



Together with Nextel

10 Industrial Ave, Suite 3  
Mahwah, NJ 07430  
Phone: (845)499-4712  
Jennifer Notaro  
Real Estate Consultant

8/22/14

**Hand Delivered**

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

CC Property Owner:  
American Tower Corp.  
10 Presidential Way  
Woburn MA, 01801

RE: Sprint Spectrum L.P. notice of intent to modify an existing telecommunications facility located at 16 Titicus Mountain Rd, New Fairfield, CT. Known to Sprint Spectrum L.P. as site CT72XC032.

Dear Ms. Bachman:

In order to accommodate technological changes, implement Code Division Multiple Access (“CDMA”) and/or Long Term Evolution (“LTE”) capabilities, and enhance system performance in the state of Connecticut, Sprint Spectrum L.P. plans to modify the equipment configurations at many of its existing cell sites. Please accept this letter and attachments as notification, pursuant to R.C.S.A. Section 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2). In compliance with R.C.S.A. Section 16-50j-73, a copy of this letter and its attachments is being sent to the chief elected official of the municipality in which affected cell site is located.

CDMA employs Spread-Spectrum technology and special coding scheme to allow multiple users to be multiplexed over the same physical channel.

LTE is a new high-performance air interface for cellular mobile communications. It is designed to increase the capacity and speed of mobile telephone networks.

Attached is a summary of the planned modifications, including power density calculations reflecting the change in Sprint's operations at the site. Also included is documentation of the structural sufficiency of the tower to accommodate the revised antenna configuration.

The changes to the facility do not constitute modification as defined Connecticut General Statutes ("C.G.S.") Section 16-50i(d) because the general physical characteristics of the facility will not be significantly changed or altered. Rather, the planned changes to the facility fall squarely within those activities explicitly provided for the R.C.S.A. Section 16-50j-72(b)(2).

1. The height of the overall structure will not be affected.
2. The proposed changes will not extend the site boundaries. There will be no effect on the site compound.
3. The proposed changes will not increase the noise level at the existing facility by 6 decibels or more.
4. Radio Frequency power density may increase due to the use of one or more CDMA transmissions. Moreover, LTE will utilize additional radio frequencies newly licensed by the FCC for cellular mobile communications. However, the changes will not increase the calculated "worst case" power density for the combined operations at the site to a level at or above the applicable standard for uncontrolled environments as calculated for a mixed frequency site.

For the foregoing reasons Sprint Spectrum L.P. respectfully submits that the proposed changes at the referenced site constitute exempt modifications under R.C.S.A. Section 16-50j-72(b)(2).

Please feel free to call me at (845)-499-4712 or email [JNotaro@Transcendwireless.com](mailto:JNotaro@Transcendwireless.com) with questions concerning this matter.  
Thank you for your consideration.

Sincerely,

Jennifer Notaro  
Real Estate Consultant

RADIO FREQUENCY FCC REGULATORY COMPLIANCE  
MAXIMUM PERMISSIBLE EXPOSURE (MPE) ASSESSMENT

Sprint Existing Facility

Site ID: CT72XC032

New Fairfield

16 Titicus Mountain Road  
New Fairfield, CT 06812

**August 22, 2014**

**EBI Project Number: 62144354**

August 22, 2014

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

Re: Radio Frequency Maximum Permissible Exposure (MPE) Assessment for Site:  
**CT72XC032 - New Fairfield**

**Site Total: 54.45% - MPE% in full compliance**

EBI Consulting was directed to analyze the proposed upgrades to the existing Sprint facility located at 16 Titicus Mountain Road, New Fairfield, CT, for the purpose of determining whether the radio frequency (RF) exposure levels from the proposed Sprint equipment upgrades 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 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ( $\mu\text{W}/\text{cm}^2$ ). The number of  $\mu\text{W}/\text{cm}^2$  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 public 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 public 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.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ( $\mu\text{W}/\text{cm}^2$ ). The general population exposure limit for the cellular band (850 MHz Band) is approximately  $567 \mu\text{W}/\text{cm}^2$ , and the general population exposure limit for the 1900 MHz and 2500 MHz bands is  $1000 \mu\text{W}/\text{cm}^2$ . 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 upgrades to the existing Sprint Wireless antenna facility located at 16 Titicus Mountain Road, New Fairfield, CT, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. 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 emissions were calculated using the following assumptions:

- 1) 3 channels in the 1900 MHz Band were considered for each sector of the proposed installation.
- 2) 1 channel in the 800 MHz Band was considered for each sector of the proposed installation
- 3) 2 channels in the 2500 MHz Band were considered for each sector of the proposed installation.
- 4) 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.
- 5) For the following calculations the sample point was the top of a six 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.

- 6) The antennas used in this modeling are the RFS APXVSPP18-C-A20 and the RFS APXVTM14-C-I20. This is based on feedback from the carrier with regards to anticipated antenna selection. The RFS APXVSPP18-C-A20 has a 15.9 dBd gain value at its main lobe at 1900 MHz and 13.4 dBd at its main lobe for 850 MHz. The RFS APXVTM14-C-I20 has a 15.9 dBd gain value at its main lobe at 2500 MHz. 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.
- 7) The antenna mounting height centerline for the proposed antennas is **167 feet** above ground level (AGL).
- 8) 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 calculation were done with respect to uncontrolled / general public threshold limits

Site ID	CT72XC032 - New Fairfield
Site Address	16 Titicus Mountain Road, New Fairfield, CT, 06812
Site Type	Self Support Tower

**Sector 1**

Antenna Number	Antenna Make	Antenna Model	Radio Type	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain (10 db reduction)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss (dB)	ERP	Power Density Percentage
1a	RFS	APXVSP18-C-A20	RRH	1900 MHz	CDMA / LTE	20	3	60	5.9	167	161	1/2 "	0.5	0	208.04	0.29%
1a	RFS	APXVSP18-C-A20	RRH	850 MHz	CDMA / LTE	20	1	20	3.4	167	161	1/2 "	0.5	0	39.00	0.10%
1B	RFS	APXVTMM14-C-120	RRH	2500 MHz	CDMA / LTE	20	2	40	5.9	167	161	1/2 "	0.5	0	138.69	0.34%
Sector total Power Density Value:																0.72%

**Sector 2**

Antenna Number	Antenna Make	Antenna Model	Radio Type	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain (10 db reduction)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss (dB)	ERP	Power Density Percentage
2a	RFS	APXVSP18-C-A20	RRH	1900 MHz	CDMA / LTE	20	3	60	5.9	167	161	1/2 "	0.5	0	208.04	0.29%
2a	RFS	APXVSP18-C-A20	RRH	850 MHz	CDMA / LTE	20	1	20	3.4	167	161	1/2 "	0.5	0	39.00	0.10%
2B	RFS	APXVTMM14-C-120	RRH	2500 MHz	CDMA / LTE	20	2	40	5.9	167	161	1/2 "	0.5	0	138.69	0.34%
Sector total Power Density Value:																0.72%

**Sector 3**

Antenna Number	Antenna Make	Antenna Model	Radio Type	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain (10 db reduction)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss (dB)	ERP	Power Density Percentage
3a	RFS	APXVSP18-C-A20	RRH	1900 MHz	CDMA / LTE	20	3	60	5.9	167	161	1/2 "	0.5	0	208.04	0.29%
3a	RFS	APXVSP18-C-A20	RRH	850 MHz	CDMA / LTE	20	1	20	3.4	167	161	1/2 "	0.5	0	39.00	0.10%
3B	RFS	APXVTMM14-C-120	RRH	2500 MHz	CDMA / LTE	20	2	40	5.9	167	161	1/2 "	0.5	0	138.69	0.34%
Sector total Power Density Value:																0.72%

Site Composite MPE %	
Carrier	MPE %
Sprint	2.17%
Nextel	0.85%
Clearwire	0.54%
MediaFLO	13.00%
T-Mobile	0.09%
Verizon Wireless	17.66%
AT&T	7.84%
Dept of Homeland Sec	12.30%
<b>Total Site MPE %</b>	<b>54.45%</b>

## Summary

All calculations performed for this analysis yielded results that were well within the allowable limits for general public Maximum Permissible Exposure (MPE) to radio frequency energy.

The anticipated Maximum Composite contributions from the Sprint facility are **2.17% (0.72% from sector 1, 0.72% from sector 2 and 0.72% from sector 3)** of the allowable FCC established general public limit considering all three sectors simultaneously sampled at the ground level.

The anticipated composite MPE value for this site assuming all carriers present is **54.45%** of the allowable FCC established general public limit sampled at 6 feet above ground level. This total composite site value is based upon MPE 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.



**Scott Heffernan**  
RF Engineering Director

**EBI Consulting**  
21 B Street  
Burlington, MA 01803





**AMERICAN TOWER®**  
CORPORATION

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## Structural Analysis Report

**Structure** : 187.5 ft Self Supported Tower  
**ATC Site Name** : New Fairfield, CT  
**ATC Site Number** : 88014  
**Engineering Number** : 58996721  
**Proposed Carrier** : Sprint Nextel  
**Carrier Site Name** : New Fairfield  
**Carrier Site Number** : CT72XC032  
**Site Location** : 22 Titicus Mtn Road  
New Fairfield, CT 06812-2565  
41.450664,-73.515989  
**County** : Fairfield  
**Date** : August 5, 2014  
**Max Usage** : 97%  
**Result** : Pass

Christopher Clark Poe, E.I.  
Structural Engineer I



Aug 5 2014 3:38 PM



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## Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 187.5 ft self supported tower to reflect the change in loading by Sprint Nextel.

## Supporting Documents

<b>Tower Drawings</b>	Mapping by CSEI, ATC Eng. #26464321, dated August 21, 2006.
<b>Foundation Drawing</b>	Mapping By Geotel Report #E08-291-F, dated May 19, 2008
<b>Geotechnical Report</b>	Geotel Report #E08-291-G, dated May 19, 2008

## Analysis

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

<b>Basic Wind Speed:</b>	95 mph (3-Second Gust)
<b>Basic Wind Speed w/ Ice:</b>	50 mph (3-Second Gust) w/ 3/4" radial ice concurrent
<b>Code:</b>	ANSI/TIA-222-G / 2003 IBC w/ 2005 CT Supplement & 2009 CT Amendment
<b>Structure Class:</b>	II
<b>Exposure Category:</b>	B
<b>Topographic Category:</b>	1

## Conclusion

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

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



**Existing and Reserved Equipment**

Elevation <sup>1</sup> (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
187.5	193.0	3	Ericsson AIR 21, 1.3M, B2A B4P	Platform w/ Handrails	(12) 1 5/8" Coax (1) 1 5/8" Fiber	T-Mobile
		3	Ericsson AIR 21, 1.3M, B4A B2P			
		3	Ericsson KRY 112 144/1			
185.0	185.0	1	DragonWave A-ANT-23G-2.5-C	Side Arms	(6) 5/16" Coax (2) 1/2" Coax (1) 2" Conduit	Clearwire
		3	Argus LLPX310R			
		2	DragonWave Horizon Compact			
		1	DragonWave A-ANT-11G-4-C			
		3	NextNet BTS-2500			
170.3	170.3	-	-	Catwalk	-	-
160.0	160.0	6	Ericsson RRUS 11 (Band 12)	Sector Frames	(2) 0.74" 8 AWG 7 (12) 1 5/8" Coax (1) 3" Conduit (1) 0.28" RG6	AT&T Mobility
		3	Powerwave P65-16-XLH-RR			
		6	Powerwave 7770.00			
		1	Raycap DC6-48-60-18-8F			
		6	Powerwave LGP21401			
142.0	146.0	3	Antel BXA-171085-8BF-EDIN-X	Sector Frames	(12) 1 5/8" Coax	Verizon
		2	Antel LPA-80080/4CF			
		3	Antel BXA-70063/6CF			
		6	RFS FD9R6004/2C-3L			
		4	Antel LPA-80063/4CF			
137.5	137.5	-	-	Rest Platform	-	-
106.0	121.0	1	Dielectric TLP-16A-1E	Side Arm	(1) 3 1/8" HL	Qualcomm
100.0	100.0	-	-	Platform	-	-
87.5	87.5	-	-	Rest Platform	-	-
70.0	80.0	1	Andrew DB616E-BC	Side Arm	(1) 7/8" Coax	Immigrations & Customs Enforcement
50.0	50.0	-	-	Rest Platform	-	-

**Equipment to be Removed**

Elevation <sup>1</sup> (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
182.0	182.0	3	Alcatel-Lucent 4x40W RRH	Leg	(12) 1 5/8" Coax (3) 1 1/4" Hybriflex	Sprint Nextel
		3	Alcatel-Lucent 2X50W RRH w/o Filter			
		3	RFS APXVSP18-C-A20	Low Profile Platform		
		3	EMS RR90-17-04DPL2			
		6	Decibel DB844H90E-XY			



**Proposed Equipment**

Elevation <sup>1</sup> (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
164.0	167.0	3	RFS APXV9TM14-ALU-I20	Sector Frames	(3) 1 1/4" Hybriflex (1) 1 1/4" Fiber	Sprint Nextel
		3	Alcatel TD-RRH8x20-25 w/ SS			
		3	RFS APXVSP18-C-A20			
		3	Alcatel-Lucent 2X50W RRH w/o Filter			
		3	Alcatel-Lucent 4x40W RRH			

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

Install proposed coax in the place of the existing Sprint Nextel coax.

**Structure Usages**

Structural Component	Controlling Usage	Pass/Fail
Legs	57%	Pass
Diagonals	97%	Pass
Horizontals	47%	Pass
Anchor Bolts	30%	Pass

**Foundations**

Reaction Component	Analysis Reactions
Uplift (Kips)	175.8
Axial (Kips)	226.6
Shear (Kips)	31.9

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

**Deflection, Twist and Sway\***

Antenna Elevation (ft)	Deflection (ft)	Twist (°)	Sway (Rotation) (°)
164.0	0.078	0.204	0.066

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



## Standard Conditions

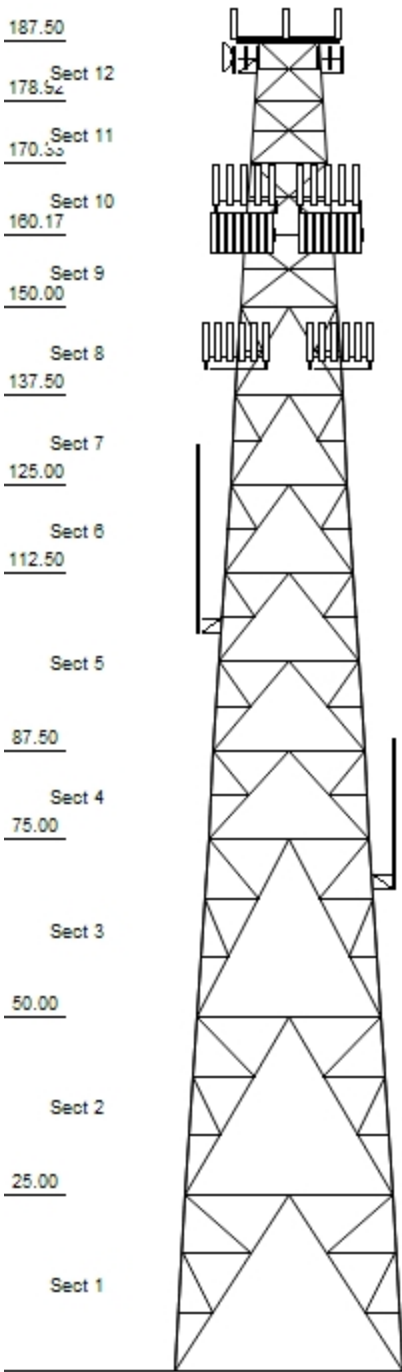
All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessary limited, to:

- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.
- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements of the structure.

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

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

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



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Loads: 95 mph no ice  
 50 mph w / 3/4" radial ice  
 60 mph Serviceability  
 60 mph no ice

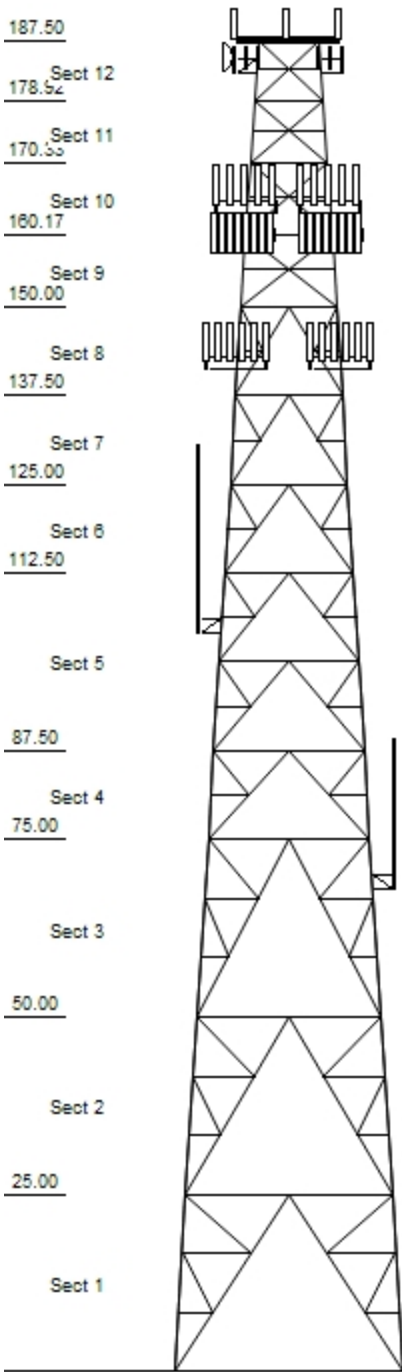
Uplift 175.77 k Moment 9,067.66 k Moment Ice 2,903.79 k-ft  
 Vert 226.60 k Tot Down 115.92 k Tot Down Ice 276.57 k  
 Horiz 31.89 k Tot Shear 80.91 k Tot Shear Ice 28.36 k

Job Information			
Tower : 88014	Location : New Fairfield, CT		Base Width : 32.45 ft
Code : ANSI/TIA-222 Rev G	Shape : Square	Top Width : 9.00 ft	
Client : Sprint Nextel			

Sections Properties				
Section	Leg Members		Diagonal Members	Horizontal Members
1	SAE 36 ksi	8X8X0.875	DAS 36 ksi 3.5X3X0.25	DAL 36 ksi 3X2.5X0.3125
2	SAE 36 ksi	8X8X0.75	DAS 36 ksi 3X2.5X0.25	DAL 36 ksi 3X2.5X0.25
3	SAE 36 ksi	8X8X0.75	DAS 36 ksi 3X2.5X0.25	DAE 36 ksi 2.5X2.5X0.25
4	SAE 36 ksi	6X6X0.875	DAE 36 ksi 2.5X2.5X0.25	DAE 36 ksi 2.5X2.5X0.25
5	SAE 36 ksi	6X6X0.75	DAE 36 ksi 2.5X2.5X0.25	DAE 36 ksi 2.5X2.5X0.25
6 - 7	SAE 36 ksi	6X6X0.5625	DAL 36 ksi 2.5X2X0.25	DAE 36 ksi 2.5X2.5X0.25
8	SAE 36 ksi	6X6X0.4375	DAL 36 ksi 2.5X2X0.25	DAE 36 ksi 2.5X2.5X0.25
9	SAE 36 ksi	5X5X0.4375	SAE 36 ksi 3.5X3.5X0.25	SAU 36 ksi 3X2.5X0.25
10	SAE 36 ksi	5X5X0.4375	SAE 36 ksi 3.5X3.5X0.25	DAL 36 ksi 3X2.5X0.25
11	SAE 36 ksi	5X5X0.3125	SAE 36 ksi 3X3X0.25	SAU 36 ksi 3X2.5X0.25
12	SAE 36 ksi	5X5X0.3125	SAE 36 ksi 3X3X0.25	CHN 36 ksi C8 x 11.5

Discrete Appurtenance				
Elev (ft)	Type	Qty	Description	
187.50	Panel	3	Ericsson AIR 21, 1.3M, B2A B4P	
187.50	Panel	3	Ericsson AIR 21, 1.3M, B4A B2P	
187.50	Panel	3	Ericsson KRY 112 144/1	
187.50	Straight Arm	6	Pipe Mount	
187.50	Platform	1	Platform	
185.00	Dish	1	DragonWave A-ANT-23G-2.5-C	
185.00	Straight Arm	3	Round Side Arm	
185.00	Panel	3	Argus LLPX310R	
185.00	Panel	2	DragonWave Horizon Compact	
185.00	Dish	1	DragonWave A-ANT-11G-4-C	
185.00	Panel	3	NextNet BTS-2500	
170.33	Platform	1	Catwalk	
164.00	Panel	3	RFS APXV9TM14-ALU-I20	
164.00	Panel	3	Alcatel TD-RRH8x20-25 w/ SS	
164.00	Mounting Frame	3	Flat Light Sector Frames	
164.00	Panel	3	RFS APXVSP18-C-A20	
164.00	Panel	3	Alcatel-Lucent 2X50W RRH w/o F	
164.00	Panel	3	Alcatel-Lucent 4x40W RRH	
160.00	Panel	6	Ericsson RRUS 11 (Band 12)	
160.00	Panel	3	Powerwave P65-16-XLH-RR	
160.00	Panel	6	Powerwave 7770.00	
160.00	Panel	1	Raycap DC6-48-60-18-8F	
160.00	Panel	6	Powerwave LGP21401	
160.00	Mounting Frame	3	Flat Light Sector Frames	
142.00	Panel	3	Antel BXA-171085-8BF-EDIN-X	
142.00	Panel	2	Antel LPA-80080/4CF	
142.00	Panel	3	Antel BXA-70063/6CF	
142.00	Panel	6	RFS FD9R6004/2C-3L	
142.00	Panel	4	Antel LPA-80063/4CF	
142.00	Mounting Frame	3	Flat Light Sector Frames	
137.50	Mounting Frame	1	Rest Platform	
106.00	Whip	1	Dielectric TLP-16A-1E	
106.00	Straight Arm	1	Flat Side Arm	
100.00	Platform	1	Platform	
87.50	Mounting Frame	1	Rest Platform	
70.00	Whip	1	Andrew DB616E-BC	
70.00	Straight Arm	1	Flat Side Arm	
50.00	Mounting Frame	1	Rest Platform	

Linear Appurtenance				
Elev (ft)		Qty	Description	
From	To			
5.000	187.50	1	Wave Guide	
5.000	187.50	1	Climbing Ladder	
5.000	187.50	1	1 5/8" Fiber	
5.000	187.50	6	1 5/8" Coax	



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Job Information			
Tower : 88014	Location : New Fairfield, CT		
Code : ANSI/TIA-222 Rev G	Shape : Square	Base Width : 32.45 ft	
Client : Sprint Nextel			Top Width : 9.00 ft

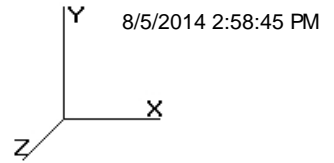
5.000	187.50	6	1 5/8" Coax
5.000	185.00	6	5/16" Coax
5.000	185.00	1	2" Conduit
5.000	185.00	2	1/2" Coax
5.000	182.00	1	Wave Guide
5.000	164.00	3	1 1/4" Hybriflex
5.000	164.00	1	1 1/4" Fiber
5.000	160.00	1	Wave Guide
5.000	160.00	1	3" Conduit
5.000	160.00	12	1 5/8" Coax
5.000	160.00	2	0.74" 8 AWG 7
5.000	160.00	1	0.28" RG6
5.000	142.00	1	Wave Guide
5.000	142.00	12	1 5/8" Coax
5.000	106.00	1	3 1/8" Hard Line
0.000	70.000	1	7/8" Coax
10.000	18.333	4	Coax Cage

Uplift 175.77 k    Moment 9,067.66 k    Moment Ice 2,903.79 k-ft  
 Vert 226.60 k    Tot Down 115.92 k    Tot Down Ice 276.57 k  
 Horiz 31.89 k    Tot Shear 80.91 k    Tot Shear Ice 28.36 k



Site Number : 88014  
 Location : New Fairfield, CT  
 Code : ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure : B  
 Topo : 1

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## Section Forces

### LoadCase 1.2D + 1.6W Normal

### 95.00 mph Normal to Face with No Ice

Gust Response Factor : 0.85  
 Dead Load Factor : 1.20  
 Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
12	183.2	23.07	21.74	0.00	0.00	0.25	2.76	1.00	1.00	0.00	21.74	19.13	0.00	2,428.8	0.0	1,880.94	485.47	2,366.41
11	174.6	22.76	18.88	0.00	0.00	0.20	2.98	1.00	1.00	0.00	18.88	20.80	0.00	2,038.1	0.0	1,742.59	529.78	2,272.37
10	165.2	22.40	23.09	0.00	0.00	0.19	3.04	1.00	1.00	0.00	23.09	26.52	0.00	3,138.6	0.0	2,138.61	658.83	2,797.44
9	155.0	22.00	24.22	0.00	0.00	0.18	3.08	1.00	1.00	0.00	24.22	44.10	0.00	3,158.1	0.0	2,233.19	1,102.9	3,336.15
8	143.7	21.53	26.82	0.00	0.00	0.14	3.24	1.00	1.00	0.00	26.82	64.18	0.00	4,923.6	0.0	2,541.25	1,549.0	4,090.25
7	131.2	20.98	27.59	0.00	0.00	0.13	3.28	1.00	1.00	0.00	27.59	81.35	0.00	5,568.1	0.0	2,584.60	1,880.2	4,464.84
6	118.7	20.38	28.39	0.00	0.00	0.13	3.32	1.00	1.00	0.00	28.39	81.35	0.00	5,766.2	0.0	2,614.78	1,827.2	4,442.02
5	100.0	19.41	59.23	0.00	0.00	0.12	3.37	1.00	1.00	0.00	59.23	167.80	0.00	13,350.2	0.0	5,268.22	3,576.3	8,844.55
4	81.25	18.29	30.84	0.00	0.00	0.11	3.41	1.00	1.00	0.00	30.84	84.80	0.00	7,272.7	0.0	2,614.11	1,701.2	4,315.34
3	62.50	16.97	68.39	0.00	0.00	0.11	3.41	1.00	1.00	0.00	68.39	171.41	0.00	13,462.6	0.0	5,380.11	3,186.9	8,567.02
2	37.50	14.66	71.64	0.00	0.00	0.10	3.45	1.00	1.00	0.00	71.64	171.86	0.00	14,150.4	0.0	4,923.38	2,760.6	7,684.03
1	12.50	13.75	76.58	0.00	0.00	0.10	3.46	1.00	1.00	0.00	76.58	179.61	0.00	18,191.0	0.0	4,960.66	2,543.8	7,504.51
														93,448.5	0.0			

### LoadCase 1.2D + 1.6W 45 deg

### 95.00 mph 45 deg with No Ice

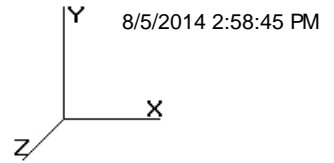
Gust Response Factor : 0.85  
 Dead Load Factor : 1.20  
 Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
12	183.2	23.07	21.74	0.00	0.00	0.25	2.76	1.19	1.19	0.00	25.88	19.13	0.00	2,428.8	0.0	2,239.83	485.47	2,725.30
11	174.6	22.76	18.88	0.00	0.00	0.20	2.98	1.15	1.15	0.00	21.70	20.80	0.00	2,038.1	0.0	2,003.28	529.78	2,533.05
10	165.2	22.40	23.09	0.00	0.00	0.19	3.04	1.14	1.14	0.00	26.31	26.52	0.00	3,138.6	0.0	2,437.19	658.83	3,096.02
9	155.0	22.00	24.22	0.00	0.00	0.18	3.08	1.13	1.13	0.00	27.43	44.10	0.00	3,158.1	0.0	2,529.41	1,102.9	3,632.38
8	143.7	21.53	26.82	0.00	0.00	0.14	3.24	1.11	1.11	0.00	29.70	64.18	0.00	4,923.6	0.0	2,814.38	1,549.0	4,363.38
7	131.2	20.98	27.59	0.00	0.00	0.13	3.28	1.10	1.10	0.00	30.36	81.35	0.00	5,568.1	0.0	2,843.40	1,880.2	4,723.64
6	118.7	20.38	28.39	0.00	0.00	0.13	3.32	1.09	1.09	0.00	31.06	81.35	0.00	5,766.2	0.0	2,860.88	1,827.2	4,688.11
5	100.0	19.41	59.23	0.00	0.00	0.12	3.37	1.09	1.09	0.00	64.38	167.80	0.00	13,350.2	0.0	5,726.16	3,576.3	9,302.50
4	81.25	18.29	30.84	0.00	0.00	0.11	3.41	1.08	1.08	0.00	33.34	84.80	0.00	7,272.7	0.0	2,826.38	1,701.2	4,527.60
3	62.50	16.97	68.39	0.00	0.00	0.11	3.41	1.08	1.08	0.00	73.94	171.41	0.00	13,462.6	0.0	5,816.48	3,186.9	9,003.39
2	37.50	14.66	71.64	0.00	0.00	0.10	3.45	1.08	1.08	0.00	77.06	171.86	0.00	14,150.4	0.0	5,295.67	2,760.6	8,056.32
1	12.50	13.75	76.58	0.00	0.00	0.10	3.46	1.07	1.07	0.00	82.16	179.61	0.00	18,191.0	0.0	5,321.89	2,543.8	7,865.73
														93,448.5	0.0			

Site Number : 88014  
 Location : New Fairfield, CT  
 Code : ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure : B  
 Topo : 1

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## Section Forces

### LoadCase 0.9D + 1.6W 45 deg

### 95.00 mph 45 deg with No Ice (Reduced DL)

Gust Response Factor : 0.85  
 Dead Load Factor : 0.90  
 Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat	Total Round	Ice Round	Sol Ratio	Cf	Df	Dr	Ice Thick	Eff Area	Linear Area	Linear Area	Total Weight	Weight Ice	Struct Force	Linear Force	Total Force	
			(sqft)	(sqft)	(sqft)					(in)	(sqft)	(sqft)	(sqft)	(lb)	(lb)	(lb)	(lb)	(lb)	(lb)
12	183.2	23.07	21.74	0.00	0.00	0.25	2.76	1.19	1.19	0.00	25.88	19.13	0.00	1,821.6	0.0	2,239.83	485.47	2,725.30	
11	174.6	22.76	18.88	0.00	0.00	0.20	2.98	1.15	1.15	0.00	21.70	20.80	0.00	1,528.6	0.0	2,003.28	529.78	2,533.05	
10	165.2	22.40	23.09	0.00	0.00	0.19	3.04	1.14	1.14	0.00	26.31	26.52	0.00	2,354.0	0.0	2,437.19	658.83	3,096.02	
9	155.0	22.00	24.22	0.00	0.00	0.18	3.08	1.13	1.13	0.00	27.43	44.10	0.00	2,368.6	0.0	2,529.41	1,102.9	3,632.38	
8	143.7	21.53	26.82	0.00	0.00	0.14	3.24	1.11	1.11	0.00	29.70	64.18	0.00	3,692.7	0.0	2,814.38	1,549.0	4,363.38	
7	131.2	20.98	27.59	0.00	0.00	0.13	3.28	1.10	1.10	0.00	30.36	81.35	0.00	4,176.1	0.0	2,843.40	1,880.2	4,723.64	
6	118.7	20.38	28.39	0.00	0.00	0.13	3.32	1.09	1.09	0.00	31.06	81.35	0.00	4,324.6	0.0	2,860.88	1,827.2	4,688.11	
5	100.0	19.41	59.23	0.00	0.00	0.12	3.37	1.09	1.09	0.00	64.38	167.80	0.00	10,012.6	0.0	5,726.16	3,576.3	9,302.50	
4	81.25	18.29	30.84	0.00	0.00	0.11	3.41	1.08	1.08	0.00	33.34	84.80	0.00	5,454.5	0.0	2,826.38	1,701.2	4,527.60	
3	62.50	16.97	68.39	0.00	0.00	0.11	3.41	1.08	1.08	0.00	73.94	171.41	0.00	10,097.0	0.0	5,816.48	3,186.9	9,003.39	
2	37.50	14.66	71.64	0.00	0.00	0.10	3.45	1.08	1.08	0.00	77.06	171.86	0.00	10,612.8	0.0	5,295.67	2,760.6	8,056.32	
1	12.50	13.75	76.58	0.00	0.00	0.10	3.46	1.07	1.07	0.00	82.16	179.61	0.00	13,643.2	0.0	5,321.89	2,543.8	7,865.73	
														70,086.3	0.0				64,517.41

### LoadCase 1.2D + 1.0Di + 1.0Wi Normal

### 50.00 mph Normal with 0.75 in Radial Ice

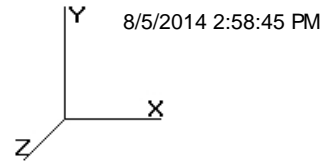
Gust Response Factor : 0.85  
 Dead Load Factor : 1.20  
 Wind Load Factor : 1.00

Ice Dead Load Factor : 1.00

Wind Importance Factor : 1.00  
 Ice Importance Factor : 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat	Total Round	Ice Round	Sol Ratio	Cf	Df	Dr	Ice Thick	Eff Area	Linear Area	Linear Area	Total Weight	Weight Ice	Struct Force	Linear Force	Total Force	
			(sqft)	(sqft)	(sqft)					(in)	(sqft)	(sqft)	(sqft)	(lb)	(lb)	(lb)	(lb)	(lb)	(lb)
12	183.2	6.39	21.74	15.41	15.41	0.42	2.22	1.00	1.00	1.78	37.14	25.14	36.62	6,762.8	4,334.0	448.38	212.54	660.92	
11	174.6	6.30	18.88	16.13	16.13	0.36	2.39	1.00	1.00	1.77	35.01	28.41	43.09	6,224.7	4,186.5	449.06	255.73	704.78	
10	165.2	6.21	23.09	18.42	18.42	0.33	2.50	1.00	1.00	1.76	41.51	35.47	55.26	8,738.5	5,599.9	547.14	334.71	881.85	
9	155.0	6.09	24.22	19.25	19.25	0.31	2.55	1.00	1.00	1.75	43.47	58.84	65.23	9,285.2	6,127.1	574.85	491.12	1,065.97	
8	143.7	5.96	26.82	19.73	19.73	0.24	2.80	1.00	1.00	1.74	46.55	83.58	95.29	14,127.2	9,203.6	660.26	751.46	1,411.72	
7	131.2	5.81	27.59	20.24	20.24	0.23	2.86	1.00	1.00	1.72	47.83	102.87	121.98	15,822.3	10,254.	676.77	959.32	1,636.10	
6	118.7	5.65	28.39	20.74	20.74	0.21	2.92	1.00	1.00	1.70	49.13	102.66	120.76	16,195.4	10,429.	688.81	938.81	1,627.62	
5	100.0	5.38	59.23	42.89	42.89	0.20	2.99	1.00	1.00	1.68	102.12	209.70	242.58	35,042.5	21,692.	1,396.34	1,842.4	3,238.76	
4	81.25	5.07	30.84	22.06	22.06	0.18	3.05	1.00	1.00	1.64	52.90	105.31	119.69	18,322.3	11,049.	695.27	875.98	1,571.25	
3	62.50	4.70	68.39	34.59	34.59	0.16	3.15	1.00	1.00	1.60	102.98	211.38	238.51	33,101.6	19,639.	1,297.37	1,662.5	2,959.89	
2	37.50	4.06	71.64	34.04	34.04	0.15	3.22	1.00	1.00	1.52	105.68	209.85	227.89	33,459.4	19,309.	1,173.97	1,418.2	2,592.20	
1	12.50	3.81	76.58	31.58	31.58	0.14	3.27	1.00	1.00	1.36	108.16	206.83	172.04	35,611.2	17,420.	1,145.10	1,180.4	2,325.57	
														232,693.1	139,244.				20,676.62

Site Number : 88014  
 Location : New Fairfield, CT  
 Code : ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure : B  
 Topo : 1



### Section Forces

**LoadCase 1.2D + 1.0Di + 1.0Wi 45 deg**

**50.00 mph 45 deg with 0.75 in Radial Ice**

Gust Response Factor : 0.85  
 Dead Load Factor : 1.20  
 Wind Load Factor : 1.00

Ice Dead Load Factor : 1.00

Wind Importance Factor : 1.00  
 Ice Importance Factor : 1.00

Seq	Wind Sect	Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Linear Area (sqft)	Total Weight (lb)	Ice Weight (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	
12	183.2	6.39	21.74	15.41	15.41	0.42	2.22	1.20	1.20	1.78	44.57	25.14	36.62	6,762.8	4,334.0	538.05	212.54	750.59		
11	174.6	6.30	18.88	16.13	16.13	0.36	2.39	1.20	1.20	1.77	42.01	28.41	43.09	6,224.7	4,186.5	538.87	255.73	794.60		
10	165.2	6.21	23.09	18.42	18.42	0.33	2.50	1.20	1.20	1.76	49.81	35.47	55.26	8,738.5	5,599.9	656.57	334.71	991.28		
9	155.0	6.09	24.22	19.25	19.25	0.31	2.55	1.20	1.20	1.75	52.16	58.84	65.23	9,285.2	6,127.1	689.82	491.12	1,180.94		
8	143.7	5.96	26.82	19.73	19.73	0.24	2.80	1.18	1.18	1.74	55.06	83.58	95.29	14,127.2	9,203.6	781.09	751.46	1,532.55		
7	131.2	5.81	27.59	20.24	20.24	0.23	2.86	1.17	1.17	1.72	55.99	102.87	121.98	15,822.3	10,254.	792.24	959.32	1,751.56		
6	118.7	5.65	28.39	20.74	20.74	0.21	2.92	1.16	1.16	1.70	57.00	102.66	120.76	16,195.4	10,429.	799.26	938.81	1,738.07		
5	100.0	5.38	59.23	42.89	42.89	0.20	2.99	1.15	1.15	1.68	117.21	209.70	242.58	35,042.5	21,692.	1,602.79	1,842.4	3,445.21		
4	81.25	5.07	30.84	22.06	22.06	0.18	3.05	1.14	1.14	1.64	60.18	105.31	119.69	18,322.3	11,049.	790.97	875.98	1,666.95		
3	62.50	4.70	68.39	34.59	34.59	0.16	3.15	1.12	1.12	1.60	115.43	211.38	238.51	33,101.6	19,639.	1,454.16	1,662.5	3,116.68		
2	37.50	4.06	71.64	34.04	34.04	0.15	3.22	1.11	1.11	1.52	117.37	209.85	227.89	33,459.4	19,309.	1,303.76	1,418.2	2,721.99		
1	12.50	3.81	76.58	31.58	31.58	0.14	3.27	1.10	1.10	1.36	119.20	206.83	172.04	35,611.2	17,420.	1,262.03	1,180.4	2,442.50		
																232,693.1	139,244.			22,132.92

**LoadCase 1.0D + 1.0W Service Normal**

**Serviceability - 60.00 Wind Normal**

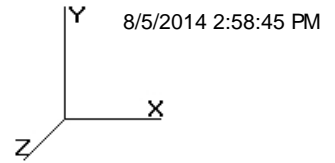
Gust Response Factor : 0.85  
 Dead Load Factor : 1.00  
 Wind Load Factor : 1.00

Wind Importance Factor : 1.00

Seq	Wind Sect	Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Linear Area (sqft)	Total Weight (lb)	Ice Weight (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	
12	183.2	9.20	21.74	0.00	0.00	0.25	2.76	1.00	1.00	0.00	21.74	19.13	0.00	2,024.0	0.0	468.93	121.03	589.96		
11	174.6	9.08	18.88	0.00	0.00	0.20	2.98	1.00	1.00	0.00	18.88	20.80	0.00	1,698.5	0.0	434.44	132.08	566.52		
10	165.2	8.94	23.09	0.00	0.00	0.19	3.04	1.00	1.00	0.00	23.09	26.52	0.00	2,615.5	0.0	533.17	164.25	697.42		
9	155.0	8.78	24.22	0.00	0.00	0.18	3.08	1.00	1.00	0.00	24.22	44.10	0.00	2,631.8	0.0	556.75	274.98	831.73		
8	143.7	8.59	26.82	0.00	0.00	0.14	3.24	1.00	1.00	0.00	26.82	64.18	0.00	4,103.0	0.0	633.55	386.18	1,019.73		
7	131.2	8.37	27.59	0.00	0.00	0.13	3.28	1.00	1.00	0.00	27.59	81.35	0.00	4,640.1	0.0	644.36	468.76	1,113.12		
6	118.7	8.13	28.39	0.00	0.00	0.13	3.32	1.00	1.00	0.00	28.39	81.35	0.00	4,805.2	0.0	651.88	455.54	1,107.43		
5	100.0	7.74	59.23	0.00	0.00	0.12	3.37	1.00	1.00	0.00	59.23	167.80	0.00	11,125.2	0.0	1,313.41	891.61	2,205.01		
4	81.25	7.30	30.84	0.00	0.00	0.11	3.41	1.00	1.00	0.00	30.84	84.80	0.00	6,060.6	0.0	651.72	424.13	1,075.85		
3	62.50	6.77	68.39	0.00	0.00	0.11	3.41	1.00	1.00	0.00	68.39	171.41	0.00	11,218.8	0.0	1,341.30	794.52	2,135.82		
2	37.50	5.85	71.64	0.00	0.00	0.10	3.45	1.00	1.00	0.00	71.64	171.86	0.00	11,792.0	0.0	1,227.43	688.25	1,915.69		
1	12.50	5.48	76.58	0.00	0.00	0.10	3.46	1.00	1.00	0.00	76.58	179.61	0.00	15,159.2	0.0	1,236.73	636.52	1,873.25		
																77,873.7	0.0			15,131.53

**Site Number :** 88014  
**Location :** New Fairfield, CT  
**Code :** ANSI/TIA-222 Rev G  
**Struct Class :** II  
**Exposure :** B  
**Topo :** 1

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## Section Forces

**LoadCase 1.0D + 1.0W Service 45 deg**

**Serviceability - 60.00 Wind 45 deg**

**Gust Response Factor :** 0.85  
**Dead Load Factor :** 1.00  
**Wind Load Factor :** 1.00

**Wind Importance Factor : 1.00**

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat	Total Round	Ice Round	Sol Ratio	Cf	Df	Dr	Ice Thick	Eff Area	Linear Area	Ice Linear	Total Weight	Weight Ice	Struct Force	Linear Force	Total Force
			(sqft)	(sqft)	(sqft)					(in)	(sqft)	(sqft)	(sqft)	(lb)	(lb)	(lb)	(lb)	(lb)
12	183.2	9.20	21.74	0.00	0.00	0.25	2.76	1.19	1.19	0.00	25.88	19.13	0.00	2,024.0	0.0	558.41	121.03	679.44
11	174.6	9.08	18.88	0.00	0.00	0.20	2.98	1.15	1.15	0.00	21.70	20.80	0.00	1,698.5	0.0	499.43	132.08	631.51
10	165.2	8.94	23.09	0.00	0.00	0.19	3.04	1.14	1.14	0.00	26.31	26.52	0.00	2,615.5	0.0	607.61	164.25	771.86
9	155.0	8.78	24.22	0.00	0.00	0.18	3.08	1.13	1.13	0.00	27.43	44.10	0.00	2,631.8	0.0	630.60	274.98	905.58
8	143.7	8.59	26.82	0.00	0.00	0.14	3.24	1.11	1.11	0.00	29.70	64.18	0.00	4,103.0	0.0	701.65	386.18	1,087.82
7	131.2	8.37	27.59	0.00	0.00	0.13	3.28	1.10	1.10	0.00	30.36	81.35	0.00	4,640.1	0.0	708.88	468.76	1,177.64
6	118.7	8.13	28.39	0.00	0.00	0.13	3.32	1.09	1.09	0.00	31.06	81.35	0.00	4,805.2	0.0	713.24	455.54	1,168.78
5	100.0	7.74	59.23	0.00	0.00	0.12	3.37	1.09	1.09	0.00	64.38	167.80	0.00	11,125.2	0.0	1,427.57	891.61	2,319.18
4	81.25	7.30	30.84	0.00	0.00	0.11	3.41	1.08	1.08	0.00	33.34	84.80	0.00	6,060.6	0.0	704.64	424.13	1,128.77
3	62.50	6.77	68.39	0.00	0.00	0.11	3.41	1.08	1.08	0.00	73.94	171.41	0.00	11,218.8	0.0	1,450.09	794.52	2,244.61
2	37.50	5.85	71.64	0.00	0.00	0.10	3.45	1.08	1.08	0.00	77.06	171.86	0.00	11,792.0	0.0	1,320.25	688.25	2,008.50
1	12.50	5.48	76.58	0.00	0.00	0.10	3.46	1.07	1.07	0.00	82.16	179.61	0.00	15,159.2	0.0	1,326.79	636.52	1,963.31
<b>77,873.7</b>															<b>0.0</b>	<b>16,087.00</b>		

**LoadCase 0.9D + 1.6W Normal**

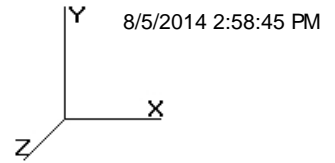
**95.00 mph Normal to Face with No Ice (Reduced DL)**

**Gust Response Factor :** 0.85  
**Dead Load Factor :** 0.90  
**Wind Load Factor :** 1.60

**Wind Importance Factor : 1.00**

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat	Total Round	Ice Round	Sol Ratio	Cf	Df	Dr	Ice Thick	Eff Area	Linear Area	Ice Linear	Total Weight	Weight Ice	Struct Force	Linear Force	Total Force
			(sqft)	(sqft)	(sqft)					(in)	(sqft)	(sqft)	(sqft)	(lb)	(lb)	(lb)	(lb)	(lb)
12	183.2	23.07	21.74	0.00	0.00	0.25	2.76	1.00	1.00	0.00	21.74	19.13	0.00	1,821.6	0.0	1,880.94	485.47	2,366.41
11	174.6	22.76	18.88	0.00	0.00	0.20	2.98	1.00	1.00	0.00	18.88	20.80	0.00	1,528.6	0.0	1,742.59	529.78	2,272.37
10	165.2	22.40	23.09	0.00	0.00	0.19	3.04	1.00	1.00	0.00	23.09	26.52	0.00	2,354.0	0.0	2,138.61	658.83	2,797.44
9	155.0	22.00	24.22	0.00	0.00	0.18	3.08	1.00	1.00	0.00	24.22	44.10	0.00	2,368.6	0.0	2,233.19	1,102.9	3,336.15
8	143.7	21.53	26.82	0.00	0.00	0.14	3.24	1.00	1.00	0.00	26.82	64.18	0.00	3,692.7	0.0	2,541.25	1,549.0	4,090.25
7	131.2	20.98	27.59	0.00	0.00	0.13	3.28	1.00	1.00	0.00	27.59	81.35	0.00	4,176.1	0.0	2,584.60	1,880.2	4,464.84
6	118.7	20.38	28.39	0.00	0.00	0.13	3.32	1.00	1.00	0.00	28.39	81.35	0.00	4,324.6	0.0	2,614.78	1,827.2	4,442.02
5	100.0	19.41	59.23	0.00	0.00	0.12	3.37	1.00	1.00	0.00	59.23	167.80	0.00	10,012.6	0.0	5,268.22	3,576.3	8,844.55
4	81.25	18.29	30.84	0.00	0.00	0.11	3.41	1.00	1.00	0.00	30.84	84.80	0.00	5,454.5	0.0	2,614.11	1,701.2	4,315.34
3	62.50	16.97	68.39	0.00	0.00	0.11	3.41	1.00	1.00	0.00	68.39	171.41	0.00	10,097.0	0.0	5,380.11	3,186.9	8,567.02
2	37.50	14.66	71.64	0.00	0.00	0.10	3.45	1.00	1.00	0.00	71.64	171.86	0.00	10,612.8	0.0	4,923.38	2,760.6	7,684.03
1	12.50	13.75	76.58	0.00	0.00	0.10	3.46	1.00	1.00	0.00	76.58	179.61	0.00	13,643.2	0.0	4,960.66	2,543.8	7,504.51
<b>70,086.3</b>															<b>0.0</b>	<b>60,684.93</b>		

Site Number: 88014  
 Location: New Fairfield, CT  
 Code: ANSI/TIA-222 Rev G  
 Struct Class: II  
 Exposure: B  
 Topo: 1



## Tower Loading

### Discrete Appurtenance Properties

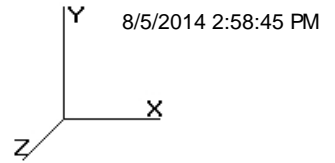
Attach Elev (ft)	Description	Qty	No Ice		Ice		Len (ft)	Width (in)	Depth (in)	Ka	Orientation Factor	Vert Ecc (ft)
			Weight (lb)	CaAa (sf)	Weight (lb)	CaAa (sf)						
187.5	Ericsson AIR 21, 1.3M, B2A	3	83.00	6.050	256.13	7.172	4.670	12.00	8.000	0.80	0.71	5.500
187.5	Ericsson AIR 21, 1.3M, B4A	3	81.50	6.090	254.58	7.217	4.670	12.10	7.900	0.80	0.70	5.500
187.5	Ericsson KRY 112 144/1	3	11.00	0.410	27.91	0.641	0.580	6.100	2.700	0.80	0.33	5.500
187.5	Pipe Mount	6	150.00	3.300	417.07	5.650	6.000	6.000	6.000	1.00	1.00	3.000
187.5	Platform	1	4000.00	70.000	6934.21	101.40	0.000	0.000	0.000	1.00	1.00	0.000
185.0	DragonWave A-ANT-23G-2.5-	1	47.60	8.430	222.83	10.771	2.920	35.00	0.000	0.80	0.80	0.000
185.0	Round Side Arm	3	150.00	5.200	224.78	7.978	0.000	0.000	0.000	1.00	0.67	0.000
185.0	Argus LLPX310R	3	28.60	4.290	139.15	5.209	3.500	11.80	4.500	0.80	0.73	0.000
185.0	DragonWave Horizon	2	10.60	0.430	41.66	0.666	0.390	9.300	9.300	0.80	0.50	0.000
185.0	DragonWave A-ANT-11G-4-C	1	121.00	17.760	566.44	22.693	4.230	50.80	0.000	0.80	1.00	0.000
185.0	NextNet BTS-2500	3	35.00	1.820	94.36	2.411	1.610	11.30	5.100	0.80	0.50	0.000
170.3	Catwalk	1	3000.00	55.000	5156.91	82.525	0.000	0.000	0.000	1.00	1.00	0.000
164.0	RFS APXV9TM14-ALU-I20	3	55.10	6.340	193.53	8.529	4.690	12.60	6.300	0.80	0.66	3.000
164.0	Alcatel TD-RRH8x20-25 w/ SS	3	70.00	4.050	165.02	5.386	2.180	18.60	6.700	0.80	0.50	3.000
164.0	Flat Light Sector Frames	3	400.00	17.900	702.58	33.070	0.000	0.000	0.000	0.75	0.75	0.000
164.0	RFS APXVSP18-C-A20	3	57.00	8.020	257.48	9.319	6.000	11.80	7.000	0.80	0.69	3.000
164.0	Alcatel-Lucent 2X50W RRH	3	64.00	2.060	194.26	4.162	2.580	13.00	12.200	0.80	0.50	3.000
164.0	Alcatel-Lucent 4x40W RRH	3	91.00	3.290	217.43	3.139	1.900	13.00	17.300	0.80	0.50	3.000
160.0	Ericsson RRUS 11 (Band 12)	6	55.00	2.520	135.74	3.167	1.480	17.00	7.200	0.80	0.67	0.000
160.0	Powerwave P65-16-XLH-RR	3	53.00	8.130	245.42	9.434	6.000	12.00	6.000	0.80	0.67	0.000
160.0	Powerwave 7770.00	6	35.00	5.510	170.64	6.564	4.580	11.00	5.000	0.80	0.65	0.000
160.0	Raycap DC6-48-60-18-8F	1	31.80	1.110	125.13	2.856	2.000	11.00	11.000	0.80	1.00	0.000
160.0	Powerwave LGP21401	6	14.10	1.100	47.90	1.565	1.200	9.200	2.600	0.80	0.50	0.000
160.0	Flat Light Sector Frames	3	400.00	17.900	702.58	33.070	0.000	0.000	0.000	0.75	0.75	0.000
142.0	Antel BXA-171085-8BF-EDIN-X	3	10.00	2.944	85.85	3.803	4.063	6.060	3.150	0.80	0.87	4.000
142.0	Antel LPA-80080/4CF	2	12.00	5.400	145.28	6.384	3.933	13.20	5.500	0.80	0.74	4.000
142.0	Antel BXA-70063/6CF	3	17.00	7.570	181.52	8.801	5.910	11.20	4.500	0.80	0.75	4.000
142.0	RFS FD9R6004/2C-3L	6	3.10	0.370	15.99	0.578	0.483	6.500	1.500	0.80	0.50	4.000
142.0	Antel LPA-80063/4CF	4	20.00	6.140	223.18	7.174	3.953	15.20	13.190	0.80	0.94	4.000
142.0	Flat Light Sector Frames	3	400.00	17.900	697.57	32.819	0.000	0.000	0.000	0.75	0.75	0.000
137.5	Rest Platform	1	400.00	17.900	697.57	32.819	0.000	0.000	0.000	1.00	1.00	0.000
106.0	Dielectric TLP-16A-1E	1	290.00	23.700	1061.18	31.777	24.70	10.00	10.000	1.00	1.00	15.000
106.0	Flat Side Arm	1	150.00	6.300	220.39	8.665	0.000	0.000	0.000	1.00	1.00	0.000
100.0	Platform	1	2000.00	40.000	3367.50	59.038	0.000	0.000	0.000	1.00	1.00	0.000
87.50	Rest Platform	1	400.00	17.900	683.64	32.120	0.000	0.000	0.000	1.00	1.00	0.000
70.00	Andrew DB616E-BC	1	51.00	6.730	299.78	13.072	19.25	3.500	3.500	1.00	1.00	10.000
70.00	Flat Side Arm	1	150.00	6.300	217.15	8.556	0.000	0.000	0.000	1.00	1.00	0.000
50.00	Rest Platform	1	400.00	17.900	662.53	31.062	0.000	0.000	0.000	1.00	1.00	0.000
<b>Totals</b>		<b>102</b>	<b>18728.40</b>		<b>40126.36</b>					<b>Number of Appurtenances : 38</b>		

### Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	Pct In Block	Spread On Faces	Bundling Arrangement	Cluster Dia (in)	Out Of Zone	Spacing (in)	Orientation Factor	Ka Override
5.00	187.5	1 5/8" Coax	6	1.98	0.82	50	3	Block	0.00	N	0.00	1.00	0.00
5.00	187.5	1 5/8" Coax	6	1.98	0.82	0	Lin App	Individual	0.00	N	0.00	1.00	0.00
5.00	187.5	1 5/8" Fiber	1	1.63	1.61	0	Lin App	Individual	0.00	N	1.00	1.00	0.00

**Site Number:** 88014  
**Location:** New Fairfield, CT  
**Code:** ANSI/TIA-222 Rev G  
**Struct Class:** II  
**Exposure:** B  
**Topo:** 1

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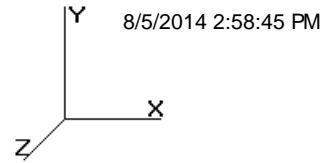


### Tower Loading

5.00	187.5	Climbing Ladder	1	2.00	6.90	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	187.5	Wave Guide	1	2.00	6.00	0	3	Individual	0.00	N	1.00	1.00	0.00
5.00	185.0	1/2" Coax	2	0.63	0.15	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	185.0	2" Conduit	1	2.38	3.65	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	185.0	5/16" Coax	6	0.00	0.04	0	Lin App	Individual	0.00	N	0.00	1.00	0.01
5.00	182.0	Wave Guide	1	2.00	6.00	0	4	Individual	0.00	N	1.00	1.00	0.00
5.00	164.0	1 1/4" Fiber	1	1.25	1.05	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	164.0	1 1/4" Hybriflex	3	1.54	1.00	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	160.0	0.28" RG6	1	0.28	0.03	0	Lin App	Individual	0.00	N	1.00	0.00	0.01
5.00	160.0	0.74" 8 AWG 7	2	0.74	0.49	0	Lin App	Individual	0.00	N	1.00	0.00	0.01
5.00	160.0	1 5/8" Coax	12	1.98	0.82	50	3	Block	0.00	N	0.00	1.00	0.00
5.00	160.0	3" Conduit	1	3.50	7.58	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	160.0	Wave Guide	1	2.00	6.00	0	3	Individual	0.00	N	1.00	1.00	0.00
5.00	142.0	1 5/8" Coax	12	1.98	0.82	0	1	Individual	0.00	N	1.00	1.00	0.00
5.00	142.0	Wave Guide	1	2.00	6.00	0	1	Individual	0.00	N	1.00	1.00	0.00
5.00	106.0	3 1/8" Hard Line	1	3.31	1.13	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
0.00	70.00	7/8" Coax	1	1.09	0.33	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
10.00	18.33	Coax Cage	4	15.0	50.0	0	2,4	Individual	0.00	N	1.00	1.00	0.00

Site Number: 88014  
 Location: New Fairfield, CT  
 Code: ANSI/TIA-222 Rev G  
 Struct Class: II  
 Exposure: B  
 Topo: 1

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### Force/Stress Summary

**Section: 1      1                      Bot Elev (ft): 0.00                      Height (ft): 25.000**

		Force	Len	Bracing %			Fy	phi	Num	Num	Shear	Bear	Use		
Max Compression Member		(kip)	(ft)	X	Y	Z	(ksi)	Pn	Bolts	Holes	phiRnv	phiRn	%	Controls	
LEG	SAE - 8X8X0.875	-198.22	25.10	33	33	33	63.3	36.0	347.12	0	0	0.00	0.00	57	Member Z
HORIZ	DAL - 3X2.5X0.3125	-10.48	14.66	100	100	25	171.7	36.0	24.84	0	0	0.00	0.00	42	Member X
DIAG	DAS - 3.5X3X0.25	-21.89	29.84	33	66	8	145.0	36.0	33.61	0	0	0.00	0.00	65	Member Y

Max Tension Member		Force	Fy	Fu	phi	Pn	Num	Num	Shear	Bear	Use		
		(kip)	(ksi)	(ksi)	(kip)	Bolts	Holes		phiRnv	phiRn	%	Controls	
LEG	SAE - 8X8X0.875	152.52	36	58	428.65	0	0	0.00	0.00	0.00	35	Member	
HORIZ	DAL - 3X2.5X0.3125	11.08	36	58	104.98	0	0	0.00	0.00	0.00	10	Member	
DIAG	DAS - 3.5X3X0.25	20.30	36	58	101.41	0	0	0.00	0.00	0.00	20	Member	

Max Splice Forces		Force	Capacity	Use	Num		
		(kip)	(kip)	%	Bolts	Bolt Type	
Top Tension		151.54	0.00	0	0		
Top Compression		197.19	0.00	0	0		
Bot Tension		178.53	602.76	30	4	2 1/4 A36	
Bot Compression		226.95	0.00	0	0		

**Section: 2      2                      Bot Elev (ft): 25.00                      Height (ft): 25.000**

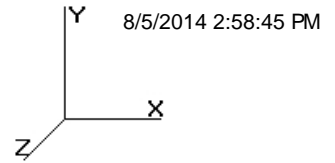
		Force	Len	Bracing %			Fy	phi	Num	Num	Shear	Bear	Use		
Max Compression Member		(kip)	(ft)	X	Y	Z	(ksi)	Pn	Bolts	Holes	phiRnv	phiRn	%	Controls	
LEG	SAE - 8X8X0.75	-165.87	25.10	33	33	33	62.9	36.0	300.96	0	0	0.00	0.00	55	Member Z
HORIZ	DAL - 3X2.5X0.25	-10.22	13.09	100	100	25	155.3	36.0	24.63	0	0	0.00	0.00	41	Member X
DIAG	DAS - 3X2.5X0.25	-23.60	29.02	33	65	8	156.7	36.0	24.19	0	0	0.00	0.00	97	Member Y

Max Tension Member		Force	Fy	Fu	phi	Pn	Num	Num	Shear	Bear	Use		
		(kip)	(ksi)	(ksi)	(kip)	Bolts	Holes		phiRnv	phiRn	%	Controls	
LEG	SAE - 8X8X0.75	125.98	36	58	370.66	0	0	0.00	0.00	0.00	33	Member	
HORIZ	DAL - 3X2.5X0.25	10.66	36	58	85.21	0	0	0.00	0.00	0.00	12	Member	
DIAG	DAS - 3X2.5X0.25	21.55	36	58	85.21	0	0	0.00	0.00	0.00	25	Member	

Max Splice Forces		Force	Capacity	Use	Num		
		(kip)	(kip)	%	Bolts	Bolt Type	
Top Tension		125.03	0.00	0	0		
Top Compression		164.88	0.00	0	0		
Bot Tension		151.54	0.00	0	0		
Bot Compression		197.19	0.00	0	0		

Site Number: 88014  
 Location: New Fairfield, CT  
 Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure : B  
 Topo : 1

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### Force/Stress Summary

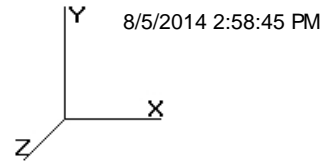
Section: 3		3		Bot Elev (ft): 50.00				Height (ft): 25.000							
		Force	Len	Bracing %			Fy	phi	Num	Num	Shear	Bear	Use		
		(kip)	(ft)	X	Y	Z	(ksi)	Pn	Bolts	Holes	phiRnv	phiRn	%	Controls	
<b>Max Compression Member</b>															
LEG	SAE - 8X8X0.75	-131.90	25.10	33	33	33	62.9	36.0	300.96	0	0	0.00	0.00	43	Member Z
HORIZ	DAE - 2.5X2.5X0.25	-9.32	11.53	100	100	25	165.7	36.0	19.57	0	0	0.00	0.00	47	Member X
DIAG	DAS - 3X2.5X0.25	-23.97	28.26	33	66	8	155.0	36.0	24.73	0	0	0.00	0.00	96	Member Y
<b>Max Tension Member</b>															
LEG	SAE - 8X8X0.75	98.33	36	58	370.66	0	0	0.00	0.00	26	Member				
HORIZ	DAE - 2.5X2.5X0.25	9.87	36	58	77.11	0	0	0.00	0.00	12	Member				
DIAG	DAS - 3X2.5X0.25	22.30	36	58	85.21	0	0	0.00	0.00	26	Member				
<b>Max Splice Forces</b>															
		Force	Capacity	Use	Num										
		(kip)	(kip)	%	Bolts	Bolt Type									
Top Tension		97.47	0.00	0	0										
Top Compression		130.98	0.00	0											
Bot Tension		125.03	0.00	0											
Bot Compression		164.88	0.00	0											

Section: 4		4		Bot Elev (ft): 75.00				Height (ft): 12.500							
		Force	Len	Bracing %			Fy	phi	Num	Num	Shear	Bear	Use		
		(kip)	(ft)	X	Y	Z	(ksi)	Pn	Bolts	Holes	phiRnv	phiRn	%	Controls	
<b>Max Compression Member</b>															
LEG	SAE - 6X6X0.875	-114.56	12.55	50	50	50	64.4	36.0	253.50	0	0	0.00	0.00	45	Member Z
HORIZ	DAE - 2.5X2.5X0.25	-8.25	10.75	100	100	50	165.8	36.0	19.56	0	0	0.00	0.00	42	Member Y
DIAG	DAE - 2.5X2.5X0.25	-13.98	17.02	50	100	12	167.1	36.0	19.26	0	0	0.00	0.00	72	Member Y
<b>Max Tension Member</b>															
LEG	SAE - 6X6X0.875	85.64	36	58	315.25	0	0	0.00	0.00	27	Member				
HORIZ	DAE - 2.5X2.5X0.25	8.77	36	58	77.11	0	0	0.00	0.00	11	Member				
DIAG	DAE - 2.5X2.5X0.25	12.74	36	58	77.11	0	0	0.00	0.00	16	Member				
<b>Max Splice Forces</b>															
		Force	Capacity	Use	Num										
		(kip)	(kip)	%	Bolts	Bolt Type									
Top Tension		84.88	0.00	0	0										
Top Compression		113.73	0.00	0											
Bot Tension		97.47	0.00	0											
Bot Compression		130.98	0.00	0											



Site Number: 88014  
 Location: New Fairfield, CT  
 Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure : B  
 Topo : 1

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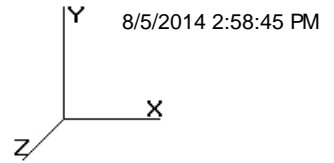
### Force/Stress Summary

Section: 5		5		Bot Elev (ft): 87.50				Height (ft): 25.000								
		Force	Len	Bracing %			Fy	phi	Num	Num	Shear	Bear	Use			
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls
LEG	SAE - 6X6X0.75	-97.94	1.2D + 1.6W 45	12.55	50	50	50	64.4	36.0	219.89	0	0	0.00	0.00	44	Member Z
HORIZ	DAE - 2.5X2.5X0.25	-7.90	0.9D + 1.6W	9.971	100	100	50	154.6	36.0	22.51	0	0	0.00	0.00	35	Member Y
DIAG	DAE - 2.5X2.5X0.25	-13.76	1.2D + 1.6W	16.50	50	100	12	162.8	36.0	20.29	0	0	0.00	0.00	67	Member Y
Max Tension Member		Force	Load Case	Fy	Fu	phi	Pn	Num	Num	Shear	Bear	Use				
		(kip)		(ksi)	(ksi)	(kip)	Bolts	Holes		(kip)	(kip)	%	Controls			
LEG	SAE - 6X6X0.75	72.31	0.9D + 1.6W 45	36	58	273.46	0	0	0.00	0.00	26	Member				
HORIZ	DAE - 2.5X2.5X0.25	8.25	1.2D + 1.6W	36	58	77.11	0	0	0.00	0.00	10	Member				
DIAG	DAE - 2.5X2.5X0.25	12.66	1.2D + 1.6W	36	58	77.11	0	0	0.00	0.00	16	Member				
Max Splice Forces		Force	Load Case	Capacity	Use	Num										
		(kip)		(kip)	%	Bolts	Bolt Type									
Top Tension		59.40	0.9D + 1.6W 45	0.00	0	0										
Top Compression		80.76	1.2D + 1.6W 45	0.00	0											
Bot Tension		84.88	0.9D + 1.6W 45	0.00	0											
Bot Compression		113.73	1.2D + 1.6W 45	0.00	0											

Section: 6		6		Bot Elev (ft): 112.5				Height (ft): 12.500								
		Force	Len	Bracing %			Fy	phi	Num	Num	Shear	Bear	Use			
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls
LEG	SAE - 6X6X0.5625	-65.61	1.2D + 1.6W 45	12.55	50	50	50	63.8	36.0	168.14	0	0	0.00	0.00	39	Member Z
HORIZ	DAE - 2.5X2.5X0.25	-6.22	1.2D + 1.6W	8.408	100	100	50	132.1	36.0	30.76	0	0	0.00	0.00	20	Member Y
DIAG	DAL - 2.5X2X0.25	-12.18	1.2D + 1.6W	15.53	50	100	12	188.1	36.0	13.60	0	0	0.00	0.00	89	Member Y
Max Tension Member		Force	Load Case	Fy	Fu	phi	Pn	Num	Num	Shear	Bear	Use				
		(kip)		(ksi)	(ksi)	(kip)	Bolts	Holes		(kip)	(kip)	%	Controls			
LEG	SAE - 6X6X0.5625	46.95	0.9D + 1.6W 45	36	58	208.33	0	0	0.00	0.00	22	Member				
HORIZ	DAE - 2.5X2.5X0.25	6.54	1.2D + 1.6W	36	58	77.11	0	0	0.00	0.00	8	Member				
DIAG	DAL - 2.5X2X0.25	11.28	1.2D + 1.6W	36	58	69.01	0	0	0.00	0.00	16	Member				
Max Splice Forces		Force	Load Case	Capacity	Use	Num										
		(kip)		(kip)	%	Bolts	Bolt Type									
Top Tension		46.37	0.9D + 1.6W 45	0.00	0	0										
Top Compression		64.99	1.2D + 1.6W 45	0.00	0											
Bot Tension		59.40	0.9D + 1.6W 45	0.00	0											
Bot Compression		80.76	1.2D + 1.6W 45	0.00	0											

Site Number: 88014  
 Location: New Fairfield, CT  
 Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure : B  
 Topo : 1

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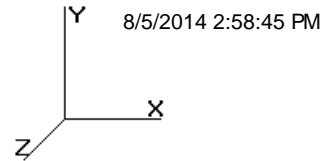
### Force/Stress Summary

Section: 7    6		Bot Elev (ft): 125.0				Height (ft): 12.500									
		Force	Len	Bracing %			Fy	phi	Num	Num	Shear	Bear	Use		
		(kip)	(ft)	X	Y	Z	(ksi)	Pn	Bolts	Holes	phiRnv	phiRn	%	Controls	
<b>Max Compression Member</b>															
LEG	SAE - 6X6X0.5625	-49.74	12.55	50	50	50	63.8	36.0	168.14	0	0	0.00	0.00	29	Member Z
HORIZ	DAE - 2.5X2.5X0.25	-5.94	7.626	100	120	50	131.2	36.0	31.18	0	0	0.00	0.00	19	Member Y
DIAG	DAL - 2.5X2X0.25	-12.21	15.08	50	100	12	183.4	36.0	14.30	0	0	0.00	0.00	85	Member Y
<b>Max Tension Member</b>															
		Force	Fy	Fu	phi	Pn	Num	Num	Shear	Bear	Use				
		(kip)	(ksi)	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls				
LEG	SAE - 6X6X0.5625	33.58	36	58	208.33	0	0	0.00	0.00	16	Member				
HORIZ	DAE - 2.5X2.5X0.25	6.10	36	58	77.11	0	0	0.00	0.00	7	Member				
DIAG	DAL - 2.5X2X0.25	11.37	36	58	69.01	0	0	0.00	0.00	16	Member				
<b>Max Splice Forces</b>															
		Force	Capacity	Use	Num										
		(kip)	(kip)	%	Bolts	Bolt Type									
Top Tension		33.04	0.00	0	0										
Top Compression		49.18	0.00	0											
Bot Tension		46.37	0.00	0											
Bot Compression		64.99	0.00	0											

Section: 8    7		Bot Elev (ft): 137.5				Height (ft): 12.500									
		Force	Len	Bracing %			Fy	phi	Num	Num	Shear	Bear	Use		
		(kip)	(ft)	X	Y	Z	(ksi)	Pn	Bolts	Holes	phiRnv	phiRn	%	Controls	
<b>Max Compression Member</b>															
LEG	SAE - 6X6X0.4375	-34.98	12.55	50	50	50	63.3	36.0	132.79	0	0	0.00	0.00	26	Member Z
HORIZ	DAE - 2.5X2.5X0.25	-4.42	6.845	100	107	50	111.6	36.0	40.04	0	0	0.00	0.00	11	Member Y
DIAG	DAL - 2.5X2X0.25	-10.49	14.66	50	100	12	179.1	36.0	15.01	0	0	0.00	0.00	69	Member Y
<b>Max Tension Member</b>															
		Force	Fy	Fu	phi	Pn	Num	Num	Shear	Bear	Use				
		(kip)	(ksi)	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls				
LEG	SAE - 6X6X0.4375	22.07	36	58	163.94	0	0	0.00	0.00	13	Member				
HORIZ	DAE - 2.5X2.5X0.25	5.19	36	58	77.11	0	0	0.00	0.00	6	Member				
DIAG	DAL - 2.5X2X0.25	9.77	36	58	69.01	0	0	0.00	0.00	14	Member				
<b>Max Splice Forces</b>															
		Force	Capacity	Use	Num										
		(kip)	(kip)	%	Bolts	Bolt Type									
Top Tension		21.58	0.00	0	0										
Top Compression		34.39	0.00	0											
Bot Tension		33.04	0.00	0											
Bot Compression		49.18	0.00	0											

Site Number: 88014  
 Location: New Fairfield, CT  
 Code: ANSI/TIA-222 Rev G  
 Struct Class: II  
 Exposure: B  
 Topo: 1

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### Force/Stress Summary

**Section: 9    8 - lower                      Bot Elev (ft): 150.0                      Height (ft): 10.167**

		Force	Len	Bracing %			Fy	phi	Num	Num	Shear	Bear	Use		
		(kip)	(ft)	X	Y	Z	(ksi)	Pn	Bolts	Holes	phiRnv	phiRn	%	Controls	
<b>Max Compression Member</b>															
LEG	SAE - 5X5X0.4375	-27.18	10.21	50	50	50	62.1	36.0	110.54	0	0	0.00	0.00	24	Member Z
HORIZ	SAU - 3X2.5X0.25	-1.30	12.41	50	100	50	167.9	36.0	10.50	0	0	0.00	0.00	12	Member Y
DIAG	SAE - 3.5X3.5X0.25	-6.28	16.55	50	50	50	137.7	34.8	20.14	0	0	0.00	0.00	31	Member Z

		Force	Fy	Fu	phi	Pn	Num	Num	Shear	Bear	Use		
		(kip)	(ksi)	(ksi)	(kip)	Bolts	Holes	Holes	phiRnv	phiRn	%	Controls	
<b>Max Tension Member</b>													
LEG	SAE - 5X5X0.4375	16.74	36	58	135.43	0	0	0	0.00	0.00	12	Member	
HORIZ	SAU - 3X2.5X0.25	2.07	36	58	42.44	0	0	0	0.00	0.00	4	Member	
DIAG	SAE - 3.5X3.5X0.25	5.00	36	58	54.76	0	0	0	0.00	0.00	9	Member	

		Force	Capacity	Use	Num		
		(kip)	(kip)	%	Bolts	Bolt Type	
<b>Max Splice Forces</b>							
Top Tension		11.77	0.00	0	0		
Top Compression		23.53	0.00	0			
Bot Tension		21.58	0.00	0			
Bot Compression		34.39	0.00	0			

**Section: 10    8 - upper                      Bot Elev (ft): 160.1                      Height (ft): 10.167**

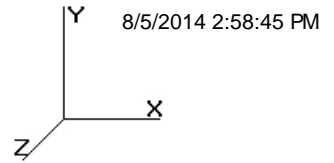
		Force	Len	Bracing %			Fy	phi	Num	Num	Shear	Bear	Use		
		(kip)	(ft)	X	Y	Z	(ksi)	Pn	Bolts	Holes	phiRnv	phiRn	%	Controls	
<b>Max Compression Member</b>															
LEG	SAE - 5X5X0.4375	-16.79	10.21	50	50	50	62.1	36.0	110.54	0	0	0.00	0.00	15	Member Z
HORIZ	DAL - 3X2.5X0.25	-0.67	11.14	50	100	50	172.4	36.0	19.99	0	0	0.00	0.00	3	Member Y
DIAG	SAE - 3.5X3.5X0.25	-4.42	15.57	50	50	50	131.2	34.8	22.04	0	0	0.00	0.00	20	Member Z

		Force	Fy	Fu	phi	Pn	Num	Num	Shear	Bear	Use		
		(kip)	(ksi)	(ksi)	(kip)	Bolts	Holes	Holes	phiRnv	phiRn	%	Controls	
<b>Max Tension Member</b>													
LEG	SAE - 5X5X0.4375	9.69	36	58	135.43	0	0	0	0.00	0.00	7	Member	
HORIZ	DAL - 3X2.5X0.25	1.30	36	58	85.21	0	0	0	0.00	0.00	1	Member	
DIAG	SAE - 3.5X3.5X0.25	3.45	36	58	54.76	0	0	0	0.00	0.00	6	Member	

		Force	Capacity	Use	Num		
		(kip)	(kip)	%	Bolts	Bolt Type	
<b>Max Splice Forces</b>							
Top Tension		5.81	0.00	0	0		
Top Compression		13.97	0.00	0			
Bot Tension		11.77	0.00	0			
Bot Compression		23.53	0.00	0			

Site Number: 88014  
 Location: New Fairfield, CT  
 Code: ANSI/TIA-222 Rev G  
 Struct Class: II  
 Exposure: B  
 Topo: 1

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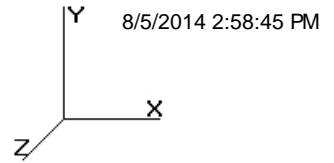
### Force/Stress Summary

Section: 11		9 - lower		Bot Elev (ft): 170.3				Height (ft): 8.583							
		Force (kip)		Len (ft)	Bracing %			Fy (ksi)	phi Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
		Load Case			X	Y	Z	KL/R							
<b>Max Compression Member</b>															
LEG	SAE - 5X5X0.3125	-9.17	1.2D + 1.6W 45	8.62	50	50	50	52.0	35.9	84.92	0	0	0.00	0.00	10 Member Z
HORIZ	SAU - 3X2.5X0.25	-0.34	0.9D + 1.6W	10.07	50	100	50	144.9	36.0	14.09	0	0	0.00	0.00	2 Member Y
DIAG	SAE - 3X3X0.25	-2.89	1.2D + 1.6W	13.65	50	50	50	134.1	36.0	18.10	0	0	0.00	0.00	15 Member Z
<b>Max Tension Member</b>															
		Force (kip)	Load Case	Fy (ksi)	Fu (ksi)	phi t (kip)	Pn Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls			
LEG	SAE - 5X5X0.3125	4.03	1.2D + 1.6W 45	36	58	98.17	0	0	0.00	0.00	4	Member			
HORIZ	SAU - 3X2.5X0.25	0.83	1.2D + 1.6W	36	58	42.44	0	0	0.00	0.00	1	Member			
DIAG	SAE - 3X3X0.25	2.20	1.2D + 1.6W	36	58	46.66	0	0	0.00	0.00	4	Member			
<b>Max Splice Forces</b>															
		Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type								
Top Tension		2.12	0.9D + 1.6W 45	0.00	0	0									
Top Compression		7.97	1.2D + 1.0Di +	0.00	0										
Bot Tension		5.81	0.9D + 1.6W 45	0.00	0										
Bot Compression		13.97	1.2D + 1.6W 45	0.00	0										

Section: 12		9 - upper		Bot Elev (ft): 178.9				Height (ft): 8.583							
		Force (kip)		Len (ft)	Bracing %			Fy (ksi)	phi Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
		Load Case			X	Y	Z	KL/R							
<b>Max Compression Member</b>															
LEG	SAE - 5X5X0.3125	-4.78	1.2D + 1.0Di +	8.62	50	50	50	52.0	35.9	84.92	0	0	0.00	0.00	5 Member Z
HORIZ	CHN - C8 x 11.5	-0.06	1.2D + 1.6W	9.001	100	100	100	160.3	36.0	29.72	0	0	0.00	0.00	0 Member Y
DIAG	SAE - 3X3X0.25	-2.89	1.2D + 1.6W	12.84	50	50	50	127.8	36.0	19.75	0	0	0.00	0.00	14 Member Z
<b>Max Tension Member</b>															
		Force (kip)	Load Case	Fy (ksi)	Fu (ksi)	phi t (kip)	Pn Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls			
LEG	SAE - 5X5X0.3125	0.11	1.2D + 1.6W 45	36	58	98.17	0	0	0.00	0.00	0	Member			
HORIZ	CHN - C8 x 11.5	0.07	1.2D + 1.6W	36	58	109.51	0	0	0.00	0.00	0	Member			
DIAG	SAE - 3X3X0.25	2.20	1.2D + 1.6W	36	58	46.66	0	0	0.00	0.00	4	Member			
<b>Max Splice Forces</b>															
		Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type								
Top Tension		0.00		0.00	0	0									
Top Compression		5.42	1.2D + 1.0Di +	0.00	0										
Bot Tension		2.12	0.9D + 1.6W 45	0.00	0										
Bot Compression		7.97	1.2D + 1.0Di +	0.00	0										

**Site Number: 88014**  
**Location: New Fairfield, CT**  
**Code: ANSI/TIA-222 Rev G**  
**Struct Class : II**  
**Exposure : B**  
**Topo : 1**

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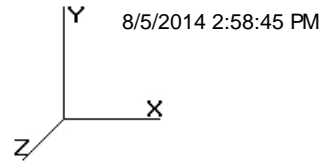


## Support Forces Summary

Load Case	Node	FX (kip)	FY (kip)	FZ (kip)	(-) = Uplift (+) = Down
0.9D + 1.6W Normal	1c	9.94	154.94	-20.82	
	1b	-6.70	-111.47	-17.72	
	1a	6.70	-111.47	-17.72	
	1	-9.94	154.94	-20.82	
1.0D + 1.0W Service 45 deg	1c	-0.22	24.29	-3.83	
	1b	-3.31	-25.10	-3.30	
	1a	-3.83	24.01	-0.23	
	1	-6.90	73.40	-6.90	
1.0D + 1.0W Service Normal	1c	3.88	57.37	-6.60	
	1b	-0.27	-9.06	-3.01	
	1a	0.27	-9.06	-3.01	
	1	-3.88	57.37	-6.60	
1.2D + 1.0Di + 1.0Wi 45 deg	1c	2.33	69.27	-7.69	
	1b	-1.65	5.86	-1.64	
	1a	-7.68	69.01	2.32	
	1	-11.64	132.43	-11.64	
1.2D + 1.0Di + 1.0Wi Normal	1c	7.65	111.38	-11.23	
	1b	2.36	26.91	-1.23	
	1a	-2.36	26.91	-1.23	
	1	-7.65	111.38	-11.23	
0.9D + 1.6W 45 deg	1c	-6.49	22.29	-9.78	
	1b	-18.95	-175.77	-18.91	
	1a	-9.75	21.17	-6.52	
	1	-22.03	219.25	-21.99	
1.2D + 1.6W 45 deg	1c	-5.94	29.54	-10.32	
	1b	-18.41	-168.63	-18.38	
	1a	-10.28	28.42	-5.98	
	1	-22.57	226.60	-22.53	
1.2D + 1.6W Normal	1c	10.49	162.25	-21.36	
	1b	-6.16	-104.29	-17.18	
	1a	6.16	-104.29	-17.18	
	1	-10.49	162.25	-21.36	

Max Uplift:	175.77 (kip)	Moment:	9,067.66 (kip-ft)	1.2D + 1.6W 45 deg
Max Down:	226.60 (kip)	Total Down:	115.92 (kip)	
Max Shear:	31.89 (kip)	Total Shear:	80.91 (kip)	

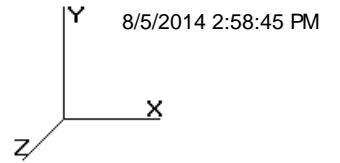
Site Number: 88014  
 Location: New Fairfield, CT  
 Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure : B  
 Topo : 1



### Deflections and Rotations

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)
Serviceability - 60.00 Wind 45 deg	50.00	0.0117	0.0438	0.0228
	75.00	0.0230	0.0669	0.0282
	87.50	0.0290	0.0911	0.0294
	100.00	0.0356	0.1168	0.0427
	137.50	0.0601	0.1700	0.0489
	160.17	0.0776	0.2045	0.0528
	170.33	0.0856	0.2177	0.0500
	187.50	0.0996	0.2474	0.0948
Serviceability - 60.00 Wind Normal	50.00	0.0112	0.0276	0.0224
	75.00	0.0219	0.0427	0.0325
	87.50	0.0276	0.0586	0.0259
	100.00	0.0340	0.0754	0.0552
	137.50	0.0574	0.1089	0.0629
	160.17	0.0740	0.1303	0.0662
	170.33	0.0817	0.1385	0.0530
	187.50	0.0951	0.1580	0.1134
50.00 mph 45 deg with 0.75 in Radial Ice	50.00	0.0186	0.0388	0.0306
	75.00	0.0329	0.0593	0.0365
	87.50	0.0403	0.0800	0.0367
	100.00	0.0485	0.1019	0.0484
	137.50	0.0782	0.1448	0.0559
	160.17	0.0987	0.1735	0.0594
	170.33	0.1083	0.1848	0.0578
	187.50	0.1247	0.2115	0.0968
50.00 mph Normal with 0.75 in Radial Ice	50.00	0.0170	0.0236	0.0290
	75.00	0.0305	0.0366	0.0407
	87.50	0.0374	0.0500	0.0320
	100.00	0.0452	0.0639	0.0611
	137.50	0.0734	0.0898	0.0675
	160.17	0.0928	0.1070	0.0711
	170.33	0.1019	0.1136	0.0596
	187.50	0.1175	0.1309	0.1174
95.00 mph 45 deg with No Ice (Reduced DL)	50.00	0.0469	0.1984	0.0912
	75.00	0.0922	0.3029	0.1134
	87.50	0.1160	0.4122	0.1191
	100.00	0.1427	0.5290	0.1716
	137.50	0.2410	0.7824	0.2015
	160.17	0.3110	0.9519	0.2192
	170.33	0.3432	1.0180	0.2071
	187.50	0.3992	1.1540	0.3823
95.00 mph 45 deg with No Ice	50.00	0.0469	0.1984	0.0912
	75.00	0.0923	0.3029	0.1136
	87.50	0.1161	0.4122	0.1192
	100.00	0.1428	0.5290	0.1717
	137.50	0.2411	0.7825	0.2017
	160.17	0.3112	0.9519	0.2194
	170.33	0.3435	1.0181	0.2073
	187.50	0.3995	1.1541	0.3825

**Site Number: 88014**  
**Location: New Fairfield, CT**  
**Code: ANSI/TIA-222 Rev G**  
**Struct Class : II**  
**Exposure : B**  
**Topo : 1**



<b>95.00 mph Normal to Face with No Ice (Reduced DL)</b>	50.00	0.0446	0.1279	0.0903
	75.00	0.0879	0.1971	0.1318
	87.50	0.1106	0.2702	0.1059
	100.00	0.1361	0.3477	0.2248
	137.50	0.2300	0.5131	0.2583
	160.17	0.2966	0.6239	0.2727
	170.33	0.3276	0.6669	0.2206
<b>95.00 mph Normal to Face with No Ice</b>	187.50	0.3814	0.7576	0.4651
	50.00	0.0447	0.1279	0.0905
	75.00	0.0879	0.1971	0.1319
	87.50	0.1106	0.2702	0.1059
	100.00	0.1362	0.3477	0.2250
	137.50	0.2301	0.5131	0.2584
	160.17	0.2968	0.6239	0.2729
170.33	0.3278	0.6669	0.2208	
187.50	0.3817	0.7576	0.4653	
187.50	0.0000	0.0000	0.0000	

## Foundation

### Design Loads (Factored)

Compression/Leg:	226.60	k
Uplift/Leg:	175.77	k

Face Width @ Top of Pier ( $d_1$ ):	3.58	ft
Face Width @ Bottom of Pier ( $d_2$ ):	6.00	ft
Total Length of Pier (l):	6.50	ft
Height of Pedestal Above Ground (h):	0.63	ft
Width of Pad (W):	16.00	ft
Length of Pad (L):	16.00	ft
Thickness of Pad (t):	3.00	ft
Unit Weight of Concrete:	150.0	pcf
Unit Weight of Soil:	120.0	pcf
Friction Angle of Uplift (A):	30	°
Ultimate Compressive Bearing Pressure:	4500	psf

Volume Pier:	152.31	ft <sup>3</sup>
Volume Pad:	768.00	ft <sup>3</sup>
Weight Pad:	115.20	kips
Weight Pier:	22.85	kips
Volume Soil:	2088.04	ft <sup>3</sup>
Weight Soil:	250.56	kips

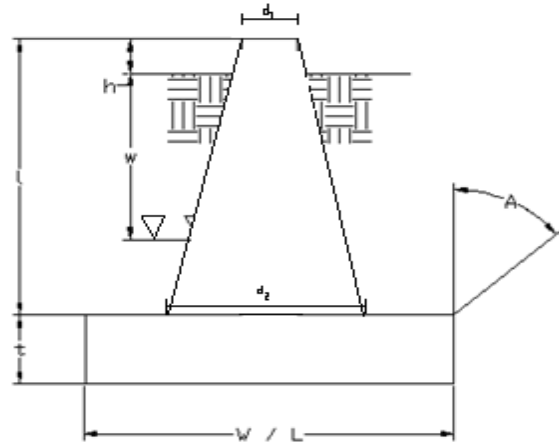
### Uplift Check

$\phi_s$ Uplift Resistance (k)	Ratio	Result
291.46	0.60	<b>OK</b>

### Axial Check

$\phi_s$ Axial Resistance (k)	Ratio	Result
864.00	0.26	<b>OK</b>

Site No.:	88014
Engineer:	CCP
Date:	08/05/14
Carrier:	Sprint Nextel





# Sprint



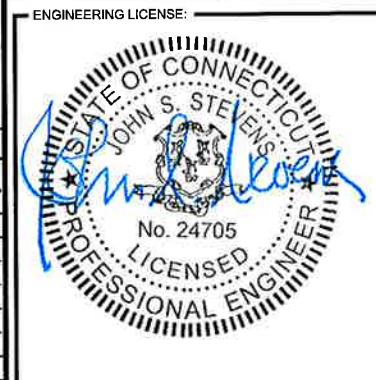
# AMERICAN TOWER CORPORATION

PROJECT: 2.5 EQUIPMENT DEPLOYMENT  
 SITE NAME: NEW FAIRFIELD  
 SITE CASCADE: CT72XC032  
 SITE NUMBER: 88014  
 SITE ADDRESS: 16 TITICUS MOUNTAIN ROAD  
 NEW FAIRFIELD, CT 06812  
 SITE TYPE: SELF SUPPORT TOWER  
 MARKET: SOUTHERN CONNECTICUT

PLANS PREPARED FOR:  
**Sprint**  
 6580 Sprint Parkway  
 Overland Park, Kansas 66251

PLANS PREPARED BY:  
**INFINIGY** Design. Build. Deliver.  
 1033 Watervliet Shaker Rd  
 Albany, NY 12205  
 Office # (518) 690-0790  
 Fax # (518) 690-0793  
 JOB NUMBER 340-000

MLA PARTNER:  
**AMERICAN TOWER CORPORATION**  
 10 PRESIDENTIAL WAY  
 WOBURN, MA 01801



DRAWING NOTICE:  
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REVISIONS:	DESCRIPTION	DATE	BY	REV
FOR PERMIT		07/11/14	JLM	1
ISSUED FOR CONSTRUCTION		06/05/14	JLM	0

SITE NAME:  
**NEW FAIRFIELD**

SITE CASCADE:  
**CT72XC032**

SITE ADDRESS:  
 16 TITICUS MOUNTAIN ROAD  
 NEW FAIRFIELD, CT 06812

SHEET DESCRIPTION:  
**TITLE SHEET & PROJECT DATA**

SHEET NUMBER:  
**T-1**

**SITE INFORMATION**

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

**LATITUDE (NAD83):**  
 41° 27' 02.39" N  
 41.450864°

**LONGITUDE (NAD83):**  
 73° 30' 57.36" W  
 -73.515933°

**COUNTY:**  
 FAIRFIELD

**ZONING JURISDICTION:**  
 CONNECTICUT SITING COUNCIL

**ZONING DISTRICT:**  
 R-88 (2 ACRE RESIDENTIAL)

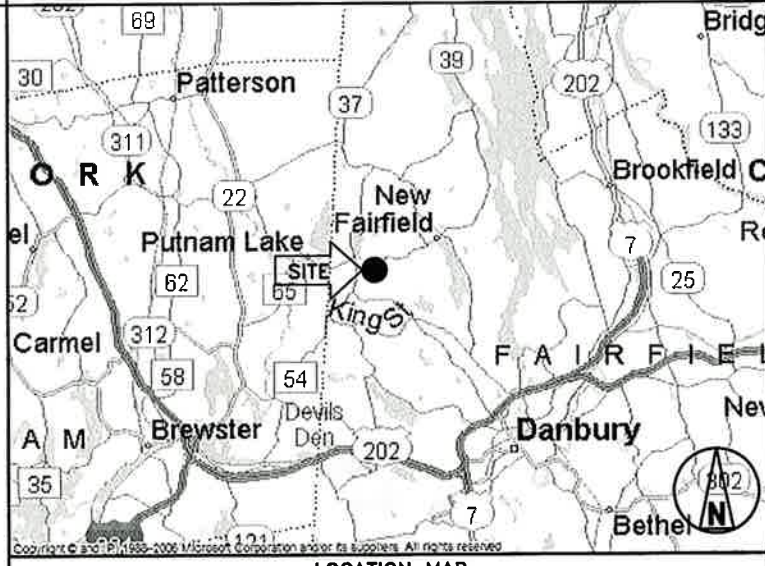
**POWER COMPANY:**  
 CL&P  
 (800) 286-2000

**AAV PROVIDER:**  
 AT&T  
 (800) 246-2020

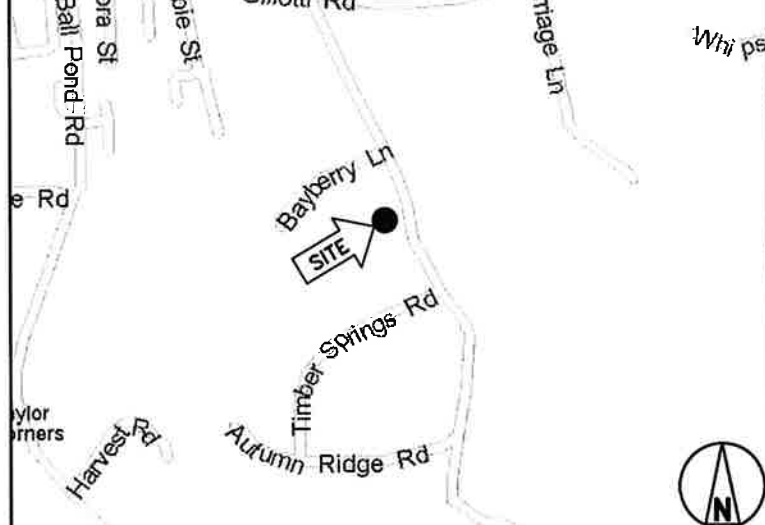
**SPRINT CM:**  
 GARY WOOD  
 (860) 940-9168  
 GARY.WOOD@SPRINT.COM

**AMERICAN TOWER PM:**  
 JOE SHANAHAN  
 (781) 926-4521  
 JOSEPH.SHANAHAN@AMERICANTOWER.COM

**AREA MAP**



**LOCATION MAP**



**PROJECT DESCRIPTION**

SPRINT PROPOSES TO MODIFY AN EXISTING UNMANNED TELECOMMUNICATIONS FACILITY.

- INSTALL 2.5 EQUIPMENT IN EXISTING NV MMBS CABINET
- INSTALL (3) PANEL ANTENNAS
- INSTALL (3) RRU'S TO TOWER
- INSTALL (27) JUMPER CABLES
- INSTALL (1) HYBRID CABLE
- INSTALL (4) BATTERIES IN EXISTING BBU RACK

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.

- INTERNATIONAL BUILDING CODE (2012 IBC)
- TIA-EIA-222-G OR LATEST EDITION
- NFPA 780 - LIGHTNING PROTECTION CODE
- 2011 NATIONAL ELECTRIC CODE OR LATEST EDITION
- ANY OTHER NATIONAL OR LOCAL APPLICABLE CODES, MOST RECENT EDITIONS
- CT BUILDING CODE
- LOCAL BUILDING CODE
- CITY/COUNTY ORDINANCES

**DRAWING INDEX**

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SP-3	SPRINT SPECIFICATIONS	1
A-1	SITE PLAN	1
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A-2	TOWER ELEVATION & CABLE PLAN	1
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A-4	COLOR CODING & NOTES	1
A-5	EQUIPMENT & MOUNTING DETAILS	1
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E-1	ELECTRICAL & GROUNDING PLAN	1
E-2	ELECTRICAL & GROUNDING DETAILS	1





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

**SECTION 01 100 – SCOPE OF WORK**

**PART 1 – GENERAL**

- 1.1 THE WORK: THESE STANDARD CONSTRUCTION SPECIFICATIONS IN CONJUNCTION WITH THE SPRINT CONSTRUCTION STANDARDS FOR WIRELESS SITES, CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.
- 1.2 RELATED DOCUMENTS:
  - A. THE REQUIREMENTS OF THIS SECTION APPLY TO ALL SECTIONS IN THIS SPECIFICATION.
  - B. SPRINT "STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES" ARE INCLUDED IN AND MADE A PART OF THESE SPECIFICATIONS HEREWITH.
- 1.3 PRECEDENCE: SHOULD CONFLICTS OCCUR BETWEEN THE STANDARD CONSTRUCTION SPECIFICATIONS FOR WIRELESS SITES INCLUDING THE STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES AND THE CONSTRUCTION DRAWINGS, INFORMATION ON THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE. NOTIFY SPRINT CONSTRUCTION MANAGER IF THIS OCCURS.
- 1.4 NATIONALLY RECOGNIZED CODES AND STANDARDS:
  - A. THE WORK SHALL COMPLY WITH APPLICABLE NATIONAL AND LOCAL CODES AND STANDARDS, LATEST EDITION, AND PORTIONS THEREOF, INCLUDED BUT NOT LIMITED TO THE FOLLOWING:
    - 1. GR-63-CORE NEBS REQUIREMENTS: PHYSICAL PROTECTION
    - 5. GR-78-CORE GENERIC REQUIREMENTS FOR THE PHYSICAL DESIGN AND MANUFACTURE OF TELECOMMUNICATIONS EQUIPMENT.
    - 3. GR-1089 CORE, ELECTROMAGNETIC COMPATIBILITY AND ELECTRICAL SAFETY –GENERIC CRITERIA FOR NETWORK TELECOMMUNICATIONS EQUIPMENT.
    - 4. NATIONAL FIRE PROTECTION ASSOCIATION CODES AND STANDARDS (NFPA) INCLUDING NFPA 70 (NATIONAL ELECTRICAL CODE – "NEC") AND NFPA 101 (LIFE SAFETY CODE).
    - 5. AMERICAN SOCIETY FOR TESTING OF MATERIALS (ASTM)
    - 6. INSTITUTE OF ELECTRONIC AND ELECTRICAL ENGINEERS (IEEE)
    - 7. AMERICAN CONCRETE INSTITUTE (ACI)
    - 8. AMERICAN WIRE PRODUCERS ASSOCIATION (AWPA)
    - 9. CONCRETE REINFORCING STEEL INSTITUTE (CRSI)
    - 10. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO)
    - 11. PORTLAND CEMENT ASSOCIATION (PCA)
    - 12. NATIONAL CONCRETE MASONRY ASSOCIATION (NCMA)
    - 13. BRICK INDUSTRY ASSOCIATION (BIA)
    - 14. AMERICAN WELDING SOCIETY (AWS)
    - 15. NATIONAL ROOFING CONTRACTORS ASSOCIATION (NRCA)
    - 16. SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION (SMACNA)
    - 17. DOOR AND HARDWARE INSTITUTE (DHI)
    - 18. OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA)
    - 19. APPLICABLE BUILDING CODES INCLUDING UNIFORM BUILDING CODE, SOUTHERN BUILDING CODE, BOCA, AND THE INTERNATIONAL BUILDING CODE.

**1.5 DEFINITIONS:**

- A. WORK: THE SUM OF TASKS AND RESPONSIBILITIES IDENTIFIED IN THE CONTRACT DOCUMENTS.
- B. COMPANY: SPRINT CORPORATION
- C. ENGINEER: SYNONYMOUS WITH ARCHITECT & ENGINEER AND "A&E". THE DESIGN PROFESSIONAL HAVING PROFESSIONAL RESPONSIBILITY FOR DESIGN OF THE PROJECT.
- D. CONTRACTOR: CONSTRUCTION CONTRACTOR; CONSTRUCTION VENDOR; INDIVIDUAL OR ENTITY WHO AFTER EXECUTION OF A CONTRACT IS BOUND TO ACCOMPLISH THE WORK.
- E. THIRD PARTY VENDOR OR AGENCY: A VENDOR OR AGENCY ENGAGED SEPARATELY BY THE COMPANY, A&E, OR CONTRACTOR TO PROVIDE MATERIALS OR TO ACCOMPLISH SPECIFIC TASKS RELATED TO BUT NOT INCLUDED IN THE WORK.
- F. OFCI: OWNER FURNISHED, CONTRACTOR INSTALLED EQUIPMENT.
- G. CONSTRUCTION MANAGER – ALL PROJECTS RELATED COMMUNICATION TO FLOW THROUGH SPRINT REPRESENTATIVE IN CHARGE OF PROJECT...

- 1.6 SITE FAMILIARITY: CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE SPRINT CONSTRUCTION MANAGER PRIOR TO THE COMMENCEMENT OF WORK. NO COMPENSATION WILL BE AWARDED BASED ON CLAIM OF LACK OF KNOWLEDGE OR FIELD CONDITIONS.
- 1.7 POINT OF CONTACT: COMMUNICATION BETWEEN SPRINT AND THE CONTRACTOR SHALL FLOW THROUGH THE SINGLE SPRINT CONSTRUCTION MANAGER APPOINTED TO MANAGE THE PROJECT FOR SPRINT.
- 1.8 ON-SITE SUPERVISION: THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL EMPLOY A COMPETENT SUPERINTENDENT WHO SHALL BE IN ATTENDANCE AT THE SITE AT ALL TIMES DURING PERFORMANCE OF THE WORK.
- 1.9 DRAWINGS, SPECIFICATIONS AND DETAILS REQUIRED AT JOBSITE: THE CONSTRUCTION CONTRACTOR SHALL MAINTAIN A FULL SET OF THE CONSTRUCTION DRAWINGS, STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES AND THE STANDARD CONSTRUCTION SPECIFICATIONS FOR WIRELESS SITES AT THE JOBSITE FROM MOBILIZATION THROUGH CONSTRUCTION COMPLETION.

- A. THE JOBSITE DRAWINGS, SPECIFICATIONS AND DETAILS SHALL BE CLEARLY MARKED DAILY IN RED PENCIL WITH ANY CHANGES IN CONSTRUCTION OVER WHAT IS DEPICTED IN THE DOCUMENTS. AT CONSTRUCTION COMPLETION, THIS JOBSITE MARKUP SET SHALL BE DELIVERED TO THE COMPANY OR COMPANY'S DESIGNATED REPRESENTATIVE TO BE FORWARDED TO THE COMPANY'S A&E VENDOR FOR PRODUCTION OF "AS-BUILT" DRAWINGS.
  - B. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK. CONTRACTOR SHALL NOTIFY SPRINT CONSTRUCTION MANAGER OF ANY VARIATIONS PRIOR TO PROCEEDING WITH THE WORK.
  - C. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS NOTED OTHERWISE. SPACING BETWEEN EQUIPMENT IS THE REQUIRED CLEARANCE. SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, EXISTING CONDITIONS AND/OR DESIGN INTENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE SPRINT CONSTRUCTION MANAGER PRIOR TO PROCEEDING WITH THE WORK.
  - 1.10 USE OF JOB SITE: THE CONTRACTOR SHALL CONFINE ALL CONSTRUCTION AND RELATED OPERATIONS INCLUDING STAGING AND STORAGE OF MATERIALS AND EQUIPMENT, PARKING, TEMPORARY FACILITIES, AND WASTE STORAGE TO THE LEASE PARCEL UNLESS OTHERWISE PERMITTED BY THE CONTRACT DOCUMENTS.
  - 1.11 UTILITIES SERVICES: WHERE NECESSARY TO CUT EXISTING PIPES, ELECTRICAL WIRES, CONDUITS, CABLES, ETC., OF UTILITY SERVICES, OR OF FIRE PROTECTION OR COMMUNICATIONS SYSTEMS, THEY SHALL BE CUT AND CAPPED AT SUITABLE PLACES OR WHERE SHOWN. ALL SUCH ACTIONS SHALL BE COORDINATED WITH THE UTILITY COMPANY INVOLVED:
  - 1.12 PERMITS / FEES: WHEN REQUIRED THAT A PERMIT OR CONNECTION FEE BE PAID TO A PUBLIC UTILITY PROVIDER FOR NEW SERVICE TO THE CONSTRUCTION PROJECT, PAYMENT OF SUCH FEE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
  - 1.13 CONTRACTOR SHALL TAKE ALL MEASURES AND PROVIDE ALL MATERIAL NECESSARY FOR PROTECTING EXISTING EQUIPMENT AND PROPERTY.
  - 1.14 METHODS OF PROCEDURE (MOPS) FOR CONSTRUCTION: CONTRACTOR SHALL PERFORM WORK AS DESCRIBED IN THE FOLLOWING INSTALLATION AND COMMISSIONING MOPS.
- NOTE: IN SHORT-FORM SPECIFICATIONS ON THE DRAWINGS, A/E TO INSERT LIST OF APPLICABLE MOPS INCLUDING EN-2012-001, EN-2013-002, EL-0568, AND TS-0193
- 1.15 USE OF ELECTRONIC PROJECT MANAGEMENT SYSTEMS:

**PART 2 – PRODUCTS (NOT USED)**

**PART 3 – EXECUTION**

- 3.1 TEMPORARY UTILITIES AND FACILITIES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY UTILITIES AND FACILITIES NECESSARY EXCEPT AS OTHERWISE INDICATED IN THE CONSTRUCTION DOCUMENTS. TEMPORARY UTILITIES AND FACILITIES INCLUDE POTABLE WATER, HEAT, HVAC, ELECTRICITY, SANITARY FACILITIES, WASTE DISPOSAL FACILITIES, AND TELEPHONE/COMMUNICATION SERVICES. PROVIDE TEMPORARY UTILITIES AND FACILITIES IN ACCORDANCE WITH OSHA AND THE AUTHORITY HAVING JURISDICTION. CONTRACTOR MAY UTILIZE THE COMPANY ELECTRICAL SERVICE IN THE COMPLETION OF THE WORK WHEN IT BECOMES AVAILABLE. USE OF THE LESSORS OR SITE OWNER'S UTILITIES OR FACILITIES IS EXPRESSLY FORBIDDEN EXCEPT AS OTHERWISE ALLOWED IN THE CONTRACT DOCUMENTS.
- 3.2 ACCESS TO WORK: THE CONTRACTOR SHALL PROVIDE ACCESS TO THE JOB SITE FOR AUTHORIZED COMPANY PERSONNEL AND AUTHORIZED REPRESENTATIVES OF THE ARCHITECT/ENGINEER DURING ALL PHASES OF THE WORK.
- 3.3 TESTING: REQUIREMENTS FOR TESTING BY THIS CONTRACTOR SHALL BE AS INDICATED HEREWITH, ON THE CONSTRUCTION DRAWINGS, AND IN THE INDIVIDUAL SECTIONS OF THESE SPECIFICATIONS. SHOULD COMPANY CHOOSE TO ENGAGE ANY THIRD-PARTY TO CONDUCT ADDITIONAL TESTING, THE CONTRACTOR SHALL COOPERATE WITH AND PROVIDE A WORK AREA FOR COMPANY'S TEST AGENCY.
- 3.4 DIMENSIONS: VERIFY DIMENSIONS INDICATED ON DRAWINGS WITH FIELD DIMENSIONS BEFORE FABRICATION OR ORDERING OF MATERIALS. DO NOT SCALE DRAWINGS.

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

**SECTION 01 200 – COMPANY FURNISHED MATERIAL AND EQUIPMENT**

**PART 1 – GENERAL**

- 1.1 THE WORK: THESE STANDARD CONSTRUCTION SPECIFICATIONS IN CONJUNCTION WITH THE OTHER CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.
- 1.2 RELATED DOCUMENTS:
  - A. THE REQUIREMENTS OF THIS SECTION APPLY TO ALL SECTIONS IN THIS SPECIFICATION.
  - B. SPRINT "STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES" ARE INCLUDED IN AND MADE A PART OF THESE SPECIFICATIONS HEREWITH.

**PART 2 – PRODUCTS (NOT USED)**

**PART 3 – EXECUTION**

- 3.1 RECEIPT OF MATERIAL AND EQUIPMENT:
  - A. A COMPANY FURNISHED MATERIAL AND EQUIPMENT IS IDENTIFIED ON THE RF DATA SHEET IN THE CONSTRUCTION DOCUMENTS.
  - B. THE CONTRACTOR IS RESPONSIBLE FOR SPRINT PROVIDED MATERIAL AND EQUIPMENT AND UPON RECEIPT SHALL:
    - 1. ACCEPT DELIVERIES AS SHIPPED AND TAKE RECEIPT.
    - 2. VERIFY COMPLETENESS AND CONDITION OF ALL DELIVERIES.
    - 3. TAKE RESPONSIBILITY FOR EQUIPMENT AND PROVIDE INSURANCE PROTECTION AS REQUIRED IN AGREEMENT.
    - 4. RECORD ANY DEFECTS OR DAMAGES AND WITHIN TWENTY-FOUR HOURS AFTER RECEIPT, REPORT TO SPRINT OR ITS DESIGNATED PROJECT REPRESENTATIVE OF SUCH.
    - 5. PROVIDE SECURE AND NECESSARY WEATHER PROTECTED WAREHOUSING.
    - 6. COORDINATE SAFE AND SECURE TRANSPORTATION OF MATERIAL AND EQUIPMENT, DELIVERING AND OFF-LOADING FROM CONTRACTOR'S WAREHOUSE TO SITE.
- 3.2 DELIVERABLES:
  - A. COMPLETE SHIPPING AND RECEIPT DOCUMENTATION IN ACCORDANCE WITH COMPANY PRACTICE.
  - B. IF APPLICABLE, COMPLETE LOST/STOLEN/DAMAGED DOCUMENTATION REPORT AS NECESSARY IN ACCORDANCE WITH COMPANY PRACTICE, AND AS DIRECTED BY COMPANY.
  - C. UPLOAD DOCUMENTATION INTO SPRINT SITE MANAGEMENT SYSTEM (SMS) AND/OR PROVIDE HARD COPY DOCUMENTATION AS REQUESTED.

**SECTION 01 300 – CELL SITE CONSTRUCTION CO.**

**PART 1 – GENERAL**

- 1.1 THE WORK: THESE STANDARD CONSTRUCTION SPECIFICATIONS IN CONJUNCTION WITH THE OTHER CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.
- 1.2 RELATED DOCUMENTS:
  - A. THE REQUIREMENTS OF THIS SECTION APPLY TO ALL SECTIONS IN THIS SPECIFICATION.
  - B. SPRINT "STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES" ARE INCLUDED IN AND MADE A PART OF THESE SPECIFICATIONS HEREWITH.
- 1.3 NOTICE TO PROCEED
  - A. NO WORK SHALL COMMENCE PRIOR TO COMPANY'S WRITTEN NOTICE TO PROCEED AND THE ISSUANCE OF THE WORK ORDER.
  - B. UPON RECEIVING NOTICE TO PROCEED, CONTRACTOR SHALL FULLY PERFORM ALL WORK NECESSARY TO PROVIDE SPRINT WITH AN OPERATIONAL WIRELESS FACILITY.

**PART 2 – PRODUCTS (NOT USED)**

**PART 3 – EXECUTION**


- 3.1 FUNCTIONAL REQUIREMENTS:
  - A. THE ACTIVITIES DESCRIBED IN THIS PARAGRAPH REPRESENT MINIMUM ACTIONS AND PROCESSES REQUIRED TO SUCCESSFULLY COMPLETE THE WORK. THE ACTIVITIES DESCRIBED ARE NOT EXHAUSTIVE, AND CONTRACTOR SHALL TAKE ANY AND ALL ACTIONS AS NECESSARY TO SUCCESSFULLY COMPLETE THE CONSTRUCTION OF A FULLY FUNCTIONING WIRELESS FACILITY AT THE SITE IN ACCORDANCE WITH COMPANY PROCESSES.
  - B. SUBMIT SPECIFIC DOCUMENTATION AS INDICATED HEREIN, AND OBTAIN REQUIRED APPROVALS WHILE THE WORK IS BEING PERFORMED.
  - C. MANAGE AND CONDUCT ALL FIELD CONSTRUCTION SERVICE RELATED ACTIVITIES
  - D. PROVIDE CONSTRUCTION ACTIVITIES TO THE EXTENT REQUIRED BY THE CONTRACT DOCUMENTS, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

PLANS PREPARED FOR:



6580 Sprint Parkway  
Overland Park, Kansas 66251

PLANS PREPARED BY:



1033 Watervliet Shaker Rd  
Albany, NY 12205  
Office # (518) 690-0790  
Fax # (518) 690-0793

JOB NUMBER 340-000

MLA PARTNER:



10 PRESIDENTIAL WAY  
WOBURN, MA 01801

ENGINEERING LICENSE:



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REVISIONS:

DESCRIPTION	DATE	BY	REV
FOR PERMIT	07/11/14	JLM	1
ISSUED FOR CONSTRUCTION	06/05/14	JLM	0

SITE NAME:

**NEW FAIRFIELD**

SITE CASCADE:

**CT72XC032**

SITE ADDRESS:

**16 TITICUS MOUNTAIN ROAD  
NEW FAIRFIELD, CT 06812**

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 ANTENNA 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, AASHTO, AND OTHER METHODS IS NEEDED.
4. EXPERIENCE IN SOILS, CONCRETE, MASONRY, AGGREGATE, AND ASPHALT TESTING USING ASTM, AASHTO, 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 - ANTENNA ALIGNMENT TOOL (AAT)

PLANS PREPARED FOR:



PLANS PREPARED BY:



MLA PARTNER:



ENGINEERING LICENSE:



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ISSUED FOR CONSTRUCTION	06/05/14	JLM	0

SITE NAME:

**NEW FAIRFIELD**

SITE CASCADE:

**CT72XC032**

SITE ADDRESS:

**16 TITICUS MOUNTAIN ROAD  
NEW FAIRFIELD, CT 06812**

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

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



6580 Sprint Parkway  
Overland Park, Kansas 66251

PLANS PREPARED BY:



1033 Watervliet Shaker Rd  
Albany, NY 12205  
Office # (518) 890-0790  
Fax # (518) 890-0793

JOB NUMBER 340-000

MLA PARTNER:



10 PRESIDENTIAL WAY  
WOBURN, MA 01801

ENGINEERING LICENSE:



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**NEW FAIRFIELD**

SITE CASCADE:

**CT72XC032**

SITE ADDRESS:

**16 TITICUS MOUNTAIN ROAD  
NEW FAIRFIELD, CT 06812**

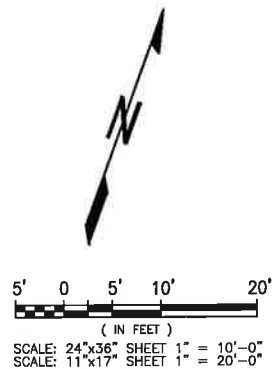
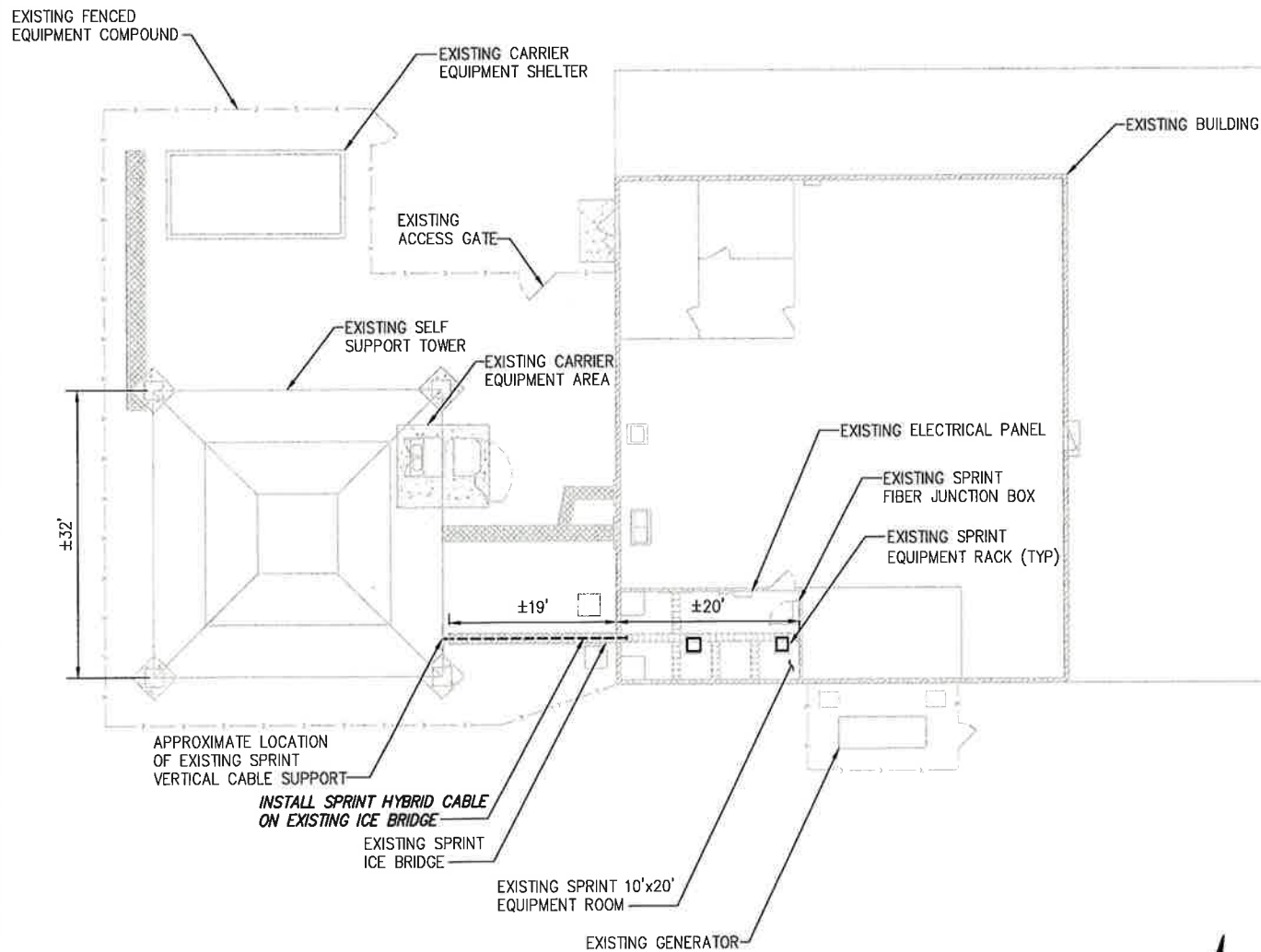
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**SPRINT SPECIFICATIONS**

SHEET NUMBER:

**SP-3**

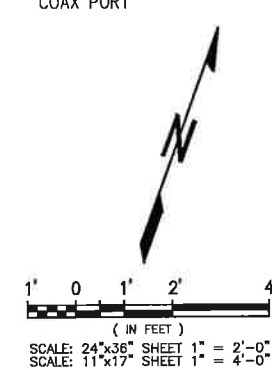
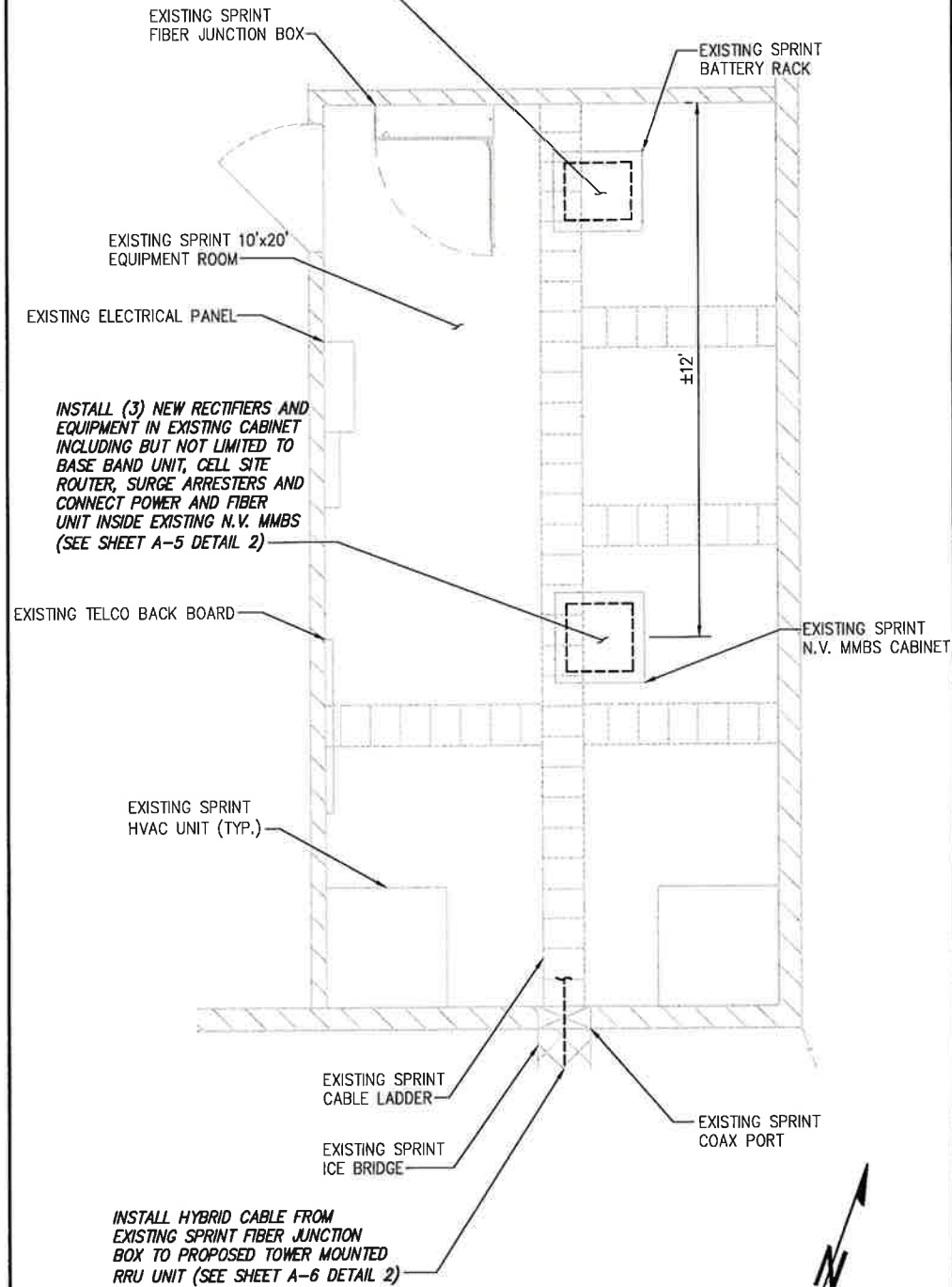
INFORMATION CONTAINED WITHIN DRAWINGS ARE BASED ON PROVIDED INFORMATION AND ARE NOT THE RESULT OF A FIELD SURVEY.



OVERALL SITE PLAN

SCALE: AS NOTED 1

INSTALL (4) NEW BATTERIES IN EXISTING BBU RACK (CONTRACTOR TO VERIFY THAT THERE IS AVAILABLE SPACE FOR (4) NEW BATTERIES IN THE EXISTING RACK. THE FIELD DATA SUGGESTS THERE IS NO AVAILABLE SPACE FOR NEW BATTERIES.)



SPRINT EQUIPMENT PLAN

SCALE: AS NOTED 2

PLANS PREPARED FOR:

**Sprint**

6580 Sprint Parkway  
Overland Park, Kansas 66251

PLANS PREPARED BY:

**INFINIGY** Design. Build. Deliver.

1033 Watervliet Shaker Rd  
Albany, NY 12205  
Office # (518) 690-0790  
Fax # (518) 690-0793

JOB NUMBER 340-000

MLA PARTNER:

**AMERICAN TOWER CORPORATION**

10 PRESIDENTIAL WAY  
WOBURN, MA 01801

ENGINEERING LICENSE:

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

DRAWING NOTICE:

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REVISIONS:	DESCRIPTION	DATE	BY	REV
FOR PERMIT		07/11/14	JLM	1
ISSUED FOR CONSTRUCTION		06/05/14	JLM	0

SITE NAME:

**NEW FAIRFIELD**

SITE CASCADE:

**CT72XC032**

SITE ADDRESS:

16 TITICUS MOUNTAIN ROAD  
NEW FAIRFIELD, CT 06812

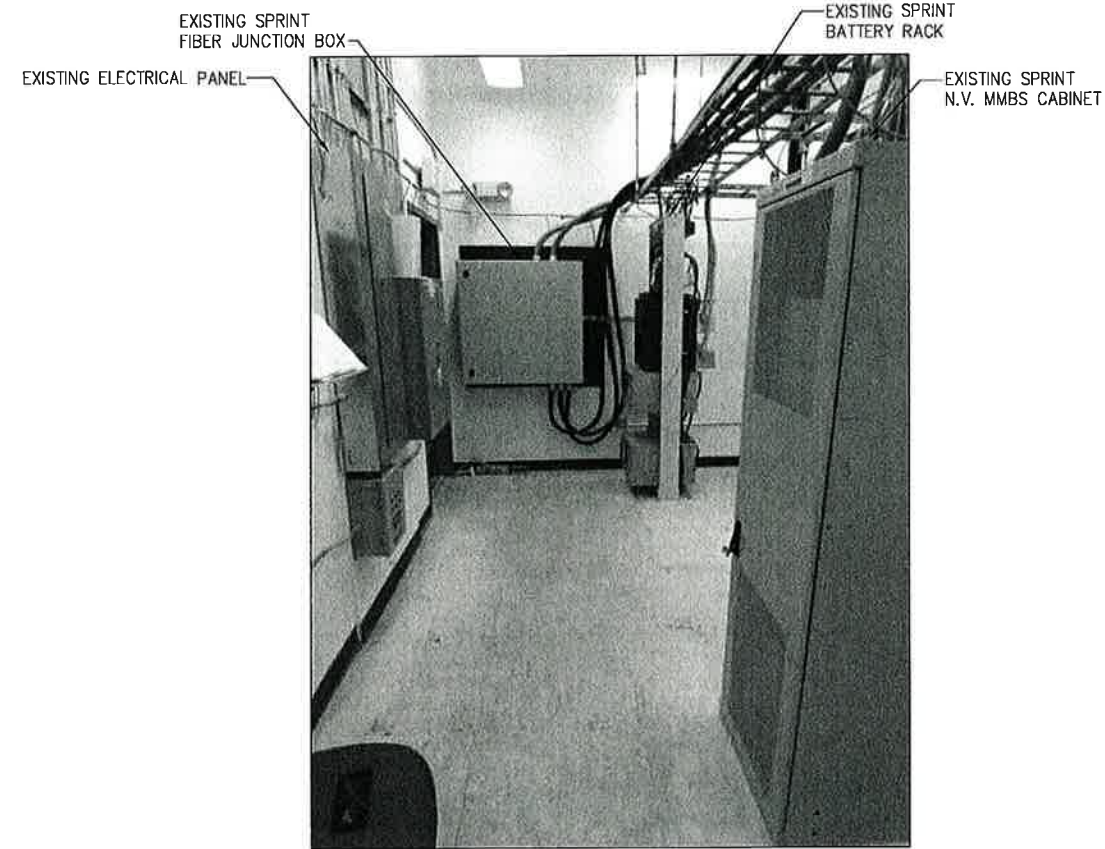
SHEET DESCRIPTION:

**SITE PLAN**

SHEET NUMBER:

**A-1**





**EXISTING CABINET LINE-UP**

SCALE: AS NOTED

1

NO CABINET INFORMATION AVAILABLE  
WITHIN 2.5 AUDIT PACKAGE UPON  
ISSUANCE OF PLANS.



**EXISTING BATTERY CABINET**

SCALE: AS NOTED

2

INSTALL (4) NEW BATTERIES IN EXISTING  
BBU RACK (CONTRACTOR TO VERIFY THAT  
THERE IS AVAILABLE SPACE FOR (4) NEW  
BATTERIES IN THE EXISTING RACK. THE  
FIELD DATA SUGGESTS THERE IS NO  
AVAILABLE SPACE FOR NEW BATTERIES.)

**EXISTING CABINET DETAILS**

SCALE: AS NOTED

3

PLANS PREPARED FOR:



6580 Sprint Parkway  
Overland Park, Kansas 66251

PLANS PREPARED BY:



Design.  
Build.  
Deliver.

1033 Watervliet Shaker Rd  
Albany, NY 12205  
Office # (518) 690-0790  
Fax # (518) 690-0793

JOB NUMBER 340-000

MLA PARTNER:



10 PRESIDENTIAL WAY  
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ENGINEERING LICENSE:



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ISSUED FOR CONSTRUCTION	06/05/14	JLM	0

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**NEW FAIRFIELD**

SITE CASCADE:

**CT72XC032**

SITE ADDRESS:

16 TITICUS MOUNTAIN ROAD  
NEW FAIRFIELD, CT 06812

SHEET DESCRIPTION:

**EXISTING  
EQUIPMENT DETAILS**

SHEET NUMBER:

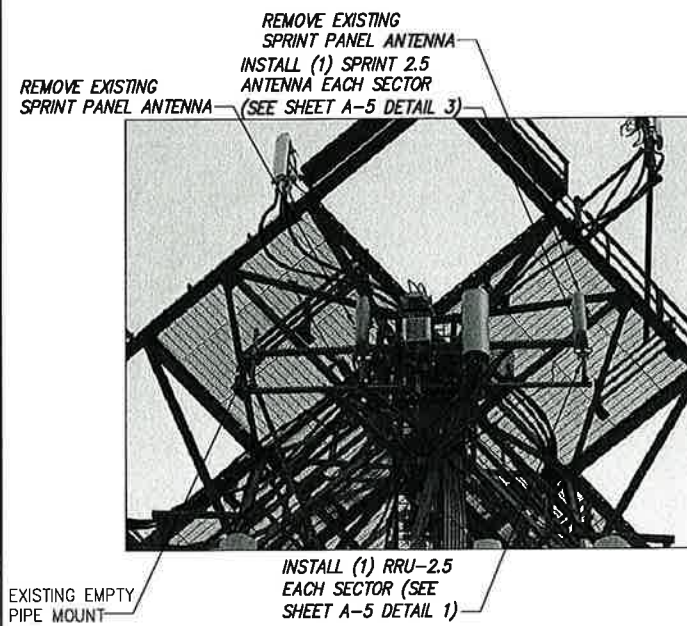
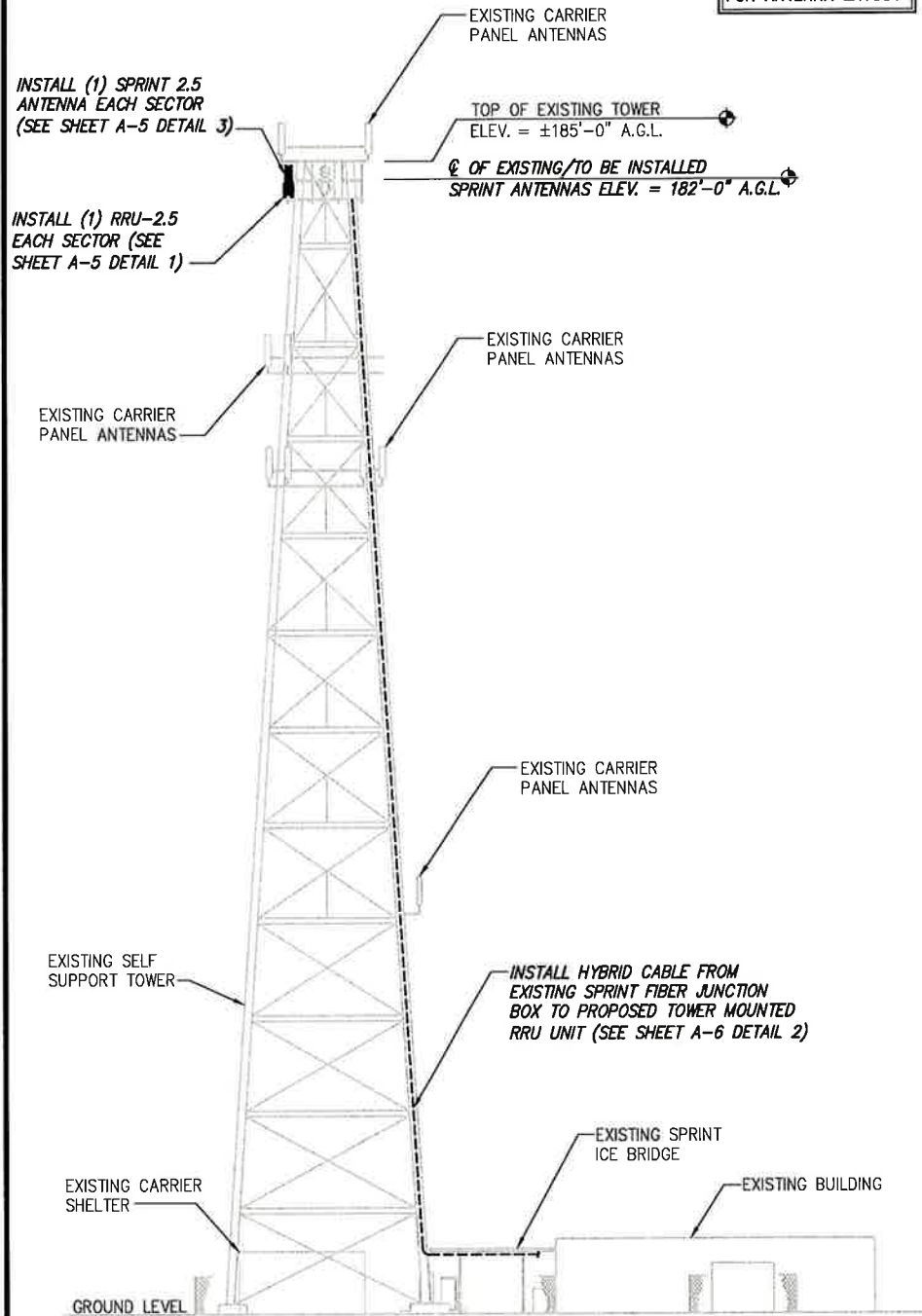
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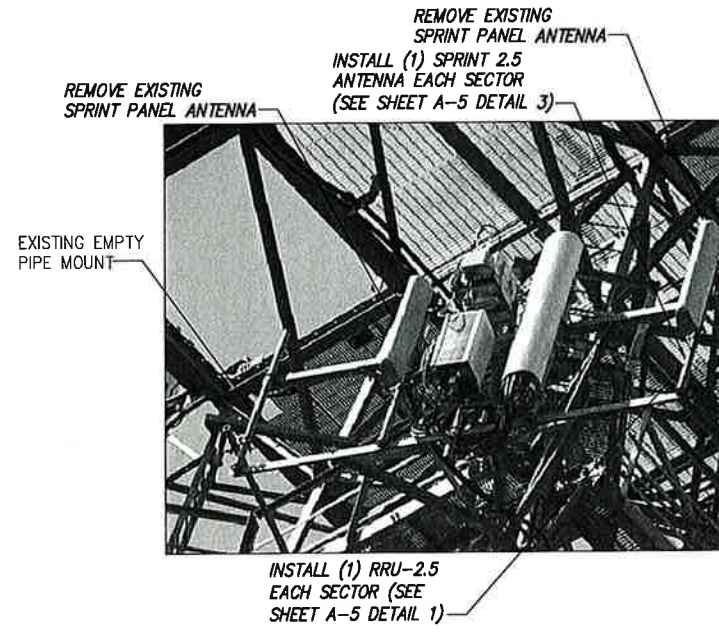
**NOTE:**  
SPRINT TOWER TOP WORK CONTINGENT ON FOLLOWING:  
COMPLETION OF STRUCTURAL ANALYSIS PROVIDED BY  
AMERICAN TOWER CORP., COMPLETION OF ANTENNA/RRH  
MOUNTING ASSESSMENT (PROVIDED BY AE)

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

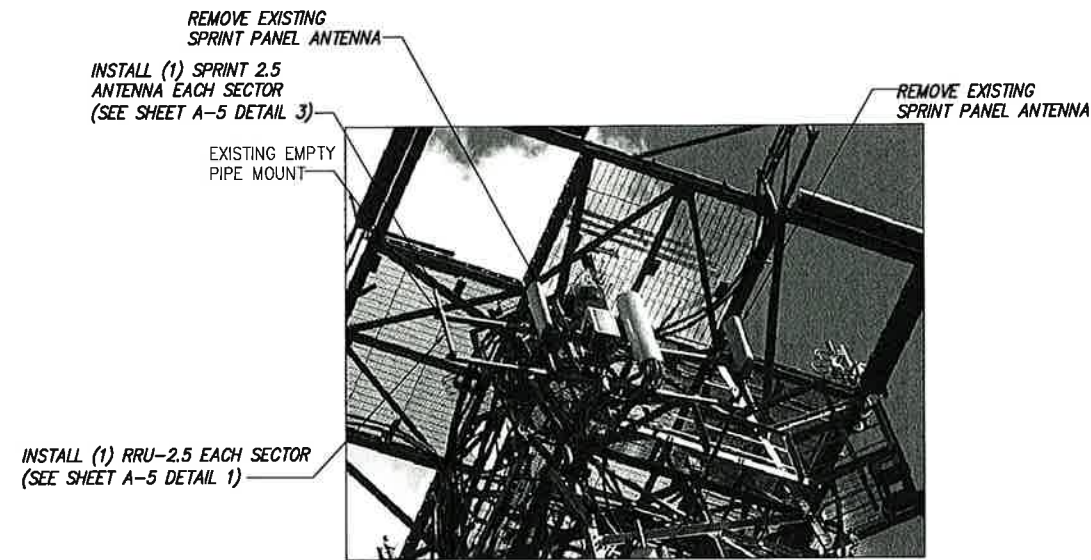
**NOTE:**  
SEE DETAIL 2 ON A-3  
FOR ANTENNA LAYOUT



ALPHA



BETA



GAMMA

PLANS PREPARED FOR:

6580 Sprint Parkway  
Overland Park, Kansas 66251

PLANS PREPARED BY:

1033 Watervliet Shaker Rd  
Albany, NY 12205  
Office # (518) 690-0790  
Fax # (518) 690-0793  
JOB NUMBER 340-000

MLA PARTNER:

10 PRESIDENTIAL WAY  
WOBBURN, MA 01801

ENGINEERING LICENSE:

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DESCRIPTION	DATE	BY	REV
FOR PERMIT	07/11/14	JLM	1
ISSUED FOR CONSTRUCTION	06/05/14	JLM	0

SITE NAME:  
**NEW FAIRFIELD**

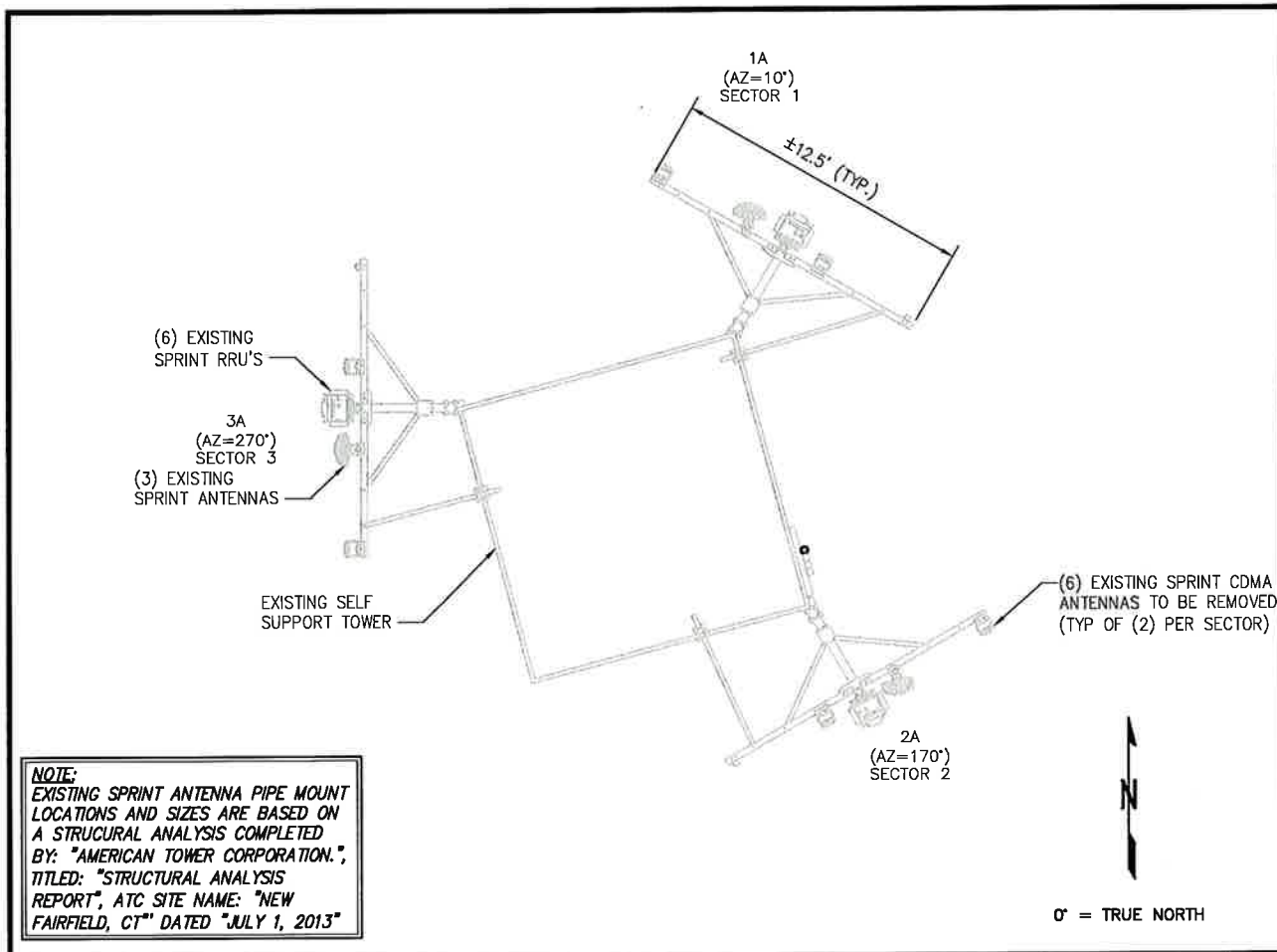
SITE CASCADE:  
**CT72XC032**

SITE ADDRESS:  
**16 TITICUS MOUNTAIN ROAD  
NEW FAIRFIELD, CT 06812**

SHEET DESCRIPTION:  
**TOWER ELEVATION  
& CABLE PLAN**

SHEET NUMBER:  
**A-2**

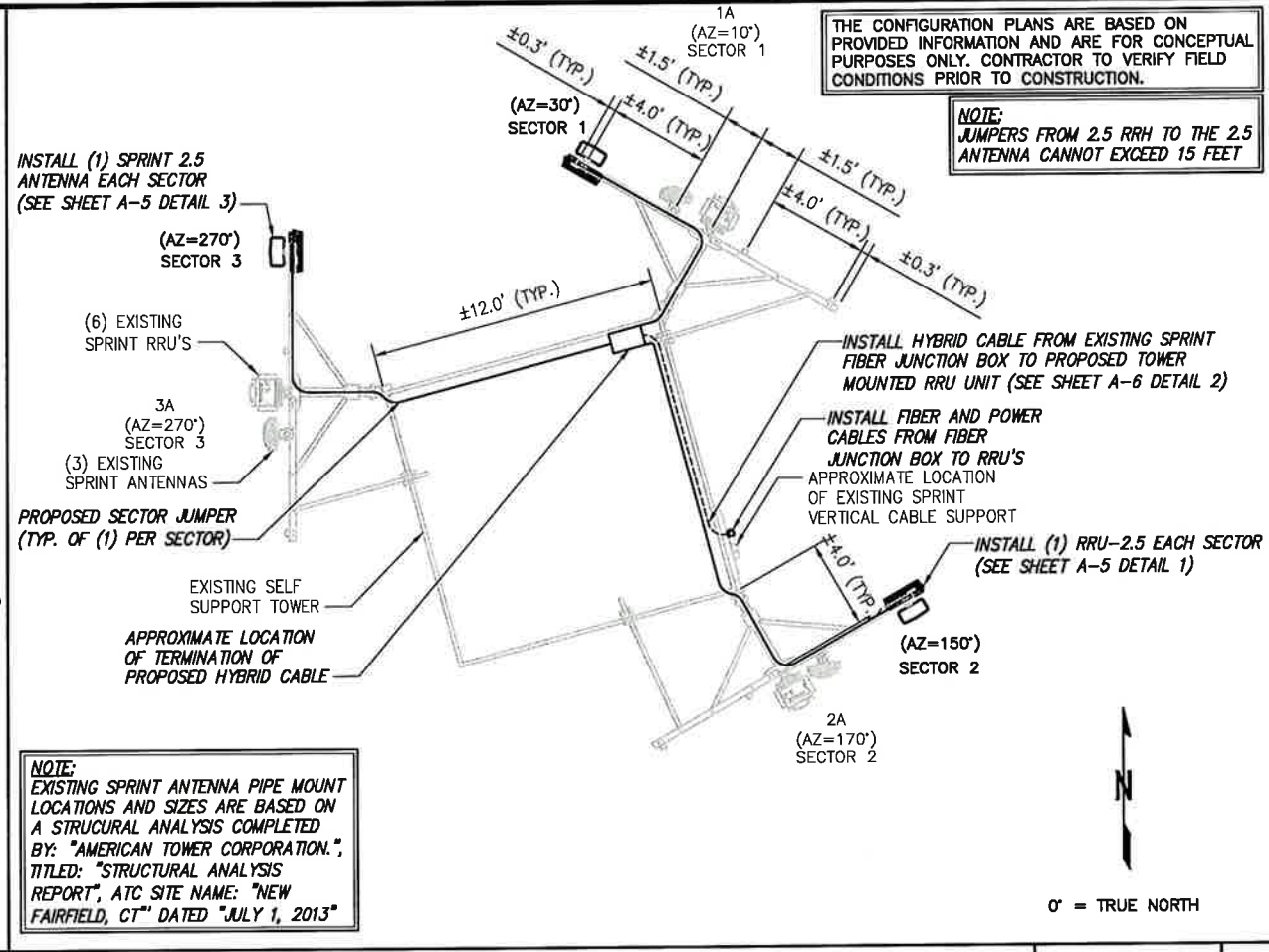




EXISTING ANTENNA & RRU LAYOUT

NO SCALE

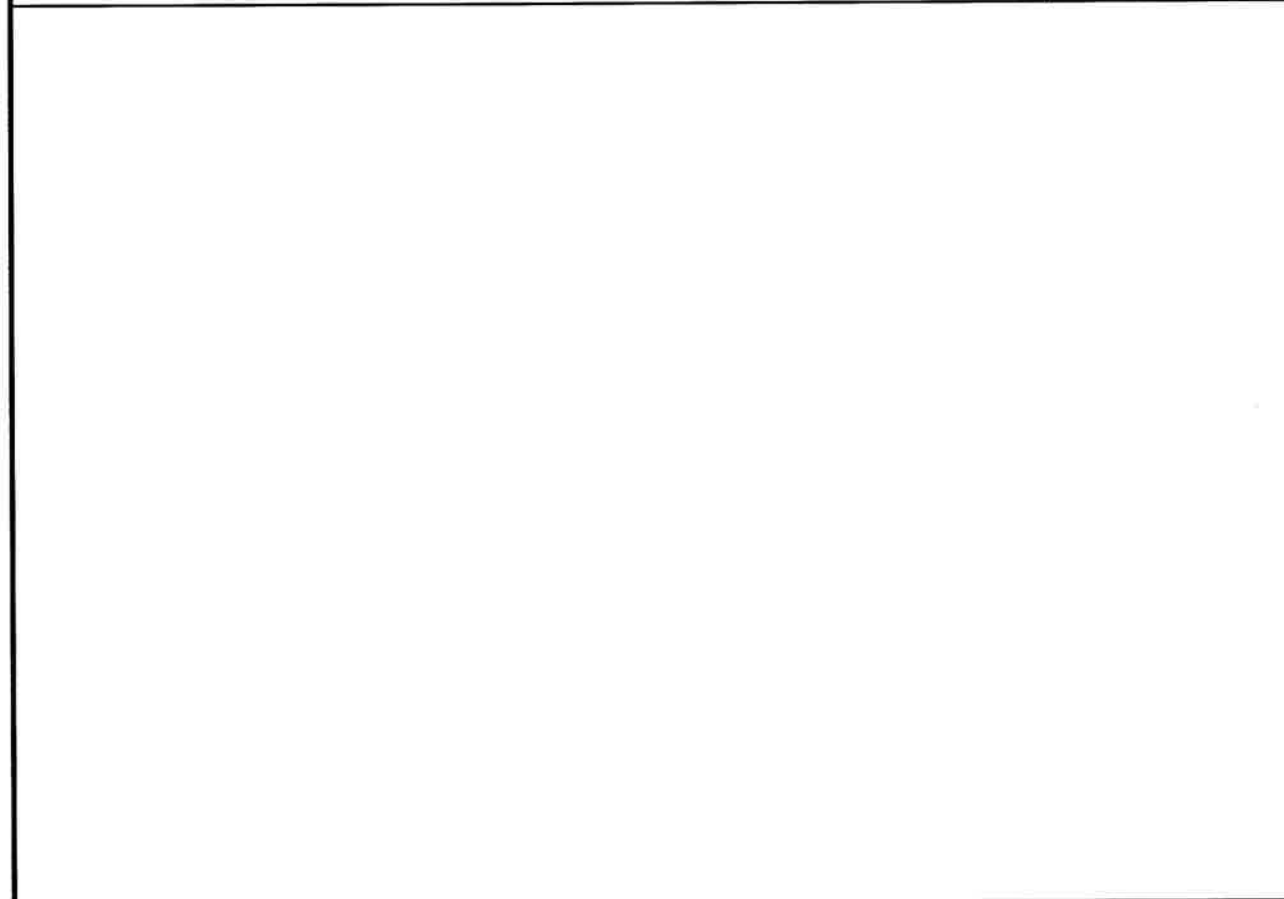
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FINAL ANTENNA LAYOUT

NO SCALE

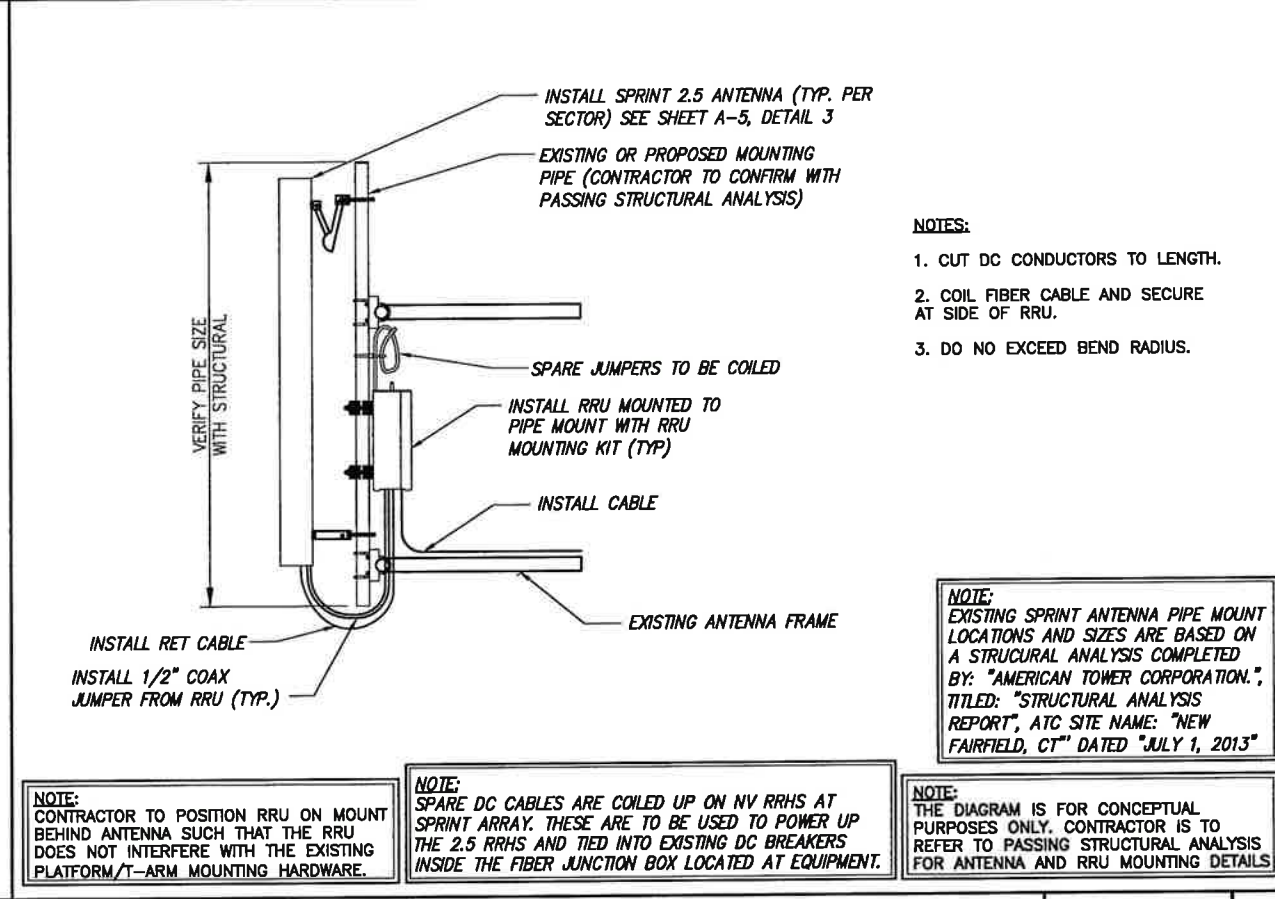
2



DETAIL NOT USED

NO SCALE

3



TYPICAL ANTENNA & RRU MOUNTING DETAILS

NO SCALE

4

PLANS PREPARED FOR:

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Overland Park, Kansas 66251

PLANS PREPARED BY:

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Albany, NY 12205  
Office # (518) 690-0790  
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JOB NUMBER 340-000

MLA PARTNER:

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WOBURN, MA 01801

ENGINEERING LICENSE:

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REVISIONS:

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ISSUED FOR CONSTRUCTION	06/05/14	JLM	0

SITE NAME:  
**NEW FAIRFIELD**

SITE CASCADE:  
**CT72XC032**

SITE ADDRESS:  
16 TITICUS MOUNTAIN ROAD  
NEW FAIRFIELD, CT 06812

SHEET DESCRIPTION:  
**ANTENNA LAYOUT & MOUNTING DETAILS**

SHEET NUMBER:  
**A-3**

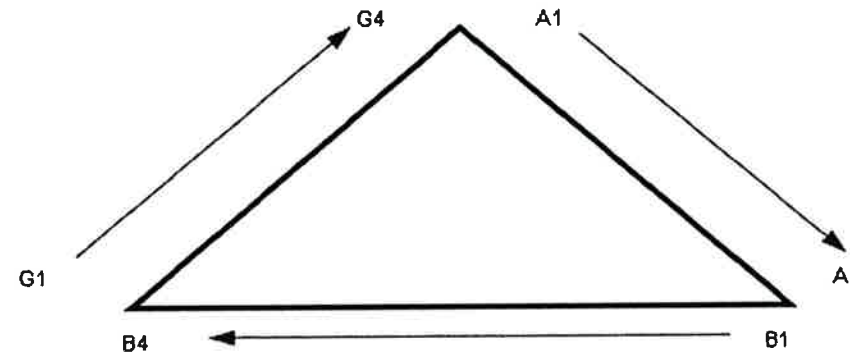


NV CABLES				
BAND	INDICATOR	PORT	COLOR	
800-1	YEL GRN	NV-1	GRN	
1900-1	YEL RED	NV-2	BLU	
1900-2	YEL BRN	NV-3	BRN	
1900-3	YEL BLU	NV-4	WHT	
1900-4	YEL SLT	NV-5	RED	
800-2	YEL ORG	NV-6	SLT	
SPARE	YEL WHT	NV-7	PPL	
2500	YEL PPL	NV-8	ORG	

HYBRID	
HYBRID	COLOR
1	GRN
2	BLU
3	BRN
4	WHT
5	RED
6	SLT
7	PPL
8	ORG

2.5 Band		
2500 Radio 1	COLOR	
YEL WHT	GRN	
YEL WHT	BLU	
YEL WHT	BRN	
YEL WHT	WHT	
YEL WHT	RED	
YEL WHT	SLT	
YEL WHT	PPL	
YEL WHT	ORG	

Figure 1: Antenna Orientation



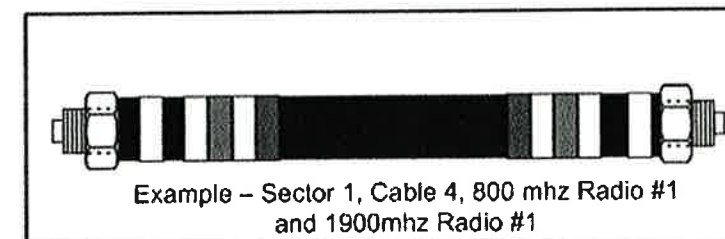
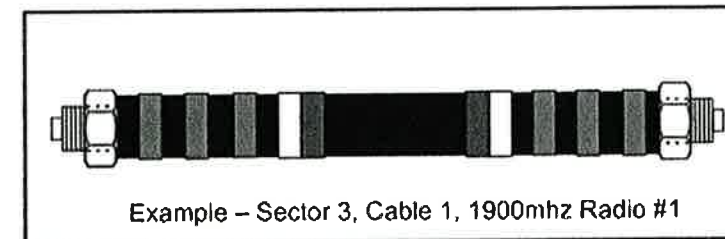
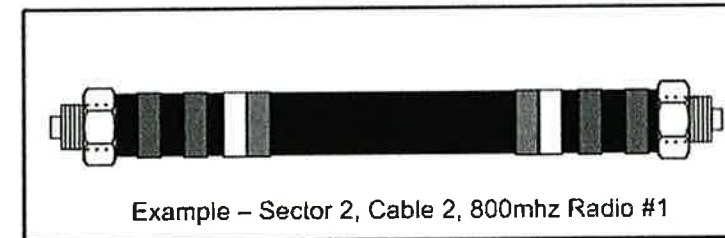
NOTES:

- ALL CABLES SHALL BE MARKED WITH 2" WIDE, UV STABILIZED, UL APPROVED TAPE.
- THE FIRST RING SHALL BE CLOSEST TO THE END OF THE CABLE AND SPACED APPROXIMATELY 2" FROM THE END CONNECTOR, WEATHERPROOFING, OR BREAK-OUT CYLINDER. THERE SHALL BE A 1" SPACE BETWEEN EACH RING FOR THE CABLE IDENTIFIER, AND NO SPACES BETWEEN THE FREQUENCY BANDS.
- A 2" GAP SHALL SEPARATE THE CABLE COLOR CODE FROM THE FREQUENCY COLOR CODE. THE 2" COLOR RINGS FOR THE FREQUENCY CODE SHALL BE PLACED NEXT TO EACH OTHER WITH NO SPACES.
- THE 2" COLORED TAPE(S) SHALL EACH BE WRAPPED A MINIMUM OF 3 TIMES AROUND THE INDIVIDUAL CABLES, AND THE TAPE SHALL BE KEPT IN THE SAME LOCATION AS MUCH AS POSSIBLE.
- SITES WITH MORE THAN FOUR (4) SECTORS WILL REQUIRE ADDITIONAL RINGS FOR EACH SECTOR, FOLLOWING THE PATTERN. HIGH CAPACITY SITES WILL USE THE NEXT COLOR IN THE SEQUENCE FOR ADDITIONAL CABLES IN EACH SECTOR.
- HYBRID FIBER CABLE SHALL BE SECTOR IDENTIFIED INSIDE THE CABINET ON FREQUENCY BUNDLES, ON THE SEALTITE, ON THE MAIN LINE UPON EXIT OF SEALTITE, AND BEFORE AND AFTER THE BREAKOUT UNIT (MEDUSA), AS WELL AS BEFORE AND AFTER ANY ENTRANCE OR EXIT.
- HFC "MAIN TRUNK" WILL NOT BE MARKED WITH THE FREQUENCY CODES, AS IT CONTAINS ALL FREQUENCIES.
- INDIVIDUAL POWER PAIRS AND FIBER BUNDLES SHALL BE LABELED WITH BOTH THE CABLE AND FREQUENCY.

Sector	Cable	First Ring	Second Ring	Third Ring
1 Alpha	1	Green	No Tape	No Tape
	2	Green	No Tape	No Tape
	3	Brown	No Tape	No Tape
	4	White	No Tape	No Tape
	5	Red	No Tape	No Tape
	6	Grey	No Tape	No Tape
	7	Purple	No Tape	No Tape
	8	Orange	No Tape	No Tape
2 Beta	1	Green	Green	No Tape
	2	Green	Green	No Tape
	3	Brown	Brown	No Tape
	4	White	White	No Tape
	5	Red	Red	No Tape
	6	Grey	Grey	No Tape
	7	Purple	Purple	No Tape
	8	Orange	Orange	No Tape
3 Gamma	1	Green	Green	Green
	2	Green	Green	Green
	3	Brown	Brown	Brown
	4	White	White	White
	5	Red	Red	Red
	6	Grey	Grey	Grey
	7	Purple	Purple	Purple
	8	Orange	Orange	Orange

NV FREQUENCY	INDICATOR	ID
800-1	YEL GRN	GRN
1900-1	YEL RED	RED
1900-2	YEL BRN	BRN
1900-3	YEL BLU	BLU
1900-4	YEL SLT	SLT
800-1	YEL ORG	ORG
RESERVED	YEL WHT	WHT
RESERVED	YEL PPL	PPL

2.5 FREQUENCY	INDICATOR		ID
2500 -1	YEL	WHT	GRN
2500 -2	YEL	WHT	RED
2500 -3	YEL	WHT	BRN
2500 -4	YEL	WHT	BLU
2500 -5	YEL	WHT	SLT
2500 -6	YEL	WHT	ORG
2500 -7	YEL	WHT	WHT
2500 -8	YEL	WHT	PPL



PLANS PREPARED FOR:

6580 Sprint Parkway  
Overland Park, Kansas 66251

PLANS PREPARED BY:

1033 Watervliet Shaker Rd  
Albany, NY 12205  
Office # (518) 690-0790  
Fax # (518) 690-0793  
JOB NUMBER 340-000

MLA PARTNER:

10 PRESIDENTIAL WAY  
WOBBURN, MA 01801

ENGINEERING LICENSE:

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SITE NAME:

NEW FAIRFIELD

SITE CASCADE:

CT72XC032

SITE ADDRESS:

16 TITICUS MOUNTAIN ROAD  
NEW FAIRFIELD, CT 06812

SHEET DESCRIPTION:

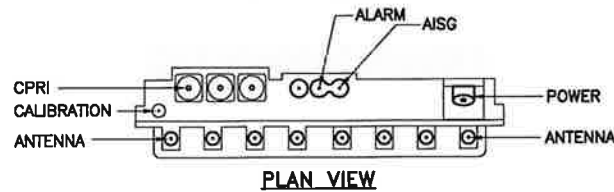
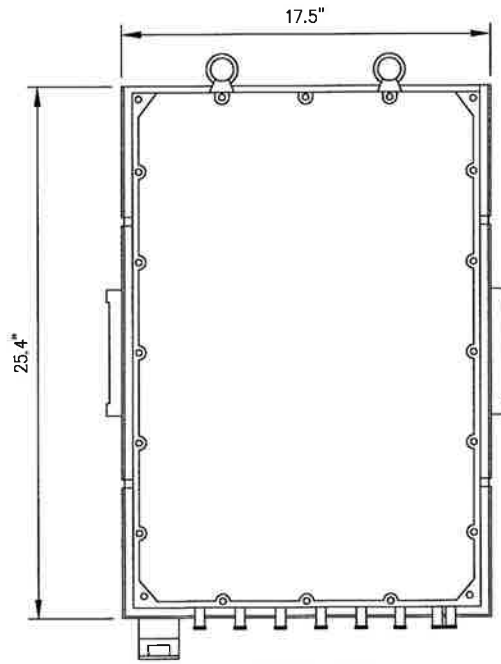
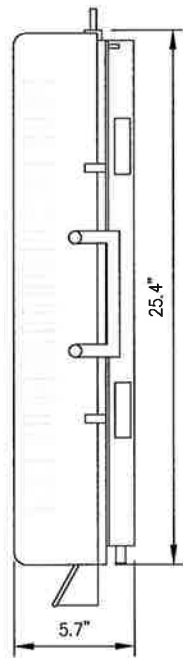
COLOR CODING AND NOTES

SHEET NUMBER:

A-4

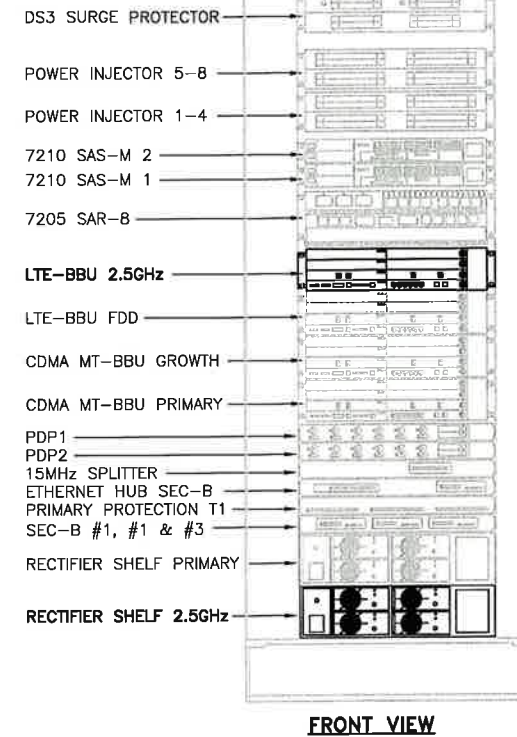
RRU: ALCATEL LUCENT TD-RRH8X20

COLOR: LIGHT GREY  
WEIGHT: 70 LBS.



**NOTES**

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



PLANS PREPARED FOR:

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Overland Park, Kansas 66251

PLANS PREPARED BY:

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Albany, NY 12205  
Office # (518) 690-0790  
Fax # (518) 690-0793  
JOB NUMBER 340-000

MLA PARTNER:

10 PRESIDENTIAL WAY  
WOBURN, MA 01801

ENGINEERING LICENSE:

2.5 RRU

NO SCALE

1

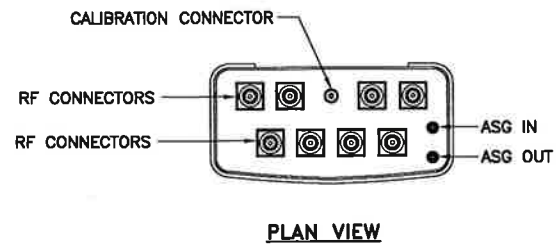
NEW EQUIPMENT IN EXISTING CABINET

NO SCALE

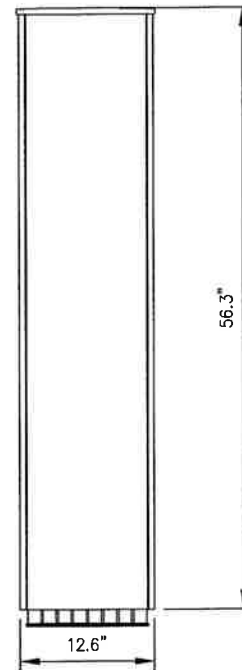
2

ANTENNA: RFS APXVTM14-C-I20

RADOME MATERIAL: ASA  
RADOME COLOR: LIGHT GREY  
DIMENSIONS, HxWxD.in(mim): 56.3"x12.6"x6.3" (1430x320x160mm)  
WEIGHT: 52.9 lbs  
CONNECTORS: (8) 4.1/9.5 DIN FEMALE  
(1) NF - CALIBRATION CONNECTOR



SIDE VIEW

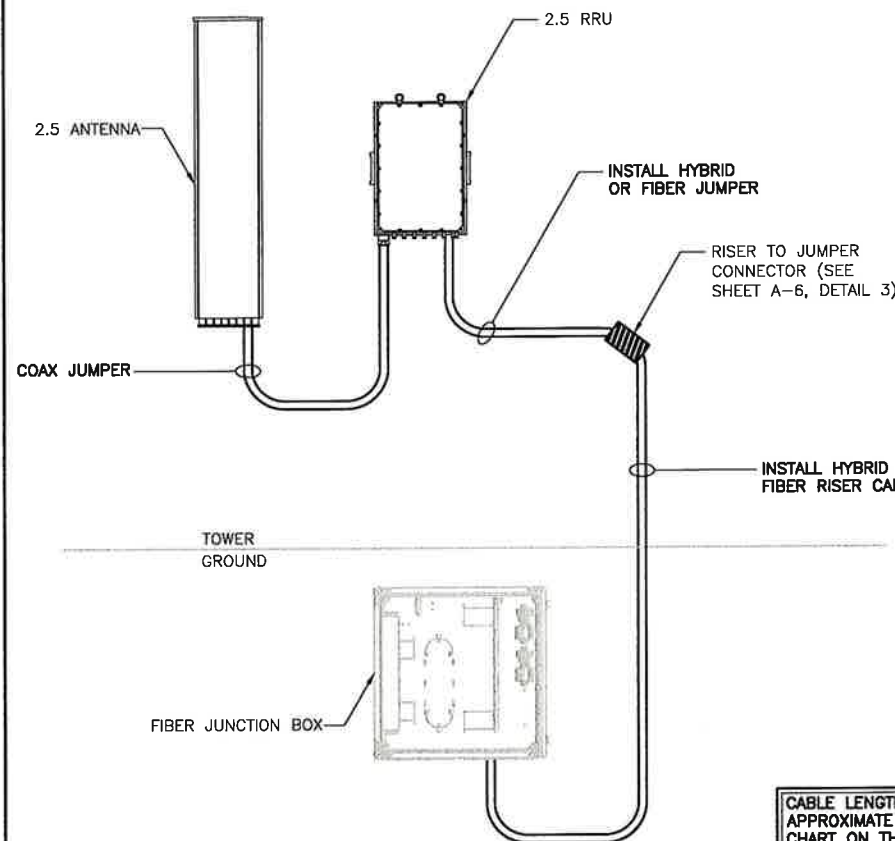


FRONT VIEW

2.5 ANTENNA

NO SCALE

3



**INFINIGY ESTIMATES**

*Riser Cable Length Estimate		Units
At Grade	39	Feet
Vertical Rise	182	Feet
At Sprint Centerline	12	Feet
Sub-Total	233	Feet
15% Buffer	35	Feet
Total	268	Feet

ABOVE LENGTH IS AN ESTIMATE AND SHOULD BE VERIFIED IN FIELD PRIOR TO ORDERING MATERIALS.

** Hybrid/Fiber Jumper Length Estimate		Units
From Connector To RRU	22	Feet

ABOVE LENGTH IS AN ESTIMATE AND SHOULD BE VERIFIED IN FIELD PRIOR TO ORDERING MATERIALS.

Coax Jumper Length Estimate		Units
From RRU to Antenna	5	Feet

ABOVE LENGTH IS AN ESTIMATE AND SHOULD BE VERIFIED IN FIELD PRIOR TO ORDERING MATERIALS.

NOTE:  
\* & \*\*: REFERENCE SHEET A-6, DETAIL 1 FOR CORRESPONDING PART NUMBERS.

CABLE LENGTH NOTE:  
APPROXIMATE LENGTH OF NEW CABLE IS SHOWN IN CHART ON THIS SHEET. CONTRACTOR TO CONFIRM EXACT CABLE LENGTH REQUIRED PRIOR TO ORDERING MATERIALS.

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REVISIONS:	DESCRIPTION	DATE	BY	REV

FOR PERMIT: 07/11/14 JLM 1  
ISSUED FOR CONSTRUCTION: 06/05/14 JLM 0

SITE NAME:  
**NEW FAIRFIELD**

SITE CASCADE:  
**CT72XC032**

SITE ADDRESS:  
**16 TITICUS MOUNTAIN ROAD  
NEW FAIRFIELD, CT 06812**

SHEET DESCRIPTION:  
**EQUIPMENT & MOUNTING DETAILS**

SHEET NUMBER:  
**A-5**

CABLING SCHEMATIC

NO SCALE

4



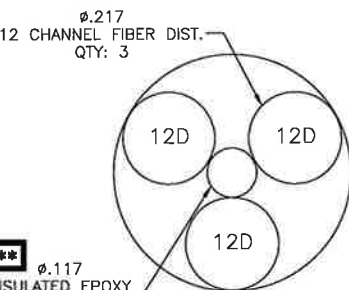
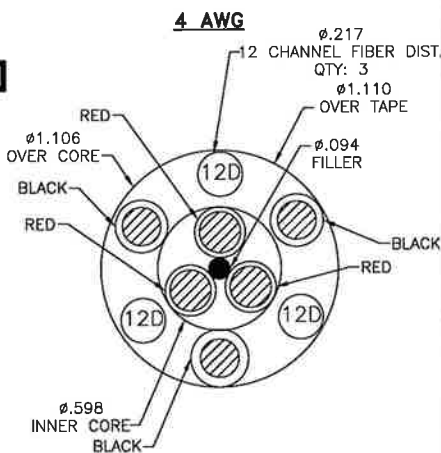
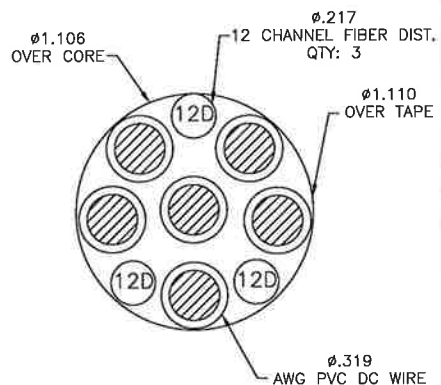
**RFS HYBRIFLEX RISER CABLE SCHEDULE**

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: HB114-13U3M12-225F 3x 6 AWG power pair, 12x multi-mode fiber pairs, Outdoor rated connectors & LC Connectors, 1 1/4 cable, 225 ft	225 ft
	MN: HB114-13U3M12-250F	250 ft
	MN: HB114-13U3M12-275F	275 ft
	MN: HB114-13U3M12-300F	300 ft
4 AWG Power	Hybrid cable MN: HB114-21U3M12-325F 3x 4 AWG power pair, 12x multi-mode fiber pairs, Outdoor rated connectors & LC Connectors, 1 1/4 cable, 325 ft	325 ft
	MN: HB114-21U3M12-350F	350 ft
	MN: HB114-21U3M12-375F	375 ft

**RFS HYBRIFLEX JUMPER CABLE SCHEDULE**

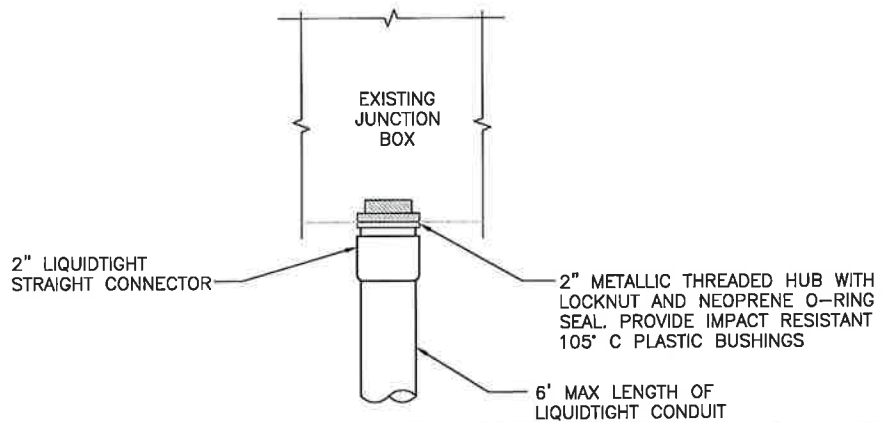
Fiber Only	Hybrid Jumper cable MN: HBF012-M3-5F1 5 ft, 3x multi-mode fiber pairs, Outdoor & LC connectors, 1/2 cable	5 ft
	MN: HBF012-M3-10F1	10 ft
	MN: HBF012-M3-15F1	15 ft
	MN: HBF012-M3-20F1	20 ft
	MN: HBF012-M3-25F1	25 ft
	MN: HBF012-M3-30F1	30 ft
8 AWG Power	Hybrid Jumper cable MN: HBF058-08U1M3-5F1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

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



2.5 CABLE CROSS SECTION DATA

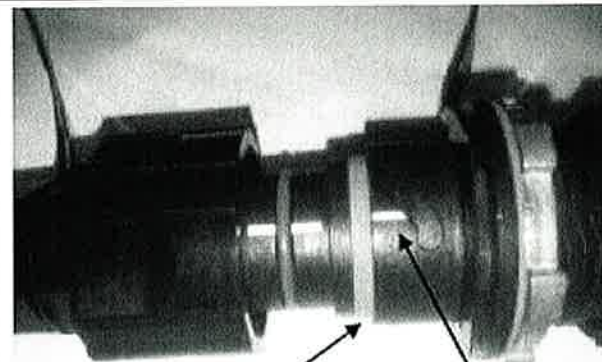
NO SCALE 1



FIBER JUNCTION BOX PENETRATION

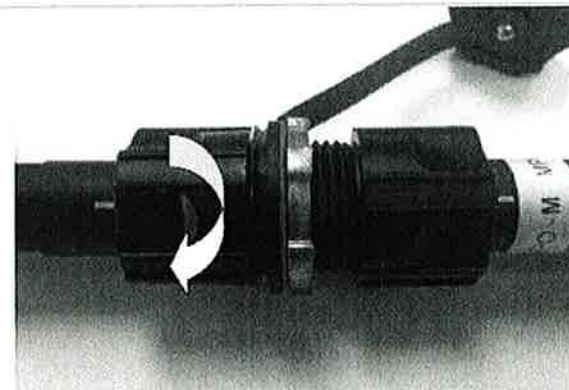
NO SCALE 2

IMPORTANT!! Line up white markings on jumper and riser IP-MPO connectors and slide the riser connector to the jumper connector. Push the white mark on the jumper connector flush again the red seal on the riser connector.



Seal (Riser end) White mark (Jumper end)

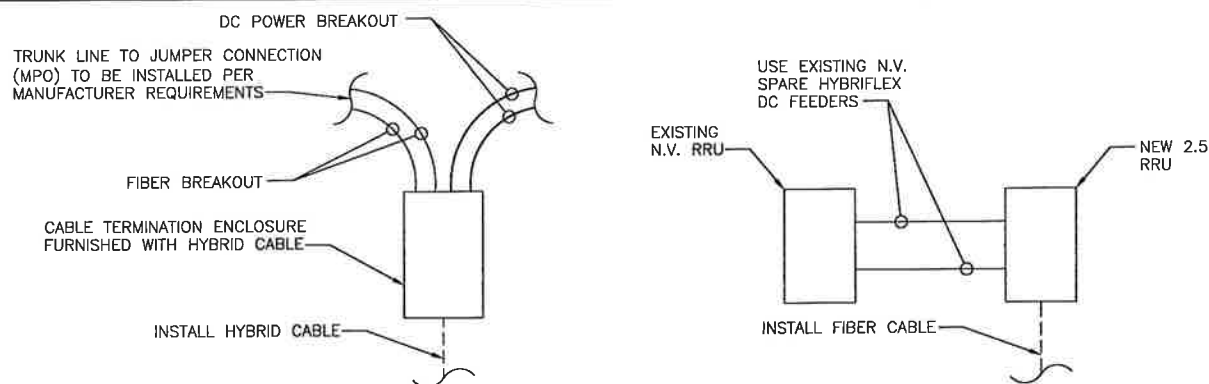
IMPORTANT!! Rotate the bayonet housing clock wise until you hear a click sound (means a good connection is in place).



INFORMATION BASED ON PROVIDED INFORMATION FROM ALCATEL-LUCENT 2.5 GHz UPGRADE INSTALLATION GUIDE.

HYBRIFLEX RISER/JUMPER CONNECTION DETAIL

NO SCALE 3



2.5 HYBRID RISER CABLE (FIBER AND DC FEEDERS)

FIBER ONLY RISER CABLE

TRUNK LINE DETAIL (TYP.)

NO SCALE 4

PLANS PREPARED FOR:



PLANS PREPARED BY:



MLA PARTNER:



ENGINEERING LICENSE:



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SITE CASCADE:

CT72XC032

SITE ADDRESS:

16 TITICUS MOUNTAIN ROAD  
NEW FAIRFIELD, CT 06812

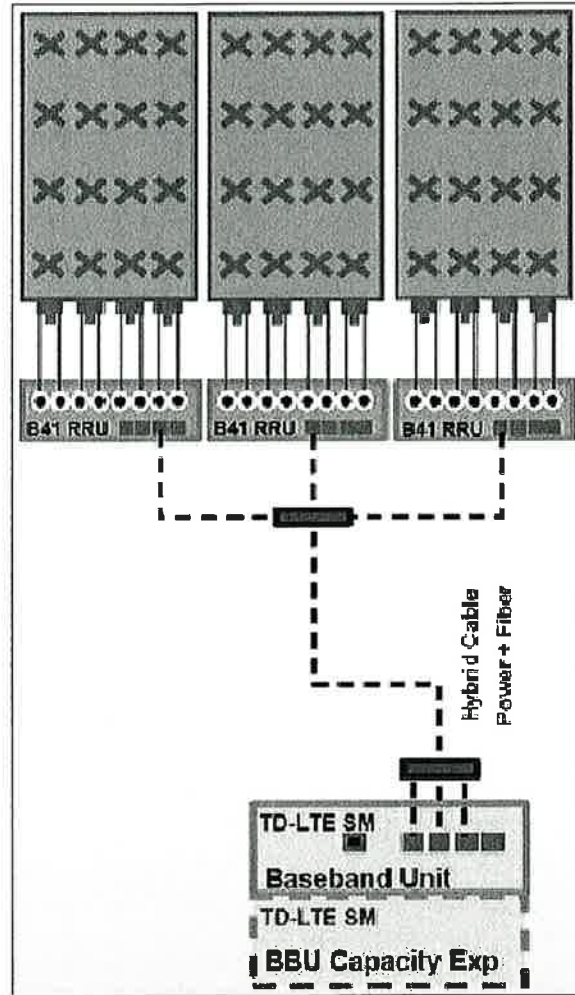
SHEET DESCRIPTION:

CIVIL DETAILS

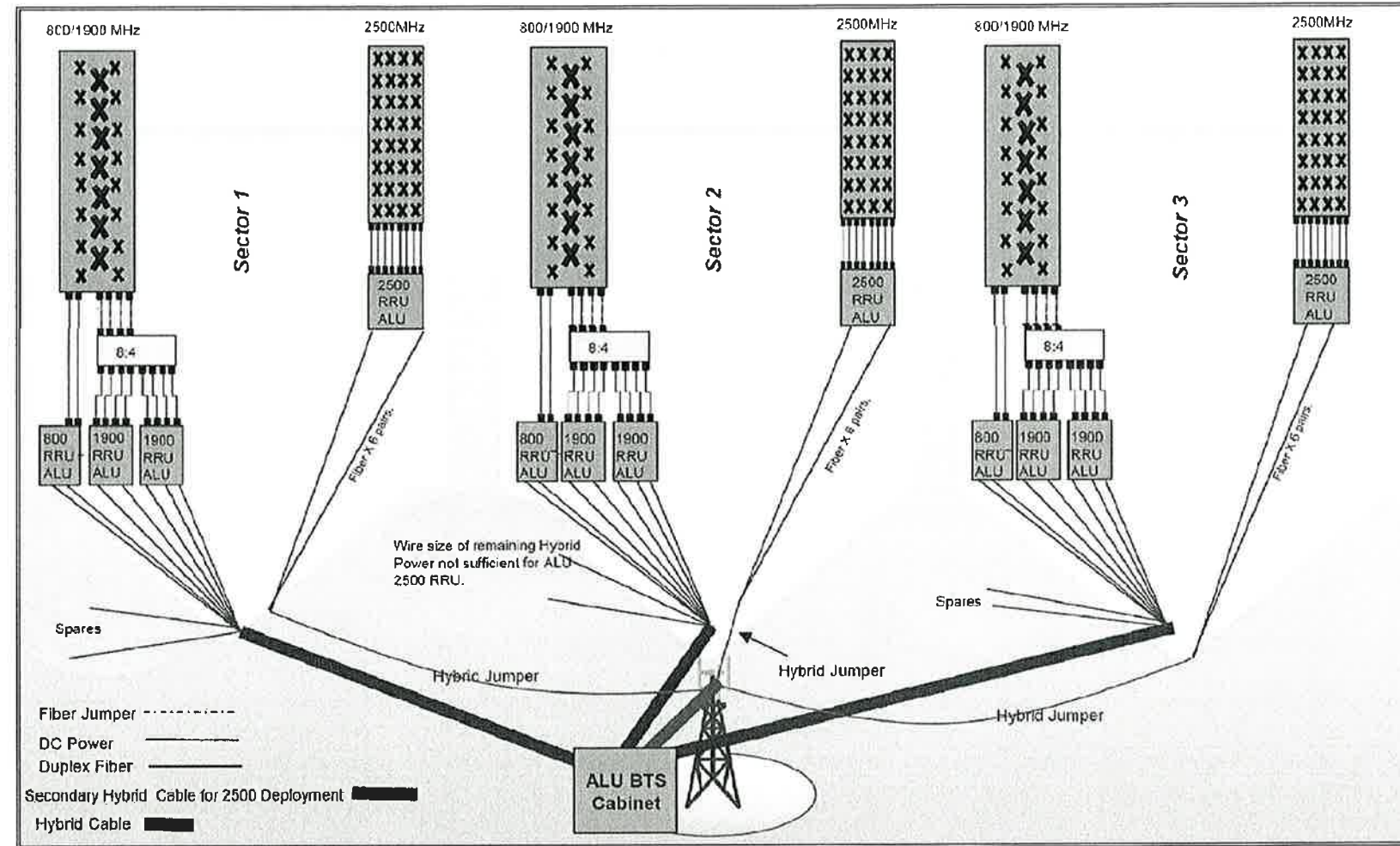
SHEET NUMBER:

A-6

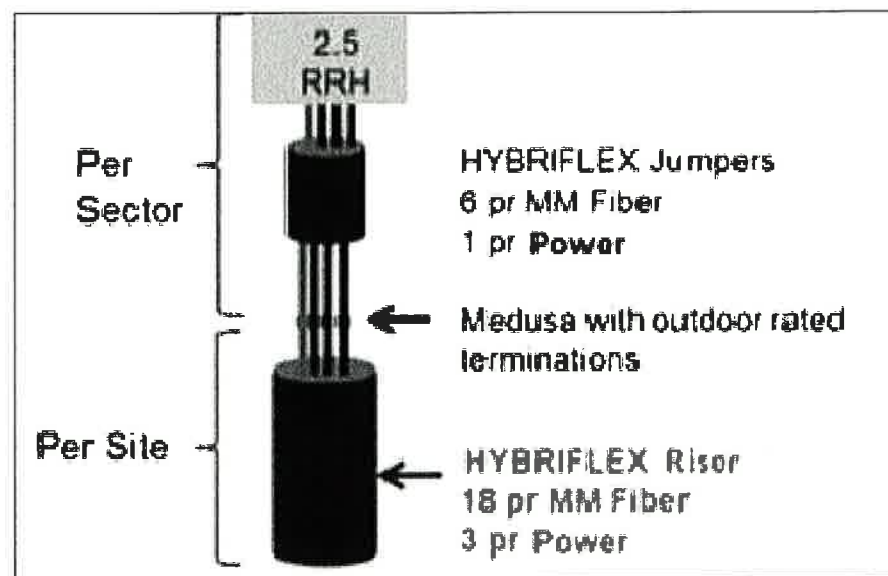




ALU 2.5 ALU SCENARIO 1



RAN WIRING DIAGRAM



RF 2.5 ALU SCENARIO 1

PLUMBING DIAGRAM

NO SCALE 1

PLANS PREPARED FOR:

6580 Sprint Parkway  
Overland Park, Kansas 66251

PLANS PREPARED BY:

Design. Build. Deliver.  
1033 Watervliet Shaker Rd  
Albany, NY 12205  
Office # (518) 690-0790  
Fax # (518) 690-0793  
JOB NUMBER 340-000

MLA PARTNER:

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WOBBURN, MA 01801

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NEW FAIRFIELD, CT 06812

SHEET DESCRIPTION:  
PLUMBING DIAGRAM

SHEET NUMBER:  
A-7

PLANS PREPARED FOR:

**Sprint**

6580 Sprint Parkway  
Overland Park, Kansas 66251

PLANS PREPARED BY:

**INFINIGY** Design. Build. Deliver.

1033 Watervliet Shaker Rd  
Albany, NY 12205  
Office # (518) 690-0790  
Fax # (518) 690-0793

JOB NUMBER 340-000

MLA PARTNER:

**AMERICAN TOWER CORPORATION**

10 PRESIDENTIAL WAY  
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SHEET DESCRIPTION:

**ELECTRICAL & GROUNDING PLAN**

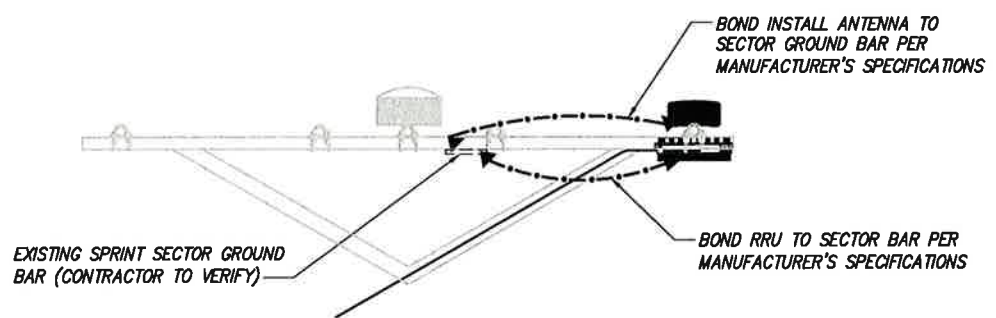
SHEET NUMBER:

**E-1**

PLAN NOT USED

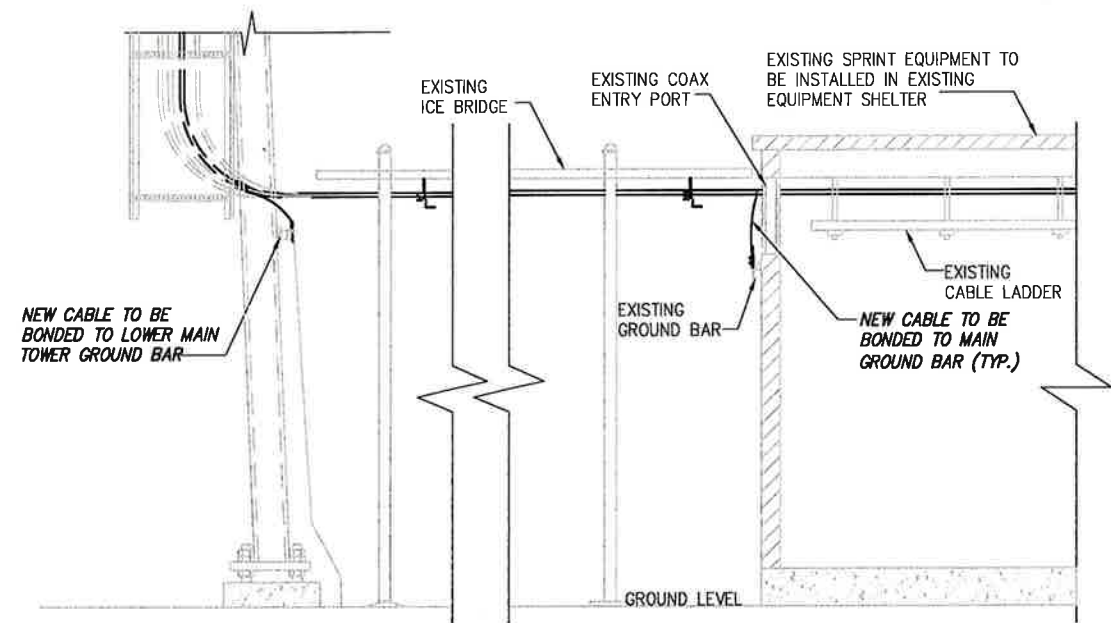
NO SCALE 1

- LEGEND:**
- G — EXISTING GROUND RING
  - CADWELD CONNECTION (EXOTHERMIC WELD)
  - ▲ MECHANICAL CONNECTION
  - ⊗ GROUND ROD
  - CABLE GROUND KIT



TYPICAL ANTENNA GROUNDING PLAN

NO SCALE 2

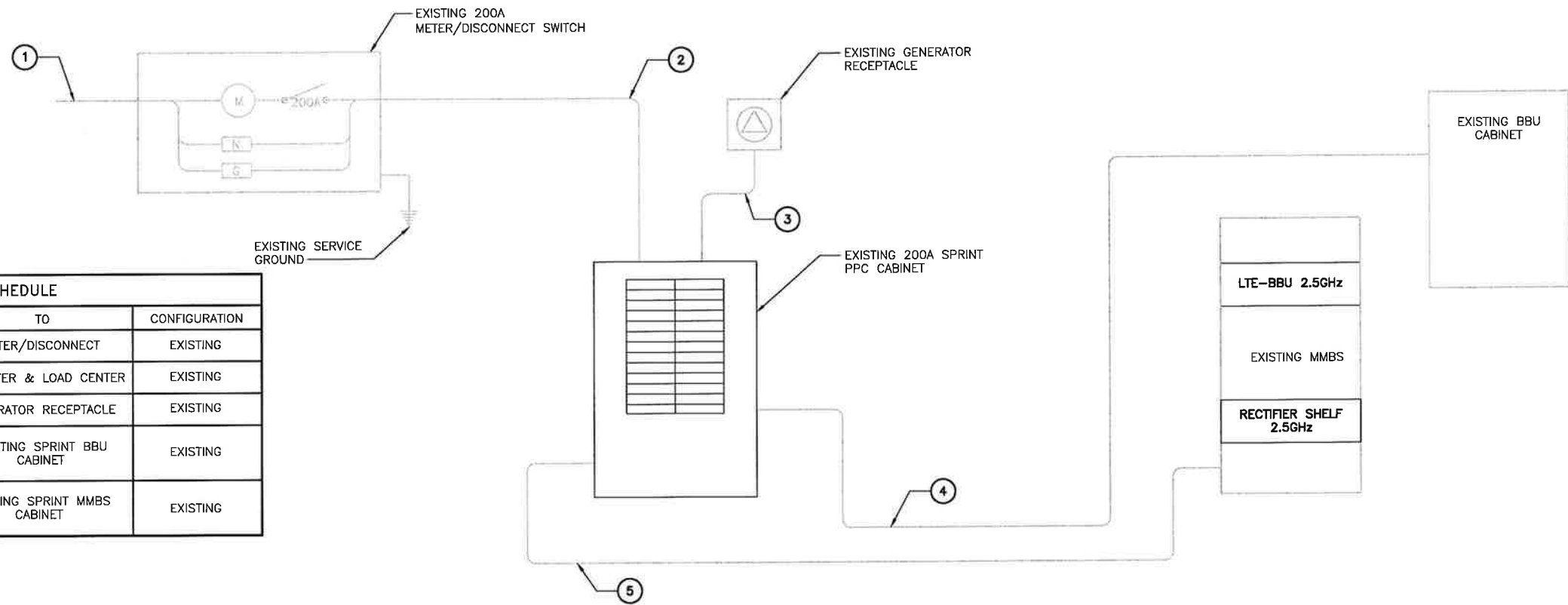


TYPICAL EQUIPMENT GROUNDING PLAN (ELEVATION)

NO SCALE 3



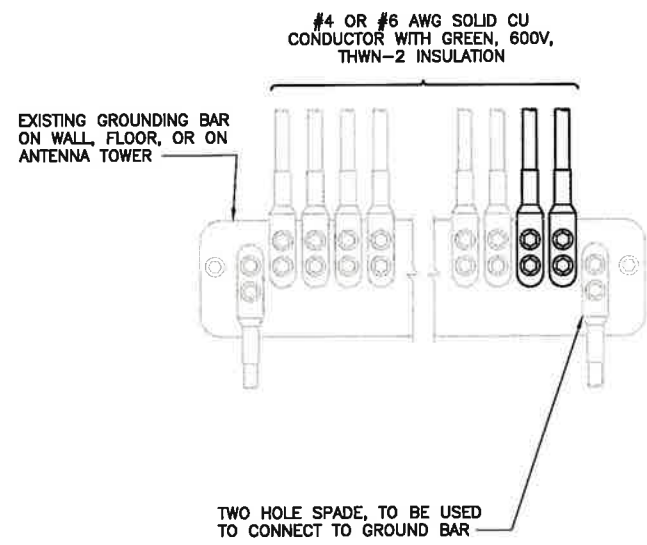
**NOTES**  
 CG SHALL REFERENCE ALL SPECS FOR "CONNECTING THE POWER SUPPLY" OF THE NEW INSTALLATION DOCUMENTS, FOR ALL CONNECTION SPECIFICATIONS.



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**

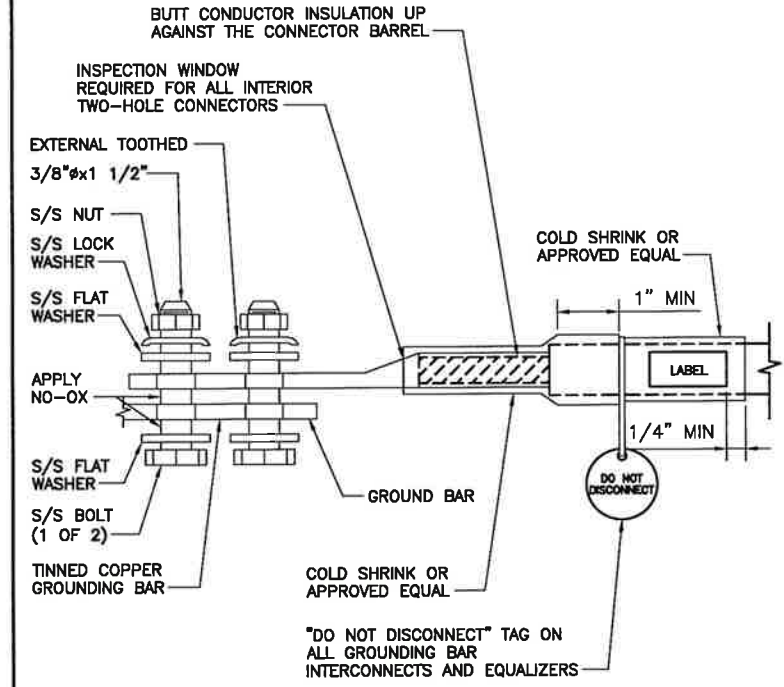
NO SCALE 1



**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**

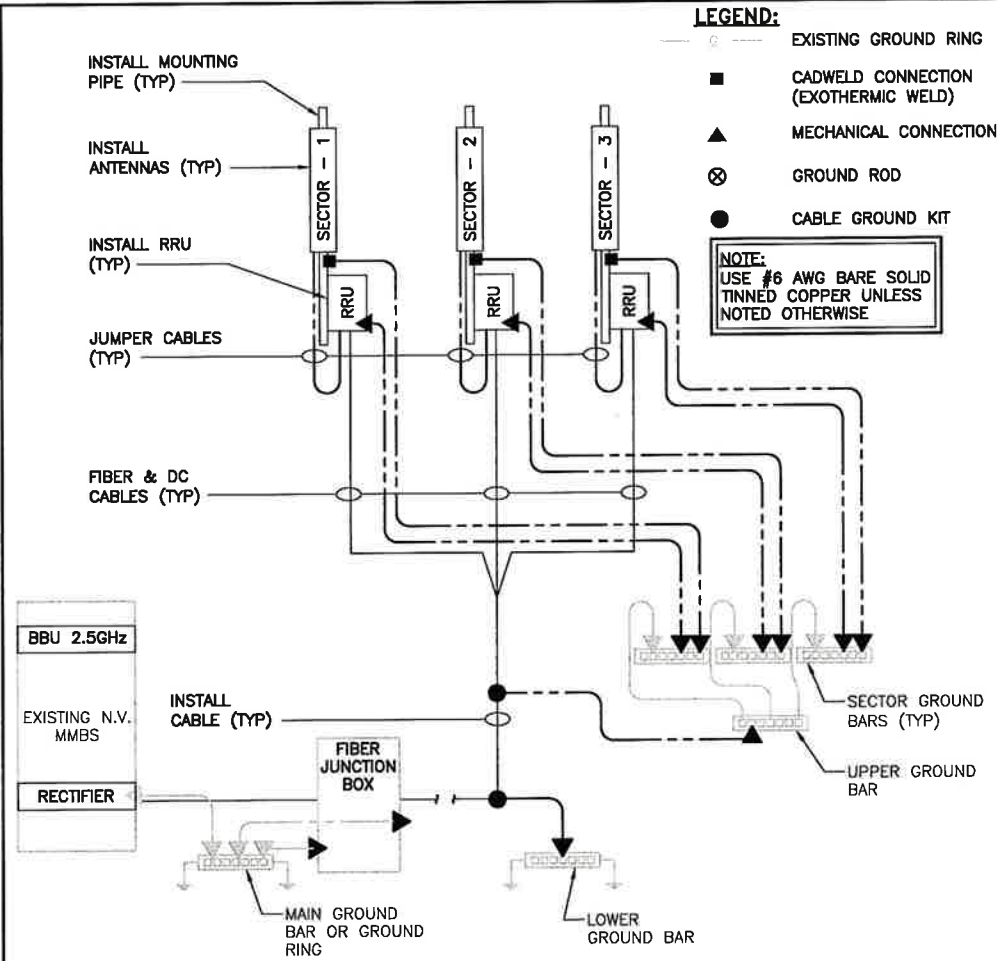
NO SCALE 2



"DO NOT DISCONNECT" TAG ON ALL GROUNDING BAR INTERCONNECTS AND EQUALIZERS

**TWO HOLE LUG**

NO SCALE 3



**LEGEND:**  
 ○ EXISTING GROUND RING  
 ■ CADWELD CONNECTION (EXOTHERMIC WELD)  
 ▲ MECHANICAL CONNECTION  
 ⊗ GROUND ROD  
 ● CABLE GROUND KIT

**NOTE:**  
 USE #6 AWG BARE SOLID TINNED COPPER UNLESS NOTED OTHERWISE

**GROUNDING RISER DIAGRAM**

NO SCALE 4

PLANS PREPARED FOR:  
**Sprint**  
 6580 Sprint Parkway  
 Overland Park, Kansas 66251

PLANS PREPARED BY:  
**INFINIGY** Design. Build. Deliver.  
 1033 Watervliet Shaker Rd  
 Albany, NY 12205  
 Office # (518) 890-0790  
 Fax # (518) 890-0793  
 JOB NUMBER 340-000

MLA PARTNER:  
**AMERICAN TOWER CORPORATION**  
 10 PRESIDENTIAL WAY  
 WOBURN, MA 01801

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

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**CT72XC032**

SITE ADDRESS:  
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 NEW FAIRFIELD, CT 06812

SHEET DESCRIPTION:  
**ELECTRICAL & GROUNDING DETAILS**

SHEET NUMBER:  
**E-2**