	1,873.90	1.63	-0.21	0.036
80.00	-19.98	-1.16	0.00	-53.03	0.00	53.03	2,816.31	1,408.15	3,671.40	1,838.43	1.69	-0.21	0.035
83.33	-15.69	-1.15	0.00	-49.18	0.00	49.18	2,319.25	1,159.63	3,022.32	1,513.41	1.84	-0.22	0.039
85.00	-14.83	-1.12	0.00	-47.26	0.00	47.26	2,298.48	1,149.24	2,958.90	1,481.65	1.92	-0.23	0.038
90.00	-12.14	-1.00	0.00	-41.68	0.00	41.68	2,229.24	1,114.62	2,764.32	1,384.22	2.17	-0.25	0.036
95.00	-11.33	-0.96	0.00	-36.69	0.00	36.69	2,145.07	1,072.54	2,558.49	1,281.15	2.43	-0.26	0.034
100.00	-10.54	-0.92	0.00	-31.89	0.00	31.89	2,060.90	1,030.45	2,360.62	1,182.06	2.71	-0.28	0.032
105.00	-9.77	-0.88	0.00	-27.29	0.00	27.29	1,976.73	988.37	2,170.71	1,086.97	3.01	-0.29	0.030
110.00	-9.18	-0.84	0.00	-22.90	0.00	22.90	1,892.56	946.28	1,988.77	995.86	3.33	-0.31	0.028
114.00	-9.07	-0.83	0.00	-19.55	0.00	19.55	1,825.27	912.63	1,849.04	925.89	3.59	-0.32	0.026
114.00	-9.07	-0.83	0.00	-19.55	0.00	19.55	1,004.24	502.12	1,027.61	514.57	3.59	-0.32	0.047
115.00	-8.48	-0.79	0.00	-18.71	0.00	18.71	998.34	499.17	1,012.11	506.81	3.65	-0.32	0.045
120.00	-8.00	-0.76	0.00	-14.74	0.00	14.74	968.03	484.02	935.59	468.49	4.00	-0.34	0.040
125.00	-6.17	-0.62	0.00	-10.94	0.00	10.94	936.17	468.09	860.51	430.90	4.37	-0.36	0.032
130.00	-5.81	-0.59	0.00	-7.86	0.00	7.86	902.76	451.38	787.11	394.14	4.76	-0.38	0.026
135.00	-5.48	-0.56	0.00	-4.92	0.00	4.92	867.81	433.91	715.59	358.32	5.16	-0.39	0.020
140.00	-5.41	-0.55	0.00	-2.14	0.00	2.14	831.32	415.66	646.17	323.57	5.57	-0.40	0.013
141.00	-3.87	-0.40	0.00	-1.59	0.00	1.59	823.83	411.92	632.56	316.75	5.66	-0.40	0.010
145.00	0.00	-0.37	0.00	0.00	0.00	0.00	787.55	393.77	574.90	287.88	5.99	-0.40	0.000

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Customer: SPRINT NEXTEL

Load Case (0.9 - 0.2Sds) * DL + E ELFM

Seismic (Reduced DL) Equivalent Lateral Forces Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-29.50	-1.48	0.00	-166.27	0.00	166.27	4,897.86	2,448.93	9,914.38	4,964.56	0.00	0.00	0.040
5.00	-28.33	-1.48	0.00	-158.90	0.00	158.90	4,817.00	2,408.50	9,522.86	4,768.51	0.01	-0.01	0.039
10.00	-27.18	-1.48	0.00	-151.49	0.00	151.49	4,734.60	2,367.30	9,136.02	4,574.80	0.02	-0.02	0.039
15.00	-26.05	-1.49	0.00	-144.08	0.00	144.08	4,650.66	2,325.33	8,754.06	4,383.53	0.05	-0.03	0.038
20.00	-24.94	-1.48	0.00	-136.65	0.00	136.65	4,565.16	2,282.58	8,377.20	4,194.83	0.09	-0.05	0.038
25.00	-23.86	-1.48	0.00	-129.23	0.00	129.23	4,478.12	2,239.06	8,005.67	4,008.78	0.15	-0.06	0.038
30.00	-22.80	-1.48	0.00	-121.82	0.00	121.82	4,380.25	2,190.13	7,623.52	3,817.43	0.22	-0.07	0.037
35.00	-21.77	-1.47	0.00	-114.43	0.00	114.43	4,262.42	2,131.21	7,216.83	3,613.78	0.30	-0.08	0.037
40.00	-21.12	-1.46	0.00	-107.10	0.00	107.10	4,144.58	2,072.29	6,821.28	3,415.71	0.39	-0.10	0.036
43.21	-20.51	-1.45	0.00	-102.41	0.00	102.41	4,069.03	2,034.51	6,573.54	3,291.66	0.46	-0.10	0.036
45.00	-19.23	-1.43	0.00	-99.80	0.00	99.80	4,026.74	2,013.37	6,436.88	3,223.22	0.50	-0.11	0.036
48.79	-19.02	-1.43	0.00	-94.37	0.00	94.37	3,994.32	1,997.16	6,300.00	3,157.49	0.59	-0.12	0.040
50.00	-18.67	-1.42	0.00	-92.65	0.00	92.65	3,976.65	1,988.32	6,188.14	3,094.05	0.62	-0.12	0.040
52.00	-18.06	-1.41	0.00	-89.80	0.00	89.80	3,947.13	1,973.57	6,089.96	3,038.88	0.67	-0.13	0.040
55.00	-17.21	-1.39	0.00	-85.57	0.00	85.57	3,902.40	1,951.20	5,996.09	2,984.82	0.75	-0.14	0.039
60.00	-16.38	-1.37	0.00	-78.61	0.00	78.61	3,820.32	1,910.16	5,807.35	2,907.25	0.90	-0.15	0.038
65.00	-15.57	-1.34	0.00	-71.77	0.00	71.77	3,719.32	1,859.66	5,590.03	2,757.87	1.07	-0.17	0.037
70.00	-14.78	-1.31	0.00	-65.05	0.00	65.05	3,618.31	1,809.16	5,362.27	2,613.27	1.25	-0.18	0.036
75.00	-14.21	-1.29	0.00	-58.48	0.00	58.48	3,517.31	1,758.66	5,125.06	2,473.46	1.45	-0.20	0.035
78.67	-13.88	-1.28	0.00	-53.74	0.00	53.74	3,443.19	1,721.59	4,922.24	2,373.90	1.60	-0.21	0.034
80.00	-11.12	-1.14	0.00	-52.04	0.00	52.04	3,416.31	1,708.15	4,871.40	2,338.43	1.66	-0.21	0.032
83.33	-10.91	-1.13	0.00	-48.25	0.00	48.25	3,319.25	1,659.63	4,722.32	2,253.41	1.81	-0.22	0.037
85.00	-10.31	-1.10	0.00	-46.37	0.00	46.37	3,298.48	1,649.24	4,688.90	2,231.65	1.89	-0.22	0.036
90.00	-8.44	-0.98	0.00	-40.89	0.00	40.89	3,229.24	1,614.62	4,564.32	2,184.22	2.13	-0.24	0.033
95.00	-7.88	-0.94	0.00	-35.98	0.00	35.98	3,145.07	1,572.54	4,458.49	2,151.15	2.39	-0.26	0.032
100.00	-7.33	-0.90	0.00	-31.26	0.00	31.26	3,060.90	1,530.45	4,366.62	2,122.06	2.67	-0.27	0.030
105.00	-6.80	-0.86	0.00	-26.74	0.00	26.74	2,976.73	1,488.37	4,277.71	2,096.97	2.96	-0.29	0.028
110.00	-6.38	-0.82	0.00	-22.44	0.00	22.44	2,892.56	1,446.28	4,192.77	2,075.86	3.27	-0.30	0.026
114.00	-6.31	-0.82	0.00	-19.15	0.00	19.15	2,825.27	1,421.63	4,149.04	2,058.89	3.53	-0.31	0.024
114.00	-6.31	-0.82	0.00	-19.15	0.00	19.15	2,825.27	1,421.63	4,149.04	2,058.89	3.53	-0.31	0.043
115.00	-5.89	-0.78	0.00	-18.33	0.00	18.33	2,798.34	1,408.17	4,122.11	2,046.81	3.59	-0.32	0.042
120.00	-5.56	-0.75	0.00	-14.43	0.00	14.43	2,768.03	1,394.02	4,109.59	2,038.49	3.94	-0.34	0.037
125.00	-4.29	-0.60	0.00	-10.71	0.00	10.71	2,736.17	1,380.09	4,101.51	2,034.90	4.30	-0.35	0.029
130.00	-4.04	-0.57	0.00	-7.69	0.00	7.69	2,702.76	1,366.38	4,093.11	2,031.14	4.68	-0.37	0.024
135.00	-3.81	-0.54	0.00	-4.82	0.00	4.82	2,667.81	1,352.91	4,084.59	2,027.32	5.07	-0.38	0.018
140.00	-3.76	-0.54	0.00	-2.10	0.00	2.10	2,631.32	1,339.66	4,076.17	2,023.57	5.48	-0.39	0.011
141.00	-2.69	-0.39	0.00	-1.56	0.00	1.56	2,623.83	1,337.92	4,073.56	2,023.75	5.56	-0.39	0.008
145.00	0.00	-0.37	0.00	0.00	0.00	0.00	2,623.55	1,337.77	4,073.90	2,023.88	5.89	-0.39	0.000

Site Number: 411182

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Site Name: Nepaug CT, CT

Engineering Number: OAA714420_C3_02

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Customer: SPRINT NEXTEL

Equivalent Modal Forces Analysis

(Based on ASCE7-10 Chapters 11, 12 & 15 and ANSI/TIA-G, section 2.7)

Spectral Response Acceleration for Short Period (S_s):	0.18
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.06
Importance Factor (I_E):	1.00
Site Coefficient F_a :	1.60
Site Coefficient F_v :	2.40
Response Modification Coefficient (R):	1.50
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.19
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.10
Period Based on Rayleigh Method (sec):	2.18
Redundancy Factor (p):	1.30

Load Case $(1.2 + 0.2S_{ds}) * DL + E$ EMAM Seismic Equivalent Modal Analysis Method

Segment	Height Above Base (ft)	Weight (lb)	a	b	c	Saz	Horizontal Force (lb)	Vertical Force (lb)
36	143.00	167	1.838	1.718	1.044	0.336	49	207
35	140.50	53	1.775	1.425	0.934	0.297	14	66
34	137.50	273	1.700	1.121	0.814	0.253	60	338
33	132.50	284	1.578	0.713	0.641	0.186	46	352
32	127.50	296	1.461	0.410	0.498	0.129	33	366
31	122.50	382	1.349	0.194	0.381	0.080	27	473
30	117.50	393	1.241	0.047	0.287	0.040	14	487
29	114.50	85	1.178	-0.015	0.239	0.020	1	106
28	112.00	479	1.128	-0.053	0.204	0.006	2	594
27	107.50	617	1.039	-0.098	0.151	-0.015	-8	764
26	102.50	636	0.944	-0.120	0.106	-0.029	-16	788
25	97.50	656	0.855	-0.120	0.071	-0.036	-20	812
24	92.50	675	0.769	-0.106	0.045	-0.035	-20	836
23	87.50	694	0.688	-0.083	0.028	-0.027	-16	860
22	84.16	236	0.637	-0.066	0.019	-0.019	-4	293
21	81.66	901	0.599	-0.053	0.014	-0.011	-9	1,116
20	79.33	383	0.566	-0.040	0.011	-0.004	-1	474
19	76.83	659	0.531	-0.027	0.009	0.004	2	816
18	72.50	918	0.472	-0.006	0.006	0.017	13	1,137
17	67.50	941	0.410	0.015	0.006	0.030	24	1,165
16	62.50	964	0.351	0.032	0.009	0.039	33	1,194
15	57.50	987	0.297	0.046	0.012	0.046	39	1,222
14	53.50	603	0.257	0.054	0.016	0.048	25	747
13	51.00	407	0.234	0.058	0.019	0.049	17	504
12	49.40	247	0.219	0.060	0.021	0.050	11	306
11	46.90	1,479	0.198	0.063	0.023	0.050	64	1,832
10	44.10	709	0.175	0.066	0.027	0.050	31	879
9	41.60	756	0.156	0.067	0.029	0.049	32	936
8	37.50	1,201	0.126	0.070	0.034	0.049	51	1,488
7	32.50	1,228	0.095	0.071	0.038	0.047	50	1,521
6	27.50	1,255	0.068	0.072	0.041	0.046	50	1,555
5	22.50	1,282	0.046	0.071	0.042	0.044	49	1,588
4	17.50	1,309	0.028	0.067	0.040	0.042	48	1,622
3	12.50	1,336	0.014	0.060	0.035	0.038	44	1,655

Site Number: 411182

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Site Name: Nepaug CT, CT

Engineering Number: OAA714420_C3_02

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Customer: SPRINT NEXTEL

2	7.50	1,363	0.005	0.045	0.025	0.030	35	1,689
1	2.50	1,390	0.001	0.019	0.010	0.014	16	1,722
PCTEL GPS-TMG-HR-	145.00	1	1.890	1.980	1.140	0.369	0	1
Alcatel-Lucent ALU 8	145.00	26	1.890	1.980	1.140	0.369	8	33
Alcatel-Lucent RRH2x	145.00	159	1.890	1.980	1.140	0.369	51	197
Alcatel-Lucent 800 M	145.00	159	1.890	1.980	1.140	0.369	51	197
Alcatel-Lucent 1900M	145.00	132	1.890	1.980	1.140	0.369	42	163
12' Omni	145.00	40	1.890	1.980	1.140	0.369	13	50
Alcatel-Lucent TD-RR	145.00	210	1.890	1.980	1.140	0.369	67	260
RFS PD620-2	145.00	53	1.890	1.980	1.140	0.369	17	66
RFS APXVSP18-C-A20	145.00	171	1.890	1.980	1.140	0.369	55	212
Commscope DT465B-	145.00	174	1.890	1.980	1.140	0.369	56	216
Round Platform w/ Ha	145.00	2,000	1.890	1.980	1.140	0.369	640	2,477
GPS	141.00	10	1.787	1.481	0.955	0.304	3	12
TTA	141.00	60	1.787	1.481	0.955	0.304	16	74
Amphenol Antel LPA-8	141.00	108	1.787	1.481	0.955	0.304	28	134
Amphenol Antel BXA-1	141.00	39	1.787	1.481	0.955	0.304	10	48
Round T-Arm	141.00	750	1.787	1.481	0.955	0.304	198	929
Amphenol Antel BXA-7	141.00	112	1.787	1.481	0.955	0.304	30	139
E-911 GPS	125.00	5	1.405	0.293	0.437	0.104	0	6
RFS ATM1900D-1CWA	125.00	25	1.405	0.293	0.437	0.104	2	31
RFS ATMAA1412D-1A20	125.00	39	1.405	0.293	0.437	0.104	4	48
RFS APX16DWV-16DWV-	125.00	238	1.405	0.293	0.437	0.104	21	294
Round T-Arm	125.00	750	1.405	0.293	0.437	0.104	67	929
Commscope LNX-	125.00	131	1.405	0.293	0.437	0.104	12	162
GPS	115.00	10	1.189	-0.006	0.247	0.023	0	12
RFS APXV18-206517	115.00	79	1.189	-0.006	0.247	0.023	2	98
Empty Flat Low Profi	90.00	1,500	0.728	-0.095	0.036	-0.031	-41	1,858
Spinner Bias-T	80.00	4	0.575	-0.044	0.012	-0.006	0	6
Powerwave Allgon LGP	80.00	33	0.575	-0.044	0.012	-0.006	0	41
Powerwave Allgon LGP	80.00	85	0.575	-0.044	0.012	-0.006	0	105
Raycap DC6-48-60-18-	80.00	33	0.575	-0.044	0.012	-0.006	0	41
Ericsson RRUS 11 (Ba	80.00	300	0.575	-0.044	0.012	-0.006	-2	372
Powerwave Allgon 777	80.00	210	0.575	-0.044	0.012	-0.006	-1	260
KMW AM-X-CD-16-65-00	80.00	97	0.575	-0.044	0.012	-0.006	-1	120
Powerwave Allgon P65	80.00	50	0.575	-0.044	0.012	-0.006	0	62
Flat Low Profile Pla	80.00	1,500	0.575	-0.044	0.012	-0.006	-8	1,858
PCTEL GPS-TMG-HR-	52.00	1	0.243	0.056	0.018	0.049	0	1
Stand-Off	52.00	100	0.243	0.056	0.018	0.049	4	124
		35,641	71.737	37.808	27.493	8.479	2,129	44,145

Load Case (0.9 - 0.2Sds) * DL + E EMAM

Seismic (Reduced DL) Equivalent Modal Analysis Method

Segment	Height Above Base (ft)	Weight (lb)	a	b	c	Saz	Horizontal Force (lb)	Vertical Force (lb)
36	143.00	167	1.838	1.718	1.044	0.336	49	144
35	140.50	53	1.775	1.425	0.934	0.297	14	46
34	137.50	273	1.700	1.121	0.814	0.253	60	235
33	132.50	284	1.578	0.713	0.641	0.186	46	245
32	127.50	296	1.461	0.410	0.498	0.129	33	255
31	122.50	382	1.349	0.194	0.381	0.080	27	329
30	117.50	393	1.241	0.047	0.287	0.040	14	339
29	114.50	85	1.178	-0.015	0.239	0.020	1	73
28	112.00	479	1.128	-0.053	0.204	0.006	2	413
27	107.50	617	1.039	-0.098	0.151	-0.015	-8	532
26	102.50	636	0.944	-0.120	0.106	-0.029	-16	548
25	97.50	656	0.855	-0.120	0.071	-0.036	-20	565
24	92.50	675	0.769	-0.106	0.045	-0.035	-20	581
23	87.50	694	0.688	-0.083	0.028	-0.027	-16	598

Site Number: 411182

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Site Name: Nepaug CT, CT

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Customer: SPRINT NEXTEL

22	84.16	236	0.637	-0.066	0.019	-0.019	-4	204
21	81.66	901	0.599	-0.053	0.014	-0.011	-9	776
20	79.33	383	0.566	-0.040	0.011	-0.004	-1	330
19	76.83	659	0.531	-0.027	0.009	0.004	2	567
18	72.50	918	0.472	-0.006	0.006	0.017	13	790
17	67.50	941	0.410	0.015	0.006	0.030	24	810
16	62.50	964	0.351	0.032	0.009	0.039	33	830
15	57.50	987	0.297	0.046	0.012	0.046	39	850
14	53.50	603	0.257	0.054	0.016	0.048	25	520
13	51.00	407	0.234	0.058	0.019	0.049	17	351
12	49.40	247	0.219	0.060	0.021	0.050	11	213
11	46.90	1,479	0.198	0.063	0.023	0.050	64	1,274
10	44.10	709	0.175	0.066	0.027	0.050	31	611
9	41.60	756	0.156	0.067	0.029	0.049	32	651
8	37.50	1,201	0.126	0.070	0.034	0.049	51	1,035
7	32.50	1,228	0.095	0.071	0.038	0.047	50	1,058
6	27.50	1,255	0.068	0.072	0.041	0.046	50	1,081
5	22.50	1,282	0.046	0.071	0.042	0.044	49	1,105
4	17.50	1,309	0.028	0.067	0.040	0.042	48	1,128
3	12.50	1,336	0.014	0.060	0.035	0.038	44	1,151
2	7.50	1,363	0.005	0.045	0.025	0.030	35	1,174
1	2.50	1,390	0.001	0.019	0.010	0.014	16	1,198
PCTEL GPS-TMG-HR-	145.00	1	1.890	1.980	1.140	0.369	0	1
Alcatel-Lucent ALU 8	145.00	26	1.890	1.980	1.140	0.369	8	23
Alcatel-Lucent RRH2x	145.00	159	1.890	1.980	1.140	0.369	51	137
Alcatel-Lucent 800 M	145.00	159	1.890	1.980	1.140	0.369	51	137
Alcatel-Lucent 1900M	145.00	132	1.890	1.980	1.140	0.369	42	114
12' Omni	145.00	40	1.890	1.980	1.140	0.369	13	34
Alcatel-Lucent TD-RR	145.00	210	1.890	1.980	1.140	0.369	67	181
RFS PD620-2	145.00	53	1.890	1.980	1.140	0.369	17	46
RFS APXVSPP18-C-A20	145.00	171	1.890	1.980	1.140	0.369	55	147
Commscope DT465B-	145.00	174	1.890	1.980	1.140	0.369	56	150
Round Platform w/ Ha	145.00	2,000	1.890	1.980	1.140	0.369	640	1,723
GPS	141.00	10	1.787	1.481	0.955	0.304	3	9
TTA	141.00	60	1.787	1.481	0.955	0.304	16	52
Amphenol Antel LPA-8	141.00	108	1.787	1.481	0.955	0.304	28	93
Amphenol Antel BXA-1	141.00	39	1.787	1.481	0.955	0.304	10	34
Round T-Arm	141.00	750	1.787	1.481	0.955	0.304	198	646
Amphenol Antel BXA-7	141.00	112	1.787	1.481	0.955	0.304	30	97
E-911 GPS	125.00	5	1.405	0.293	0.437	0.104	0	4
RFS ATM1900D-1CWA	125.00	25	1.405	0.293	0.437	0.104	2	22
RFS ATMAA1412D-1A20	125.00	39	1.405	0.293	0.437	0.104	4	34
RFS APX16DWV-16DWV-	125.00	238	1.405	0.293	0.437	0.104	21	205
Round T-Arm	125.00	750	1.405	0.293	0.437	0.104	67	646
Commscope LNX-	125.00	131	1.405	0.293	0.437	0.104	12	113
GPS	115.00	10	1.189	-0.006	0.247	0.023	0	9
RFS APXV18-206517	115.00	79	1.189	-0.006	0.247	0.023	2	68
Empty Flat Low Profi	90.00	1,500	0.728	-0.095	0.036	-0.031	-41	1,292
Spinner Bias-T	80.00	4	0.575	-0.044	0.012	-0.006	0	4
Powerwave Allgon LGP	80.00	33	0.575	-0.044	0.012	-0.006	0	28
Powerwave Allgon LGP	80.00	85	0.575	-0.044	0.012	-0.006	0	73
Raycap DC6-48-60-18-	80.00	33	0.575	-0.044	0.012	-0.006	0	28
Ericsson RRUS 11 (Ba	80.00	300	0.575	-0.044	0.012	-0.006	-2	258
Powerwave Allgon 777	80.00	210	0.575	-0.044	0.012	-0.006	-1	181
KMW AM-X-CD-16-65-00	80.00	97	0.575	-0.044	0.012	-0.006	-1	84
Powerwave Allgon P65	80.00	50	0.575	-0.044	0.012	-0.006	0	43
Flat Low Profile Pla	80.00	1,500	0.575	-0.044	0.012	-0.006	-8	1,292
PCTEL GPS-TMG-HR-	52.00	1	0.243	0.056	0.018	0.049	0	1
Stand-Off	52.00	100	0.243	0.056	0.018	0.049	4	86
		35,641	71.737	37.808	27.493	8.479	2,129	30,701

Site Number: 411182

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Customer: SPRINT NEXTEL

Load Case (1.2 + 0.2Sds) * DL + E EMAM Seismic Equivalent Modal Analysis Method

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	-42.42	-2.12	0.00	-250.75	0.00	250.75	4,897.86	2,448.93	9,914.38	4,964.56	0.00	0.00	0.059
5.00	-40.73	-2.10	0.00	-240.16	0.00	240.16	4,817.00	2,408.50	9,522.86	4,768.51	0.01	-0.02	0.059
10.00	-39.08	-2.06	0.00	-229.68	0.00	229.68	4,734.60	2,367.30	9,136.02	4,574.80	0.04	-0.03	0.058
15.00	-37.46	-2.03	0.00	-219.37	0.00	219.37	4,650.66	2,325.33	8,754.06	4,383.53	0.08	-0.05	0.058
20.00	-35.87	-1.99	0.00	-209.24	0.00	209.24	4,565.16	2,282.58	8,377.20	4,194.83	0.14	-0.07	0.058
25.00	-34.31	-1.95	0.00	-199.31	0.00	199.31	4,478.12	2,239.06	8,005.67	4,008.78	0.23	-0.09	0.057
30.00	-32.79	-1.90	0.00	-189.59	0.00	189.59	4,380.25	2,190.13	7,623.52	3,817.43	0.33	-0.11	0.057
35.00	-31.30	-1.86	0.00	-180.07	0.00	180.07	4,262.42	2,131.21	7,216.83	3,613.78	0.45	-0.13	0.057
40.00	-30.36	-1.83	0.00	-170.77	0.00	170.77	4,144.58	2,072.29	6,821.28	3,415.71	0.59	-0.15	0.057
43.21	-29.49	-1.81	0.00	-164.89	0.00	164.89	4,069.03	2,034.51	6,573.54	3,291.66	0.70	-0.16	0.057
45.00	-27.65	-1.74	0.00	-161.65	0.00	161.65	4,026.74	2,013.37	6,436.88	3,223.22	0.76	-0.17	0.057
48.79	-27.35	-1.74	0.00	-155.03	0.00	155.03	3,994.32	1,697.16	5,426.90	2,717.49	0.90	-0.18	0.065
50.00	-26.84	-1.72	0.00	-152.93	0.00	152.93	3,376.65	1,688.32	5,360.14	2,684.05	0.94	-0.19	0.065
52.00	-25.97	-1.70	0.00	-149.49	0.00	149.49	3,347.13	1,673.57	5,249.96	2,628.88	1.03	-0.20	0.065
55.00	-24.75	-1.66	0.00	-144.40	0.00	144.40	3,302.40	1,651.20	5,086.09	2,546.82	1.16	-0.21	0.064
60.00	-23.55	-1.63	0.00	-136.10	0.00	136.10	3,220.32	1,610.16	4,807.35	2,407.25	1.39	-0.24	0.064
65.00	-22.39	-1.61	0.00	-127.94	0.00	127.94	3,119.32	1,559.66	4,509.03	2,257.87	1.66	-0.27	0.064
70.00	-21.25	-1.61	0.00	-119.87	0.00	119.87	3,018.31	1,509.16	4,220.27	2,113.27	1.95	-0.29	0.064
75.00	-20.43	-1.61	0.00	-111.84	0.00	111.84	2,917.31	1,458.66	3,941.06	1,973.46	2.27	-0.32	0.064
78.67	-19.96	-1.61	0.00	-105.94	0.00	105.94	2,843.19	1,421.59	3,742.24	1,873.90	2.52	-0.34	0.064
80.00	-15.98	-1.61	0.00	-103.80	0.00	103.80	2,816.31	1,408.15	3,671.40	1,838.43	2.62	-0.35	0.062
83.33	-15.69	-1.62	0.00	-98.43	0.00	98.43	2,319.25	1,159.63	3,022.32	1,513.41	2.87	-0.37	0.072
85.00	-14.83	-1.63	0.00	-95.72	0.00	95.72	2,298.48	1,149.24	2,958.90	1,481.65	3.00	-0.38	0.071
90.00	-12.13	-1.68	0.00	-87.55	0.00	87.55	2,229.24	1,114.62	2,764.32	1,384.22	3.41	-0.41	0.069
95.00	-11.32	-1.71	0.00	-79.13	0.00	79.13	2,145.07	1,072.54	2,558.49	1,281.15	3.86	-0.45	0.067
100.00	-10.53	-1.72	0.00	-70.60	0.00	70.60	2,060.90	1,030.45	2,360.62	1,182.06	4.35	-0.48	0.065
105.00	-9.76	-1.73	0.00	-61.99	0.00	61.99	1,976.73	988.37	2,170.71	1,086.97	4.87	-0.51	0.062
110.00	-9.17	-1.73	0.00	-53.35	0.00	53.35	1,892.56	946.28	1,988.77	995.86	5.43	-0.55	0.058
114.00	-9.06	-1.73	0.00	-46.45	0.00	46.45	1,825.27	912.63	1,849.04	925.89	5.90	-0.58	0.055
114.00	-9.06	-1.73	0.00	-46.45	0.00	46.45	1,004.24	502.12	1,027.61	514.57	5.90	-0.58	0.099
115.00	-8.46	-1.71	0.00	-44.72	0.00	44.72	998.34	499.17	1,012.11	506.81	6.02	-0.58	0.097
120.00	-7.99	-1.68	0.00	-36.18	0.00	36.18	968.03	484.02	935.59	468.49	6.66	-0.63	0.085
125.00	-6.15	-1.53	0.00	-27.76	0.00	27.76	936.17	468.09	860.51	430.90	7.35	-0.68	0.071
130.00	-5.80	-1.48	0.00	-20.12	0.00	20.12	902.76	451.38	787.11	394.14	8.08	-0.72	0.057
135.00	-5.46	-1.42	0.00	-12.71	0.00	12.71	867.81	433.91	715.59	358.32	8.86	-0.75	0.042
140.00	-5.40	-1.41	0.00	-5.62	0.00	5.62	831.32	415.66	646.17	323.57	9.66	-0.77	0.024
141.00	-3.86	-1.05	0.00	-4.21	0.00	4.21	823.83	411.92	632.56	316.75	9.82	-0.78	0.018
145.00	0.00	-1.00	0.00	0.00	0.00	0.00	787.55	393.77	574.90	287.88	10.47	-0.78	0.000

Site Number: 411182

Code: ANSI/TIA-222-G

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Site Name: Nepaug CT, CT

Engineering Number: OAA714420_C3_02

3/6/2018 8:09:05 AM

Customer: SPRINT NEXTEL

Load Case (0.9 - 0.2Sds) * DL + E EMAM Seismic (Reduced DL) Equivalent Modal Analysis Method

Calculated Forces

Seg	Pu	Vu	Tu	Mu	Mu	Resultant	phi	phi	phi	phi	Total	Rotation	
Elev	FY (-)	FX (-)	MY	MZ	MX	Moment	Pn	Vn	Tn	Mn	Deflect	(deg)	Ratio
(ft)	(kips)	(kips)	(ft-kips)	(ft-kips)	(ft-kips)	(ft-kips)	(kips)	(kips)	(ft-kips)	(ft-kips)	(in)		
0.00	-29.50	-2.12	0.00	-247.17	0.00	247.17	4,897.86	2,448.93	9,914.38	4,964.56	0.00	0.00	0.056
5.00	-28.33	-2.09	0.00	-236.59	0.00	236.59	4,817.00	2,408.50	9,522.86	4,768.51	0.01	-0.02	0.055
10.00	-27.18	-2.05	0.00	-226.14	0.00	226.14	4,734.60	2,367.30	9,136.02	4,574.80	0.03	-0.03	0.055
15.00	-26.05	-2.01	0.00	-215.88	0.00	215.88	4,650.66	2,325.33	8,754.06	4,383.53	0.08	-0.05	0.055
20.00	-24.94	-1.97	0.00	-205.81	0.00	205.81	4,565.16	2,282.58	8,377.20	4,194.83	0.14	-0.07	0.055
25.00	-23.86	-1.93	0.00	-195.96	0.00	195.96	4,478.12	2,239.06	8,005.67	4,008.78	0.22	-0.09	0.054
30.00	-22.80	-1.88	0.00	-186.33	0.00	186.33	4,380.25	2,190.13	7,623.52	3,817.43	0.32	-0.10	0.054
35.00	-21.77	-1.84	0.00	-176.92	0.00	176.92	4,262.42	2,131.21	7,216.83	3,613.78	0.44	-0.12	0.054
40.00	-21.12	-1.81	0.00	-167.73	0.00	167.73	4,144.58	2,072.29	6,821.28	3,415.71	0.58	-0.14	0.054
43.21	-20.50	-1.78	0.00	-161.93	0.00	161.93	4,069.03	2,034.51	6,573.54	3,291.66	0.68	-0.16	0.054
45.00	-19.23	-1.72	0.00	-158.74	0.00	158.74	4,026.74	2,013.37	6,436.88	3,223.22	0.74	-0.16	0.054
48.79	-19.02	-1.71	0.00	-152.22	0.00	152.22	3,394.32	1,697.16	5,426.90	2,717.49	0.88	-0.18	0.062
50.00	-18.67	-1.69	0.00	-150.16	0.00	150.16	3,376.65	1,688.32	5,360.14	2,684.05	0.93	-0.19	0.061
52.00	-18.06	-1.67	0.00	-146.77	0.00	146.77	3,347.13	1,673.57	5,249.96	2,628.88	1.01	-0.20	0.061
55.00	-17.21	-1.63	0.00	-141.78	0.00	141.78	3,302.40	1,651.20	5,086.09	2,546.82	1.14	-0.21	0.061
60.00	-16.38	-1.60	0.00	-133.63	0.00	133.63	3,220.32	1,610.16	4,807.35	2,407.25	1.37	-0.24	0.061
65.00	-15.57	-1.58	0.00	-125.63	0.00	125.63	3,119.32	1,559.66	4,509.03	2,257.87	1.63	-0.26	0.061
70.00	-14.78	-1.57	0.00	-117.73	0.00	117.73	3,018.31	1,509.16	4,220.27	2,113.27	1.92	-0.29	0.061
75.00	-14.21	-1.57	0.00	-109.88	0.00	109.88	2,917.31	1,458.66	3,941.06	1,973.46	2.23	-0.31	0.061
78.67	-13.88	-1.57	0.00	-104.12	0.00	104.12	2,843.19	1,421.59	3,742.24	1,873.90	2.48	-0.33	0.060
80.00	-11.11	-1.58	0.00	-102.03	0.00	102.03	2,816.31	1,408.15	3,671.40	1,838.43	2.58	-0.34	0.059
83.33	-10.91	-1.59	0.00	-96.76	0.00	96.76	2,319.25	1,159.63	3,022.32	1,513.41	2.82	-0.36	0.069
85.00	-10.31	-1.60	0.00	-94.11	0.00	94.11	2,298.48	1,149.24	2,958.90	1,481.65	2.95	-0.37	0.068
90.00	-8.43	-1.66	0.00	-86.10	0.00	86.10	2,229.24	1,114.62	2,764.32	1,384.22	3.36	-0.40	0.066
95.00	-7.87	-1.68	0.00	-77.82	0.00	77.82	2,145.07	1,072.54	2,558.49	1,281.15	3.80	-0.44	0.064
100.00	-7.32	-1.69	0.00	-69.44	0.00	69.44	2,060.90	1,030.45	2,360.62	1,182.06	4.28	-0.47	0.062
105.00	-6.78	-1.70	0.00	-60.97	0.00	60.97	1,976.73	988.37	2,170.71	1,086.97	4.79	-0.51	0.060
110.00	-6.37	-1.70	0.00	-52.47	0.00	52.47	1,892.56	946.28	1,988.77	995.86	5.34	-0.54	0.056
114.00	-6.30	-1.70	0.00	-45.69	0.00	45.69	1,825.27	912.63	1,849.04	925.89	5.80	-0.57	0.053
114.00	-6.30	-1.70	0.00	-45.69	0.00	45.69	1,004.24	502.12	1,027.61	514.57	5.80	-0.57	0.095
115.00	-5.88	-1.68	0.00	-43.99	0.00	43.99	998.34	499.17	1,012.11	506.81	5.92	-0.57	0.093
120.00	-5.55	-1.65	0.00	-35.59	0.00	35.59	968.03	484.02	935.59	468.49	6.55	-0.62	0.082
125.00	-4.27	-1.50	0.00	-27.32	0.00	27.32	936.17	468.09	860.51	430.90	7.22	-0.67	0.068
130.00	-4.03	-1.46	0.00	-19.80	0.00	19.80	902.76	451.38	877.11	394.14	7.95	-0.71	0.055
135.00	-3.79	-1.40	0.00	-12.51	0.00	12.51	867.81	433.91	715.59	358.32	8.71	-0.74	0.039
140.00	-3.75	-1.38	0.00	-5.53	0.00	5.53	831.32	415.66	646.17	323.57	9.49	-0.76	0.022
141.00	-2.68	-1.04	0.00	-4.14	0.00	4.14	823.83	411.92	632.56	316.75	9.65	-0.76	0.016
145.00	0.00	-1.00	0.00	0.00	0.00	0.00	787.55	393.77	574.90	287.88	10.30	-0.77	0.000

Site Number: 411182

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Site Name: Nepaug CT, CT

Engineering Number: OAA714420_C3_02

3/6/2018 8:09:05 AM

Customer: SPRINT NEXTEL

Analysis Summary

Load Case	Reactions						Max Usage	
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.6W	20.38	0.00	42.74	0.00	0.00	2131.58	114.00	0.50
0.9D + 1.6W	20.37	0.00	32.05	0.00	0.00	2108.97	114.00	0.49
1.2D + 1.0Di + 1.0Wi	4.36	0.00	73.69	0.00	0.00	469.79	114.00	0.13
(1.2 + 0.2Sds) * DL + E ELFM	1.48	0.00	42.42	0.00	0.00	168.42	114.00	0.05
(1.2 + 0.2Sds) * DL + E EMAM	2.12	0.00	42.42	0.00	0.00	250.75	114.00	0.10
(0.9 - 0.2Sds) * DL + E ELFM	1.48	0.00	29.50	0.00	0.00	166.27	114.00	0.04
(0.9 - 0.2Sds) * DL + E EMAM	2.12	0.00	29.50	0.00	0.00	247.17	114.00	0.10
1.0D + 1.0W	5.30	0.00	35.64	0.00	0.00	550.92	114.00	0.13

Base/Flange Plate	Plate Type	Baseplate
	Pole Diameter	49.75 in
	Pole Thickness	0.4375 in
	Plate Diameter	75 in
	Plate Thickness	2.75 in
	Plate Fy	60 ksi
	Weld Length	0.375 in
	ϕ_s Resistance	797.83 k-in
	Applied	600.44 k-in
Stiffeners	#	0

Bolts	#	20
	Bolt Circle (R)adial / (S)quare	69 in R
	Diameter	2.25 in
	Hole Diameter	2.75 in
	Type	A615
	Fy	75 ksi
	Fu	100 ksi
	ϕ_s Resistance	259.82 k
Applied	76.25 k	
Reinforcement	#	0
	#	0
Extra Bolts	#	0

Code Rev. **G**

Date 3/6/2018
 Engineer Connor.Klein
 Site # 411182
 Carrier SPRINT NEXTEL

Moment 2131.6 k-ft
 Axial 42.7 k

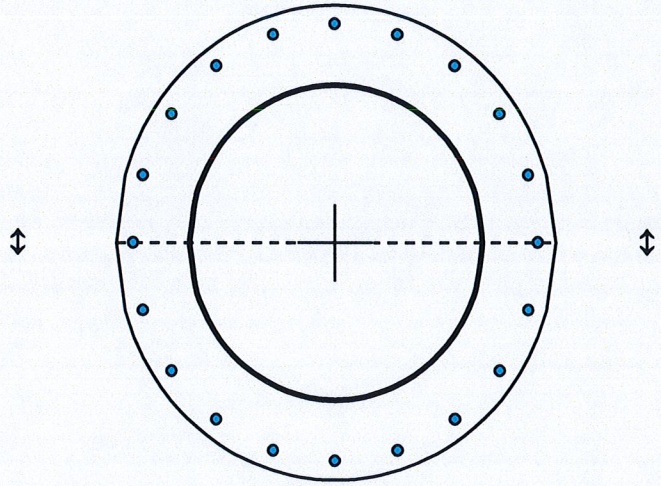


Plate Stress Ratio:
0.75 (Pass)

Bolt Stress Ratio:
0.29 (Pass)

Base/Flange Plate	Plate Type	Flange @ 114.0 ft
	Pole Diameter	25.125 in
	Pole Thickness	0.1875 in
	Plate Diameter	32 in
	Plate Thickness	1.5 in
	Plate Fy	65 ksi
	Weld Length	0.1875 in
	ϕ_s Resistance Applied	199.48 k-in 39.44 k-in
Stiffeners	#	0

Code Rev. **G**

Date **3/6/2018**

Engineer **Connor.Klein**

Site # **411182**

Carrier **SPRINT NEXTEL**

Moment **252.4 k-ft**

Axial **8.2 k**

Required Flange Thickness:

0.67 in OK

Bolts	#	12
	Bolt Circle	29 in
	(R)adial / (S)quare	R
	Diameter	1 in
	Hole Diameter	1.1875 in
	Type	A325
	Fy	92 ksi
	Fu	120 ksi
ϕ_s Resistance Applied		54.52 k
		34.11 k
Reinforcement	#	0
Extra Bolts	#	0

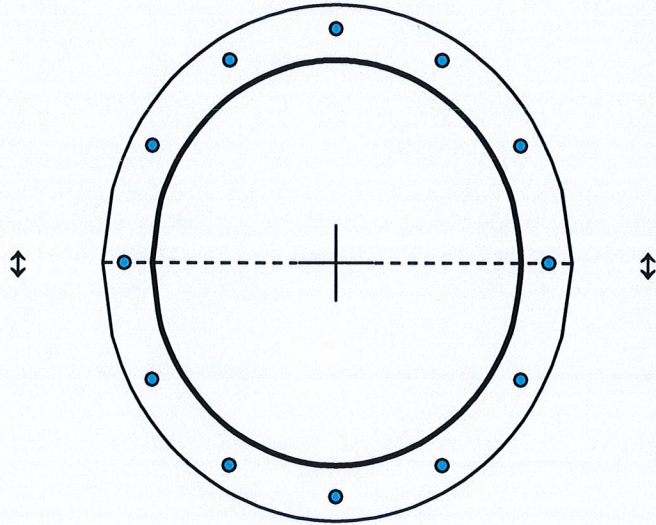


Plate Stress Ratio:
0.20 (Pass)

Bolt Stress Ratio:
0.63 (Pass)