AIROSMITH DEVELOPMENT
We do it right the first time.

February 26th, 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 82 NORTH EAGLEVILLE ROAD, CONNECTICUT – CT03XC214 (lat. 41° 48' 52.02" N, long. -72° 15' 35.61" 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 three (3) new 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 SCOTT JORDAN, Executive Vice President for Administration & Chief Financial Officer, and LAURA CRUICKSHANK, MASTER PLANNER AND CHIEF ARCHITECT of the UNIVERSITY OF CONNECTICUT. The Tower and Land is owned by the University of Connecticut so Mr. SCOTT JORDAN will already be receiving the notification letter.

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 depicted on the attached drawings; however, the proposed equipment will not require

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

AIROSMITH DEVELOPMENT
We do it right the first time.

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: SCOTT JORDAN (Executive Vice President for Administration & Chief Financial Officer, University of Connecticut)
LAURA CRUICKSHANK (MASTER PLANNER AND CHIEF ARCHITECT/UNIVERSITY OF CONNECTICUT)

7017 3040 0000 7659 3336

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.
STORRS MANSFIELD, CT 06269

OFFICIAL USE

Certified Mail Fee	$3.45
Extra Services & Fees (check box, add fee as appropriate)	$2.75
☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$0.50
Total Postage and Fees	$6.70

0867 17

SARATOGA FINANCE
Postmark Here
FEB 26 2018
02/26/2018
SARATOGA SPRINGS, NY 12866

Sent To: Laura Cruickshank (CT03XC214)
Street and Apt. No., or PO Box No.: 31 Le Doyt Rd Unit 3038
City, State, ZIP+4®: Storrs CT 06269

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

7017 3040 0000 7659 7297

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.
STORRS MANSFIELD, CT 06269

OFFICIAL USE

Certified Mail Fee	$3.45
Extra Services & Fees (check box, add fee as appropriate)	$2.75
☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$0.50
Total Postage and Fees	$6.70

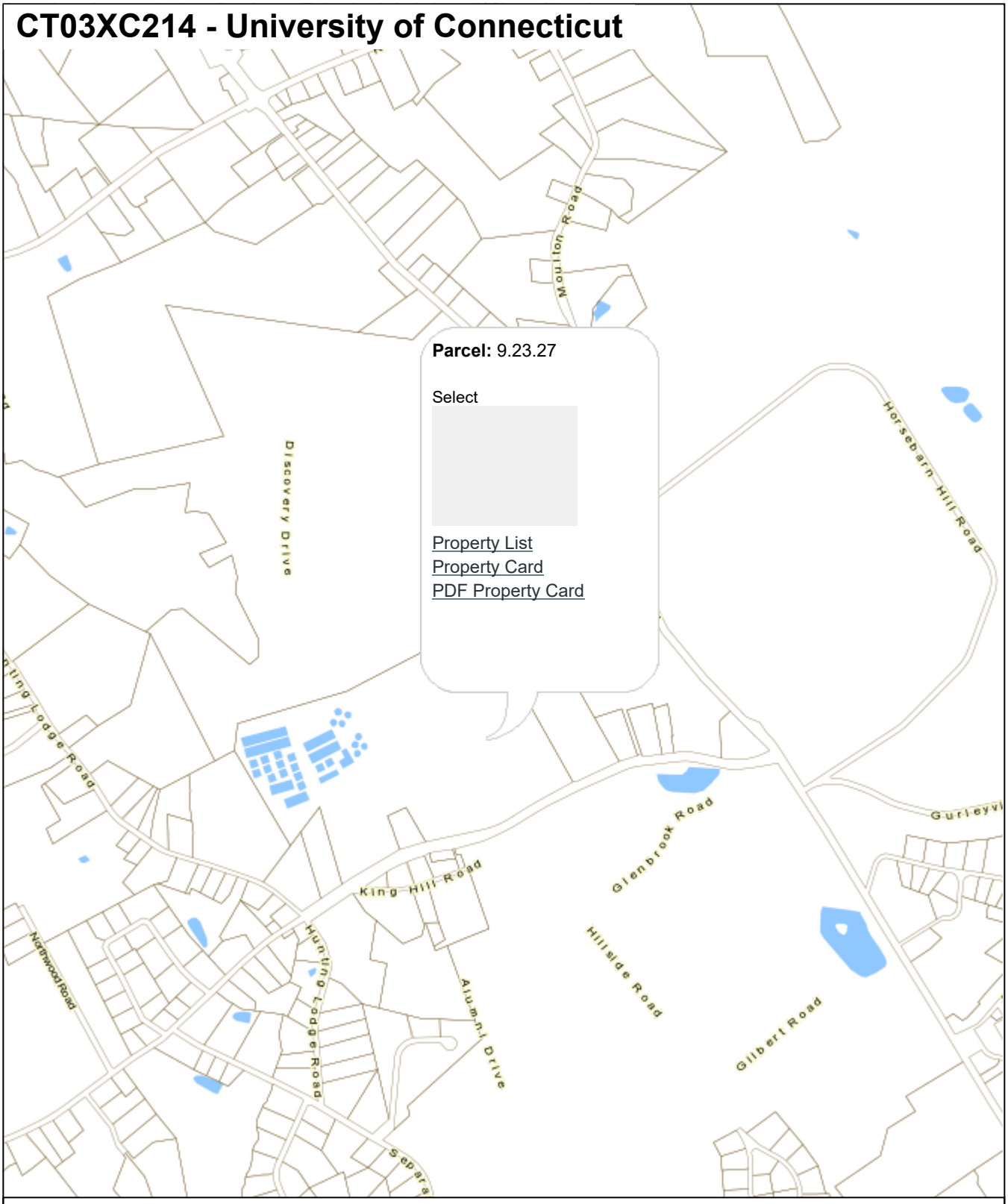
0867 17

SARATOGA FINANCE
Postmark Here
FEB 26 2018
02/26/2018
SARATOGA SPRINGS, NY 12866

Sent To: Scott Jordan (CT03XC214)
Street and Apt. No., or PO Box No.: 352 Mansfield Rd Unit 1122
City, State, ZIP+4®: Storrs CT 06269

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

CT03XC214 - University of Connecticut



Town of Mansfield, Connecticut

200 m
1000 ft

N

MainStreetGIS
MainStreetGIS, LLC
www.mainstreetgis.com

Printed 2/26/2018 from http://www.mainstreetmaps.com/ct/mansfield/public.asp

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: CT03XC214

U-Conn
82 North Eagleville Road
Storrs, CT 06269

August 30, 2017

EBI Project Number: 6217003874

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	2.68 %

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

August 30, 2017

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

Emissions Analysis for Site: **CT03XC214 – U-Conn**

EBI Consulting was directed to analyze the proposed SPRINT facility located at **82 North Eagleville Road, Storrs, 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.

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 **82 North Eagleville Road, Storrs, 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, RFS APXV9ERR18-C-A20 and the RFS APXV9TM14-C-I20** 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 **247 feet** above ground level (AGL) for **Sector A**, **247 feet** above ground level (AGL) for **Sector B** and **247 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 APXVSPP18-C-A20	Make / Model:	RFS APXV9ERR18-C-A20	Make / Model:	RFS APXVSPP18-C-A20
Gain:	13.4 / 15.9 dBd	Gain:	11.9 / 14.9 dBd	Gain:	13.4 / 15.9 dBd
Height (AGL):	**247 feet**	Height (AGL):	**247 feet**	Height (AGL):	**247 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):	7,537.38	ERP (W):	5,873.76	ERP (W):	7,537.38
Antenna A1 MPE%	**0.53 %**	Antenna B1 MPE%	**0.41 %**	Antenna C1 MPE%	**0.53 %**
Antenna #:	**2**	Antenna #:	**2**	Antenna #:	**2**
Make / Model:	RFS APXV9TM14-C-I20	Make / Model:	RFS APXV9TM14-C-I20	Make / Model:	RFS APXV9TM14-C-I20
Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd
Height (AGL):	**247 feet**	Height (AGL):	**247 feet**	Height (AGL):	**247 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):	6,224.72	ERP (W):	6,224.72	ERP (W):	6,224.72
Antenna A2 MPE%	**0.39 %**	Antenna B2 MPE%	**0.39 %**	Antenna C2 MPE%	**0.39 %**

Site Composite MPE%	
Carrier	**MPE %**
SPRINT – Max per sector	**0.91 %**
CT Public Broadcasting	0.19 %
UCONN	0.24 %
UCONN Fire	0.09 %
T-Mobile	1.25 %
Site Total MPE %:	**2.68 %**

SPRINT Sector A Total:	0.91 %
SPRINT Sector B Total:	0.79 %
SPRINT Sector C Total:	0.91 %
Site Total:	2.68 %

SPRINT _ Max Values per Frequency Band / Technology (Sectors A & C)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density (μW/cm²)	Frequency (MHz)	Allowable MPE (μW/cm²)	Calculated % MPE
Sprint 850 MHz CDMA	1	437.55	247	0.27	850 MHz	567	0.05%
Sprint 850 MHz LTE	2	437.55	247	0.54	850 MHz	567	0.10%
Sprint 1900 MHz (PCS) CDMA	5	622.47	247	1.93	1900 MHz (PCS)	1000	0.19%
Sprint 1900 MHz (PCS) LTE	2	1,556.18	247	1.93	1900 MHz (PCS)	1000	0.19%
Sprint 2500 MHz (BRS) LTE	8	778.09	247	3.85	2500 MHz (BRS)	1000	0.39%
						Total*:	**0.91%**

*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:	0.91 %
Sector B:	0.79 %
Sector C:	0.91 %
SPRINT Maximum Total (per sector):	0.91 %
Site Total:	2.68 %
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **2.68 %** 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.

INFINIGY
FROM ZERO TO INFINIGY
the solutions are endless

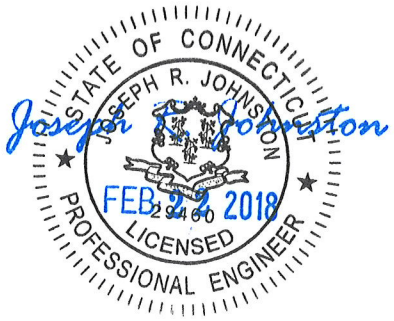
1033 WATERVLIET SHAKER RD, ALBANY, NY 12205

Structural Analysis Report

February 22, 2018

Site ID	CT03XC214
Page Name	U-CONN
Infinigy Job Number	526-104
Client	Airosmith
Proposed Carrier	Sprint
Site Location	82 North Eagleville Rd., Storrs, CT 06269 41° 48' 52.02" NNAD83 72° 15' 35.61" WNAD83
Structure Type	245' Self Support Tower
Structural Usage Ratio	**101.4%**
Overall Result	**Pass**

Upon reviewing the results of this analysis, it is our opinion that the structure meets the specified TIA code requirements. The tower and foundations are therefore deemed adequate to support the existing and proposed loading as listed in this report.



M. Brad Davenport, P.E.
Senior Structural Engineer

Contents

Introduction

Infinigy Engineering has been requested to perform a structural analysis on the existing 245' self support tower. All supporting documents have been obtained from the client and are assumed to be accurate and applicable to this site. The tower was analyzed using tnxTower version 7.0.7.0 tower analysis software.

Supporting Documentation

Tower Drawings	Pirod Drawing #202932-B, dated September 23, 1997
Antenna Loading	Infinigy CDs, dated December 13, 2017
Previous Analysis	URS Project #36932110.00000, dated December 30, 2014

Analysis Code Requirements

Wind Speed	98 mph (3-Second Gust, V_{ASD}) / 126 mph (3-Second Gust, V_{ULT})
Wind Speed w/ ice	40 mph (3-Second Gust, V_{ASD}) w/ 3/4" ice
TIA Revision	ANSI/TIA-222-G
Adopted IBC	2012 IBC / 2016 Connecticut State Building Code
Structure Class	II
Exposure Category	C
Topographic Category	1
Calculated Crest Height	0 ft.

Conclusion

Upon reviewing the results of this analysis, it is our opinion that the structure meets the specified TIA code requirements. The tower and foundations are therefore deemed adequate to support the existing and proposed loading as listed in this report.

If you have any questions, require additional information, or actual conditions differ from those as detailed in this report please contact me via the information below:

M. Brad Davenport, P.E.
Senior Structural Engineer | INFINIGY
1033 Watervliet Shaker Road, Albany, NY 12205
(919) 606-9002 | bdavenport@infinigy.com | www.infinigy.com

Existing and Reserved Loading

Mount Height (ft)	Qty.	Appurtenance	Mount Type	Coax & Lines	Carrier
247.0	3	RFS APXVSPP18-C-A20	Sector Frames	(3) 1 ¼" Hybrid (6) 1 5/8"	Sprint
	3	Alcatel Lucent TD-RRH8x20-25 w/ S.S.			
	6	Alcatel Lucent 1900 MHz 4x45 RRH			
232.0	3	Ericsson AIR 21 B2A/B4P	Sector Frames	(21) 1 5/8"	T-Mobile
	3	Ericsson AIR 21 B4A/B2P			
	3	TMA			
	1	RFS ADFD1820-80B-R2DM			
135.0	2	12' Omni	Side Arms	(2) 7/8"	--
125.0	1	20' Omni	Side Arm	(1) 7/8"	
110.0	1	12' Omni	Side Arm	(2) 7/8"	
	1	4' Grid Dish	Dish		
105.0	1	6' Dish w/ Radome	Dish	(1) EW63	
60.0	1	Camera	Leg	(1) 7/8"	
50.0	1	4' Omni	Side Arm	(1) 7/8"	

To be Removed Loading

Mount Height (ft)	Qty.	Appurtenance	Mount Type	Coax& Lines	Carrier
-	-	-	-	-	Sprint

Proposed Loading

Mount Height (ft)	Qty.	Appurtenance	Mount Type	Coax& Lines	Carrier
247.0	3	RFS APXVTM14-ALU-I20	-	-	Sprint
	3	Alcatel Lucent 800 MHz 2x50W w/ Filter			

Final Configuration

Mount Height (ft)	Qty.	Appurtenance	Mount Type	Coax & Lines	Carrier
247.0	3	RFS APXVTM14-ALU-I20	Sector Frames	(3) 1 ¼" Hybrid (6) 1 5/8"	Sprint
	3	Alcatel Lucent 800 MHz 2x50W w/ Filter			
	3	RFS APXVSPP18-C-A20			
	3	Alcatel Lucent TD-RRH8x20-25 w/ S.S.			
	6	Alcatel Lucent 1900 MHz 4x45 RRH			
232.0	3	Ericsson AIR 21 B2A/B4P	Sector Frames	(21) 1 5/8"	T-Mobile
	3	Ericsson AIR 21 B4A/B2P			
	3	TMA			
	1	RFS ADFD1820-80B-R2DM			
135.0	2	12' Omni	Side Arms	(2) 7/8"	--
125.0	1	20' Omni	Side Arm	(1) 7/8"	
110.0	1	12' Omni	Side Arm	(2) 7/8"	
	1	4' Grid Dish	Dish		
105.0	1	6' Dish w/ Radome	Dish	(1) EW63	
60.0	1	Camera	Leg	(1) 7/8"	
50.0	1	4' Omni	Side Arm	(1) 7/8"	

Structure Usages

	Summary	
Leg (T13)	101.4	Pass
Diagonal (T12)	92.7	Pass
Horizontal (T3)	32.4	Pass
Secondary Horizontal (T9)	24.7	Pass
Top Girt (T3)	23.8	Pass
Bottom Girt (T1)	29.8	Pass
Bolt Checks	85.4	Pass
RATING =	**101.4**	**Pass**

Foundation Reactions

Reaction Data	Design Reactions	Design Reactions x 1.35	Analysis Reactions	Result
Uplift (kip)	422.9	570.9	420.2	73.6%
Axial (kip)	472.0	637.2	474.3	74.4%
Shear (kip)	72.4	97.7	75.0	76.8%

*** Design reactions are multiplied by 1.35 per ANSI/TIA-222-G 15.5.1**

Tower foundation acceptable per original design reactions.

Deflection, Twist, and Sway

Antenna Elevation (ft)	Deflection (in)	Twist (°)	Sway (°)
247.0	11.130	0.117	0.531

*Per ANSI/TIA-222-G Section 2.8.2 maximum serviceability structural deflection limit is 3% of structure height.
*Per ANSI/TIA-222-G Section 2.8.2 maximum serviceability structural twist and sway limit is 4 degrees.
*Per ANSI/TIA-222-G Section 2.8.3 deflection, Twist, and sway values were calculated using a basic 3-second gust wind speed of 60 mph.
*It is the responsibility of the client to ensure their proposed and/or existing equipment will meet ANSI/TIA-222-G Annex D or other appropriate microwave signal degradation limits based on the provided values above.

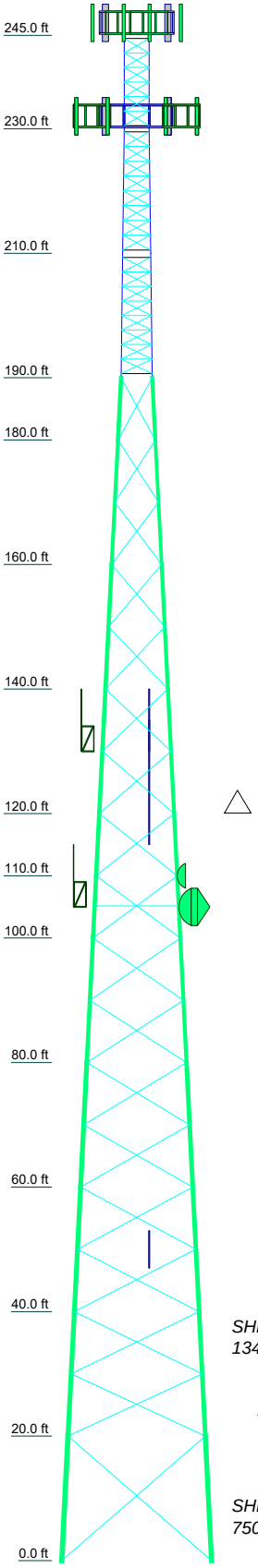
Assumptions and Limitations

Our structural calculations are completed assuming all information provided to Infinigy Engineering is accurate and applicable to this site. For the purposes of calculations, we assume an overall structure condition of "like new" and all members and connections to be free of corrosion and/or structural defects. The structure owner and/or contractor shall verify the structure's condition prior to installation of any proposed equipment. If actual conditions differ from those described in this report Infinigy Engineering should be notified immediately to complete a revised evaluation.

Our evaluation is completed using standard TIA, AISC, ACI, and ASCE methods and procedures. Our structural results are proprietary and should not be used by others as their own. Infinigy Engineering is not responsible for decisions made by others that are or are not based on our supplied assumptions and conclusions.

This report is an evaluation of the tower structure only and does not reflect adequacy of any existing antenna mounts, mount connections, or cable mounting attachments. These elements are assumed to be adequate for the purposes of this analysis and are assumed to have been installed per their manufacturer requirements.

Section	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14
Legs	SR 1 1/2	SR 2	SR 2 1/2	A	Pirod 105217	Pirod 105218			Pirod 105219			Pirod 105220		Pirod 112738
Leg Grade	A572-50													
Diagonals	SR 3/4	SR 7/8	SR 1	L2 1/2x2 1/2x3/16			L3x3x3/16		L3x3x5/16		L3 1/2x3 1/2x5/16		L4x4x1/4	B
Diagonal Grade	A572-50								A36					
Top Girts	SR 7/8	SR 1							N.A.					
Bottom Girts	SR 7/8	SR 1							N.A.					
Horizontals	SR 3/4	SR 7/8							N.A.					
Sec. Horizontals	4	4.5		5	6	8	10	12	C	14	16	18	20	22
Face Width (ft)	6 @ 2.33333	8 @ 2.375	9 @ 2.333						17 @ 10					1 @ 20
# Panels @ (ft)														
Weight (lb) 43832.5	612.4	1273.7	1861.9	1237.7	2333.6	2787.9	2962.4	1979.3	2266.8	4112.9	5037.1	5193.7	5204.3	6968.7



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
Angle Sector Frame	247	AIR 21 B2A/B4P	232
Angle Sector Frame	247	AIR 21 B2A/B4P	232
Angle Sector Frame	247	AIR21 B4A/B2P	232
APXVTM14-ALU-120	247	AIR21 B4A/B2P	232
APXVTM14-ALU-120	247	AIR21 B4A/B2P	232
APXVTM14-ALU-120	247	ADFD1820-80B-R2DM	232
APXVSPP18-C-A20	247	TMA	232
APXVSPP18-C-A20	247	TMA	232
APXVSPP18-C-A20	247	TMA	232
800 MHz w/ Notch Filter	247	Angle Side Arm	135
800 MHz w/ Notch Filter	247	Angle Side Arm	135
800 MHz w/ Notch Filter	247	12' Omni	135
TD-RRH8x20-25	247	12' Omni	135
TD-RRH8x20-25	247	Angle Side Arm	125
TD-RRH8x20-25	247	20' Omni	125
(2) 1900MHz RRH	247	Angle Side Arm	110
(2) 1900MHz RRH	247	12' Omni	110
(2) 1900MHz RRH	247	4' Grid Dish	110
Angle Sector Frame	232	6' Dish w/ Radome	105
Angle Sector Frame	232	Camera	60
Angle Sector Frame	232	4' Omni	50
AIR 21 B2A/B4P	232	Angle Side Arm	50

SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	Pirod 105245	C	L3x3x5/16
B	2L3 1/2x3 1/2x5/16x3/8		

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A36	36 ksi	58 ksi

TOWER DESIGN NOTES

1. Tower is located in Tolland County, Connecticut.
2. Tower designed for Exposure C to the TIA-222-G Standard.
3. Tower designed for a 98 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 40 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Structure Class II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 101.4%

ALL REACTIONS ARE FACTORED

MAX. CORNER REACTIONS AT BASE:
DOWN: 474253 lb
SHEAR: 54649 lb

UPLIFT: -420212 lb
SHEAR: 48158 lb

AXIAL 179690 lb
SHEAR 13484 lb *MOMENT 1809747 lb-ft*
TORQUE 9088 lb-ft
40 mph WIND - 0.7500 in ICE

AXIAL 69514 lb
SHEAR 75009 lb *MOMENT 9375671 lb-ft*
TORQUE 83116 lb-ft
REACTIONS - 98 mph WIND

Infinigy Engineering
1033 Watervliet Shaker Road
Albany, NY 12205
Phone: (518) 690-0790
FAX: (518) 690-0790

Job: *CT03XC214*			
Project: *526-104*			
Client: Airosmith	Drawn by: ABazeley	App'd:	
Code: TIA-222-G	Date: 02/22/18	Scale: NTS	
Path: C:\Users\abazeley\AppData\Local\Microsoft\Windows\INetCache\Content.Outlook\DELLZ1UL\CT03XC214.eri		Dwg No. E-1	

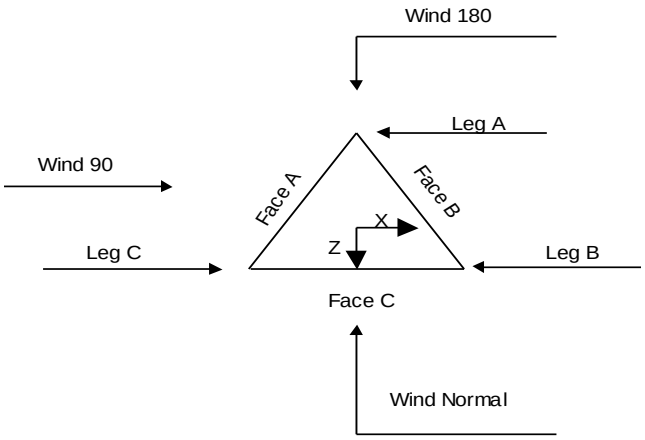
Tower Input Data

The main tower is a 3x free standing tower with an overall height of 245.00 ft above the ground line.
The base of the tower is set at an elevation of 0.00 ft above the ground line.
The face width of the tower is 4.00 ft at the top and 24.00 ft at the base.
This tower is designed using the TIA-222-G standard.
The following design criteria apply:

Tower is located in Tolland County, Connecticut.
Basic wind speed of 98 mph.
Structure Class II.
Exposure Category C.
Topographic Category 1.
Crest Height 0.00 ft.
Nominal ice thickness of 0.7500 in.
Ice thickness is considered to increase with height.
Ice density of 56 pcf.
A wind speed of 40 mph is used in combination with ice.
Temperature drop of 50 °F.
Deflections calculated using a wind speed of 60 mph.
A non-linear (P-delta) analysis was used.
Pressures are calculated at each section.
Stress ratio used in tower member design is 1.
Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

	Consider Moments - Legs		Distribute Leg Loads As Uniform		Use ASCE 10 X-Brace Ly Rules
	Consider Moments - Horizontals		Assume Legs Pinned	√	Calculate Redundant Bracing Forces
	Consider Moments - Diagonals	√	Assume Rigid Index Plate		Ignore Redundant Members in FEA
	Use Moment Magnification	√	Use Clear Spans For Wind Area	√	SR Leg Bolts Resist Compression
√	Use Code Stress Ratios	√	Use Clear Spans For KL/r		All Leg Panels Have Same Allowable
√	Use Code Safety Factors - Guys	√	Retension Guys To Initial Tension		Offset Girt At Foundation
	Escalate Ice		Bypass Mast Stability Checks	√	Consider Feed Line Torque
	Always Use Max Kz	√	Use Azimuth Dish Coefficients	√	Include Angle Block Shear Check
	Use Special Wind Profile	√	Project Wind Area of Appurt.		Use TIA-222-G Bracing Resist. Exemption
√	Include Bolts In Member Capacity	√	Autocalc Torque Arm Areas		Use TIA-222-G Tension Splice Exemption
	Leg Bolts Are At Top Of Section		Add IBC .6D+W Combination		Poles
√	Secondary Horizontal Braces Leg	√	Sort Capacity Reports By Component		Include Shear-Torsion Interaction
	Use Diamond Inner Bracing (4 Sided)	√	Triangulate Diamond Inner Bracing		Always Use Sub-Critical Flow
	SR Members Have Cut Ends		Treat Feed Line Bundles As Cylinder		Use Top Mounted Sockets
	SR Members Are Concentric				



Triangular Tower

Tower Section Geometry

Tower Section	Tower Elevation ft	Assembly Database	Description	Section Width ft	Number of Sections	Section Length ft
T1	245.00-230.00		V4 106778	4.00	1	15.00
T2	230.00-210.00		H4.5 100246	4.00	1	20.00
T3	210.00-190.00	pirod	H5.0 119703	4.50	1	20.00
T4	190.00-180.00		U6.0 105245	5.00	1	10.00
T5	180.00-160.00		U8.0 105217	6.00	1	20.00
T6	160.00-140.00		U10.0 105218	8.00	1	20.00
T7	140.00-120.00		U12.0 105218	10.00	1	20.00
T8	120.00-110.00		U14.0 105218	12.00	1	10.00
T9	110.00-100.00		U14.0 105218	13.00	1	10.00
T10	100.00-80.00		U16.0 105219	14.00	1	20.00
T11	80.00-60.00		U18.0 105219	16.00	1	20.00
T12	60.00-40.00		U20.0 105219 L3.5x5/16	18.00	1	20.00
T13	40.00-20.00		U22.0 105220 L4x1/4	20.00	1	20.00
T14	20.00-0.00		U22.0 105220 L4x1/4	22.00	1	20.00

Tower Section Geometry *(cont'd)*

Tower Section	Tower Elevation ft	Diagonal Spacing ft	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset in	Bottom Girt Offset in
T1	245.00-230.00	2.33	X Brace	No	Steps	6.0000	6.0000

Tower Section	Tower Elevation ft	Diagonal Spacing ft	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset in	Bottom Girt Offset in
T2	230.00-210.00	2.38	X Brace	No	Steps	6.0000	6.0000
T3	210.00-190.00	2.33	X Brace	No	Steps	8.0160	8.0160
T4	190.00-180.00	10.00	X Brace	No	No	0.0000	0.0000
T5	180.00-160.00	10.00	X Brace	No	No	0.0000	0.0000
T6	160.00-140.00	10.00	X Brace	No	No	0.0000	0.0000
T7	140.00-120.00	10.00	X Brace	No	No	0.0000	0.0000
T8	120.00-110.00	10.00	X Brace	No	No	0.0000	0.0000
T9	110.00-100.00	10.00	X Brace	No	Yes	0.0000	0.0000
T10	100.00-80.00	10.00	X Brace	No	No	0.0000	0.0000
T11	80.00-60.00	10.00	X Brace	No	No	0.0000	0.0000
T12	60.00-40.00	10.00	X Brace	No	No	0.0000	0.0000
T13	40.00-20.00	10.00	X Brace	No	No	0.0000	0.0000
T14	20.00-0.00	20.00	X Brace	No	No	0.0000	0.0000

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 245.00-230.00	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	3/4	A572-50 (50 ksi)
T2 230.00-210.00	Solid Round	2	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T3 210.00-190.00	Solid Round	2 1/2	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T4 190.00-180.00	Truss Leg	Pirod 105245	A572-50 (50 ksi)	Single Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T5 180.00-160.00	Truss Leg	Pirod 105217	A572-50 (50 ksi)	Single Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T6 160.00-140.00	Truss Leg	Pirod 105218	A572-50 (50 ksi)	Single Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T7 140.00-120.00	Truss Leg	Pirod 105218	A572-50 (50 ksi)	Single Angle	L3x3x3/16	A36 (36 ksi)
T8 120.00-110.00	Truss Leg	Pirod 105219	A572-50 (50 ksi)	Single Angle	L3x3x5/16	A36 (36 ksi)
T9 110.00-100.00	Truss Leg	Pirod 105219	A572-50 (50 ksi)	Single Angle	L3x3x5/16	A36 (36 ksi)
T10 100.00-80.00	Truss Leg	Pirod 105219	A572-50 (50 ksi)	Single Angle	L3x3x5/16	A36 (36 ksi)
T11 80.00-60.00	Truss Leg	Pirod 105220	A572-50 (50 ksi)	Single Angle	L3 1/2x3 1/2x5/16	A36 (36 ksi)
T12 60.00-40.00	Truss Leg	Pirod 105220	A572-50 (50 ksi)	Single Angle	L3 1/2x3 1/2x5/16	A36 (36 ksi)
T13 40.00-20.00	Truss Leg	Pirod 105220	A572-50 (50 ksi)	Single Angle	L4x4x1/4	A36 (36 ksi)
T14 20.00-0.00	Truss Leg	Pirod 112738	A572-50 (50 ksi)	Double Angle	2L3 1/2x3 1/2x5/16x3/8	A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T1 245.00-230.00	Solid Round	7/8	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T2 230.00-210.00	Solid Round	1	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T3 210.00-190.00	Solid Round	1	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
T1 245.00-230.00	None	Solid Round		A572-50 (50 ksi)	Solid Round	3/4	A572-50 (50 ksi)
T2 230.00-210.00	None	Solid Round		A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T3 210.00-190.00	None	Solid Round		A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Secondary Horizontal Type	Secondary Horizontal Size	Secondary Horizontal Grade	Inner Bracing Type	Inner Bracing Size	Inner Bracing Grade
T9 110.00-100.00	Single Angle	L3x3x5/16	A36 (36 ksi)	Single Angle		A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
T1 245.00-230.00	0.00	0.0000	A36 (36 ksi)	1	1	1.02	36.0000	36.0000	36.0000
T2 230.00-210.00	0.00	0.0000	A36 (36 ksi)	1	1	1.02	36.0000	36.0000	36.0000
T3 210.00-190.00	0.00	0.0000	A36 (36 ksi)	1	1	1.02	36.0000	36.0000	36.0000
T4 190.00-180.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T5 180.00-160.00	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
T6	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000

Tower Elevation ft	Gusset Area (per face) ft²	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
160.00-140.00			(36 ksi)						
T7	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
140.00-120.00			(36 ksi)						
T8	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
120.00-110.00			(36 ksi)						
T9	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
110.00-100.00			(36 ksi)						
T10	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
100.00-80.00			(36 ksi)						
T11	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
80.00-60.00			(36 ksi)						
T12	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
60.00-40.00			(36 ksi)						
T13	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
40.00-20.00			(36 ksi)						
T14 20.00-0.00	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
			(36 ksi)						

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	X Brace Diags X Y	K Brace Diags X Y	Single Diags X Y	Girts X Y	Horiz. X Y	Sec. Horiz. X Y	Inner Brace X Y
T1	No	Yes	1	1	1	1	1	1	1	1
245.00-230.00				1	1	1	1	1	1	1
T2	No	Yes	1	1	1	1	1	1	1	1
230.00-210.00				1	1	1	1	1	1	1
T3	No	Yes	1	1	1	1	1	1	1	1
210.00-190.00				1	1	1	1	1	1	1
T4	Yes	No	1	1	1	1	1	1	1	1
190.00-180.00				1	1	1	1	1	1	1
T5	Yes	No	1	1	1	1	1	1	1	1
180.00-160.00				1	1	1	1	1	1	1
T6	Yes	No	1	1	1	1	1	1	1	1
160.00-140.00				1	1	1	1	1	1	1
T7	Yes	No	1	1	1	1	1	1	1	1
140.00-120.00				1	1	1	1	1	1	1
T8	Yes	No	1	1	1	1	1	1	1	1
120.00-110.00				1	1	1	1	1	1	1
T9	Yes	No	1	1	1	1	1	1	1	1
110.00-100.00				1	1	1	1	1	1	1
T10	Yes	No	1	1	1	1	1	1	1	1
100.00-80.00				1	1	1	1	1	1	1
T11	Yes	No	1	1	1	1	1	1	1	1
80.00-60.00				1	1	1	1	1	1	1
T12	Yes	No	1	1	1	1	1	1	1	1
60.00-40.00				1	1	1	1	1	1	1
T13	Yes	No	1	1	1	1	1	1	1	1
40.00-20.00				1	1	1	1	1	1	1
T14	Yes	No	1	1	1	1	1	1	1	1
20.00-0.00				1	1	1	1	1	1	1

[1]*Note: K factors are applied to member segment lengths. K-braces without inner supporting members will have the K factor in the out-of-plane direction applied to the overall length.*

Tower Section Geometry *(cont'd)*

	Truss-Leg K Factors					
	Truss-Legs Used As Leg Members			*Truss-Legs Used As Inner Members*		
Tower Elevation ft	*Leg Panels*	*X Brace Diagonals*	*Z Brace Diagonals*	*Leg Panels*	*X Brace Diagonals*	*Z Brace Diagonals*
T4 190.00-180.00	1	0.5	0.85	1	0.5	0.85
T5 180.00-160.00	1	0.5	0.85	1	0.5	0.85
T6 160.00-140.00	1	0.5	0.85	1	0.5	0.85
T7 140.00-120.00	1	0.5	0.85	1	0.5	0.85
T8 120.00-110.00	1	0.5	0.85	1	0.5	0.85
T9 110.00-100.00	1	0.5	0.85	1	0.5	0.85
T10 100.00-80.00	1	0.5	0.85	1	0.5	0.85
T11 80.00-60.00	1	0.5	0.85	1	0.5	0.85
T12 60.00-40.00	1	0.5	0.85	1	0.5	0.85
T13 40.00-20.00	1	0.5	0.85	1	0.5	0.85
T14 20.00-0.00	1	0.5	0.85	1	0.5	0.85

Tower Section Geometry *(cont'd)*

Tower Elevation ft	*Leg*		*Diagonal*		*Top Girt*		*Bottom Girt*		*Mid Girt*		*Long Horizontal*		*Short Horizontal*	
	Net Width Deduct in	*U*	*Net Width Deduct* in	*U*	*Net Width Deduct* in	*U*	*Net Width Deduct* in	*U*	*Net Width Deduct* in	*U*	*Net Width Deduct* in	*U*	*Net Width Deduct* in	*U*
T1 245.00-230.00	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1
T2 230.00-210.00	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1
T3 210.00-190.00	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1
T4 190.00-180.00	0.0000	1	0.0000	0.75	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1
T5 180.00-160.00	0.0000	1	0.0000	0.75	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1
T6 160.00-140.00	0.0000	1	0.0000	0.75	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1

Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T7 140.00-120.00	0.0000	1	0.0000	0.75	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1
T8 120.00-110.00	0.0000	1	0.0000	0.75	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1
T9 110.00-100.00	0.0000	1	0.0000	0.75	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1
T10 100.00-80.00	0.0000	1	0.0000	0.75	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1
T11 80.00-60.00	0.0000	1	0.0000	0.75	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1
T12 60.00-40.00	0.0000	1	0.0000	0.75	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1
T13 40.00-20.00	0.0000	1	0.0000	0.75	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1
T14 20.00-0.00	0.0000	1	0.0000	0.75	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	1

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T1 245.00-230.00	Sleeve DS	0.6250 A325N	5	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T2 230.00-210.00	Sleeve DS	0.7500 A325N	5	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T3 210.00-190.00	Flange	1.0000 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T4 190.00-180.00	Flange	1.0000 A325N	6	1.0000 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T5 180.00-160.00	Flange	1.0000 A325N	6	1.0000 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T6 160.00-140.00	Flange	1.0000 A325N	6	1.0000 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T7 140.00-120.00	Flange	1.0000 A325N	6	1.0000 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T8 120.00-110.00	Flange	0.0000 A325N	6	1.2500 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T9 110.00-100.00	Flange	1.2500 A325N	6	1.2500 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T10 100.00-80.00	Flange	1.2500 A325N	6	1.2500 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T11 80.00-60.00	Flange	1.2500 A325N	6	1.2500 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T12 60.00-40.00	Flange	1.2500 A325N	6	1.2500 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T13 40.00-20.00	Flange	1.2500 A325N	12	1.2500 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T14 20.00-0.00	Flange	2.0000 A687	6	1.0000 A325N	2	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
1 5/8" Coax	A	No	Ar (CaAa)	245.00 - 0.00	-10.0000	0.42	6	3	1.9800	1.9800		0.82
1-1/4" Hybrid	A	No	Ar (CaAa)	245.00 - 0.00	-15.0000	0.4	3	3	1.2500	1.2500		0.83
1/2" Coax ***	A	No	Ar (CaAa)	245.00 - 0.00	-8.0000	0.45	1	1	0.6300	0.6300		0.15
1 5/8" Coax ***	B	No	Ar (CaAa)	232.00 - 0.00	-10.0000	0.39	21	11	0.7500	1.9800		0.82
7/8" Coax ***	A	No	Ar (CaAa)	135.00 - 0.00	-8.0000	0.45	2	2	0.8750	0.8750		0.31
7/8" Coax	A	No	Ar (CaAa)	125.00 - 0.00	-8.0000	0.45	1	1	0.8750	0.8750		0.31
1/2 ***	A	No	Ar (CaAa)	125.00 - 0.00	-8.0000	0.45	1	1	0.5800	0.5800		0.25
7/8" Coax ***	A	No	Ar (CaAa)	110.00 - 0.00	-8.0000	0.45	2	2	0.8750	0.8750		0.31
EW63 ***	A	No	Ar (CaAa)	105.00 - 0.00	-8.0000	0.45	1	1	1.5742	1.5742		0.51
7/8" Coax ***	A	No	Ar (CaAa)	60.00 - 0.00	-8.0000	0.45	1	1	0.8750	0.8750		0.31
7/8" Coax	A	No	Ar (CaAa)	50.00 - 0.00	-8.0000	0.45	1	1	0.8750	0.8750		0.31
T-Brackets	A	No	Af (CaAa)	245.00 - 0.00	0.0000	0.45	1	1	1.0000	1.0000		3.65
T-Brackets	B	No	Af (CaAa)	245.00 - 0.00	0.0000	0.45	1	1	1.0000	1.0000		3.65
Waveguide	C	No	Af (CaAa)	245.00 - 0.00	0.0000	0.45	1	1	2.0000	2.0000		3.65

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
T1	245.00-230.00	A	0.000	0.000	26.890	0.000	168.29
		B	0.000	0.000	10.816	0.000	89.19
		C	0.000	0.000	5.000	0.000	54.75
T2	230.00-210.00	A	0.000	0.000	35.853	0.000	224.38
		B	0.000	0.000	86.493	0.000	417.40
		C	0.000	0.000	6.667	0.000	73.00
T3	210.00-190.00	A	0.000	0.000	35.853	0.000	224.38
		B	0.000	0.000	86.493	0.000	417.40
		C	0.000	0.000	6.667	0.000	73.00
T4	190.00-180.00	A	0.000	0.000	17.927	0.000	112.19
		B	0.000	0.000	43.247	0.000	208.70
		C	0.000	0.000	3.333	0.000	36.50
T5	180.00-160.00	A	0.000	0.000	35.853	0.000	224.38
		B	0.000	0.000	86.493	0.000	417.40
		C	0.000	0.000	6.667	0.000	73.00
T6	160.00-140.00	A	0.000	0.000	35.853	0.000	224.38
		B	0.000	0.000	86.493	0.000	417.40
		C	0.000	0.000	6.667	0.000	73.00
T7	140.00-120.00	A	0.000	0.000	39.206	0.000	236.48
		B	0.000	0.000	86.493	0.000	417.40
		C	0.000	0.000	6.667	0.000	73.00
T8	120.00-110.00	A	0.000	0.000	21.132	0.000	123.99
		B	0.000	0.000	43.247	0.000	208.70
		C	0.000	0.000	3.333	0.000	36.50

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
T9	110.00-100.00	A	0.000	0.000	23.669	0.000	132.74
		B	0.000	0.000	43.247	0.000	208.70
		C	0.000	0.000	3.333	0.000	36.50
T10	100.00-80.00	A	0.000	0.000	48.912	0.000	270.58
		B	0.000	0.000	86.493	0.000	417.40
		C	0.000	0.000	6.667	0.000	73.00
T11	80.00-60.00	A	0.000	0.000	48.912	0.000	270.58
		B	0.000	0.000	86.493	0.000	417.40
		C	0.000	0.000	6.667	0.000	73.00
T12	60.00-40.00	A	0.000	0.000	51.537	0.000	279.88
		B	0.000	0.000	86.493	0.000	417.40
		C	0.000	0.000	6.667	0.000	73.00
T13	40.00-20.00	A	0.000	0.000	52.412	0.000	282.98
		B	0.000	0.000	86.493	0.000	417.40
		C	0.000	0.000	6.667	0.000	73.00
T14	20.00-0.00	A	0.000	0.000	52.412	0.000	282.98
		B	0.000	0.000	86.493	0.000	417.40
		C	0.000	0.000	6.667	0.000	73.00

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
T1	245.00-230.00	A	1.827	0.000	0.000	66.269	0.000	1193.84
		B		0.000	0.000	16.477	0.000	341.12
		C		0.000	0.000	10.482	0.000	176.45
T2	230.00-210.00	A	1.813	0.000	0.000	88.057	0.000	1581.34
		B		0.000	0.000	95.453	0.000	2056.71
		C		0.000	0.000	13.920	0.000	233.28
T3	210.00-190.00	A	1.796	0.000	0.000	87.685	0.000	1568.49
		B		0.000	0.000	95.279	0.000	2044.32
		C		0.000	0.000	13.851	0.000	230.85
T4	190.00-180.00	A	1.782	0.000	0.000	43.691	0.000	779.05
		B		0.000	0.000	47.569	0.000	1017.15
		C		0.000	0.000	6.898	0.000	114.45
T5	180.00-160.00	A	1.767	0.000	0.000	87.058	0.000	1546.99
		B		0.000	0.000	94.988	0.000	2023.54
		C		0.000	0.000	13.735	0.000	226.80
T6	160.00-140.00	A	1.745	0.000	0.000	86.582	0.000	1530.78
		B		0.000	0.000	94.766	0.000	2007.82
		C		0.000	0.000	13.648	0.000	223.76
T7	140.00-120.00	A	1.720	0.000	0.000	104.172	0.000	1698.55
		B		0.000	0.000	94.517	0.000	1990.15
		C		0.000	0.000	13.548	0.000	220.36
T8	120.00-110.00	A	1.699	0.000	0.000	60.281	0.000	941.46
		B		0.000	0.000	47.153	0.000	987.63
		C		0.000	0.000	6.732	0.000	108.76
T9	110.00-100.00	A	1.684	0.000	0.000	71.649	0.000	1054.80
		B		0.000	0.000	47.076	0.000	982.18
		C		0.000	0.000	6.701	0.000	107.72
T10	100.00-80.00	A	1.658	0.000	0.000	147.016	0.000	2148.26
		B		0.000	0.000	93.892	0.000	1946.17
		C		0.000	0.000	13.300	0.000	212.01
T11	80.00-60.00	A	1.617	0.000	0.000	145.058	0.000	2095.40
		B		0.000	0.000	93.479	0.000	1917.26
		C		0.000	0.000	13.135	0.000	206.60
T12	60.00-40.00	A	1.564	0.000	0.000	154.522	0.000	2176.88

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
		B		0.000	0.000	92.942	0.000	1879.92
		C		0.000	0.000	12.921	0.000	199.71
T13	40.00-20.00	A	1.486	0.000	0.000	154.201	0.000	2115.59
		B		0.000	0.000	92.161	0.000	1826.13
		C		0.000	0.000	12.610	0.000	190.00
T14	20.00-0.00	A	1.331	0.000	0.000	145.630	0.000	1905.12
		B		0.000	0.000	90.613	0.000	1721.21
		C		0.000	0.000	11.991	0.000	171.76

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
T1	245.00-230.00	3.2949	-4.9758	1.0021	-2.0809
T2	230.00-210.00	7.6526	2.9309	3.1188	0.6205
T3	210.00-190.00	8.3815	2.7499	3.4360	0.4946
T4	190.00-180.00	7.7497	2.0772	2.2594	0.3173
T5	180.00-160.00	10.0582	1.9323	3.8734	0.0710
T6	160.00-140.00	12.6233	1.6984	5.8230	-0.3457
T7	140.00-120.00	14.4494	0.5230	7.2545	-1.8669
T8	120.00-110.00	15.7514	-0.5540	8.1377	-4.3262
T9	110.00-100.00	15.1774	-2.0740	7.7821	-5.6125
T10	100.00-80.00	17.8623	-3.1458	9.0830	-7.4773
T11	80.00-60.00	18.6270	-3.5123	9.8211	-8.1516
T12	60.00-40.00	19.9877	-4.9156	10.5170	-11.2241
T13	40.00-20.00	20.4072	-5.4926	11.0995	-12.4565
T14	20.00-0.00	25.1735	-6.9395	12.5734	-13.3356

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T1	1	1 5/8" Coax	230.00 - 245.00	0.6000	0.4646
T1	2	1-1/4" Hybrid	230.00 - 245.00	0.6000	0.4646
T1	3	1/2" Coax	230.00 - 245.00	0.6000	0.4646
T1	5	1 5/8" Coax	230.00 - 232.00	0.6000	0.4646
T1	19	T-Brackets	230.00 - 245.00	0.6000	0.4646
T1	20	T-Brackets	230.00 - 245.00	0.6000	0.4646
T1	21	Waveguide	230.00 - 245.00	0.6000	0.4646
T2	1	1 5/8" Coax	210.00 - 230.00	0.6000	0.4704
T2	2	1-1/4" Hybrid	210.00 - 230.00	0.6000	0.4704

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T2	3	1/2" Coax	210.00 - 230.00	0.6000	0.4704
T2	5	1 5/8" Coax	210.00 - 230.00	0.6000	0.4704
T2	19	T-Brackets	210.00 - 230.00	0.6000	0.4704
T2	20	T-Brackets	210.00 - 230.00	0.6000	0.4704
T2	21	Waveguide	210.00 - 230.00	0.6000	0.4704
T3	1	1 5/8" Coax	190.00 - 210.00	0.6000	0.4791
T3	2	1-1/4" Hybrid	190.00 - 210.00	0.6000	0.4791
T3	3	1/2" Coax	190.00 - 210.00	0.6000	0.4791
T3	5	1 5/8" Coax	190.00 - 210.00	0.6000	0.4791
T3	19	T-Brackets	190.00 - 210.00	0.6000	0.4791
T3	20	T-Brackets	190.00 - 210.00	0.6000	0.4791
T3	21	Waveguide	190.00 - 210.00	0.6000	0.4791
T4	1	1 5/8" Coax	180.00 - 190.00	0.6000	0.3137
T4	2	1-1/4" Hybrid	180.00 - 190.00	0.6000	0.3137
T4	3	1/2" Coax	180.00 - 190.00	0.6000	0.3137
T4	5	1 5/8" Coax	180.00 - 190.00	0.6000	0.3137
T4	19	T-Brackets	180.00 - 190.00	0.6000	0.3137
T4	20	T-Brackets	180.00 - 190.00	0.6000	0.3137
T4	21	Waveguide	180.00 - 190.00	0.6000	0.3137
T5	1	1 5/8" Coax	160.00 - 180.00	0.6000	0.4210
T5	2	1-1/4" Hybrid	160.00 - 180.00	0.6000	0.4210
T5	3	1/2" Coax	160.00 - 180.00	0.6000	0.4210
T5	5	1 5/8" Coax	160.00 - 180.00	0.6000	0.4210
T5	19	T-Brackets	160.00 - 180.00	0.6000	0.4210
T5	20	T-Brackets	160.00 - 180.00	0.6000	0.4210
T5	21	Waveguide	160.00 - 180.00	0.6000	0.4210
T6	1	1 5/8" Coax	140.00 - 160.00	0.6000	0.5164
T6	2	1-1/4" Hybrid	140.00 - 160.00	0.6000	0.5164
T6	3	1/2" Coax	140.00 - 160.00	0.6000	0.5164
T6	5	1 5/8" Coax	140.00 - 160.00	0.6000	0.5164
T6	19	T-Brackets	140.00 - 160.00	0.6000	0.5164

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T6	20	T-Brackets	140.00 - 160.00	0.6000	0.5164
T6	21	Waveguide	140.00 - 160.00	0.6000	0.5164
T7	1	1 5/8" Coax	120.00 - 140.00	0.6000	0.5744
T7	2	1-1/4" Hybrid	120.00 - 140.00	0.6000	0.5744
T7	3	1/2" Coax	120.00 - 140.00	0.6000	0.5744
T7	5	1 5/8" Coax	120.00 - 140.00	0.6000	0.5744
T7	7	7/8" Coax	120.00 - 135.00	0.6000	0.5744
T7	9	7/8" Coax	120.00 - 125.00	0.6000	0.5744
T7	10	1/2	120.00 - 125.00	0.6000	0.5744
T7	19	T-Brackets	120.00 - 140.00	0.6000	0.5744
T7	20	T-Brackets	120.00 - 140.00	0.6000	0.5744
T7	21	Waveguide	120.00 - 140.00	0.6000	0.5744
T8	1	1 5/8" Coax	110.00 - 120.00	0.6000	0.6000
T8	2	1-1/4" Hybrid	110.00 - 120.00	0.6000	0.6000
T8	3	1/2" Coax	110.00 - 120.00	0.6000	0.6000
T8	5	1 5/8" Coax	110.00 - 120.00	0.6000	0.6000
T8	7	7/8" Coax	110.00 - 120.00	0.6000	0.6000
T8	9	7/8" Coax	110.00 - 120.00	0.6000	0.6000
T8	10	1/2	110.00 - 120.00	0.6000	0.6000
T8	19	T-Brackets	110.00 - 120.00	0.6000	0.6000
T8	20	T-Brackets	110.00 - 120.00	0.6000	0.6000
T8	21	Waveguide	110.00 - 120.00	0.6000	0.6000
T9	1	1 5/8" Coax	100.00 - 110.00	0.6000	0.5868
T9	2	1-1/4" Hybrid	100.00 - 110.00	0.6000	0.5868
T9	3	1/2" Coax	100.00 - 110.00	0.6000	0.5868
T9	5	1 5/8" Coax	100.00 - 110.00	0.6000	0.5868
T9	7	7/8" Coax	100.00 - 110.00	0.6000	0.5868
T9	9	7/8" Coax	100.00 - 110.00	0.6000	0.5868
T9	10	1/2	100.00 - 110.00	0.6000	0.5868
T9	12	7/8" Coax	100.00 - 110.00	0.6000	0.5868
T9	14	EW63	100.00 - 105.00	0.6000	0.5868

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T9	19	T-Brackets	100.00 - 110.00	0.6000	0.5868
T9	20	T-Brackets	100.00 - 110.00	0.6000	0.5868
T9	21	Waveguide	100.00 - 110.00	0.6000	0.5868
T10	1	1 5/8" Coax	80.00 - 100.00	0.6000	0.6000
T10	2	1-1/4" Hybrid	80.00 - 100.00	0.6000	0.6000
T10	3	1/2" Coax	80.00 - 100.00	0.6000	0.6000
T10	5	1 5/8" Coax	80.00 - 100.00	0.6000	0.6000
T10	7	7/8" Coax	80.00 - 100.00	0.6000	0.6000
T10	9	7/8" Coax	80.00 - 100.00	0.6000	0.6000
T10	10	1/2	80.00 - 100.00	0.6000	0.6000
T10	12	7/8" Coax	80.00 - 100.00	0.6000	0.6000
T10	14	EW63	80.00 - 100.00	0.6000	0.6000
T10	19	T-Brackets	80.00 - 100.00	0.6000	0.6000
T10	20	T-Brackets	80.00 - 100.00	0.6000	0.6000
T10	21	Waveguide	80.00 - 100.00	0.6000	0.6000
T11	1	1 5/8" Coax	60.00 - 80.00	0.6000	0.6000
T11	2	1-1/4" Hybrid	60.00 - 80.00	0.6000	0.6000
T11	3	1/2" Coax	60.00 - 80.00	0.6000	0.6000
T11	5	1 5/8" Coax	60.00 - 80.00	0.6000	0.6000
T11	7	7/8" Coax	60.00 - 80.00	0.6000	0.6000
T11	9	7/8" Coax	60.00 - 80.00	0.6000	0.6000
T11	10	1/2	60.00 - 80.00	0.6000	0.6000
T11	12	7/8" Coax	60.00 - 80.00	0.6000	0.6000
T11	14	EW63	60.00 - 80.00	0.6000	0.6000
T11	19	T-Brackets	60.00 - 80.00	0.6000	0.6000
T11	20	T-Brackets	60.00 - 80.00	0.6000	0.6000
T11	21	Waveguide	60.00 - 80.00	0.6000	0.6000
T12	1	1 5/8" Coax	40.00 - 60.00	0.6000	0.6000
T12	2	1-1/4" Hybrid	40.00 - 60.00	0.6000	0.6000
T12	3	1/2" Coax	40.00 - 60.00	0.6000	0.6000
T12	5	1 5/8" Coax	40.00 - 60.00	0.6000	0.6000
T12	7	7/8" Coax	40.00 - 60.00	0.6000	0.6000
T12	9	7/8" Coax	40.00 - 60.00	0.6000	0.6000
T12	10	1/2	40.00 - 60.00	0.6000	0.6000
T12	12	7/8" Coax	40.00 - 60.00	0.6000	0.6000
T12	14	EW63	40.00 - 60.00	0.6000	0.6000
T12	16	7/8" Coax	40.00 - 60.00	0.6000	0.6000
T12	18	7/8" Coax	40.00 - 50.00	0.6000	0.6000
T12	19	T-Brackets	40.00 - 60.00	0.6000	0.6000
T12	20	T-Brackets	40.00 - 60.00	0.6000	0.6000
T12	21	Waveguide	40.00 - 60.00	0.6000	0.6000
T13	1	1 5/8" Coax	20.00 - 40.00	0.6000	0.6000
T13	2	1-1/4" Hybrid	20.00 - 40.00	0.6000	0.6000
T13	3	1/2" Coax	20.00 - 40.00	0.6000	0.6000
T13	5	1 5/8" Coax	20.00 - 40.00	0.6000	0.6000
T13	7	7/8" Coax	20.00 - 40.00	0.6000	0.6000
T13	9	7/8" Coax	20.00 - 40.00	0.6000	0.6000
T13	10	1/2	20.00 - 40.00	0.6000	0.6000
T13	12	7/8" Coax	20.00 - 40.00	0.6000	0.6000
T13	14	EW63	20.00 - 40.00	0.6000	0.6000
T13	16	7/8" Coax	20.00 - 40.00	0.6000	0.6000
T13	18	7/8" Coax	20.00 - 40.00	0.6000	0.6000
T13	19	T-Brackets	20.00 - 40.00	0.6000	0.6000
T13	20	T-Brackets	20.00 - 40.00	0.6000	0.6000
T13	21	Waveguide	20.00 - 40.00	0.6000	0.6000
T14	1	1 5/8" Coax	0.00 - 20.00	0.6000	0.6000
T14	2	1-1/4" Hybrid	0.00 - 20.00	0.6000	0.6000
T14	3	1/2" Coax	0.00 - 20.00	0.6000	0.6000
T14	5	1 5/8" Coax	0.00 - 20.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T14	7	7/8" Coax	0.00 - 20.00	0.6000	0.6000
T14	9	7/8" Coax	0.00 - 20.00	0.6000	0.6000
T14	10	1/2	0.00 - 20.00	0.6000	0.6000
T14	12	7/8" Coax	0.00 - 20.00	0.6000	0.6000
T14	14	EW63	0.00 - 20.00	0.6000	0.6000
T14	16	7/8" Coax	0.00 - 20.00	0.6000	0.6000
T14	18	7/8" Coax	0.00 - 20.00	0.6000	0.6000
T14	19	T-Brackets	0.00 - 20.00	0.6000	0.6000
T14	20	T-Brackets	0.00 - 20.00	0.6000	0.6000
T14	21	Waveguide	0.00 - 20.00	0.6000	0.6000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
Angle Sector Frame	A	From Leg	0.00	0.0000	247.00	No Ice	17.90	8.95	400.00
			0.00			1/2" Ice	22.20	13.00	510.00
			0.00			1" Ice	26.50	17.05	620.00
Angle Sector Frame	B	From Leg	0.00	0.0000	247.00	No Ice	17.90	8.95	400.00
			0.00			1/2" Ice	22.20	13.00	510.00
			0.00			1" Ice	26.50	17.05	620.00
Angle Sector Frame	C	From Leg	0.00	0.0000	247.00	No Ice	17.90	8.95	400.00
			0.00			1/2" Ice	22.20	13.00	510.00
			0.00			1" Ice	26.50	17.05	620.00
APXVTM14-ALU-120	A	From Leg	3.00	0.0000	247.00	No Ice	6.34	3.61	37.00
			0.00			1/2" Ice	6.72	3.97	76.53
			0.00			1" Ice	7.10	4.33	121.12
APXVTM14-ALU-120	B	From Leg	3.00	0.0000	247.00	No Ice	6.34	3.61	37.00
			0.00			1/2" Ice	6.72	3.97	76.53
			0.00			1" Ice	7.10	4.33	121.12
APXVTM14-ALU-120	C	From Leg	3.00	0.0000	247.00	No Ice	6.34	3.61	37.00
			0.00			1/2" Ice	6.72	3.97	76.53
			0.00			1" Ice	7.10	4.33	121.12
APXVSPP18-C-A20	A	From Leg	3.00	0.0000	247.00	No Ice	8.02	5.28	57.00
			0.00			1/2" Ice	8.48	5.74	106.52
			0.00			1" Ice	8.94	6.20	162.12
APXVSPP18-C-A20	B	From Leg	3.00	0.0000	247.00	No Ice	8.02	5.28	57.00
			0.00			1/2" Ice	8.48	5.74	106.52
			0.00			1" Ice	8.94	6.20	162.12
APXVSPP18-C-A20	C	From Leg	3.00	0.0000	247.00	No Ice	8.02	5.28	57.00
			0.00			1/2" Ice	8.48	5.74	106.52
			0.00			1" Ice	8.94	6.20	162.12
800 MHz w/ Notch Filter	A	From Leg	3.00	0.0000	247.00	No Ice	2.13	2.50	61.80
			0.00			1/2" Ice	2.32	2.69	87.79
			0.00			1" Ice	2.51	2.90	117.08
800 MHz w/ Notch Filter	B	From Leg	3.00	0.0000	247.00	No Ice	2.13	2.50	61.80
			0.00			1/2" Ice	2.32	2.69	87.79
			0.00			1" Ice	2.51	2.90	117.08
800 MHz w/ Notch Filter	C	From Leg	3.00	0.0000	247.00	No Ice	2.13	2.50	61.80
			0.00			1/2" Ice	2.32	2.69	87.79

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
			0.00			1" Ice	2.51	2.90	117.08
TD-RRH8x20-25	A	From Leg	3.00	0.0000	247.00	No Ice	4.05	1.53	70.00
			0.00			1/2" Ice	4.30	1.71	97.14
			0.00			1" Ice	4.56	1.90	127.80
TD-RRH8x20-25	B	From Leg	3.00	0.0000	247.00	No Ice	4.05	1.53	70.00
			0.00			1/2" Ice	4.30	1.71	97.14
			0.00			1" Ice	4.56	1.90	127.80
TD-RRH8x20-25	C	From Leg	3.00	0.0000	247.00	No Ice	4.05	1.53	70.00
			0.00			1/2" Ice	4.30	1.71	97.14
			0.00			1" Ice	4.56	1.90	127.80
(2) 1900MHz RRH	A	From Leg	3.00	0.0000	247.00	No Ice	2.31	2.38	60.00
			0.00			1/2" Ice	2.52	2.58	83.90
			0.00			1" Ice	2.73	2.79	111.08
(2) 1900MHz RRH	B	From Leg	3.00	0.0000	247.00	No Ice	2.31	2.38	60.00
			0.00			1/2" Ice	2.52	2.58	83.90
			0.00			1" Ice	2.73	2.79	111.08
(2) 1900MHz RRH	C	From Leg	3.00	0.0000	247.00	No Ice	2.31	2.38	60.00
			0.00			1/2" Ice	2.52	2.58	83.90
			0.00			1" Ice	2.73	2.79	111.08
***									
Angle Sector Frame	A	From Leg	3.00	0.0000	232.00	No Ice	17.90	8.95	400.00
			0.00			1/2" Ice	22.20	13.00	510.00
			0.00			1" Ice	26.50	17.05	620.00
Angle Sector Frame	B	From Leg	3.00	0.0000	232.00	No Ice	17.90	8.95	400.00
			0.00			1/2" Ice	22.20	13.00	510.00
			0.00			1" Ice	26.50	17.05	620.00
Angle Sector Frame	C	From Leg	3.00	0.0000	232.00	No Ice	17.90	8.95	400.00
			0.00			1/2" Ice	22.20	13.00	510.00
			0.00			1" Ice	26.50	17.05	620.00
AIR 21 B2A/B4P	A	From Leg	3.00	0.0000	232.00	No Ice	6.05	4.31	91.00
			0.00			1/2" Ice	6.42	4.66	132.68
			0.00			1" Ice	6.80	5.02	179.47
AIR 21 B2A/B4P	B	From Leg	3.00	0.0000	232.00	No Ice	6.05	4.31	91.00
			0.00			1/2" Ice	6.42	4.66	132.68
			0.00			1" Ice	6.80	5.02	179.47
AIR 21 B2A/B4P	C	From Leg	3.00	0.0000	232.00	No Ice	6.05	4.31	91.00
			0.00			1/2" Ice	6.42	4.66	132.68
			0.00			1" Ice	6.80	5.02	179.47
AIR21 B4A/B2P	A	From Leg	3.00	0.0000	232.00	No Ice	6.05	4.31	91.00
			0.00			1/2" Ice	6.42	4.66	132.68
			0.00			1" Ice	6.80	5.02	179.47
AIR21 B4A/B2P	B	From Leg	3.00	0.0000	232.00	No Ice	6.05	4.31	91.00
			0.00			1/2" Ice	6.42	4.66	132.68
			0.00			1" Ice	6.80	5.02	179.47
AIR21 B4A/B2P	C	From Leg	3.00	0.0000	232.00	No Ice	6.05	4.31	91.00
			0.00			1/2" Ice	6.42	4.66	132.68
			0.00			1" Ice	6.80	5.02	179.47
ADFD1820-80B-R2DM	C	From Leg	3.00	0.0000	232.00	No Ice	10.57	3.02	38.14
			0.00			1/2" Ice	11.00	3.37	94.49
			0.00			1" Ice	11.44	3.73	156.49
TMA	A	From Leg	3.00	0.0000	232.00	No Ice	0.72	0.66	20.61
			0.00			1/2" Ice	0.83	0.79	29.38
			0.00			1" Ice	0.95	0.93	40.54
TMA	B	From Leg	3.00	0.0000	232.00	No Ice	0.72	0.66	20.61
			0.00			1/2" Ice	0.83	0.79	29.38
			0.00			1" Ice	0.95	0.93	40.54
TMA	C	From Leg	3.00	0.0000	232.00	No Ice	0.72	0.66	20.61

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
			0.00			1/2" Ice	0.83	0.79	29.38
			0.00			1" Ice	0.95	0.93	40.54
***									
Angle Side Arm	A	From Leg	3.00	0.0000	135.00	No Ice	0.82	6.23	150.00
			0.00			1/2" Ice	1.10	8.47	230.00
			0.00			1" Ice	1.40	10.20	310.00
Angle Side Arm	C	From Leg	3.00	0.0000	135.00	No Ice	0.82	6.23	150.00
			0.00			1/2" Ice	1.10	8.47	230.00
			0.00			1" Ice	1.40	10.20	310.00
12' Omni	A	From Leg	3.00	0.0000	135.00	No Ice	3.60	3.60	12.00
			0.00			1/2" Ice	4.83	4.83	38.06
			0.00			1" Ice	6.08	6.08	71.92
12' Omni	C	From Leg	3.00	0.0000	135.00	No Ice	3.60	3.60	12.00
			0.00			1/2" Ice	4.83	4.83	38.06
			0.00			1" Ice	6.08	6.08	71.92
***									
Angle Side Arm	A	From Leg	3.00	0.0000	125.00	No Ice	0.82	6.23	150.00
			0.00			1/2" Ice	1.10	8.47	230.00
			0.00			1" Ice	1.40	10.20	310.00
20' Omni	A	From Leg	3.00	0.0000	125.00	No Ice	6.00	6.00	55.00
			0.00			1/2" Ice	8.03	8.03	98.17
			0.00			1" Ice	10.08	10.08	154.01
***									
Angle Side Arm	C	From Leg	3.00	0.0000	110.00	No Ice	0.82	6.23	150.00
			0.00			1/2" Ice	1.10	8.47	230.00
			0.00			1" Ice	1.40	10.20	310.00
12' Omni	C	From Leg	3.00	0.0000	110.00	No Ice	3.60	3.60	12.00
			0.00			1/2" Ice	4.83	4.83	38.06
			0.00			1" Ice	6.08	6.08	71.92
***									
Camera	A	From Leg	0.00	0.0000	60.00	No Ice	0.80	0.80	14.00
			0.00			1/2" Ice	0.91	0.91	23.24
			0.00			1" Ice	1.04	1.04	34.48
***									
Angle Side Arm	A	From Leg	3.00	0.0000	50.00	No Ice	0.82	6.23	150.00
			0.00			1/2" Ice	1.10	8.47	230.00
			0.00			1" Ice	1.40	10.20	310.00
4' Omni	A	From Leg	3.00	0.0000	50.00	No Ice	1.00	1.00	15.00
			0.00			1/2" Ice	1.25	1.25	23.96
			0.00			1" Ice	1.50	1.50	35.82

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft		Aperture Area ft^2	Weight lb
4' Grid Dish	B	Grid	From Leg	0.00	0.0000		110.00	4.00	No Ice	12.57	51.00
				0.00					1/2" Ice	13.10	118.25
				0.00					1" Ice	13.62	185.49

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft		Aperture Area ft²	Weight lb
***											
6' Dish w/ Radome	B	Paraboloid w/Radome	From Leg	0.00 0.00 0.00	0.0000		105.00	6.00	No Ice 1/2" Ice 1" Ice	28.27 29.07 29.86	250.00 399.23 548.45

Truss-Leg Properties

Section Designation	Area in²	Area Ice in²	Self Weight lb	Ice Weight lb	Equiv. Diameter in	Equiv. Diameter Ice in	Leg Area in²
Pirod 105245	1090.3344	3212.4658	676.81	641.83	7.5718	22.3088	5.3014
Pirod 105217	2130.7479	6595.2465	619.35	1215.29	7.3984	22.9002	5.3014
Pirod 105218	2263.4687	6647.8153	754.52	1213.39	7.8593	23.0827	7.2158
Pirod 105218	2263.4687	6625.8954	754.52	1186.30	7.8593	23.0066	7.2158
Pirod 105219	2397.4053	6679.3632	910.73	1185.43	8.3243	23.1922	9.4248
Pirod 105219	2397.4053	6665.7583	910.73	1168.78	8.3243	23.1450	9.4248
Pirod 105219	2397.4053	6642.9857	910.73	1141.14	8.3243	23.0659	9.4248
Pirod 105220	2533.5832	6678.6036	1088.00	1118.75	8.7972	23.1896	11.9282
Pirod 105220	2533.5832	6631.3031	1088.00	1062.83	8.7972	23.0254	11.9282
Pirod 105220	2533.5832	6562.4670	1088.00	983.76	8.7972	22.7863	11.9282
Pirod 112738	3009.0588	8493.1391	1409.99	1045.55	10.4481	29.4901	14.7262

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.6 Wind 0 deg - No Ice
3	1.2D+1.6W (pattern 1) 0 deg - No Ice
4	1.2D+1.6W (pattern 2) 0 deg - No Ice
5	0.9 Dead+1.6 Wind 0 deg - No Ice
6	1.2 Dead+1.6 Wind 30 deg - No Ice
7	1.2D+1.6W (pattern 1) 30 deg - No Ice
8	1.2D+1.6W (pattern 2) 30 deg - No Ice
9	0.9 Dead+1.6 Wind 30 deg - No Ice
10	1.2 Dead+1.6 Wind 60 deg - No Ice
11	1.2D+1.6W (pattern 1) 60 deg - No Ice
12	1.2D+1.6W (pattern 2) 60 deg - No Ice
13	0.9 Dead+1.6 Wind 60 deg - No Ice
14	1.2 Dead+1.6 Wind 90 deg - No Ice
15	1.2D+1.6W (pattern 1) 90 deg - No Ice
16	1.2D+1.6W (pattern 2) 90 deg - No Ice
17	0.9 Dead+1.6 Wind 90 deg - No Ice
18	1.2 Dead+1.6 Wind 120 deg - No Ice
19	1.2D+1.6W (pattern 1) 120 deg - No Ice
20	1.2D+1.6W (pattern 2) 120 deg - No Ice
21	0.9 Dead+1.6 Wind 120 deg - No Ice
22	1.2 Dead+1.6 Wind 150 deg - No Ice
23	1.2D+1.6W (pattern 1) 150 deg - No Ice
24	1.2D+1.6W (pattern 2) 150 deg - No Ice
25	0.9 Dead+1.6 Wind 150 deg - No Ice
26	1.2 Dead+1.6 Wind 180 deg - No Ice

Comb. No.	Description
27	1.2D+1.6W (pattern 1) 180 deg - No Ice
28	1.2D+1.6W (pattern 2) 180 deg - No Ice
29	0.9 Dead+1.6 Wind 180 deg - No Ice
30	1.2 Dead+1.6 Wind 210 deg - No Ice
31	1.2D+1.6W (pattern 1) 210 deg - No Ice
32	1.2D+1.6W (pattern 2) 210 deg - No Ice
33	0.9 Dead+1.6 Wind 210 deg - No Ice
34	1.2 Dead+1.6 Wind 240 deg - No Ice
35	1.2D+1.6W (pattern 1) 240 deg - No Ice
36	1.2D+1.6W (pattern 2) 240 deg - No Ice
37	0.9 Dead+1.6 Wind 240 deg - No Ice
38	1.2 Dead+1.6 Wind 270 deg - No Ice
39	1.2D+1.6W (pattern 1) 270 deg - No Ice
40	1.2D+1.6W (pattern 2) 270 deg - No Ice
41	0.9 Dead+1.6 Wind 270 deg - No Ice
42	1.2 Dead+1.6 Wind 300 deg - No Ice
43	1.2D+1.6W (pattern 1) 300 deg - No Ice
44	1.2D+1.6W (pattern 2) 300 deg - No Ice
45	0.9 Dead+1.6 Wind 300 deg - No Ice
46	1.2 Dead+1.6 Wind 330 deg - No Ice
47	1.2D+1.6W (pattern 1) 330 deg - No Ice
48	1.2D+1.6W (pattern 2) 330 deg - No Ice
49	0.9 Dead+1.6 Wind 330 deg - No Ice
50	1.2 Dead+1.0 Ice+1.0 Temp
51	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
52	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
53	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
54	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
55	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
56	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
57	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
58	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
59	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
60	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
61	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
62	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
63	Dead+Wind 0 deg - Service
64	Dead+Wind 30 deg - Service
65	Dead+Wind 60 deg - Service
66	Dead+Wind 90 deg - Service
67	Dead+Wind 120 deg - Service
68	Dead+Wind 150 deg - Service
69	Dead+Wind 180 deg - Service
70	Dead+Wind 210 deg - Service
71	Dead+Wind 240 deg - Service
72	Dead+Wind 270 deg - Service
73	Dead+Wind 300 deg - Service
74	Dead+Wind 330 deg - Service

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	245 - 230	10.784	67	0.4932	0.0918
T2	230 - 210	9.210	67	0.4743	0.0915
T3	210 - 190	7.266	67	0.4198	0.0836
T4	190 - 180	5.597	67	0.3505	0.0680
T5	180 - 160	4.890	67	0.3138	0.0564

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T6	160 - 140	3.698	67	0.2474	0.0411
T7	140 - 120	2.734	67	0.2024	0.0296
T8	120 - 110	1.954	67	0.1593	0.0222
T9	110 - 100	1.630	67	0.1432	0.0200
T10	100 - 80	1.337	67	0.1272	0.0179
T11	80 - 60	0.850	67	0.0951	0.0135
T12	60 - 40	0.484	67	0.0699	0.0097
T13	40 - 20	0.219	67	0.0449	0.0058
T14	20 - 0	0.048	67	0.0198	0.0018

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
247.00	Angle Sector Frame	67	10.784	0.4932	0.0918	75918
232.00	Angle Sector Frame	67	9.416	0.4778	0.0918	29467
135.00	Angle Side Arm	67	2.522	0.1913	0.0273	26992
125.00	Angle Side Arm	67	2.132	0.1691	0.0236	26051
110.00	4' Grid Dish	67	1.630	0.1432	0.0200	40750
105.00	6' Dish w/ Radome	67	1.480	0.1353	0.0190	38798
60.00	Camera	67	0.484	0.0699	0.0097	46332
50.00	Angle Side Arm	67	0.340	0.0576	0.0078	53658

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	245 - 230	45.979	34	2.1052	0.4114
T2	230 - 210	39.243	34	2.0246	0.4074
T3	210 - 190	30.930	34	1.7914	0.3674
T4	190 - 180	23.804	18	1.4954	0.2974
T5	180 - 160	20.799	18	1.3380	0.2465
T6	160 - 140	15.730	18	1.0536	0.1796
T7	140 - 120	11.630	18	0.8611	0.1301
T8	120 - 110	8.311	18	0.6776	0.0969
T9	110 - 100	6.932	18	0.6088	0.0870
T10	100 - 80	5.688	18	0.5407	0.0775
T11	80 - 60	3.618	18	0.4042	0.0582
T12	60 - 40	2.058	18	0.2972	0.0417
T13	40 - 20	0.931	18	0.1908	0.0251
T14	20 - 0	0.207	18	0.0841	0.0077

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
247.00	Angle Sector Frame	34	45.979	2.1052	0.4114	17788
232.00	Angle Sector Frame	34	40.125	2.0395	0.4090	6904
135.00	Angle Side Arm	18	10.729	0.8136	0.1199	6328
125.00	Angle Side Arm	18	9.068	0.7193	0.1033	6100
110.00	4' Grid Dish	18	6.932	0.6088	0.0870	9514
105.00	6' Dish w/ Radome	18	6.294	0.5752	0.0823	9073
60.00	Camera	18	2.058	0.2972	0.0417	10911
50.00	Angle Side Arm	18	1.447	0.2450	0.0337	12604

Bolt Design Data

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt lb	Allowable Load lb	Ratio Load / Allowable	Allowable Ratio	Criteria
T1	245	Leg	A325N	0.6250	5	4865.40	24850.50	0.196 ✔	1	Bolt DS
T2	230	Leg	A325N	0.7500	5	15208.00	35784.70	0.425 ✔	1	Bolt DS
T4	190	Leg	A325N	1.0000	6	21824.00	53014.40	0.412 ✔	1	Bolt Tension
		Diagonal	A325N	1.0000	1	6714.44	9144.14	0.734 ✔	1	Member Block Shear
T5	180	Leg	A325N	1.0000	6	26760.80	53014.40	0.505 ✔	1	Bolt Tension
		Diagonal	A325N	1.0000	1	6085.94	9144.14	0.666 ✔	1	Member Block Shear
T6	160	Leg	A325N	1.0000	6	31487.10	53014.40	0.594 ✔	1	Bolt Tension
		Diagonal	A325N	1.0000	1	6740.85	9144.14	0.737 ✔	1	Member Block Shear
T7	140	Leg	A325N	1.0000	6	36405.60	53014.40	0.687 ✔	1	Bolt Tension
		Diagonal	A325N	1.0000	1	7771.67	10163.70	0.765 ✔	1	Member Block Shear
T8	120	Diagonal	A325N	1.2500	1	9234.79	17138.70	0.539 ✔	1	Member Block Shear
T9	110	Leg	A325N	1.2500	6	41246.80	82835.00	0.498 ✔	1	Bolt Tension
		Diagonal	A325N	1.2500	1	10836.40	17138.70	0.632 ✔	1	Member Block Shear
T10	100	Leg	A325N	1.2500	6	47079.70	82835.00	0.568 ✔	1	Bolt Tension
		Diagonal	A325N	1.2500	1	10875.80	17138.70	0.635 ✔	1	Member Block Shear
T11	80	Leg	A325N	1.2500	6	52507.50	82835.00	0.634 ✔	1	Bolt Tension
		Diagonal	A325N	1.2500	1	11865.50	20537.10	0.578 ✔	1	Member Block Shear
T12	60	Leg	A325N	1.2500	6	57960.90	82835.00	0.700 ✔	1	Bolt Tension
		Diagonal	A325N	1.2500	1	12980.30	20537.10	0.632 ✔	1	Member Block Shear
T13	40	Leg	A325N	1.2500	12	31871.30	82835.00	0.385 ✔	1	Bolt Tension
		Diagonal	A325N	1.2500	1	14030.40	16429.70	0.854 ✔	1	Member Block Shear
T14	20	Leg	A687	2.0000	6	66360.10	265072.00	0.250 ✔	1	Bolt Tension
		Diagonal	A325N	1.0000	2	10575.80	35525.40	0.298 ✔	1	Member Block Shear

Compression Checks

Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	245 - 230	1 1/2	15.00	2.33	74.7 K=1.00	1.7672	-21273.30	52899.40	0.402 [1] ✔
T2	230 - 210	2	20.00	2.38	57.0 K=1.00	3.1416	-71732.20	111473.00	0.643 [1] ✔
T3	210 - 190	2 1/2	20.00	2.33	44.8 K=1.00	4.9087	-131774.00	190746.00	0.691 [1] ✔
T4	190 - 180	Pirod 105245	10.02	10.02	37.8 K=1.00	5.3014	-137205.00	214859.00	0.639 [1] ✔
T5	180 - 160	Pirod 105217	20.03	10.02	37.8 K=1.00	5.3014	-169476.00	214859.00	0.789 [1] ✔
T6	160 - 140	Pirod 105218	20.03	10.02	32.4 K=1.00	7.2158	-201179.00	300681.00	0.669 [1] ✔
T7	140 - 120	Pirod 105218	20.03	10.02	32.4 K=1.00	7.2158	-234440.00	300681.00	0.780 [1] ✔
T8	120 - 110	Pirod 105219	10.02	10.02	28.4 K=1.00	9.4248	-252179.00	399868.00	0.631 [1] ✔
T9	110 - 100	Pirod 105219	10.02	4.82	28.4 K=1.00	9.4248	-268402.00	399868.00	0.671 [1] ✔
T10	100 - 80	Pirod 105219	20.03	10.02	28.4 K=1.00	9.4248	-308573.00	399868.00	0.772 [1] ✔
T11	80 - 60	Pirod 105220	20.03	10.02	25.2 K=1.00	11.9282	-347521.00	512375.00	0.678 [1] ✔
T12	60 - 40	Pirod 105220	20.03	10.02	25.2 K=1.00	11.9282	-386656.00	512375.00	0.755 [1] ✔
T13	40 - 20	Pirod 105220	20.03	10.02	25.2 K=1.00	11.9282	-427848.00	512375.00	0.835 [1] ✔
T14	20 - 0	fv/Fv (1.01 CR) - 300 Pirod 112738	20.03	20.03	32.6 K=1.00	14.7262	-445759.00	613145.00	0.727 [1] ✔

[1] $P_u / \phi P_n$ controls

Truss-Leg Diagonal Data

Section No.	Elevation ft	Diagonal Size	L_d ft	Kl/r	ϕP_n lb	A in^2	V_u lb	ϕV_n lb	Stress Ratio
T4	190 - 180	0.5	1.47	120.0	238565.00	0.1963	1089.57	3446.37	0.317 ✔
T5	180 - 160	0.5	1.47	120.0	238565.00	0.1963	660.73	3335.33	0.199 ✔

Section No.	Elevation ft	Diagonal Size	L_d ft	Kl/r	ϕP_n lb	A in^2	V_u lb	ϕV_n lb	Stress Ratio
T6	160 - 140	0.5	1.46	119.0	324713.00	0.1963	327.99	3377.71	0.098 ✓
T7	140 - 120	0.5	1.46	119.0	324713.00	0.1963	551.02	3377.71	0.164 ✓
T8	120 - 110	0.5	1.45	118.0	424115.00	0.1963	816.29	3419.59	0.239 ✓
T9	110 - 100	0.5	1.45	118.0	424115.00	0.1963	3243.82	3419.59	0.949 ✓
T10	100 - 80	0.5	1.45	118.0	424115.00	0.1963	628.42	3419.59	0.184 ✓
T11	80 - 60	0.5	1.43	117.1	536771.00	0.1963	277.50	3460.94	0.081 ✓
T12	60 - 40	0.5	1.43	117.1	536771.00	0.1963	390.25	3460.94	0.114 ✓
T13	40 - 20	0.5	1.43	117.1	536771.00	0.1963	3505.65	3460.94	1.014 ✗
T14	20 - 0	0.75	1.75	95.3	662680.00	0.4418	1738.59	12083.60	0.145 ✓

Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	245 - 230	3/4	4.63	2.24	129.2 K=0.90	0.4418	-3269.45	5979.01	0.547 [1] ✓
T2	230 - 210	7/8	5.05	2.45	120.9 K=0.90	0.6013	-5123.10	9300.39	0.551 [1] ✓
T3	210 - 190	1	5.48	2.64	114.0 K=0.90	0.7854	-5972.70	13651.80	0.438 [1] ✓
T4	190 - 180	L2 1/2x2 1/2x3/16	11.42	5.02	121.8 K=1.00	0.9020	-7071.53	13384.50	0.528 [1] ✓
T5	180 - 160	L2 1/2x2 1/2x3/16	12.50	5.67	137.4 K=1.00	0.9020	-6687.53	10789.60	0.620 [1] ✓
T6	160 - 140	L2 1/2x2 1/2x3/16	13.80	6.37	154.4 K=1.00	0.9020	-7175.33	8548.61	0.839 [1] ✓
T7	140 - 120	L3x3x3/16	15.24	7.12	143.4 K=1.00	1.0900	-8214.52	11970.70	0.686 [1] ✓
T8	120 - 110	L3x3x5/16	16.01	7.49	152.5 K=1.00	1.7800	-9669.18	17281.60	0.560 [1] ✓
T9	110 - 100	L3x3x5/16	16.80	7.89	160.8 K=1.00	1.7800	-11607.90	15552.60	0.746 [1] ✓
T10	100 - 80	L3x3x5/16	18.45	8.73	177.8 K=1.00	1.7800	-11303.90	12715.40	0.889 [1] ✓
T11	80 - 60	L3 1/2x3 1/2x5/16	20.16	9.59	166.8 K=1.00	2.0900	-12196.60	16963.20	0.719 [1] ✓
T12	60 - 40	L3 1/2x3 1/2x5/16	21.92	10.48	182.3 K=1.00	2.0900	-13177.80	14215.00	0.927 [1] ✓
T13	40 - 20	L4x4x1/4	22.81	10.93	165.0 K=1.00	1.9400	-14430.90	16089.30	0.897 [1] ✓
T14	20 - 0	2L3 1/2x3 1/2x5/16x3/8	30.49	14.62	152.4	4.1800	-24624.70	40668.30	0.606 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
					K=0.94				✔

[1] P_u / ϕP_n controls

Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	245 - 230	3/4	4.00	3.88	173.6 K=0.70	0.4418	-446.03	3311.71	0.135 [1] ✔
T2	230 - 210	7/8	4.37	4.20	161.4 K=0.70	0.6013	-979.06	5217.40	0.188 [1] ✔
T3	210 - 190	7/8	4.58	4.37	167.7 K=0.70	0.6013	-1567.56	4831.46	0.324 [1] ✔

[1] P_u / ϕP_n controls

Secondary Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T9	110 - 100	L3x3x5/16	13.48	12.48	146.1 K=0.90	1.7800	-4654.66	18837.50	0.247 [1] ✔

[1] P_u / ϕP_n controls

Top Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	245 - 230	7/8	4.00	3.88	148.8 K=0.70	0.6013	-972.98	6135.36	0.159 [1] ✔
T2	230 - 210	1	4.01	3.85	129.2 K=0.70	0.7854	-2012.44	10626.00	0.189 [1] ✔
T3	210 - 190	1	4.52	4.31	144.8 K=0.70	0.7854	-2013.23	8466.93	0.238 [1] ✔

[1] P_u / ϕP_n controls

Bottom Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	245 - 230	7/8	4.00	3.88	148.8 K=0.70	0.6013	-1828.86	6135.36	0.298 [1] ✔
T2	230 - 210	1	4.49	4.32	145.2 K=0.70	0.7854	-2460.83	8418.14	0.292 [1] ✔
T3	210 - 190	1	4.98	4.77	160.4 K=0.70	0.7854	-1602.07	6893.03	0.232 [1] ✔

[1] P_u / ϕP_n controls

Tension Checks

Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	245 - 230	1 1/2	15.00	0.50	16.0	1.7672	20931.30	79521.60	0.263 [1] ✔
T2	230 - 210	2	20.00	0.50	12.0	3.1416	71186.80	141372.00	0.504 [1 #] ✔
T3	210 - 190	2 1/2	20.00	0.67	12.8	4.9087	129407.00	220893.00	0.586 [1] ✔
T4	190 - 180	Pirod 105245	10.02	10.02	37.8	5.3014	130944.00	238565.00	0.549 [1] ✔
T5	180 - 160	Pirod 105217	20.03	10.02	37.8	5.3014	160565.00	238565.00	0.673 [1] ✔
T6	160 - 140	Pirod 105218	20.03	10.02	32.4	7.2158	188923.00	324713.00	0.582 [1] ✔
T7	140 - 120	Pirod 105218	20.03	10.02	32.4	7.2158	218433.00	324713.00	0.673 [1] ✔
T8	120 - 110	Pirod 105219	10.02	10.02	28.4	9.4248	234184.00	424115.00	0.552 [1] ✔
T9	110 - 100	Pirod 105219	10.02	4.82	28.4	9.4248	248180.00	424115.00	0.585 [1] ✔
T10	100 - 80	Pirod 105219	20.03	10.02	28.4	9.4248	282478.00	424115.00	0.666 [1] ✔
T11	80 - 60	Pirod 105220	20.03	10.02	25.2	11.9282	315045.00	536771.00	0.587 [1] ✔
T12	60 - 40	Pirod 105220	20.03	10.02	25.2	11.9282	347765.00	536771.00	0.648 [1] ✔
T13	40 - 20	Pirod 105220	20.03	10.02	25.2	11.9282	382456.00	536771.00	0.713 [1] ✔
T14	20 - 0	fv/Fv (1.01 CR) - 300 Pirod 112738	20.03	20.03	32.6	14.7262	398161.00	662680.00	0.601 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
									✔

[1] P_u / ϕP_n controls
[#] Based on net area of leg in section below

Truss-Leg Diagonal Data

Section No.	Elevation ft	Diagonal Size	L_d ft	Kl/r	ϕP_n lb	A in^2	V_u lb	ϕV_n lb	Stress Ratio
T4	190 - 180	0.5	1.47	120.0	238565.00	0.1963	1089.57	3446.37	0.317 ✔
T5	180 - 160	0.5	1.47	120.0	238565.00	0.1963	660.73	3335.33	0.199 ✔
T6	160 - 140	0.5	1.46	119.0	324713.00	0.1963	327.99	3377.71	0.098 ✔
T7	140 - 120	0.5	1.46	119.0	324713.00	0.1963	551.02	3377.71	0.164 ✔
T8	120 - 110	0.5	1.45	118.0	424115.00	0.1963	816.29	3419.59	0.239 ✔
T9	110 - 100	0.5	1.45	118.0	424115.00	0.1963	3243.82	3419.59	0.949 ✔
T10	100 - 80	0.5	1.45	118.0	424115.00	0.1963	628.42	3419.59	0.184 ✔
T11	80 - 60	0.5	1.43	117.1	536771.00	0.1963	277.50	3460.94	0.081 ✔
T12	60 - 40	0.5	1.43	117.1	536771.00	0.1963	390.25	3460.94	0.114 ✔
T13	40 - 20	0.5	1.43	117.1	536771.00	0.1963	3505.65	3460.94	1.014 ✘
T14	20 - 0	0.75	1.75	95.3	662680.00	0.4418	1738.59	12083.60	0.145 ✔

Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	245 - 230	3/4	4.63	2.24	143.6	0.4418	3285.67	19880.40	0.165 [1] ✔
T2	230 - 210	7/8	5.05	2.45	134.3	0.6013	5177.23	27059.40	0.191 [1] ✔
T3	210 - 190	1	5.11	2.46	117.9	0.7854	6070.45	35342.90	0.172 [1] ✔
T4	190 - 180	L2 1/2x2 1/2x3/16	11.42	5.02	80.1	0.5183	6714.44	22545.90	0.298 [1] ✔
T5	180 - 160	L2 1/2x2 1/2x3/16	11.93	5.42	86.2	0.5183	6085.94	22545.90	0.270 [1] ✔

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T6	160 - 140	L2 1/2x2 1/2x3/16	13.80	6.37	100.8	0.5183	6740.85	22545.90	0.299 [1] ✔
T7	140 - 120	L3x3x3/16	15.24	7.12	93.2	0.6593	7771.67	28679.40	0.271 [1] ✔
T8	120 - 110	L3x3x5/16	16.01	7.49	100.0	1.0127	9234.79	44053.90	0.210 [1] ✔
T9	110 - 100	L3x3x5/16	16.80	7.89	105.3	1.0127	10836.40	44053.90	0.246 [1] ✔
T10	100 - 80	L3x3x5/16	18.45	8.73	116.2	1.0127	10875.80	44053.90	0.247 [1] ✔
T11	80 - 60	L3 1/2x3 1/2x5/16	20.16	9.59	108.8	1.2452	11865.50	54167.70	0.219 [1] ✔
T12	60 - 40	L3 1/2x3 1/2x5/16	21.92	10.48	118.6	1.2452	12980.30	54167.70	0.240 [1] ✔
T13	40 - 20	L4x4x1/4	23.71	11.38	111.2	1.1972	14030.40	52077.70	0.269 [1] ✔
T14	20 - 0	2L3 1/2x3 1/2x5/16x3/8	30.49	14.62	165.7	2.6077	21151.70	113433.00	0.186 [1] ✔

[1] P_u / ϕP_n controls

Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	245 - 230	3/4	4.00	3.88	248.0	0.4418	531.52	19880.40	0.027 [1] ✔
T2	230 - 210	7/8	4.07	3.91	214.2	0.6013	1266.05	27059.40	0.047 [1] ✔
T3	210 - 190	7/8	4.58	4.37	239.5	0.6013	1718.93	27059.40	0.064 [1] ✔

[1] P_u / ϕP_n controls

Secondary Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T9	110 - 100	L3x3x5/16	13.48	12.48	162.4	1.7800	4654.66	57672.00	0.081 [1] ✔

[1] P_u / ϕP_n controls

Top Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	245 - 230	7/8	4.00	3.88	212.6	0.6013	903.94	27059.40	0.033 [1] ✔
T2	230 - 210	1	4.01	3.85	184.6	0.7854	2112.31	35342.90	0.060 [1] ✔
T3	210 - 190	1	4.52	4.31	206.8	0.7854	2153.14	35342.90	0.061 [1] ✔

[1] P_u / ϕP_n controls

Bottom Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	245 - 230	7/8	4.00	3.88	212.6	0.6013	1726.78	27059.40	0.064 [1] ✔
T2	230 - 210	1	4.49	4.32	207.4	0.7854	2412.20	35342.90	0.068 [1] ✔
T3	210 - 190	1	4.98	4.77	229.2	0.7854	1722.14	35342.90	0.049 [1] ✔

[1] P_u / ϕP_n controls

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
T1	245 - 230	Leg	1 1/2	1	-21273.30	52899.40	40.2	Pass
T2	230 - 210	Leg	2	51	-71732.20	111473.00	64.3	Pass
T3	210 - 190	Leg	2 1/2	115	-131774.00	190746.00	69.1	Pass
T4	190 - 180	Leg	Pirod 105245	179	-137205.00	214859.00	63.9	Pass
T5	180 - 160	Leg	Pirod 105217	188	-169476.00	214859.00	78.9	Pass
T6	160 - 140	Leg	Pirod 105218	203	-201179.00	300681.00	66.9	Pass
T7	140 - 120	Leg	Pirod 105218	218	-234440.00	300681.00	78.0	Pass
T8	120 - 110	Leg	Pirod 105219	233	-252179.00	399868.00	63.1	Pass
T9	110 - 100	Leg	Pirod 105219	242	-268402.00	399868.00	94.9	Pass
T10	100 - 80	Leg	Pirod 105219	255	-308573.00	399868.00	77.2	Pass
T11	80 - 60	Leg	Pirod 105220	270	-347521.00	512375.00	67.8	Pass
T12	60 - 40	Leg	Pirod 105220	285	-386656.00	512375.00	75.5	Pass
T13	40 - 20	Leg	Pirod 105220	300	-427848.00	512375.00	101.4	Fail ✘
T14	20 - 0	Leg	Pirod 112738	315	-445759.00	613145.00	72.7	Pass
T1	245 - 230	Diagonal	3/4	15	-3269.45	5979.01	54.7	Pass
T2	230 - 210	Diagonal	7/8	62	-5123.10	9300.39	55.1	Pass
T3	210 - 190	Diagonal	1	126	-5972.70	13651.80	43.8	Pass
T4	190 - 180	Diagonal	L2 1/2x2 1/2x3/16	185	-7071.53	13384.50	52.8	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
							73.4 (b)	
T5	180 - 160	Diagonal	L2 1/2x2 1/2x3/16	194	-6687.53	10789.60	62.0	Pass
							66.6 (b)	
T6	160 - 140	Diagonal	L2 1/2x2 1/2x3/16	209	-7175.33	8548.61	83.9	Pass
T7	140 - 120	Diagonal	L3x3x3/16	223	-8214.52	11970.70	68.6	Pass
							76.5 (b)	
T8	120 - 110	Diagonal	L3x3x5/16	238	-9669.18	17281.60	56.0	Pass
T9	110 - 100	Diagonal	L3x3x5/16	248	-11607.90	15552.60	74.6	Pass
T10	100 - 80	Diagonal	L3x3x5/16	260	-11303.90	12715.40	88.9	Pass
T11	80 - 60	Diagonal	L3 1/2x3 1/2x5/16	275	-12196.60	16963.20	71.9	Pass
T12	60 - 40	Diagonal	L3 1/2x3 1/2x5/16	290	-13177.80	14215.00	92.7	Pass
T13	40 - 20	Diagonal	L4x4x1/4	311	-14430.90	16089.30	89.7	Pass
T14	20 - 0	Diagonal	2L3 1/2x3 1/2x5/16x3/8	320	-24624.70	40668.30	60.6	Pass
T1	245 - 230	Horizontal	3/4	23	-446.03	3311.71	13.5	Pass
T2	230 - 210	Horizontal	7/8	73	-979.06	5217.40	18.8	Pass
T3	210 - 190	Horizontal	7/8	172	-1567.56	4831.46	32.4	Pass
T9	110 - 100	Secondary Horizontal	L3x3x5/16	253	-4654.66	18837.50	24.7	Pass
T1	245 - 230	Top Girt	7/8	6	-972.98	6135.36	15.9	Pass
T2	230 - 210	Top Girt	1	55	-2012.44	10626.00	18.9	Pass
T3	210 - 190	Top Girt	1	119	-2013.23	8466.93	23.8	Pass
T1	245 - 230	Bottom Girt	7/8	8	-1828.86	6135.36	29.8	Pass
T2	230 - 210	Bottom Girt	1	57	-2460.83	8418.14	29.2	Pass
T3	210 - 190	Bottom Girt	1	121	-1602.07	6893.03	23.2	Pass
							Summary	
						Leg (T13)	101.4	Pass
						Diagonal (T12)	92.7	Pass
						Horizontal (T3)	32.4	Pass
						Secondary Horizontal (T9)	24.7	Pass
						Top Girt (T3)	23.8	Pass
						Bottom Girt (T1)	29.8	Pass
						Bolt Checks	85.4	Pass
						RATING =	**101.4**	**Pass**

Sprint

PROJECT:	DO MACRO UPGRADE
SITE NAME:	U-CONN
SITE CASCADE:	CT03XC214
SITE ADDRESS:	82 NORTH EAGLEVILLE, RD. STORRS, CT 06269
SITE TYPE:	SELF SUPPORT TOWER
MARKET:	NORTHERN CONNECTICUT

SITE INFORMATION

TOWER OWNER:
UNIVERSITY OF CONNECTICUT
352 MANSFIELD ROAD, UNIT 2072
STORRS, CT 06269

LATITUDE (NAD83):
41° 48' 52.02" N
41.81444999°

LONGITUDE (NAD83):
72° 15' 35.61" W
-72.25989166°

COUNTY:
TOLLAND

ZONING JURISDICTION:
CONNECTICUT SITING COUNCIL

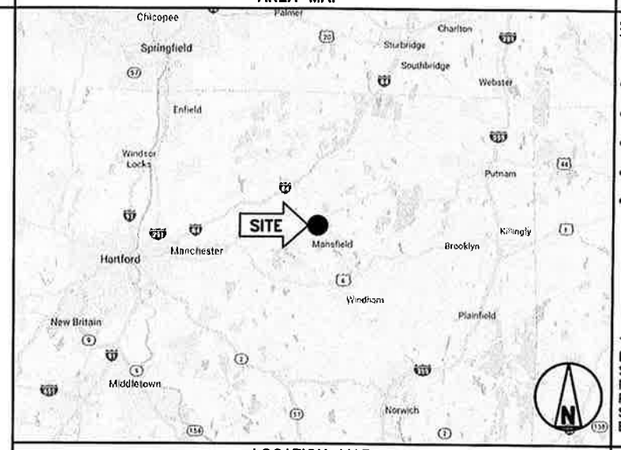
ZONING DISTRICT:
TBD

POWER COMPANY:
CONNECTICUT LIGHT AND POWER
PHONE: (800) 286-2000

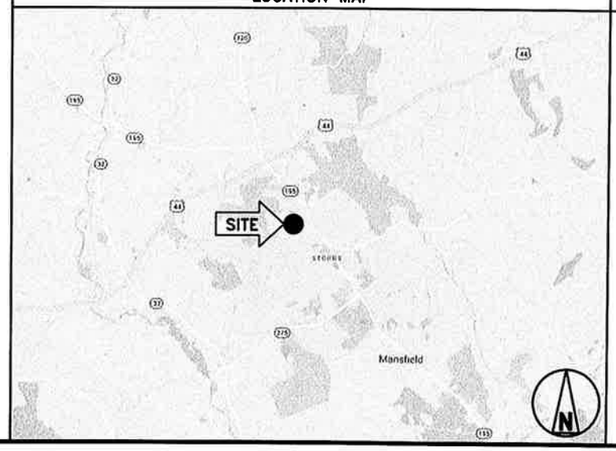
AAV PROVIDER:
SAGE TELECOM
PHONE: (866) 870-7482

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 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. CT 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.
T-1	TITLE SHEET & PROJECT DATA	0
SP-1	SPRINT SPECIFICATIONS	0
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 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) 308-3740

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

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	2/21/18	JDL	0

SITE NAME:
U-CONN

SITE NUMBER:
CT03XC214

SITE ADDRESS:
82 NORTH EAGLEVILLE, RD.
STORRS, CT 06269

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-0588, 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:

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	2/21/18	JDL	0

SITE NAME:

U-CONN

SITE NUMBER:

CT03XC214

SITE ADDRESS:

82 NORTH EAGLEVILLE, RD.
STORRS, CT 06269

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)

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

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	2/21/18	JDL	0

SITE NAME:

U-CONN

SITE NUMBER:

CT03XC214

SITE ADDRESS:

82 NORTH EAGLEVILLE, RD.
STORRS, CT 06269

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.

PLANS PREPARED FOR:

Sprint

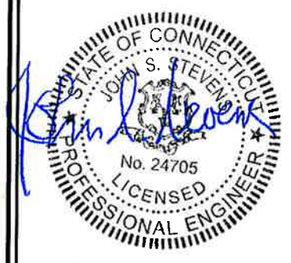
PLANS PREPARED BY:

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:



DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	2/21/18	JDL	0

SITE NAME:

U-CONN

SITE NUMBER:

CT03XC214

SITE ADDRESS:

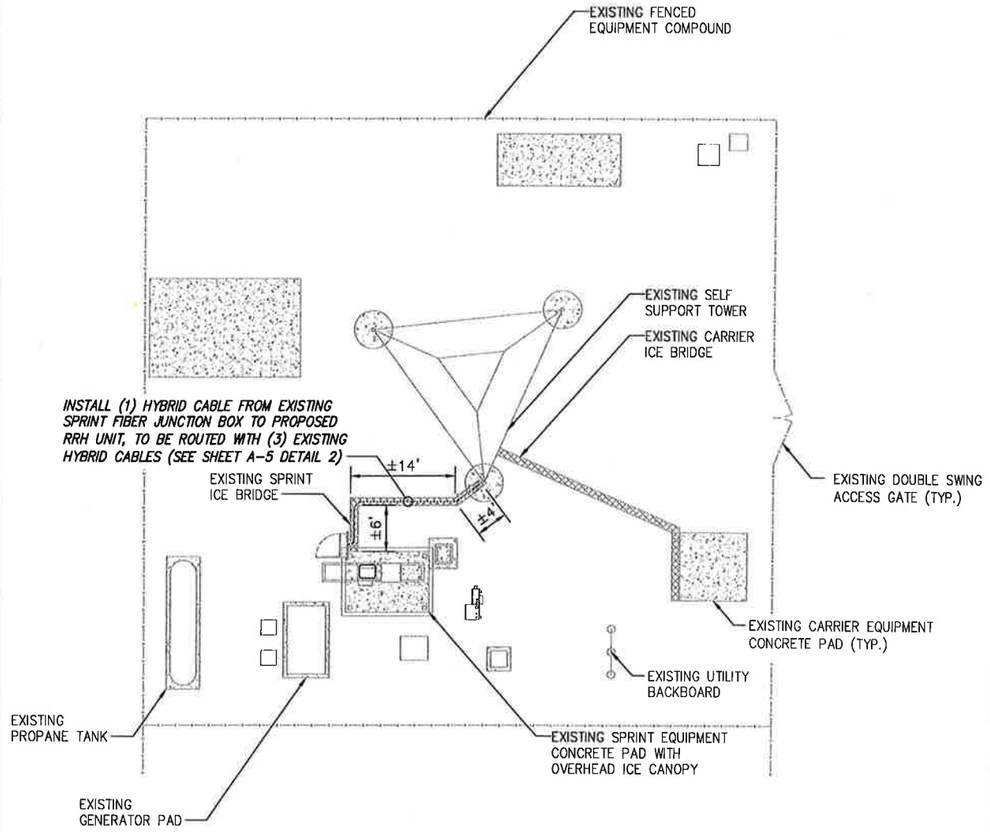
82 NORTH EAGLEVILLE, RD.
STORRS, CT 06269

SHEET DESCRIPTION:

SPRINT SPECIFICATIONS

SHEET NUMBER:

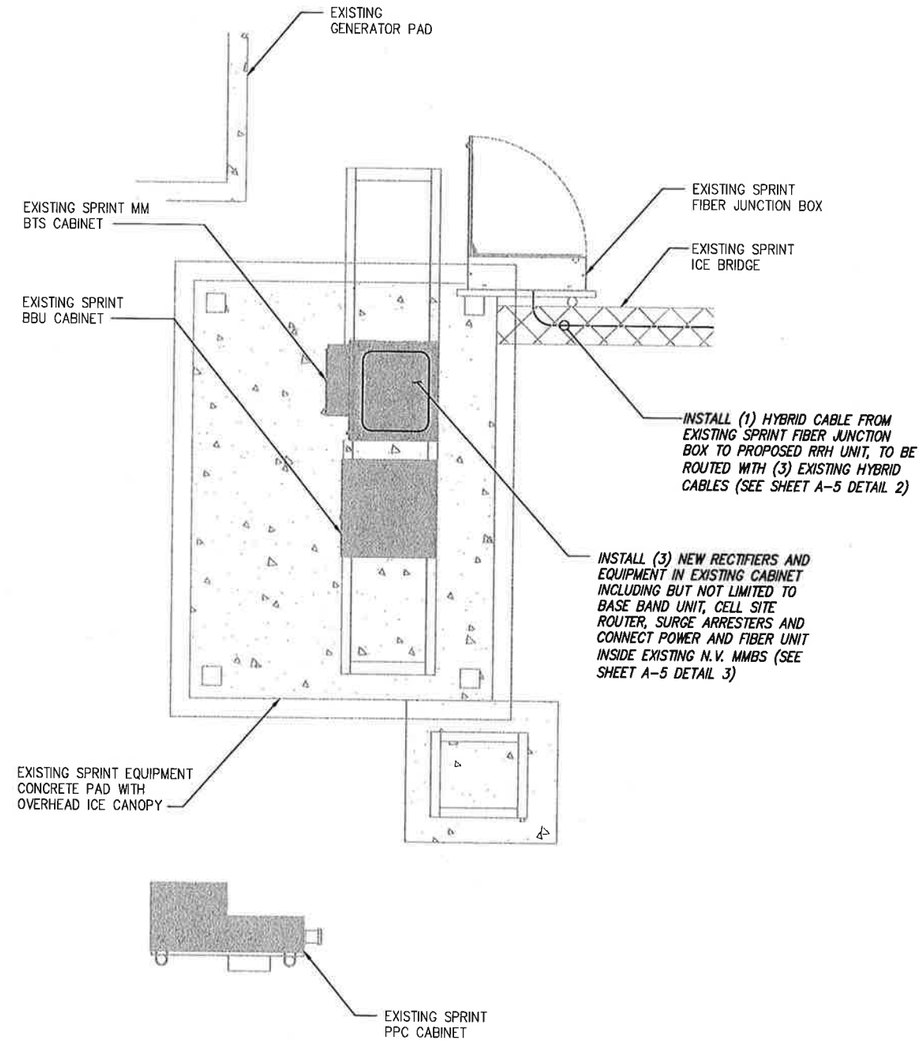
SP-3



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

GRAPHIC SCALE:
20' 10' 0 10' 20'
SCALE (11x17): 1" = 20'-0"
SCALE (22x34): 1" = 10'-0"

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

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

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	2/21/18	JDL	0

SITE NAME:
U-CONN

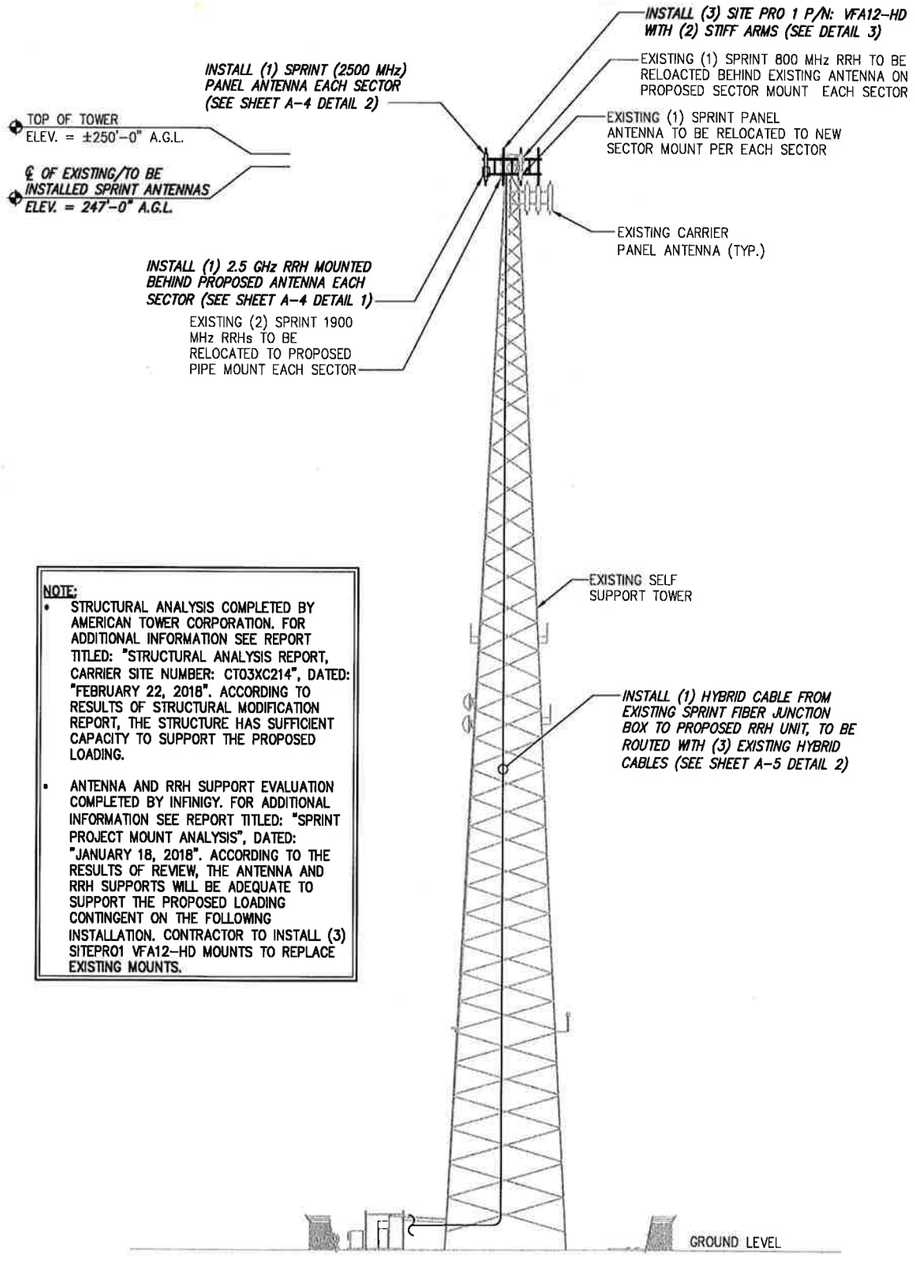
SITE NUMBER:
CT03XC214

SITE ADDRESS:
82 NORTH EAGLEVILLE, RD.
STORRS, CT 06269

SHEET DESCRIPTION:
SITE PLAN

SHEET NUMBER:
A-1

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, CARRIER SITE NUMBER: CT03XC214", DATED: "FEBRUARY 22, 2018". 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: "JANUARY 18, 2018". ACCORDING TO THE RESULTS OF REVIEW, THE ANTENNA AND RRH SUPPORTS WILL BE ADEQUATE TO SUPPORT THE PROPOSED LOADING CONTINGENT ON THE FOLLOWING INSTALLATION. CONTRACTOR TO INSTALL (3) SITEPRO1 VFA12-HD MOUNTS TO REPLACE EXISTING MOUNTS.

TOWER ELEVATION | NO SCALE | 1

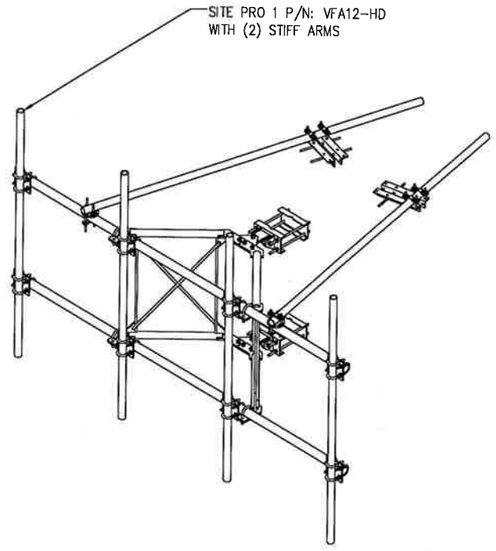
SITE LOADING CHART

SECTOR	EXISTING/ PROPOSED	ANTENNA MODEL #	VENDOR	AZIMUTH	QTY.	REMAIN/ REMOVED	RRH (QTY/MODEL)	CABLE	CABLE LENGTH	RAD CENTER
ALPHA	PROPOSED	APXVTM14-ALU-I20	RFS	340°	1	-	(1) 800 MHZ 2X50W RRH W/ FILTER (1) TD-RRH8X20-25 W/ SOLAR SHIELD (2) 1900 MHz 4X45 RRH	SEE SHEET A-5 DETAIL 1	±293'*	±247' AGL
	EXISTING	APXVSPP18-C-A20	RFS	340°	1	REMAIN		EXISTING HYBRID		
BETA	PROPOSED	APXVTM14-ALU-I20	RFS	120°	1	-	(1) 800 MHZ 2X50W RRH W/ FILTER (1) TD-RRH8X20-25 W/ SOLAR SHIELD (2) 1900 MHz 4X45 RRH	SEE SHEET A-5 DETAIL 1		±247' AGL
	EXISTING	APXVSPP18-C-A20	RFS	120°	1	REMAIN		EXISTING HYBRID		
GAMMA	PROPOSED	APXVTM14-ALU-I20	RFS	260°	1	-	(1) 800 MHZ 2X50W RRH W/ FILTER (1) TD-RRH8X20-25 W/ SOLAR SHIELD (2) 1900 MHz 4X45 RRH	SEE SHEET A-5 DETAIL 1		±247' AGL
	EXISTING	APXVSPP18-C-A20	RFS	260°	1	REMAIN		EXISTING HYBRID		

PROJECT SCOPE:
INSTALL: (3) PANEL ANTENNAS AND (3) 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



V-FRAME ASSEMBLY WITH STIFF ARM DETAIL | NO SCALE | 3

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. 24765
LICENSED PROFESSIONAL ENGINEER

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	2/21/18	JDL	0

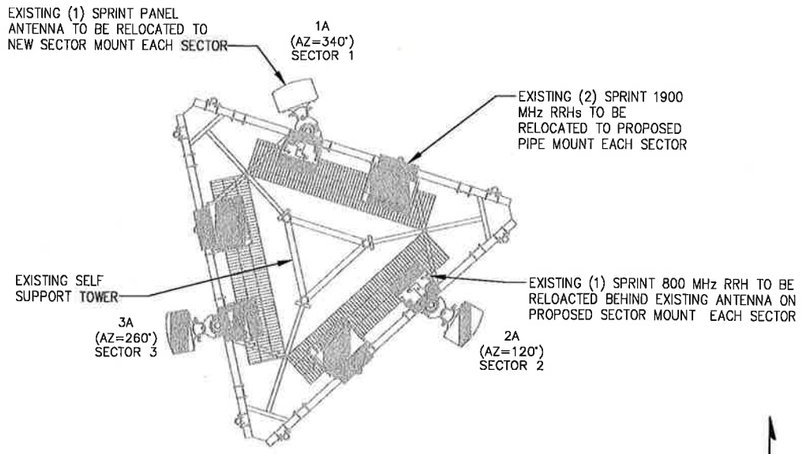
SITE NAME:
U-CONN

SITE NUMBER:
CT03XC214

SITE ADDRESS:
82 NORTH EAGLEVILLE, RD.
STORRS, CT 06269

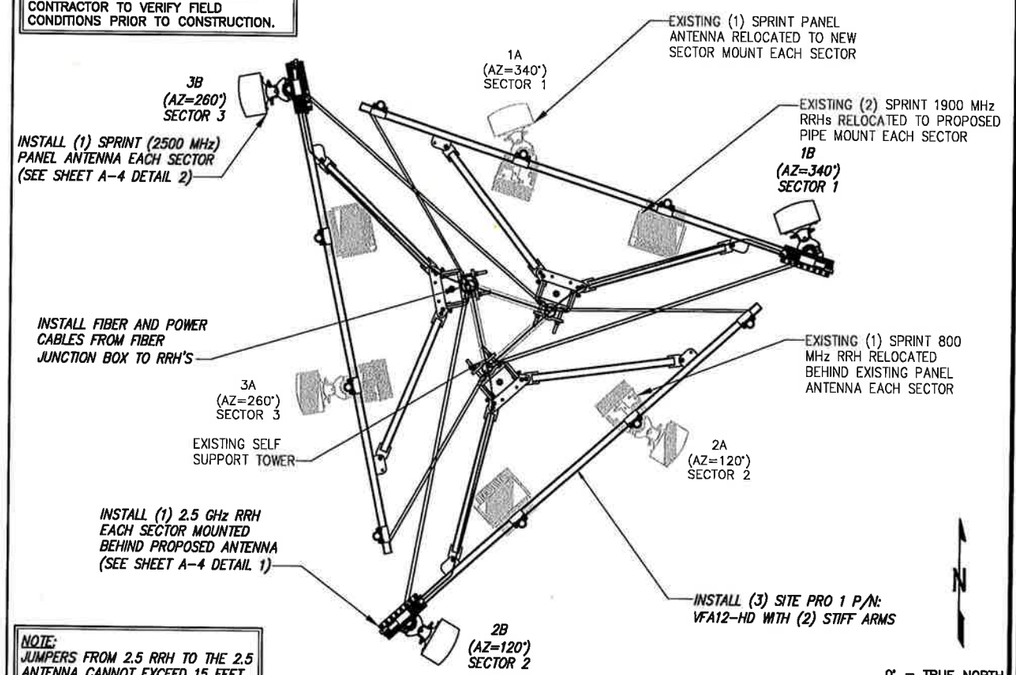
SHEET DESCRIPTION:
TOWER ELEVATION

SHEET NUMBER:
A-2



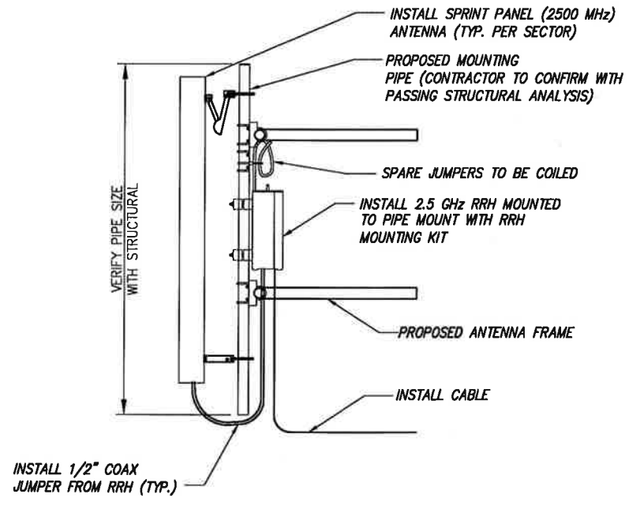
EXISTING ANTENNA LAYOUT | NO SCALE | 1

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

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

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR PERMIT	2/21/18	JDL	0

SITE NAME:
U-CONN

SITE NUMBER:
CT03XC214

SITE ADDRESS:
82 NORTH EAGLEVILLE, RD.
STORRS, CT 06269

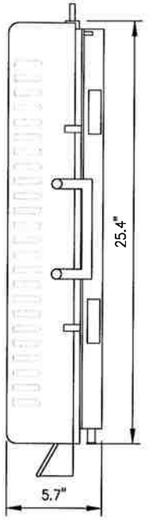
SHEET DESCRIPTION:
ANTENNA LAYOUT & MOUNTING DETAILS

SHEET NUMBER:
A-3

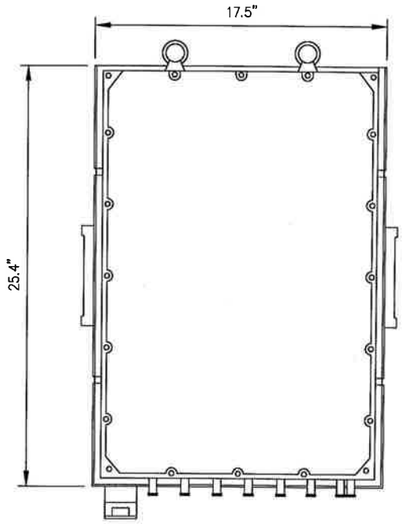
RRH: ALCATEL LUCENT TD-RRH8X20

COLOR: LIGHT GREY

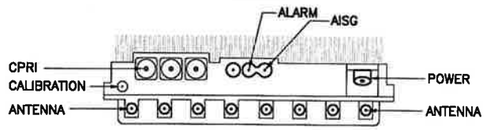
WEIGHT: 70 LBS.



SIDE VIEW



FRONT VIEW



PLAN VIEW

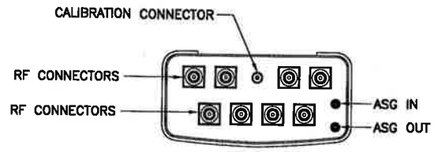
NOTES

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.

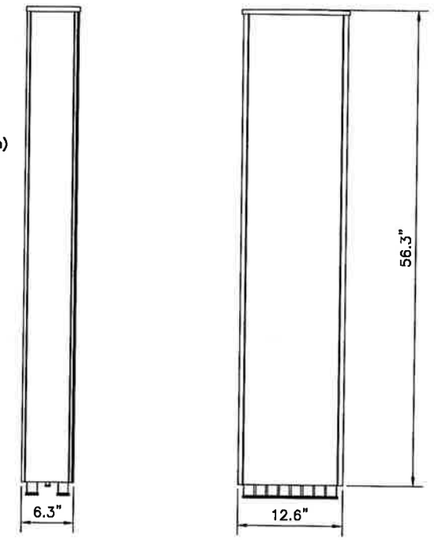
2.5 GHz RRH | NO SCALE | 1

ANTENNA RFS APXVTM14-ALU-I20

RADOME MATERIAL:	ASA
RADOME COLOR:	LIGHT GRAY
DIMENSIONS, HxWxD.in(mim):	56.3"x12.6"x6.3" (1430x320x160mm)
WEIGHT:	56.2 lbs
CONNECTORS:	(8) 4.1/9.5 DIN FEMALE (1) NF – CALIBRATION CONNECTOR



PLAN VIEW



2.5 GHz ANTENNA | NO SCALE | 2

DETAIL NOT USED | NO SCALE | 3

DETAIL NOT USED | NO SCALE | 4

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:

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	2/21/18	JDL	0

SITE NAME:

U-CONN

SITE NUMBER:

CT03XC214

SITE ADDRESS:

82 NORTH EAGLEVILLE, RD.
STORRS, CT 06269

SHEET DESCRIPTION:

EQUIPMENT & MOUNTING DETAILS

SHEET NUMBER:

A-4

RFS HYBRIFLEX RISER CABLE SCHEDULE

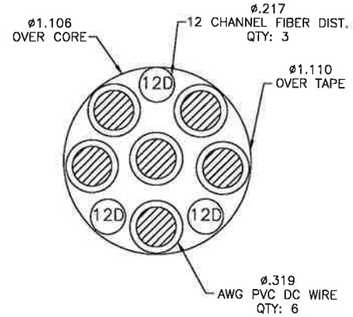
Fiber Only (Existing DC Power)	**Hybrid cable** MN: HB058-M12-050F 12x multi-mode fiber pairs, Top: Outdoor protected connectors, Bottom: LC Connectors, 5/8 cable, 50 ft	50 ft
	MN: HB058-M12-075F	75 ft
	MN: HB058-M12-100F	100 ft
	MN: HB058-M12-125F	125 ft
	MN: HB058-M12-150F	150 ft
	MN: HB058-M12-175F	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
	MN: HB114-08U3M12-200F	200 ft
6 AWG Power	**Hybrid cable** MN: HB114-13U3ML2-225F 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 (1)*
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

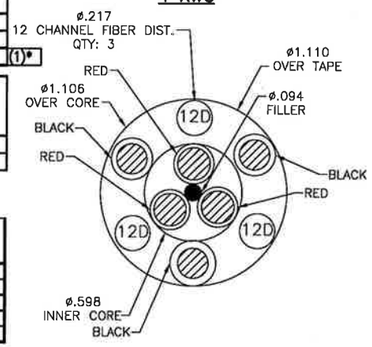
Fiber Only	**Hybrid Jumper cable** MN: HBF012-M3-5F1 5 ft, 3x multi-mode fiber pairs, Outdoor & LC connectors, 1/2 cable	5 ft
	MN: HBF012-M3-10F1	10 ft
	MN: HBF012-M3-15F1	15 ft
	MN: HBF012-M3-20F1	20 ft
	MN: HBF012-M3-25F1	25 ft
	MN: HBF012-M3-30F1	30 ft
8 AWG Power	**Hybrid Jumper cable** MN: HBF058-08U1M3-5F1 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.

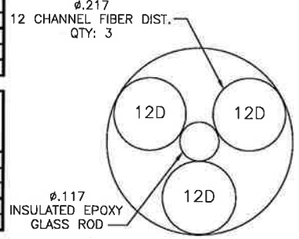
* PROPOSED CABLE LENGTH WAS DETERMINED USING THE SUM OF THE RAD CENTER OF ANTENNAS, AND DISTANCE FROM EXISTING EQUIPMENT AREA TO TOWER BASE WITH AN ADDITIONAL 20' BUFFER. LENGTH TO BE VERIFIED IN FIELD PRIOR TO ORDERING MATERIALS.



4 AWG



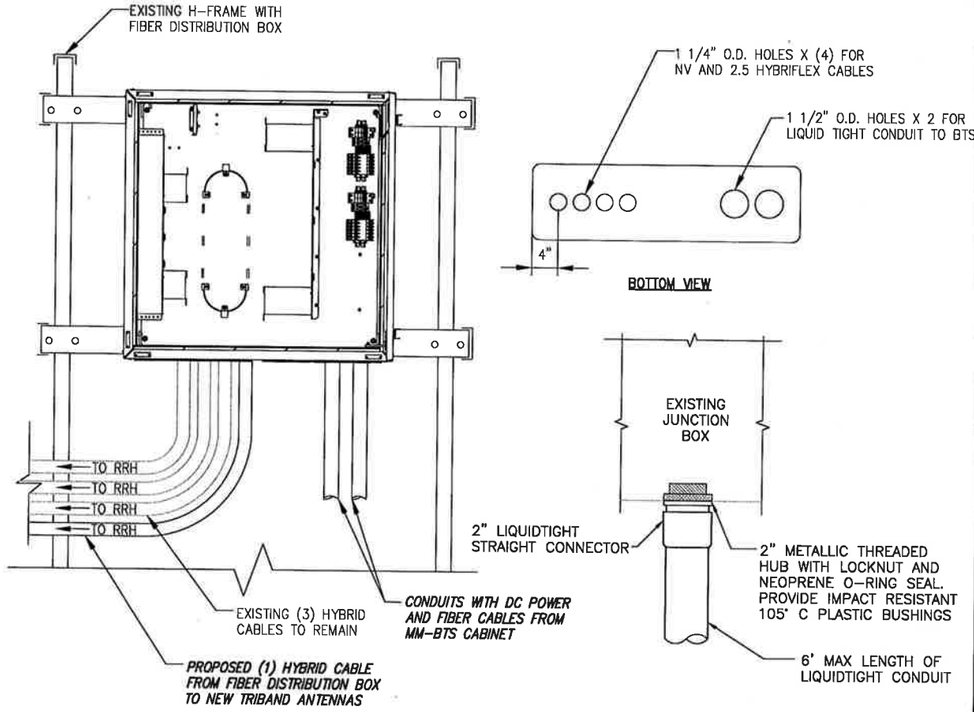
8 & 6 AWG



FIBER ONLY

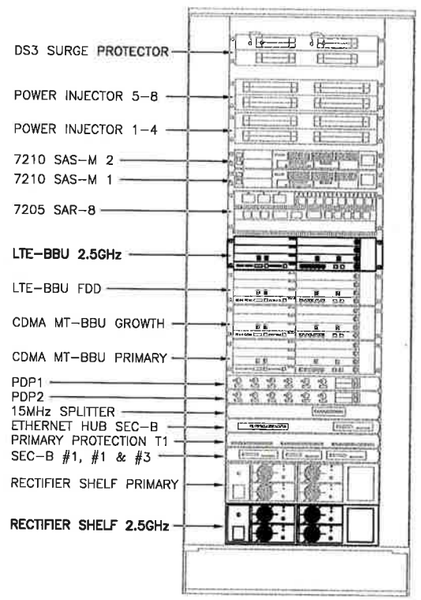
800/1900/2500 CROSS SECTION DATA

NO SCALE | 1



FIBER JUNCTION BOX & PENETRATION

NO SCALE | 2



FRONT VIEW

NEW EQUIPMENT IN EXISTING CABINET

NO SCALE | 3

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
No. 24705
LICENSED PROFESSIONAL ENGINEER

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	2/21/18	JDL	0

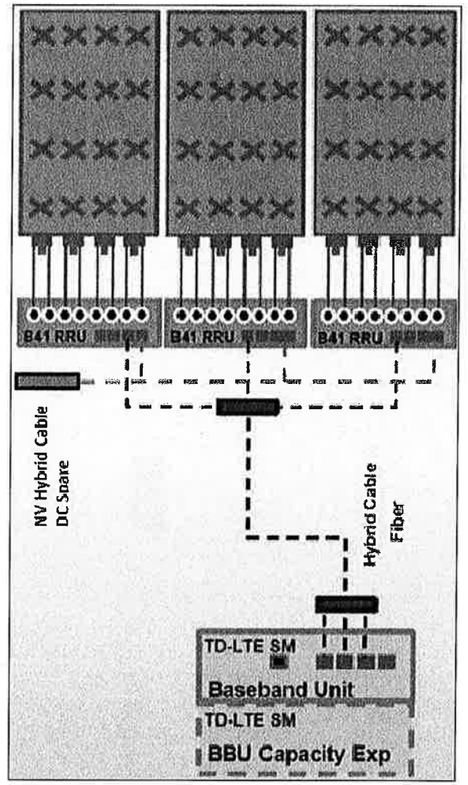
SITE NAME:
U-CONN

SITE NUMBER:
CT03XC214

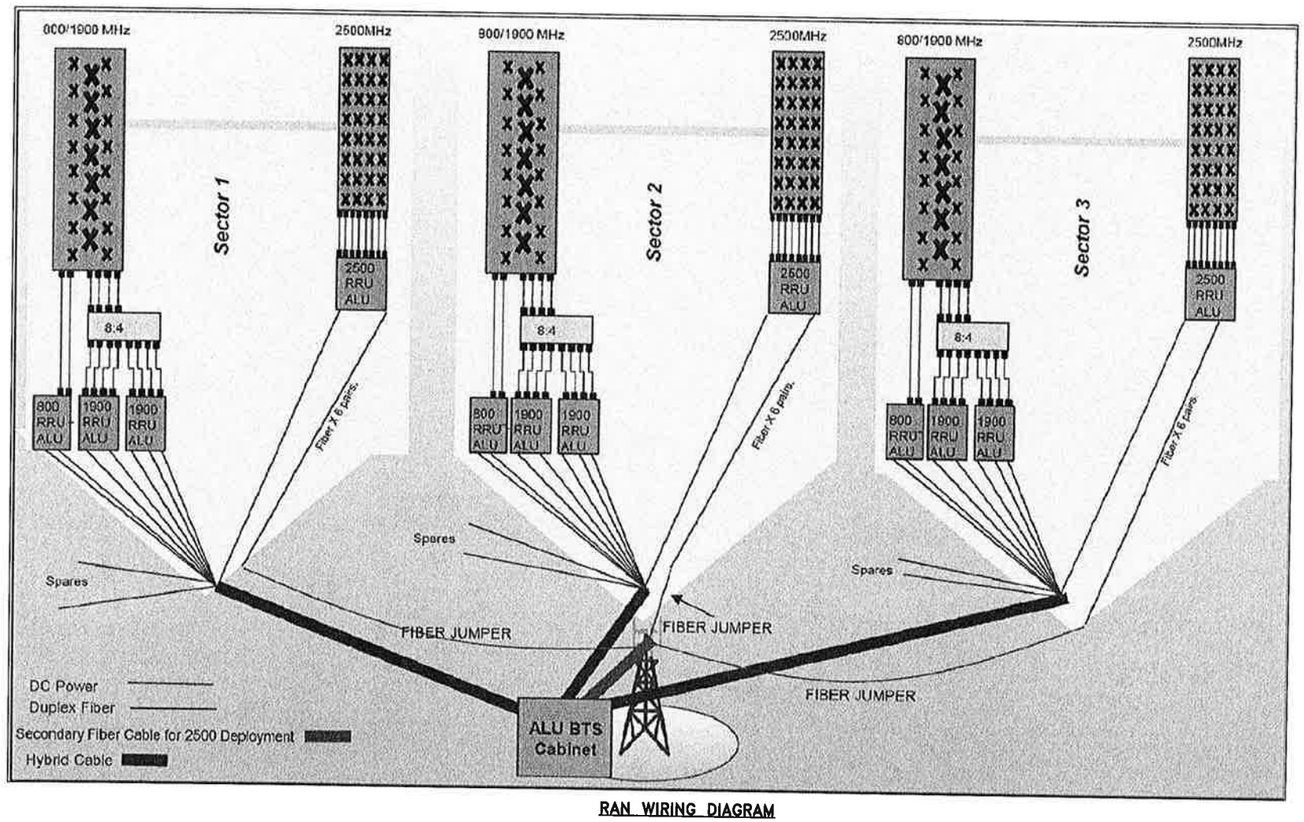
SITE ADDRESS:
82 NORTH EAGLEVILLE, RD.
STORRS, CT 06269

SHEET DESCRIPTION:
CIVIL DETAILS

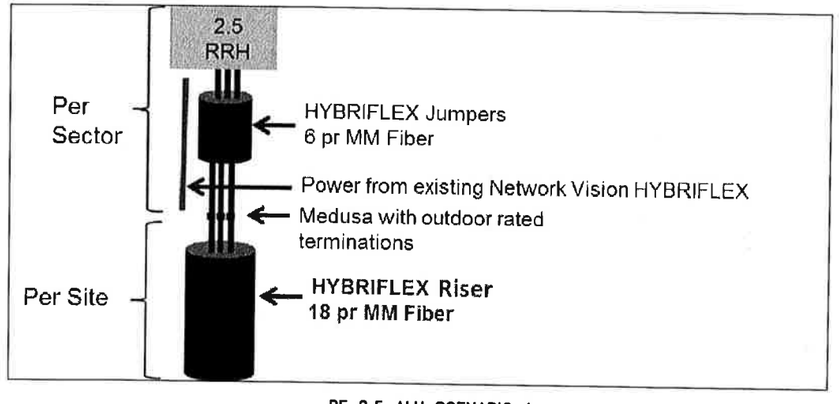
SHEET NUMBER:
A-5



ALU 2.5 ALU SCENARIO 1



RAN WIRING DIAGRAM



RF 2.5 ALU SCENARIO 1

PLUMBING DIAGRAM

NO SCALE

1

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

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	2/21/18	JDL	0

SITE NAME:

U-CONN

SITE NUMBER:

CT03XC214

SITE ADDRESS:

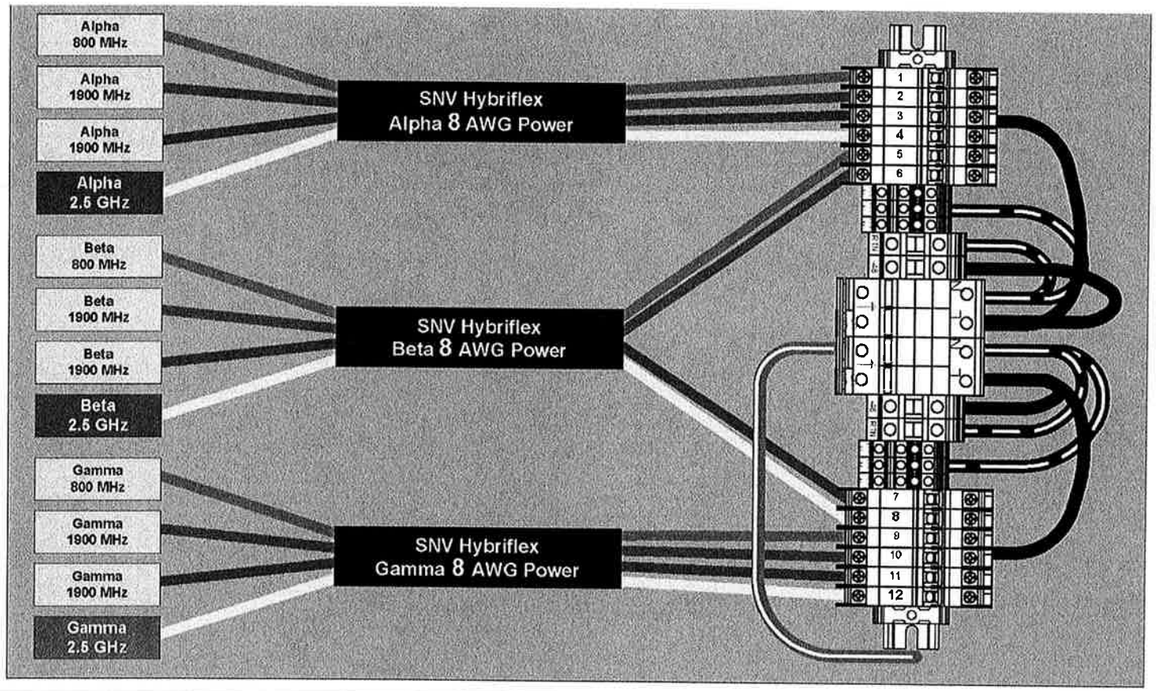
82 NORTH EAGLEVILLE, RD.
STORRS, CT 06269

SHEET DESCRIPTION:

PLUMBING DIAGRAM

SHEET NUMBER:

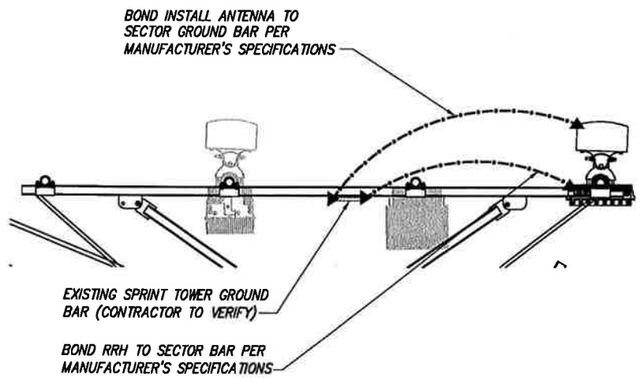
A-6



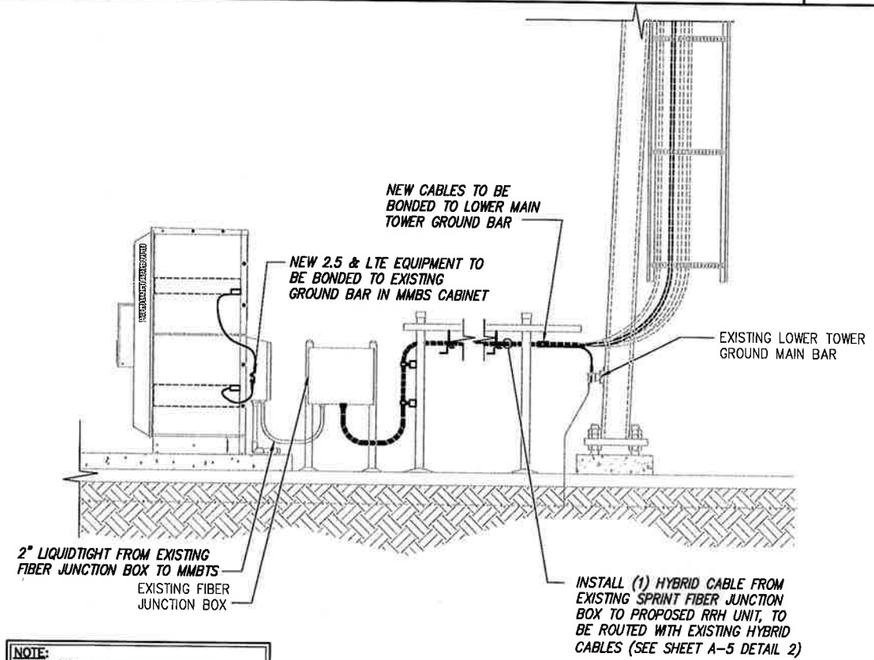
RRH TO DISTRIBUTION BOX POWER CONNECTIVITY | NO SCALE | 1

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

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

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	2/21/18	JDL	0

SITE NAME:
U-CONN

SITE NUMBER:
CT03XC214

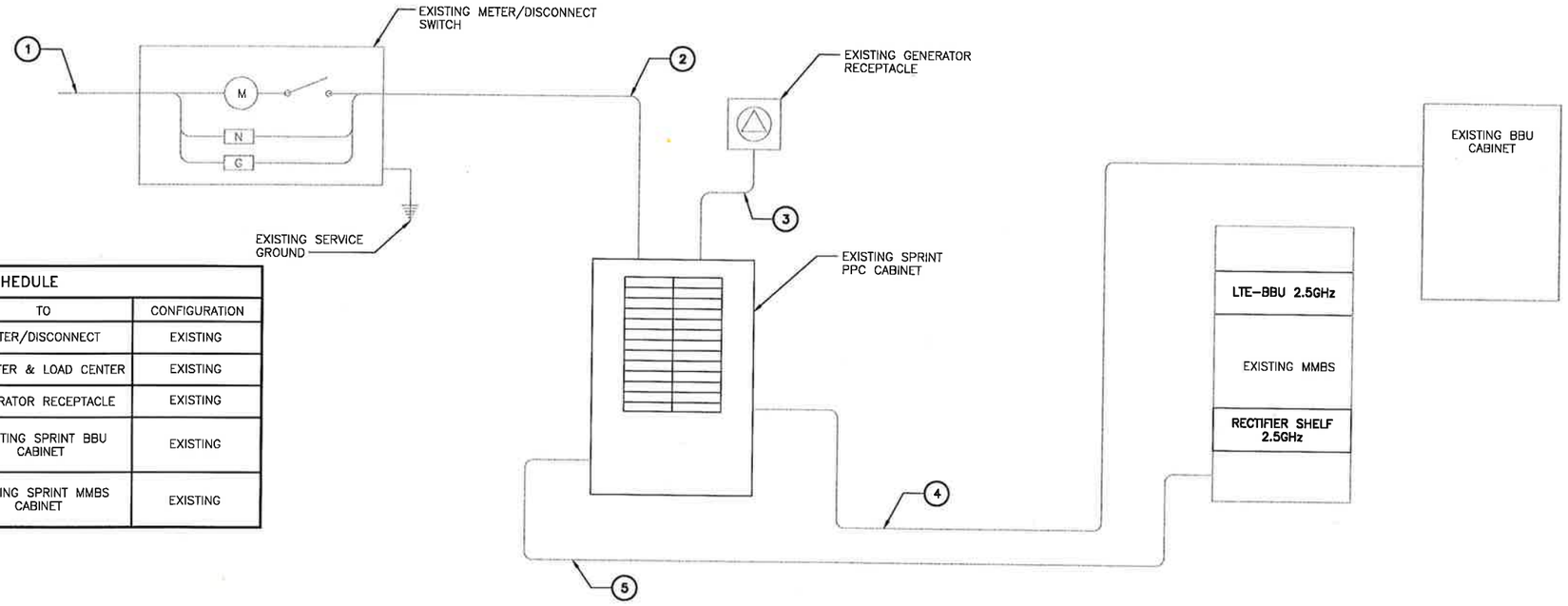
SITE ADDRESS:
82 NORTH EAGLEVILLE, RD.
STORRS, CT 06269

SHEET DESCRIPTION:
ELECTRICAL & GROUNDING PLAN

SHEET NUMBER:
E-1

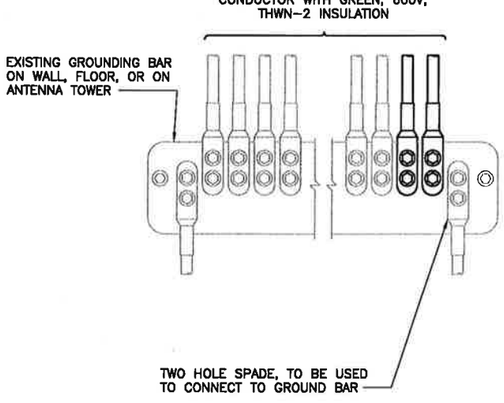
NOTES

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

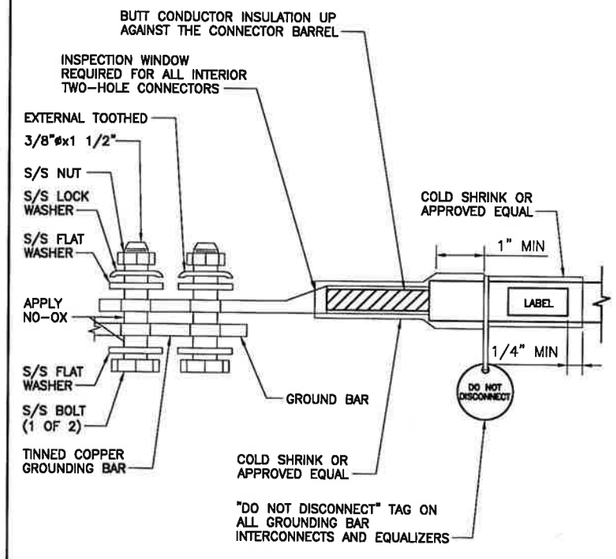
ELECTRICAL ONE–LINE DIAGRAM — NO SCALE — 1



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.

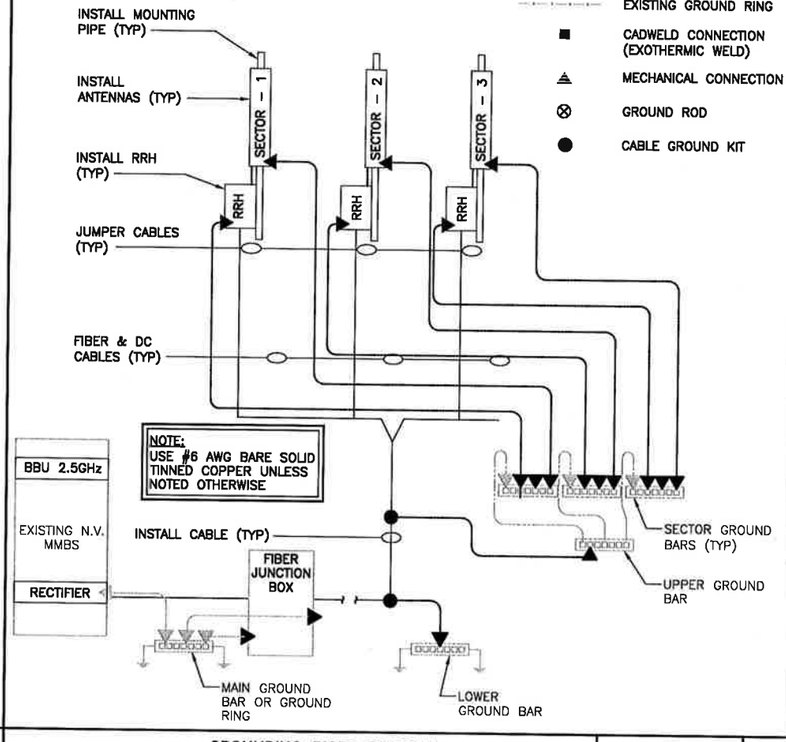
INSTALLATION OF GROUNDING CONDUCTOR TO GROUNDING BAR — NO SCALE — 2



TWO HOLE LUG — NO SCALE — 3

LEGEND:

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



GROUNDING RISER DIAGRAM — NO SCALE — 4

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
PROFESSIONAL ENGINEER
LICENSED
No. 27705

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
ISSUED FOR PERMIT	2/21/18	JDL	0

SITE NAME:

U-CONN

SITE NUMBER:

CT03XC214

SITE ADDRESS:

82 NORTH EAGLEVILLE, RD.
STORRS, CT 06269

SHEET DESCRIPTION:

ELECTRICAL & GROUNDING DETAILS

SHEET NUMBER:

E-2