AIROSMITH DEVELOPMENT
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January 22nd, 2018

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

RE: Notice of Exempt Modification – Antenna Swap for wireless facility located at 777 TALCOTVILLE ROAD, VERNON ROCKVILLE, CONNECTICUT – CT70XC147 (lat. 41° 51' 48.4302" N, long. -72° 28' 59.8188" W)

Dear Ms. Bachman:

Sprint Spectrum, LP ("Sprint") currently maintains wireless telecommunications antennas at the (155-foot level) on an existing (165-foot Guyed Tower) at the above-referenced address. The property is owned by 777 Realty LLC, and the tower is owned by American Tower Corporation.

Sprint's proposed work involves antenna replacement and tower work. Sprint intends to install three (3) antennas, and add six (6) RRHs onto the tower. All the proposed work is contained within the existing fenced area. Please refer to the attached drawings for site plans prepared by Infinigy Engineering.

Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to DANIEL A. CHAMPAGNE, MAYOR, and MARINA RODRIGUES, TOWN PLANNER of the Town of VERNON. A copy of this letter is also being sent to 777 REALTY LLC the owner of the property on which the tower is located, and JUSTINE PAUL the manager for AMERICAN TOWER CORPORATION who manages the site.

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

1. The proposed modifications will not result in an increase in the height of the existing tower.
2. The antennas work is a one-for-one replacement of facility components.
3. The proposed modifications will include the addition of ground base equipment as

32 Clinton Street, Saratoga Springs, NY 12866
Office 518-306-1733 – Fax 518-306-1711
www.airosmithdevelopment.com

depicted on the attached drawings; however, the proposed equipment will not require an extension of the site boundaries.

4. The proposed modifications will not increase noise levels at the facility by six decibels or more.

5. The additional ground based equipment will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) adopted safety standard.

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

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

Attachment

CC: DANIEL A. CHAMPAGNE (MAYOR, VERNON, CT)
MARINA RODRIGUES (TOWN PLANNER, VERNON CT)
MEGHAN SCRANTON WILSON (Member, 777 Realty LLC)
JUSTINE PAUL (Manager, AMERICAN TOWER CORPORATION)

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VERNON ROCKVILLE, CT 06066

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Postage $0.50

Total Postage and Fees $6.70

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02/21/2018

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Street and Apt. No., or PO Box No.: 14 Park Place, 3rd Floor
City, State, ZIP+4®: Vernon CT 06066

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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CLIFTON PARK NY 12065
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02/21/2018

Sent To: Justine Parl (CT70XC147)
Street and Apt. No., or PO Box No.: 10 Presidential Way
City, State, ZIP+4®: Woburn MA 01801

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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Total Postage and Fees $6.70

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Sent To: Meghan Scanlon Wilson (CT70XC147)
Street and Apt. No., or PO Box No.: 323 Woodland Rd
City, State, ZIP+4®: Coventry CT 06238

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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- Adult Signature Restricted Delivery $

Postage $0.50

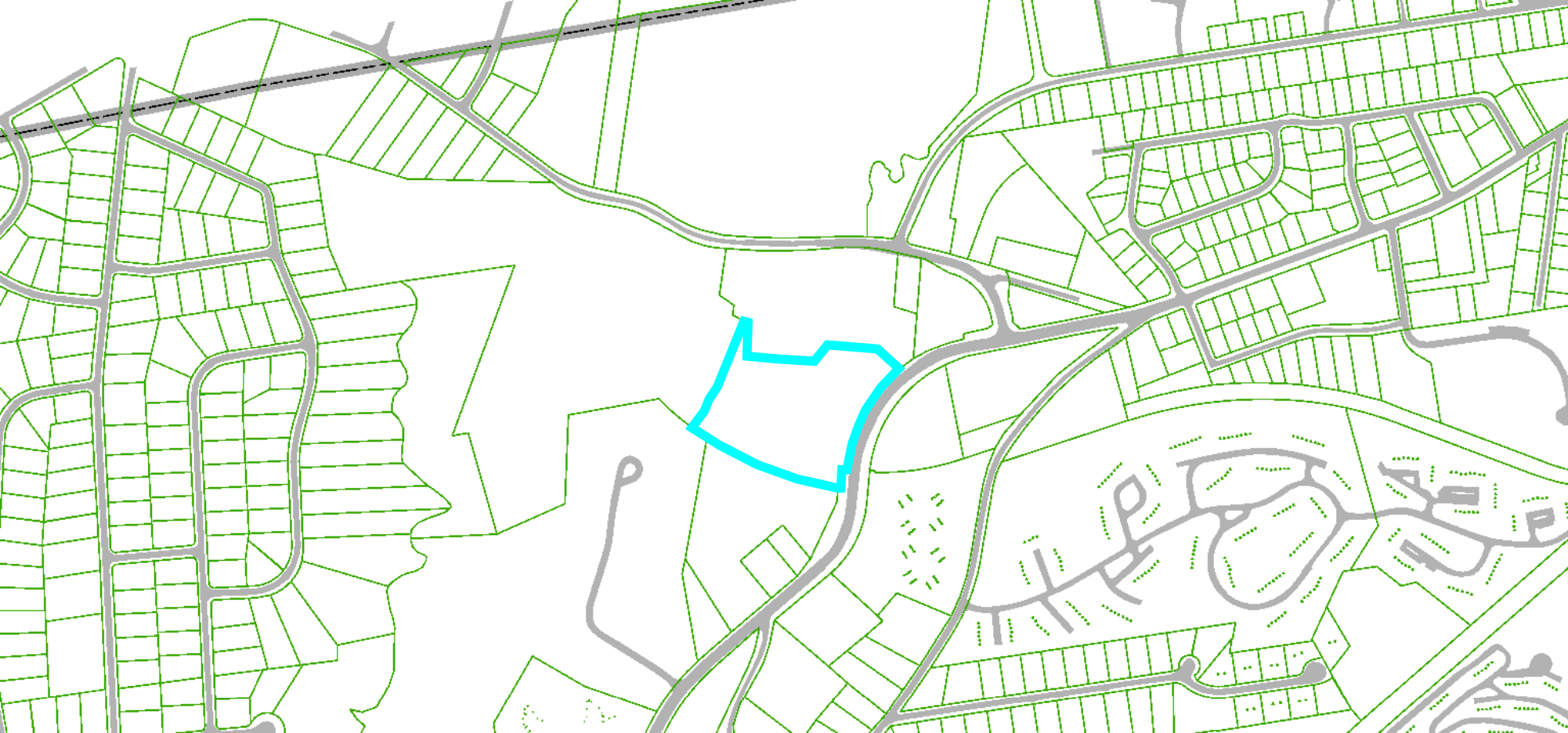
Total Postage and Fees $6.70

CLIFTON PARK NY 12065
Postmark Here
02/21/2018

Sent To: Marina Rodriguez (CT70XC147)
Street and Apt. No., or PO Box No.: 55 West Main St, 2nd Flor
City, State, ZIP+4®: Vernon CT 06066

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7017 3040 0000 5168 0372



Tax ID 07-0002-00078 Printed 03/04/2017 Card No. 1 of 2

777 REALTY LLC
777 TALCOTTVILLE RD
VERNON, CT 06066
CENSUS TRACT: 530301
1/24/11 25% LAWRENCE A SCRANTON TRUST, 37.5% L
THOMAS SCRANTON, 37.5% S CHRISTOPHER SCRANTON

Neighborhood Number
11900

Neighborhood Name
General Commercial A

TAXING DISTRICT INFORMATION

Jurisdiction Name	Town of Vernon
Area	146
Routing Number	8641

Site Description

Topography

Public Utilities
Electric

Street or Road
Paved

Neighborhood

Zoning:
Industrial

Legal Acres:
7.7200

Transfer of Ownership

Owner	Consideration	Transfer Date	Deed Book	Page	Deed Type
SCRANTON L THOMAS SCRANTON MATTHEW L	0	09/26/2012	2244	144	Q
SCRANTON L THOMAS &LAWRENCE SCRANTON	692500	02/03/2012	2205	43	W
SCRANTON LAWRENCE A & CHRISTOPHER &	0	01/24/2011	2150	310	P
SCRANTON LAWRENCE A	0	06/15/1999	1209	43	P
SCRANTON LAWRENCE A	0	03/23/1990	790	12	Q
NA	0	01/01/1900	184	519	

Valuation Record

Assessment Year		2011	2012	2015	2016	2016			
Reason for Change		2011 REVAL	2012	2015	2016 Reval	2016 Reval			
Market	L	922070	913760	913760	1620000	1620000			
	I	827930	1054920	1203830	1741070	1393610			
	T	1750000	1968680	2117590	3361070	3013610			
70% Assessed/Use	L	645450	639630	639630	1134000	1134000			
	I	579550	738450	842680	1218750	975530			
	T	1225000	1378080	1482310	2352750	2109530			

Land Size

Land Type	Rating, Soil ID - or - Actual Frontage	Acreage - or - Effective Frontage	Square Feet - or - Effective Depth	Influence Factor

Tax ID 07-0002-00078 Printed 03/04/2017

Physical Characteristics

ROOFING
Built-up

WALLS

	B	1	2	U
Frame		Yes		
Guard	Yes	Yes	Yes	Yes

FRAMING

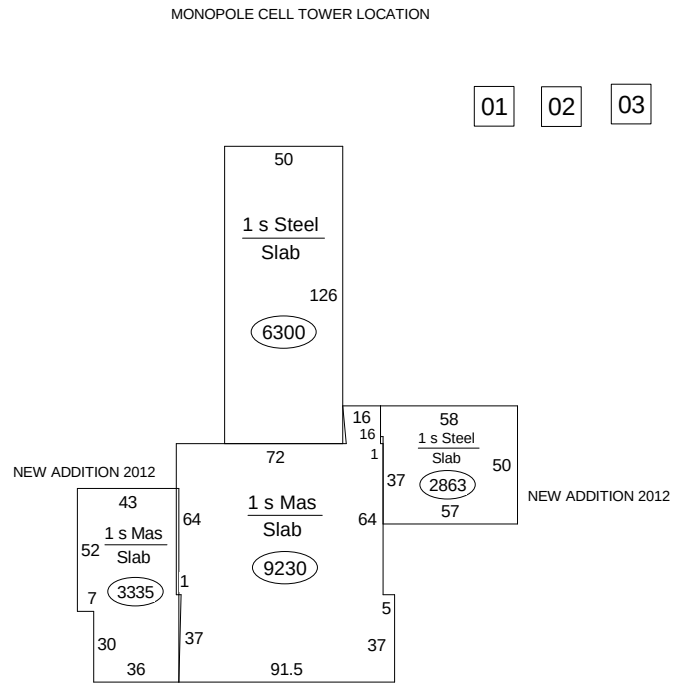
	B	1	2	U
F Res	0	21728	0	0

FINISH

	UF	SF	FO	FD
1	21728	0	0	0
Total	21728	0	0	0

HEATING AND AIR CONDITIONING

	B	1	2	U
Heat	0	9230	0	0
A/C	0	12498	0	0



Special Features

Description

Summary of Improvements

ID	USE	Story Height	Const Type	Grade	Year Cons	Eff Year	Cond	Size or Area
C	AUTOSERV	0.00		Avg	1965	1985	AV	21728
01	PAVING	0.00	85	Avg	1990	1990	AV	225000
02	FENCECL	6.00	51C	Avg	2002	2002	AV	200
03	SHED	0.00	1	Avg	2010	2010	AV	120

Transfer of Ownership

Valuation Record								
Assessment Year								
Reason for Change								
Market								
70% Assessed/Use	LIT LLIT							

Land Size

Land Type	Rating, Soil ID - or - Actual Frontage	Acreage - or - Effective Frontage	Square Feet - or - Effective Depth	Influence Factor

Tax ID 07-0002-00078 Printed 03/04/2017

Physical Characteristics

ROOFING

Metal
Insulation

WALLS

	B	1	2	U
Frame		Yes		
Guard	Yes	Yes	Yes	Yes

FRAMING

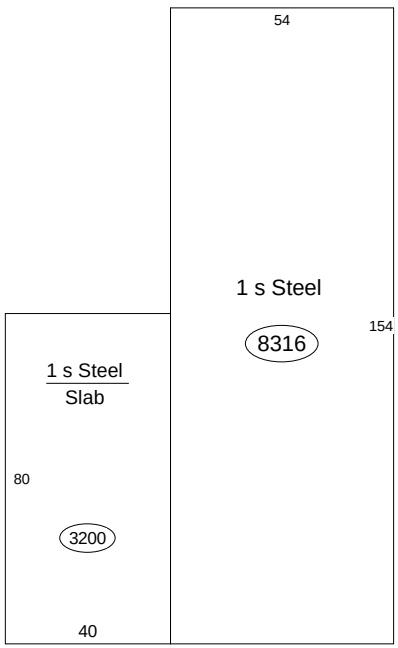
	B	1	2	U

FINISH

	UF	SF	FO	FD
1	11516	0	0	0
Total	11516	0	0	0

HEATING AND AIR CONDITIONING

	B	1	2	U
Heat	0	11516	0	0



Special Features

Description

Summary of Improvements

ID	USE	Story Height	Const Type	Grade	Year Cons	Eff Year	Cond	Size or Area
C	SERVGAR	0.00		Fair	1980	1990	AV	11516

EBI Consulting
environmental | engineering | due diligence

RADIO FREQUENCY EMISSIONS ANALYSIS REPORT
EVALUATION OF HUMAN EXPOSURE POTENTIAL TO NON-IONIZING EMISSIONS

SPRINT Existing Facility

Site ID: CT70XC147

Spectrasite / Vernon CT 6
777 Talcotville Road
Vernon Rockville, CT 06066

February 13, 2018

EBI Project Number: 6218000958

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	11.03 %

21 B Street · Burlington, MA 01803 · Tel: (781) 273.2500 · Fax: (781) 273.3311

EBI Consulting
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February 13, 2018

SPRINT
Attn: RF Engineering Manager
1 International Boulevard, Suite 800
Mahwah, NJ 07495

Emissions Analysis for Site: **CT70XC147 – Spectrasite / Vernon CT 6**

EBI Consulting was directed to analyze the proposed SPRINT facility located at **777 Talcotville Road, Vernon Rockville, CT**, for the purpose of determining whether the emissions from the Proposed SPRINT Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter (μW/cm2). The number of $\mu W/cm^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) – (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general population may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general population would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

General population exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu W/cm^2$). The general population exposure limits for the 850 MHz Band is approximately 567 $\mu W/cm^2$. The general population exposure limit for the 1900 MHz (PCS) and 2500 MHz (BRS) bands is 1000 $\mu W/cm^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed SPRINT Wireless antenna facility located at **777 Talcotville Road, Vernon Rockville, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since SPRINT is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was focused at the base of the tower. For this report the sample point is the top of a 6-foot person standing at the base of the tower.

For all calculations, all equipment was calculated using the following assumptions:

1) 1 CDMA channels (850 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 20 Watts per Channel.

2) 2 LTE channels (850 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 20 Watts per Channel.

3) 5 CDMA channels (1900 MHz (PCS)) were considered for each sector of the proposed installation. These Channels have a transmit power of 16 Watts per Channel.

4) 2 LTE channels (1900 MHz (PCS)) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.

5) 8 LTE channels (2500 MHz (BRS)) were considered for each sector of the proposed installation. These Channels have a transmit power of 20 Watts per Channel.

6) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.

7) For the following calculations, the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufactures supplied specifications minus 10 dB was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

8) The antennas used in this modeling are the **RFS APXVSPP18-C-A20, the RFS APXV9ERR18-C-A20** and the **Commscope DT465B-2XR** for transmission in the 850 MHz, 1900 MHz (PCS) and 2500 MHz (BRS) frequency bands. This is based on feedback from the carrier with regards to anticipated antenna selection. Maximum gain values for all antennas are listed in the Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

9) The antenna mounting height centerlines of the proposed antennas are **130 feet** above ground level (AGL) for **Sector A**, **130 feet** above ground level (AGL) for **Sector B** and **130 feet** above ground level (AGL) for Sector C.

10) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

All calculations were done with respect to uncontrolled / general population threshold limits.

SPRINT Site Inventory and Power Data by Antenna

Sector:	A	Sector:	B	Sector:	C
Antenna #:	**1**	Antenna #:	**1**	Antenna #:	**1**
Make / Model:	RFS APXV9ERR18-C-A20	Make / Model:	RFS APXVSPP18-C-A20	Make / Model:	RFS APXVSPP18-C-A20
Gain:	11.9 / 14.9 dBd	Gain:	13.4 / 15.9 dBd	Gain:	13.4 / 15.9 dBd
Height (AGL):	**130 feet**	Height (AGL):	**130 feet**	Height (AGL):	**130 feet**
Frequency Bands	850 MHz / 1900 MHz (PCS)	Frequency Bands	850 MHz / 1900 MHz (PCS)	Frequency Bands	850 MHz / 1900 MHz (PCS)
Channel Count	10	Channel Count	10	Channel Count	10
Total TX Power(W):	220 Watts	Total TX Power(W):	220 Watts	Total TX Power(W):	220 Watts
ERP (W):	5,873.76	ERP (W):	7,537.38	ERP (W):	7,537.38
Antenna A1 MPE%	**1.54 %**	Antenna B1 MPE%	**2.00 %**	Antenna C1 MPE%	**2.00 %**
Antenna #:	**2**	Antenna #:	**2**	Antenna #:	**2**
Make / Model:	Commscope DT465B-2XR	Make / Model:	Commscope DT465B-2XR	Make / Model:	Commscope DT465B-2XR
Gain:	15.05 dBd	Gain:	15.05 dBd	Gain:	15.05 dBd
Height (AGL):	**130 feet**	Height (AGL):	**130 feet**	Height (AGL):	**130 feet**
Frequency Bands	2500 MHz (BRS)	Frequency Bands	2500 MHz (BRS)	Frequency Bands	2500 MHz (BRS)
Channel Count	8	Channel Count	8	Channel Count	8
Total TX Power(W):	160 Watts	Total TX Power(W):	160 Watts	Total TX Power(W):	160 Watts
ERP (W):	5,118.23	ERP (W):	5,118.23	ERP (W):	5,118.23
Antenna A2 MPE%	**1.20 %**	Antenna B2 MPE%	**1.20 %**	Antenna C2 MPE%	**1.20 %**

Site Composite MPE%	
Carrier	**MPE%**
SPRINT – Max per sector (Sectors B&C)	**3.19 %**
Nextel	0.24 %
Verizon Wireless	3.43 %
AT&T	3.58 %
MetroPCS	0.52 %
Clearwire	0.07 %
Site Total MPE %*:	**11.03 %**

SPRINT Sector A Total:	2.74 %
SPRINT Sector B Total:	3.19 %
SPRINT Sector C Total:	3.19 %
Site Total*:	11.03 %

SPRINT _ Frequency Band / Technology Max Power Values (Sectors B & C)	**# Channels**	**Watts ERP (Per Channel)**	**Height (feet)**	**Total Power Density ($\mu W/cm^2$)**	**Frequency (MHz)**	**Allowable MPE ($\mu W/cm^2$)**	**Calculated % MPE**
Sprint 850 MHz CDMA	1	437.55	130	1.02	850 MHz	567	0.18%
Sprint 850 MHz LTE	2	437.55	130	2.05	850 MHz	567	0.36%
Sprint 1900 MHz (PCS) CDMA	5	622.47	130	7.28	1900 MHz (PCS)	1000	0.73%
Sprint 1900 MHz (PCS) LTE	2	1,556.18	130	7.28	1900 MHz (PCS)	1000	0.73%
Sprint 2500 MHz (BRS) LTE	8	639.78	130	11.97	2500 MHz (BRS)	1000	1.20%
						Total*:	**3.19%**

*NOTE: Totals may vary by 0.01% due to summing of remainders

Summary

All calculations performed for this analysis yielded results that were **within** the allowable limits for general population exposure to RF Emissions.

The anticipated maximum composite contributions from the SPRINT facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

SPRINT Sector	Power Density Value (%)
Sector A:	2.74 %
Sector B:	3.19 %
Sector C:	3.19 %
SPRINT Maximum Total (Sectors B&C):	3.19 %
Site Total:	11.03 %
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **11.03 %** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were well within the allowable 100% threshold standard per the federal government.

AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure	:	**160 ft Monopole**
ATC Site Name	:	**Vernon CT 6, CT**
ATC Site Number	:	**302529**
Engineering Number	:	**OAA713866_C3_01**
Proposed Carrier	:	**Sprint Nextel**
Carrier Site Name	:	**SpectraSite/Vernon CT 6**
Carrier Site Number	:	**CT70XC147**
Site Location	:	**777 Talcotville Road** **Vernon Rockville, CT 06066-2318** **41.863500,-72.483300**
County	:	**TOLLAND**
Date	:	**October 5, 2017**
Max Usage	:	**29%**
Result	:	**Pass**

Prepared By:
Adam Pittman
Structural Engineer II

Adam S Pittman

Reviewed By:

COA: PEC.0001553

AMERICAN TOWER®
CORPORATION

Table of Contents

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 160 ft monopole to reflect the change in loading by Sprint Nextel.

Supporting Documents

Tower Drawings	Summit, PJF Job #29201-0893, dated July 26, 2001
Foundation Drawing	Summit, PJF Job #29201-0893, dated September 21, 2001
Geotechnical Report	Dr. Clarence Welti Geotechnical Engineering Job #CT-1065, dated January 2, 2001
Modifications	ATC Job #44531032, dated March 3, 2010

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, Vasd) / 122 mph (3-Second Gust, Vult)
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					
160.0	161.0	12	Decibel DB844H90E-XY	Low Profile Platform	(12) 1 1/4" Coax	Sprint Nextel
150.0	150.0	3	Nokia B5 RRH4x40-850	Low Profile Platform	(12) 1 5/8" Coax (2) 1 5/8" Hybriflex	Verizon
		3	Alcatel-Lucent RRH2X60-1900			
		3	Alcatel-Lucent RRH2x60			
		2	RFS DB-T1-6Z-8AB-0Z			
		3	Andrew LNX-6514DS-A1M			
		6	Andrew SBNHH-1D65B			
		3	Antel QUAD656C0000X			
142.0	142.0	6	Powerwave LGP21401	T-Arms	(3) 3/8" RET Control Cable (6) 1 1/4" Coax (2) 0.78" 8 AWG 6 (1) 3" Conduit (1) 0.39" Cable	AT&T Mobility
		1	Raycap DC6-48-60-18-8F (23.5" Height)			
		3	RRH			
		3	Ericsson RRUS 12 w/ RRUS A2			
		3	Powerwave 7770.00			
		3	CCI HPA-65R-BUU-H6			
130.0	135.0	6	Alcatel-Lucent 4X40W RRH	Low Profile Platform	(4) 1 1/4" Hybriflex	Sprint Nextel
		3	Alcatel-Lucent 800MHz RRH w/ Notch Filter			
	130.0	1	RFS APXV9ERR18-C-A20			
		2	RFS APXVSPP18-C-A20			
117.0	117.0	3	RFS APXV18-206517S-C	Flush	(6) 1 5/8" Coax	Metro PCS

Equipment to be Removed

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
130.0	130.0	3	RFS APXVTM14-C-I20	-	-	Sprint Nextel
		3	Alcatel-Lucent TD-RRH8x20			

Proposed Equipment

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
130.0	130.0	3	Alcatel-Lucent RRH2x50-08	Low Profile Platform	-	Sprint Nextel
		3	Alcatel-Lucent TD-RRH8x20-25 w/ S.S.			
		3	Commscope DT465B-2XR			

[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).

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	29%	Pass
Shaft	29%	Pass
Base Plate	27%	Pass

Foundations

Reaction Component	Original Design Reactions	Factored Design Reactions*	Analysis Reactions	% of Design
Moment (Kips-Ft)	8,100.0	10,935.0	3,278.1	30%
Shear (Kips)	61.0	82.4	29.7	36%

*** 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) (°)
130.0	Alcatel-Lucent RRH2x50-08	Sprint Nextel	0.421	0.366
	Alcatel-Lucent TD-RRH8x20-25 w/ S.S.			
	Commscope DT465B-2XR			

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

AMERICAN TOWER®
CORPORATION

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:

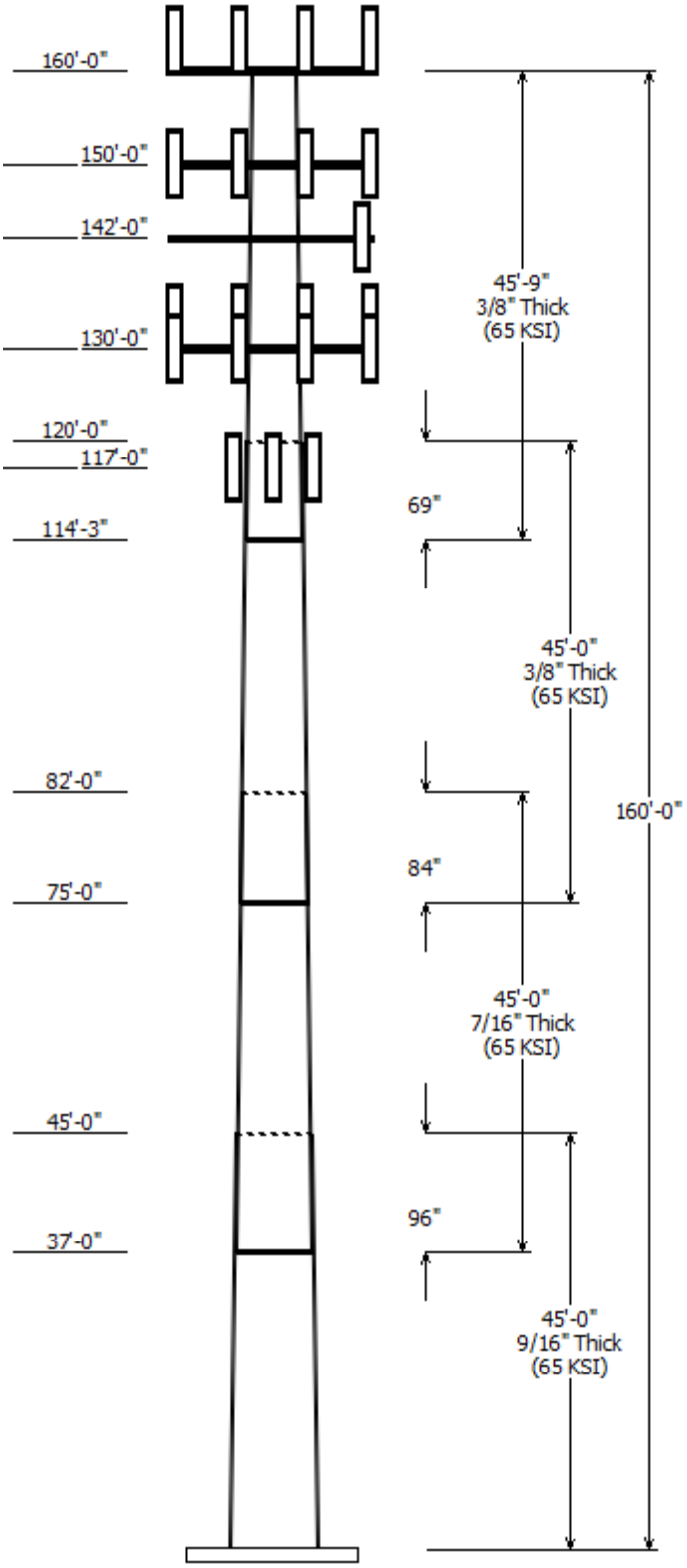
-- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.

-- 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 :	302529	Code:	ANSI/TIA-222-G
Description :	160 ft Monopole w/10 ft Extension		
Client :	SPRINT NEXTEL	Struct Class :	II
Location :	Vernon CT 6, CT		
Shape :	18 Sides	Exposure :	B
Height :	160.00 (ft)	Topo :	1
Base Elev (ft):	0.00		
Taper:	0.251317 (in/ft)		

Sections Properties

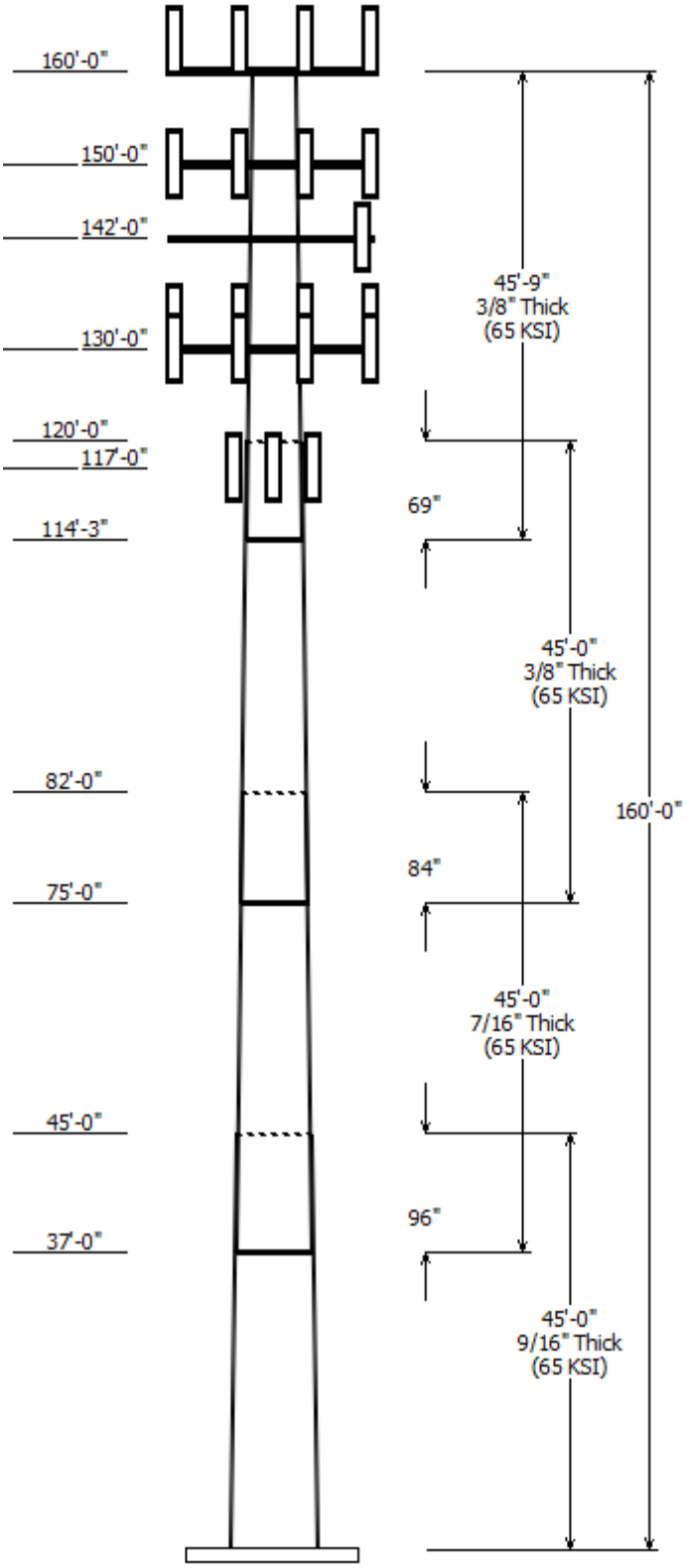
Shaft Section	Length (ft)	Diameter (in) Accross Flats Top	Bottom	Thick (in)	Joint Type	Overlap Length (in)	Taper (in/ft)	Steel Grade (ksi)
1	45.000	60.82	72.13	0.563		0.000	0.251300	65
2	45.000	52.39	63.70	0.438	Slip Joint	96.000	0.251300	65
3	45.000	43.59	54.90	0.375	Slip Joint	84.000	0.251300	65
4	45.750	34.29	45.79	0.375	Slip Joint	69.000	0.251300	65

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
160.000	161.000	12	Decibel DB844H90E-XY
160.000	160.000	1	Flat Low Profile Platform
150.000	150.000	3	Amphenol Antel
150.000	150.000	3	Alcatel-Lucent RRH2x60
150.000	150.000	3	Alcatel-Lucent RRH2X60-1900
150.000	150.000	3	Nokia B5 RRH4x40-850
150.000	150.000	6	Andrew SBNHH-1D65B
150.000	150.000	3	Andrew LNX-6514DS-A1M
150.000	150.000	2	RFS DB-T1-6Z-8AB-0Z
150.000	150.000	1	Round Low Profile Platform
142.000	142.000	3	CCI HPA-65R-BUU-H6
142.000	142.000	3	Powerwave Allgon 7770.00
142.000	142.000	3	Ericsson RRUS 12 w/ RRUS A2
142.000	142.000	6	Powerwave Allgon LGP21401
142.000	142.000	1	Raycap DC6-48-60-18-8F (23.5"
142.000	142.000	3	Round T-Arm
142.000	142.000	3	RRH
130.000	130.000	3	Commscope DT465B-2XR
130.000	130.000	3	Alcatel-Lucent TD-RRH8x20-25
130.000	130.000	3	Alcatel-Lucent RRH2x50-08
130.000	130.000	1	Round Low Profile Platform
130.000	130.000	1	RFS APXV9ERR18-C-A20
130.000	130.000	2	RFS APXVSPP18-C-A20
130.000	135.000	3	Alcatel-Lucent 800 MHz RRH
130.000	135.000	6	Alcatel-Lucent 4X40W RRH
117.000	117.000	3	RFS APXV18-206517S-C
117.000	117.000	3	Flush Mounts

Linear Appurtenance

Elev (ft) From	To	Description	Exposed To Wind
2.000	117.0	1 5/8" Coax	No
2.000	130.0	1 1/4" Hybriflex	No
2.000	142.0	0.39" Cable	No
2.000	142.0	0.78" 8 AWG 6	No
2.000	142.0	1 1/4" Coax	No
2.000	142.0	3" Conduit	No
2.000	142.0	3/8" RET Control	No
2.000	150.0	1 5/8" Coax	No
2.000	150.0	1 5/8" Hybriflex	No



2.000	160.0	1 1/4" Coax	No

Load Cases

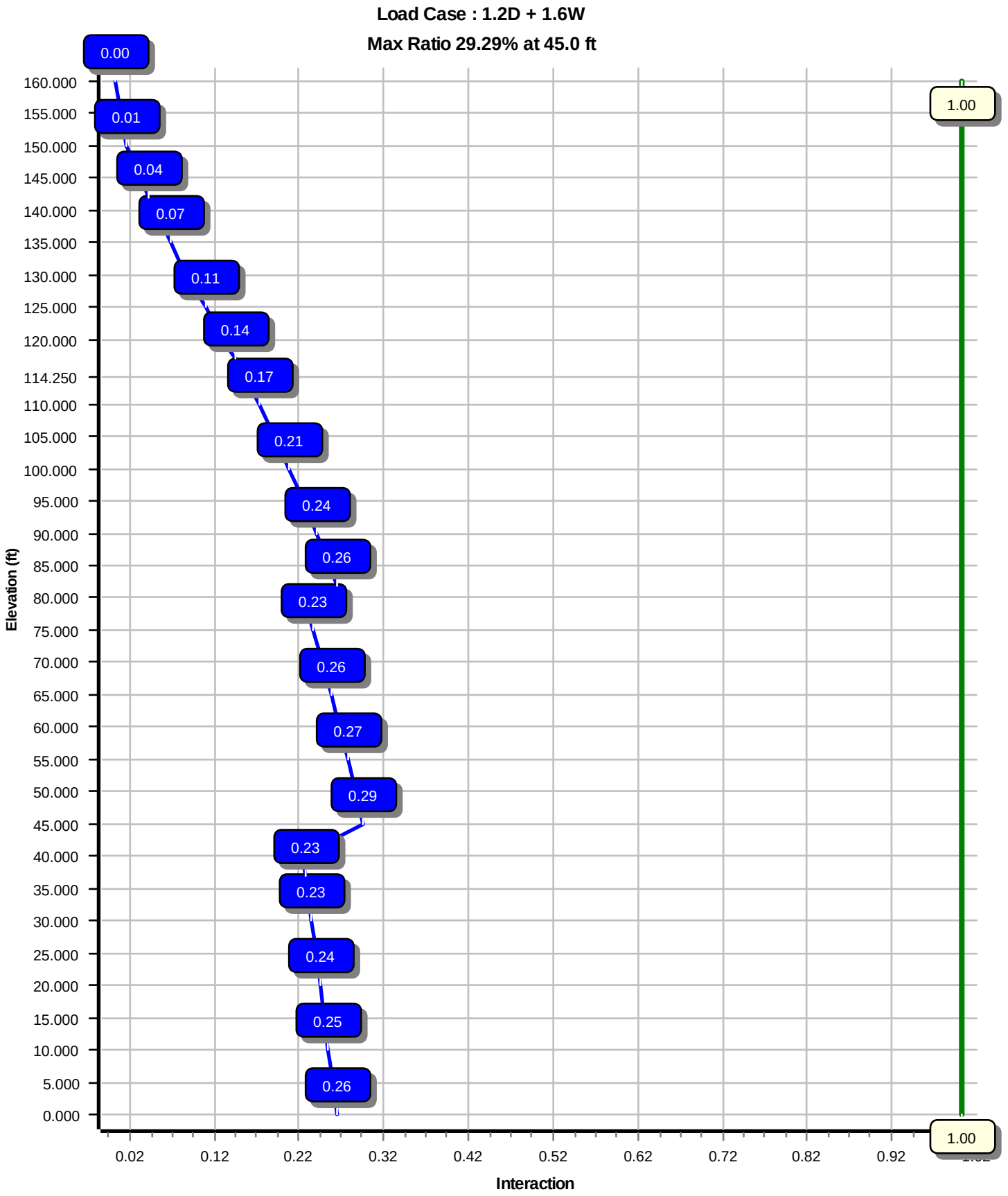
1.2D + 1.6W	97 mph with No Ice
0.9D + 1.6W	97 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 mph with 1.00 in Radial Ice
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2Sds) * DL + E	Seismic (Reduced DL) 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	3278.08	29.67	73.54
0.9D + 1.6W	3261.82	29.66	55.15
1.2D + 1.0Di + 1.0Wi	962.41	8.85	113.68
(1.2 + 0.2Sds) * DL + E ELFM	406.71	3.46	73.04
(1.2 + 0.2Sds) * DL + E EMAM	392.81	3.36	73.04
(0.9 - 0.2Sds) * DL + E ELFM	404.36	3.46	50.88
(0.9 - 0.2Sds) * DL + E EMAM	390.40	3.36	50.88
1.0D + 1.0W	781.35	7.09	61.29

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 29.29% at 45.0 ft
0.00
0.01
0.04
0.07
0.11
0.14
0.17
0.21
0.24
0.26
0.23
0.26
0.27
0.29
0.23
0.23
0.24
0.25
0.26
1.00
1.00
160.000
155.000
150.000
145.000
140.000
135.000
130.000
125.000
120.000
114.250
110.000
105.000
100.000
95.000
90.000
85.000
80.000
75.000
70.000
65.000
60.000
55.000
50.000
45.000
40.000
35.000
30.000
25.000
20.000
15.000
10.000
5.000
0.000
Elevation (ft)
0.02
0.12
0.22
0.32
0.42
0.52
0.62
0.72
0.82
0.92
Interaction

Site Number: 302529 Code: ANSI/TIA-222-G

Site Name: Vernon CT 6, CT Engineering Number:OAA713866_C3_01 10/5/2017 1:06:13 PM

Customer: SPRINT NEXTEL

Analysis Parameters

Location:	TOLLAND County, CT	Height (ft):	160
Code:	ANSI/TIA-222-G	Base Diameter (in):	72.13
Shape:	18 Sides	Top Diameter (in):	34.29
Pole Type:	Taper	Taper (in/ft) :	0.251
Pole Manfacturer:	Summit Manufacturing	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):	1.57				
T_L (sec):	6	p:	1.3	C_s:	0.043
S_s:	0.177	S_1:	0.064	C_s Max:	0.043
F_a:	1.600	F_v:	2.400	C_s Min:	0.030
S_{ds}:	0.189	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: 302529 Code: ANSI/TIA-222-G

Site Name: Vernon CT 6, CT Engineering Number:OAA713866_C3_01 10/5/2017 1:06:13 PM

Customer: SPRINT NEXTEL

Shaft Section Properties

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	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	45.000	0.5625	65		0.00	18,019	72.13	0.00	127.77	82681.3	21.20	128.23	60.82	45.00	107.58	49352.3	17.65	108.13	0.251317
2-18	45.000	0.4375	65	Slip	96.00	12,250	63.70	37.00	87.85	44430.6	24.26	145.61	52.39	82.00	72.15	24609.8	19.71	119.76	0.251317
3-18	45.000	0.3750	65	Slip	84.00	8,908	54.90	75.00	64.90	24383.8	24.41	146.42	43.59	120.00	51.44	12141.6	19.09	116.26	0.251317
4-18	45.750	0.3750	65	Slip	69.00	7,350	45.79	114.25	54.06	14087.1	20.12	122.11	34.29	160.00	40.37	5868.1	14.71	91.45	0.251317
				Shaft Weight		46,527													

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)
160.00	Decibel DB844H90E-XY	12	14.00	3.610	0.74	174.98	4.253	0.74	0.000	1.000
160.00	Flat Low Profile Platform	1	1500.00	26.100	1.00	2,369.86	51.733	1.00	0.000	0.000
150.00	Alcatel-Lucent RRH2x60	3	60.00	3.500	0.67	165.54	5.458	0.67	0.000	0.000
150.00	Alcatel-Lucent RRH2X60-	3	43.00	1.880	0.50	141.22	2.695	0.50	0.000	0.000
150.00	Amphenol Antel	3	54.00	13.240	0.62	461.20	15.307	0.62	0.000	0.000
150.00	Andrew LNX-6514DS-A1M	3	38.80	8.170	0.83	273.47	11.928	0.83	0.000	0.000
150.00	Andrew SBNHH-1D65B	6	50.70	8.170	0.83	357.35	11.928	0.83	0.000	0.000
150.00	Nokia B5 RRH4x40-850	3	48.50	1.320	0.50	124.12	1.991	0.50	0.000	0.000
150.00	RFS DB-T1-6Z-8AB-0Z	2	44.00	4.800	0.67	246.82	5.989	0.67	0.000	0.000
150.00	Round Low Profile Platform	1	1500.00	21.700	1.00	2,364.17	47.308	1.00	0.000	0.000
142.00	CCI HPA-65R-BUU-H6	3	51.00	9.660	0.83	397.44	11.505	0.83	0.000	0.000
142.00	Ericsson RRUS 12 w/ RRUS	3	71.40	3.150	0.67	228.60	4.124	0.67	0.000	0.000
142.00	Powerwave Allgon 7770.00	3	35.00	5.510	0.77	227.45	6.936	0.77	0.000	0.000
142.00	Powerwave Allgon LGP21401	6	14.10	1.100	0.50	64.52	1.739	0.50	0.000	0.000
142.00	Raycap DC6-48-60-18-8F	1	20.00	1.110	1.00	135.37	2.750	1.00	0.000	0.000
142.00	Round T-Arm	3	250.00	9.700	0.67	527.51	20.647	0.67	0.000	0.000
142.00	RRH	3	45.00	2.400	0.50	189.40	3.313	0.50	0.000	0.000
130.00	Alcatel-Lucent 4X40W RRH	6	59.50	2.320	0.67	193.22	3.227	0.67	0.000	5.000
130.00	Alcatel-Lucent 800 MHz RRH	3	61.80	2.500	0.67	209.21	2.964	0.67	0.000	5.000
130.00	Alcatel-Lucent RRH2x50-08	3	52.90	1.700	0.50	154.27	2.444	0.50	0.000	0.000
130.00	Alcatel-Lucent TD-RRH8x20-	3	70.00	4.050	0.67	194.23	5.797	0.67	0.000	0.000
130.00	Commscope DT465B-2XR	3	58.00	9.100	0.69	376.35	10.889	0.69	0.000	0.000
130.00	RFS APXV9ERR18-C-A20	1	62.00	8.020	0.86	351.73	9.753	0.86	0.000	0.000
130.00	RFS APXVSPP18-C-A20	2	57.00	8.020	0.83	334.92	9.753	0.83	0.000	0.000
130.00	Round Low Profile Platform	1	1500.00	21.700	1.00	2,351.67	46.938	1.00	0.000	0.000
117.00	Flush Mounts	3	65.00	2.000	0.67	212.41	4.721	0.67	0.000	0.000
117.00	RFS APXV18-206517S-C	3	26.40	5.170	0.80	193.13	6.808	0.80	0.000	0.000
	Totals	87	8790.20			26,753.36			Number of Loadings :	27

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
2.00	160.00	12	1 1/4" Coax	1.55	0.63	N	0.00	N	Sprint Nextel
2.00	150.00	12	1 5/8" Coax	1.98	0.82	N	0.00	N	Verizon Wireless
2.00	150.00	2	1 5/8" Hybriflex	1.98	1.30	N	0.00	N	Verizon Wireless
2.00	142.00	1	0.39" Cable	0.39	0.07	N	0.00	N	AT&T Mobility
2.00	142.00	2	0.78" 8 AWG 6	0.78	0.59	N	0.00	N	AT&T Mobility
2.00	142.00	6	1 1/4" Coax	1.55	0.63	N	0.00	N	AT&T Mobility
2.00	142.00	1	3" Conduit	3.50	7.58	N	0.00	N	AT&T Mobility
2.00	142.00	3	3/8" RET Control Cable	0.38	0.23	N	0.00	N	AT&T Mobility

2.00	130.00	4 1 1/4" Hybriflex Cable	1.54	1.00	N	0.00	N	Sprint Nextel
2.00	117.00	6 1 5/8" Coax	1.98	0.82	N	0.00	N	Metro PCS

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		0.5625	72.130	127.770	82,681.3	21.20	128.23	76.5	2257.	0.0	0.0
5.00		0.5625	70.873	125.526	78,402.1	20.81	126.00	76.9	2178.	0.0	2,154.8
10.00		0.5625	69.616	123.283	74,273.2	20.41	123.76	77.4	2101.	0.0	2,116.6
15.00		0.5625	68.360	121.039	70,291.9	20.02	121.53	77.9	2025.	0.0	2,078.4
20.00		0.5625	67.103	118.796	66,455.4	19.62	119.29	78.3	1950.	0.0	2,040.3
25.00		0.5625	65.847	116.553	62,761.1	19.23	117.06	78.8	1877.	0.0	2,002.1
30.00		0.5625	64.590	114.309	59,206.4	18.84	114.83	79.2	1805.	0.0	1,963.9
35.00		0.5625	63.334	112.066	55,788.4	18.44	112.59	79.7	1735.	0.0	1,925.8
37.00	Bot - Section 2	0.5625	62.831	111.168	54,459.0	18.28	111.70	79.9	1707.	0.0	759.6
40.00		0.5625	62.077	109.822	52,504.7	18.05	110.36	80.2	1665.	0.0	2,019.5
45.00	Top - Section 1	0.4375	61.695	85.061	40,328.1	23.45	141.02	73.8	1287.	0.0	3,311.5
50.00		0.4375	60.439	83.316	37,896.9	22.95	138.15	74.4	1235.	0.0	1,432.4
55.00		0.4375	59.182	81.571	35,565.4	22.44	135.27	75.0	1183.	0.0	1,402.7
60.00		0.4375	57.926	79.827	33,331.6	21.94	132.40	75.6	1133.	0.0	1,373.0
65.00		0.4375	56.669	78.082	31,193.3	21.43	129.53	76.2	1084.	0.0	1,343.3
70.00		0.4375	55.412	76.337	29,148.5	20.92	126.66	76.8	1036.	0.0	1,313.6
75.00	Bot - Section 3	0.4375	54.156	74.592	27,195.1	20.42	123.78	77.4	989.1	0.0	1,283.9
80.00		0.4375	52.899	72.847	25,330.9	19.91	120.91	78.0	943.2	0.0	2,345.8
82.00	Top - Section 2	0.3750	53.147	62.809	22,099.2	23.58	141.72	73.7	819.0	0.0	922.9
85.00		0.3750	52.393	61.912	21,165.5	23.22	139.71	74.1	795.7	0.0	636.6
90.00		0.3750	51.136	60.416	19,668.4	22.63	136.36	74.8	757.6	0.0	1,040.6
95.00		0.3750	49.880	58.921	18,243.6	22.04	133.01	75.5	720.4	0.0	1,015.2
100.0		0.3750	48.623	57.425	16,889.3	21.45	129.66	76.2	684.2	0.0	989.7
105.0		0.3750	47.366	55.929	15,603.7	20.86	126.31	76.9	648.8	0.0	964.3
110.0		0.3750	46.110	54.434	14,385.2	20.27	122.96	77.6	614.5	0.0	938.9
114.2	Bot - Section 4	0.3750	45.042	53.163	13,400.6	19.77	120.11	78.1	586.0	0.0	778.0
115.0		0.3750	44.853	52.938	13,231.7	19.68	119.61	78.3	581.0	0.0	273.1
117.0		0.3750	44.351	52.340	12,788.2	19.44	118.27	78.5	567.9	0.0	722.6
120.0	Top - Section 3	0.3750	44.347	52.335	12,784.7	19.44	118.26	78.5	567.8	0.0	1,068.6
125.0		0.3750	43.090	50.840	11,719.7	18.85	114.91	79.2	535.7	0.0	877.7
130.0		0.3750	41.833	49.344	10,715.5	18.26	111.56	79.9	504.5	0.0	852.3
135.0		0.3750	40.577	47.849	9,770.4	17.67	108.20	80.6	474.3	0.0	826.8
140.0		0.3750	39.320	46.353	8,882.6	17.08	104.85	81.3	444.9	0.0	801.4
142.0		0.3750	38.818	45.755	8,543.1	16.84	103.51	81.6	433.5	0.0	313.4
145.0		0.3750	38.064	44.857	8,050.2	16.49	101.50	82.0	416.6	0.0	462.5
150.0		0.3750	36.807	43.362	7,271.6	15.90	98.15	82.6	389.1	0.0	750.5
155.0		0.3750	35.550	41.866	6,544.8	15.31	94.80	82.6	362.6	0.0	725.0
160.0		0.3750	34.294	40.371	5,868.1	14.71	91.45	82.6	337.0	0.0	699.6
											46,526.7

Site Number: 302529 Code: ANSI/TIA-222-G

Site Name: Vernon CT 6, CT Engineering Number:OAA713866_C3_01 10/5/2017 1:06:14 PM

Customer: SPRINT NEXTEL

Load Case: 1.2D + 1.6W 97 mph with No Ice 19 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		277.2	0.0					0.0	0.0	277.2	0.0	0.0	0.0
5.00		549.5	2,585.7					0.0	152.0	549.5	2,737.7	0.0	0.0
10.00		539.7	2,539.9					0.0	253.3	539.7	2,793.2	0.0	0.0
15.00		530.0	2,494.1					0.0	253.3	530.0	2,747.4	0.0	0.0
20.00		520.2	2,448.3					0.0	253.3	520.2	2,701.6	0.0	0.0
25.00		510.5	2,402.5					0.0	253.3	510.5	2,655.8	0.0	0.0
30.00		506.7	2,356.7					0.0	253.3	506.7	2,610.0	0.0	0.0
35.00		357.0	2,310.9					0.0	253.3	357.0	2,564.2	0.0	0.0
37.00	Bot - Section 2	261.4	911.5					0.0	101.3	261.4	1,012.9	0.0	0.0
40.00		425.4	2,423.4					0.0	152.0	425.4	2,575.3	0.0	0.0
45.00	Top - Section 1	537.3	3,973.8					0.0	253.3	537.3	4,227.1	0.0	0.0
50.00		542.5	1,718.9					0.0	253.3	542.5	1,972.2	0.0	0.0
55.00		545.9	1,683.2					0.0	253.3	545.9	1,936.5	0.0	0.0
60.00		547.7	1,647.6					0.0	253.3	547.7	1,900.9	0.0	0.0
65.00		548.3	1,612.0					0.0	253.3	548.3	1,865.3	0.0	0.0
70.00		547.6	1,576.4					0.0	253.3	547.6	1,829.7	0.0	0.0
75.00	Bot - Section 3	549.7	1,540.7					0.0	253.3	549.7	1,794.0	0.0	0.0
80.00		386.2	2,814.9					0.0	253.3	386.2	3,068.3	0.0	0.0
82.00	Top - Section 2	274.6	1,107.5					0.0	101.3	274.6	1,208.8	0.0	0.0
85.00		437.3	763.9					0.0	152.0	437.3	915.9	0.0	0.0
90.00		543.0	1,248.8					0.0	253.3	543.0	1,502.1	0.0	0.0
95.00		537.9	1,218.2					0.0	253.3	537.9	1,471.5	0.0	0.0
100.00		532.1	1,187.7					0.0	253.3	532.1	1,441.0	0.0	0.0
105.00		525.6	1,157.2					0.0	253.3	525.6	1,410.5	0.0	0.0
110.00		480.2	1,126.6					0.0	253.3	480.2	1,379.9	0.0	0.0
114.25	Bot - Section 4	258.1	933.6					0.0	215.3	258.1	1,148.9	0.0	0.0
115.00		142.6	327.7					0.0	38.0	142.6	365.7	0.0	0.0
117.00	Appertunance(s)	257.7	867.1	683.8	0.0	0.0	329.0	0.0	101.3	941.6	1,297.4	0.0	0.0
120.00	Top - Section 3	407.7	1,282.3					0.0	134.3	407.7	1,416.6	0.0	0.0
125.00		502.6	1,053.2					0.0	223.8	502.6	1,277.0	0.0	0.0
130.00	Appertunance(s)	493.5	1,022.7	3,135.6	0.0	2,489.3	3,313.3	0.0	223.8	3,629.1	4,559.8	0.0	0.0
135.00		483.8	992.2					0.0	199.8	483.8	1,192.0	0.0	0.0
140.00		333.8	961.6					0.0	199.8	333.8	1,161.4	0.0	0.0
142.00	Appertunance(s)	234.3	376.1	2,442.6	0.0	0.0	1,754.2	0.0	79.9	2,676.9	2,210.2	0.0	0.0
145.00		368.9	555.0					0.0	72.0	368.9	627.0	0.0	0.0
150.00	Appertunance(s)	452.3	900.6	4,685.0	0.0	0.0	3,150.1	0.0	120.0	5,137.3	4,170.7	0.0	0.0
155.00		441.0	870.0					0.0	45.4	441.0	915.4	0.0	0.0
160.00	Appertunance(s)	217.6	839.5	2,357.5	0.0	1,169.4	2,001.6	0.0	45.4	2,575.1	2,886.5	0.0	0.0
								Totals:		29,911.9	73,550.6	0.00	0.00

Load Case: 1.2D + 1.6W 97 mph with No Ice 19 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	-73.54	-29.67	0.00	-3,278.08	0.00	3,278.08	8,793.00	4,396.50	25,857.6	12,948.0	0.00	0.00	0.262
5.00	-70.77	-29.19	0.00	-3,129.73	0.00	3,129.73	8,690.95	4,345.48	25,105.2	12,571.3	0.03	-0.06	0.257
10.00	-67.95	-28.71	0.00	-2,983.79	0.00	2,983.79	8,587.03	4,293.52	24,358.2	12,197.2	0.12	-0.11	0.253
15.00	-65.18	-28.24	0.00	-2,840.24	0.00	2,840.24	8,481.24	4,240.62	23,616.8	11,825.9	0.26	-0.17	0.248
20.00	-62.45	-27.77	0.00	-2,699.05	0.00	2,699.05	8,373.58	4,186.79	22,881.3	11,457.6	0.47	-0.22	0.243
25.00	-59.77	-27.31	0.00	-2,560.20	0.00	2,560.20	8,264.05	4,132.02	22,152.0	11,092.4	0.73	-0.28	0.238
30.00	-57.14	-26.84	0.00	-2,423.68	0.00	2,423.68	8,152.64	4,076.32	21,429.1	10,730.5	1.06	-0.34	0.233
35.00	-54.55	-26.51	0.00	-2,289.47	0.00	2,289.47	8,039.37	4,019.68	20,713.0	10,371.9	1.44	-0.39	0.228
37.00	-53.53	-26.26	0.00	-2,236.46	0.00	2,236.46	7,993.53	3,996.77	20,428.6	10,229.4	1.61	-0.41	0.225
40.00	-50.94	-25.86	0.00	-2,157.66	0.00	2,157.66	7,924.22	3,962.11	20,004.0	10,016.9	1.88	-0.45	0.222
45.00	-46.69	-25.33	0.00	-2,028.36	0.00	2,028.36	5,650.82	2,825.41	14,233.8	7,127.48	2.38	-0.51	0.293
50.00	-44.70	-24.82	0.00	-1,901.69	0.00	1,901.69	5,579.57	2,789.79	13,763.9	6,892.22	2.94	-0.56	0.284
55.00	-42.74	-24.31	0.00	-1,777.58	0.00	1,777.58	5,506.45	2,753.22	13,297.0	6,658.42	3.57	-0.63	0.275
60.00	-40.81	-23.79	0.00	-1,656.04	0.00	1,656.04	5,431.46	2,715.73	12,833.3	6,426.21	4.27	-0.70	0.265
65.00	-38.93	-23.26	0.00	-1,537.11	0.00	1,537.11	5,354.59	2,677.30	12,373.1	6,195.75	5.04	-0.77	0.255
70.00	-37.08	-22.73	0.00	-1,420.81	0.00	1,420.81	5,275.86	2,637.93	11,916.6	5,967.17	5.88	-0.84	0.245
75.00	-35.27	-22.19	0.00	-1,307.16	0.00	1,307.16	5,195.26	2,597.63	11,464.2	5,740.64	6.79	-0.90	0.235
80.00	-32.19	-21.78	0.00	-1,196.19	0.00	1,196.19	5,112.78	2,556.39	11,016.1	5,516.28	7.77	-0.97	0.223
82.00	-30.97	-21.51	0.00	-1,152.62	0.00	1,152.62	4,164.29	2,082.14	9,036.58	4,525.01	8.18	-0.99	0.262
85.00	-30.05	-21.08	0.00	-1,088.10	0.00	1,088.10	4,128.03	2,064.01	8,829.01	4,421.07	8.82	-1.03	0.253
90.00	-28.53	-20.54	0.00	-982.69	0.00	982.69	4,066.09	2,033.05	8,484.96	4,248.79	9.94	-1.10	0.238
95.00	-27.05	-20.01	0.00	-879.97	0.00	879.97	4,002.29	2,001.14	8,143.55	4,077.83	11.13	-1.17	0.223
100.00	-25.59	-19.47	0.00	-779.93	0.00	779.93	3,936.61	1,968.31	7,805.07	3,908.34	12.40	-1.23	0.206
105.00	-24.18	-18.94	0.00	-682.55	0.00	682.55	3,869.07	1,934.53	7,469.82	3,740.46	13.72	-1.30	0.189
110.00	-22.79	-18.45	0.00	-587.84	0.00	587.84	3,799.65	1,899.82	7,138.08	3,574.35	15.11	-1.35	0.171
114.25	-21.64	-18.18	0.00	-509.42	0.00	509.42	3,739.17	1,869.59	6,859.09	3,434.64	16.34	-1.40	0.154
115.00	-21.27	-18.03	0.00	-495.79	0.00	495.79	3,728.36	1,864.18	6,810.15	3,410.14	16.56	-1.41	0.151
117.00	-19.99	-17.07	0.00	-459.73	0.00	459.73	3,699.32	1,849.66	6,680.11	3,345.02	17.16	-1.43	0.143
120.00	-18.58	-16.63	0.00	-408.53	0.00	408.53	3,699.09	1,849.55	6,679.09	3,344.51	18.06	-1.46	0.127
125.00	-17.30	-16.11	0.00	-325.36	0.00	325.36	3,625.18	1,812.59	6,357.00	3,183.22	19.62	-1.50	0.107
130.00	-12.83	-12.37	0.00	-242.32	0.00	242.32	3,549.40	1,774.70	6,039.41	3,024.20	21.21	-1.54	0.084
135.00	-11.65	-11.86	0.00	-180.48	0.00	180.48	3,471.74	1,735.87	5,726.63	2,867.57	22.83	-1.56	0.066
140.00	-10.49	-11.49	0.00	-121.19	0.00	121.19	3,392.22	1,696.11	5,418.94	2,713.50	24.48	-1.59	0.048
142.00	-8.36	-8.76	0.00	-98.20	0.00	98.20	3,359.88	1,679.94	5,297.36	2,652.62	25.15	-1.59	0.040
145.00	-7.74	-8.37	0.00	-71.92	0.00	71.92	3,310.82	1,655.41	5,116.64	2,562.12	26.15	-1.60	0.030
150.00	-3.72	-3.12	0.00	-30.06	0.00	30.06	3,221.56	1,610.78	4,811.06	2,409.11	27.83	-1.61	0.014
155.00	-2.81	-2.66	0.00	-14.45	0.00	14.45	3,110.44	1,555.22	4,483.27	2,244.97	29.52	-1.61	0.007
160.00	0.00	-2.58	0.00	-1.17	0.00	1.17	2,999.33	1,499.66	4,167.05	2,086.62	31.22	-1.62	0.001

Site Number: 302529 Code: ANSI/TIA-222-G

Site Name: Vernon CT 6, CT Engineering Number:OAA713866_C3_01 10/5/2017 1:06:15 PM

Customer: SPRINT NEXTEL

Load Case: 0.9D + 1.6W — 97 mph with No Ice (Reduced DL) — 19 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

		Shaft Forces		Discrete Forces				Linear Forces		Sum of Forces			
Seg Elev (ft)	Description	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		277.2	0.0					0.0	0.0	277.2	0.0	0.0	0.0
5.00		549.5	1,939.3					0.0	114.0	549.5	2,053.3	0.0	0.0
10.00		539.7	1,904.9					0.0	190.0	539.7	2,094.9	0.0	0.0
15.00		530.0	1,870.6					0.0	190.0	530.0	2,060.6	0.0	0.0
20.00		520.2	1,836.2					0.0	190.0	520.2	2,026.2	0.0	0.0
25.00		510.5	1,801.9					0.0	190.0	510.5	1,991.9	0.0	0.0
30.00		506.7	1,767.5					0.0	190.0	506.7	1,957.5	0.0	0.0
35.00		357.0	1,733.2					0.0	190.0	357.0	1,923.2	0.0	0.0
37.00	Bot - Section 2	261.4	683.7					0.0	76.0	261.4	759.6	0.0	0.0
40.00		425.4	1,817.5					0.0	114.0	425.4	1,931.5	0.0	0.0
45.00	Top - Section 1	537.3	2,980.3					0.0	190.0	537.3	3,170.3	0.0	0.0
50.00		542.5	1,289.1					0.0	190.0	542.5	1,479.1	0.0	0.0
55.00		545.9	1,262.4					0.0	190.0	545.9	1,452.4	0.0	0.0
60.00		547.7	1,235.7					0.0	190.0	547.7	1,425.7	0.0	0.0
65.00		548.3	1,209.0					0.0	190.0	548.3	1,399.0	0.0	0.0
70.00		547.6	1,182.3					0.0	190.0	547.6	1,372.3	0.0	0.0
75.00	Bot - Section 3	549.7	1,155.5					0.0	190.0	549.7	1,345.5	0.0	0.0
80.00		386.2	2,111.2					0.0	190.0	386.2	2,301.2	0.0	0.0
82.00	Top - Section 2	274.6	830.6					0.0	76.0	274.6	906.6	0.0	0.0
85.00		437.3	572.9					0.0	114.0	437.3	686.9	0.0	0.0
90.00		543.0	936.6					0.0	190.0	543.0	1,126.6	0.0	0.0
95.00		537.9	913.7					0.0	190.0	537.9	1,103.7	0.0	0.0
100.00		532.1	890.8					0.0	190.0	532.1	1,080.8	0.0	0.0
105.00		525.6	867.9					0.0	190.0	525.6	1,057.9	0.0	0.0
110.00		480.2	845.0					0.0	190.0	480.2	1,035.0	0.0	0.0
114.25	Bot - Section 4	258.1	700.2					0.0	161.5	258.1	861.7	0.0	0.0
115.00		142.6	245.8					0.0	28.5	142.6	274.2	0.0	0.0
117.00	Appertunance(s)	257.7	650.3	683.8	0.0	0.0	246.8	0.0	76.0	941.6	973.1	0.0	0.0
120.00	Top - Section 3	407.7	961.7					0.0	100.7	407.7	1,062.4	0.0	0.0
125.00		502.6	789.9					0.0	167.8	502.6	957.8	0.0	0.0
130.00	Appertunance(s)	493.5	767.0	3,135.6	0.0	2,489.3	2,485.0	0.0	167.8	3,629.1	3,419.9	0.0	0.0
135.00		483.8	744.1					0.0	149.8	483.8	894.0	0.0	0.0
140.00		333.8	721.2					0.0	149.8	333.8	871.1	0.0	0.0
142.00	Appertunance(s)	234.3	282.1	2,442.6	0.0	0.0	1,315.6	0.0	59.9	2,676.9	1,657.6	0.0	0.0
145.00		368.9	416.2					0.0	54.0	368.9	470.2	0.0	0.0
150.00	Appertunance(s)	452.3	675.4	4,685.0	0.0	0.0	2,362.6	0.0	90.0	5,137.3	3,128.0	0.0	0.0
155.00		441.0	652.5					0.0	34.0	441.0	686.5	0.0	0.0
160.00	Appertunance(s)	217.6	629.6	2,357.5	0.0	1,169.4	1,501.2	0.0	34.0	2,575.1	2,164.8	0.0	0.0
								Totals:		29,911.9	55,163.0	0.00	0.00

Load Case: 0.9D + 1.6W 97 mph with No Ice (Reduced DL) 19 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	-55.15	-29.66	0.00	-3,261.82	0.00	3,261.82	8,793.00	4,396.50	25,857.6	12,948.0	0.00	0.00	0.258
5.00	-53.07	-29.16	0.00	-3,113.52	0.00	3,113.52	8,690.95	4,345.48	25,105.2	12,571.3	0.03	-0.05	0.254
10.00	-50.95	-28.67	0.00	-2,967.71	0.00	2,967.71	8,587.03	4,293.52	24,358.2	12,197.2	0.12	-0.11	0.249
15.00	-48.86	-28.18	0.00	-2,824.36	0.00	2,824.36	8,481.24	4,240.62	23,616.8	11,825.9	0.26	-0.17	0.245
20.00	-46.81	-27.70	0.00	-2,683.46	0.00	2,683.46	8,373.58	4,186.79	22,881.3	11,457.6	0.47	-0.22	0.240
25.00	-44.79	-27.22	0.00	-2,544.96	0.00	2,544.96	8,264.05	4,132.02	22,152.0	11,092.4	0.73	-0.28	0.235
30.00	-42.81	-26.75	0.00	-2,408.84	0.00	2,408.84	8,152.64	4,076.32	21,429.1	10,730.5	1.05	-0.33	0.230
35.00	-40.87	-26.41	0.00	-2,275.10	0.00	2,275.10	8,039.37	4,019.68	20,713.0	10,371.9	1.43	-0.39	0.224
37.00	-40.10	-26.16	0.00	-2,222.28	0.00	2,222.28	7,993.53	3,996.77	20,428.6	10,229.4	1.60	-0.41	0.222
40.00	-38.15	-25.75	0.00	-2,143.80	0.00	2,143.80	7,924.22	3,962.11	20,004.0	10,016.9	1.87	-0.45	0.219
45.00	-34.96	-25.22	0.00	-2,015.04	0.00	2,015.04	5,650.82	2,825.41	14,233.8	7,127.48	2.37	-0.50	0.289
50.00	-33.46	-24.70	0.00	-1,888.93	0.00	1,888.93	5,579.57	2,789.79	13,763.9	6,892.22	2.92	-0.56	0.280
55.00	-31.98	-24.18	0.00	-1,765.41	0.00	1,765.41	5,506.45	2,753.22	13,297.0	6,658.42	3.55	-0.63	0.271
60.00	-30.54	-23.65	0.00	-1,644.51	0.00	1,644.51	5,431.46	2,715.73	12,833.3	6,426.21	4.24	-0.70	0.262
65.00	-29.12	-23.12	0.00	-1,526.25	0.00	1,526.25	5,354.59	2,677.30	12,373.1	6,195.75	5.01	-0.76	0.252
70.00	-27.73	-22.59	0.00	-1,410.65	0.00	1,410.65	5,275.86	2,637.93	11,916.6	5,967.17	5.85	-0.83	0.242
75.00	-26.37	-22.05	0.00	-1,297.72	0.00	1,297.72	5,195.26	2,597.63	11,464.2	5,740.64	6.75	-0.90	0.231
80.00	-24.05	-21.64	0.00	-1,187.49	0.00	1,187.49	5,112.78	2,556.39	11,016.1	5,516.28	7.73	-0.96	0.220
82.00	-23.14	-21.36	0.00	-1,144.21	0.00	1,144.21	4,164.29	2,082.14	9,036.58	4,525.01	8.14	-0.99	0.259
85.00	-22.44	-20.94	0.00	-1,080.11	0.00	1,080.11	4,128.03	2,064.01	8,829.01	4,421.07	8.77	-1.03	0.250
90.00	-21.30	-20.40	0.00	-975.43	0.00	975.43	4,066.09	2,033.05	8,484.96	4,248.79	9.88	-1.10	0.235
95.00	-20.18	-19.86	0.00	-873.44	0.00	873.44	4,002.29	2,001.14	8,143.55	4,077.83	11.07	-1.16	0.219
100.00	-19.09	-19.33	0.00	-774.13	0.00	774.13	3,936.61	1,968.31	7,805.07	3,908.34	12.32	-1.23	0.203
105.00	-18.03	-18.80	0.00	-677.49	0.00	677.49	3,869.07	1,934.53	7,469.82	3,740.46	13.64	-1.29	0.186
110.00	-16.99	-18.31	0.00	-583.50	0.00	583.50	3,799.65	1,899.82	7,138.08	3,574.35	15.02	-1.35	0.168
114.25	-16.12	-18.04	0.00	-505.69	0.00	505.69	3,739.17	1,869.59	6,859.09	3,434.64	16.24	-1.39	0.152
115.00	-15.85	-17.89	0.00	-492.16	0.00	492.16	3,728.36	1,864.18	6,810.15	3,410.14	16.46	-1.40	0.149
117.00	-14.89	-16.93	0.00	-456.37	0.00	456.37	3,699.32	1,849.66	6,680.11	3,345.02	17.05	-1.42	0.141
120.00	-13.83	-16.51	0.00	-405.57	0.00	405.57	3,699.09	1,849.55	6,679.09	3,344.51	17.95	-1.45	0.125
125.00	-12.88	-15.99	0.00	-323.03	0.00	323.03	3,625.18	1,812.59	6,357.00	3,183.22	19.49	-1.49	0.105
130.00	-9.55	-12.28	0.00	-240.59	0.00	240.59	3,549.40	1,774.70	6,039.41	3,024.20	21.07	-1.53	0.082
135.00	-8.66	-11.77	0.00	-179.20	0.00	179.20	3,471.74	1,735.87	5,726.63	2,867.57	22.69	-1.55	0.065
140.00	-7.80	-11.42	0.00	-120.33	0.00	120.33	3,392.22	1,696.11	5,418.94	2,713.50	24.32	-1.57	0.047
142.00	-6.21	-8.70	0.00	-97.49	0.00	97.49	3,359.88	1,679.94	5,297.36	2,652.62	24.99	-1.58	0.039
145.00	-5.75	-8.32	0.00	-71.40	0.00	71.40	3,310.82	1,655.41	5,116.64	2,562.12	25.98	-1.59	0.030
150.00	-2.77	-3.09	0.00	-29.82	0.00	29.82	3,221.56	1,610.78	4,811.06	2,409.11	27.65	-1.60	0.013
155.00	-2.09	-2.63	0.00	-14.34	0.00	14.34	3,110.44	1,555.22	4,483.27	2,244.97	29.33	-1.60	0.007
160.00	0.00	-2.58	0.00	-1.17	0.00	1.17	2,999.33	1,499.66	4,167.05	2,086.62	31.01	-1.61	0.001

Site Number: 302529 Code: ANSI/TIA-222-G

Site Name: Vernon CT 6, CT Engineering Number:OAA713866_C3_01 10/5/2017 1:06:17 PM

Customer: SPRINT NEXTEL

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph with 1.00 in Radial Ice 18 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		88.6	0.0					0.0	0.0	88.6	0.0	0.0	0.0
5.00		176.1	3,286.7					0.0	152.0	176.1	3,438.7	0.0	0.0
10.00		173.8	3,310.6					0.0	253.3	173.8	3,564.0	0.0	0.0
15.00		171.1	3,292.0					0.0	253.3	171.1	3,545.3	0.0	0.0
20.00		168.4	3,259.4					0.0	253.3	168.4	3,512.7	0.0	0.0
25.00		165.6	3,219.6					0.0	253.3	165.6	3,473.0	0.0	0.0
30.00		164.7	3,175.4					0.0	253.3	164.7	3,428.7	0.0	0.0
35.00		116.2	3,128.1					0.0	253.3	116.2	3,381.4	0.0	0.0
37.00	Bot - Section 2	85.2	1,239.3					0.0	101.3	85.2	1,340.7	0.0	0.0
40.00		138.8	2,919.4					0.0	152.0	138.8	3,071.4	0.0	0.0
45.00	Top - Section 1	175.6	4,792.8					0.0	253.3	175.6	5,046.1	0.0	0.0
50.00		177.6	2,531.0					0.0	253.3	177.6	2,784.3	0.0	0.0
55.00		179.1	2,487.3					0.0	253.3	179.1	2,740.6	0.0	0.0
60.00		180.1	2,442.6					0.0	253.3	180.1	2,696.0	0.0	0.0
65.00		180.6	2,397.1					0.0	253.3	180.6	2,650.4	0.0	0.0
70.00		180.8	2,350.9					0.0	253.3	180.8	2,604.2	0.0	0.0
75.00	Bot - Section 3	181.7	2,304.0					0.0	253.3	181.7	2,557.3	0.0	0.0
80.00		127.8	3,576.6					0.0	253.3	127.8	3,829.9	0.0	0.0
82.00	Top - Section 2	91.1	1,410.7					0.0	101.3	91.1	1,512.1	0.0	0.0
85.00		145.2	1,214.1					0.0	152.0	145.2	1,366.1	0.0	0.0
90.00		180.7	1,985.3					0.0	253.3	180.7	2,238.6	0.0	0.0
95.00		179.4	1,941.6					0.0	253.3	179.4	2,194.9	0.0	0.0
100.00		177.9	1,897.5					0.0	253.3	177.9	2,150.8	0.0	0.0
105.00		176.2	1,853.0					0.0	253.3	176.2	2,106.3	0.0	0.0
110.00		161.4	1,808.2					0.0	253.3	161.4	2,061.6	0.0	0.0
114.25	Bot - Section 4	86.8	1,502.7					0.0	215.3	86.8	1,718.0	0.0	0.0
115.00		48.0	429.5					0.0	38.0	48.0	467.5	0.0	0.0
117.00	Appertunance(s)	86.9	1,136.1	178.5	0.0	0.0	1,166.5	0.0	101.3	265.4	2,403.9	0.0	0.0
120.00	Top - Section 3	137.7	1,680.4					0.0	134.3	137.7	1,814.6	0.0	0.0
125.00		170.2	1,701.1					0.0	223.8	170.2	1,924.9	0.0	0.0
130.00	Appertunance(s)	167.6	1,655.2	799.3	0.0	545.3	7,605.7	0.0	223.8	966.9	9,484.7	0.0	0.0
135.00		164.9	1,609.2					0.0	199.8	164.9	1,809.0	0.0	0.0
140.00		114.1	1,562.9					0.0	199.8	114.1	1,762.7	0.0	0.0
142.00	Appertunance(s)	80.3	614.3	612.5	0.0	0.0	5,334.1	0.0	79.9	692.8	6,028.4	0.0	0.0
145.00		126.8	906.4					0.0	72.0	126.8	978.4	0.0	0.0
150.00	Appertunance(s)	155.9	1,469.7	1,203.6	0.0	0.0	8,908.2	0.0	120.0	1,359.5	10,497.9	0.0	0.0
155.00		152.7	1,422.8					0.0	45.4	152.7	1,468.2	0.0	0.0
160.00	Appertunance(s)	75.5	1,375.8	619.8	0.0	228.8	4,603.2	0.0	45.4	695.4	6,024.4	0.0	0.0
								Totals:		8,924.72	113,677.	0.00	0.00

Site Number: 302529 Code: ANSI/TIA-222-G

Site Name: Vernon CT 6, CT Engineering Number:OAA713866_C3_01 10/5/2017 1:06:19 PM

Customer: SPRINT NEXTEL

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph with 1.00 in Radial Ice 18 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	-113.68	-8.85	0.00	-962.41	0.00	962.41	8,793.00	4,396.50	25,857.6	12,948.0	0.00	0.00	0.087
5.00	-110.24	-8.71	0.00	-918.15	0.00	918.15	8,690.95	4,345.48	25,105.2	12,571.3	0.01	-0.02	0.086
10.00	-106.67	-8.56	0.00	-874.62	0.00	874.62	8,587.03	4,293.52	24,358.2	12,197.2	0.03	-0.03	0.084
15.00	-103.12	-8.42	0.00	-831.81	0.00	831.81	8,481.24	4,240.62	23,616.8	11,825.9	0.08	-0.05	0.082
20.00	-99.61	-8.27	0.00	-789.72	0.00	789.72	8,373.58	4,186.79	22,881.3	11,457.6	0.14	-0.07	0.081
25.00	-96.13	-8.13	0.00	-748.35	0.00	748.35	8,264.05	4,132.02	22,152.0	11,092.4	0.21	-0.08	0.079
30.00	-92.70	-7.99	0.00	-707.69	0.00	707.69	8,152.64	4,076.32	21,429.1	10,730.5	0.31	-0.10	0.077
35.00	-89.32	-7.88	0.00	-667.75	0.00	667.75	8,039.37	4,019.68	20,713.0	10,371.9	0.42	-0.11	0.075
37.00	-87.98	-7.81	0.00	-651.98	0.00	651.98	7,993.53	3,996.77	20,428.6	10,229.4	0.47	-0.12	0.075
40.00	-84.90	-7.68	0.00	-628.55	0.00	628.55	7,924.22	3,962.11	20,004.0	10,016.9	0.55	-0.13	0.073
45.00	-79.86	-7.52	0.00	-590.14	0.00	590.14	5,650.82	2,825.41	14,233.8	7,127.48	0.70	-0.15	0.097
50.00	-77.07	-7.36	0.00	-552.55	0.00	552.55	5,579.57	2,789.79	13,763.9	6,892.22	0.86	-0.16	0.094
55.00	-74.33	-7.20	0.00	-515.76	0.00	515.76	5,506.45	2,753.22	13,297.0	6,658.42	1.04	-0.18	0.091
60.00	-71.63	-7.03	0.00	-479.78	0.00	479.78	5,431.46	2,715.73	12,833.3	6,426.21	1.25	-0.20	0.088
65.00	-68.98	-6.86	0.00	-444.62	0.00	444.62	5,354.59	2,677.30	12,373.1	6,195.75	1.47	-0.22	0.085
70.00	-66.37	-6.70	0.00	-410.30	0.00	410.30	5,275.86	2,637.93	11,916.6	5,967.17	1.72	-0.24	0.081
75.00	-63.81	-6.52	0.00	-376.82	0.00	376.82	5,195.26	2,597.63	11,464.2	5,740.64	1.98	-0.26	0.078
80.00	-59.98	-6.39	0.00	-344.20	0.00	344.20	5,112.78	2,556.39	11,016.1	5,516.28	2.27	-0.28	0.074
82.00	-58.47	-6.30	0.00	-331.42	0.00	331.42	4,164.29	2,082.14	9,036.58	4,525.01	2.39	-0.29	0.087
85.00	-57.10	-6.17	0.00	-312.51	0.00	312.51	4,128.03	2,064.01	8,829.01	4,421.07	2.57	-0.30	0.085
90.00	-54.86	-5.99	0.00	-281.68	0.00	281.68	4,066.09	2,033.05	8,484.96	4,248.79	2.90	-0.32	0.080
95.00	-52.67	-5.82	0.00	-251.72	0.00	251.72	4,002.29	2,001.14	8,143.55	4,077.83	3.25	-0.34	0.075
100.00	-50.52	-5.64	0.00	-222.63	0.00	222.63	3,936.61	1,968.31	7,805.07	3,908.34	3.61	-0.36	0.070
105.00	-48.41	-5.47	0.00	-194.42	0.00	194.42	3,869.07	1,934.53	7,469.82	3,740.46	4.00	-0.38	0.064
110.00	-46.35	-5.30	0.00	-167.09	0.00	167.09	3,799.65	1,899.82	7,138.08	3,574.35	4.40	-0.39	0.059
114.25	-44.63	-5.21	0.00	-144.55	0.00	144.55	3,739.17	1,869.59	6,859.09	3,434.64	4.76	-0.41	0.054
115.00	-44.16	-5.16	0.00	-140.64	0.00	140.64	3,728.36	1,864.18	6,810.15	3,410.14	4.82	-0.41	0.053
117.00	-41.76	-4.89	0.00	-130.31	0.00	130.31	3,699.32	1,849.66	6,680.11	3,345.02	4.99	-0.41	0.050
120.00	-39.94	-4.74	0.00	-115.66	0.00	115.66	3,699.09	1,849.55	6,679.09	3,344.51	5.25	-0.42	0.045
125.00	-38.02	-4.56	0.00	-91.95	0.00	91.95	3,625.18	1,812.59	6,357.00	3,183.22	5.70	-0.43	0.039
130.00	-28.54	-3.53	0.00	-68.59	0.00	68.59	3,549.40	1,774.70	6,039.41	3,024.20	6.16	-0.44	0.031
135.00	-26.73	-3.35	0.00	-50.94	0.00	50.94	3,471.74	1,735.87	5,726.63	2,867.57	6.63	-0.45	0.025
140.00	-24.97	-3.23	0.00	-34.17	0.00	34.17	3,392.22	1,696.11	5,418.94	2,713.50	7.11	-0.46	0.020
142.00	-18.95	-2.49	0.00	-27.72	0.00	27.72	3,359.88	1,679.94	5,297.36	2,652.62	7.30	-0.46	0.016
145.00	-17.97	-2.35	0.00	-20.26	0.00	20.26	3,310.82	1,655.41	5,116.64	2,562.12	7.59	-0.46	0.013
150.00	-7.49	-0.91	0.00	-8.49	0.00	8.49	3,221.56	1,610.78	4,811.06	2,409.11	8.08	-0.46	0.006
155.00	-6.02	-0.74	0.00	-3.95	0.00	3.95	3,110.44	1,555.22	4,483.27	2,244.97	8.56	-0.47	0.004
160.00	0.00	-0.70	0.00	-0.23	0.00	0.23	2,999.33	1,499.66	4,167.05	2,086.62	9.05	-0.47	0.000

Load Case: 1.0D + 1.0W Serviceability 60 mph 18 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		66.3	0.0					0.0	0.0	66.3	0.0	0.0	0.0
5.00		131.4	2,154.8					0.0	126.7	131.4	2,281.4	0.0	0.0
10.00		129.1	2,116.6					0.0	211.1	129.1	2,327.7	0.0	0.0
15.00		126.7	2,078.4					0.0	211.1	126.7	2,289.5	0.0	0.0
20.00		124.4	2,040.3					0.0	211.1	124.4	2,251.4	0.0	0.0
25.00		122.1	2,002.1					0.0	211.1	122.1	2,213.2	0.0	0.0
30.00		121.2	1,963.9					0.0	211.1	121.2	2,175.0	0.0	0.0
35.00		85.4	1,925.8					0.0	211.1	85.4	2,136.9	0.0	0.0
37.00	Bot - Section 2	62.5	759.6					0.0	84.4	62.5	844.1	0.0	0.0
40.00		101.7	2,019.5					0.0	126.7	101.7	2,146.1	0.0	0.0
45.00	Top - Section 1	128.5	3,311.5					0.0	211.1	128.5	3,522.6	0.0	0.0
50.00		129.7	1,432.4					0.0	211.1	129.7	1,643.5	0.0	0.0
55.00		130.5	1,402.7					0.0	211.1	130.5	1,613.8	0.0	0.0
60.00		131.0	1,373.0					0.0	211.1	131.0	1,584.1	0.0	0.0
65.00		131.1	1,343.3					0.0	211.1	131.1	1,554.4	0.0	0.0
70.00		131.0	1,313.6					0.0	211.1	131.0	1,524.7	0.0	0.0
75.00	Bot - Section 3	131.4	1,283.9					0.0	211.1	131.4	1,495.0	0.0	0.0
80.00		92.4	2,345.8					0.0	211.1	92.4	2,556.9	0.0	0.0
82.00	Top - Section 2	65.7	922.9					0.0	84.4	65.7	1,007.3	0.0	0.0
85.00		104.6	636.6					0.0	126.7	104.6	763.3	0.0	0.0
90.00		129.9	1,040.6					0.0	211.1	129.9	1,251.7	0.0	0.0
95.00		128.6	1,015.2					0.0	211.1	128.6	1,226.3	0.0	0.0
100.00		127.2	989.7					0.0	211.1	127.2	1,200.8	0.0	0.0
105.00		125.7	964.3					0.0	211.1	125.7	1,175.4	0.0	0.0
110.00		114.8	938.9					0.0	211.1	114.8	1,150.0	0.0	0.0
114.25	Bot - Section 4	61.7	778.0					0.0	179.4	61.7	957.5	0.0	0.0
115.00		34.1	273.1					0.0	31.7	34.1	304.7	0.0	0.0
117.00	Appertunance(s)	61.6	722.6	163.5	0.0	0.0	274.2	0.0	84.4	225.2	1,081.2	0.0	0.0
120.00	Top - Section 3	97.5	1,068.6					0.0	111.9	97.5	1,180.5	0.0	0.0
125.00		120.2	877.7					0.0	186.5	120.2	1,064.2	0.0	0.0
130.00	Appertunance(s)	118.0	852.3	749.8	0.0	595.3	2,761.1	0.0	186.5	867.8	3,799.9	0.0	0.0
135.00		115.7	826.8					0.0	166.5	115.7	993.3	0.0	0.0
140.00		79.8	801.4					0.0	166.5	79.8	967.9	0.0	0.0
142.00	Appertunance(s)	56.0	313.4	584.1	0.0	0.0	1,461.8	0.0	66.6	640.1	1,841.8	0.0	0.0
145.00		88.2	462.5					0.0	60.0	88.2	522.5	0.0	0.0
150.00	Appertunance(s)	108.2	750.5	1,120.3	0.0	0.0	2,625.1	0.0	100.0	1,228.5	3,475.6	0.0	0.0
155.00		105.5	725.0					0.0	37.8	105.5	762.8	0.0	0.0
160.00	Appertunance(s)	52.0	699.6	563.8	0.0	279.7	1,668.0	0.0	37.8	615.8	2,405.4	0.0	0.0
								Totals:		7,152.94	61,292.2	0.00	0.00

Load Case: 1.0D + 1.0W Serviceability 60 mph 18 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	-61.29	-7.09	0.00	-781.35	0.00	781.35	8,793.00	4,396.50	25,857.6	12,948.0	0.00	0.00	0.067
5.00	-59.01	-6.98	0.00	-745.88	0.00	745.88	8,690.95	4,345.48	25,105.2	12,571.3	0.01	-0.01	0.066
10.00	-56.68	-6.86	0.00	-711.01	0.00	711.01	8,587.03	4,293.52	24,358.2	12,197.2	0.03	-0.03	0.065
15.00	-54.39	-6.74	0.00	-676.71	0.00	676.71	8,481.24	4,240.62	23,616.8	11,825.9	0.06	-0.04	0.064
20.00	-52.14	-6.63	0.00	-643.00	0.00	643.00	8,373.58	4,186.79	22,881.3	11,457.6	0.11	-0.05	0.062
25.00	-49.92	-6.52	0.00	-609.85	0.00	609.85	8,264.05	4,132.02	22,152.0	11,092.4	0.17	-0.07	0.061
30.00	-47.74	-6.40	0.00	-577.27	0.00	577.27	8,152.64	4,076.32	21,429.1	10,730.5	0.25	-0.08	0.060
35.00	-45.61	-6.32	0.00	-545.25	0.00	545.25	8,039.37	4,019.68	20,713.0	10,371.9	0.34	-0.09	0.058
37.00	-44.76	-6.26	0.00	-532.61	0.00	532.61	7,993.53	3,996.77	20,428.6	10,229.4	0.38	-0.10	0.058
40.00	-42.61	-6.17	0.00	-513.81	0.00	513.81	7,924.22	3,962.11	20,004.0	10,016.9	0.45	-0.11	0.057
45.00	-39.09	-6.04	0.00	-482.98	0.00	482.98	5,650.82	2,825.41	14,233.8	7,127.48	0.57	-0.12	0.075
50.00	-37.45	-5.92	0.00	-452.78	0.00	452.78	5,579.57	2,789.79	13,763.9	6,892.22	0.70	-0.13	0.072
55.00	-35.83	-5.79	0.00	-423.20	0.00	423.20	5,506.45	2,753.22	13,297.0	6,658.42	0.85	-0.15	0.070
60.00	-34.25	-5.67	0.00	-394.24	0.00	394.24	5,431.46	2,715.73	12,833.3	6,426.21	1.02	-0.17	0.068
65.00	-32.69	-5.54	0.00	-365.90	0.00	365.90	5,354.59	2,677.30	12,373.1	6,195.75	1.20	-0.18	0.065
70.00	-31.16	-5.41	0.00	-338.20	0.00	338.20	5,275.86	2,637.93	11,916.6	5,967.17	1.40	-0.20	0.063
75.00	-29.67	-5.28	0.00	-311.14	0.00	311.14	5,195.26	2,597.63	11,464.2	5,740.64	1.62	-0.21	0.060
80.00	-27.11	-5.19	0.00	-284.72	0.00	284.72	5,112.78	2,556.39	11,016.1	5,516.28	1.85	-0.23	0.057
82.00	-26.10	-5.12	0.00	-274.34	0.00	274.34	4,164.29	2,082.14	9,036.58	4,525.01	1.95	-0.24	0.067
85.00	-25.34	-5.02	0.00	-258.98	0.00	258.98	4,128.03	2,064.01	8,829.01	4,421.07	2.10	-0.25	0.065
90.00	-24.09	-4.89	0.00	-233.89	0.00	233.89	4,066.09	2,033.05	8,484.96	4,248.79	2.37	-0.26	0.061
95.00	-22.86	-4.76	0.00	-209.44	0.00	209.44	4,002.29	2,001.14	8,143.55	4,077.83	2.65	-0.28	0.057
100.00	-21.66	-4.63	0.00	-185.63	0.00	185.63	3,936.61	1,968.31	7,805.07	3,908.34	2.95	-0.29	0.053
105.00	-20.48	-4.51	0.00	-162.45	0.00	162.45	3,869.07	1,934.53	7,469.82	3,740.46	3.27	-0.31	0.049
110.00	-19.33	-4.39	0.00	-139.92	0.00	139.92	3,799.65	1,899.82	7,138.08	3,574.35	3.60	-0.32	0.044
114.25	-18.37	-4.33	0.00	-121.26	0.00	121.26	3,739.17	1,869.59	6,859.09	3,434.64	3.89	-0.33	0.040
115.00	-18.07	-4.29	0.00	-118.01	0.00	118.01	3,728.36	1,864.18	6,810.15	3,410.14	3.94	-0.34	0.039
117.00	-16.99	-4.06	0.00	-109.43	0.00	109.43	3,699.32	1,849.66	6,680.11	3,345.02	4.09	-0.34	0.037
120.00	-15.81	-3.96	0.00	-97.25	0.00	97.25	3,699.09	1,849.55	6,679.09	3,344.51	4.30	-0.35	0.033
125.00	-14.75	-3.83	0.00	-77.45	0.00	77.45	3,625.18	1,812.59	6,357.00	3,183.22	4.67	-0.36	0.028
130.00	-10.95	-2.94	0.00	-57.69	0.00	57.69	3,549.40	1,774.70	6,039.41	3,024.20	5.05	-0.37	0.022
135.00	-9.96	-2.82	0.00	-42.97	0.00	42.97	3,471.74	1,735.87	5,726.63	2,867.57	5.44	-0.37	0.018
140.00	-8.99	-2.74	0.00	-28.85	0.00	28.85	3,392.22	1,696.11	5,418.94	2,713.50	5.83	-0.38	0.013
142.00	-7.15	-2.09	0.00	-23.38	0.00	23.38	3,359.88	1,679.94	5,297.36	2,652.62	5.99	-0.38	0.011
145.00	-6.63	-1.99	0.00	-17.12	0.00	17.12	3,310.82	1,655.41	5,116.64	2,562.12	6.23	-0.38	0.009
150.00	-3.16	-0.74	0.00	-7.15	0.00	7.15	3,221.56	1,610.78	4,811.06	2,409.11	6.63	-0.38	0.004
155.00	-2.40	-0.63	0.00	-3.44	0.00	3.44	3,110.44	1,555.22	4,483.27	2,244.97	7.03	-0.38	0.002
160.00	0.00	-0.62	0.00	-0.28	0.00	0.28	2,999.33	1,499.66	4,167.05	2,086.62	7.43	-0.38	0.000

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):	1.57	
Redundancy Factor (p):	1.30	
Seismic Force Distribution Exponent (k):	1.54	
Total Unfactored Dead Load:	61.29	k
Seismic Base Shear (E):	3.45	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)
37	157.50	737	1,761	0.031	108	913
36	152.50	763	1,733	0.031	106	944
35	147.50	850	1,836	0.033	113	1,053
34	143.50	522	1,081	0.019	66	647
33	141.00	380	765	0.014	47	470
32	137.50	968	1,876	0.033	115	1,198
31	132.50	993	1,818	0.032	112	1,229
30	127.50	1,039	1,792	0.032	110	1,286
29	122.50	1,064	1,727	0.031	106	1,317
28	118.50	1,180	1,820	0.032	112	1,461
27	116.00	807	1,204	0.021	74	999
26	114.63	305	446	0.008	27	377
25	112.13	957	1,356	0.024	83	1,185
24	107.50	1,150	1,526	0.027	94	1,423
23	102.50	1,175	1,450	0.026	89	1,455
22	97.50	1,201	1,372	0.024	84	1,486
21	92.50	1,226	1,292	0.023	79	1,518
20	87.50	1,252	1,211	0.021	74	1,549
19	83.50	763	687	0.012	42	945
18	81.00	1,007	865	0.015	53	1,247
17	77.50	2,557	2,052	0.036	126	3,165
16	72.50	1,495	1,083	0.019	66	1,851
15	67.50	1,525	990	0.018	61	1,887

14	62.50	1,554	896	0.016	55	1,924
13	57.50	1,584	804	0.014	49	1,961
12	52.50	1,614	712	0.013	44	1,997
11	47.50	1,643	621	0.011	38	2,034
10	42.50	3,523	1,123	0.020	69	4,360
9	38.50	2,146	588	0.010	36	2,656
8	36.00	844	208	0.004	13	1,045
7	32.50	2,137	451	0.008	28	2,645
6	27.50	2,175	355	0.006	22	2,692
5	22.50	2,213	265	0.005	16	2,739
4	17.50	2,251	183	0.003	11	2,787
3	12.50	2,290	111	0.002	7	2,834
2	7.50	2,328	52	0.001	3	2,881
1	2.50	2,281	9	0.000	1	2,824
Decibel DB844H90E-XY	160.00	168	411	0.007	25	208
Flat Low Profile Pla	160.00	1,500	3,669	0.065	225	1,857
Nokia B5 RRH4x40-850	150.00	146	322	0.006	20	180
Alcatel-Lucent RRH2X	150.00	129	286	0.005	18	160
Alcatel-Lucent RRH2x	150.00	180	399	0.007	24	223
RFS DB-T1-6Z-8AB-0Z	150.00	88	195	0.003	12	109
Andrew LNX-6514DS-A1	150.00	116	258	0.005	16	144
Andrew SBNHH-1D65B	150.00	304	674	0.012	41	377
Amphenol Antel QUAD6	150.00	162	359	0.006	22	201
Round Low Profile Pl	150.00	1,500	3,323	0.059	204	1,857
Powerwave Allgon LGP	142.00	85	172	0.003	11	105
Raycap DC6-48-60-18-	142.00	20	41	0.001	2	25
RRH	142.00	135	275	0.005	17	167
Ericsson RRUS 12 w/	142.00	214	436	0.008	27	265
Powerwave Allgon 777	142.00	105	214	0.004	13	130
CCI HPA-65R-BUU-H6	142.00	153	312	0.006	19	189
Round T-Arm	142.00	750	1,527	0.027	94	928
Alcatel-Lucent RRH2x	130.00	159	282	0.005	17	196
Alcatel-Lucent 4X40W	130.00	357	635	0.011	39	442
Alcatel-Lucent 800 M	130.00	185	330	0.006	20	229
Alcatel-Lucent TD-RR	130.00	210	373	0.007	23	260
RFS APXVSPP18-C-A20	130.00	114	203	0.004	12	141
RFS APXV9ERR18-C-A20	130.00	62	110	0.002	7	77
Commscope DT465B-2XR	130.00	174	309	0.005	19	215
Round Low Profile Pl	130.00	1,500	2,667	0.047	164	1,857
Flush Mounts	117.00	195	295	0.005	18	241
RFS APXV18-206517S-C	117.00	79	120	0.002	7	98
		61,292	56,318	1.000	3,454	75,865

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)
37	157.50	737	1,761	0.031	108	636
36	152.50	763	1,733	0.031	106	658
35	147.50	850	1,836	0.033	113	733
34	143.50	522	1,081	0.019	66	451
33	141.00	380	765	0.014	47	328
32	137.50	968	1,876	0.033	115	835
31	132.50	993	1,818	0.032	112	856
30	127.50	1,039	1,792	0.032	110	896
29	122.50	1,064	1,727	0.031	106	918
28	118.50	1,180	1,820	0.032	112	1,018
27	116.00	807	1,204	0.021	74	696
26	114.63	305	446	0.008	27	263
25	112.13	957	1,356	0.024	83	826

24	107.50	1,150	1,526	0.027	94	992
23	102.50	1,175	1,450	0.026	89	1,013
22	97.50	1,201	1,372	0.024	84	1,035
21	92.50	1,226	1,292	0.023	79	1,057
20	87.50	1,252	1,211	0.021	74	1,079
19	83.50	763	687	0.012	42	658
18	81.00	1,007	865	0.015	53	869
17	77.50	2,557	2,052	0.036	126	2,205
16	72.50	1,495	1,083	0.019	66	1,289
15	67.50	1,525	990	0.018	61	1,315
14	62.50	1,554	896	0.016	55	1,340
13	57.50	1,584	804	0.014	49	1,366
12	52.50	1,614	712	0.013	44	1,391
11	47.50	1,643	621	0.011	38	1,417
10	42.50	3,523	1,123	0.020	69	3,037
9	38.50	2,146	588	0.010	36	1,850
8	36.00	844	208	0.004	13	728
7	32.50	2,137	451	0.008	28	1,842
6	27.50	2,175	355	0.006	22	1,875
5	22.50	2,213	265	0.005	16	1,908
4	17.50	2,251	183	0.003	11	1,941
3	12.50	2,290	111	0.002	7	1,974
2	7.50	2,328	52	0.001	3	2,007
1	2.50	2,281	9	0.000	1	1,967
Decibel DB844H90E-XY	160.00	168	411	0.007	25	145
Flat Low Profile Pla	160.00	1,500	3,669	0.065	225	1,293
Nokia B5 RRH4x40-850	150.00	146	322	0.006	20	125
Alcatel-Lucent RRH2X	150.00	129	286	0.005	18	111
Alcatel-Lucent RRH2x	150.00	180	399	0.007	24	155
RFS DB-T1-6Z-8AB-0Z	150.00	88	195	0.003	12	76
Andrew LNX-6514DS-A1	150.00	116	258	0.005	16	100
Andrew SBNHH-1D65B	150.00	304	674	0.012	41	262
Amphenol Antel QUAD6	150.00	162	359	0.006	22	140
Round Low Profile Pl	150.00	1,500	3,323	0.059	204	1,293
Powerwave Allgon LGP	142.00	85	172	0.003	11	73
Raycap DC6-48-60-18-	142.00	20	41	0.001	2	17
RRH	142.00	135	275	0.005	17	116
Ericsson RRUS 12 w/	142.00	214	436	0.008	27	185
Powerwave Allgon 777	142.00	105	214	0.004	13	91
CCI HPA-65R-BUU-H6	142.00	153	312	0.006	19	132
Round T-Arm	142.00	750	1,527	0.027	94	647
Alcatel-Lucent RRH2x	130.00	159	282	0.005	17	137
Alcatel-Lucent 4X40W	130.00	357	635	0.011	39	308
Alcatel-Lucent 800 M	130.00	185	330	0.006	20	160
Alcatel-Lucent TD-RR	130.00	210	373	0.007	23	181
RFS APXVSPP18-C-A20	130.00	114	203	0.004	12	98
RFS APXV9ERR18-C-A20	130.00	62	110	0.002	7	53
Commscope DT465B-2XR	130.00	174	309	0.005	19	150
Round Low Profile Pl	130.00	1,500	2,667	0.047	164	1,293
Flush Mounts	117.00	195	295	0.005	18	168
RFS APXV18-206517S-C	117.00	79	120	0.002	7	68
		61,292	56,318	1.000	3,454	52,849

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	-73.04	-3.46	0.00	-406.71	0.00	406.71	8,793.00	4,396.50	25,857.6	12,948.0	0.00	0.00	0.040
5.00	-70.16	-3.46	0.00	-389.42	0.00	389.42	8,690.95	4,345.48	25,105.2	12,571.3	0.00	-0.01	0.039
10.00	-67.33	-3.46	0.00	-372.11	0.00	372.11	8,587.03	4,293.52	24,358.2	12,197.2	0.01	-0.01	0.038
15.00	-64.54	-3.46	0.00	-354.79	0.00	354.79	8,481.24	4,240.62	23,616.8	11,825.9	0.03	-0.02	0.038
20.00	-61.80	-3.45	0.00	-337.50	0.00	337.50	8,373.58	4,186.79	22,881.3	11,457.6	0.06	-0.03	0.037
25.00	-59.11	-3.43	0.00	-320.25	0.00	320.25	8,264.05	4,132.02	22,152.0	11,092.4	0.09	-0.03	0.036
30.00	-56.46	-3.41	0.00	-303.09	0.00	303.09	8,152.64	4,076.32	21,429.1	10,730.5	0.13	-0.04	0.035
35.00	-55.42	-3.40	0.00	-286.04	0.00	286.04	8,039.37	4,019.68	20,713.0	10,371.9	0.18	-0.05	0.034
37.00	-52.76	-3.37	0.00	-279.23	0.00	279.23	7,993.53	3,996.77	20,428.6	10,229.4	0.20	-0.05	0.034
40.00	-48.40	-3.30	0.00	-269.13	0.00	269.13	7,924.22	3,962.11	20,004.0	10,016.9	0.23	-0.06	0.033
45.00	-46.36	-3.26	0.00	-252.64	0.00	252.64	5,650.82	2,825.41	14,233.8	7,127.48	0.30	-0.06	0.044
50.00	-44.37	-3.22	0.00	-236.32	0.00	236.32	5,579.57	2,789.79	13,763.9	6,892.22	0.37	-0.07	0.042
55.00	-42.40	-3.18	0.00	-220.20	0.00	220.20	5,506.45	2,753.22	13,297.0	6,658.42	0.45	-0.08	0.041
60.00	-40.48	-3.13	0.00	-204.31	0.00	204.31	5,431.46	2,715.73	12,833.3	6,426.21	0.53	-0.09	0.039
65.00	-38.59	-3.07	0.00	-188.67	0.00	188.67	5,354.59	2,677.30	12,373.1	6,195.75	0.63	-0.10	0.038
70.00	-36.74	-3.00	0.00	-173.33	0.00	173.33	5,275.86	2,637.93	11,916.6	5,967.17	0.73	-0.10	0.036
75.00	-33.58	-2.88	0.00	-158.31	0.00	158.31	5,195.26	2,597.63	11,464.2	5,740.64	0.85	-0.11	0.034
80.00	-32.33	-2.82	0.00	-143.92	0.00	143.92	5,112.78	2,556.39	11,016.1	5,516.28	0.97	-0.12	0.032
82.00	-31.39	-2.78	0.00	-138.27	0.00	138.27	4,164.29	2,082.14	9,036.58	4,525.01	1.02	-0.12	0.038
85.00	-29.84	-2.71	0.00	-129.92	0.00	129.92	4,128.03	2,064.01	8,829.01	4,421.07	1.10	-0.13	0.037
90.00	-28.32	-2.63	0.00	-116.38	0.00	116.38	4,066.09	2,033.05	8,484.96	4,248.79	1.24	-0.14	0.034
95.00	-26.83	-2.55	0.00	-103.23	0.00	103.23	4,002.29	2,001.14	8,143.55	4,077.83	1.38	-0.14	0.032
100.00	-25.38	-2.46	0.00	-90.50	0.00	90.50	3,936.61	1,968.31	7,805.07	3,908.34	1.54	-0.15	0.030
105.00	-23.95	-2.36	0.00	-78.22	0.00	78.22	3,869.07	1,934.53	7,469.82	3,740.46	1.70	-0.16	0.027
110.00	-22.77	-2.28	0.00	-66.41	0.00	66.41	3,799.65	1,899.82	7,138.08	3,574.35	1.87	-0.17	0.025
114.25	-22.39	-2.25	0.00	-56.73	0.00	56.73	3,739.17	1,869.59	6,859.09	3,434.64	2.02	-0.17	0.023
115.00	-21.39	-2.17	0.00	-55.05	0.00	55.05	3,728.36	1,864.18	6,810.15	3,410.14	2.05	-0.17	0.022
117.00	-19.59	-2.03	0.00	-50.70	0.00	50.70	3,699.32	1,849.66	6,680.11	3,345.02	2.12	-0.17	0.020
120.00	-18.27	-1.92	0.00	-44.60	0.00	44.60	3,699.09	1,849.55	6,679.09	3,344.51	2.23	-0.18	0.018
125.00	-16.99	-1.81	0.00	-34.98	0.00	34.98	3,625.18	1,812.59	6,357.00	3,183.22	2.42	-0.18	0.016
130.00	-12.34	-1.38	0.00	-25.92	0.00	25.92	3,549.40	1,774.70	6,039.41	3,024.20	2.61	-0.19	0.012
135.00	-11.15	-1.27	0.00	-19.00	0.00	19.00	3,471.74	1,735.87	5,726.63	2,867.57	2.80	-0.19	0.010
140.00	-10.68	-1.22	0.00	-12.67	0.00	12.67	3,392.22	1,696.11	5,418.94	2,713.50	3.00	-0.19	0.008
142.00	-8.22	-0.96	0.00	-10.24	0.00	10.24	3,359.88	1,679.94	5,297.36	2,652.62	3.08	-0.19	0.006
145.00	-7.17	-0.85	0.00	-7.35	0.00	7.35	3,310.82	1,655.41	5,116.64	2,562.12	3.20	-0.19	0.005
150.00	-2.98	-0.37	0.00	-3.13	0.00	3.13	3,221.56	1,610.78	4,811.06	2,409.11	3.40	-0.19	0.002
155.00	-2.06	-0.26	0.00	-1.29	0.00	1.29	3,110.44	1,555.22	4,483.27	2,244.97	3.61	-0.19	0.001
160.00	0.00	-0.25	0.00	0.00	0.00	0.00	2,999.33	1,499.66	4,167.05	2,086.62	3.81	-0.19	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	-50.88	-3.46	0.00	-404.36	0.00	404.36	8,793.00	4,396.50	25,857.6	12,948.0	0.00	0.00	0.037
5.00	-48.87	-3.46	0.00	-387.08	0.00	387.08	8,690.95	4,345.48	25,105.2	12,571.3	0.00	-0.01	0.036
10.00	-46.90	-3.46	0.00	-369.79	0.00	369.79	8,587.03	4,293.52	24,358.2	12,197.2	0.01	-0.01	0.036
15.00	-44.96	-3.45	0.00	-352.50	0.00	352.50	8,481.24	4,240.62	23,616.8	11,825.9	0.03	-0.02	0.035
20.00	-43.05	-3.44	0.00	-335.25	0.00	335.25	8,373.58	4,186.79	22,881.3	11,457.6	0.06	-0.03	0.034
25.00	-41.17	-3.42	0.00	-318.06	0.00	318.06	8,264.05	4,132.02	22,152.0	11,092.4	0.09	-0.03	0.034
30.00	-39.33	-3.40	0.00	-300.95	0.00	300.95	8,152.64	4,076.32	21,429.1	10,730.5	0.13	-0.04	0.033
35.00	-38.60	-3.39	0.00	-283.97	0.00	283.97	8,039.37	4,019.68	20,713.0	10,371.9	0.18	-0.05	0.032
37.00	-36.75	-3.35	0.00	-277.19	0.00	277.19	7,993.53	3,996.77	20,428.6	10,229.4	0.20	-0.05	0.032
40.00	-33.71	-3.28	0.00	-267.14	0.00	267.14	7,924.22	3,962.11	20,004.0	10,016.9	0.23	-0.06	0.031
45.00	-32.30	-3.25	0.00	-250.72	0.00	250.72	5,650.82	2,825.41	14,233.8	7,127.48	0.29	-0.06	0.041
50.00	-30.90	-3.21	0.00	-234.49	0.00	234.49	5,579.57	2,789.79	13,763.9	6,892.22	0.36	-0.07	0.040
55.00	-29.54	-3.16	0.00	-218.45	0.00	218.45	5,506.45	2,753.22	13,297.0	6,658.42	0.44	-0.08	0.038
60.00	-28.20	-3.11	0.00	-202.66	0.00	202.66	5,431.46	2,715.73	12,833.3	6,426.21	0.53	-0.09	0.037
65.00	-26.88	-3.05	0.00	-187.12	0.00	187.12	5,354.59	2,677.30	12,373.1	6,195.75	0.62	-0.09	0.035
70.00	-25.59	-2.98	0.00	-171.88	0.00	171.88	5,275.86	2,637.93	11,916.6	5,967.17	0.73	-0.10	0.034
75.00	-23.39	-2.86	0.00	-156.97	0.00	156.97	5,195.26	2,597.63	11,464.2	5,740.64	0.84	-0.11	0.032
80.00	-22.52	-2.80	0.00	-142.68	0.00	142.68	5,112.78	2,556.39	11,016.1	5,516.28	0.96	-0.12	0.030
82.00	-21.86	-2.76	0.00	-137.08	0.00	137.08	4,164.29	2,082.14	9,036.58	4,525.01	1.01	-0.12	0.036
85.00	-20.78	-2.69	0.00	-128.79	0.00	128.79	4,128.03	2,064.01	8,829.01	4,421.07	1.09	-0.13	0.034
90.00	-19.72	-2.61	0.00	-115.36	0.00	115.36	4,066.09	2,033.05	8,484.96	4,248.79	1.23	-0.13	0.032
95.00	-18.69	-2.52	0.00	-102.31	0.00	102.31	4,002.29	2,001.14	8,143.55	4,077.83	1.37	-0.14	0.030
100.00	-17.68	-2.44	0.00	-89.69	0.00	89.69	3,936.61	1,968.31	7,805.07	3,908.34	1.53	-0.15	0.027
105.00	-16.68	-2.34	0.00	-77.52	0.00	77.52	3,869.07	1,934.53	7,469.82	3,740.46	1.69	-0.16	0.025
110.00	-15.86	-2.26	0.00	-65.81	0.00	65.81	3,799.65	1,899.82	7,138.08	3,574.35	1.86	-0.16	0.023
114.25	-15.60	-2.23	0.00	-56.22	0.00	56.22	3,739.17	1,869.59	6,859.09	3,434.64	2.00	-0.17	0.021
115.00	-14.90	-2.15	0.00	-54.55	0.00	54.55	3,728.36	1,864.18	6,810.15	3,410.14	2.03	-0.17	0.020
117.00	-13.65	-2.01	0.00	-50.24	0.00	50.24	3,699.32	1,849.66	6,680.11	3,345.02	2.10	-0.17	0.019
120.00	-12.73	-1.91	0.00	-44.20	0.00	44.20	3,699.09	1,849.55	6,679.09	3,344.51	2.21	-0.18	0.017
125.00	-11.83	-1.79	0.00	-34.67	0.00	34.67	3,625.18	1,812.59	6,357.00	3,183.22	2.40	-0.18	0.014
130.00	-8.60	-1.37	0.00	-25.70	0.00	25.70	3,549.40	1,774.70	6,039.41	3,024.20	2.59	-0.18	0.011
135.00	-7.76	-1.25	0.00	-18.83	0.00	18.83	3,471.74	1,735.87	5,726.63	2,867.57	2.78	-0.19	0.009
140.00	-7.44	-1.21	0.00	-12.56	0.00	12.56	3,392.22	1,696.11	5,418.94	2,713.50	2.98	-0.19	0.007
142.00	-5.73	-0.95	0.00	-10.15	0.00	10.15	3,359.88	1,679.94	5,297.36	2,652.62	3.06	-0.19	0.006
145.00	-4.99	-0.84	0.00	-7.29	0.00	7.29	3,310.82	1,655.41	5,116.64	2,562.12	3.18	-0.19	0.004
150.00	-2.07	-0.37	0.00	-3.10	0.00	3.10	3,221.56	1,610.78	4,811.06	2,409.11	3.38	-0.19	0.002
155.00	-1.44	-0.26	0.00	-1.28	0.00	1.28	3,110.44	1,555.22	4,483.27	2,244.97	3.58	-0.19	0.001
160.00	0.00	-0.25	0.00	0.00	0.00	0.00	2,999.33	1,499.66	4,167.05	2,086.62	3.78	-0.19	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):	1.57
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)
37	157.50	737	1.831	1.685	1.032	0.335	214	913
36	152.50	763	1.717	1.188	0.841	0.268	177	944
35	147.50	850	1.606	0.798	0.679	0.209	154	1,053
34	143.50	522	1.520	0.552	0.567	0.167	76	647
33	141.00	380	1.468	0.425	0.505	0.143	47	470
32	137.50	968	1.396	0.276	0.427	0.113	95	1,198
31	132.50	993	1.296	0.115	0.333	0.076	65	1,229
30	127.50	1,039	1.200	0.005	0.255	0.045	41	1,286
29	122.50	1,064	1.108	-0.065	0.192	0.022	21	1,317
28	118.50	1,180	1.037	-0.099	0.150	0.009	9	1,461
27	116.00	807	0.993	-0.111	0.128	0.002	2	999
26	114.63	305	0.970	-0.116	0.117	0.000	0	377
25	112.13	957	0.928	-0.121	0.099	-0.004	-4	1,185
24	107.50	1,150	0.853	-0.119	0.070	-0.008	-8	1,423
23	102.50	1,175	0.776	-0.107	0.047	-0.007	-7	1,455
22	97.50	1,201	0.702	-0.087	0.030	-0.002	-2	1,486
21	92.50	1,226	0.632	-0.064	0.019	0.005	6	1,518
20	87.50	1,252	0.565	-0.040	0.011	0.014	15	1,549
19	83.50	763	0.515	-0.022	0.008	0.021	14	945
18	81.00	1,007	0.484	-0.010	0.007	0.025	22	1,247
17	77.50	2,557	0.443	0.004	0.006	0.030	67	3,165
16	72.50	1,495	0.388	0.022	0.007	0.036	47	1,851
15	67.50	1,525	0.336	0.036	0.009	0.040	53	1,887
14	62.50	1,554	0.288	0.048	0.013	0.043	57	1,924
13	57.50	1,584	0.244	0.056	0.018	0.044	60	1,961
12	52.50	1,614	0.203	0.062	0.023	0.043	61	1,997
11	47.50	1,643	0.167	0.066	0.028	0.043	61	2,034
10	42.50	3,523	0.133	0.069	0.033	0.041	126	4,360
9	38.50	2,146	0.109	0.071	0.036	0.040	75	2,656
8	36.00	844	0.096	0.071	0.038	0.039	29	1,045
7	32.50	2,137	0.078	0.072	0.040	0.038	71	2,645
6	27.50	2,175	0.056	0.071	0.042	0.037	69	2,692
5	22.50	2,213	0.037	0.070	0.041	0.035	67	2,739
4	17.50	2,251	0.023	0.065	0.039	0.032	63	2,787

3	12.50	2,290	0.012	0.057	0.033	0.028	56	2,834
2	7.50	2,328	0.004	0.042	0.024	0.021	43	2,881
1	2.50	2,281	0.000	0.017	0.009	0.009	18	2,824
Decibel DB844H90E-XY	160.00	168	1.890	1.980	1.140	0.371	54	208
Flat Low Profile Pla	160.00	1,500	1.890	1.980	1.140	0.371	482	1,857
Nokia B5 RRH4x40-850	150.00	146	1.661	0.980	0.756	0.238	30	180
Alcatel-Lucent RRH2X	150.00	129	1.661	0.980	0.756	0.238	27	160
Alcatel-Lucent RRH2x	150.00	180	1.661	0.980	0.756	0.238	37	223
RFS DB-T1-6Z-8AB-0Z	150.00	88	1.661	0.980	0.756	0.238	18	109
Andrew LNX-6514DS-A1	150.00	116	1.661	0.980	0.756	0.238	24	144
Andrew SBNHH-1D65B	150.00	304	1.661	0.980	0.756	0.238	63	377
Amphenol Antel QUAD6	150.00	162	1.661	0.980	0.756	0.238	33	201
Round Low Profile Pl	150.00	1,500	1.661	0.980	0.756	0.238	309	1,857
Powerwave Allgon LGP	142.00	85	1.489	0.474	0.529	0.152	11	105
Raycap DC6-48-60-18-	142.00	20	1.489	0.474	0.529	0.152	3	25
RRH	142.00	135	1.489	0.474	0.529	0.152	18	167
Ericsson RRUS 12 w/	142.00	214	1.489	0.474	0.529	0.152	28	265
Powerwave Allgon 777	142.00	105	1.489	0.474	0.529	0.152	14	130
CCI HPA-65R-BUU-H6	142.00	153	1.489	0.474	0.529	0.152	20	189
Round T-Arm	142.00	750	1.489	0.474	0.529	0.152	99	928
Alcatel-Lucent RRH2x	130.00	159	1.248	0.054	0.292	0.060	8	196
Alcatel-Lucent 4X40W	130.00	357	1.248	0.054	0.292	0.060	18	442
Alcatel-Lucent 800 M	130.00	185	1.248	0.054	0.292	0.060	10	229
Alcatel-Lucent TD-RR	130.00	210	1.248	0.054	0.292	0.060	11	260
RFS APXVSPP18-C-A20	130.00	114	1.248	0.054	0.292	0.060	6	141
RFS APXV9ERR18-C-A20	130.00	62	1.248	0.054	0.292	0.060	3	77
Commscope DT465B-	130.00	174	1.248	0.054	0.292	0.060	9	215
Round Low Profile Pl	130.00	1,500	1.248	0.054	0.292	0.060	78	1,857
Flush Mounts	117.00	195	1.011	-0.107	0.137	0.005	1	241
RFS APXV18-206517S-C	117.00	79	1.011	-0.107	0.137	0.005	0	98
		61,292	63.709	20.320	20.598	6.232	3,373	75,865

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)
37	157.50	737	1.831	1.685	1.032	0.335	214	636
36	152.50	763	1.717	1.188	0.841	0.268	177	658
35	147.50	850	1.606	0.798	0.679	0.209	154	733
34	143.50	522	1.520	0.552	0.567	0.167	76	451
33	141.00	380	1.468	0.425	0.505	0.143	47	328
32	137.50	968	1.396	0.276	0.427	0.113	95	835
31	132.50	993	1.296	0.115	0.333	0.076	65	856
30	127.50	1,039	1.200	0.005	0.255	0.045	41	896
29	122.50	1,064	1.108	-0.065	0.192	0.022	21	918
28	118.50	1,180	1.037	-0.099	0.150	0.009	9	1,018
27	116.00	807	0.993	-0.111	0.128	0.002	2	696
26	114.63	305	0.970	-0.116	0.117	0.000	0	263
25	112.13	957	0.928	-0.121	0.099	-0.004	-4	826
24	107.50	1,150	0.853	-0.119	0.070	-0.008	-8	992
23	102.50	1,175	0.776	-0.107	0.047	-0.007	-7	1,013
22	97.50	1,201	0.702	-0.087	0.030	-0.002	-2	1,035
21	92.50	1,226	0.632	-0.064	0.019	0.005	6	1,057
20	87.50	1,252	0.565	-0.040	0.011	0.014	15	1,079
19	83.50	763	0.515	-0.022	0.008	0.021	14	658
18	81.00	1,007	0.484	-0.010	0.007	0.025	22	869
17	77.50	2,557	0.443	0.004	0.006	0.030	67	2,205
16	72.50	1,495	0.388	0.022	0.007	0.036	47	1,289
15	67.50	1,525	0.336	0.036	0.009	0.040	53	1,315

14	62.50	1,554	0.288	0.048	0.013	0.043	57	1,340
13	57.50	1,584	0.244	0.056	0.018	0.044	60	1,366
12	52.50	1,614	0.203	0.062	0.023	0.043	61	1,391
11	47.50	1,643	0.167	0.066	0.028	0.043	61	1,417
10	42.50	3,523	0.133	0.069	0.033	0.041	126	3,037
9	38.50	2,146	0.109	0.071	0.036	0.040	75	1,850
8	36.00	844	0.096	0.071	0.038	0.039	29	728
7	32.50	2,137	0.078	0.072	0.040	0.038	71	1,842
6	27.50	2,175	0.056	0.071	0.042	0.037	69	1,875
5	22.50	2,213	0.037	0.070	0.041	0.035	67	1,908
4	17.50	2,251	0.023	0.065	0.039	0.032	63	1,941
3	12.50	2,290	0.012	0.057	0.033	0.028	56	1,974
2	7.50	2,328	0.004	0.042	0.024	0.021	43	2,007
1	2.50	2,281	0.000	0.017	0.009	0.009	18	1,967
Decibel DB844H90E-XY	160.00	168	1.890	1.980	1.140	0.371	54	145
Flat Low Profile Pla	160.00	1,500	1.890	1.980	1.140	0.371	482	1,293
Nokia B5 RRH4x40-850	150.00	146	1.661	0.980	0.756	0.238	30	125
Alcatel-Lucent RRH2X	150.00	129	1.661	0.980	0.756	0.238	27	111
Alcatel-Lucent RRH2x	150.00	180	1.661	0.980	0.756	0.238	37	155
RFS DB-T1-6Z-8AB-0Z	150.00	88	1.661	0.980	0.756	0.238	18	76
Andrew LNX-6514DS-A1	150.00	116	1.661	0.980	0.756	0.238	24	100
Andrew SBNHH-1D65B	150.00	304	1.661	0.980	0.756	0.238	63	262
Amphenol Antel QUAD6	150.00	162	1.661	0.980	0.756	0.238	33	140
Round Low Profile Pl	150.00	1,500	1.661	0.980	0.756	0.238	309	1,293
Powerwave Allgon LGP	142.00	85	1.489	0.474	0.529	0.152	11	73
Raycap DC6-48-60-18-	142.00	20	1.489	0.474	0.529	0.152	3	17
RRH	142.00	135	1.489	0.474	0.529	0.152	18	116
Ericsson RRUS 12 w/	142.00	214	1.489	0.474	0.529	0.152	28	185
Powerwave Allgon 777	142.00	105	1.489	0.474	0.529	0.152	14	91
CCI HPA-65R-BUU-H6	142.00	153	1.489	0.474	0.529	0.152	20	132
Round T-Arm	142.00	750	1.489	0.474	0.529	0.152	99	647
Alcatel-Lucent RRH2x	130.00	159	1.248	0.054	0.292	0.060	8	137
Alcatel-Lucent 4X40W	130.00	357	1.248	0.054	0.292	0.060	18	308
Alcatel-Lucent 800 M	130.00	185	1.248	0.054	0.292	0.060	10	160
Alcatel-Lucent TD-RR	130.00	210	1.248	0.054	0.292	0.060	11	181
RFS APXVSPP18-C-A20	130.00	114	1.248	0.054	0.292	0.060	6	98
RFS APXV9ERR18-C-A20	130.00	62	1.248	0.054	0.292	0.060	3	53
Commscope DT465B-	130.00	174	1.248	0.054	0.292	0.060	9	150
Round Low Profile Pl	130.00	1,500	1.248	0.054	0.292	0.060	78	1,293
Flush Mounts	117.00	195	1.011	-0.107	0.137	0.005	1	168
RFS APXV18-206517S-C	117.00	79	1.011	-0.107	0.137	0.005	0	68
		61,292	63.709	20.320	20.598	6.232	3,373	52,849

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	-73.04	-3.36	0.00	-392.81	0.00	392.81	8,793.00	4,396.50	25,857.6	12,948.0	0.00	0.00	0.039
5.00	-70.16	-3.32	0.00	-376.02	0.00	376.02	8,690.95	4,345.48	25,105.2	12,571.3	0.00	-0.01	0.038
10.00	-67.33	-3.27	0.00	-359.40	0.00	359.40	8,587.03	4,293.52	24,358.2	12,197.2	0.01	-0.01	0.037
15.00	-64.54	-3.22	0.00	-343.03	0.00	343.03	8,481.24	4,240.62	23,616.8	11,825.9	0.03	-0.02	0.037
20.00	-61.80	-3.16	0.00	-326.94	0.00	326.94	8,373.58	4,186.79	22,881.3	11,457.6	0.06	-0.03	0.036
25.00	-59.11	-3.09	0.00	-311.16	0.00	311.16	8,264.05	4,132.02	22,152.0	11,092.4	0.09	-0.03	0.035
30.00	-56.46	-3.03	0.00	-295.69	0.00	295.69	8,152.64	4,076.32	21,429.1	10,730.5	0.13	-0.04	0.034
35.00	-55.42	-3.00	0.00	-280.55	0.00	280.55	8,039.37	4,019.68	20,713.0	10,371.9	0.17	-0.05	0.034
37.00	-52.76	-2.93	0.00	-274.55	0.00	274.55	7,993.53	3,996.77	20,428.6	10,229.4	0.19	-0.05	0.033
40.00	-48.40	-2.80	0.00	-265.76	0.00	265.76	7,924.22	3,962.11	20,004.0	10,016.9	0.23	-0.05	0.033
45.00	-46.36	-2.75	0.00	-251.74	0.00	251.74	5,650.82	2,825.41	14,233.8	7,127.48	0.29	-0.06	0.044
50.00	-44.37	-2.69	0.00	-238.01	0.00	238.01	5,579.57	2,789.79	13,763.9	6,892.22	0.36	-0.07	0.042
55.00	-42.41	-2.63	0.00	-224.56	0.00	224.56	5,506.45	2,753.22	13,297.0	6,658.42	0.43	-0.08	0.041
60.00	-40.48	-2.58	0.00	-211.39	0.00	211.39	5,431.46	2,715.73	12,833.3	6,426.21	0.52	-0.09	0.040
65.00	-38.59	-2.53	0.00	-198.49	0.00	198.49	5,354.59	2,677.30	12,373.1	6,195.75	0.61	-0.09	0.039
70.00	-36.74	-2.49	0.00	-185.84	0.00	185.84	5,275.86	2,637.93	11,916.6	5,967.17	0.72	-0.10	0.038
75.00	-33.58	-2.42	0.00	-173.42	0.00	173.42	5,195.26	2,597.63	11,464.2	5,740.64	0.83	-0.11	0.037
80.00	-32.33	-2.40	0.00	-161.33	0.00	161.33	5,112.78	2,556.39	11,016.1	5,516.28	0.95	-0.12	0.036
82.00	-31.39	-2.38	0.00	-156.53	0.00	156.53	4,164.29	2,082.14	9,036.58	4,525.01	1.00	-0.12	0.042
85.00	-29.84	-2.37	0.00	-149.39	0.00	149.39	4,128.03	2,064.01	8,829.01	4,421.07	1.08	-0.13	0.041
90.00	-28.32	-2.36	0.00	-137.54	0.00	137.54	4,066.09	2,033.05	8,484.96	4,248.79	1.22	-0.14	0.039
95.00	-26.83	-2.37	0.00	-125.72	0.00	125.72	4,002.29	2,001.14	8,143.55	4,077.83	1.38	-0.15	0.038
100.00	-25.38	-2.37	0.00	-113.89	0.00	113.89	3,936.61	1,968.31	7,805.07	3,908.34	1.54	-0.16	0.036
105.00	-23.95	-2.38	0.00	-102.02	0.00	102.02	3,869.07	1,934.53	7,469.82	3,740.46	1.71	-0.17	0.033
110.00	-22.77	-2.38	0.00	-90.11	0.00	90.11	3,799.65	1,899.82	7,138.08	3,574.35	1.89	-0.18	0.031
114.25	-22.39	-2.39	0.00	-79.98	0.00	79.98	3,739.17	1,869.59	6,859.09	3,434.64	2.05	-0.18	0.029
115.00	-21.39	-2.38	0.00	-78.19	0.00	78.19	3,728.36	1,864.18	6,810.15	3,410.14	2.08	-0.18	0.029
117.00	-19.59	-2.37	0.00	-73.43	0.00	73.43	3,699.32	1,849.66	6,680.11	3,345.02	2.16	-0.19	0.027
120.00	-18.27	-2.34	0.00	-66.33	0.00	66.33	3,699.09	1,849.55	6,679.09	3,344.51	2.28	-0.19	0.025
125.00	-16.99	-2.30	0.00	-54.61	0.00	54.61	3,625.18	1,812.59	6,357.00	3,183.22	2.48	-0.20	0.022
130.00	-12.34	-2.08	0.00	-43.11	0.00	43.11	3,549.40	1,774.70	6,039.41	3,024.20	2.69	-0.21	0.018
135.00	-11.14	-1.98	0.00	-32.72	0.00	32.72	3,471.74	1,735.87	5,726.63	2,867.57	2.91	-0.21	0.015
140.00	-10.67	-1.93	0.00	-22.83	0.00	22.83	3,392.22	1,696.11	5,418.94	2,713.50	3.13	-0.21	0.012
142.00	-8.22	-1.65	0.00	-18.96	0.00	18.96	3,359.88	1,679.94	5,297.36	2,652.62	3.22	-0.22	0.010
145.00	-7.17	-1.50	0.00	-14.00	0.00	14.00	3,310.82	1,655.41	5,116.64	2,562.12	3.36	-0.22	0.008
150.00	-2.97	-0.76	0.00	-6.53	0.00	6.53	3,221.56	1,610.78	4,811.06	2,409.11	3.59	-0.22	0.004
155.00	-2.06	-0.54	0.00	-2.72	0.00	2.72	3,110.44	1,555.22	4,483.27	2,244.97	3.82	-0.22	0.002
160.00	0.00	-0.54	0.00	0.00	0.00	0.00	2,999.33	1,499.66	4,167.05	2,086.62	4.05	-0.22	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	-50.88	-3.36	0.00	-390.40	0.00	390.40	8,793.00	4,396.50	25,857.6	12,948.0	0.00	0.00	0.036
5.00	-48.87	-3.32	0.00	-373.61	0.00	373.61	8,690.95	4,345.48	25,105.2	12,571.3	0.00	-0.01	0.035
10.00	-46.90	-3.27	0.00	-357.01	0.00	357.01	8,587.03	4,293.52	24,358.2	12,197.2	0.01	-0.01	0.035
15.00	-44.96	-3.21	0.00	-340.67	0.00	340.67	8,481.24	4,240.62	23,616.8	11,825.9	0.03	-0.02	0.034
20.00	-43.05	-3.15	0.00	-324.62	0.00	324.62	8,373.58	4,186.79	22,881.3	11,457.6	0.06	-0.03	0.033
25.00	-41.17	-3.08	0.00	-308.89	0.00	308.89	8,264.05	4,132.02	22,152.0	11,092.4	0.09	-0.03	0.033
30.00	-39.33	-3.01	0.00	-293.48	0.00	293.48	8,152.64	4,076.32	21,429.1	10,730.5	0.13	-0.04	0.032
35.00	-38.60	-2.99	0.00	-278.41	0.00	278.41	8,039.37	4,019.68	20,713.0	10,371.9	0.17	-0.05	0.032
37.00	-36.75	-2.91	0.00	-272.43	0.00	272.43	7,993.53	3,996.77	20,428.6	10,229.4	0.19	-0.05	0.031
40.00	-33.71	-2.79	0.00	-263.69	0.00	263.69	7,924.22	3,962.11	20,004.0	10,016.9	0.23	-0.05	0.031
45.00	-32.30	-2.73	0.00	-249.75	0.00	249.75	5,650.82	2,825.41	14,233.8	7,127.48	0.29	-0.06	0.041
50.00	-30.91	-2.67	0.00	-236.10	0.00	236.10	5,579.57	2,789.79	13,763.9	6,892.22	0.35	-0.07	0.040
55.00	-29.54	-2.62	0.00	-222.73	0.00	222.73	5,506.45	2,753.22	13,297.0	6,658.42	0.43	-0.08	0.039
60.00	-28.20	-2.56	0.00	-209.66	0.00	209.66	5,431.46	2,715.73	12,833.3	6,426.21	0.51	-0.09	0.038
65.00	-26.88	-2.51	0.00	-196.85	0.00	196.85	5,354.59	2,677.30	12,373.1	6,195.75	0.61	-0.09	0.037
70.00	-25.59	-2.46	0.00	-184.31	0.00	184.31	5,275.86	2,637.93	11,916.6	5,967.17	0.71	-0.10	0.036
75.00	-23.39	-2.40	0.00	-171.99	0.00	171.99	5,195.26	2,597.63	11,464.2	5,740.64	0.82	-0.11	0.034
80.00	-22.52	-2.38	0.00	-160.01	0.00	160.01	5,112.78	2,556.39	11,016.1	5,516.28	0.95	-0.12	0.033
82.00	-21.86	-2.36	0.00	-155.26	0.00	155.26	4,164.29	2,082.14	9,036.58	4,525.01	1.00	-0.12	0.040
85.00	-20.78	-2.35	0.00	-148.17	0.00	148.17	4,128.03	2,064.01	8,829.01	4,421.07	1.08	-0.13	0.039
90.00	-19.73	-2.34	0.00	-136.44	0.00	136.44	4,066.09	2,033.05	8,484.96	4,248.79	1.22	-0.14	0.037
95.00	-18.69	-2.34	0.00	-124.73	0.00	124.73	4,002.29	2,001.14	8,143.55	4,077.83	1.37	-0.15	0.035
100.00	-17.68	-2.35	0.00	-113.01	0.00	113.01	3,936.61	1,968.31	7,805.07	3,908.34	1.53	-0.16	0.033
105.00	-16.68	-2.36	0.00	-101.25	0.00	101.25	3,869.07	1,934.53	7,469.82	3,740.46	1.70	-0.17	0.031
110.00	-15.86	-2.36	0.00	-89.45	0.00	89.45	3,799.65	1,899.82	7,138.08	3,574.35	1.87	-0.17	0.029
114.25	-15.59	-2.36	0.00	-79.41	0.00	79.41	3,739.17	1,869.59	6,859.09	3,434.64	2.03	-0.18	0.027
115.00	-14.90	-2.36	0.00	-77.64	0.00	77.64	3,728.36	1,864.18	6,810.15	3,410.14	2.06	-0.18	0.027
117.00	-13.64	-2.35	0.00	-72.92	0.00	72.92	3,699.32	1,849.66	6,680.11	3,345.02	2.14	-0.19	0.025
120.00	-12.73	-2.32	0.00	-65.88	0.00	65.88	3,699.09	1,849.55	6,679.09	3,344.51	2.26	-0.19	0.023
125.00	-11.83	-2.28	0.00	-54.26	0.00	54.26	3,625.18	1,812.59	6,357.00	3,183.22	2.46	-0.20	0.020
130.00	-8.59	-2.06	0.00	-42.85	0.00	42.85	3,549.40	1,774.70	6,039.41	3,024.20	2.67	-0.20	0.017
135.00	-7.76	-1.97	0.00	-32.53	0.00	32.53	3,471.74	1,735.87	5,726.63	2,867.57	2.89	-0.21	0.014
140.00	-7.43	-1.92	0.00	-22.70	0.00	22.70	3,392.22	1,696.11	5,418.94	2,713.50	3.11	-0.21	0.011
142.00	-5.72	-1.64	0.00	-18.86	0.00	18.86	3,359.88	1,679.94	5,297.36	2,652.62	3.20	-0.21	0.009
145.00	-4.99	-1.49	0.00	-13.93	0.00	13.93	3,310.82	1,655.41	5,116.64	2,562.12	3.34	-0.22	0.007
150.00	-2.07	-0.76	0.00	-6.50	0.00	6.50	3,221.56	1,610.78	4,811.06	2,409.11	3.56	-0.22	0.003
155.00	-1.44	-0.54	0.00	-2.71	0.00	2.71	3,110.44	1,555.22	4,483.27	2,244.97	3.79	-0.22	0.002
160.00	0.00	-0.54	0.00	0.00	0.00	0.00	2,999.33	1,499.66	4,167.05	2,086.62	4.02	-0.22	0.000

Analysis Summary

	Reactions						Max Usage	
Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.6W	29.67	0.00	73.54	0.00	0.00	3278.08	45.00	0.29
0.9D + 1.6W	29.66	0.00	55.15	0.00	0.00	3261.82	45.00	0.29
1.2D + 1.0Di + 1.0Wi	8.85	0.00	113.68	0.00	0.00	962.41	45.00	0.10
(1.2 + 0.2Sds) * DL + E ELFM	3.46	0.00	73.04	0.00	0.00	406.71	45.00	0.04
(1.2 + 0.2Sds) * DL + E EMAM	3.36	0.00	73.04	0.00	0.00	392.81	45.00	0.04
(0.9 - 0.2Sds) * DL + E ELFM	3.46	0.00	50.88	0.00	0.00	404.36	45.00	0.04
(0.9 - 0.2Sds) * DL + E EMAM	3.36	0.00	50.88	0.00	0.00	390.40	45.00	0.04
1.0D + 1.0W	7.09	0.00	61.29	0.00	0.00	781.35	45.00	0.07

Base Summary

Reactions

Original Design			Analysis			
Moment (kip-ft)	Axial (kip)	Shear (kip)	Moment (kip-ft)	Axial (kip)	Shear (kip)	Moment Design %
8,100.00	72.00	61.00	3,278.08	113.68	29.67	29.98

Base Plate

Yield (ksi)	Thick (in)	Width (in)	Style	Poly Sides	Clip Len (in)	Effective Len (in)	Mu (kip-in)	Phi Mn (kip-in)	Ratio
55.0	3.250	81.000	Clipped	0	18.00	8.176	292.40	1068.71	0.27

Anchor Bolts

								Start	Compression			Tension		
Bolt Circle	Num Bolts	Bolt Type	Bolt Dia (in)	Yield (ksi)	Ultimate (ksi)	Arrange	Cluster Dist (in)	Angle (deg)	Force (kip)	Allow (kip)	Ratio	Force (kip)	Allow (kip)	Ratio
80.00	28	2.25" 18J	2.25	75.00	100.00	Clustered	6.00	45.0	74.30	260.00	0.29	66.18	260.00	0.26

Sprint

PROJECT:	DO MACRO UPGRADE
SITE NAME:	SPECTRASITE / VERNON CT 6
SITE CASCADE:	CT70XC147
SITE ADDRESS:	777 TALCOTVILLE ROAD VERNON ROCKVILLE, CT 06066
SITE TYPE:	MONOPOLE TOWER
MARKET:	NORTHEAST CONNECTICUT

SITE INFORMATION

TOWER OWNER:
AMERICAN TOWER CORPORATION
10 PRESIDENTIAL WAY
WOBURN, MA 01801

LATITUDE (NAD83):
41° 51' 48.4302" N
41.86345278°

LONGITUDE (NAD83):
-72° 28' 59.8188" W
-72.48328333°

COUNTY:
TOLLAND

ZONING JURISDICTION:
CONNECTICUT SITING COUNCIL

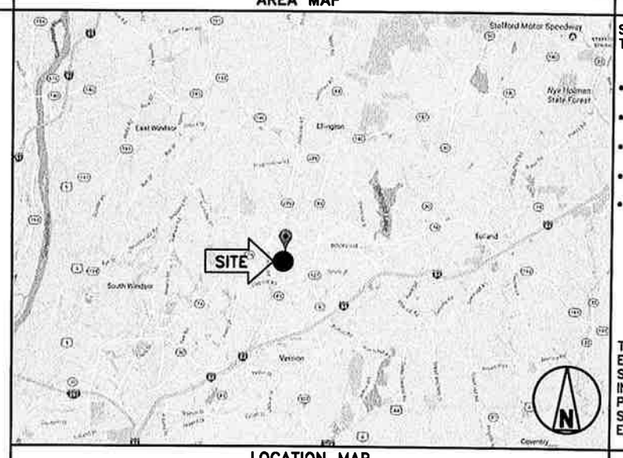
ZONING DISTRICT:
TBD

POWER COMPANY:
CL&P
PHONE: (800) 322-3223

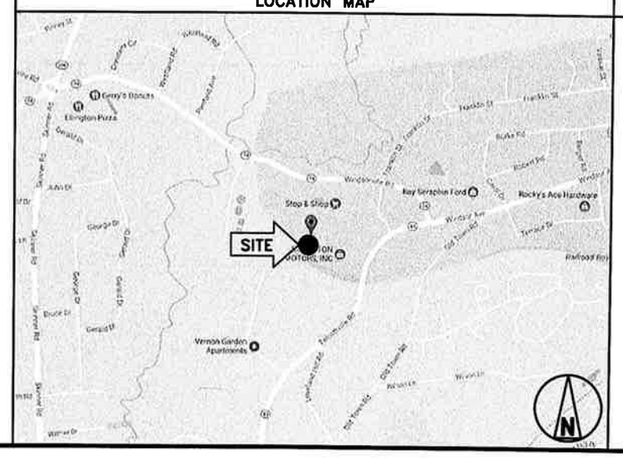
AAV PROVIDER:
AT&T
PHONE: (800) 288-2020

PROJECT MANAGER:
AIROSMITH DEVELOPMENT
TERRI BURKHOLDER
(315) 719-2928
TBURKHOLDER@AIROSMITHDEVELOPMENT.COM

AREA MAP



LOCATION MAP



PROJECT DESCRIPTION

SPRINT PROPOSES TO MODIFY AN EXISTING UNMANNED TELECOMMUNICATIONS FACILITY.

- INSTALL (3) PANEL ANTENNAS
- INSTALL (3) 2.5 GHz & (3) 800 MHz RRH'S BEHIND ANTENNAS
- INSTALL (24) JUMPER CABLES
- INSTALL (1) HYBRID CABLE
- INSTALL 2.5 EQUIPMENT INSIDE EXISTING N.V. MMBS CABINET

THESE PLANS HAVE BEEN DEVELOPED FOR THE MODIFICATION OF AN EXISTING UNMANNED TELECOMMUNICATIONS FACILITY OWNED OR LEASED BY SPRINT IN ACCORDANCE WITH THE SCOPE OF WORK PROVIDED BY SPRINT. INFINIGY HAS INCORPORATED THIS SCOPE OF WORK IN THE PLANS. THESE PLANS ARE NOT FOR CONSTRUCTION UNLESS ACCOMPANIED BY A PASSING STRUCTURAL STABILITY ANALYSIS PREPARED BY A LICENSED STRUCTURAL ENGINEER. STRUCTURAL ANALYSIS MUST INCLUDE BOTH TOWER AND MOUNT.

APPLICABLE CODES

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

1. INTERNATIONAL BUILDING CODE (2015 IBC)
2. TIA-222-G OR LATEST EDITION
3. NFPA 780 – LIGHTNING PROTECTION CODE
4. 2011 NATIONAL ELECTRIC CODE OR LATEST EDITION
5. ANY OTHER NATIONAL OR LOCAL APPLICABLE CODES, MOST RECENT EDITIONS
6. NY BUILDING CODE
7. LOCAL BUILDING CODE
8. CITY/COUNTY ORDINANCES

811 Know what's below. Call before you dig. www.call811.com

DRAWING INDEX

SHEET NO.	SHEET TITLE	REV.
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SP-2	SPRINT SPECIFICATIONS	0
SP-3	SPRINT SPECIFICATIONS	0
A-1	SITE PLAN	0
A-2	TOWER ELEVATION	0
A-3	ANTENNA LAYOUT & MOUNTING DETAILS	0
A-4	EQUIPMENT & MOUNTING DETAILS	0
A-5	CIVIL & EQUIPMENT DETAILS	0
A-6	PLUMBING DIAGRAM	0
E-1	ELECTRICAL & GROUNDING PLAN	0
E-2	ELECTRICAL & GROUNDING DETAILS	0

PLANS PREPARED FOR:
Sprint

PLANS PREPARED BY:
INFINIGY
FROM ZERO TO INFINIGY
the solutions are endless
1033 Watervliet Shaker Rd | Albany, NY 12205
Phone: 518-690-0790 | Fax: 518-690-0793
www.infinigy.com
JOB NUMBER 526-104

PROJECT MANAGER:
AIROSMITH DEVELOPMENT
32 CLINTON ST.
SARATOGA SPRINGS, NY 12866
OFFICE#. (518) 306-3740

ENGINEERING LICENSE:
STATE OF CONNECTICUT
JOHN S. STEVENS
No. 24705
LICENSED PROFESSIONAL ENGINEER
JAN 09 2018

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	1/09/17	JDL	0

SITE NAME:
SPECTRASITE / VERNON CT 6

SITE NUMBER:
CT70XC147

SITE ADDRESS:
777 TALCOTVILLE ROAD
VERNON ROCKVILLE, CT 06066

SHEET DESCRIPTION:
TITLE SHEET & PROJECT DATA

SHEET NUMBER:
T-1

THESE OUTLINE SPECIFICATIONS IN CONJUNCTION WITH THE SPRINT STANDARD CONSTRUCTION SPECIFICATIONS, INCLUDING CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.

SECTION 01 100 – SCOPE OF WORK

PART 1 – GENERAL

1.1 THE WORK: THESE STANDARD CONSTRUCTION SPECIFICATIONS IN CONJUNCTION WITH THE SPRINT CONSTRUCTION STANDARDS FOR WIRELESS SITES, CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.

1.2 RELATED DOCUMENTS:

A. THE REQUIREMENTS OF THIS SECTION APPLY TO ALL SECTIONS IN THIS SPECIFICATION.

B. SPRINT "STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES" ARE INCLUDED IN AND MADE A PART OF THESE SPECIFICATIONS HEREWITH.

1.3 PRECEDENCE: SHOULD CONFLICTS OCCUR BETWEEN THE STANDARD CONSTRUCTION SPECIFICATIONS FOR WIRELESS SITES INCLUDING THE STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES AND THE CONSTRUCTION DRAWINGS, INFORMATION ON THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE. NOTIFY SPRINT CONSTRUCTION MANAGER IF THIS OCCURS.

1.4 NATIONALLY RECOGNIZED CODES AND STANDARDS:

A. THE WORK SHALL COMPLY WITH APPLICABLE NATIONAL AND LOCAL CODES AND STANDARDS, LATEST EDITION, AND PORTIONS THEREOF, INCLUDED BUT NOT LIMITED TO THE FOLLOWING:

1. GR-63-CORE NEBS REQUIREMENTS: PHYSICAL PROTECTION
5. GR-78-CORE GENERIC REQUIREMENTS FOR THE PHYSICAL DESIGN AND MANUFACTURE OF TELECOMMUNICATIONS EQUIPMENT.
3. GR-1089 CORE, ELECTROMAGNETIC COMPATIBILITY AND ELECTRICAL SAFETY –GENERIC CRITERIA FOR NETWORK TELECOMMUNICATIONS EQUIPMENT.
4. NATIONAL FIRE PROTECTION ASSOCIATION CODES AND STANDARDS (NFPA) INCLUDING NFPA 70 (NATIONAL ELECTRICAL CODE – "NEC") AND NFPA 101 (LIFE SAFETY CODE).
5. AMERICAN SOCIETY FOR TESTING OF MATERIALS (ASTM)
6. INSTITUTE OF ELECTRONIC AND ELECTRICAL ENGINEERS (IEEE)
7. AMERICAN CONCRETE INSTITUTE (ACI)
8. AMERICAN WIRE PRODUCERS ASSOCIATION (AWPA)
9. CONCRETE REINFORCING STEEL INSTITUTE (CRSI)
10. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO)
11. PORTLAND CEMENT ASSOCIATION (PCA)
12. NATIONAL CONCRETE MASONRY ASSOCIATION (NCMA)
13. BRICK INDUSTRY ASSOCIATION (BIA)
14. AMERICAN WELDING SOCIETY (AWS)
15. NATIONAL ROOFING CONTRACTORS ASSOCIATION (NRCA)
16. SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION (SMACNA)
17. DOOR AND HARDWARE INSTITUTE (DHI)
18. OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA)
19. APPLICABLE BUILDING CODES INCLUDING UNIFORM BUILDING CODE, SOUTHERN BUILDING CODE, BOCA, AND THE INTERNATIONAL BUILDING CODE.

1.5 DEFINITIONS:

A. WORK: THE SUM OF TASKS AND RESPONSIBILITIES IDENTIFIED IN THE CONTRACT DOCUMENTS.

B. COMPANY: SPRINT CORPORATION

C. ENGINEER: SYNONYMOUS WITH ARCHITECT & ENGINEER AND "A&E". THE DESIGN PROFESSIONAL HAVING PROFESSIONAL RESPONSIBILITY FOR DESIGN OF THE PROJECT.

D. CONTRACTOR: CONSTRUCTION CONTRACTOR; CONSTRUCTION VENDOR; INDIVIDUAL OR ENTITY WHO AFTER EXECUTION OF A CONTRACT IS BOUND TO ACCOMPLISH THE WORK.

E. THIRD PARTY VENDOR OR AGENCY: A VENDOR OR AGENCY ENGAGED SEPARATELY BY THE COMPANY, A&E, OR CONTRACTOR TO PROVIDE MATERIALS OR TO ACCOMPLISH SPECIFIC TASKS RELATED TO BUT NOT INCLUDED IN THE WORK.

F. OFCI: OWNER FURNISHED, CONTRACTOR INSTALLED EQUIPMENT.

G. CONSTRUCTION MANAGER – ALL PROJECTS RELATED COMMUNICATION TO FLOW THROUGH SPRINT REPRESENTATIVE IN CHARGE OF PROJECT...

1.6 SITE FAMILIARITY: CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE SPRINT CONSTRUCTION MANAGER PRIOR TO THE COMMENCEMENT OF WORK. NO COMPENSATION WILL BE AWARDED BASED ON CLAIM OF LACK OF KNOWLEDGE OR FIELD CONDITIONS.

1.7 POINT OF CONTACT: COMMUNICATION BETWEEN SPRINT AND THE CONTRACTOR SHALL FLOW THROUGH THE SINGLE SPRINT CONSTRUCTION MANAGER APPOINTED TO MANAGE THE PROJECT FOR SPRINT.

1.8 ON-SITE SUPERVISION: THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL EMPLOY A COMPETENT SUPERINTENDENT WHO SHALL BE IN ATTENDANCE AT THE SITE AT ALL TIMES DURING PERFORMANCE OF THE WORK.

1.9 DRAWINGS, SPECIFICATIONS AND DETAILS REQUIRED AT JOBSITE: THE CONSTRUCTION CONTRACTOR SHALL MAINTAIN A FULL SET OF THE CONSTRUCTION DRAWINGS, STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES AND THE STANDARD CONSTRUCTION SPECIFICATIONS FOR WIRELESS SITES AT THE JOBSITE FROM MOBILIZATION THROUGH CONSTRUCTION COMPLETION.

A. THE JOBSITE DRAWINGS, SPECIFICATIONS AND DETAILS SHALL BE CLEARLY MARKED DAILY IN RED PENCIL WITH ANY CHANGES IN CONSTRUCTION OVER WHAT IS DEPICTED IN THE DOCUMENTS. AT CONSTRUCTION COMPLETION, THIS JOBSITE MARKUP SET SHALL BE DELIVERED TO THE COMPANY OR COMPANY'S DESIGNATED REPRESENTATIVE TO BE FORWARDED TO THE COMPANY'S A&E VENDOR FOR PRODUCTION OF "AS-BUILT" DRAWINGS.

B. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK. CONTRACTOR SHALL NOTIFY SPRINT CONSTRUCTION MANAGER OF ANY VARIATIONS PRIOR TO PROCEEDING WITH THE WORK.

C. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS NOTED OTHERWISE. SPACING BETWEEN EQUIPMENT IS THE REQUIRED CLEARANCE. SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, EXISTING CONDITIONS AND/OR DESIGN INTENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE SPRINT CONSTRUCTION MANAGER PRIOR TO PROCEEDING WITH THE WORK.

1.10 USE OF JOB SITE: THE CONTRACTOR SHALL CONFINE ALL CONSTRUCTION AND RELATED OPERATIONS INCLUDING STAGING AND STORAGE OF MATERIALS AND EQUIPMENT, PARKING, TEMPORARY FACILITIES, AND WASTE STORAGE TO THE LEASE PARCEL UNLESS OTHERWISE PERMITTED BY THE CONTRACT DOCUMENTS.

1.11 UTILITIES SERVICES: WHERE NECESSARY TO CUT EXISTING PIPES, ELECTRICAL WIRES, CONDUITS, CABLES, ETC., OF UTILITY SERVICES, OR OF FIRE PROTECTION OR COMMUNICATIONS SYSTEMS, THEY SHALL BE CUT AND CAPPED AT SUITABLE PLACES OR WHERE SHOWN. ALL SUCH ACTIONS SHALL BE COORDINATED WITH THE UTILITY COMPANY INVOLVED:

1.12 PERMITS / FEES: WHEN REQUIRED THAT A PERMIT OR CONNECTION FEE BE PAID TO A PUBLIC UTILITY PROVIDER FOR NEW SERVICE TO THE CONSTRUCTION PROJECT, PAYMENT OF SUCH FEE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

1.13 CONTRACTOR SHALL TAKE ALL MEASURES AND PROVIDE ALL MATERIAL NECESSARY FOR PROTECTING EXISTING EQUIPMENT AND PROPERTY.

1.14 METHODS OF PROCEDURE (MOPS) FOR CONSTRUCTION: CONTRACTOR SHALL PERFORM WORK AS DESCRIBED IN THE FOLLOWING INSTALLATION AND COMMISSIONING MOPS.

NOTE: IN SHORT-FORM SPECIFICATIONS ON THE DRAWINGS, A/E TO INSERT LIST OF APPLICABLE MOPS INCLUDING EN-2012-001, EN-2013-002, EL-0568, AND TS-0193

1.15 USE OF ELECTRONIC PROJECT MANAGEMENT SYSTEMS:

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 TEMPORARY UTILITIES AND FACILITIES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY UTILITIES AND FACILITIES NECESSARY EXCEPT AS OTHERWISE INDICATED IN THE CONSTRUCTION DOCUMENTS. TEMPORARY UTILITIES AND FACILITIES INCLUDE POTABLE WATER, HEAT, HVAC, ELECTRICITY, SANITARY FACILITIES, WASTE DISPOSAL FACILITIES, AND TELEPHONE/COMMUNICATION SERVICES. PROVIDE TEMPORARY UTILITIES AND FACILITIES IN ACCORDANCE WITH OSHA AND THE AUTHORITY HAVING JURISDICTION. CONTRACTOR MAY UTILIZE THE COMPANY ELECTRICAL SERVICE IN THE COMPLETION OF THE WORK WHEN IT BECOMES AVAILABLE. USE OF THE LESSORS OR SITE OWNER'S UTILITIES OR FACILITIES IS EXPRESSLY FORBIDDEN EXCEPT AS OTHERWISE ALLOWED IN THE CONTRACT DOCUMENTS.

3.2 ACCESS TO WORK: THE CONTRACTOR SHALL PROVIDE ACCESS TO THE JOB SITE FOR AUTHORIZED COMPANY PERSONNEL AND AUTHORIZED REPRESENTATIVES OF THE ARCHITECT/ENGINEER DURING ALL PHASES OF THE WORK.

3.3 TESTING: REQUIREMENTS FOR TESTING BY THIS CONTRACTOR SHALL BE AS INDICATED HEREWITH, ON THE CONSTRUCTION DRAWINGS, AND IN THE INDIVIDUAL SECTIONS OF THESE SPECIFICATIONS. SHOULD COMPANY CHOOSE TO ENGAGE ANY THIRD-PARTY TO CONDUCT ADDITIONAL TESTING, THE CONTRACTOR SHALL COOPERATE WITH AND PROVIDE A WORK AREA FOR COMPANY'S TEST AGENCY.

3.4 DIMENSIONS: VERIFY DIMENSIONS INDICATED ON DRAWINGS WITH FIELD DIMENSIONS BEFORE FABRICATION OR ORDERING OF MATERIALS. DO NOT SCALE DRAWINGS.

3.5 EXISTING CONDITIONS: NOTIFY THE SPRINT CONSTRUCTION MANAGER OF EXISTING CONDITIONS DIFFERING FROM THOSE INDICATED ON THE DRAWINGS. DO NOT REMOVE OR ALTER STRUCTURAL COMPONENTS WITHOUT PRIOR WRITTEN APPROVAL FROM THE ARCHITECT AND ENGINEER.

SECTION 01 200 – COMPANY FURNISHED MATERIAL AND EQUIPMENT

PART 1 – GENERAL

1.1 THE WORK: THESE STANDARD CONSTRUCTION SPECIFICATIONS IN CONJUNCTION WITH THE OTHER CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.

1.2 RELATED DOCUMENTS:

A. THE REQUIREMENTS OF THIS SECTION APPLY TO ALL SECTIONS IN THIS SPECIFICATION.

B. SPRINT "STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES" ARE INCLUDED IN AND MADE A PART OF THESE SPECIFICATIONS HEREWITH.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 RECEIPT OF MATERIAL AND EQUIPMENT:

A. A COMPANY FURNISHED MATERIAL AND EQUIPMENT IS IDENTIFIED ON THE RF DATA SHEET IN THE CONSTRUCTION DOCUMENTS.

B. THE CONTRACTOR IS RESPONSIBLE FOR SPRINT PROVIDED MATERIAL AND EQUIPMENT AND UPON RECEIPT SHALL:

1 ACCEPT DELIVERIES AS SHIPPED AND TAKE RECEIPT.

2. VERIFY COMPLETENESS AND CONDITION OF ALL DELIVERIES.

3. TAKE RESPONSIBILITY FOR EQUIPMENT AND PROVIDE INSURANCE PROTECTION AS REQUIRED IN AGREEMENT.

4. RECORD ANY DEFECTS OR DAMAGES AND WITHIN TWENTY-FOUR HOURS AFTER RECEIPT, REPORT TO SPRINT OR ITS DESIGNATED PROJECT REPRESENTATIVE OF SUCH.

5. PROVIDE SECURE AND NECESSARY WEATHER PROTECTED WAREHOUSING.

6. COORDINATE SAFE AND SECURE TRANSPORTATION OF MATERIAL AND EQUIPMENT, DELIVERING AND OFF-LOADING FROM CONTRACTOR'S WAREHOUSE TO SITE.

3.2 DELIVERABLES:

A. COMPLETE SHIPPING AND RECEIPT DOCUMENTATION IN ACCORDANCE WITH COMPANY PRACTICE.

B. IF APPLICABLE, COMPLETE LOST/STOLEN/DAMAGED DOCUMENTATION REPORT AS NECESSARY IN ACCORDANCE WITH COMPANY PRACTICE, AND AS DIRECTED BY COMPANY.

C. UPLOAD DOCUMENTATION INTO SPRINT SITE MANAGEMENT SYSTEM (SMS) AND/OR PROVIDE HARD COPY DOCUMENTATION AS REQUESTED.

SECTION 01 300 – CELL SITE CONSTRUCTION CO.

PART 1 – GENERAL

1.1 THE WORK: THESE STANDARD CONSTRUCTION SPECIFICATIONS IN CONJUNCTION WITH THE OTHER CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.

1.2 RELATED DOCUMENTS:

A. THE REQUIREMENTS OF THIS SECTION APPLY TO ALL SECTIONS IN THIS SPECIFICATION.

B. SPRINT "STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES" ARE INCLUDED IN AND MADE A PART OF THESE SPECIFICATIONS HEREWITH.

1.3 NOTICE TO PROCEED

A. NO WORK SHALL COMMENCE PRIOR TO COMPANY'S WRITTEN NOTICE TO PROCEED AND THE ISSUANCE OF THE WORK ORDER.

B. UPON RECEIVING NOTICE TO PROCEED, CONTRACTOR SHALL FULLY PERFORM ALL WORK NECESSARY TO PROVIDE SPRINT WITH AN OPERATIONAL WIRELESS FACILITY.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 FUNCTIONAL REQUIREMENTS:

A. THE ACTIVITIES DESCRIBED IN THIS PARAGRAPH REPRESENT MINIMUM ACTIONS AND PROCESSES REQUIRED TO SUCCESSFULLY COMPLETE THE WORK. THE ACTIVITIES DESCRIBED ARE NOT EXHAUSTIVE, AND CONTRACTOR SHALL TAKE ANY AND ALL ACTIONS AS NECESSARY TO SUCCESSFULLY COMPLETE THE CONSTRUCTION OF A FULLY FUNCTIONING WIRELESS FACILITY AT THE SITE IN ACCORDANCE WITH COMPANY PROCESSES.

B. SUBMIT SPECIFIC DOCUMENTATION AS INDICATED HEREIN, AND OBTAIN REQUIRED APPROVALS WHILE THE WORK IS BEING PERFORMED.

C. MANAGE AND CONDUCT ALL FIELD CONSTRUCTION SERVICE RELATED ACTIVITIES

D. PROVIDE CONSTRUCTION ACTIVITIES TO THE EXTENT REQUIRED BY THE CONTRACT DOCUMENTS, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

PLANS PREPARED FOR:

Sprint

PLANS PREPARED BY:

INFINIGY
FROM ZERO TO INFINIGY
the solutions are endless
1033 Watervliet Shaker Rd | Albany, NY 12205
Phone: 518-690-0790 | Fax: 518-690-0793
www.infinigy.com
JOB NUMBER 526-104

PROJECT MANAGER:

AIROSMITH DEVELOPMENT
32 CLINTON ST.
SARATOGA SPRINGS, NY 12866
OFFICE#: (518) 308-3740

ENGINEERING LICENSE:

STATE OF CONNECTICUT
JOHN S. STEVENS
JAN 09 2018
No. 24705
LICENSED
PROFESSIONAL ENGINEER

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	1/09/17	JDL	0

SITE NAME:

SPECTRASITE / VERNON CT 6

SITE NUMBER:

CT70XC147

SITE ADDRESS:

777 TALCOTVILLE ROAD
VERNON ROCKVILLE, CT 06066

SHEET DESCRIPTION:

SPRINT SPECIFICATIONS

SHEET NUMBER:

SP-1

CONTINUE FROM SP-1

1. PERFORM ANY REQUIRED SITE ENVIRONMENTAL MITIGATION.
2. PREPARE GROUND SITES; PROVIDE DE-GRUBBING; AND ROUGH AND FINAL GRADING, AND COMPOUND SURFACE TREATMENTS.
3. MANAGE AND CONDUCT ALL ACTIVITIES FOR INSTALLATION OF UTILITIES INCLUDING ELECTRICAL AND TELCO BACKHAUL.
4. INSTALL UNDERGROUND FACILITIES INCLUDING UNDERGROUND POWER AND COMMUNICATIONS CONDUITS, AND UNDERGROUND GROUNDING SYSTEM.
5. INSTALL ABOVE GROUND GROUNDING SYSTEMS.
6. PROVIDE NEW HVAC INSTALLATIONS AND MODIFICATIONS.
7. INSTALL "H-FRAMES", CABINETS AND SHELTERS AS INDICATED.
8. INSTALL ROADS, ACCESS WAYS, CURBS AND DRAINS AS INDICATED.
9. ACCOMPLISH REQUIRED MODIFICATION OF EXISTING FACILITIES.
10. PROVIDE ANTENNA SUPPORT STRUCTURE FOUNDATIONS.
11. PROVIDE SLABS AND EQUIPMENT PLATFORMS.
12. INSTALL COMPOUND FENCING, SIGHT SHIELDING, LANDSCAPING AND ACCESS BARRIERS.
13. PERFORM INSPECTION AND MATERIAL TESTING AS REQUIRED HEREINAFTER.
14. CONDUCT SITE RESISTANCE TO EARTH TESTING AS REQUIRED HEREINAFTER
15. INSTALL FIXED GENERATOR SETS AND OTHER STANDBY POWER SOLUTIONS.
16. INSTALL TOWERS, ANTENNA SUPPORT STRUCTURES AND PLATFORMS ON EXISTING TOWERS AS REQUIRED.
17. INSTALL CELL SITE RADIOS, MICROWAVE, GPS, COAXIAL MAINLINE, ANTENNAS, CROSS BAND COUPLERS, TOWER TOP AMPLIFIERS, LOW NOISE AMPLIFIERS AND RELATED EQUIPMENT.
18. PERFORM, DOCUMENT, AND CLOSE OUT ANY CONSTRUCTION CONTROL DOCUMENTS THAT MAY BE REQUIRED BY GOVERNMENT AGENCIES AND LANDLORDS.
19. PERFORM ANTENNAL AND COAX SWEEP TESTING AND MAKE ANY AND ALL NECESSARY CORRECTIONS.
20. REMAIN ON SITE MOBILIZED THROUGHOUT HAND-OFF AND INTEGRATION TO ASSIST AS NEEDED UNTIL SITE IS DEEMED SUBSTANTIALLY COMPLETE AND PLACED "ON AIR."

3.2 GENERAL REQUIREMENTS FOR CIVIL CONSTRUCTION:

A. CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH. AT THE COMPLETION OF THE WORK, CONTRACTOR SHALL REMOVE FROM THE SITE ALL REMAINING RUBBISH, IMPLEMENTS, TEMPORARY FACILITIES, AND SURPLUS MATERIALS.

B. EQUIPMENT ROOMS SHALL AT ALL TIMES BE MAINTAINED "BROOM CLEAN" AND CLEAR OF DEBRIS.

C. CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS TO DISCOVER AND LOCATE ANY HAZARDOUS CONDITION.

1. IN THE EVENT CONTRACTOR ENCOUNTERS ANY HAZARDOUS CONDITION WHICH HAS NOT BEEN ABATED OR OTHERWISE MITIGATED, CONTRACTOR AND ALL OTHER PERSONS SHALL IMMEDIATELY STOP WORK IN THE AFFECTED AREA AND NOTIFY COMPANY IN WRITING. THE WORK IN THE AFFECTED AREA SHALL NOT BE RESUMED EXCEPT BY WRITTEN NOTIFICATION BY COMPANY.
2. CONTRACTOR AGREES TO USE CARE WHILE ON THE SITE AND SHALL NOT TAKE ANY ACTION THAT WILL OR MAY RESULT IN OR CAUSE THE HAZARDOUS CONDITION TO BE FURTHER RELEASED IN THE ENVIRONMENT, OR TO FURTHER EXPOSE INDIVIDUALS TO THE HAZARD.

D. CONTRACTOR'S ACTIVITIES SHALL BE RESTRICTED TO THE PROJECT LIMITS. SHOULD AREAS OUTSIDE THE PROJECT LIMITS BE AFFECTED BY CONTRACTOR'S ACTIVITIES, CONTRACTOR SHALL IMMEDIATELY RETURN THEM TO ORIGINAL CONDITION

E. CONDUCT TESTING AS REQUIRED HEREIN.

3.3 DELIVERABLES:

A. CONTRACTOR SHALL REVIEW, APPROVE, AND SUBMIT TO SPRINT SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND SIMILAR SUBMITTALS AS REQUIRED HEREINAFTER

B. PROVIDE DOCUMENTATION INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING. DOCUMENTATION SHALL BE FORWARDED IN ORIGINAL FORMAT AND/OR UPLOADED INTO SMS.

1. ALL CORRESPONDENCE AND PRELIMINARY CONSTRUCTION REPORTS.
2. PROJECT PROGRESS REPORTS.
3. CIVIL CONSTRUCTION START DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
4. ELECTRICAL SERVICE COMPLETION DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
5. LINES AND ANTENNA INSTALL DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
6. POWER INSTALL DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
7. TELCO READY DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
8. PPC (OR SHELTER) INSTALL DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
9. TOWER CONSTRUCTION START DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
10. TOWER CONSTRUCTION COMPLETE DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
11. BTS AND RADIO EQUIPMENT DELIVERED AT SITE DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
12. NETWORK OPERATIONS HANDOFF CHECKLIST (HOC WALK) COMPLETE (UPLOAD FORM IN SMS)
13. CIVIL CONSTRUCTION COMPLETE DATE (POPULATE FIELD IN SMS AND/OR FORWARD NOTIFICATION).
14. SITE CONSTRUCTION PROGRESS PHOTOS UNLOADED INTO SMS.

SECTION 01 400 – SUBMITTALS & TESTS

PART 1 – GENERAL

1.1 THE WORK: THESE STANDARD CONSTRUCTION SPECIFICATIONS IN CONJUNCTION WITH THE OTHER CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.

1.2 RELATED DOCUMENTS:

A. THE REQUIREMENTS OF THIS SECTION APPLY TO ALL SECTIONS IN THIS SPECIFICATION.

B. SPRINT "STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES" ARE INCLUDED IN AND MADE A PART OF THESE SPECIFICATIONS HEREWITH.

1.3 SUBMITTALS:

A. THE WORK IN ALL ASPECTS SHALL COMPLY WITH THE CONSTRUCTION DRAWINGS AND THESE SPECIFICATIONS.

B. SUBMIT THE FOLLOWING TO COMPANY REPRESENTATIVE FOR APPROVAL.

1. CONCRETE MIX-DESIGNS FOR TOWER FOUNDATIONS, ANCHORS PIERS, AND CONCRETE PAVING.
2. CONCRETE BREAK TESTS AS SPECIFIED HEREIN.
3. SPECIAL FINISHES FOR INTERIOR SPACES, IF ANY.
4. ALL EQUIPMENT AND MATERIALS SO IDENTIFIED ON THE CONSTRUCTION DRAWINGS.
5. CHEMICAL GROUNDING DESIGN

D. ALTERNATES: AT THE COMPANY'S REQUEST, ANY ALTERNATIVES TO THE MATERIALS OR METHODS SPECIFIED SHALL BE SUBMITTED TO SPRINT'S CONSTRUCTION MANAGER FOR APPROVAL PRIOR TO BEING SHIPPED TO SITE. SPRINT WILL REVIEW AND APPROVE ONLY THOSE REQUESTS MADE IN WRITING. NO VERBAL APPROVALS WILL BE CONSIDERED. SUBMITTAL FOR APPROVAL SHALL INCLUDE A STATEMENT OF COST REDUCTION PROPOSED FOR USE OF ALTERNATE PRODUCT.

1.4 TESTS AND INSPECTIONS:

A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION TESTS, INSPECTIONS AND PROJECT DOCUMENTATION.

B. CONTRACTOR SHALL ACCOMPLISH TESTING INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

1. COAX SWEEPS AND FIBER TESTS PER TS-0200 REV 4 ANTENNA LINE ACCEPTANCE STANDARDS.
2. AGL, AZIMUTH AND DOWNTILT USING ELECTRONIC COMMERCIAL MADE-FOR-THE-PURPOSE ANTENNA ALIGNMENT TOOL.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL CORRECTIONS TO ANY WORK IDENTIFIED AS UNACCEPTABLE IN SITE INSPECTION ACTIVITIES AND/OR AS A RESULT OF TESTING.

C. REQUIRED CLOSEOUT DOCUMENTATION INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING;

1. AZIMUTH, DOWNTILT, AGL – UPLOAD REPORT FROM ANTENNA ALIGNMENT TOOL TO SITERRA TASK 465. INSTALLED AZIMUTH, DOWNTILT, AND AGL MUST CONFORM TO THE RF DATA SHEETS. SWEEP AND FIBER TESTS
2. SCANABLE BARCODE PHOTOGRAPHS OF TOWER TOP AND INACCESSIBLE SERIALIZED EQUIPMENT
3. ALL AVAILABLE JURISDICTIONAL INFORMATION
4. PDF SCAN OF REDLINES PRODUCED IN FIELD
5. ELECTRONIC AS-BUILT DRAWINGS IN AUTOCAD AND PDF FORMATS. ANY FIELD CHANGE MUST BE REFLECTED BY MODIFYING THE PLANS, ELEVATIONS, AND DETAILS IN THE DRAWING SETS. GENERAL NOTES INDICATING MODIFICATIONS WILL NOT BE ACCEPTED. CHANGES SHALL BE HIGHLIGHTED AS "CLOUDS" IDENTIFIED AS THE "AS-BUILT" CONDITION.
6. LIEN WAIVERS
7. FINAL PAYMENT APPLICATION
8. REQUIRED FINAL CONSTRUCTION PHOTOS
9. CONSTRUCTION AND COMMISSIONING CHECKLIST COMPLETE WITH NO DEFICIENT ITEMS
10. ALL POST NTP TASKS INCLUDING DOCUMENT UPLOADS COMPLETED IN SITERRA (SPRINTS DOCUMENT REPOSITORY OF RECORD).

1.5 COMMISSIONING: PERFORM ALL COMMISSIONING AS REQUIRED BY APPLICABLE MOPs

1.6 INTEGRATION: PERFORM ALL INTEGRATION ACTIVITIES AS REQUIRED BY APPLICABLE MOPs

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 REQUIREMENTS FOR TESTING:

A. THIRD PARTY TESTING AGENCY:

1. WHEN THE USE OF A THIRD PARTY INDEPENDENT TESTING AGENCY IS REQUIRED, THE AGENCY THAT IS SELECTED MUST PERFORM SUCH WORK ON A REGULAR BASIS IN THE STATE WHERE THE PROJECT IS LOCATED AND HAVE A THOROUGH UNDERSTANDING OF LOCAL AVAILABLE MATERIALS, INCLUDING THE SOIL, ROCK, AND GROUNDWATER CONDITIONS.
2. THE THIRD PARTY TESTING AGENCY IS TO BE FAMILIAR WITH THE APPLICABLE REQUIREMENTS FOR THE TESTS TO BE DONE, EQUIPMENT TO BE USED, AND ASSOCIATED HEALTH AND SAFETY ISSUES.
3. EXPERIENCE IN SOILS, CONCRETE, MASONRY, AGGREGATE, AND ASPHALT TESTING USING ASTM, AASJTO, AND OTHER METHODS IS NEEDED.
4. EXPERIENCE IN SOILS, CONCRETE, MASONRY, AGGREGATE, AND ASPHALT TESTING USING ASTM, AASJTO, AND OTHER METHODS IS NEEDED.

3.2 REQUIRED TESTS:

A. CONTRACTOR SHALL ACCOMPLISH TESTING INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

1. CONCRETE CYLINDER BREAK TESTS FOR THE TOWER AND ANCHOR FOUNDATIONS AS SPECIFIED IN SECTION: PORTLAND CEMENT CONCRETE PAVING.
2. ASPHALT ROADWAY COMPACTED THICKNESS, SURFACE SMOOTHNESS, AND COMPACTED DENSITY TESTING AS SPECIFIED IN SECTION: HOT MIX ASPHALT PAVING.
3. FIELD QUALITY CONTROL TESTING AS SPECIFIED IN SECTION: PORTLAND CEMENT CONCRETE PAVING.
4. TESTING REQUIRED UNDER SECTION: AGGREGATE BASE FOR ACCESS ROADS, PADS AND ANCHOR LOCATIONS
5. STRUCTURAL BACKFILL COMPACTION TESTS FOR THE TOWER FOUNDATION.
6. SITE RESISTANCE TO EARTH TESTING PER EXHIBIT: CELL SITE GROUNDING SYSTEM DESIGN.
7. ANTENNA AND COAX SWEEP TESTS PER EXHIBIT: ANTENNA TRANSMISSION LINE ACCEPTANCE STANDARDS.
8. GROUNDING AT ANTENNA MASTS FOR GPS AND ANTENNAS
9. ALL OTHER TESTS REQUIRED BY COMPANY OR JURISDICTION.

3.3 REQUIRED INSPECTIONS

A. SCHEDULE INSPECTIONS WITH COMPANY REPRESENTATIVE.

B. CONDUCT INSPECTIONS INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

1. GROUNDING SYSTEM INSTALLATION PRIOR TO EARTH CONCEALMENT DOCUMENTED WITH DIGITAL PHOTOGRAPHS BY CONTRACTOR, APPROVED BY A&E OR SPRINT REPRESENTATIVE.
2. FORMING FOR CONCRETE AND REBAR PLACEMENT PRIOR TO POUR DOCUMENTED WITH DIGITAL PHOTOGRAPHS BY CONTRACTOR, APPROVED BY A&E OR SPRINT REPRESENTATIVE.
3. COMPACTION OF BACKFILL MATERIALS; AGGREGATE BASE FOR ROADS, PADS, AND ANCHORS; ASPHALT PAVING; AND SHAFT BACKFILL FOR CONCRETE AND WOOD POLES, BY INDEPENDENT THIRD PARTY AGENCY.
4. PRE- AND POST-CONSTRUCTION ROOFTOP AND STRUCTURAL INSPECTIONS ON EXISTING FACILITIES.
5. TOWER ERECTION SECTION STACKING AND PLATFORM ATTACHMENT DOCUMENTED BY DIGITAL PHOTOGRAPHS BY THIRD PARTY AGENCY.
6. ANTENNA AZIMUTH , DOWN TILT AND PER SUNLIGHT TOOL SUNSIGHT INSTRUMENTS – ANTENNALIGN ALIGNMENT TOOL (AAT)

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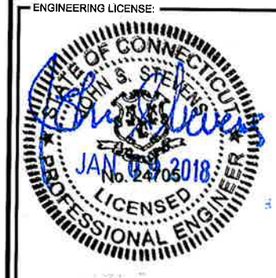
OFFICE#. (518) 308-3740

ENGINEERING LICENSE:



REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	1/09/17	JDL	0

SITE NAME:
SPECTRASITE / VERNON CT 6

SITE NUMBER:
CT70XC147

SITE ADDRESS:
777 TALCOTVILLE ROAD
VERNON ROCKVILLE, CT 06066

SHEET DESCRIPTION:
SPRINT SPECIFICATIONS

SHEET NUMBER:
SP-2

CONTINUE FROM SP-2

7. VERIFICATION DOCUMENTED WITH THE ANTENNA CHECKLIST REPORT, BY A&E, SITE DEVELOPMENT REP, OR RF REP.

8. FINAL INSPECTION CHECKLIST AND HANDOFF WALK (HOC.). SIGNED FORM SHOWING ACCEPTANCE BY FIELD OPS IS TO BE UPLOADED INTO SMS.

9. COAX SWEEP AND FIBER TESTING DOCUMENTS SUBMITTED VIA SMS FOR RF APPROVAL.

10. SCAN-ABLE BARCODE PHOTOGRAPHS OF TOWER TOP AND INACCESSIBLE SERIALIZED EQUIPMENT

11. ALL AVAILABLE JURISDICTIONAL INFORMATION

12. PDF SCAN OF REDLINES PRODUCED IN FIELD

C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL CORRECTIONS TO ANY WORK IDENTIFIED AS UNACCEPTABLE IN SITE INSPECTION ACTIVITIES AND/OR AS A RESULT OF TESTING.

D. CONSTRUCTION INSPECTIONS AND CORRECTIVE MEASURES SHALL BE DOCUMENTED BY THE CONTRACTOR WITH WRITTEN REPORTS AND PHOTOGRAPHS. PHOTOGRAPHS MUST BE DIGITAL AND OF SUFFICIENT QUALITY TO CLEARLY SHOW THE SITE CONSTRUCTION. PHOTOGRAPHS MUST CLEARLY IDENTIFY THE PHOTOGRAPHED ITEM AND BE LABELED WITH THE SITE CASCADE NUMBER, SITE NAME, DESCRIPTION, AND DATE.

3.4 DELIVERABLES: TEST AND INSPECTION REPORTS AND CLOSEOUT DOCUMENTATION SHALL BE UPLOADED TO THE SMS AND/OR FORWARDED TO SPRINT FOR INCLUSION INTO THE PERMANENT SITE FILES.

A. THE FOLLOWING TEST AND INSPECTION REPORTS SHALL BE PROVIDED AS APPLICABLE.

1. CONCRETE MIX AND CYLINDER BREAK REPORTS.

2. STRUCTURAL BACKFILL COMPACTION REPORTS.

3. SITE RESISTANCE TO EARTH TEST.

4. ANTENNA AZIMUTH AND DOWN TILT VERIFICATION

5. TOWER ERECTION INSPECTIONS AND MEASUREMENTS DOCUMENTING TOWER INSTALLED PER SUPPLIER'S REQUIREMENTS AND THE APPLICABLE SECTIONS HEREIN.

6. COAX CABLE SWEEP TESTS PER COMPANY'S "ANTENNA LINE ACCEPTANCE STANDARDS".

B. REQUIRED CLOSEOUT DOCUMENTATION INCLUDES THE FOLLOWING;

1. TEST WELLS AND TRENCHES: PHOTOGRAPHS OF ALL TEST WELLS; PHOTOGRAPHS SHOWING ALL OPEN EXCAVATIONS AND TRENCHING PRIOR TO BACKFILLING SHOWING A TAPE MEASURE VISIBLE IN THE EXCAVATIONS INDICATING DEPTH.

2. CONDUITS, CONDUCTORS AND GROUNDING: PHOTOGRAPHS SHOWING TYPICAL INSTALLATION OF CONDUCTORS AND CONNECTORS; PHOTOGRAPHS SHOWING TYPICAL BEND RADIUS OF INSTALLED GROUND WIRES AND GROUND ROD SPACING;

3. CONCRETE FORMS AND REINFORCING: CONCRETE FORMING AT TOWER AND EQUIPMENT/SHELTER PAD/FOUNDATIONS – PHOTOGRAPHS SHOWING ALL REINFORCING STEEL, UTILITY AND CONDUIT STUB OUTS; PHOTOGRAPHS SHOWING CONCRETE POUR OF SHELTER SLAB/FOUNDATION, TOWER FOUNDATION AND GUY ANCHORS WITH VIBRATOR IN USE; PHOTOGRAPHS SHOWING EACH ANCHOR ON GUYED TOWERS, BEFORE CONCRETE POUR.

4. TOWER, ANTENNAS AND MAINLINE: INSPECTION AND PHOTOGRAPHS OF SECTION STACKING; INSPECTION AND PHOTOGRAPHS OF PLATFORM COMPONENT ATTACHMENT POINTS; PHOTOGRAPHS OF TOWER TOP GROUNDING; PHOTOS OF TOWER COAX LINE COLOR CODING AT THE TOP AND AT GROUND LEVEL; INSPECTION AND PHOTOGRAPHS OF OPERATIONAL OF TOWER LIGHTING, AND PLACEMENT OF FAA REGISTRATION SIGN; PHOTOGRAPHS SHOWING ADDITIONAL GROUNDING POINTS FOR TOWERS GREATER THAN 200 FEET.; PHOTOS OF ANTENNA GROUND BAR, EQUIPMENT GROUND BAR, AND MASTER GROUND BAR; PHOTOS OF GPS ANTENNA(S); PHOTOS OF EACH SECTOR OF ANTENNAS; ONE PHOTOGRAPH LOOKING AT THE SECTOR AND ONE FROM BEHIND SHOWING THE PROJECTED COVERAGE AREA; PHOTOS OF COAX WEATHERPROOFING – TOP AND BOTTOM; PHOTOS OF COAX GROUNDING--TOP AND BOTTOM; PHOTOS OF ANTENNA AND MAST GROUNDING; PHOTOS OF COAX CABLE ENTRY INTO SHELTER; PHOTOS OF PLATFORM MECHANICAL CONNECTIONS TO TOWER/MONOPOLE.

5. ROOF TOPS: PRE-CONSTRUCTION AND POST-CONSTRUCTION VISUAL INSPECTION AND PHOTOGRAPHS OF THE ROOF AND INTERIOR TO DETERMINE AND DOCUMENT CONDITIONS; ROOF TOP CONSTRUCTION INSPECTIONS AS REQUIRED BY THE JURISDICTION; PHOTOGRAPHS OF CABLE TRAY AND/OR ICE BRIDGE; PHOTOGRAPHS OF DOGHOUSE/CABLE EXIT FROM ROOF;

6. SITE LAYOUT – PHOTOGRAPHS OF THE OVERALL COMPOUND, INCLUDING EQUIPMENT PLATFORM FROM ALL FOUR CORNERS.

7. FINISHED UTILITIES: CLOSE-UP PHOTOGRAPHS OF THE PPC BREAKER PANEL; CLOSE-UP PHOTOGRAPH OF THE INSIDE OF THE TELCO PANEL AND NIU; CLOSE-UP PHOTOGRAPH OF THE POWER METER AND DISCONNECT; PHOTOS OF POWER AND TELCO ENTRANCE TO COMPANY ENCLOSURE; PHOTOGRAPHS AT METER BOX AND/OR FACILITY DISTRIBUTION PANEL.

8. REQUIRED MATERIALS CERTIFICATIONS: CONCRETE MIX DESIGNS; MILL CERTIFICATION FOR ALL REINFORCING AND STRUCTURAL STEEL; AND ASPHALT PAVING MIX DESIGN.

9. ANY AND ALL SUBMITTALS BY THE JURISDICTION OR COMPANY.

SECTION 01 400 – SUBMITTALS & TESTS

PART 1 – GENERAL

1.1 THE WORK: THESE STANDARD CONSTRUCTION SPECIFICATIONS IN CONJUNCTION WITH THE OTHER CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.

1.2 RELATED DOCUMENTS:

A. THE REQUIREMENTS OF THIS SECTION APPLY TO ALL SECTIONS IN THIS SPECIFICATION.

B. SPRINT "STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES" ARE INCLUDED IN AND MADE A PART OF THESE SPECIFICATIONS HEREWITH.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 WEEKLY REPORTS:

A. CONTRACTOR SHALL PROVIDE SPRINT WITH WEEKLY REPORTS SHOWING PROJECT STATUS. THIS STATUS REPORT FORMAT WILL BE PROVIDED TO THE CONTRACTOR BY SPRINT. THE REPORT WILL CONTAIN SITE ID NUMBER, THE MILESTONES FOR EACH SITE, INCLUDING THE BASELINE DATE, ESTIMATED COMPLETION DATE AND ACTUAL COMPLETION DATE.

B. REPORT INFORMATION WILL BE TRANSMITTED TO SPRINT VIA ELECTRONIC MEANS AS REQUIRED. THIS INFORMATION WILL PROVIDE A BASIS FOR PROGRESS MONITORING AND PAYMENT.

3.2 PROJECT CONFERENCE CALLS:

A. SPRINT MAY HOLD WEEKLY PROJECT CONFERENCE CALLS. CONTRACTOR WILL BE REQUIRED TO COMMUNICATE SITE STATUS, MILESTONE COMPLETIONS AND UPCOMING MILESTONE PROJECTIONS, AND ANSWER ANY OTHER SITE STATUS QUESTIONS AS NECESSARY.

3.3 PROJECT TRACKING IN SMS:

A. CONTRACTOR SHALL PROVIDE SCHEDULE UPDATES AND PROJECTIONS IN THE SMS SYSTEM ON A WEEKLY BASIS.

3.4 ADDITIONAL REPORTING:

A. ADDITIONAL OR ALTERNATE REPORTING REQUIREMENTS MAY BE ADDED TO THE REPORT AS DETERMINED TO BE REASONABLY NECESSARY BY COMPANY.

3.5 PROJECT PHOTOGRAPHS:

A. FILE DIGITAL PHOTOGRAPHS OF COMPLETED SITE IN JPEG FORMAT IN THE SMS PHOTO LIBRARY FOR THE RESPECTIVE SITE. PHOTOGRAPHS SHALL BE CLEARLY LABELED WITH SITE NUMBER, NAME AND DESCRIPTION, AND SHALL INCLUDE AT A MINIMUM THE FOLLOWING AS APPLICABLE:

1. 1SHELTER AND TOWER OVERVIEW.

2. TOWER FOUNDATION(S) – FORMS AND STEEL BEFORE POUR (EACH ANCHOR ON GUYED TOWERS).

3. TOWER FOUNDATION(S) POUR WITH VIBRATOR IN USE (EACH ANCHOR ON GUYED TOWERS).

4. TOWER STEEL AS BEING INSTALLED INTO HOLE (SHOW ANCHOR STEEL ON GUYED TOWERS).

5. PHOTOS OF TOWER SECTION STACKING.

6. CONCRETE TESTING / SAMPLES.

7. PLACING OF ANCHOR BOLTS IN TOWER FOUNDATION.

8. BUILDING/WATER TANK FROM ROAD FOR TENANT IMPROVEMENTS OR COMMENTS.

9. SHELTER FOUNDATION--FORMS AND STEEL BEFORE POURING.

10. SHELTER FOUNDATION POUR WITH VIBRATOR IN USE.

11. COAX CABLE ENTRY INTO SHELTER.

12. PLATFORM MECHANICAL CONNECTIONS TO TOWER/MONOPOLE.

13. ROOFTOP PRE AND POST CONSTRUCTION PHOTOS TO INCLUDE PENETRATIONS AND INTERIOR CEILING.

14. PHOTOS OF TOWER TOP COAX LINE COLOR CODING AND COLOR CODING AT GROUND LEVEL.

15. PHOTOS OF ALL APPROPRIATE COMPANY OR REGULATORY SIGNAGE.

16. PHOTOS OF EQUIPMENT BOLT DOWN INSIDE SHELTER.

17. POWER AND TELCO ENTRANCE TO COMPANY ENCLOSURE AND POWER AND TELCO SUPPLY LOCATIONS INCLUDING METER/DISCONNECT.

18. ELECTRICAL TRENCH(S) WITH ELECTRICAL / CONDUIT BEFORE BACKFILL.

19. ELECTRICAL TRENCH(S) WITH FOIL-BACKED TAPE BEFORE FURTHER BACKFILL.

20. TELCO TRENCH WITH TELEPHONE / CONDUIT BEFORE BACKFILL.

21. TELCO TRENCH WITH FOIL-BACKED TAPE BEFORE FURTHER BACKFILL.

22. SHELTER GROUND-RING TRENCH WITH GROUND-WIRE BEFORE BACKFILL (SHOW ALL CAD WELDS AND BEND RADII).

23. TOWER GROUND-RING TRENCH WITH GROUND-WIRE BEFORE BACKFILL (SHOW ALL CAD WELDS AND BEND RADII).

24. FENCE GROUND-RING TRENCH WITH GROUND-WIRE BEFORE BACKFILL (SHOW ALL CAD WELDS AND BEND RADII).

25. ALL BTS GROUND CONNECTIONS.

26. ALL GROUND TEST WELLS.

27. ANTENNA GROUND BAR AND EQUIPMENT GROUND BAR.

28. ADDITIONAL GROUNDING POINTS ON TOWERS ABOVE 200'.

29. HVAC UNITS INCLUDING CONDENSERS ON SPLIT SYSTEMS.

30. GPS ANTENNAS.

31. CABLE TRAY AND/OR WAVEGUIDE BRIDGE.

32. DOGHOUSE/CABLE EXIT FROM ROOF.

33. EACH SECTOR OF ANTENNAS; ONE PHOTOGRAPH LOOKING AT THE SECTOR AND ONE FROM BEHIND SHOWING THE PROJECTED COVERAGE AREA.

34. MASTER BUS BAR.

35. TELCO BOARD AND NIU.

36. ELECTRICAL DISTRIBUTION WALL.

37. CABLE ENTRY WITH SURGE SUPPRESSION.

38. ENTRANCE TO EQUIPMENT ROOM.

39. COAX WEATHERPROOFING-TOP AND BOTTOM OF TOWER.

40. COAX GROUNDING -TOP AND BOTTOM OF TOWER.

41. ANTENNA AND MAST GROUNDING.

42. LANDSCAPING – WHERE APPLICABLE.

3.6 FINAL PROJECT ACCEPTANCE: COMPLETE ALL REQUIRED REPORTING TASKS PER CONTRACT, CONTRACT DOCUMENTS OR THE SPRINT INTEGRATED CONSTRUCTION STANDARDS FOR WIRELESS SITES AND UPLOAD INTO SITERRA.

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www.infinigy.com
JOB NUMBER 526-104

PROJECT MANAGER:

AIROSMITH DEVELOPMENT
32 CLINTON ST.
SARATOGA SPRINGS, NY 12866
OFFICE#. (518) 308-3740

ENGINEERING LICENSE:

STATE OF CONNECTICUT
JOHN S. STEVENS
No. 24705
LICENSED PROFESSIONAL ENGINEER
JAN 09 2018

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	1/09/17	JDL	0

SITE NAME:

SPECTRASITE / VERNON CT 6

SITE NUMBER:

CT70XC147

SITE ADDRESS:

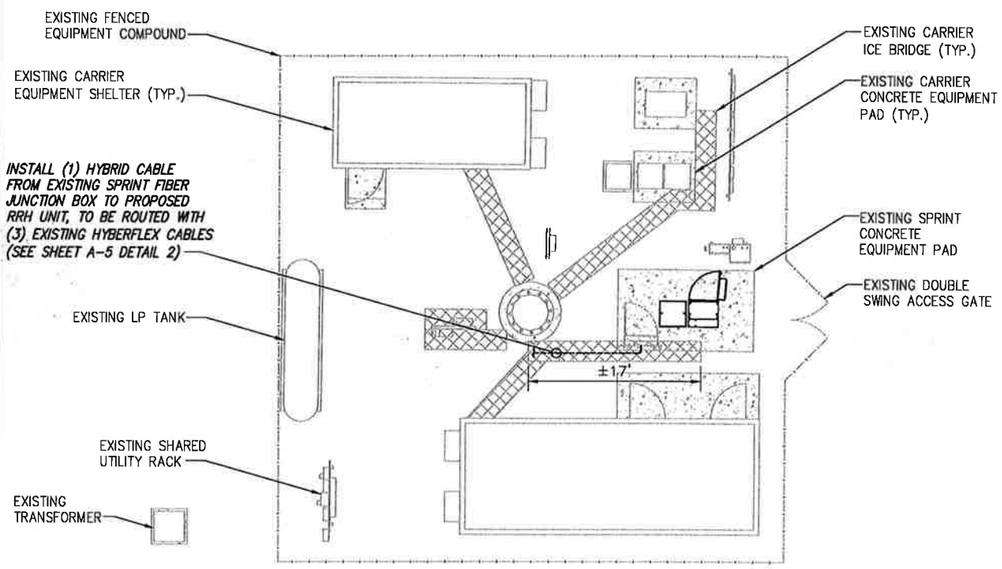
777 TALCOTVILLE ROAD
VERNON ROCKVILLE, CT 06066

SHEET DESCRIPTION:

SPRINT SPECIFICATIONS

SHEET NUMBER:

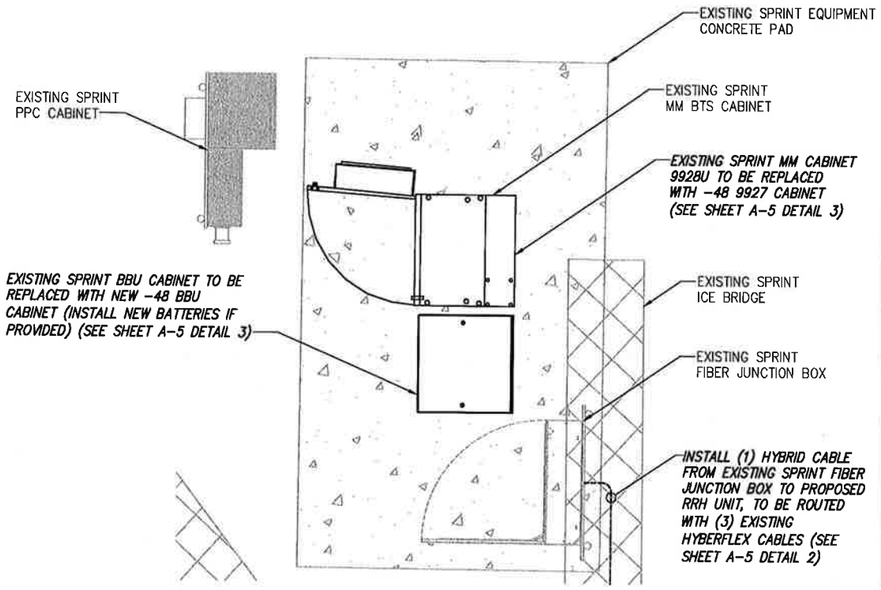
SP-3



GRAPHIC SCALE:
30' 15' 0 15' 30'
SCALE (11x17): 1" = 30'-0"
SCALE (22x34): 1" = 15'-0"

INFORMATION CONTAINED WITHIN DRAWINGS ARE BASED ON PROVIDED INFORMATION AND ARE NOT THE RESULT OF A FIELD SURVEY.

OVERALL SITE PLAN | SCALE: AS NOTED | 1



GRAPHIC SCALE:
4' 2' 0 2' 4'
SCALE (11x17): 1" = 4'-0"
SCALE (22x34): 1" = 2'-0"

SPRINT EQUIPMENT PLAN | SCALE: AS NOTED | 2

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JOHN S. STEVENS
JAN 09 2018
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LICENSED PROFESSIONAL ENGINEER

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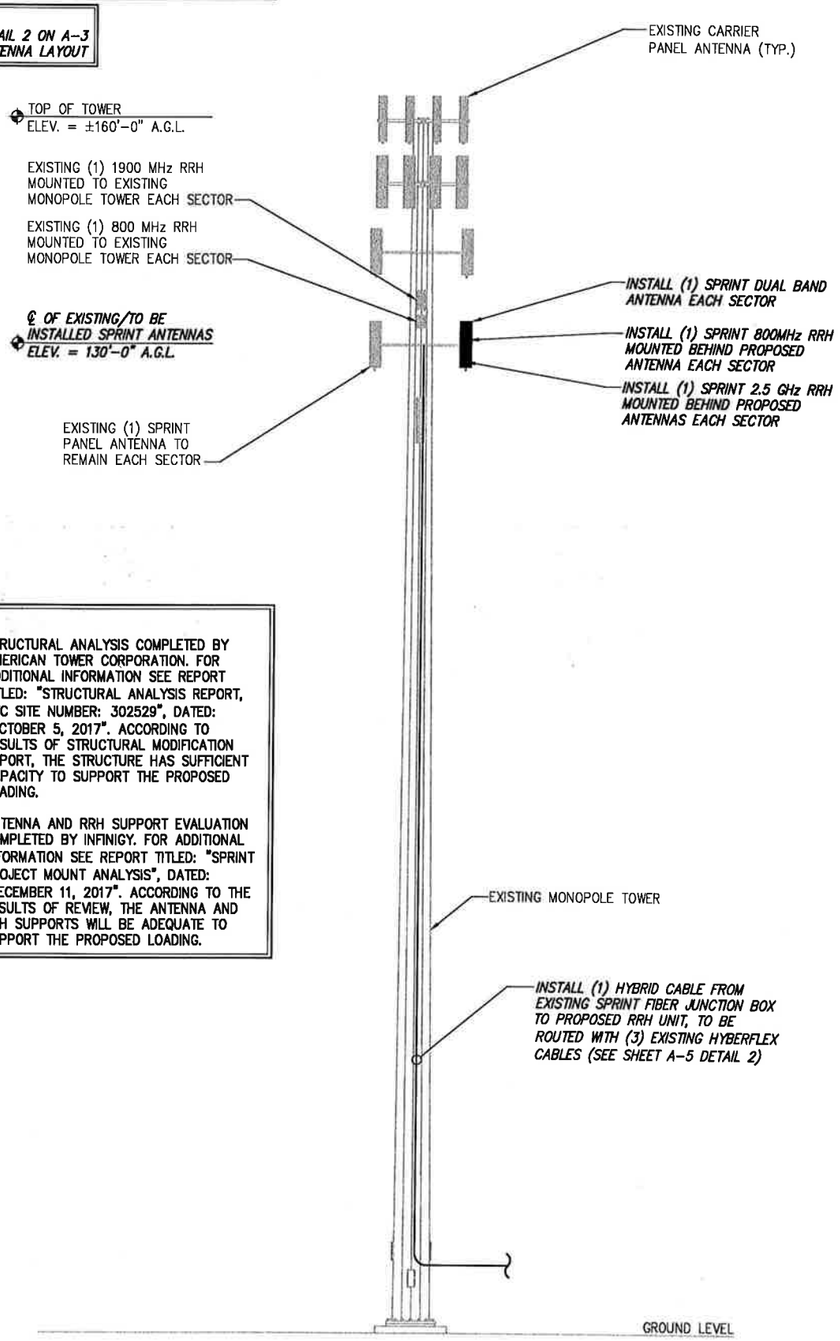
SITE ADDRESS:
777 TALCOTVILLE ROAD
VERNON ROCKVILLE, CT 06066

SHEET DESCRIPTION:
SITE PLAN

SHEET NUMBER:
A-1

NOTE:
INFINIGY ENGINEERING HAS NOT EVALUATED THE EXISTING STRUCTURE FOR THIS SITE, AND ASSUMES NO RESPONSIBILITY FOR ITS STRUCTURAL INTEGRITY. REFER TO STRUCTURAL ANALYSIS BY OTHERS PRIOR TO ANY CONSTRUCTION.

NOTE:
SEE DETAIL 2 ON A-3 FOR ANTENNA LAYOUT



NOTE:
- STRUCTURAL ANALYSIS COMPLETED BY AMERICAN TOWER CORPORATION. FOR ADDITIONAL INFORMATION SEE REPORT TITLED: "STRUCTURAL ANALYSIS REPORT, ATC SITE NUMBER: 302529", DATED: "OCTOBER 5, 2017". ACCORDING TO RESULTS OF STRUCTURAL MODIFICATION REPORT, THE STRUCTURE HAS SUFFICIENT CAPACITY TO SUPPORT THE PROPOSED LOADING.
- ANTENNA AND RRH SUPPORT EVALUATION COMPLETED BY INFINIGY. FOR ADDITIONAL INFORMATION SEE REPORT TITLED: "SPRINT PROJECT MOUNT ANALYSIS", DATED: "DECEMBER 11, 2017". ACCORDING TO THE RESULTS OF REVIEW, THE ANTENNA AND RRH SUPPORTS WILL BE ADEQUATE TO SUPPORT THE PROPOSED LOADING.

TOWER ELEVATION | NO SCALE | 1

SITE LOADING CHART

SECTOR	EXISTING/ PROPOSED	ANTENNA MODEL #	VENDOR	AZIMUTH	QTY.	REMAIN/ REMOVED	RRH (QTY/MODEL)	CABLE	CABLE LENGTH	RAD CENTER
ALPHA	PROPOSED	DT465B-2XR	COMMSCOPE	70°	1	–	(2) 800 MHZ 2X50W RRH W/ FILTER (1) TD-RRH8X20-25 W/ SOLAR SHIELD (1) 1900 MHz 4X45 RRH	SEE SHEET A-5 DETAIL 1	±163'*	±130' AGL
	EXISTING	APXV9ERR18-C-A20	RFS	70°	1	REMAIN		EXISTING HYBRID		
BETA	PROPOSED	DT465B-2XR	COMMSCOPE	190°	1	–	(2) 800 MHZ 2X50W RRH W/ FILTER (1) TD-RRH8X20-25 W/ SOLAR SHIELD (1) 1900 MHz 4X45 RRH	SEE SHEET A-5 DETAIL 1		±130' AGL
	EXISTING	APXVSPP18-C-A20	RFS	190°	1	REMAIN		EXISTING HYBRID		
GAMMA	PROPOSED	DT465B-2XR	COMMSCOPE	290°	1	–	(2) 800 MHZ 2X50W RRH W/ FILTER (1) TD-RRH8X20-25 W/ SOLAR SHIELD (1) 1900 MHz 4X45 RRH	SEE SHEET A-5 DETAIL 1		±130' AGL
	EXISTING	APXVSPP18-C-A20	RFS	290°	1	REMAIN		EXISTING HYBRID		

PROJECT SCOPE:

REMOVE: (3) PANEL ANTENNAS INSTALL: (3) PANEL ANTENNAS AND (6) RRH'S

* PROPOSED CABLE LENGTH WAS DETERMINED USING THE SUM OF THE RAD CENTER OF ANTENNAS, AND DISTANCE FROM EXISTING EQUIPMENT AREA TO TOWER BASE WITH AN ADDITIONAL 20' BUFFER. LENGTH TO BE VERIFIED IN FIELD PRIOR TO ORDERING MATERIALS.

SITE LOADING CHART | NO SCALE | 2

DETAIL NOT USED | NO SCALE | 3

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PLANS PREPARED BY:

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OFFICE#. (518) 306-3740

ENGINEERING LICENSE:


DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
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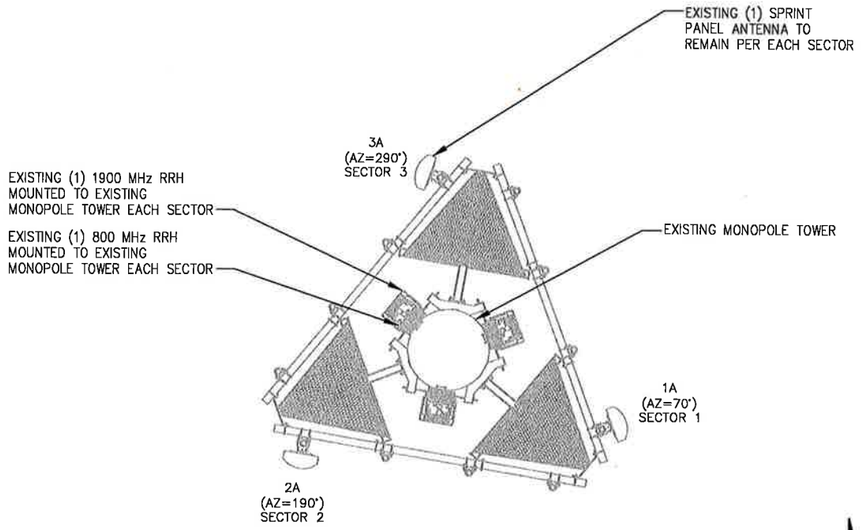
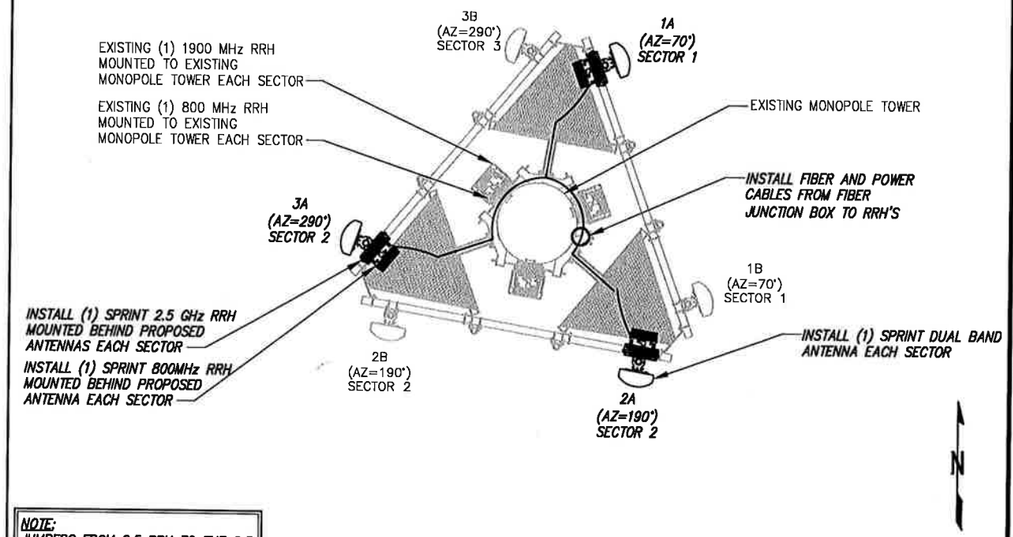
SHEET DESCRIPTION:
TOWER ELEVATION

SHEET NUMBER:
A-2



EXISTING ANTENNA & RRH LAYOUT | NO SCALE | 1

THE CONFIGURATION PLANS ARE BASED ON PROVIDED INFORMATION AND ARE FOR CONCEPTUAL PURPOSES ONLY. CONTRACTOR TO VERIFY FIELD CONDITIONS PRIOR TO CONSTRUCTION.

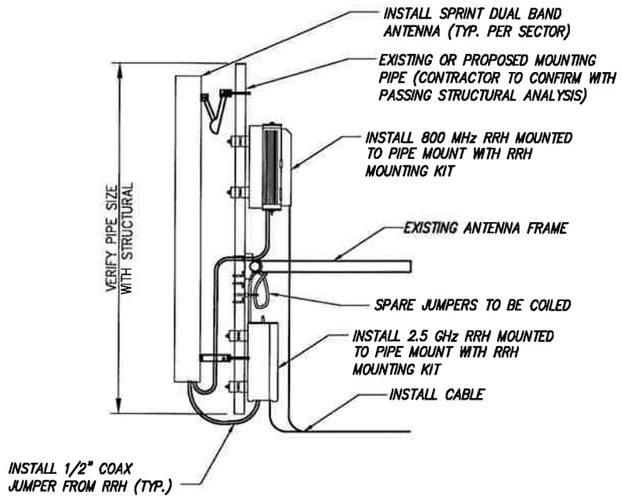


NOTE:
JUMPERS FROM 2.5 RRH TO THE 2.5 ANTENNA CANNOT EXCEED 15 FEET

FINAL ANTENNA & RRH LAYOUT | NO SCALE | 2

NOTE:
CONTRACTOR TO POSITION RRH ON MOUNT BEHIND ANTENNA SUCH THAT THE RRH DOES NOT INTERFERE WITH THE EXISTING PLATFORM/T-ARM MOUNTING HARDWARE.

NOTE:
THE DIAGRAM IS FOR CONCEPTUAL PURPOSES ONLY. CONTRACTOR IS TO REFER TO PASSING STRUCTURAL ANALYSIS FOR ANTENNA AND RRH MOUNTING DETAILS



NOTES:

1. CUT DC CONDUCTORS TO LENGTH.
2. COIL FIBER CABLE AND SECURE AT SIDE OF RRH.
3. DO NO EXCEED BEND RADIUS.

TYPICAL ANTENNA & RRH MOUNTING DETAILS | NO SCALE | 3

DETAIL NOT USED | NO SCALE | 4

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JOB NUMBER 526-104

PROJECT MANAGER:
AIROSMITH DEVELOPMENT
32 CLINTON ST.
SARATOGA SPRINGS, NY 12866
OFFICE#. (518) 306-3740

ENGINEERING LICENSE:
STATE OF CONNECTICUT
JOHN S. STEVENS
No. 24705
LICENSED PROFESSIONAL ENGINEER
JAN 09 2018

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	1/09/17	JDL	0

SITE NAME:
SPECTRASITE / VERNON CT 6

SITE NUMBER:
CT70XC147

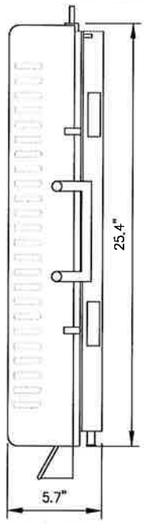
SITE ADDRESS:
777 TALCOTVILLE ROAD
VERNON ROCKVILLE, CT 06066

SHEET DESCRIPTION:
ANTENNA LAYOUT & MOUNTING DETAILS

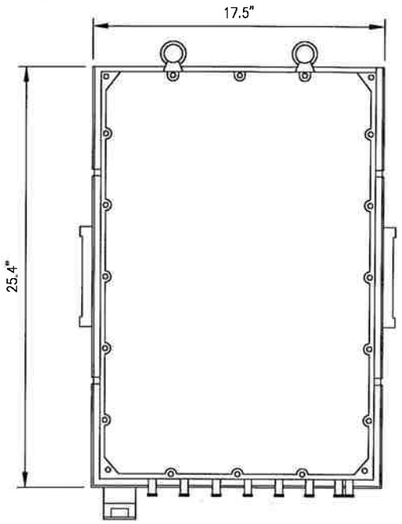
SHEET NUMBER:
A-3

RRH: ALCATEL LUCENT TD-RRH8X20

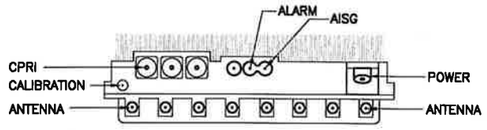
COLOR: LIGHT GREY
WEIGHT: 70 LBS.



SIDE VIEW



FRONT VIEW



PLAN VIEW

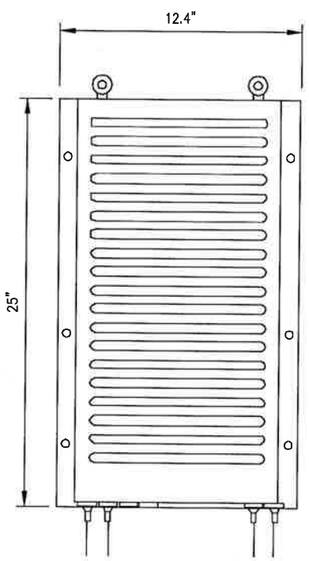
NOTES

COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRH'S RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING. DO NOT OPEN RRH PACKAGES IN THE RAIN.

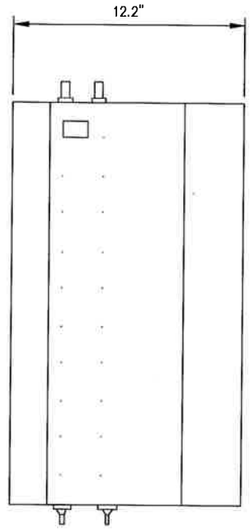
2.5 RRH	NO SCALE	1

RRH: ALCATEL LUCENT 1900 MHz

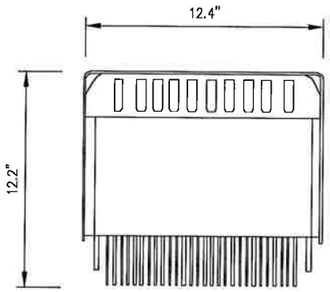
COLOR: LIGHT GREY
WEIGHT: 70 LBS.
(INCLUDING OPTIONAL SOLAR SHIELD)



FRONT VIEW



SIDE VIEW

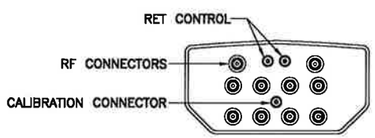


TOP VIEW

EXISTING 1900 MHz RRH	NO SCALE	2

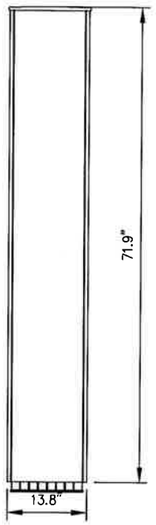
ANTENNA COMMSCOPE DT465B-2XR

RADOME MATERIAL:	FIBERGLASS
RADOME COLOR:	LIGHT GREY
DIMENSIONS, HxWxD.In(mim):	71.9"x13.8"x8.2" (1825x350x209mm)
WEIGHT:	58 lbs
CONNECTORS:	(2) 7/16" DIN FEMALE
	(8) 4.1/9.5 DIN FEMALE



PLAN VIEW

SIDE VIEW



FRONT VIEW

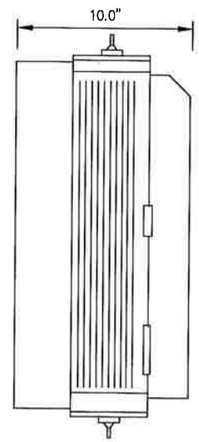
DUAL BAND ANTENNA	NO SCALE	3

RRH: ALCATEL LUCENT RRH 800 MHz 2x50W

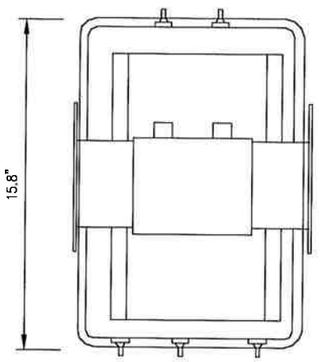
COLOR: LIGHT GREY
WEIGHT: 53 LBS.

NOTES

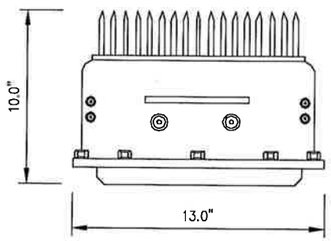
COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRH'S RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING. DO NOT OPEN RRH PACKAGES IN THE RAIN.



SIDE VIEW



FRONT VIEW



PLAN VIEW

800 MHz RRH	NO SCALE	4

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PROJECT MANAGER:

AIROSMITH DEVELOPMENT
32 CLINTON ST.
SARATOGA SPRINGS, NY 12866
OFFICE#. (518) 306-3740

ENGINEERING LICENSE:

STATE OF CONNECTICUT
JOHN S. STEVENS
LICENSED
PROFESSIONAL ENGINEER
JAN 29 2018

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	1/09/17	JOL	0

SITE NAME:

SPECTRASITE / VERNON CT 6

SITE NUMBER:

CT70XC147

SITE ADDRESS:

777 TALCOTVILLE ROAD
VERNON ROCKVILLE, CT 06066

SHEET DESCRIPTION:

EQUIPMENT & MOUNTING DETAILS

SHEET NUMBER:

A-4

RFS HYBRIFLEX RISER CABLE SCHEDULE

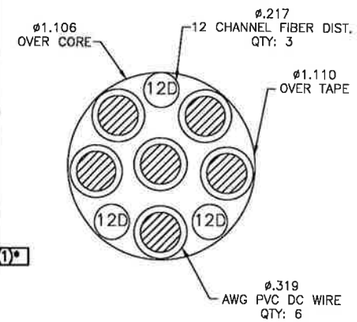
Fiber Only (Existing DC Power)	**Hybrid cable** MN: HB058-M12-050F 12x multi-mode fiber pairs, Top: Outdoor protected connectors, Bottom: LC Connectors, 5/8 cable, 50 ft	50 ft
	MN: HB058-M12-075F	75 ft
	MN: HB058-M12-100F	100 ft
	MN: HB058-M12-125F	125 ft
	MN: HB058-M12-150F	150 ft
	MN: HB058-M12-175F	175 ft
	MN: HB058-M12-200F	200 ft
8 AWG Power	**Hybrid cable** MN: HB114-08U3M12-050F 3x 8 AWG power pairs, 12x multi-mode fiber pairs, Outdoor rated connectors & LC Connectors, 1 1/4 cable, 50 ft	50 ft
	MN: HB114-08U3M12-075F	75 ft
	MN: HB114-08U3M12-100F	100 ft
	MN: HB114-08U3M12-125F	125 ft
	MN: HB114-08U3M12-150F	150 ft
	MN: HB114-08U3M12-175F	175 ft (1)*
	MN: HB114-08U3M12-200F	200 ft
6 AWG Power	**Hybrid cable** MN: HB114-13U3M12-225F 3x 6 AWG power pair, 12x multi-mode fiber pairs, Outdoor rated connectors & LC Connectors, 1 1/4 cable, 225 ft	225 ft
	MN: HB114-13U3M12-250F	250 ft
	MN: HB114-13U3M12-275F	275 ft
	MN: HB114-13U3M12-300F	300 ft
4 AWG Power	**Hybrid cable** MN: HB114-21U3M12-325F 3x 4 AWG power pair, 12x multi-mode fiber pairs, Outdoor rated connectors & LC Connectors, 1 1/4 cable, 325 ft	325 ft
	MN: HB114-21U3M12-350F	350 ft
	MN: HB114-21U3M12-375F	375 ft

RFS HYBRIFLEX JUMPER CABLE SCHEDULE

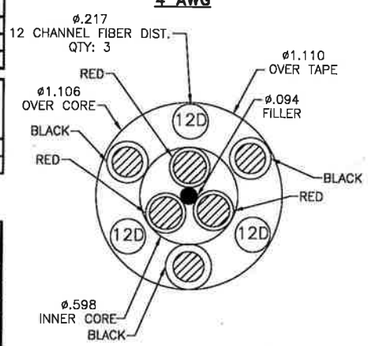
Fiber Only	**Hybrid Jumper cable** MN: HBF012-M3-5F1 5 ft, 3x multi-mode fiber pairs, Outdoor & LC connectors, 1/2 cable	5 ft
	MN: HBF012-M3-10F1	10 ft
	MN: HBF012-M3-15F1	15 ft
	MN: HBF012-M3-20F1	20 ft
	MN: HBF012-M3-25F1	25 ft
	MN: HBF012-M3-30F1	30 ft
8 AWG Power	**Hybrid Jumper cable** MN: HBF058-08U1M3-5F1 5 ft, 1x 8 AWG power pair, 3x multi-mode fiber pairs, Outdoor & LC Connectors, 5/8 cable	5 ft
	MN: HBF058-08U1M3-10F1	10 ft
	MN: HBF058-08U1M3-15F1	15 ft
	MN: HBF058-08U1M3-20F1	20 ft
	MN: HBF058-08U1M3-25F1	25 ft
	MN: HBF058-08U1M3-30F1	30 ft
6 AWG Power	**Hybrid Jumper cable** MN: HBF058-13U1M3-5F1 5 ft, 1x 6 AWG power pair, 3x multi-mode fiber pairs, Outdoor & LC Connectors, 5/8 cable	5 ft
	MN: HBF058-13U1M3-10F1	10 ft
	MN: HBF058-13U1M3-15F1	15 ft
	MN: HBF058-13U1M3-20F1	20 ft
	MN: HBF058-13U1M3-25F1	25 ft
	MN: HBF058-13U1M3-30F1	30 ft
4 AWG Power	**Hybrid Jumper cable** MN: HBF078-21U1M3-5F1 5 ft, 1x 4 AWG power pair, 3x multi-mode fiber pairs, Outdoor & LC Connectors, 7/8 cable	5 ft
	MN: HBF078-21U1M3-10F1	10 ft
	MN: HBF078-21U1M3-15F1	15 ft
	MN: HBF078-21U1M3-20F1	20 ft
	MN: HBF078-21U1M3-25F1	25 ft
	MN: HBF078-21U1M3-30F1	30 ft

NOTE:
SPRINT CM TO CONFIRM HYBRID OR FIBER RISER CABLE AND HYBRID OR FIBER JUMPER CABLE MODEL NUMBERS IF HYBRID CABLES ARE REQUIRED BEFORE PREPARING BOM.

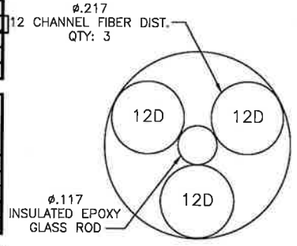
* PROPOSED CABLE LENGTH WAS DETERMINED USING THE SUM OF THE RAD CENTER OF ANTENNAS, AND DISTANCE FROM EXISTING EQUIPMENT AREA TO TOWER BASE WITH AN ADDITIONAL 20' BUFFER. LENGTH TO BE VERIFIED IN FIELD PRIOR TO ORDERING MATERIALS.



4 AWG



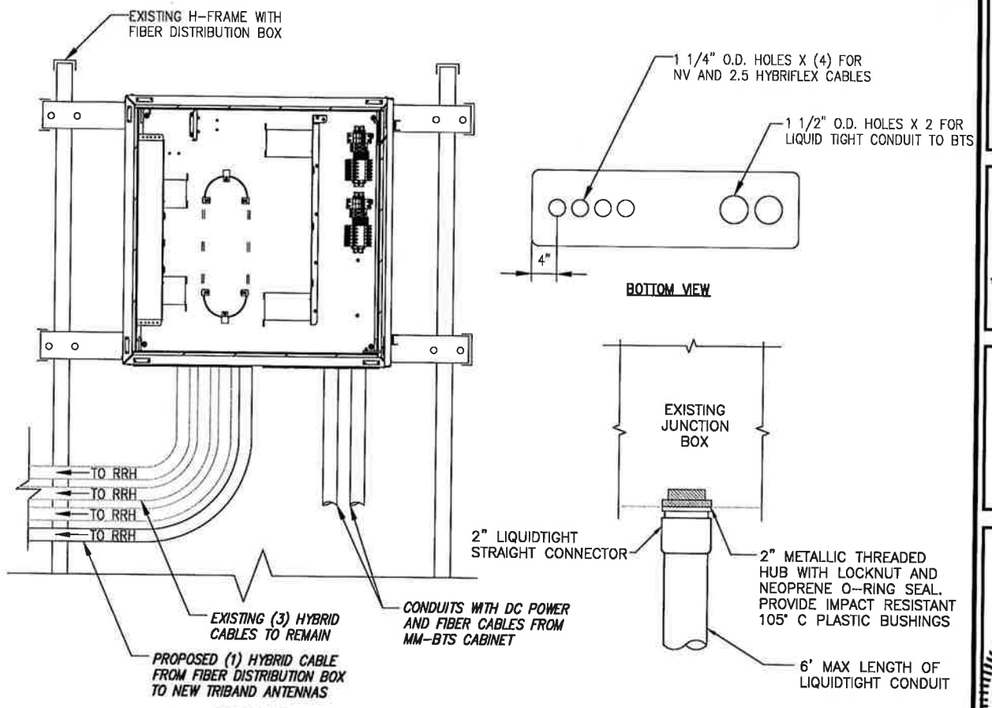
8 & 6 AWG



FIBER ONLY

800/1900/2500 CABLE CROSS SECTION DATA

NO SCALE | 1



FIBER JUNCTION BOX & PENETRATION

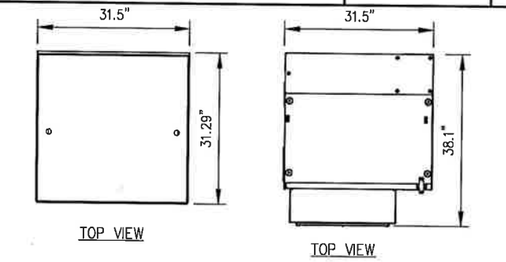
NO SCALE | 2

DESIGN CRITERIA:

2009 INTERNATIONAL BUILDING CODE W/ STATE MODIFICATION	
WIND SPEED (ASCE-7-05)	90 MPH
EXPOSURE B	
IMPORTANCE FACTOR	1.0
SEISMIC SITE CLASS	D
Ss=0.152 S1=0.050	
SEISMIC IMPORTANCE FACTOR	1.0
SEISMIC DESIGN CATEGORY	B
9927 MM BTS CABINET WEIGHT:	594 LBS.
EMERSON BATTERY CABINET SPECIFICATIONS:	
(31.29"x31.5"x63.65")	
WEIGHTS:	
SHIPPING WEIGHT:	600 LBS.
LIFT WEIGHT:	540 LBS.
TOTAL WEIGHT:	2640 LBS (WITH BATTERIES)
INDIVIDUAL BATTERY WEIGHT:	105 LBS
(DO NOT LIFT WITH BATTERIES IN CABINET)	

MATERIAL SPECIFICATIONS

C-, M-, AND ANGLE SHAPES:	ASTM A36
HIGH-STRENGTH BOLTS:	ASTM A325SC OR (A325N)
STRUCTURAL WF SHAPES:	ASTM A572-GR50
TUBE STEEL & PIPE COLUMNS:	ASTM A500, GRADE B
WELDING ELECTRODES:	E70XX
W - SHAPES:	ASTM A992, GRADE 50
U-BOLTS:	ASTM A36



NEW CABINET DETAILS

NO SCALE | 3

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JOB NUMBER 526-104

PROJECT MANAGER:
AIROSMITH DEVELOPMENT
32 CLINTON ST.
SARATOGA SPRINGS, NY 12866
OFFICE#. (516) 308-3740

ENGINEERING LICENSE:


DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	1/09/17	JDL	0

SITE NAME:
SPECTRASITE / VERNON CT 6

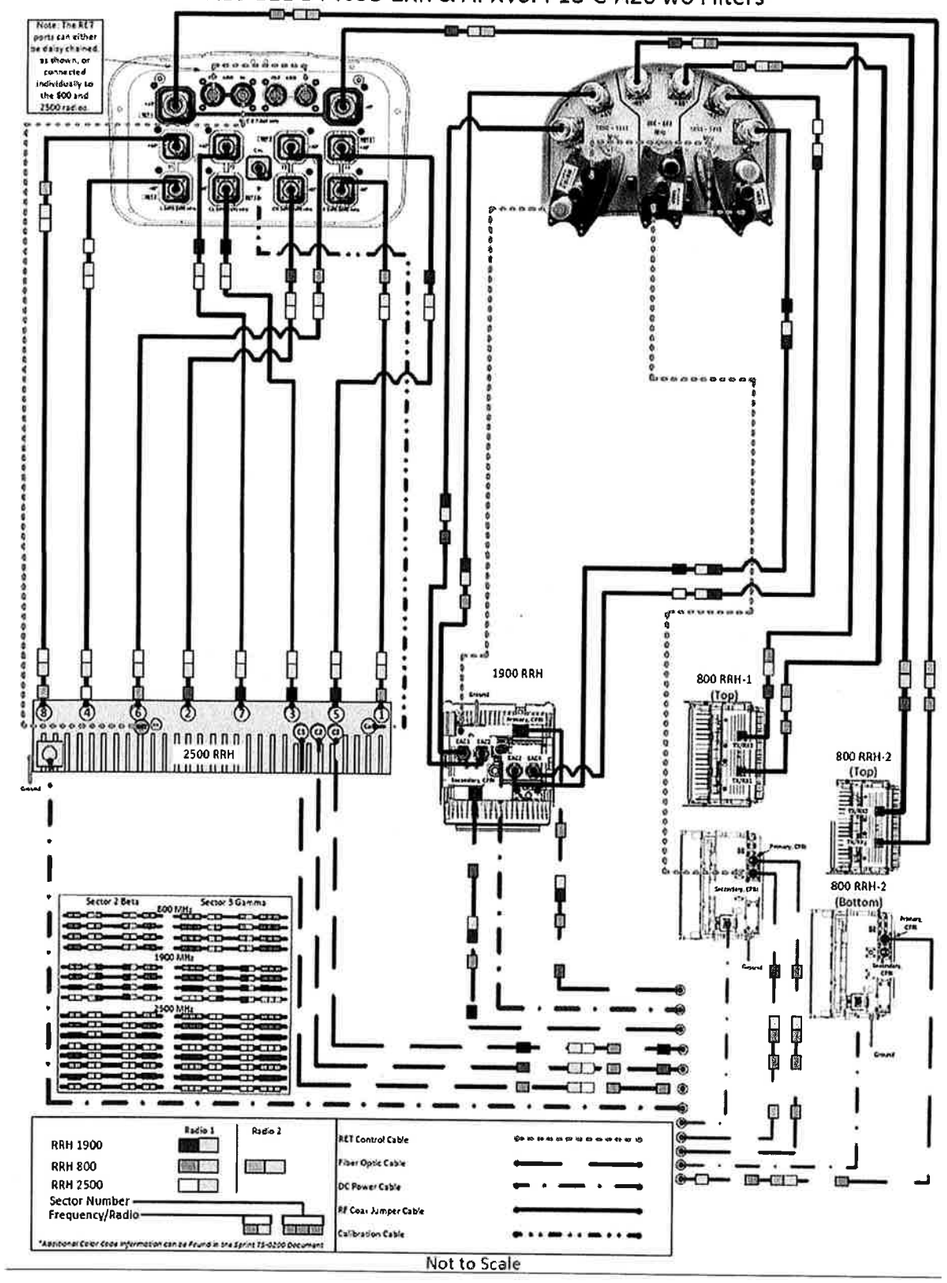
SITE NUMBER:
CT70XC147

SITE ADDRESS:
777 TALCOTVILLE ROAD
VERNON ROCKVILLE, CT 06066

SHEET DESCRIPTION:
CIVIL & EQUIPMENT DETAILS

SHEET NUMBER:
A-5

ALU 211 DT465B-2XR & APXVSPP18-C-A20 wo Filters



Not to Scale

PLUMBING DIAGRAM | NO SCALE | 1

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ENGINEERING LICENSE:

STATE OF CONNECTICUT
JOHN S. STEVENS
JAN 09 2018
No. 24705
LICENSED PROFESSIONAL ENGINEER

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SPECTRASITE / VERNON CT 6

SITE NUMBER:

CT70XC147

SITE ADDRESS:

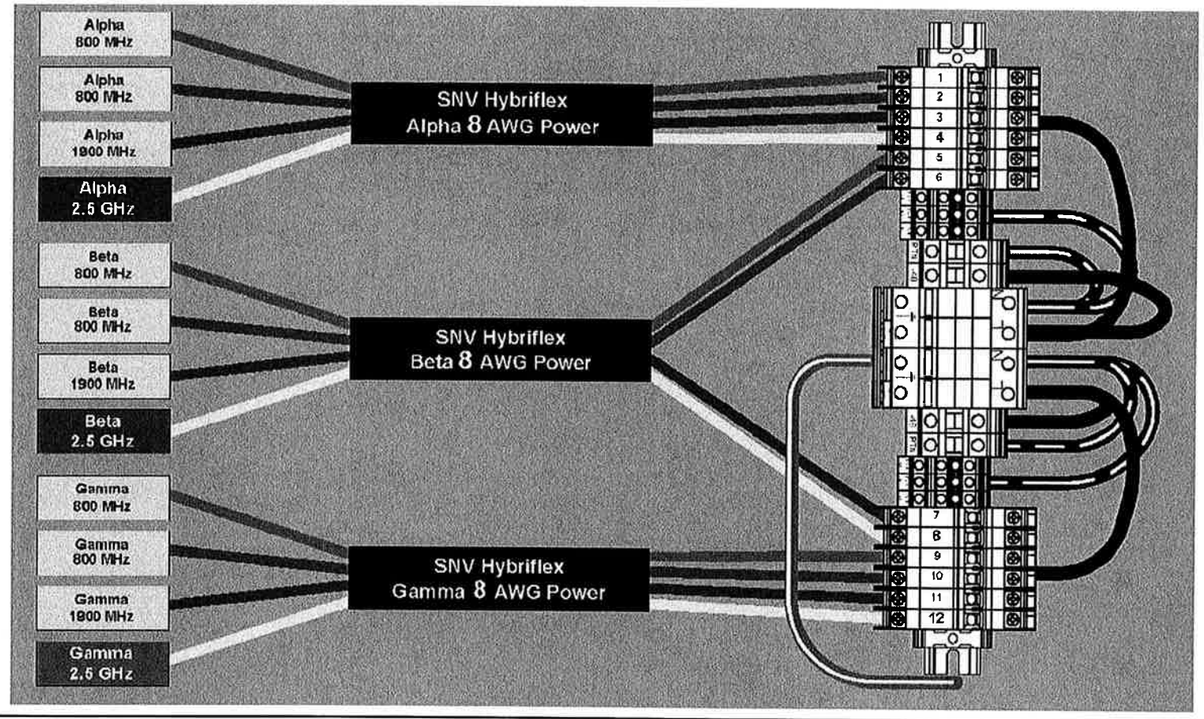
777 TALCOTVILLE ROAD
VERNON ROCKVILLE, CT 06066

SHEET DESCRIPTION:

PLUMBING DIAGRAM

SHEET NUMBER:

A-6

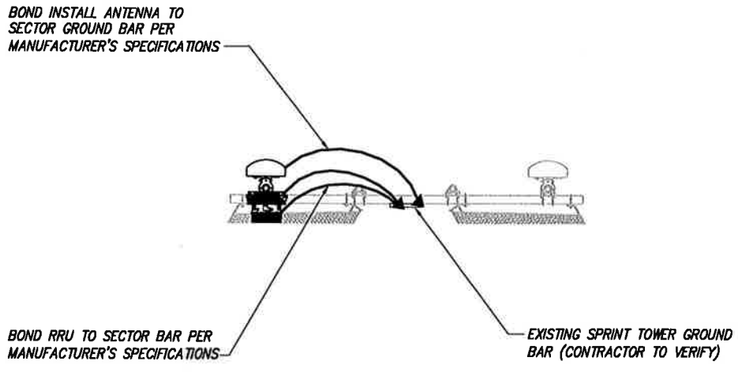


RRH TO DISTRIBUTION BOX POWER CONNECTIVITY

NO SCALE | 1

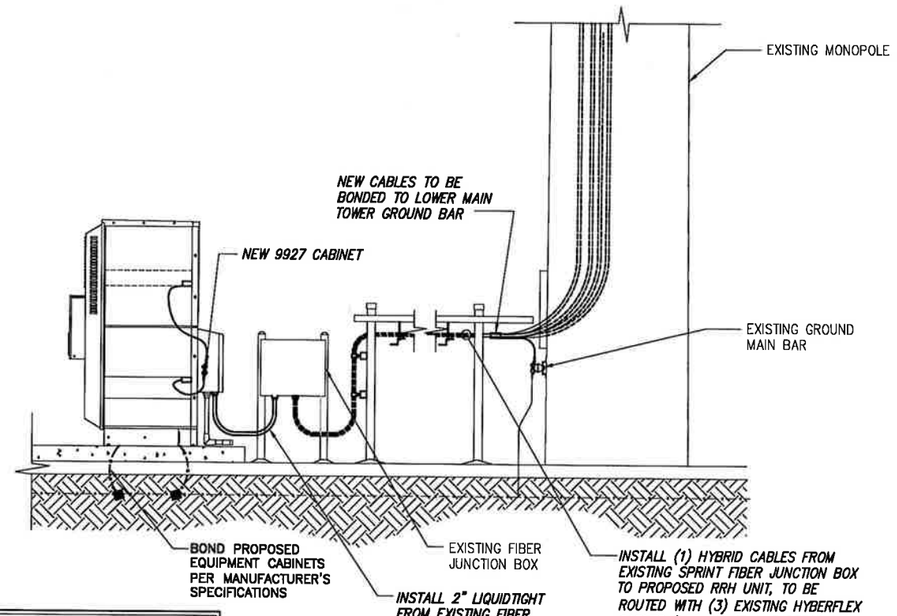
LEGEND:

- EXISTING GROUND RING
- ■ CADWELD CONNECTION (EXOTHERMIC WELD)
- ▲ MECHANICAL CONNECTION
- ⊗ GROUND ROD
- ● CABLE GROUND KIT



TYPICAL ANTENNA GROUNDING PLAN

NO SCALE | 2



NOTE:
DEPICTION IS FOR CONCEPTUAL PURPOSES ONLY. CONTRACTOR IS TO FIELD VERIFY PRIOR TO CONSTRUCTION

TYPICAL EQUIPMENT GROUNDING PLAN (ELEVATION)

NO SCALE | 3

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OFFICE#, (518) 306-3740

ENGINEERING LICENSE:

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	1/09/17	JOL	0

SITE NAME:

SPECTRASITE / VERNON CT 6

SITE NUMBER:

CT70XC147

SITE ADDRESS:

777 TALCOTVILLE ROAD
VERNON ROCKVILLE, CT 06066

SHEET DESCRIPTION:

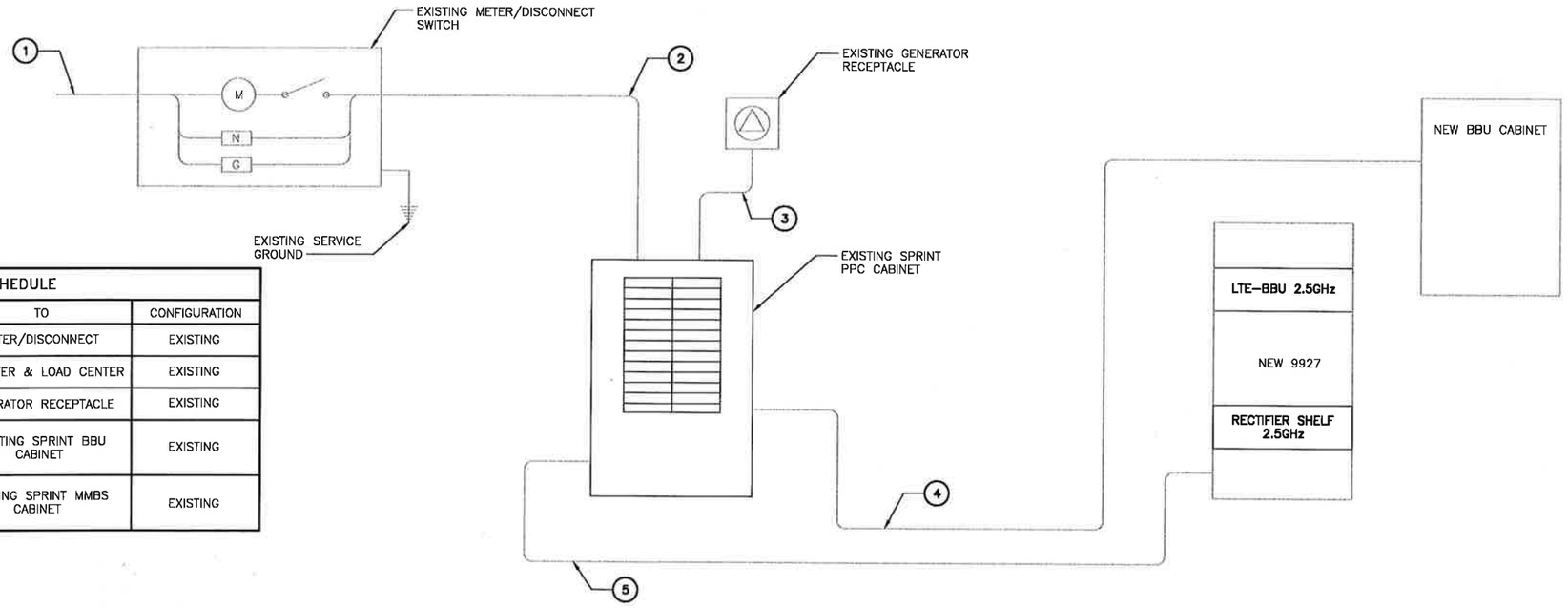
ELECTRICAL & GROUNDING PLAN

SHEET NUMBER:

E-1

NOTES

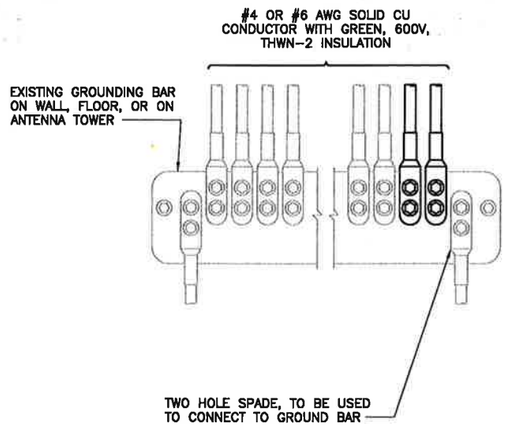
CG SHALL REFERENCE ALL SPECS FOR "CONNECTING THE POWER SUPPLY" OF THE NEW INSTALLATION DOCUMENTS, FOR ALL CONNECTION SPECIFICATIONS.



CIRCUIT SCHEDULE

NO	FROM	TO	CONFIGURATION
1	UTILITY SOURCE	METER/DISCONNECT	EXISTING
2	METER/DISCONNECT	TRANSFER & LOAD CENTER	EXISTING
3	TRANSFER & LOAD CENTER	GENERATOR RECEPTACLE	EXISTING
4	TRANSFER & LOAD CENTER	EXISTING SPRINT BBU CABINET	EXISTING
5	TRANSFER & LOAD CENTER	EXISTING SPRINT MMBS CABINET	EXISTING

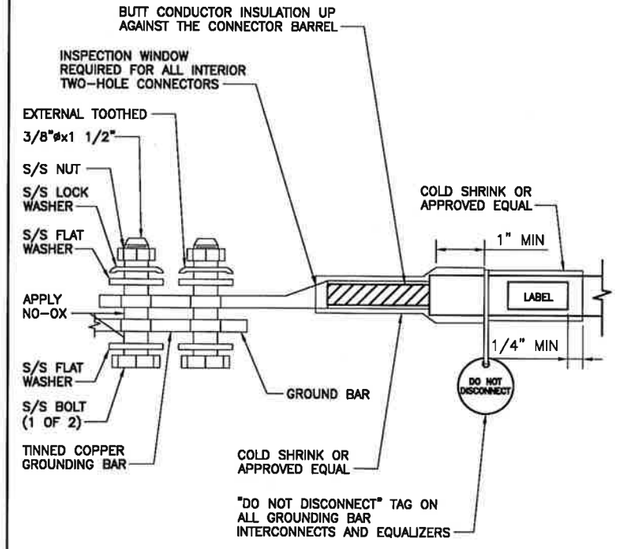
ELECTRICAL ONE–LINE DIAGRAM — NO SCALE — 1



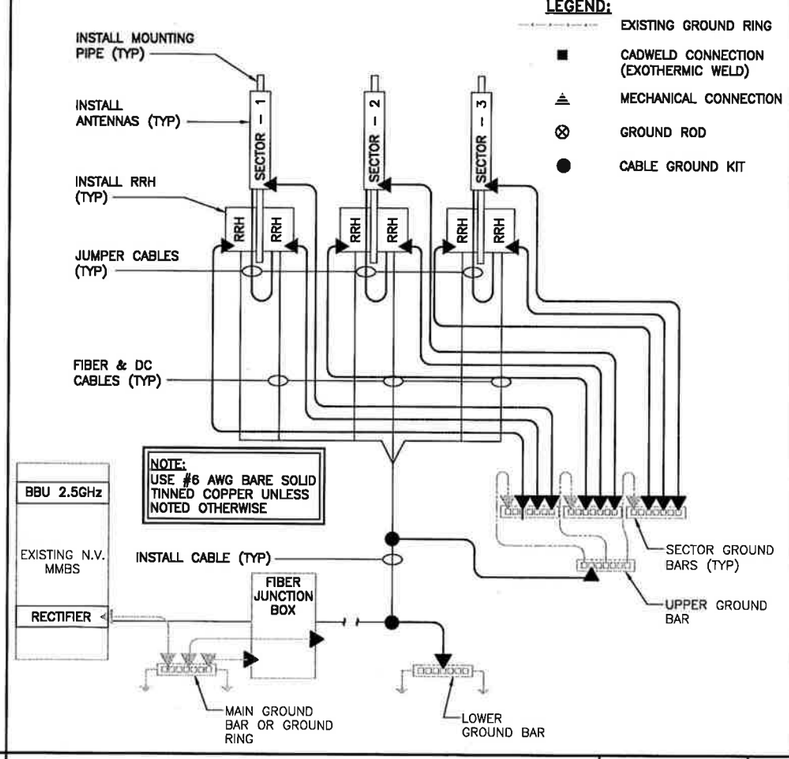
NOTES

1. APPLY NO–OX TO LUG AND BAR CONTACT SURFACE. DO NOT COAT INLINE LUG.
2. IF STOLEN GROUND BARS ARE ENCOUNTERED, CONTACT SPRINT CM FOR REPLACEMENT THREADED ROD KIT.

INSTALLATION OF GROUNDING CONDUCTOR TO GROUNDING BAR — NO SCALE — 2



TWO HOLE LUG — NO SCALE — 3



GROUNDING RISER DIAGRAM — NO SCALE — 4

PLANS PREPARED FOR:

Sprint

PLANS PREPARED BY:

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the solutions are endless
1033 Watervliet Shaker Rd | Albany, NY 12205
Phone: 518-690-0790 | Fax: 518-690-0793
www.infinigy.com
JOB NUMBER 526-104

PROJECT MANAGER:

AIROSMITH DEVELOPMENT
32 CLINTON ST.
SARATOGA SPRINGS, NY 12866
OFFICE#. (518) 306-3740

ENGINEERING LICENSE:

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	1/09/17	JDL	0

SITE NAME:

SPECTRASITE / VERNON CT 6

SITE NUMBER:

CT70XC147

SITE ADDRESS:

777 TALCOTVILLE ROAD
VERNON ROCKVILLE, CT 06066

SHEET DESCRIPTION:

ELECTRICAL & GROUNDING DETAILS

SHEET NUMBER:

E-2