Alex Murshteyn, Site Acquisition
c/o Cellco Partnership d/b/a Verizon Wireless
Centerline Communications, LLC
95 Ryan Drive, Suite 1
Raynham, MA 02767
Mobile: (508) 821-0159
AMurshteyn@centerlinecommunications.com

December 6, 2017

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

RE: Notice of Exempt Modification // Site: North Bloomfield CT (ATC: 283562)
(2627) Day Hill Road (aka 2619 Day Hill Rd), Bloomfield, CT 06002
N 41.87650 // W -73.74183

Dear Ms. Bachman:

Cellco Partnership d/b/a Verizon Wireless currently maintains 15 antennas at the 110-foot mount on the existing 110-foot monopole tower, located at (2619) Day Hill Road, Bloomfield, CT. The tower is owned by American Tower. The property is owned by the River Bend Development CT LLC. Verizon Wireless now intends to replace all 6 of its existing antennas and install side-by-side mounts for 6 LTE (700/850/1900/2100 MHz) replacements for its PCS/AWS/LTE upgrade. Additionally, Verizon Wireless will remove 3 new remote radio heads (RRHs) and install 12 new RRHs, with its new antennas, 1 new over voltage protector (OVP) surge arrestor box, as well as 1 new hybrid fiber cable; while removing certain unused coax cabling and updating leased equipment rights, as more fully reflected by the final configuration proposed hereby.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §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 Suzette DeBeatham-Brown, Mayor for the Town of Bloomfield, Jose Giner, the Town's Director of the Planning and Zoning Department, American Tower, the tower owner, and the ground owner, River Bend Development CT LLC.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2). Enclosed to accommodate this filing are construction drawings dated October 19, 2017 by ATC Tower Services, LLC, a structural analysis dated September 11, 2017 by Tower Engineering Professionals, Inc. and radio frequency (RF) analysis table showing worst-case RF emission calculation by Verizon Wireless RF Design Engineering.

1. The proposed modifications will not result in an increase in the height of the existing structure.

2. The proposed modifications will not require the extension of the site boundary.

3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.

4. The operation of the new antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.

5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.

6. The existing structure and its foundation can support the proposed loading, as shown in the attached structural analysis by Tower Engineering Professionals, Inc., dated September 11, 2017.

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

Sincerely,

Alex Murshteyn, Site Acquisition
c/o Cellco Partnership d/b/a Verizon Wireless
Centerline Communications, LLC
95 Ryan Drive, Suite 1
Raynham, MA 02767
Mobile: (508) 821-0159
AMurshteyn@centerlinecommunications.com

Attachments

cc: Suzette DeBeatham-Brown, Mayor, Town of Bloomfield - as elected official - 1Z9Y45030306985716
Jose Giner, Director, Planning and Zoning Department - as P&Z official - 1Z9Y45030304130722
American Tower Corporation - as tower owner - 1Z9Y45030310277732
River Bend Development CT LLC - as property owner - 1Z9Y45030305826747

AMERICAN TOWER®
CORPORATION

This report was prepared for American Tower Corporation by

TOWER ENGINEERING PROFESSIONALS

Structural Analysis Report

Structure	:	**109 ft Monopole**
ATC Site Name	:	**North Bloomfield CT, CT**
ATC Site Number	:	**283562**
Engineering Number	:	**OAA710465_C3_01**
Proposed Carrier	:	**Verizon**
Carrier Site Name	:	**North Bloomfield CT**
Carrier Site Number	:	**2552401**
Site Location	:	**Day Hill Road** **Bloomfield, CT 06002-1177** **41.876500,-72.741800**
County	:	**Hartford**
Date	:	**September 11, 2017**
Max Usage	:	**61%**
Result	:	**Pass**

Prepared By:
Warren B. Atkinson
TEP

Reviewed By:

STATE OF CONNECTICUT
GRAHAM M. ANDRES
29538
LICENSED
PROFESSIONAL ENGINEER

9/11/17

COA: PEC.0001553

Table of Contents

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 109 ft monopole to reflect the change in loading by Verizon.

Supporting Documents

Tower Drawings	Sabre Job #67167, dated October 15, 2012
Foundation Drawing	Sabre Job #67167, dated September 19, 2012
Geotechnical Report	DET Job #2011-20, dated January 28, 2012

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:	97 mph (3-Second Gust, V_{asd}) / 125 mph (3-Second Gust, V_{ult})
Basic Wind Speed w/ Ice:	50 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
Crest Height:	0 ft
Spectral Response:	Ss = 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					
109.0	110.0	3	Antel BXA-70063/6CF	T-Arms	(22) 1 5/8" Coax	Verizon
		6	Antel LPA-80063/6CF			
102.0	102.0	3	Ericsson RRUS 11 B2	T-Arms	(3) 1 5/8" (1.63") Fiber	T-Mobile
		3	Ericsson AIR 21 B4A B2P			
		3	Ericsson AIR 21, 1.3M, B2A B4P (91.5 lbs)			
		3	Commscope LNX-6515DS-VTM			

Equipment to be Removed

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
109.0	110.0	3	Antel LPA-171063-12CF-EDIN-X	-	(1) 1 5/8" Coax (1) 1 5/8" Hybriflex	Verizon
		6	Commscope HBX-6517DS-VTM			
		3	Alcatel-Lucent RRH2x40-AWS.			
		1	RFS DB-T1-6Z-8AB-0Z			

Proposed Equipment

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
109.0	110.0	3	Nokia AirScale RRH 4T4R B5 160W AHCA	T-Arms	(1) 1 1/4" Hybriflex (1) 1 5/8" Fiber	Verizon
		3	Alcatel-Lucent B25 RRH4x30			
		3	Alcatel-Lucent B13 RRH4x30-4R			
		3	Alcatel-Lucent B66A RRH 4x45			
		1	Raycap RC3DC-3315-PF-48			
		6	Commscope JAHH-65B-R3B			

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

Install proposed coax inside the pole shaft.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	54%	Pass
Shaft	61%	Pass
Base Plate	60%	Pass

Foundations

Reaction Component	Original Design Reactions	Factored Design Reactions*	Analysis Reactions	% of Design
Moment (Kips-Ft)	1,612.5	2,176.9	1,081.2	50%
Shear (Kips)	19.6	26.4	12.9	49%

*** 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) (°)
109.0	Nokia AirScale RRH 4T4R B5 160W AHCA	Verizon	0.909	0.823
	Alcatel-Lucent B25 RRH4x30			
	Alcatel-Lucent B13 RRH4x30-4R			
	Alcatel-Lucent B66A RRH 4x45			
	Raycap RC3DC-3315-PF-48			
	Commscope JAHH-65B-R3B			

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

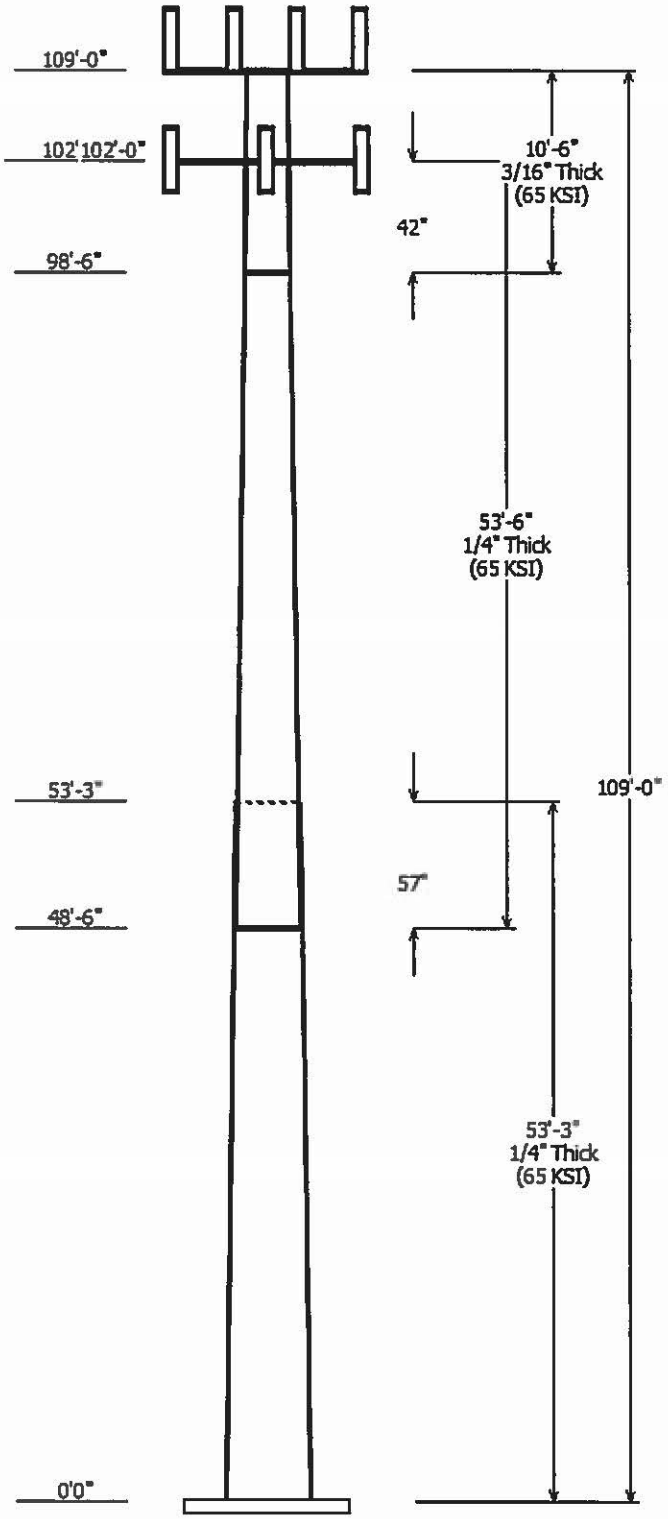
-- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.

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

It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and that their capacity has not significantly changed from the "as new" condition.

Unless explicitly agreed by both the client and American Tower Corporation, all services will be performed in accordance with the current revision of ANSI/TIA -222. The design basic wind speed will be determined based on the minimum basic wind speed as prescribed in ANSI/TIA-222. Although every effort is taken to ensure that the loading considered is adequate to meet the requirements of all applicable regulatory entities, we can provide no assurance to meet any other local and state codes or requirements. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes, the client shall specify the exact requirement.

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



Job Information

Pole :	283562	Code:	ANSI/TIA-222-G
Description :			
Client :	VERIZON WIRELESS	Struct Class :	II
Location :	NORTH BLOOMFIELD CT, CT		
Shape :	18 Sides	Exposure :	B
Height :	109.00 (ft)	Topo :	1
Base Elev (ft):	0.00		
Taper:	0.199954(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	53.250	32.27	42.92	0.250		0.000	0.200000	65
2	53.500	23.02	33.72	0.250	Slip Joint	57.000	0.200000	65
3	10.500	22.00	24.09	0.188	Slip Joint	42.000	0.200000	65

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
109.000	110.000	6	Commscope JAHH-65B-R3B
109.000	110.000	1	Raycap RC3DC-3315-PF-48
109.000	110.000	3	Alcatel-Lucent B66A RRH 4x45
109.000	110.000	3	Alcatel-Lucent B13 RRH4x30-4R
109.000	110.000	3	Alcatel-Lucent B25 RRH4x30
109.000	110.000	3	Nokia AirScale RRH 4T4R B5 160
109.000	110.000	6	Antel LPA-80063/6CF
109.000	109.000	3	Round T-Arm
109.000	110.000	3	Antel BXA-70063/6CF_
102.000	102.000	3	Round T-Arm
102.000	102.000	3	Commscope LNX-6515DS-VTM
102.000	102.000	3	Ericsson AIR 21, 1.3M, B2A B4P
102.000	102.000	3	Ericsson AIR 21 B4A B2P
102.000	102.000	3	Ericsson RRUS 11 B2

Linear Appurtenance

Elev (ft) From	To	Description	Exposed To Wind
0.000	102.0	1 5/8" (1.63",	No
0.000	109.0	1 1/4" Hybriflex	No
0.000	109.0	1 5/8" Coax	No
0.000	109.0	1 5/8" Fiber	No

Load Cases

1.2D + 1.6W	97 mph with No Ice
0.9D + 1.6W	97 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 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

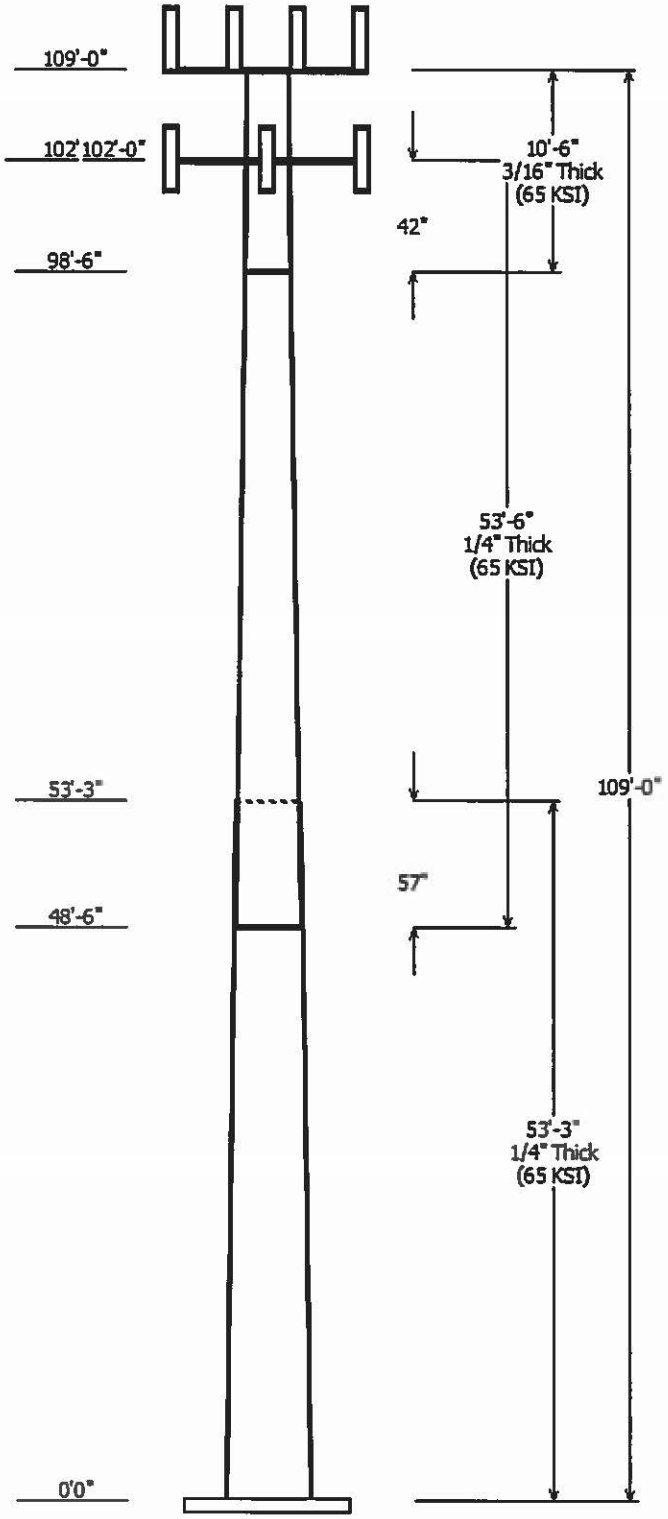
Reactions

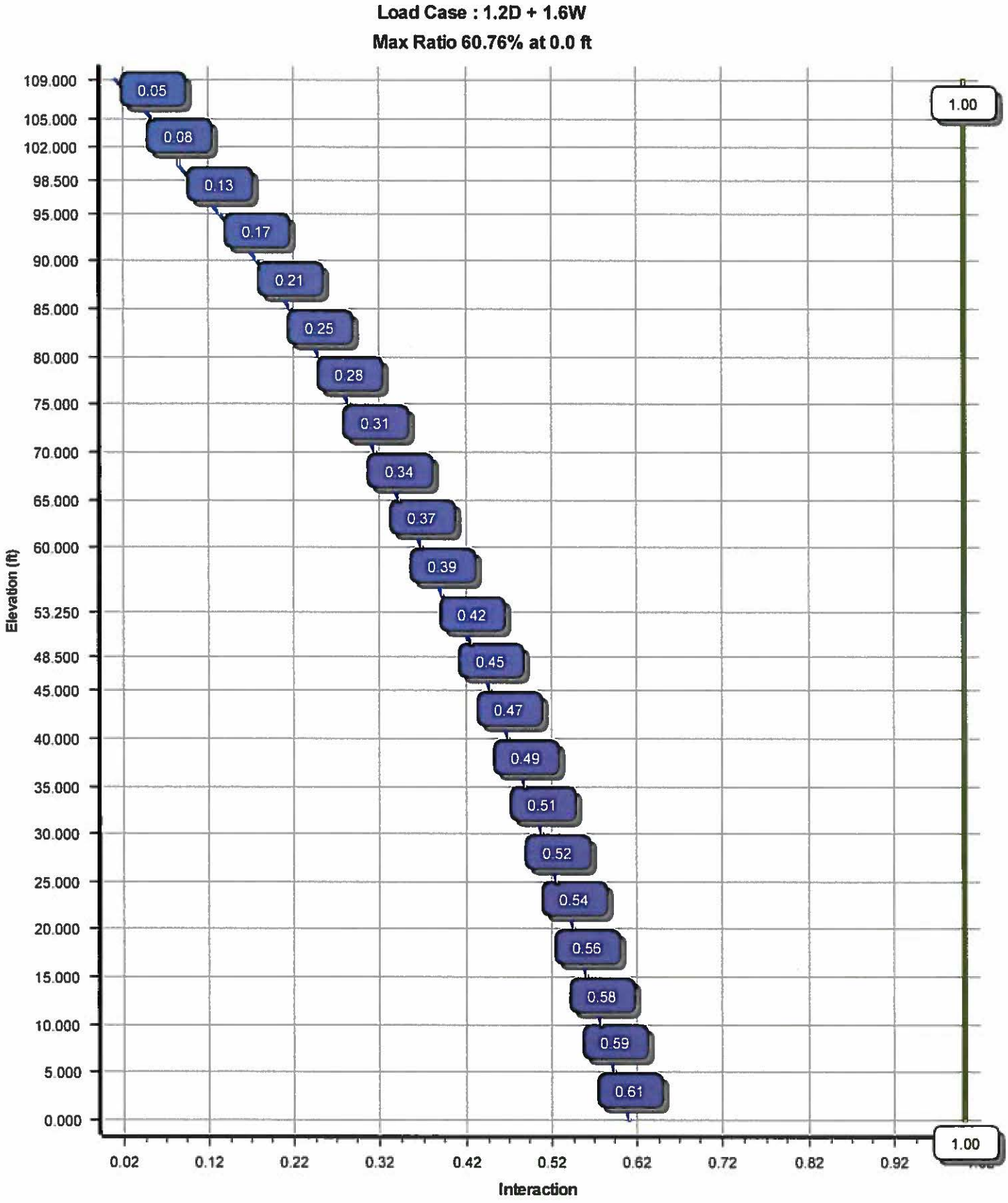
Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
1.2D + 1.6W	1081.21	12.87	19.49
0.9D + 1.6W	1072.41	12.86	14.61
1.2D + 1.0Di + 1.0Wi	311.30	3.76	37.86

(1.2 + 0.2Sds) * DL + E ELFM	75.95	0.84	19.27
(1.2 + 0.2Sds) * DL + E EMAM	142.82	1.48	19.27
(0.9 - 0.2Sds) * DL + E ELFM	75.23	0.84	13.41
(0.9 - 0.2Sds) * DL + E EMAM	141.38	1.48	13.41
1.0D + 1.0W	257.28	3.08	16.26

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 60.76% at 0.0 ft
109.000
105.000
102.000
98.500
95.000
90.000
85.000
80.000
75.000
70.000
65.000
60.000
53.250
48.500
45.000
40.000
35.000
30.000
25.000
20.000
15.000
10.000
5.000
0.000
Elevation (ft)
0.05
0.08
0.13
0.17
0.21
0.25
0.28
0.31
0.34
0.37
0.39
0.42
0.45
0.47
0.49
0.51
0.52
0.54
0.56
0.58
0.59
0.61
1.00
1.00
0.02
0.12
0.22
0.32
0.42
0.52
0.62
0.72
0.82
0.92
Interaction

Site Number: 283562 Code: ANSI/TIA-222-G
Site Name: NORTH BLOOMFIELD CT, CT Engineering Number:OAA710465_C3_01 9/11/2017 10:50:45 AM
Customer: VERIZON WIRELESS

Analysis Parameters

Location:	HARTFORD County, CT	Height (ft):	109
Code:	ANSI/TIA-222-G	Base Diameter (in):	42.92
Shape:	18 Sides	Top Diameter (in):	22.00
Pole Type:	Taper	Taper (in/ft) :	0.200
Pole Manfacturer:		Rotation (deg) :	0.00

Ice & Wind Parameters

Structure Class:	II	Design Wind Speed Without Ice:	97 mph
Exposure Category:	B	Design Wind Speed With Ice:	50 mph
Topographic Category:	1	Operational Wind Speed:	60 mph
Crest Height:	0.0 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): 1.72

T_L (sec):	6	p:	1.3	C_s:	0.040
S_s:	0.179	S_1:	0.064	C_s Max:	0.040
F_a:	1.600	F_v:	2.400	C_s Min:	0.030
S_{ds}:	0.191	S_{d1}:	0.102		

Load Cases

1.2D + 1.6W	97 mph with No Ice
0.9D + 1.6W	97 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 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: 283562 Code: ANSI/TIA-222-G

Site Name: NORTH BLOOMFIELD CT, CT Engineering Number:OAA710465_C3_01 9/11/2017 10:50:45 AM

Customer: VERIZON WIRELESS

Shaft Section Properties

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Slip Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom Dia (in)	Bottom Elev (ft)	Bottom Area (in²)	Bottom Ix (in⁴)	Bottom W/t Ratio	Bottom D/t Ratio	Top Dia (in)	Top Elev (ft)	Top Area (in²)	Top Ix (in⁴)	Top W/t Ratio	Top D/t Ratio	Taper (in/ft)
1-18	53.250	0.2500	65		0.00	5,369	42.92	0.00	33.86	7788.5	28.86	171.68	32.27	53.25	25.41	3291.9	21.35	129.09	0.199954
2-18	53.500	0.2500	65	Slip	57.00	4,062	33.72	48.50	26.56	3759.6	22.37	134.89	23.02	102.00	18.07	1184.2	14.83	92.10	0.199954
3-18	10.500	0.1875	65	Slip	42.00	486	24.10	98.50	14.23	1028.0	21.25	128.53	22.00	109.00	12.98	780.3	19.28	117.33	0.199954
				Shaft Weight		9,918													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	No Ice Weight (lb)	No Ice EPAa (sf)	No Ice Orientation Factor	Ice Weight (lb)	Ice EPAa (sf)	Ice Orientation Factor	Distance From Face (ft)	Vert Ecc (ft)
109.00	Alcatel-Lucent B13 RRH4x30-	3	57.80	2.140	0.67	169.14	2.964	0.67	0.000	1.000
109.00	Alcatel-Lucent B25 RRH4x30	3	53.00	2.120	0.67	154.54	2.949	0.67	0.000	1.000
109.00	Alcatel-Lucent B66A RRH	3	67.00	2.580	0.67	184.92	3.505	0.67	0.000	1.000
109.00	Antel BXA-70063/6CF_	3	17.00	7.570	0.65	199.67	11.133	0.65	0.000	1.000
109.00	Antel LPA-80063/6CF	6	27.00	9.590	0.76	414.05	11.374	0.76	0.000	1.000
109.00	Commscope JAHH-65B-R3B	6	60.60	9.110	0.69	372.69	10.876	0.69	0.000	1.000
109.00	Nokia AirScale RRH 4T4R B5	3	35.30	1.290	0.50	105.01	1.931	0.50	0.000	1.000
109.00	Raycap RC3DC-3315-PF-48	1	32.00	3.780	0.67	204.20	4.858	0.67	0.000	1.000
109.00	Round T-Arm	3	250.00	9.700	0.67	519.96	20.349	0.67	0.000	0.000
102.00	Commscope LNX-6515DS-	3	50.30	11.450	0.70	344.93	15.609	0.70	0.000	0.000
102.00	Ericsson AIR 21 B4A B2P	3	90.00	5.800	0.71	271.33	8.483	0.71	0.000	0.000
102.00	Ericsson AIR 21, 1.3M, B2A	3	91.50	6.040	0.70	278.48	8.796	0.70	0.000	0.000
102.00	Ericsson RRUS 11 B2	3	50.70	2.790	0.65	143.69	4.198	0.65	0.000	0.000
102.00	Round T-Arm	3	250.00	9.700	0.67	518.41	20.287	0.67	0.000	0.000
	Totals	46	3595.40		13,594.87			Number of Loadings :		14

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Diameter (in)	Coax Weight (lb/ft)	Flat	Projected Width (in)	Exposed To Wind	Carrier
0.00	109.00	1	1 1/4" Hybriflex Cable	1.54	1.00	N	0.00	N	Verizon
0.00	109.00	22	1 5/8" Coax	1.98	0.82	N	0.00	N	Verizon
0.00	109.00	1	1 5/8" Fiber	1.63	1.61	N	0.00	N	Verizon
0.00	102.00	3	1 5/8" (1.63", 41.3mm)	1.63	1.61	N	0.00	N	T-Mobile

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		0.2500	42.920	33.857	7,788.5	28.86	171.68	67.5	357.4	0.0	0.0
5.00		0.2500	41.920	33.064	7,253.7	28.16	167.68	68.3	340.8	0.0	569.3
10.00		0.2500	40.920	32.271	6,744.1	27.45	163.68	69.1	324.6	0.0	555.8
15.00		0.2500	39.921	31.478	6,258.8	26.75	159.68	69.9	308.8	0.0	542.3
20.00		0.2500	38.921	30.684	5,797.5	26.04	155.68	70.8	293.4	0.0	528.8
25.00		0.2500	37.921	29.891	5,359.3	25.34	151.68	71.6	278.4	0.0	515.3
30.00		0.2500	36.921	29.098	4,943.9	24.63	147.69	72.4	263.7	0.0	501.8
35.00		0.2500	35.922	28.304	4,550.4	23.93	143.69	73.3	249.5	0.0	488.3
40.00		0.2500	34.922	27.511	4,178.4	23.22	139.69	74.1	235.7	0.0	474.8
45.00		0.2500	33.922	26.718	3,827.3	22.51	135.69	74.9	222.2	0.0	461.3
48.50	Bot - Section 2	0.2500	33.222	26.163	3,593.6	22.02	132.89	75.5	213.1	0.0	314.9
50.00		0.2500	32.922	25.925	3,496.4	21.81	131.69	75.7	209.2	0.0	267.9
53.25	Top - Section 1	0.2500	32.772	25.806	3,448.5	21.70	131.09	75.9	207.3	0.0	572.1
55.00		0.2500	32.423	25.528	3,338.4	21.46	129.69	76.2	202.8	0.0	152.8
60.00		0.2500	31.423	24.735	3,036.8	20.75	125.69	77.0	190.3	0.0	427.6
65.00		0.2500	30.423	23.941	2,753.8	20.05	121.69	77.8	178.3	0.0	414.1
70.00		0.2500	29.423	23.148	2,489.1	19.34	117.69	78.7	166.6	0.0	400.6
75.00		0.2500	28.423	22.355	2,241.8	18.64	113.69	79.5	155.3	0.0	387.1
80.00		0.2500	27.424	21.562	2,011.5	17.93	109.69	80.3	144.5	0.0	373.6
85.00		0.2500	26.424	20.768	1,797.6	17.23	105.70	81.1	134.0	0.0	360.1
90.00		0.2500	25.424	19.975	1,599.4	16.52	101.70	82.0	123.9	0.0	346.6
95.00		0.2500	24.424	19.182	1,416.3	15.82	97.70	82.6	114.2	0.0	333.1
98.50	Bot - Section 3	0.2500	23.725	18.626	1,296.8	15.32	94.90	82.6	107.7	0.0	225.1
100.0		0.2500	23.425	18.388	1,247.7	15.11	93.70	82.6	104.9	0.0	166.6
102.0	Top - Section 2	0.1875	23.400	13.814	940.4	20.59	124.80	77.2	79.2	0.0	218.9
105.0		0.1875	22.800	13.457	869.3	20.03	121.60	77.8	75.1	0.0	139.2
109.0		0.1875	22.000	12.981	780.3	19.28	117.33	78.7	69.9	0.0	179.9
											9,918.0

Site Number: 283562 Code: ANSI/TIA-222-G

Site Name: NORTH BLOOMFIELD CT, CT Engineering Number:OAA710465_C3_01 9/11/2017 10:50:45 AM

Customer: VERIZON WIRELESS

Load Case: 1.2D + 1.6W 97 mph with No Ice 22 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 Wind FX (lb)	Shaft Forces Dead Load (lb)	Discrete Forces Wind FX (lb)	Discrete Forces Torsion MY (lb-ft)	Discrete Forces Moment MZ (lb-ft)	Discrete Forces Dead Load (lb)	Linear Forces Wind FX (lb)	Linear Forces Dead Load (lb)	Sum of Forces Wind FX (lb)	Sum of Forces Dead Load (lb)	Sum of Forces Torsion MY (lb-ft)	Sum of Forces Moment MZ (lb)
0.00		164.4	0.0					0.0	0.0	164.4	0.0	0.0	0.0
5.00		325.0	683.2					0.0	152.9	325.0	836.0	0.0	0.0
10.00		317.3	667.0					0.0	152.9	317.3	819.8	0.0	0.0
15.00		309.5	650.8					0.0	152.9	309.5	803.6	0.0	0.0
20.00		301.8	634.6					0.0	152.9	301.8	787.4	0.0	0.0
25.00		294.0	618.4					0.0	152.9	294.0	771.3	0.0	0.0
30.00		289.6	602.2					0.0	152.9	289.6	755.1	0.0	0.0
35.00		291.1	586.0					0.0	152.9	291.1	738.9	0.0	0.0
40.00		294.0	569.8					0.0	152.9	294.0	722.7	0.0	0.0
45.00		251.0	553.6					0.0	152.9	251.0	706.5	0.0	0.0
48.50	Bot - Section 2	148.5	377.9					0.0	107.0	148.5	484.9	0.0	0.0
50.00		142.5	321.5					0.0	45.9	142.5	367.3	0.0	0.0
53.25	Top - Section 1	149.9	686.5					0.0	99.4	149.9	785.9	0.0	0.0
55.00		201.5	183.4					0.0	53.5	201.5	236.9	0.0	0.0
60.00		297.1	513.1					0.0	152.9	297.1	666.0	0.0	0.0
65.00		294.3	496.9					0.0	152.9	294.3	649.8	0.0	0.0
70.00		290.8	480.7					0.0	152.9	290.8	633.6	0.0	0.0
75.00		286.5	464.5					0.0	152.9	286.5	617.4	0.0	0.0
80.00		281.5	448.3					0.0	152.9	281.5	601.2	0.0	0.0
85.00		276.0	432.1					0.0	152.9	276.0	585.0	0.0	0.0
90.00		270.0	415.9					0.0	152.9	270.0	568.8	0.0	0.0
95.00		224.8	399.7					0.0	152.9	224.8	552.6	0.0	0.0
98.50	Bot - Section 3	130.6	270.2					0.0	107.0	130.6	377.2	0.0	0.0
100.00		91.0	200.0					0.0	45.9	91.0	245.8	0.0	0.0
102.00	Top - Section 2	128.4	262.7	2,331.1	0.0	0.0	1,917.0	0.0	61.2	2,459.5	2,240.8	0.0	0.0
105.00		176.6	167.0					0.0	74.3	176.6	241.4	0.0	0.0
109.00	Appertunance(s)	100.0	215.9	4,340.3	0.0	3,743.8	2,397.5	0.0	99.1	4,440.2	2,712.5	0.0	0.0
									Totals:	12,999.0	19,508.3	0.00	0.00

Site Number: 283562 Code: ANSI/TIA-222-G

Site Name: NORTH BLOOMFIELD CT, CT Engineering Number:OAA710465_C3_01 9/11/2017 10:50:45 AM

Customer: VERIZON WIRELESS

Load Case: 1.2D + 1.6W — 97 mph with No Ice — 22 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	-19.49	-12.87	0.00	-1,081.21	0.00	1,081.21	2,055.47	1,027.73	3,611.06	1,808.21	0.00	0.00	0.608
5.00	-18.61	-12.60	0.00	-1,016.88	0.00	1,016.88	2,031.99	1,015.99	3,485.68	1,745.43	0.10	-0.19	0.592
10.00	-17.75	-12.34	0.00	-953.86	0.00	953.86	2,007.32	1,003.66	3,360.26	1,682.63	0.41	-0.38	0.576
15.00	-16.91	-12.08	0.00	-892.15	0.00	892.15	1,981.47	990.74	3,234.95	1,619.88	0.92	-0.58	0.559
20.00	-16.08	-11.83	0.00	-831.73	0.00	831.73	1,954.44	977.22	3,109.90	1,557.26	1.63	-0.78	0.542
25.00	-15.28	-11.57	0.00	-772.59	0.00	772.59	1,926.22	963.11	2,985.25	1,494.84	2.55	-0.97	0.525
30.00	-14.49	-11.32	0.00	-714.72	0.00	714.72	1,896.82	948.41	2,861.15	1,432.70	3.67	-1.17	0.507
35.00	-13.72	-11.06	0.00	-658.11	0.00	658.11	1,866.23	933.12	2,737.75	1,370.91	5.00	-1.37	0.488
40.00	-12.97	-10.79	0.00	-602.81	0.00	602.81	1,834.46	917.23	2,615.19	1,309.54	6.54	-1.56	0.468
45.00	-12.24	-10.56	0.00	-548.84	0.00	548.84	1,801.51	900.75	2,493.63	1,248.67	8.28	-1.76	0.446
48.50	-11.74	-10.41	0.00	-511.89	0.00	511.89	1,777.74	888.87	2,409.20	1,206.39	9.62	-1.90	0.431
50.00	-11.36	-10.28	0.00	-496.27	0.00	496.27	1,767.37	883.69	2,373.20	1,188.37	10.23	-1.96	0.424
53.25	-10.56	-10.12	0.00	-462.87	0.00	462.87	1,762.15	881.08	2,355.26	1,179.38	11.61	-2.08	0.399
55.00	-10.31	-9.93	0.00	-445.16	0.00	445.16	1,749.86	874.93	2,313.48	1,158.46	12.39	-2.15	0.390
60.00	-9.63	-9.64	0.00	-395.51	0.00	395.51	1,713.95	856.97	2,195.04	1,099.15	14.74	-2.33	0.366
65.00	-8.96	-9.34	0.00	-347.33	0.00	347.33	1,676.85	838.42	2,078.10	1,040.59	17.27	-2.51	0.339
70.00	-8.32	-9.05	0.00	-300.62	0.00	300.62	1,638.56	819.28	1,962.82	982.87	19.99	-2.67	0.311
75.00	-7.69	-8.75	0.00	-255.38	0.00	255.38	1,599.10	799.55	1,849.34	926.04	22.88	-2.83	0.281
80.00	-7.08	-8.46	0.00	-211.62	0.00	211.62	1,558.44	779.22	1,737.80	870.19	25.92	-2.98	0.248
85.00	-6.50	-8.17	0.00	-169.34	0.00	169.34	1,516.61	758.30	1,628.36	815.39	29.12	-3.12	0.212
90.00	-5.93	-7.88	0.00	-128.51	0.00	128.51	1,473.59	736.79	1,521.17	761.71	32.44	-3.23	0.173
95.00	-5.38	-7.63	0.00	-89.13	0.00	89.13	1,425.10	712.55	1,412.12	707.11	35.88	-3.33	0.130
98.50	-5.01	-7.48	0.00	-62.44	0.00	62.44	1,383.85	691.92	1,331.13	666.56	38.35	-3.38	0.097
100.00	-4.76	-7.37	0.00	-51.23	0.00	51.23	1,366.16	683.08	1,297.16	649.54	39.41	-3.40	0.082
102.00	-2.67	-4.79	0.00	-36.48	0.00	36.48	959.49	479.75	914.96	458.16	40.84	-3.42	0.083
105.00	-2.44	-4.60	0.00	-22.13	0.00	22.13	942.73	471.37	875.56	438.43	43.00	-3.44	0.053
109.00	0.00	-4.44	0.00	-3.74	0.00	3.74	919.72	459.86	823.73	412.48	45.89	-3.46	0.009

Site Number: 283562 Code: ANSI/TIA-222-G

Site Name: NORTH BLOOMFIELD CT, CT Engineering Number:OAA710465_C3_01 9/11/2017 10:50:45 AM

Customer: VERIZON WIRELESS

Load Case: 0.9D + 1.6W — 97 mph with No Ice (Reduced DL) — 22 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 Wind FX (lb)	Shaft Forces Dead Load (lb)	Discrete Forces Wind FX (lb)	Discrete Forces Torsion MY (lb-ft)	Discrete Forces Moment MZ (lb-ft)	Discrete Forces Dead Load (lb)	Linear Forces Wind FX (lb)	Linear Forces Dead Load (lb)	Sum of Forces Wind FX (lb)	Sum of Forces Dead Load (lb)	Sum of Forces Torsion MY (lb-ft)	Sum of Forces Moment MZ (lb)
0.00		164.4	0.0					0.0	0.0	164.4	0.0	0.0	0.0
5.00		325.0	512.4					0.0	114.7	325.0	627.0	0.0	0.0
10.00		317.3	500.2					0.0	114.7	317.3	614.9	0.0	0.0
15.00		309.5	488.1					0.0	114.7	309.5	602.7	0.0	0.0
20.00		301.8	475.9					0.0	114.7	301.8	590.6	0.0	0.0
25.00		294.0	463.8					0.0	114.7	294.0	578.4	0.0	0.0
30.00		289.6	451.6					0.0	114.7	289.6	566.3	0.0	0.0
35.00		291.1	439.5					0.0	114.7	291.1	554.1	0.0	0.0
40.00		294.0	427.3					0.0	114.7	294.0	542.0	0.0	0.0
45.00		251.0	415.2					0.0	114.7	251.0	529.9	0.0	0.0
48.50	Bot - Section 2	148.5	283.4					0.0	80.3	148.5	363.7	0.0	0.0
50.00		142.5	241.1					0.0	34.4	142.5	275.5	0.0	0.0
53.25	Top - Section 1	149.9	514.9					0.0	74.5	149.9	589.4	0.0	0.0
55.00		201.5	137.6					0.0	40.1	201.5	177.7	0.0	0.0
60.00		297.1	384.8					0.0	114.7	297.1	499.5	0.0	0.0
65.00		294.3	372.7					0.0	114.7	294.3	487.3	0.0	0.0
70.00		290.8	360.5					0.0	114.7	290.8	475.2	0.0	0.0
75.00		286.5	348.4					0.0	114.7	286.5	463.0	0.0	0.0
80.00		281.5	336.2					0.0	114.7	281.5	450.9	0.0	0.0
85.00		276.0	324.1					0.0	114.7	276.0	438.7	0.0	0.0
90.00		270.0	311.9					0.0	114.7	270.0	426.6	0.0	0.0
95.00		224.8	299.8					0.0	114.7	224.8	414.5	0.0	0.0
98.50	Bot - Section 3	130.6	202.6					0.0	80.3	130.6	282.9	0.0	0.0
100.00		91.0	150.0					0.0	34.4	91.0	184.4	0.0	0.0
102.00	Top - Section 2	128.4	197.0	2,331.1	0.0	0.0	1,437.7	0.0	45.9	2,459.5	1,680.6	0.0	0.0
105.00		176.6	125.3					0.0	55.8	176.6	181.0	0.0	0.0
109.00	Appertunance(s)	100.0	161.9	4,340.3	0.0	3,743.8	1,798.1	0.0	74.3	4,440.2	2,034.4	0.0	0.0
								Totals:		12,999.0	14,631.2	0.00	0.00

Site Number: 283562 Code: ANSI/TIA-222-G

Site Name: NORTH BLOOMFIELD CT, CT Engineering Number:OAA710465_C3_01 9/11/2017 10:50:46 AM

Customer: VERIZON WIRELESS

Load Case: 0.9D + 1.6W — 97 mph with No Ice (Reduced DL) — 22 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	-14.61	-12.86	0.00	-1,072.41	0.00	1,072.41	2,055.47	1,027.73	3,611.06	1,808.21	0.00	0.00	0.600
5.00	-13.94	-12.58	0.00	-1,008.12	0.00	1,008.12	2,031.99	1,015.99	3,485.68	1,745.43	0.10	-0.19	0.585
10.00	-13.29	-12.30	0.00	-945.22	0.00	945.22	2,007.32	1,003.66	3,360.26	1,682.63	0.40	-0.38	0.569
15.00	-12.65	-12.03	0.00	-883.70	0.00	883.70	1,981.47	990.74	3,234.95	1,619.88	0.91	-0.57	0.552
20.00	-12.02	-11.76	0.00	-823.54	0.00	823.54	1,954.44	977.22	3,109.90	1,557.26	1.61	-0.77	0.535
25.00	-11.41	-11.50	0.00	-764.72	0.00	764.72	1,926.22	963.11	2,985.25	1,494.84	2.52	-0.96	0.518
30.00	-10.81	-11.24	0.00	-707.22	0.00	707.22	1,896.82	948.41	2,861.15	1,432.70	3.64	-1.16	0.499
35.00	-10.22	-10.97	0.00	-651.04	0.00	651.04	1,866.23	933.12	2,737.75	1,370.91	4.95	-1.35	0.481
40.00	-9.65	-10.69	0.00	-596.19	0.00	596.19	1,834.46	917.23	2,615.19	1,309.54	6.48	-1.55	0.461
45.00	-9.10	-10.45	0.00	-542.72	0.00	542.72	1,801.51	900.75	2,493.63	1,248.67	8.20	-1.74	0.440
48.50	-8.72	-10.31	0.00	-506.13	0.00	506.13	1,777.74	888.87	2,409.20	1,206.39	9.53	-1.88	0.425
50.00	-8.44	-10.17	0.00	-490.67	0.00	490.67	1,767.37	883.69	2,373.20	1,188.37	10.13	-1.94	0.418
53.25	-7.84	-10.01	0.00	-457.61	0.00	457.61	1,762.15	881.08	2,355.26	1,179.38	11.50	-2.06	0.393
55.00	-7.64	-9.82	0.00	-440.09	0.00	440.09	1,749.86	874.93	2,313.48	1,158.46	12.27	-2.13	0.384
60.00	-7.13	-9.53	0.00	-390.98	0.00	390.98	1,713.95	856.97	2,195.04	1,099.15	14.59	-2.31	0.360
65.00	-6.63	-9.23	0.00	-343.34	0.00	343.34	1,676.85	838.42	2,078.10	1,040.59	17.10	-2.48	0.334
70.00	-6.14	-8.94	0.00	-297.17	0.00	297.17	1,638.56	819.28	1,962.82	982.87	19.79	-2.65	0.306
75.00	-5.67	-8.65	0.00	-252.48	0.00	252.48	1,599.10	799.55	1,849.34	926.04	22.65	-2.80	0.276
80.00	-5.21	-8.35	0.00	-209.25	0.00	209.25	1,558.44	779.22	1,737.80	870.19	25.66	-2.95	0.244
85.00	-4.77	-8.07	0.00	-167.48	0.00	167.48	1,516.61	758.30	1,628.36	815.39	28.82	-3.08	0.209
90.00	-4.34	-7.78	0.00	-127.15	0.00	127.15	1,473.59	736.79	1,521.17	761.71	32.12	-3.20	0.170
95.00	-3.93	-7.54	0.00	-88.24	0.00	88.24	1,425.10	712.55	1,412.12	707.11	35.52	-3.30	0.128
98.50	-3.65	-7.39	0.00	-61.86	0.00	61.86	1,383.85	691.92	1,331.13	666.56	37.96	-3.35	0.096
100.00	-3.47	-7.29	0.00	-50.76	0.00	50.76	1,366.16	683.08	1,297.16	649.54	39.01	-3.37	0.081
102.00	-1.94	-4.74	0.00	-36.18	0.00	36.18	959.49	479.75	914.96	458.16	40.43	-3.39	0.081
105.00	-1.77	-4.55	0.00	-21.96	0.00	21.96	942.73	471.37	875.56	438.43	42.56	-3.41	0.052
109.00	0.00	-4.44	0.00	-3.74	0.00	3.74	919.72	459.86	823.73	412.48	45.42	-3.42	0.009

Site Number: 283562 Code: ANSI/TIA-222-G

Site Name: NORTH BLOOMFIELD CT, CT Engineering Number:OAA710465_C3_01 9/11/2017 10:50:46 AM

Customer: VERIZON WIRELESS

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph with 1.00 in Radial Ice 21 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 Wind FX (lb)	Shaft Forces Dead Load (lb)	Discrete Forces Wind FX (lb)	Discrete Forces Torsion MY (lb-ft)	Discrete Forces Moment MZ (lb-ft)	Discrete Forces Dead Load (lb)	Linear Forces Wind FX (lb)	Linear Forces Dead Load (lb)	Sum of Forces Wind FX (lb)	Sum of Forces Dead Load (lb)	Sum of Forces Torsion MY (lb-ft)	Sum of Forces Moment MZ (lb)
0.00		54.0	0.0					0.0	0.0	54.0	0.0	0.0	0.0
5.00		107.3	1,103.8					0.0	152.9	107.3	1,256.7	0.0	0.0
10.00		105.5	1,127.6					0.0	152.9	105.5	1,280.4	0.0	0.0
15.00		103.5	1,125.1					0.0	152.9	103.5	1,278.0	0.0	0.0
20.00		101.4	1,114.1					0.0	152.9	101.4	1,267.0	0.0	0.0
25.00		99.2	1,098.7					0.0	152.9	99.2	1,251.5	0.0	0.0
30.00		98.2	1,080.4					0.0	152.9	98.2	1,233.2	0.0	0.0
35.00		99.1	1,060.1					0.0	152.9	99.1	1,213.0	0.0	0.0
40.00		100.5	1,038.4					0.0	152.9	100.5	1,191.3	0.0	0.0
45.00		86.1	1,015.6					0.0	152.9	86.1	1,168.5	0.0	0.0
48.50	Bot - Section 2	51.1	698.2					0.0	107.0	51.1	805.2	0.0	0.0
50.00		49.1	460.3					0.0	45.9	49.1	506.2	0.0	0.0
53.25	Top - Section 1	51.7	983.3					0.0	99.4	51.7	1,082.6	0.0	0.0
55.00		69.8	342.4					0.0	53.5	69.8	395.9	0.0	0.0
60.00		103.2	957.0					0.0	152.9	103.2	1,109.9	0.0	0.0
65.00		102.7	931.4					0.0	152.9	102.7	1,084.3	0.0	0.0
70.00		102.0	905.3					0.0	152.9	102.0	1,058.2	0.0	0.0
75.00		101.0	878.8					0.0	152.9	101.0	1,031.7	0.0	0.0
80.00		99.9	851.9					0.0	152.9	99.9	1,004.8	0.0	0.0
85.00		98.5	824.7					0.0	152.9	98.5	977.6	0.0	0.0
90.00		96.9	797.2					0.0	152.9	96.9	950.1	0.0	0.0
95.00		81.2	769.4					0.0	152.9	81.2	922.3	0.0	0.0
98.50	Bot - Section 3	47.4	523.4					0.0	107.0	47.4	630.4	0.0	0.0
100.00		33.1	309.1					0.0	45.9	33.1	355.0	0.0	0.0
102.00	Top - Section 2	46.8	406.2	615.4	0.0	0.0	4,291.6	0.0	61.2	662.2	4,759.0	0.0	0.0
105.00		64.7	377.9					0.0	74.3	64.7	452.2	0.0	0.0
109.00	Appertunance(s)	36.7	489.0	988.5	0.0	780.7	9,010.1	0.0	99.1	1,025.2	9,598.3	0.0	0.0
								Totals:		3,794.64	37,863.2	0.00	0.00

Load Case: 1.2D + 1.0Di + 1.0Wi — 50 mph with 1.00 in Radial Ice — 21 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	-37.86	-3.76	0.00	-311.30	0.00	311.30	2,055.47	1,027.73	3,611.06	1,808.21	0.00	0.00	0.191
5.00	-36.60	-3.69	0.00	-292.51	0.00	292.51	2,031.99	1,015.99	3,485.68	1,745.43	0.03	-0.06	0.186
10.00	-35.32	-3.61	0.00	-274.08	0.00	274.08	2,007.32	1,003.66	3,360.26	1,682.63	0.12	-0.11	0.180
15.00	-34.04	-3.54	0.00	-256.02	0.00	256.02	1,981.47	990.74	3,234.95	1,619.88	0.26	-0.17	0.175
20.00	-32.77	-3.47	0.00	-238.32	0.00	238.32	1,954.44	977.22	3,109.90	1,557.26	0.47	-0.22	0.170
25.00	-31.51	-3.39	0.00	-220.99	0.00	220.99	1,926.22	963.11	2,985.25	1,494.84	0.73	-0.28	0.164
30.00	-30.28	-3.32	0.00	-204.03	0.00	204.03	1,896.82	948.41	2,861.15	1,432.70	1.05	-0.34	0.158
35.00	-29.06	-3.24	0.00	-187.45	0.00	187.45	1,866.23	933.12	2,737.75	1,370.91	1.44	-0.39	0.152
40.00	-27.87	-3.16	0.00	-171.25	0.00	171.25	1,834.46	917.23	2,615.19	1,309.54	1.88	-0.45	0.146
45.00	-26.70	-3.08	0.00	-155.47	0.00	155.47	1,801.51	900.75	2,493.63	1,248.67	2.38	-0.50	0.139
48.50	-25.89	-3.04	0.00	-144.68	0.00	144.68	1,777.74	888.87	2,409.20	1,206.39	2.76	-0.54	0.134
50.00	-25.38	-3.00	0.00	-140.12	0.00	140.12	1,767.37	883.69	2,373.20	1,188.37	2.93	-0.56	0.132
53.25	-24.30	-2.94	0.00	-130.39	0.00	130.39	1,762.15	881.08	2,355.26	1,179.38	3.33	-0.60	0.124
55.00	-23.90	-2.88	0.00	-125.23	0.00	125.23	1,749.86	874.93	2,313.48	1,158.46	3.55	-0.61	0.122
60.00	-22.79	-2.79	0.00	-110.81	0.00	110.81	1,713.95	856.97	2,195.04	1,099.15	4.22	-0.66	0.114
65.00	-21.71	-2.69	0.00	-96.87	0.00	96.87	1,676.85	838.42	2,078.10	1,040.59	4.94	-0.71	0.106
70.00	-20.65	-2.59	0.00	-83.41	0.00	83.41	1,638.56	819.28	1,962.82	982.87	5.71	-0.76	0.097
75.00	-19.62	-2.49	0.00	-70.45	0.00	70.45	1,599.10	799.55	1,849.34	926.04	6.53	-0.80	0.088
80.00	-18.61	-2.39	0.00	-57.99	0.00	57.99	1,558.44	779.22	1,737.80	870.19	7.40	-0.84	0.079
85.00	-17.63	-2.29	0.00	-46.05	0.00	46.05	1,516.61	758.30	1,628.36	815.39	8.30	-0.88	0.068
90.00	-16.68	-2.18	0.00	-34.61	0.00	34.61	1,473.59	736.79	1,521.17	761.71	9.25	-0.91	0.057
95.00	-15.76	-2.09	0.00	-23.69	0.00	23.69	1,425.10	712.55	1,412.12	707.11	10.22	-0.94	0.045
98.50	-15.13	-2.04	0.00	-16.37	0.00	16.37	1,383.85	691.92	1,331.13	666.56	10.91	-0.95	0.035
100.00	-14.78	-2.00	0.00	-13.31	0.00	13.31	1,366.16	683.08	1,297.16	649.54	11.21	-0.96	0.031
102.00	-10.03	-1.26	0.00	-9.31	0.00	9.31	959.49	479.75	914.96	458.16	11.61	-0.96	0.031
105.00	-9.58	-1.19	0.00	-5.53	0.00	5.53	942.73	471.37	875.56	438.43	12.22	-0.97	0.023
109.00	0.00	-1.03	0.00	-0.78	0.00	0.78	919.72	459.86	823.73	412.48	13.04	-0.97	0.002

Site Number: 283562 Code: ANSI/TIA-222-G

Site Name: NORTH BLOOMFIELD CT, CT Engineering Number:OAA710465_C3_01 9/11/2017 10:50:46 AM

Customer: VERIZON WIRELESS

Load Case: 1.0D + 1.0W Serviceability 60 mph 21 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 Wind FX (lb)	Shaft Forces Dead Load (lb)	Discrete Forces Wind FX (lb)	Discrete Forces Torsion MY (lb-ft)	Discrete Forces Moment MZ (lb-ft)	Discrete Forces Dead Load (lb)	Linear Forces Wind FX (lb)	Linear Forces Dead Load (lb)	Sum of Forces Wind FX (lb)	Sum of Forces Dead Load (lb)	Sum of Forces Torsion MY (lb-ft)	Sum of Forces Moment MZ (lb)
0.00		39.3	0.0					0.0	0.0	39.3	0.0	0.0	0.0
5.00		77.7	569.3					0.0	127.4	77.7	696.7	0.0	0.0
10.00		75.9	555.8					0.0	127.4	75.9	683.2	0.0	0.0
15.00		74.0	542.3					0.0	127.4	74.0	669.7	0.0	0.0
20.00		72.2	528.8					0.0	127.4	72.2	656.2	0.0	0.0
25.00		70.3	515.3					0.0	127.4	70.3	642.7	0.0	0.0
30.00		69.3	501.8					0.0	127.4	69.3	629.2	0.0	0.0
35.00		69.6	488.3					0.0	127.4	69.6	615.7	0.0	0.0
40.00		70.3	474.8					0.0	127.4	70.3	602.2	0.0	0.0
45.00		60.0	461.3					0.0	127.4	60.0	588.7	0.0	0.0
48.50	Bot - Section 2	35.5	314.9					0.0	89.2	35.5	404.1	0.0	0.0
50.00		34.1	267.9					0.0	38.2	34.1	306.1	0.0	0.0
53.25	Top - Section 1	35.8	572.1					0.0	82.8	35.8	654.9	0.0	0.0
55.00		48.2	152.8					0.0	44.6	48.2	197.4	0.0	0.0
60.00		71.1	427.6					0.0	127.4	71.1	555.0	0.0	0.0
65.00		70.4	414.1					0.0	127.4	70.4	541.5	0.0	0.0
70.00		69.5	400.6					0.0	127.4	69.5	528.0	0.0	0.0
75.00		68.5	387.1					0.0	127.4	68.5	514.5	0.0	0.0
80.00		67.3	373.6					0.0	127.4	67.3	501.0	0.0	0.0
85.00		66.0	360.1					0.0	127.4	66.0	487.5	0.0	0.0
90.00		64.6	346.6					0.0	127.4	64.6	474.0	0.0	0.0
95.00		53.7	333.1					0.0	127.4	53.7	460.5	0.0	0.0
98.50	Bot - Section 3	31.2	225.1					0.0	89.2	31.2	314.3	0.0	0.0
100.00		21.8	166.6					0.0	38.2	21.8	204.9	0.0	0.0
102.00	Top - Section 2	30.7	218.9	557.5	0.0	0.0	1,597.5	0.0	51.0	588.2	1,867.3	0.0	0.0
105.00		42.2	139.2					0.0	61.9	42.2	201.1	0.0	0.0
109.00	Appertunance(s)	23.9	179.9	1,037.9	0.0	895.3	1,997.9	0.0	82.6	1,061.8	2,260.4	0.0	0.0
								Totals:		3,108.50	16,256.9	0.00	0.00

Site Number: 283562 Code: ANSI/TIA-222-G

Site Name: NORTH BLOOMFIELD CT, CT Engineering Number:OAA710465_C3_01 9/11/2017 10:50:47 AM

Customer: VERIZON WIRELESS

Load Case: 1.0D + 1.0W Serviceability 60 mph 21 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	-16.26	-3.08	0.00	-257.28	0.00	257.28	2,055.47	1,027.73	3,611.06	1,808.21	0.00	0.00	0.150
5.00	-15.56	-3.01	0.00	-241.90	0.00	241.90	2,031.99	1,015.99	3,485.68	1,745.43	0.02	-0.05	0.146
10.00	-14.87	-2.95	0.00	-226.85	0.00	226.85	2,007.32	1,003.66	3,360.26	1,682.63	0.10	-0.09	0.142
15.00	-14.20	-2.88	0.00	-212.13	0.00	212.13	1,981.47	990.74	3,234.95	1,619.88	0.22	-0.14	0.138
20.00	-13.54	-2.82	0.00	-197.72	0.00	197.72	1,954.44	977.22	3,109.90	1,557.26	0.39	-0.18	0.134
25.00	-12.90	-2.76	0.00	-183.63	0.00	183.63	1,926.22	963.11	2,985.25	1,494.84	0.61	-0.23	0.130
30.00	-12.27	-2.69	0.00	-169.85	0.00	169.85	1,896.82	948.41	2,861.15	1,432.70	0.87	-0.28	0.125
35.00	-11.65	-2.63	0.00	-156.38	0.00	156.38	1,866.23	933.12	2,737.75	1,370.91	1.19	-0.33	0.120
40.00	-11.04	-2.57	0.00	-143.23	0.00	143.23	1,834.46	917.23	2,615.19	1,309.54	1.55	-0.37	0.115
45.00	-10.45	-2.51	0.00	-130.40	0.00	130.40	1,801.51	900.75	2,493.63	1,248.67	1.97	-0.42	0.110
48.50	-10.05	-2.47	0.00	-121.61	0.00	121.61	1,777.74	888.87	2,409.20	1,206.39	2.29	-0.45	0.106
50.00	-9.74	-2.44	0.00	-117.90	0.00	117.90	1,767.37	883.69	2,373.20	1,188.37	2.43	-0.47	0.105
53.25	-9.09	-2.40	0.00	-109.97	0.00	109.97	1,762.15	881.08	2,355.26	1,179.38	2.76	-0.50	0.098
55.00	-8.89	-2.36	0.00	-105.76	0.00	105.76	1,749.86	874.93	2,313.48	1,158.46	2.95	-0.51	0.096
60.00	-8.33	-2.29	0.00	-93.97	0.00	93.97	1,713.95	856.97	2,195.04	1,099.15	3.50	-0.55	0.090
65.00	-7.79	-2.22	0.00	-82.52	0.00	82.52	1,676.85	838.42	2,078.10	1,040.59	4.11	-0.60	0.084
70.00	-7.26	-2.15	0.00	-71.43	0.00	71.43	1,638.56	819.28	1,962.82	982.87	4.75	-0.64	0.077
75.00	-6.75	-2.08	0.00	-60.69	0.00	60.69	1,599.10	799.55	1,849.34	926.04	5.44	-0.67	0.070
80.00	-6.25	-2.01	0.00	-50.30	0.00	50.30	1,558.44	779.22	1,737.80	870.19	6.16	-0.71	0.062
85.00	-5.76	-1.94	0.00	-40.26	0.00	40.26	1,516.61	758.30	1,628.36	815.39	6.92	-0.74	0.053
90.00	-5.28	-1.87	0.00	-30.56	0.00	30.56	1,473.59	736.79	1,521.17	761.71	7.71	-0.77	0.044
95.00	-4.82	-1.81	0.00	-21.20	0.00	21.20	1,425.10	712.55	1,412.12	707.11	8.53	-0.79	0.033
98.50	-4.51	-1.78	0.00	-14.86	0.00	14.86	1,383.85	691.92	1,331.13	666.56	9.12	-0.80	0.026
100.00	-4.30	-1.75	0.00	-12.19	0.00	12.19	1,366.16	683.08	1,297.16	649.54	9.37	-0.81	0.022
102.00	-2.45	-1.14	0.00	-8.69	0.00	8.69	959.49	479.75	914.96	458.16	9.71	-0.81	0.022
105.00	-2.24	-1.09	0.00	-5.27	0.00	5.27	942.73	471.37	875.56	438.43	10.22	-0.82	0.014
109.00	0.00	-1.06	0.00	-0.90	0.00	0.90	919.72	459.86	823.73	412.48	10.91	-0.82	0.002

Equivalent Lateral Forces Method Analysis

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

Spectral Response Acceleration for Short Period (S_s):	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 Coeffiecient 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):	0.04
Upper Limit C_s	0.04
Lower Limit C_s	0.03
Period based on Rayleigh Method (sec):	1.72
Redundancy Factor (p):	1.30
Seismic Force Distribution Exponent (k):	1.61
Total Unfactored Dead Load:	16.26 k
Seismic Base Shear (E):	0.84 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)
26	107.00	263	485	0.033	28	325
25	103.50	201	352	0.024	20	249
24	101.00	270	454	0.031	26	334
23	99.25	205	335	0.023	19	254
22	96.75	314	494	0.034	28	389
21	92.50	461	673	0.046	38	570
20	87.50	474	634	0.043	36	587
19	82.50	487	593	0.040	34	604
18	77.50	501	551	0.037	31	620
17	72.50	514	508	0.035	29	637
16	67.50	528	465	0.032	27	654
15	62.50	541	421	0.029	24	670
14	57.50	555	377	0.026	22	687
13	54.13	197	122	0.008	7	244
12	51.63	655	374	0.025	21	811
11	49.25	306	162	0.011	9	379
10	46.75	404	197	0.013	11	500
9	42.50	589	246	0.017	14	729
8	37.50	602	206	0.014	12	746
7	32.50	616	167	0.011	10	762
6	27.50	629	131	0.009	7	779
5	22.50	643	97	0.007	6	796
4	17.50	656	66	0.004	4	813

3	12.50	670	39	0.003	2	829
2	7.50	683	18	0.001	1	846
1	2.50	697	3	0.000	0	863
Nokia AirScale RRH 4	109.00	106	202	0.014	12	131
Alcatel-Lucent B25 R	109.00	159	303	0.021	17	197
Alcatel-Lucent B13 R	109.00	173	330	0.022	19	215
Alcatel-Lucent B66A	109.00	201	383	0.026	22	249
Raycap RC3DC-3315-PF	109.00	32	61	0.004	3	40
Antel BXA-70063/6CF_	109.00	51	97	0.007	6	63
Commscope JAHH-65B-R	109.00	364	692	0.047	39	450
Antel LPA-80063/6CF	109.00	162	308	0.021	18	201
Round T-Arm	109.00	750	1,428	0.097	81	929
Ericsson RRUS 11 B2	102.00	152	260	0.018	15	188
Ericsson AIR 21 B4A	102.00	270	462	0.031	26	334
Ericsson AIR 21, 1.3	102.00	275	470	0.032	27	340
Round T-Arm	102.00	750	1,283	0.087	73	929
Commscope LNX-6515DS	102.00	151	258	0.018	15	187
		16,257	14,708	1.000	839	20,129

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)
26	107.00	263	485	0.033	28	226
25	103.50	201	352	0.024	20	173
24	101.00	270	454	0.031	26	233
23	99.25	205	335	0.023	19	177
22	96.75	314	494	0.034	28	271
21	92.50	461	673	0.046	38	397
20	87.50	474	634	0.043	36	408
19	82.50	487	593	0.040	34	420
18	77.50	501	551	0.037	31	432
17	72.50	514	508	0.035	29	443
16	67.50	528	465	0.032	27	455
15	62.50	541	421	0.029	24	467
14	57.50	555	377	0.026	22	478
13	54.13	197	122	0.008	7	170
12	51.63	655	374	0.025	21	564
11	49.25	306	162	0.011	9	264
10	46.75	404	197	0.013	11	348
9	42.50	589	246	0.017	14	507
8	37.50	602	206	0.014	12	519
7	32.50	616	167	0.011	10	531
6	27.50	629	131	0.009	7	542
5	22.50	643	97	0.007	6	554
4	17.50	656	66	0.004	4	566
3	12.50	670	39	0.003	2	577
2	7.50	683	18	0.001	1	589
1	2.50	697	3	0.000	0	600
Nokia AirScale RRH 4	109.00	106	202	0.014	12	91
Alcatel-Lucent B25 R	109.00	159	303	0.021	17	137
Alcatel-Lucent B13 R	109.00	173	330	0.022	19	149
Alcatel-Lucent B66A	109.00	201	383	0.026	22	173
Raycap RC3DC-3315-PF	109.00	32	61	0.004	3	28
Antel BXA-70063/6CF_	109.00	51	97	0.007	6	44
Commscope JAHH-65B-R	109.00	364	692	0.047	39	313
Antel LPA-80063/6CF	109.00	162	308	0.021	18	140
Round T-Arm	109.00	750	1,428	0.097	81	646
Ericsson RRUS 11 B2	102.00	152	260	0.018	15	131
Ericsson AIR 21 B4A	102.00	270	462	0.031	26	233

Ericsson AIR 21, 1.3	102.00	275	470	0.032	27	237
Round T-Arm	102.00	750	1,283	0.087	73	646
Commscope LNX-6515DS	102.00	151	258	0.018	15	130
		16,257	14,708	1.000	839	14,010

Load Case (1.2 + 0.2Sds) * DL + E ELFM 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	-19.27	-0.84	0.00	-75.95	0.00	75.95	2,055.47	1,027.73	3,611.06	1,808.21	0.00	0.00	0.051
5.00	-18.42	-0.84	0.00	-71.75	0.00	71.75	2,031.99	1,015.99	3,485.68	1,745.43	0.01	-0.01	0.050
10.00	-17.59	-0.85	0.00	-67.53	0.00	67.53	2,007.32	1,003.66	3,360.26	1,682.63	0.03	-0.03	0.049
15.00	-16.78	-0.85	0.00	-63.30	0.00	63.30	1,981.47	990.74	3,234.95	1,619.88	0.06	-0.04	0.048
20.00	-15.98	-0.84	0.00	-59.07	0.00	59.07	1,954.44	977.22	3,109.90	1,557.26	0.11	-0.05	0.046
25.00	-15.20	-0.84	0.00	-54.85	0.00	54.85	1,926.22	963.11	2,985.25	1,494.84	0.18	-0.07	0.045
30.00	-14.44	-0.83	0.00	-50.66	0.00	50.66	1,896.82	948.41	2,861.15	1,432.70	0.26	-0.08	0.043
35.00	-13.69	-0.82	0.00	-46.50	0.00	46.50	1,866.23	933.12	2,737.75	1,370.91	0.35	-0.10	0.041
40.00	-12.97	-0.81	0.00	-42.39	0.00	42.39	1,834.46	917.23	2,615.19	1,309.54	0.46	-0.11	0.039
45.00	-12.46	-0.80	0.00	-38.34	0.00	38.34	1,801.51	900.75	2,493.63	1,248.67	0.59	-0.12	0.038
48.50	-12.09	-0.79	0.00	-35.54	0.00	35.54	1,777.74	888.87	2,409.20	1,206.39	0.68	-0.13	0.036
50.00	-11.27	-0.77	0.00	-34.36	0.00	34.36	1,767.37	883.69	2,373.20	1,188.37	0.72	-0.14	0.035
53.25	-11.03	-0.76	0.00	-31.85	0.00	31.85	1,762.15	881.08	2,355.26	1,179.38	0.82	-0.15	0.033
55.00	-10.34	-0.74	0.00	-30.52	0.00	30.52	1,749.86	874.93	2,313.48	1,158.46	0.88	-0.15	0.032
60.00	-9.67	-0.72	0.00	-26.81	0.00	26.81	1,713.95	856.97	2,195.04	1,099.15	1.04	-0.16	0.030
65.00	-9.02	-0.69	0.00	-23.22	0.00	23.22	1,676.85	838.42	2,078.10	1,040.59	1.22	-0.18	0.028
70.00	-8.38	-0.66	0.00	-19.77	0.00	19.77	1,638.56	819.28	1,962.82	982.87	1.41	-0.19	0.025
75.00	-7.76	-0.63	0.00	-16.46	0.00	16.46	1,599.10	799.55	1,849.34	926.04	1.61	-0.20	0.023
80.00	-7.16	-0.59	0.00	-13.31	0.00	13.31	1,558.44	779.22	1,737.80	870.19	1.82	-0.21	0.020
85.00	-6.57	-0.56	0.00	-10.34	0.00	10.34	1,516.61	758.30	1,628.36	815.39	2.04	-0.21	0.017
90.00	-6.00	-0.52	0.00	-7.56	0.00	7.56	1,473.59	736.79	1,521.17	761.71	2.27	-0.22	0.014
95.00	-5.61	-0.49	0.00	-4.97	0.00	4.97	1,425.10	712.55	1,412.12	707.11	2.51	-0.23	0.011
98.50	-5.36	-0.47	0.00	-3.26	0.00	3.26	1,383.85	691.92	1,331.13	666.56	2.68	-0.23	0.009
100.00	-5.02	-0.44	0.00	-2.56	0.00	2.56	1,366.16	683.08	1,297.16	649.54	2.75	-0.23	0.008
102.00	-2.80	-0.26	0.00	-1.68	0.00	1.68	959.49	479.75	914.96	458.16	2.85	-0.23	0.007
105.00	-2.47	-0.23	0.00	-0.91	0.00	0.91	942.73	471.37	875.56	438.43	2.99	-0.23	0.005
109.00	0.00	-0.22	0.00	0.00	0.00	0.00	919.72	459.86	823.73	412.48	3.19	-0.23	0.000

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	-13.41	-0.84	0.00	-75.23	0.00	75.23	2,055.47	1,027.73	3,611.06	1,808.21	0.00	0.00	0.048
5.00	-12.82	-0.84	0.00	-71.03	0.00	71.03	2,031.99	1,015.99	3,485.68	1,745.43	0.01	-0.01	0.047
10.00	-12.24	-0.84	0.00	-66.82	0.00	66.82	2,007.32	1,003.66	3,360.26	1,682.63	0.03	-0.03	0.046
15.00	-11.68	-0.84	0.00	-62.61	0.00	62.61	1,981.47	990.74	3,234.95	1,619.88	0.06	-0.04	0.045
20.00	-11.12	-0.84	0.00	-58.40	0.00	58.40	1,954.44	977.22	3,109.90	1,557.26	0.11	-0.05	0.043
25.00	-10.58	-0.83	0.00	-54.21	0.00	54.21	1,926.22	963.11	2,985.25	1,494.84	0.18	-0.07	0.042
30.00	-10.05	-0.82	0.00	-50.05	0.00	50.05	1,896.82	948.41	2,861.15	1,432.70	0.26	-0.08	0.040
35.00	-9.53	-0.81	0.00	-45.93	0.00	45.93	1,866.23	933.12	2,737.75	1,370.91	0.35	-0.10	0.039
40.00	-9.02	-0.80	0.00	-41.86	0.00	41.86	1,834.46	917.23	2,615.19	1,309.54	0.46	-0.11	0.037
45.00	-8.68	-0.79	0.00	-37.85	0.00	37.85	1,801.51	900.75	2,493.63	1,248.67	0.58	-0.12	0.035
48.50	-8.41	-0.78	0.00	-35.08	0.00	35.08	1,777.74	888.87	2,409.20	1,206.39	0.67	-0.13	0.034
50.00	-7.85	-0.76	0.00	-33.90	0.00	33.90	1,767.37	883.69	2,373.20	1,188.37	0.72	-0.14	0.033
53.25	-7.68	-0.75	0.00	-31.43	0.00	31.43	1,762.15	881.08	2,355.26	1,179.38	0.81	-0.15	0.031
55.00	-7.20	-0.73	0.00	-30.11	0.00	30.11	1,749.86	874.93	2,313.48	1,158.46	0.87	-0.15	0.030
60.00	-6.73	-0.71	0.00	-26.45	0.00	26.45	1,713.95	856.97	2,195.04	1,099.15	1.03	-0.16	0.028
65.00	-6.28	-0.68	0.00	-22.91	0.00	22.91	1,676.85	838.42	2,078.10	1,040.59	1.21	-0.17	0.026
70.00	-5.83	-0.65	0.00	-19.49	0.00	19.49	1,638.56	819.28	1,962.82	982.87	1.39	-0.18	0.023
75.00	-5.40	-0.62	0.00	-16.23	0.00	16.23	1,599.10	799.55	1,849.34	926.04	1.59	-0.19	0.021
80.00	-4.98	-0.59	0.00	-13.13	0.00	13.13	1,558.44	779.22	1,737.80	870.19	1.80	-0.20	0.018
85.00	-4.57	-0.55	0.00	-10.19	0.00	10.19	1,516.61	758.30	1,628.36	815.39	2.02	-0.21	0.016
90.00	-4.18	-0.51	0.00	-7.45	0.00	7.45	1,473.59	736.79	1,521.17	761.71	2.25	-0.22	0.013
95.00	-3.91	-0.48	0.00	-4.90	0.00	4.90	1,425.10	712.55	1,412.12	707.11	2.48	-0.22	0.010
98.50	-3.73	-0.46	0.00	-3.21	0.00	3.21	1,383.85	691.92	1,331.13	666.56	2.64	-0.23	0.008
100.00	-3.50	-0.43	0.00	-2.52	0.00	2.52	1,366.16	683.08	1,297.16	649.54	2.72	-0.23	0.006
102.00	-1.95	-0.25	0.00	-1.65	0.00	1.65	959.49	479.75	914.96	458.16	2.81	-0.23	0.006
105.00	-1.72	-0.22	0.00	-0.90	0.00	0.90	942.73	471.37	875.56	438.43	2.96	-0.23	0.004
109.00	0.00	-0.22	0.00	0.00	0.00	0.00	919.72	459.86	823.73	412.48	3.15	-0.23	0.000

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
Desing Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.10
Period Based on Rayleigh Method (sec):	1.72
Redundancy Factor (p):	1.30

Load Case (1.2 + 0.2Sds) * 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)
26	107.00	263	1.821	1.637	1.014	0.329	75	325
25	103.50	201	1.704	1.138	0.821	0.260	45	249
24	101.00	270	1.623	0.851	0.701	0.215	50	334
23	99.25	205	1.567	0.680	0.626	0.187	33	254
22	96.75	314	1.489	0.474	0.530	0.149	41	389
21	92.50	461	1.361	0.214	0.393	0.095	38	570
20	87.50	474	1.218	0.022	0.268	0.044	18	587
19	82.50	487	1.083	-0.079	0.176	0.010	4	604
18	77.50	501	0.955	-0.118	0.110	-0.011	-5	620
17	72.50	514	0.836	-0.118	0.065	-0.017	-8	637
16	67.50	528	0.725	-0.094	0.035	-0.012	-6	654
15	62.50	541	0.621	-0.061	0.017	0.000	0	670
14	57.50	555	0.526	-0.026	0.008	0.015	7	687
13	54.13	197	0.466	-0.004	0.006	0.025	4	244
12	51.63	655	0.424	0.010	0.006	0.031	17	811
11	49.25	306	0.386	0.022	0.007	0.035	9	379
10	46.75	404	0.348	0.033	0.009	0.039	14	500
9	42.50	589	0.287	0.048	0.013	0.044	22	729
8	37.50	602	0.224	0.060	0.020	0.045	24	746
7	32.50	616	0.168	0.066	0.028	0.045	24	762
6	27.50	629	0.120	0.070	0.034	0.043	23	779
5	22.50	643	0.081	0.072	0.040	0.041	23	796
4	17.50	656	0.049	0.071	0.042	0.039	22	813
3	12.50	670	0.025	0.066	0.039	0.036	21	829
2	7.50	683	0.009	0.053	0.031	0.029	17	846
1	2.50	697	0.001	0.024	0.013	0.014	8	863
Nokia AirScale RRH 4	109.00	106	1.890	1.980	1.140	0.371	34	131
Alcatel-Lucent B25 R	109.00	159	1.890	1.980	1.140	0.371	51	197
Alcatel-Lucent B13 R	109.00	173	1.890	1.980	1.140	0.371	56	215
Alcatel-Lucent B66A	109.00	201	1.890	1.980	1.140	0.371	65	249
Raycap RC3DC-3315-PF	109.00	32	1.890	1.980	1.140	0.371	10	40
Antel BXA-70063/6CF_	109.00	51	1.890	1.980	1.140	0.371	16	63
Commscope JAHH-65B-	109.00	364	1.890	1.980	1.140	0.371	117	450
Antel LPA-80063/6CF	109.00	162	1.890	1.980	1.140	0.371	52	201

Round T-Arm	109.00	750	1.890	1.980	1.140	0.371	241	929
Ericsson RRUS 11 B2	102.00	152	1.655	0.959	0.747	0.233	31	188
Ericsson AIR 21 B4A	102.00	270	1.655	0.959	0.747	0.233	54	334
Ericsson AIR 21, 1.3	102.00	275	1.655	0.959	0.747	0.233	55	340
Round T-Arm	102.00	750	1.655	0.959	0.747	0.233	151	929
Commscope LNX-	102.00	151	1.655	0.959	0.747	0.233	30	187
		16,257	43.402	27.729	19.050	6.234	1,488	20,129

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)
26	107.00	263	1.821	1.637	1.014	0.329	75	226
25	103.50	201	1.704	1.138	0.821	0.260	45	173
24	101.00	270	1.623	0.851	0.701	0.215	50	233
23	99.25	205	1.567	0.680	0.626	0.187	33	177
22	96.75	314	1.489	0.474	0.530	0.149	41	271
21	92.50	461	1.361	0.214	0.393	0.095	38	397
20	87.50	474	1.218	0.022	0.268	0.044	18	408
19	82.50	487	1.083	-0.079	0.176	0.010	4	420
18	77.50	501	0.955	-0.118	0.110	-0.011	-5	432
17	72.50	514	0.836	-0.118	0.065	-0.017	-8	443
16	67.50	528	0.725	-0.094	0.035	-0.012	-6	455
15	62.50	541	0.621	-0.061	0.017	0.000	0	467
14	57.50	555	0.526	-0.026	0.008	0.015	7	478
13	54.13	197	0.466	-0.004	0.006	0.025	4	170
12	51.63	655	0.424	0.010	0.006	0.031	17	564
11	49.25	306	0.386	0.022	0.007	0.035	9	264
10	46.75	404	0.348	0.033	0.009	0.039	14	348
9	42.50	589	0.287	0.048	0.013	0.044	22	507
8	37.50	602	0.224	0.060	0.020	0.045	24	519
7	32.50	616	0.168	0.066	0.028	0.045	24	531
6	27.50	629	0.120	0.070	0.034	0.043	23	542
5	22.50	643	0.081	0.072	0.040	0.041	23	554
4	17.50	656	0.049	0.071	0.042	0.039	22	566
3	12.50	670	0.025	0.066	0.039	0.036	21	577
2	7.50	683	0.009	0.053	0.031	0.029	17	589
1	2.50	697	0.001	0.024	0.013	0.014	8	600
Nokia AirScale RRH 4	109.00	106	1.890	1.980	1.140	0.371	34	91
Alcatel-Lucent B25 R	109.00	159	1.890	1.980	1.140	0.371	51	137
Alcatel-Lucent B13 R	109.00	173	1.890	1.980	1.140	0.371	56	149
Alcatel-Lucent B66A	109.00	201	1.890	1.980	1.140	0.371	65	173
Raycap RC3DC-3315-PF	109.00	32	1.890	1.980	1.140	0.371	10	28
Antel BXA-70063/6CF_	109.00	51	1.890	1.980	1.140	0.371	16	44
Commscope JAHH-65B-	109.00	364	1.890	1.980	1.140	0.371	117	313
Antel LPA-80063/6CF	109.00	162	1.890	1.980	1.140	0.371	52	140
Round T-Arm	109.00	750	1.890	1.980	1.140	0.371	241	646
Ericsson RRUS 11 B2	102.00	152	1.655	0.959	0.747	0.233	31	131
Ericsson AIR 21 B4A	102.00	270	1.655	0.959	0.747	0.233	54	233
Ericsson AIR 21, 1.3	102.00	275	1.655	0.959	0.747	0.233	55	237
Round T-Arm	102.00	750	1.655	0.959	0.747	0.233	151	646
Commscope LNX-	102.00	151	1.655	0.959	0.747	0.233	30	130
		16,257	43.402	27.729	19.050	6.234	1,488	14,010

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	-19.27	-1.48	0.00	-142.82	0.00	142.82	2,055.47	1,027.73	3,611.06	1,808.21	0.00	0.00	0.088
5.00	-18.42	-1.47	0.00	-135.40	0.00	135.40	2,031.99	1,015.99	3,485.68	1,745.43	0.01	-0.03	0.087
10.00	-17.59	-1.46	0.00	-128.04	0.00	128.04	2,007.32	1,003.66	3,360.26	1,682.63	0.05	-0.05	0.085
15.00	-16.78	-1.45	0.00	-120.73	0.00	120.73	1,981.47	990.74	3,234.95	1,619.88	0.12	-0.08	0.083
20.00	-15.98	-1.43	0.00	-113.51	0.00	113.51	1,954.44	977.22	3,109.90	1,557.26	0.22	-0.10	0.081
25.00	-15.20	-1.41	0.00	-106.36	0.00	106.36	1,926.22	963.11	2,985.25	1,494.84	0.34	-0.13	0.079
30.00	-14.44	-1.39	0.00	-99.31	0.00	99.31	1,896.82	948.41	2,861.15	1,432.70	0.49	-0.16	0.077
35.00	-13.69	-1.37	0.00	-92.35	0.00	92.35	1,866.23	933.12	2,737.75	1,370.91	0.67	-0.19	0.075
40.00	-12.96	-1.35	0.00	-85.48	0.00	85.48	1,834.46	917.23	2,615.19	1,309.54	0.88	-0.21	0.072
45.00	-12.46	-1.34	0.00	-78.71	0.00	78.71	1,801.51	900.75	2,493.63	1,248.67	1.12	-0.24	0.070
48.50	-12.08	-1.34	0.00	-74.01	0.00	74.01	1,777.74	888.87	2,409.20	1,206.39	1.31	-0.26	0.068
50.00	-11.27	-1.32	0.00	-72.00	0.00	72.00	1,767.37	883.69	2,373.20	1,188.37	1.39	-0.27	0.067
53.25	-11.03	-1.31	0.00	-67.72	0.00	67.72	1,762.15	881.08	2,355.26	1,179.38	1.58	-0.29	0.064
55.00	-10.34	-1.31	0.00	-65.42	0.00	65.42	1,749.86	874.93	2,313.48	1,158.46	1.69	-0.30	0.062
60.00	-9.67	-1.31	0.00	-58.89	0.00	58.89	1,713.95	856.97	2,195.04	1,099.15	2.02	-0.33	0.059
65.00	-9.01	-1.31	0.00	-52.35	0.00	52.35	1,676.85	838.42	2,078.10	1,040.59	2.37	-0.35	0.056
70.00	-8.38	-1.32	0.00	-45.78	0.00	45.78	1,638.56	819.28	1,962.82	982.87	2.75	-0.38	0.052
75.00	-7.75	-1.32	0.00	-39.17	0.00	39.17	1,599.10	799.55	1,849.34	926.04	3.16	-0.40	0.047
80.00	-7.15	-1.32	0.00	-32.55	0.00	32.55	1,558.44	779.22	1,737.80	870.19	3.59	-0.42	0.042
85.00	-6.56	-1.30	0.00	-25.95	0.00	25.95	1,516.61	758.30	1,628.36	815.39	4.05	-0.44	0.036
90.00	-5.99	-1.26	0.00	-19.46	0.00	19.46	1,473.59	736.79	1,521.17	761.71	4.52	-0.46	0.030
95.00	-5.60	-1.22	0.00	-13.16	0.00	13.16	1,425.10	712.55	1,412.12	707.11	5.01	-0.48	0.023
98.50	-5.35	-1.18	0.00	-8.91	0.00	8.91	1,383.85	691.92	1,331.13	666.56	5.37	-0.48	0.017
100.00	-5.02	-1.13	0.00	-7.14	0.00	7.14	1,366.16	683.08	1,297.16	649.54	5.52	-0.49	0.015
102.00	-2.79	-0.74	0.00	-4.88	0.00	4.88	959.49	479.75	914.96	458.16	5.73	-0.49	0.014
105.00	-2.47	-0.66	0.00	-2.66	0.00	2.66	942.73	471.37	875.56	438.43	6.03	-0.49	0.009
109.00	0.00	-0.64	0.00	0.00	0.00	0.00	919.72	459.86	823.73	412.48	6.45	-0.49	0.000

Load Case (0.9 - 0.2Sds) * DL + E EMAM Seismic (Reduced DL) 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	-13.41	-1.48	0.00	-141.38	0.00	141.38	2,055.47	1,027.73	3,611.06	1,808.21	0.00	0.00	0.085
5.00	-12.82	-1.47	0.00	-133.98	0.00	133.98	2,031.99	1,015.99	3,485.68	1,745.43	0.01	-0.03	0.083
10.00	-12.24	-1.45	0.00	-126.63	0.00	126.63	2,007.32	1,003.66	3,360.26	1,682.63	0.05	-0.05	0.081
15.00	-11.68	-1.44	0.00	-119.35	0.00	119.35	1,981.47	990.74	3,234.95	1,619.88	0.12	-0.08	0.080
20.00	-11.12	-1.42	0.00	-112.17	0.00	112.17	1,954.44	977.22	3,109.90	1,557.26	0.21	-0.10	0.078
25.00	-10.58	-1.40	0.00	-105.07	0.00	105.07	1,926.22	963.11	2,985.25	1,494.84	0.34	-0.13	0.076
30.00	-10.05	-1.38	0.00	-98.08	0.00	98.08	1,896.82	948.41	2,861.15	1,432.70	0.49	-0.16	0.074
35.00	-9.53	-1.36	0.00	-91.19	0.00	91.19	1,866.23	933.12	2,737.75	1,370.91	0.67	-0.18	0.072
40.00	-9.02	-1.34	0.00	-84.40	0.00	84.40	1,834.46	917.23	2,615.19	1,309.54	0.87	-0.21	0.069
45.00	-8.67	-1.33	0.00	-77.71	0.00	77.71	1,801.51	900.75	2,493.63	1,248.67	1.11	-0.24	0.067
48.50	-8.41	-1.32	0.00	-73.06	0.00	73.06	1,777.74	888.87	2,409.20	1,206.39	1.29	-0.26	0.065
50.00	-7.84	-1.30	0.00	-71.08	0.00	71.08	1,767.37	883.69	2,373.20	1,188.37	1.37	-0.27	0.064
53.25	-7.67	-1.30	0.00	-66.86	0.00	66.86	1,762.15	881.08	2,355.26	1,179.38	1.56	-0.29	0.061
55.00	-7.19	-1.29	0.00	-64.59	0.00	64.59	1,749.86	874.93	2,313.48	1,158.46	1.67	-0.30	0.060
60.00	-6.73	-1.29	0.00	-58.14	0.00	58.14	1,713.95	856.97	2,195.04	1,099.15	1.99	-0.32	0.057
65.00	-6.27	-1.30	0.00	-51.69	0.00	51.69	1,676.85	838.42	2,078.10	1,040.59	2.34	-0.35	0.053
70.00	-5.83	-1.30	0.00	-45.21	0.00	45.21	1,638.56	819.28	1,962.82	982.87	2.72	-0.37	0.050
75.00	-5.39	-1.31	0.00	-38.69	0.00	38.69	1,599.10	799.55	1,849.34	926.04	3.12	-0.40	0.045
80.00	-4.97	-1.30	0.00	-32.15	0.00	32.15	1,558.44	779.22	1,737.80	870.19	3.55	-0.42	0.040
85.00	-4.57	-1.28	0.00	-25.64	0.00	25.64	1,516.61	758.30	1,628.36	815.39	4.00	-0.44	0.034
90.00	-4.17	-1.24	0.00	-19.23	0.00	19.23	1,473.59	736.79	1,521.17	761.71	4.47	-0.46	0.028
95.00	-3.90	-1.20	0.00	-13.02	0.00	13.02	1,425.10	712.55	1,412.12	707.11	4.96	-0.47	0.021
98.50	-3.72	-1.17	0.00	-8.81	0.00	8.81	1,383.85	691.92	1,331.13	666.56	5.30	-0.48	0.016
100.00	-3.49	-1.11	0.00	-7.06	0.00	7.06	1,366.16	683.08	1,297.16	649.54	5.45	-0.48	0.013
102.00	-1.94	-0.73	0.00	-4.83	0.00	4.83	959.49	479.75	914.96	458.16	5.66	-0.48	0.013
105.00	-1.72	-0.66	0.00	-2.63	0.00	2.63	942.73	471.37	875.56	438.43	5.96	-0.49	0.008
109.00	0.00	-0.64	0.00	0.00	0.00	0.00	919.72	459.86	823.73	412.48	6.37	-0.49	0.000

Analysis Summary

Load Case	Reactions Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Max Usage Elev (ft)	Interaction Ratio
1.2D + 1.6W	12.87	0.00	19.49	0.00	0.00	1081.21	0.00	0.61
0.9D + 1.6W	12.86	0.00	14.61	0.00	0.00	1072.41	0.00	0.60
1.2D + 1.0Di + 1.0Wi	3.76	0.00	37.86	0.00	0.00	311.30	0.00	0.19
(1.2 + 0.2Sds) * DL + E ELFM	0.84	0.00	19.27	0.00	0.00	75.95	0.00	0.05
(1.2 + 0.2Sds) * DL + E EMAM	1.48	0.00	19.27	0.00	0.00	142.82	0.00	0.09
(0.9 - 0.2Sds) * DL + E ELFM	0.84	0.00	13.41	0.00	0.00	75.23	0.00	0.05
(0.9 - 0.2Sds) * DL + E EMAM	1.48	0.00	13.41	0.00	0.00	141.38	0.00	0.08
1.0D + 1.0W	3.08	0.00	16.26	0.00	0.00	257.28	0.00	0.15

Site Number:	283562	*Last Updated:*	*9/1/2017*
Site Name:	North Bloomfield CT, CT		
Job Number:	OAA710465		
Engineer:	Warren.Atkinson		
Date:	9/11/2017		

Base Plate and Bolt Analysis

Moment:	1081.2	k-ft
Shear/Leg:	12.9	k
Compression/Leg:	19.5	k

TIA-222 Code Revision (F/G):	G	
Anchor Bolt Arrangement:	Corners	
Monopole Shaft Diameter (Across Flats):	42.9	in
Lower Monopole Thickness:	0.250	in
# of Sides of Pole:	18	
Monopole Shaft Yield Strength:	65	ksi
Baseplate Diameter / Length:	46.75	
Base Plate Thickness:	2.00	in
Base Plate Yield Strength:	50	ksi
Baseplate Detail Type:	D	
Include Plate Thickness Beyond Bolt Circle:	Y	
Stress Increase:	1.00	
Fillet Weld Size:	0.313	in
Weld Type (CJP or F/F):	CJP	
Weld Strength:	70	ksi

Anchor Bolts

Anchor Bolt Yield Strength:	75	ksi
Anchor Bolt Ultimate Strength:	100	ksi
Anchor Bolt Diameter:	2.25	in
Anchor Bolt Circle:	48.75	in
# of Anchor Bolts:	8	
Minimum Anchor Bolt Separation:	6.00	in
Additional Anchor Bolts Installed:	N	

	Baseplate Flexural Capacity					Baseplate Shear Capacity			
Failure Mode:	Effective Width (in)	Moment (k-in)	S/Z (in^3)	Capacity (k-in)	Usage	Shear (k)	Area (in^4)	Capacity (k)	Usage
AA	25.84	644.9	25.8	1163.0	**0.55**	268.8	51.7	1395.6	**0.19**
BA	27.12	733.9	27.1	1220.3	**0.60**	268.8	54.2	1464.4	**0.18**

Anchor Bolt Capacity

Area of Bolt:	3.25	in^2
Inertia of Bolt:	0.84	in^4
Total Bolt Inertia:	7725.0	in^4
Maximum Bolt Tension:	130.5	k
Maximum Bolt Compression:	135.4	k
Bolt Shear:	1.6	k
Tensile Bolt Capacity:	259.8	k
Compressive Bolt Capacity:	259.8	k
Shear Bolt Capacity:	140.3	k
Interaction Equation:	**0.54**	Result: OK

Base Weld Capacity

Force / Weld:	7.1	k/in
Weld Capacity:	19.8	k/in
Interaction Equation:	**0.36**	Result: OK

Site Name: North Bloomfield, CT
Cumulative Power Density

Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density	Maximum Permissable Exposure*	Fraction of MPE
	(MHz)		(watts)	(watts)	(feet)	(mW/cm^2)	(mW/cm^2)	(%)
VZW PCS	1970	1	5000	5000	110	0.1486	1.0	14.86%
VZW Cellular LTE	869	1	3050	3050	110	0.0906	0.579333333	15.65%
VZW Cellular	869	3	389	1167	110	0.0347	0.579333333	5.99%
VZW AWS	2145	1	7400	7400	110	0.2199	1.0	21.99%
VZW 700	746	1	2200	2200	110	0.0654	0.497333333	13.15%
Total Percentage of Maximum Permissible Exposure								71.63%

*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Section 1.13101 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-1992

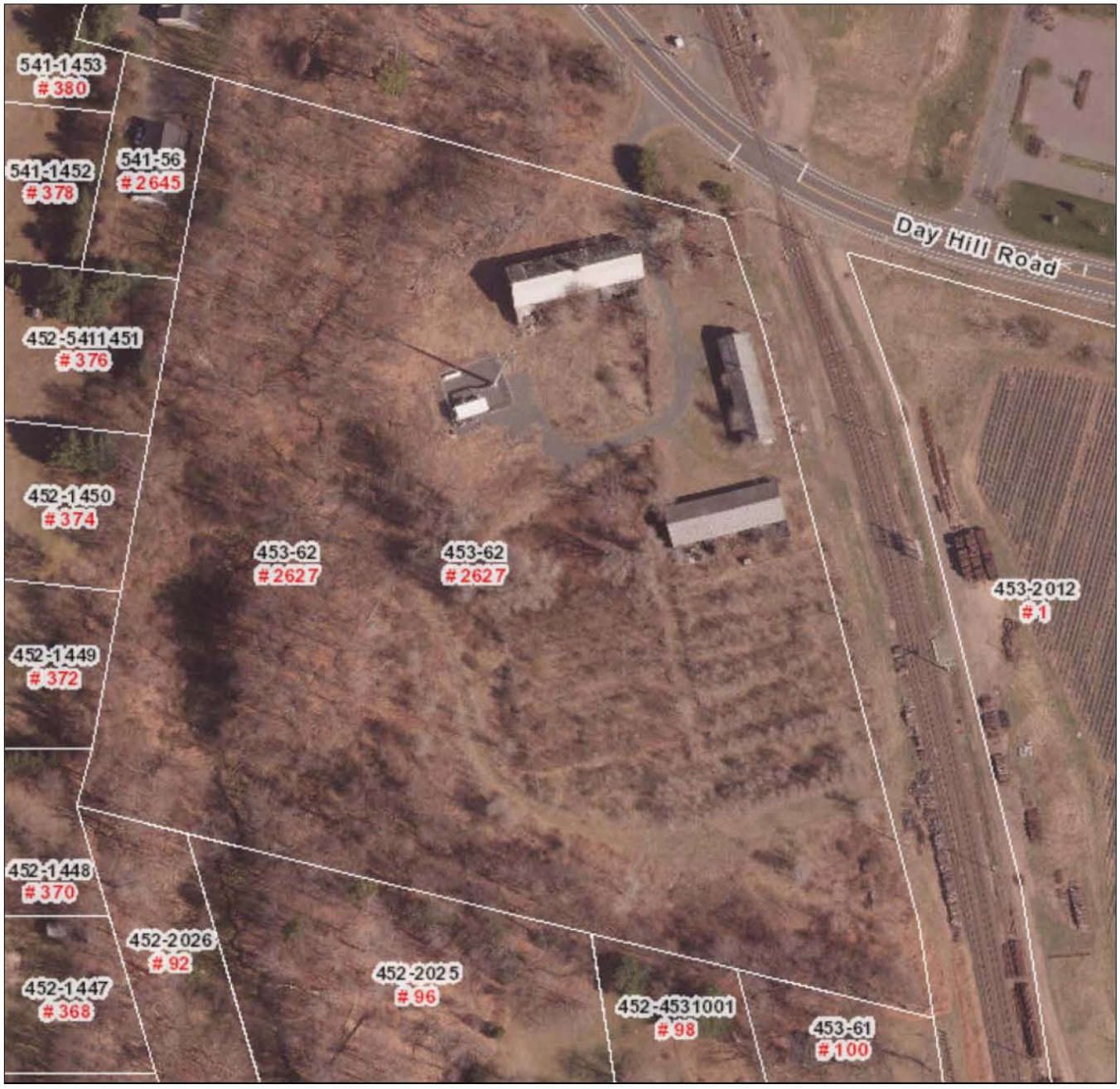
MHz = Megahertz
mW/cm^2 = milliwatts per square centimeter
ERP = Effective Radiated Power

Absolute worst case maximum values used, including the following assumptions:
1. closest accessible point is distance from antenna to base of pole;
2. continuous transmission from all available channels at full power for indefinite time period; and,
3. all RF energy is assumed to be directed solely to the base of the pole.

Town of Bloomfield

Geographic Information System (GIS)

Date Printed: 12/5/2017



MAP DISCLAIMER - NOTICE OF LIABILITY

This map is for assessment purposes only. It is not for legal description or conveyances. All information is subject to verification by any user. The Town of Bloomfield and its mapping contractors assume no legal responsibility for the information contained herein.

Approximate Scale: 1 inch = 150 feet

0 150 Feet

N W E S

Town of Bloomfield, CT

Property Listing Report

Map Block Lot 453-62 Account R05814

Property Information

Property Location	2627 DAY HILL RD
Owner	RIVER BEND DEVELOPMENT CT LLC
Co-Owner	% GRIFFIN INDUSTRIAL REALTY INC
Mailing Address	204 WEST NEWBERRY ROAD BLOOMFIELD CT 06002
Land Use	717 Woodland
Land Class	S
Zoning Code	R-40
Census Tract	
Sub Lot	

Neighborhood	
Acreage	11.8
Utilities	
Lot Setting/Desc	
Survey Map	
Foundation	

Photo

Sketch

Primary Construction Details

Year Built		Bedrooms		Exterior Walls	
Stories		Full Bathrooms		Interior Walls	
Building Style		Half Bathrooms		Heating Type	
Building Use		Bath Style		Heating Fuel	
Building Condition		Kitchen Style		AC Type	
Floors		Roof Style		Gross Bldg Area	
Total Rooms		Roof Cover		Total Living Area	

Report Created On 12/5/2017

Town of Bloomfield, CT

Property Listing Report | Map Block Lot 453-62 | Account R05814

Valuation Summary

(Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
Buildings		
Extras		
Outbuildings		
Land		
Total		

Outbuilding and Extra Items

Type	Description
Barn	4392 S.F.
Shed	2900 S.F.
Shed	1600 S.F.

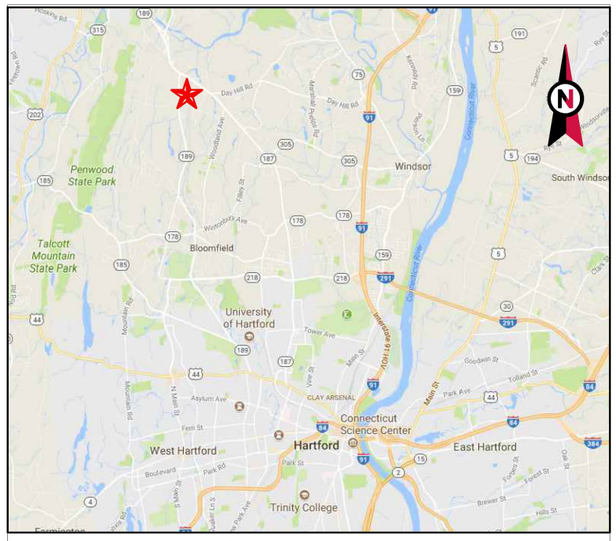
Sub Areas

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
Total Area		0

Sales History

Owner of Record	Book/ Page	Sale Date	Sale Price
RIVER BEND DEVELOPMENT CT LLC	1737/ 22	7/12/2013	
RIVER BEND ASSOCIATES INC	737/ 25		0

Report Created On 12/5/2017



VICINITY MAP

AMERICAN TOWER®

ATC SITE NAME: NORTH BLOOMFIELD CT
ATC SITE NUMBER: 283562
VERIZON SITE NAME: NORTH BLOOMFIELD CT
SITE ADDRESS: DAY HILL ROAD BLOOMFIELD, CT 06002

VERIZON WIRELESS
ANTENNA AMENDMENT DRAWINGS

LOCATION MAP

COMPLIANCE CODE

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

1. INTERNATIONAL BUILDING CODE (IBC)
2. NATIONAL ELECTRIC CODE (NEC)
3. LOCAL BUILDING CODE
4. CITY/COUNTY ORDINANCES

PROJECT SUMMARY

SITE ADDRESS:

DAY HILL ROAD

BLOOMFIELD, CT 06002

COUNTY: HARTFORD

GEOGRAPHIC COORDINATES:

LATITUDE: 41.87650

LONGITUDE: -72.74183

GROUND ELEVATION: 207' AMSL

PROJECT DESCRIPTION

THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:

REMOVE (6) PANELS, AND (3) RRUs

INSTALL (6) NEW PANELS, (12) RRUs, (1) 1-1/4" HYBRID CABLES, AND (1) OVPs

EXISTING (6) PANELS, (22) 1-5/8" COAX CABLES, (1) 1-1/4" HYBRID CABLES TO REMAIN

PROJECT NOTES

1. THE FACILITY IS UNMANNED.
2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE.
3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE.
4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED.
5. HANDICAP ACCESS IS NOT REQUIRED.

PROJECT LOCATION DIRECTIONS

FROM HARTFORD, CT:

TAKE I-91 NORTH TOWARD SPRINGFIELD MA. TAKE EXIT 36 CT-178 TOWARD BLOOMFIELD. TURN LEFT ONTO CT-178. TURN RIGHT ONTO BLUE HILLS AVE CT-187. TURN LEFT ONT DAY HILL ROAD. SITE IS ON LEFT JUST PAST RR TRACKS

UTILITY COMPANIES

POWER COMPANY: CONNECTICUT LIGHT & POWER
PHONE: (888) 783-6617

TELEPHONE COMPANY: FRONTIER COMMUNICATIONS
PHONE: (800) 921-8102

811 Know what's below. Call before you dig.

PROJECT TEAM

TOWER OWNER:

AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

ENGINEER:

ATC TOWER SERVICES, LLC
3500 REGENCY PKWY STE 100
CARY, NC 27518

PROPERTY OWNER:

RIVER BEND ASSOCIATED, INC.
204 WEST NEWBERRY ROAD
BLOOMFIELD, CT 06002

APPLICANT:

VERIZON WIRELESS
99 EAST RIVER DRIVE, 9TH FLOOR
EAST HARTFORD, CT 06108

SHEET INDEX

SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
G-001	COVER SHEET	0	10/19/17	KL
G-002	GENERAL NOTES	0	10/19/17	KL
C-101	DETAILED SITE PLAN AND TOWER ELEVATION	0	10/19/17	KL
C-501	RF SCHEDULE AND ANTENNA INSTALLATION	0	10/19/17	KL
C-502	CONSTRUCTION DETAILS	0	10/19/17	KL

AMERICAN TOWER®
ATC TOWER SERVICES
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: 6260F

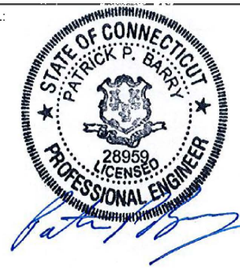
REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	KL	10/19/17

ATC SITE NUMBER:
283562

ATC SITE NAME:
NORTH BLOOMFIELD CT

SITE ADDRESS:
DAY HILL ROAD
BLOOMFIELD, CT 06002

SEAL:



Oct 20 2017 9:29 AM cosign

verizon

DRAWN BY:	KL
APPROVED BY:	KRF
DATE DRAWN:	10/19/17
ATC JOB NO:	12157423
CUSTOMER ID:	NORTH BLOOMFIELD CT

COVER SHEET

SHEET NUMBER:	REVISION:
G-001	0

GENERAL CONSTRUCTION NOTES:

1. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC MASTER SPECIFICATIONS.
2. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
4. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
5. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
6. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
7. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
9. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
10. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE VERIZON WIRELESS REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE VERIZON WIRELESS REP PRIOR TO PROCEEDING.
11. EACH CONTRACTOR SHALL COOPERATE WITH THE VERIZON WIRELESS REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
12. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE VERIZON WIRELESS CONSTRUCTION MANAGER.
13. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
14. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE VERIZON WIRELESS REP IMMEDIATELY.
15. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
16. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
17. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH LANDLORD AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
18. CONTRACTOR SHALL FURNISH VERIZON WIRELESS WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
19. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON WIRELESS REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.
20. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON WIRELESS REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY VERIZON WIRELESS MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
21. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH VERIZON WIRELESS SPECIFICATIONS AND REQUIREMENTS.
22. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO VERIZON WIRELESS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
23. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO VERIZON WIRELESS SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
24. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
25. CONTRACTOR SHALL NOTIFY VERIZON WIRELESS REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
26. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
27. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
28. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE VERIZON WIRELESS REP. ANY WORK FOUND BY THE VERIZON WIRELESS REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
29. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS."
2. STRUCTURAL STEEL ROLLED SHAPES, PLATES AND BARS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS:
   A. ASTM A-572, GRADE 50 - ALL W SHAPES, UNLESS NOTED OR A992 OTHERWISE
   B. ASTM A-36 - ALL OTHER ROLLED SHAPES, PLATES AND BARS UNLESS NOTED OTHERWISE.
   C. ASTM A-500, GRADE B - HSS SECTION (SQUARE, RECTANGULAR, AND ROUND)
   D. ASTM A-325, TYPE SC OR N - ALL BOLTS FOR CONNECTING STRUCTURAL MEMBERS
   E. ASTM F-1554 07 - ALL ANCHOR BOLTS, UNLESS NOTED OTHERWISE
3. ALL EXPOSED STRUCTURAL STEEL MEMBERS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123. EXPOSED STEEL HARDWARE AND ANCHOR BOLTS SHALL BE GALVANIZED PER ASTM A153 OR B695.
4. ALL FIELD CUT SURFACES, FIELD DRILLED HOLES AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.
5. DO NOT DRILL HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
6. CONNECTIONS:
   A. ALL WELDING TO BE PERFORMED BY AWS CERTIFIED WELDERS AND CONDUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1.
   B. ALL WELDS SHALL BE INSPECTED VISUALLY. 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. REPAIR ALL WELDS AS NECESSARY.
   C. INSPECTION SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
   D. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE BURNING/WELDING PERMITS AS REQUIRED BY LOCAL GOVERNING AUTHORITY AND IF REQUIRED SHALL HAVE FIRE DEPARTMENT DETAIL FOR ANY WELDING ACTIVITY.
   E. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNLESS NOTED OTHERWISE.
   F. MINIMUM WELD SIZE TO BE 0.1875 INCH FILLET WELDS, UNLESS NOTED OTHERWISE.
   G. PRIOR TO FIELD WELDING GALVANIZING MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING ½" BEYOND ALL FIELD WELD SURFACES. AFTER WELD AND WELD INSPECTION IS COMPLETE, REPAIR ALL GROUND AND WELDED SURFACES WITH ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS RECOMMENDATIONS.

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ATC TOWER SERVICES
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SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: 6260F

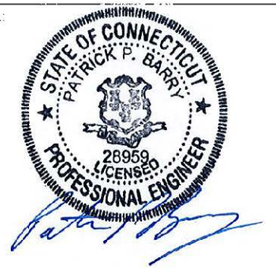
REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	KL	10/19/17

ATC SITE NUMBER:
283562

ATC SITE NAME:
NORTH BLOOMFIELD CT

SITE ADDRESS:
DAY HILL ROAD
BLOOMFIELD, CT 06002

SEAL:



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DRAWN BY:	KL
APPROVED BY:	KRF
DATE DRAWN:	10/19/17
ATC JOB NO:	12157423
CUSTOMER ID:	NORTH BLOOMFIELD CT

GENERAL NOTES

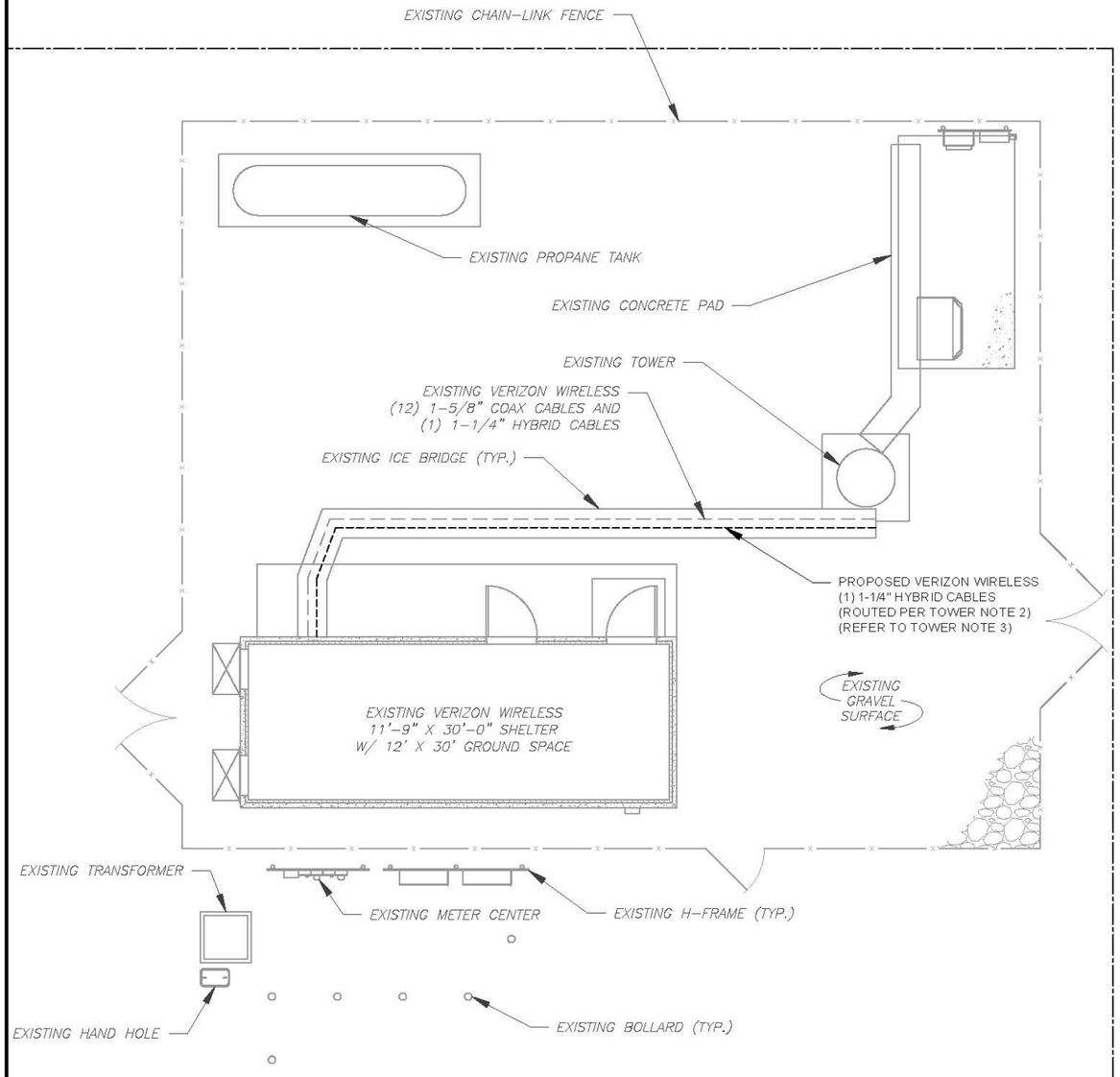
SHEET NUMBER:	REVISION:
G-002	0

SITE PLAN NOTES:

1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.

2. ICE BRIDGE, CABLE LADDER, COAX PORT, CABLE SUPPORTS, AND CABLES ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE INSTALLING NEW CABLE SUPPORT STRUCTURES, COAX PORTS, OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.

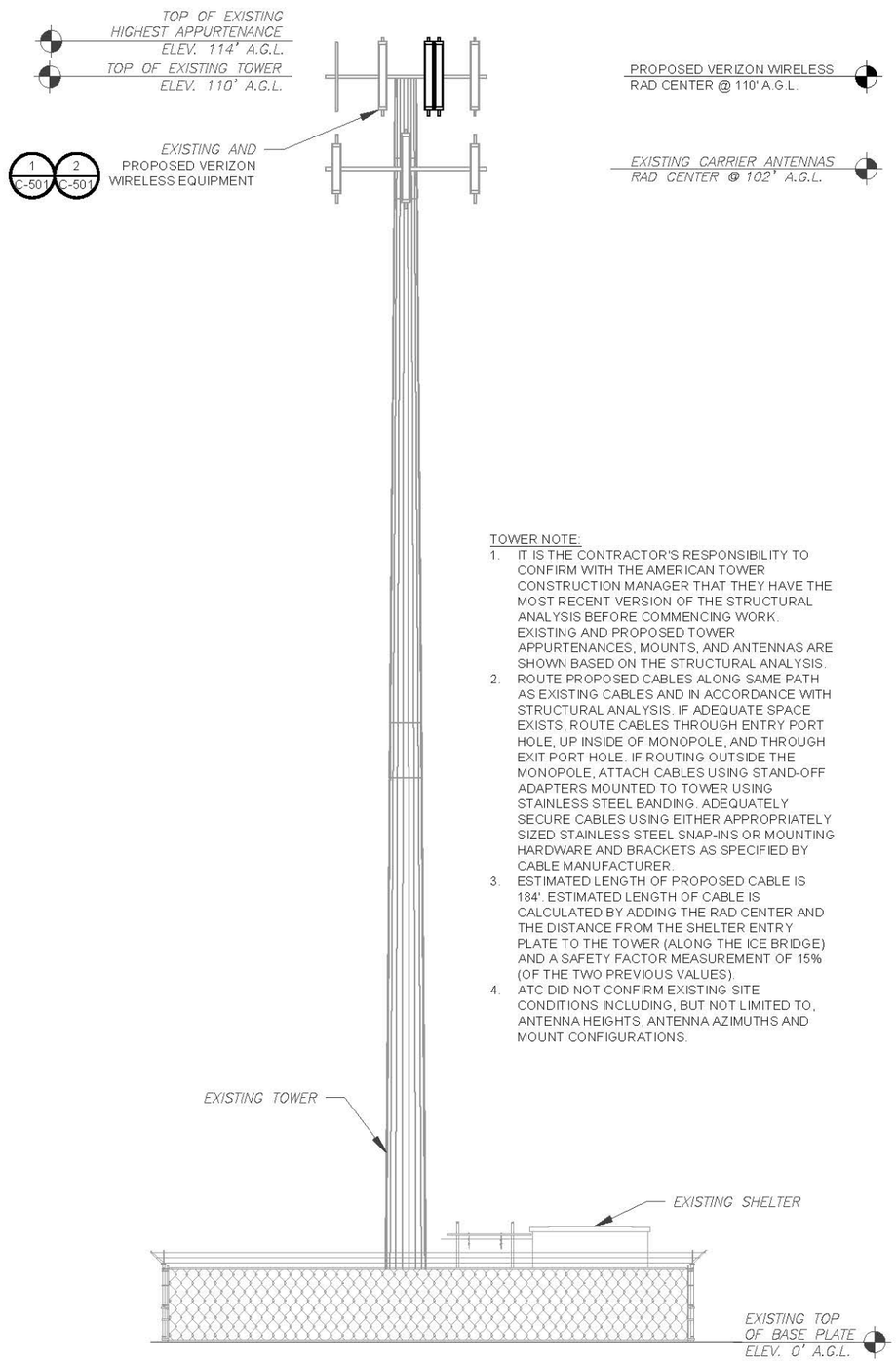
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE ATC CONSTRUCTION MANAGER AND LOCAL UTILITY COMPANY FOR THE INSTALLATION OF CONDUITS, CONDUCTORS, BREAKERS, DISCONNECTS, OR ANY OTHER EQUIPMENT REQUIRED FOR ELECTRICAL SERVICE. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE STATE AND NATIONAL CODES, ORDINANCES AND REGULATIONS APPLICABLE TO THIS PROJECT.



1 DETAILED SITE PLAN

0 10' 20'

SCALE: 1"=10' (11X17)
1"=5' (22X34)



TOWER NOTE:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE AMERICAN TOWER CONSTRUCTION MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
2. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. IF ADEQUATE SPACE EXISTS, ROUTE CABLES THROUGH ENTRY PORT HOLE, UP INSIDE OF MONOPOLE, AND THROUGH EXIT PORT HOLE. IF ROUTING OUTSIDE THE MONOPOLE, ATTACH CABLES USING STAND-OFF ADAPTERS MOUNTED TO TOWER USING STAINLESS STEEL BANDING. ADEQUATELY SECURE CABLES USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER.
3. ESTIMATED LENGTH OF PROPOSED CABLE IS 184'. ESTIMATED LENGTH OF CABLE IS CALCULATED BY ADDING THE RAD CENTER AND THE DISTANCE FROM THE SHELTER ENTRY PLATE TO THE TOWER (ALONG THE ICE BRIDGE) AND A SAFETY FACTOR MEASUREMENT OF 15% (OF THE TWO PREVIOUS VALUES).
4. ATC DID NOT CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO, ANTENNA HEIGHTS, ANTENNA AZIMUTHS AND MOUNT CONFIGURATIONS.

2 TOWER ELEVATION

SCALE: NOT TO SCALE

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3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: 6260F

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	KL	10/19/17

ATC SITE NUMBER:

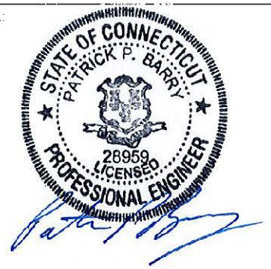
283562

ATC SITE NAME:

NORTH BLOOMFIELD CT

SITE ADDRESS:
DAY HILL ROAD
BLOOMFIELD, CT 06002

SEAL:



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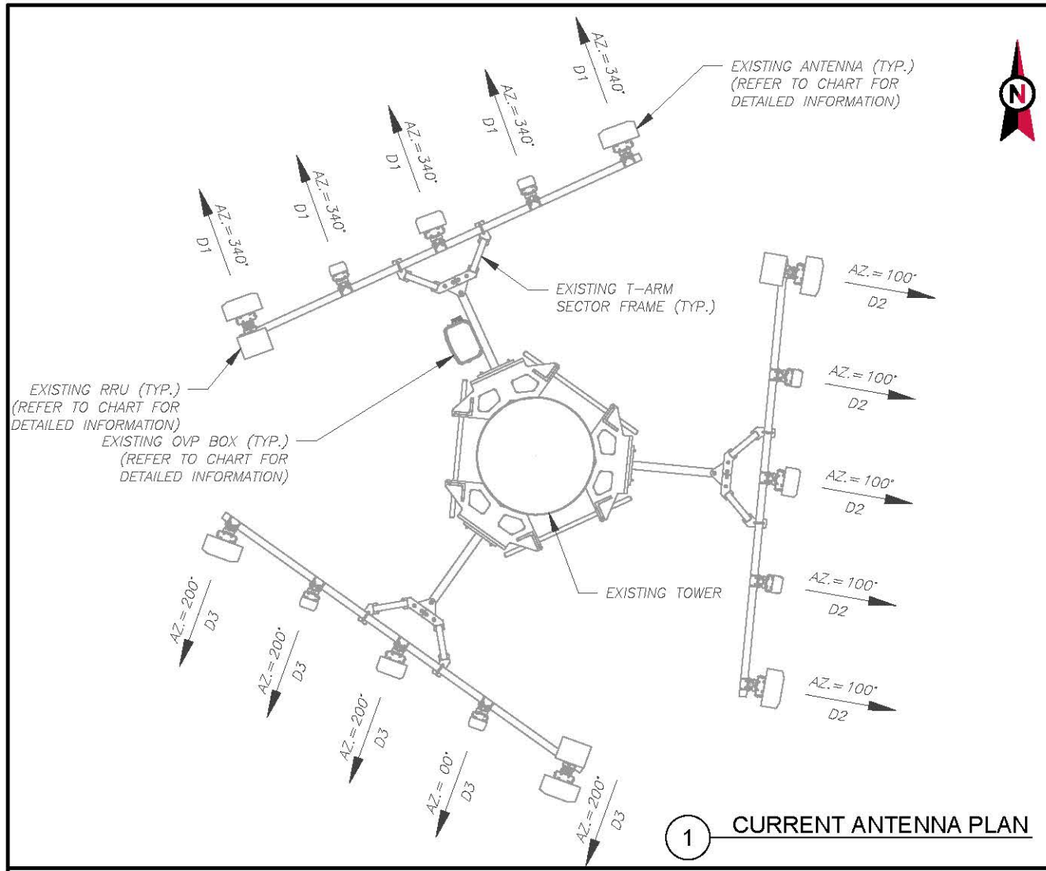
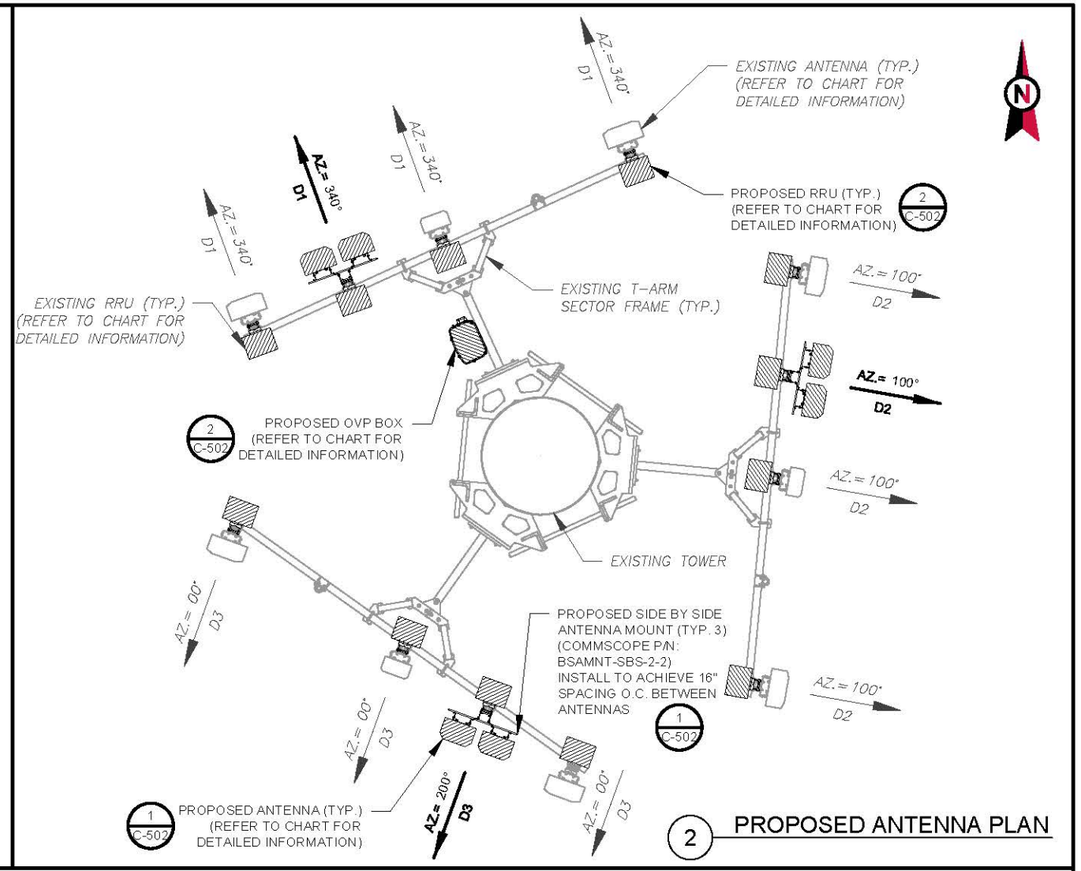
DRAWN BY:	KL
APPROVED BY:	KRF
DATE DRAWN:	10/19/17
ATC JOB NO:	12157423
CUSTOMER ID:	NORTH BLOOMFIELD CT

DETAILED SITE PLAN AND TOWER ELEVATION

SHEET NUMBER:	REVISION:
C-101	0



1 CURRENT ANTENNA PLAN



2 PROPOSED ANTENNA PLAN

CURRENT ANTENNA AND RF EQUIPMENT SCHEDULE

LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY		
SECTOR	RAD	AZ	POS	BAND	MODEL NUMBER	STATUS	POS	MODEL NUMBER	STATUS
D1	110'	340°	1	850 CDMA	LPA-80063/6CF	RMN	1	RRH2x40-AWS	RMV
			2	2100 LTE	HBX-6517DS-VTM	RMV	2	–	–
			3	–	BXA-70063/6CF_	RMN	3	–	–
			4	2100 LTE	HBX-6517DS-VTM	RMV	4	–	–
			5	850 CDMA	LPA-80063/6CF	RMN	5	–	–
D2	110'	100°	1	850 CDMA	LPA-80063/6CF	RMN	1	RRH2x40-AWS	RMV
			2	2100 LTE	HBX-6517DS-VTM	RMV	2	–	–
			3	–	BXA-70063/6CF_	RMN	3	–	–
			4	–	HBX-6517DS-VTM	RMV	4	–	–
			5	850 CDMA	LPA-80063/6CF	RMN	5	–	–
D3	110'	200°	1	850 CDMA	LPA-80063/6CF	RMN	1	RRH2x40-AWS	RMV
			2	2100 LTE	HBX-6517DS-VTM	RMV	2	–	–
			3	–	BXA-70063/6CF_	RMN	3	–	–
			4	–	HBX-6517DS-VTM	RMV	4	–	–
			5	850 CDMA	LPA-80063/6CF	RMN	5	–	–

CURRENT FIBER DISTRIBUTION / OVP BOX					CURRENT CABLING SUMMARY		
LOCATION	POS	BAND	MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
TOWER	–	–	DB-T1-6Z-8AB-0Z	RMV	(22) 1-5/8"	1-1/4"	RMN

STATUS ABBREVIATIONS

RMV: TO BE REMOVED
RMN: TO REMAIN
REL: TO BE RELOCATED
DSC: TO BE DISCONNECTED AND TO REMAIN

NOTES

1. BASED ON APPROVED ATC APPLICATION OAA710465 , DATED 08/21/17. CONFIRM WITH VERIZON WIRELESS REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS.
2. ATC HAS NOT YET VERIFIED ANY EXISTING ANTENNA CONFIGURATION OR MOUNT CONFIGURATION. CONTRACTOR TO VERIFY MOUNT CONFIGURATION HAS SUFFICIENT SPACE FOR PROPOSED LESSEE EQUIPMENT (I.E. CLEARANCES, MOUNT PIPE OR SUFFICIENT LENGTH, ETC.) ATC DID NOT ANALYZE ANTENNA MOUNT TO DETERMINE ADEQUATE STRUCTURAL CAPACITY FOR ANY LESSEE LOADING.
3. ALL PROPOSED EQUIPMENT INCLUDING ANTENNAS, COAX, ETC. SHALL BE MOUNTED IN ACCORDANCE WITH THE TOWER STRUCTURAL ANALYSIS ON FILE WITH THE ATC CM.
4. CONFIRM SPACING OF PROPOSED EQUIPMENT DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.
5. POSITIONS START WITH FIRST PIPE ON THE LEFT SIDE (AS VIEWED FROM BEHIND THE MOUNT).

PROPOSED ANTENNA AND RF EQUIPMENT SCHEDULE

LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY		
SECTOR	RAD	AZ	POS	BAND	MODEL NUMBER	STATUS	POS	MODEL NUMBER	STATUS
D1	110'	340°	1	850 CDMA	LPA-80063/6CF	RMN	1	B13 RRH4X30-4R	ADD
			2	700/850/1900/2100 LTE	(2) JAHH-65B-R3B	ADD	2	B66A RRH 4X45	ADD
			3	–	BXA-70063/6CF_	RMN	3	RRH 4T4R B5 160W	ADD
			4	-	-	-	4	-	-
			5	850 CDMA	LPA-80063/6CF	RMN	5	B25 RRH4X30	ADD
D2	110'	100°	1	850 CDMA	LPA-80063/6CF	RMN	1	B13 RRH4X30-4R	ADD
			2	700/850/1900/2100 LTE	(2) JAHH-65B-R3B	ADD	2	B66A RRH 4X45	ADD
			3	–	BXA-70063/6CF_	RMN	3	RRH 4T4R B5 160W	ADD
			4	-	-	-	4	-	-
			5	850 CDMA	LPA-80063/6CF	RMN	5	B25 RRH4X30	ADD
D3	110'	200°	1	850 CDMA	LPA-80063/6CF	RMN	1	B13 RRH4X30-4R	ADD
			2	700/850/1900/2100 LTE	(2) JAHH-65B-R3B	ADD	2	B66A RRH 4X45	ADD
			3	–	BXA-70063/6CF_	RMN	3	RRH 4T4R B5 160W	ADD
			4	-	-	-	4	-	-
			5	850 CDMA	LPA-80063/6CF	RMN	5	B25 RRH4X30	ADD

PROPOSED FIBER DISTRIBUTION / OVP BOX					PROPOSED CABLING SUMMARY		
LOCATION	POS	BAND	MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
TOWER	-	-	RC3DC-3315-PF-48	ADD	-	1-1/4"	ADD
-	-	-	-	-	(22) 1-5/8"	1-1/4"	RMN

3 ANTENNA AND RF EQUIPMENT SCHEDULES

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SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: 6260F

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	KL	10/19/17

ATC SITE NUMBER:
283562

ATC SITE NAME:
NORTH BLOOMFIELD CT

SITE ADDRESS:
DAY HILL ROAD
BLOOMFIELD, CT 06002

SEAL:

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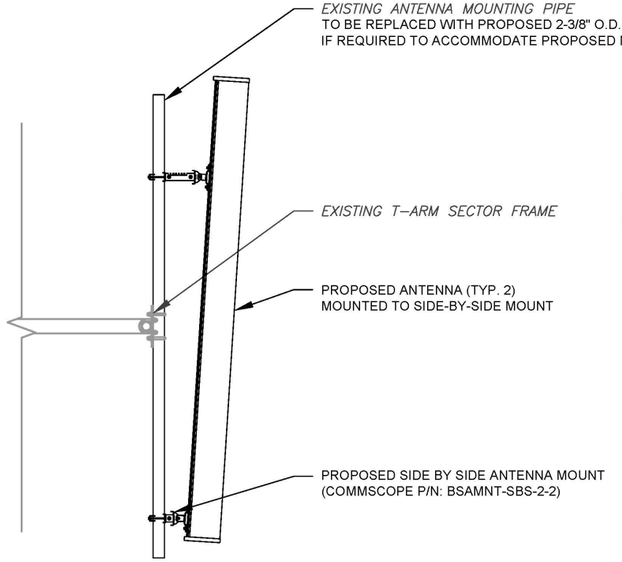
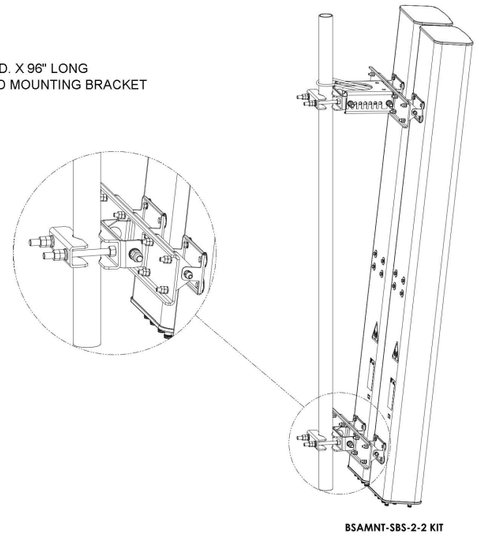
DRAWN BY:	KL
APPROVED BY:	KRF
DATE DRAWN:	10/19/17
ATC JOB NO:	12157423
CUSTOMER ID:	NORTH BLOOMFIELD CT

RF SCHEDULE AND ANTENNA INSTALLATION

SHEET NUMBER:	REVISION:
C-501	0



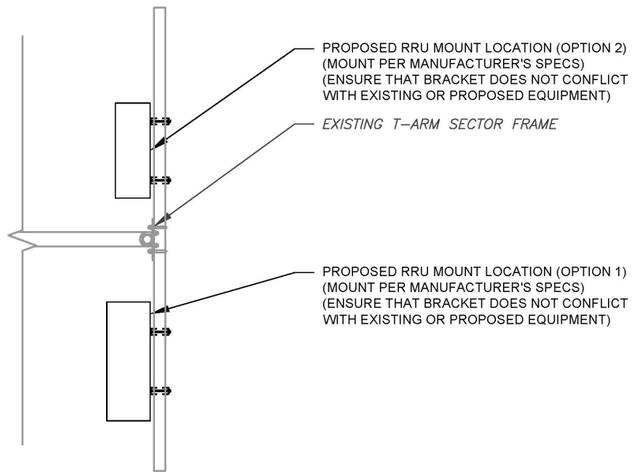
PROFILE VIEW



ISOMETRIC VIEW (BY MANUFACTURER)

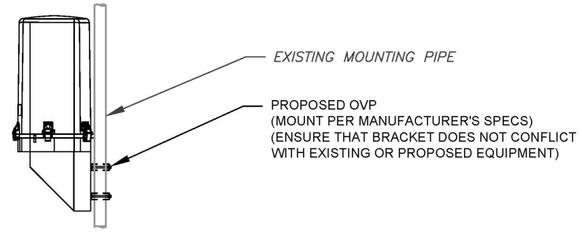
1 PROPOSED SIDE-BY-SIDE MOUNT

SCALE: NOT TO SCALE



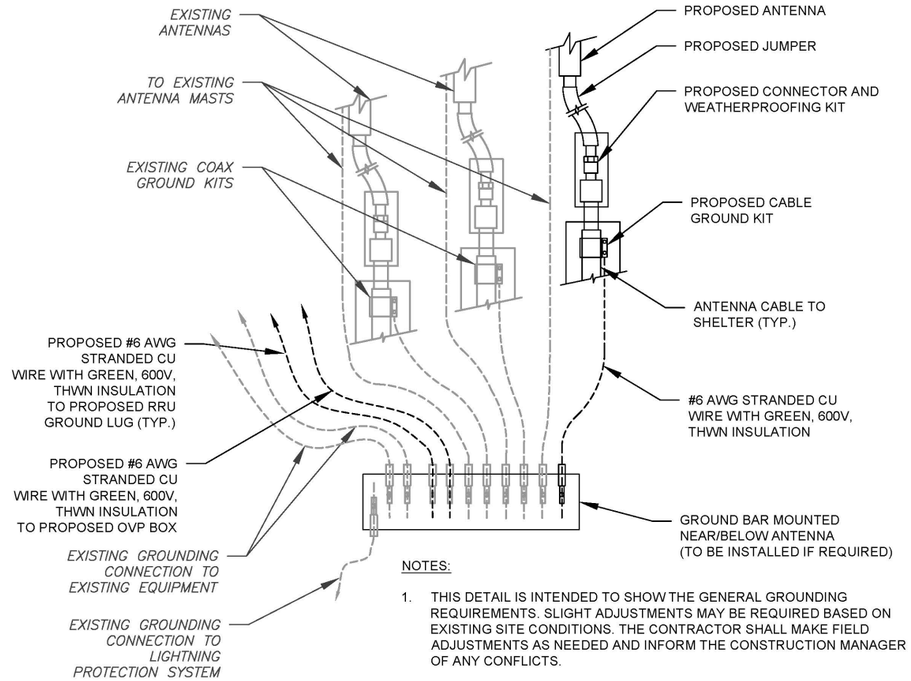
3 PROPOSED RRU MOUNTING DETAIL - TYPICAL

SCALE: NOT TO SCALE



2 PROPOSED OVP MOUNTING

SCALE: NOT TO SCALE



NOTES:

1. THIS DETAIL IS INTENDED TO SHOW THE GENERAL GROUNDING REQUIREMENTS. SLIGHT ADJUSTMENTS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NEEDED AND INFORM THE CONSTRUCTION MANAGER OF ANY CONFLICTS.
2. SITE GROUNDING SHALL COMPLY WITH VERIZON WIRELESS GROUNDING STANDARDS, LATEST EDITION, AND COMPLY WITH VERIZON WIRELESS GROUNDING CHECKLIST, LATEST VERSION. WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT THEY SHALL GOVERN.

4 TYPICAL ANTENNA GROUNDING DIAGRAM

SCALE: NOT TO SCALE

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ATC TOWER SERVICES
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
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COA: 6260F

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0	FOR CONSTRUCTION	KL	10/19/17

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283562

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SITE ADDRESS:
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BLOOMFIELD, CT 06002

SEAL:

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APPROVED BY:	KRF
DATE DRAWN:	10/19/17
ATC JOB NO:	12157423
CUSTOMER ID:	NORTH BLOOMFIELD CT

CONSTRUCTION DETAILS

SHEET NUMBER:	REVISION:
C-502	0