

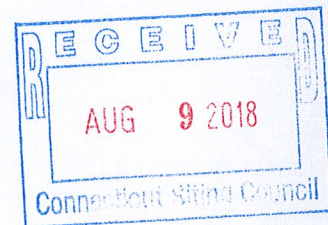


August 6th, 2018

EM-SPRINT-102-180809

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

RE: Notice of Exempt Modification – Antenna Swap for wireless facility located at 118C WINTCHOG HILL ROAD, NORTH STONINGTON, CONNECTICUT – CT03XC151 (lat. 41° 27' 35.43" N, long. -71° 55' 38.43" W)



ORIGINAL

Dear Ms. Bachman:

Sprint Spectrum, LP ("Sprint") currently maintains wireless telecommunications antennas at the 246-foot level) on an existing (250-foot Self-support Tower) at the above-referenced address. The property and the tower are owned by American Tower Corporation.

Sprint's proposed work involves antenna replacement and tower work. Sprint intends to replace three (3) antennas, adding three (3) new antennas, and add six (6) new RRHs onto the tower. All the proposed work is contained within the existing fenced area. Please refer to the attached drawings for site plans prepared by Infinigy Engineering. The Structural Analysis prepared by American Tower Corporation contains "existing" noted contracted equipment which is not on the tower.

Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to MICHAEL URGO, FIRST SELECTMAN, and JULIET HODGE, PLANNING AND ZONING OFFICIAL of the TOWN of NORTH STONINGTON. A copy of this letter is also being sent to JUSTINE PAUL the manager for AMERICAN TOWER CORPORATION who manages the tower and who owns the land.

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

1. The proposed modifications will not result in an increase in the height of the existing tower.
2. The antennas work is a one-for-one replacement of facility components.



3. The proposed modifications will include the addition of ground base equipment as depicted on the attached drawings; however, the proposed equipment will not require an extension of the site boundaries.
4. The proposed modifications will not increase noise levels at the facility by six decibels or more.
5. The additional ground based equipment will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) adopted safety standard.

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

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

Kind Regards,

A handwritten signature in dark ink, appearing to read "A. Perkowski", enclosed within a large, loopy oval scribble.

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

Attachment

CC: MICHAEL URGO (FIRST SELECTMAN, North Stonington, CT)
JUSTINE PAUL (Manager, AMERICAN TOWER CORPORATION)
JULIET HODGE (PLANNING AND ZONING OFFICIAL, North Stonington, CT)

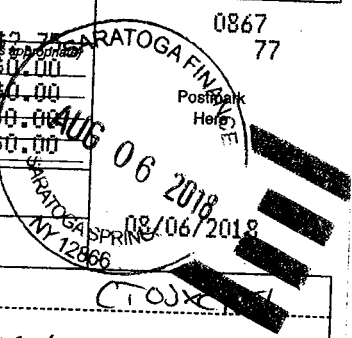
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PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

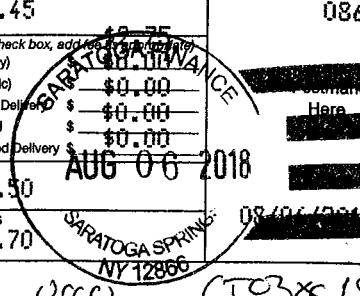
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Sent To: Michael Orco
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 City, State, ZIP+4[®]: North Stonington CT 06359

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

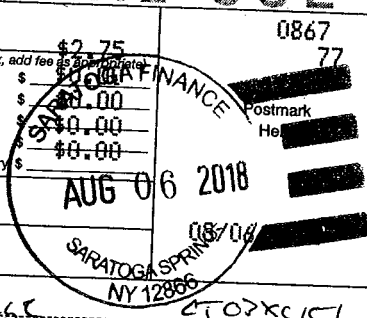
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<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Postage	\$0.50
Total Postage and Fees	\$6.70



Sent To: Select Holder
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 City, State, ZIP+4[®]: North Stonington CT 06359

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



Town of North Stonington, CT

Property Listing Report

Map Block Lot

93-4392

Account

G6195000

Property Information

Property Location	118C WINTECHOG HL
Owner	AMERICAN TOWER SYSTEMS INC
Co-Owner	
Mailing Address	P O BOX 723597 ATLANTA GA 31139
Land Use	4310 TEL REL TW
Land Class	I
Zoning Code	R80
Census Tract	7071
Sub Lot	
Neighborhood	0500
Acreage	0.98
Utilities	
Lot Setting/Desc	Rural Above Street
Survey Map	
Additional Info	

Photo

No Photo Available

Sketch

Primary Construction Details

Year Built	
Stories	
Building Style	
Building Use	
Building Condition	
Floors	
Total Rooms	

Bedrooms	
Full Bathrooms	
Half Bathrooms	
Bath Style	
Kitchen Style	
Roof Style	
Roof Cover	

Exterior Walls	
Interior Walls	
Heating Type	
Heating Fuel	
AC Type	
Gross Bldg Area	
Total Living Area	



Town of North Stonington, CT

Property Listing Report

Map Block Lot

93-4392

Account

G6195000

Valuation Summary (Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
Buildings	0	0
Extras	0	0
Outbuildings	171500	120050
Land	115100	80570
Total	286600	200620

Outbuilding and Extra Items

Type	Description
FENCE-6' CHAIN	370.00000000 L.F.
COMMUNIC BLD	308.00000000 S.F.
COMMUNIC BLD	308.00000000 S.F.
COMMUNIC BLD	575.00000000 S.F.
COMMUNIC BLD	575.00000000 S.F.
GENERATOR	1.00000000 UNITS

Sub Areas

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

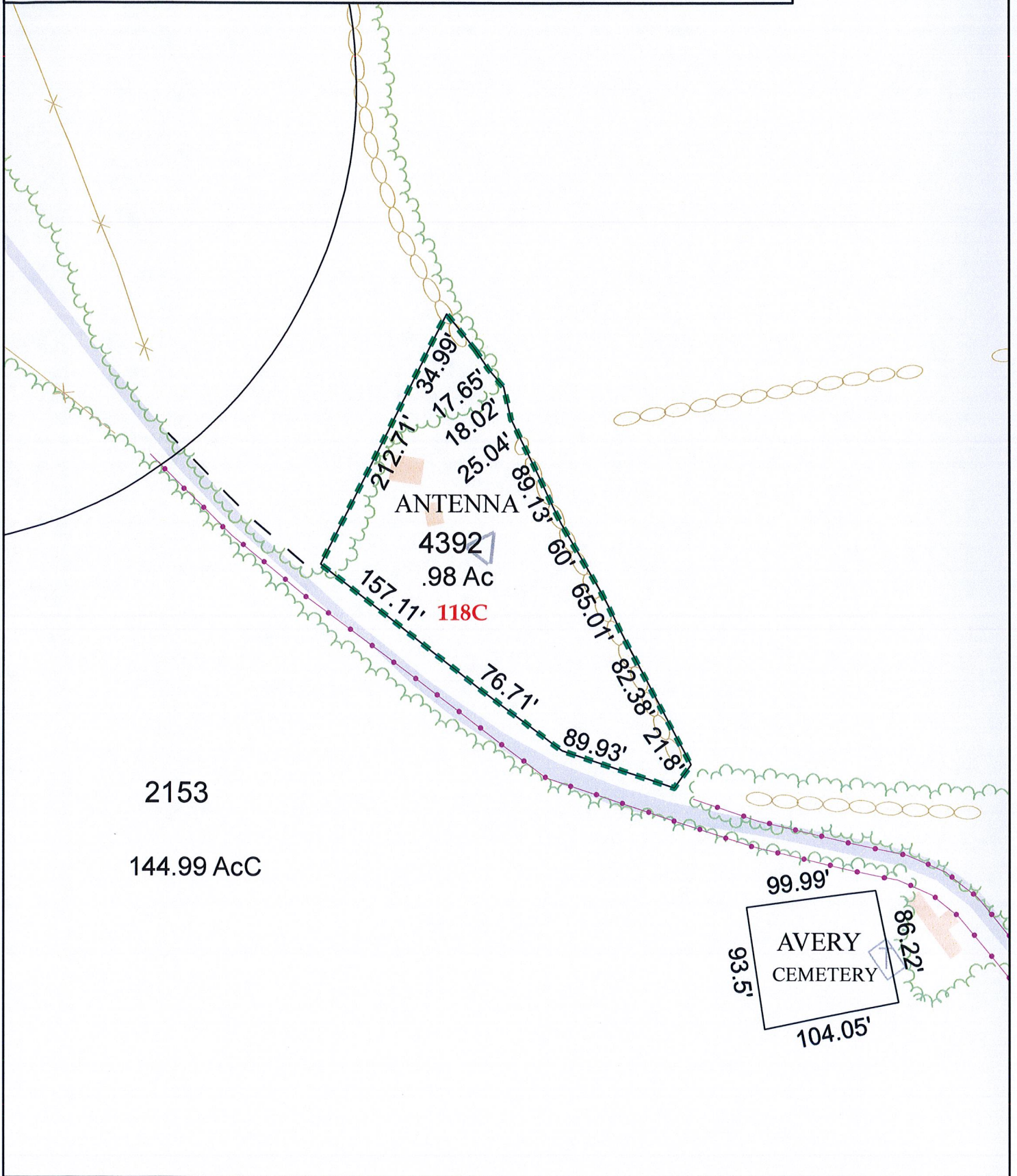
Sales History

Owner of Record	Book/ Page	Sale Date	Sale Price
AMERICAN TOWER SYSTEMS INC	112/ 98	11/1/1996	1000000
GOGUEN GERALD A	69/ 531	2/6/1987	27500

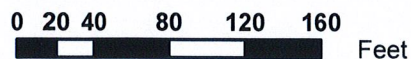
Town of North Stonington, Connecticut - Assessment Parcel Map

Parcel: 93-4392

Address: 118C WINTECHOG HL



Approximate Scale: 1:1,200



Map Produced
February 2018

Disclaimer: This map is for informational purposes only.
All information is subject to verification by any user.
The Town of North Stonington and its mapping contractors assume
no legal responsibility for the information contained herein.



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

SPRINT Existing Facility

Site ID: CT03XC151

North Stonington/American Tower
118C Wintechog Hill Road
North Stonington, CT 06359

May 23, 2018

EBI Project Number: 6218004011

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	10.33 %



May 23, 2018

SPRINT

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

Emissions Analysis for Site: **CT03XC151 – North Stonington/American Tower**

EBI Consulting was directed to analyze the proposed SPRINT facility located at **118C Wintechog Hill Road, North Stonington, CT**, for the purpose of determining whether the emissions from the Proposed SPRINT Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 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 population may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general population would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

General population exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limits for the 850 MHz Band is approximately $567 \mu\text{W}/\text{cm}^2$. The general population exposure limit for the 1900 MHz (PCS) and 2500 MHz (BRS) 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 SPRINT Wireless antenna facility located at **118C Wintechog Hill Road, North Stonington, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since SPRINT is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was focused at the base of the tower. For this report the sample point is the top of a 6-foot person standing at the base of the tower.

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

- 1) 1 CDMA channels (850 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 20 Watts per Channel.
- 2) 2 LTE channels (850 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 20 Watts per Channel.
- 3) 5 CDMA channels (1900 MHz (PCS)) were considered for each sector of the proposed installation. These Channels have a transmit power of 16 Watts per Channel.
- 4) 2 LTE channels (1900 MHz (PCS)) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
- 5) 8 LTE channels (2500 MHz (BRS)) were considered for each sector of the proposed installation. These Channels have a transmit power of 20 Watts per Channel.



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- 6) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
- 7) For the following calculations, the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufactures supplied specifications minus 10 dB was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 8) The antennas used in this modeling are the **KMW ETCR-654L12H6** for transmission in the 850 MHz, 1900 MHz (PCS) and 2500 MHz (BRS) frequency bands. This is based on feedback from the carrier with regards to anticipated antenna selection. Maximum gain values for all antennas are listed in the Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 9) The antenna mounting height centerlines of the proposed antennas are **246 feet** above ground level (AGL) for **Sector A**, **246 feet** above ground level (AGL) for **Sector B** and **246 feet** above ground level (AGL) for Sector C.
- 10) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

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



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SPRINT Site Inventory and Power Data by Antenna

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	KMW ETCR-654L12H6	Make / Model:	KMW ETCR-654L12H6	Make / Model:	KMW ETCR-654L12H6
Gain:	13.35 / 15.25/15.05 dBd	Gain:	13.35 / 15.25 / 15.05 dBd	Gain:	13.35 / 15.25 / 15.05 dBd
Height (AGL):	246 feet	Height (AGL):	246 feet	Height (AGL):	246 feet
Frequency Bands	850 MHz / 1900 MHz (PCS) / 2500 MHz (BRS)	Frequency Bands	850 MHz / 1900 MHz (PCS) / 2500 MHz (BRS)	Frequency Bands	850 MHz / 1900 MHz (PCS) / 2500 MHz (BRS)
Channel Count	18	Channel Count	18	Channel Count	18
Total TX Power(W):	380 Watts	Total TX Power(W):	380 Watts	Total TX Power(W):	380 Watts
ERP (W):	11,775.31	ERP (W):	11,775.31	ERP (W):	11,775.31
Antenna A1 MPE%	0.80 %	Antenna B1 MPE%	0.80 %	Antenna C1 MPE%	0.80 %

Site Composite MPE%	
Carrier	MPE%
SPRINT – Max per sector	0.80 %
AT&T	1.20 %
MetroPCS	0.22 %
T-Mobile	0.86 %
State Police	0.01 %
State Police - Microwave	0.66 %
MobileComm	0.33 %
PageNet	0.11 %
Destineer	0.09 %
TSR Paging	0.10 %
AirTouch	3.47 %
Nextel	0.14 %
FM Broadcast	1.97 %
PageMart	0.37 %
Site Total MPE %:	10.33 %

SPRINT Sector A Total:	0.80 %
SPRINT Sector B Total:	0.80 %
SPRINT Sector C Total:	0.80 %
Site Total:	10.33 %

SPRINT _ Frequency Band / Technology Power Values (Per Sector)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu\text{W}/\text{cm}^2$)	Frequency (MHz)	Allowable MPE ($\mu\text{W}/\text{cm}^2$)	Calculated % MPE
Sprint 850 MHz CDMA	1	432.54	246	0.27	850 MHz	567	0.05%
Sprint 850 MHz LTE	2	432.54	246	0.54	850 MHz	567	0.10%
Sprint 1900 MHz (PCS) CDMA	5	535.94	246	1.67	1900 MHz (PCS)	1000	0.17%
Sprint 1900 MHz (PCS) LTE	2	1,339.86	246	1.67	1900 MHz (PCS)	1000	0.17%
Sprint 2500 MHz (BRS) LTE	8	639.78	246	3.19	2500 MHz (BRS)	1000	0.32%
						Total:	0.80%



Summary

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

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

SPRINT Sector	Power Density Value (%)
Sector A:	0.80 %
Sector B:	0.80 %
Sector C:	0.80 %
SPRINT Maximum Total (per sector):	0.80 %
Site Total:	10.33 %
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **10.33 %** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

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

INFINIGY

FROM ZERO TO INFINIGY
the solutions are endless

1033 WATERVLIET SHAKER RD, ALBANY, NY 12205

December 1, 2017

Terri Burkholder

Project Manager

Airosmith Development

tburkholder@asdwireless.com

www.airosmithdevelopment.com

RE: Sprint Project Mount Analysis

Sprint Site Number:	CT03XC151
Sprint Site Name:	NORTH STONGINGTON / AMERICAN TOWER
Site Address:	118C Wintechog Rd, North Stongington, CT 06359
Building Code:	2012 IBC / 2016 Connecticut State Building Code
Design Standard:	ANSI/TIA-222-G
Result:	Contingent Pass – See Required Modification Below
Usage:	62.6%
Note:	Install (1) SitePro1 STK-U Stiff Arm kit at end of top horizontal at unbraced end of each sector frame.

Dear Ms. Burkholder:

At your request, Infinigy Engineering, PLLC has reviewed the existing Sprint tower mounted equipment supports at the above referenced site for adequacy to support the existing and proposed loads for the referenced project. This evaluation is based on a review of the information from the Photos (dated 08/02/17) and Construction Drawings (dated 10/05/17) provided by Infinigy Engineering, PLLC.

This evaluation assumes that all structural members are in good condition, have not been altered from the manufacturer's original design, and have been installed per the manufacturer's requirements. Prior to installation of any new appurtenances, the contractor shall inspect the condition of all relevant members and connections and shall tighten all connections. The contractor is responsible for the means and methods of construction and shall notify Infinigy Engineering, PLLC immediately if any field conditions differ from those listed above.

Should there be any questions, please do not hesitate to contact us at (518) 690-0790.

Sincerely,

Joseph R. Johnston, P.E.

VP Structural Engineering/Principal

structural@infinigy.com

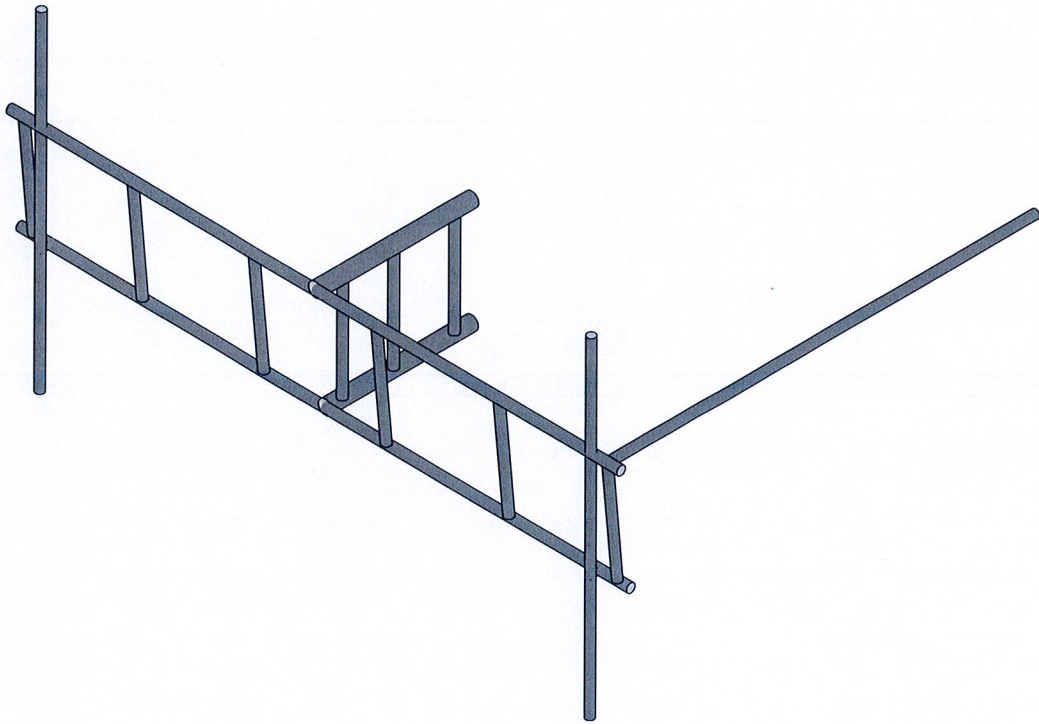
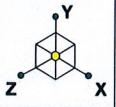
Connecticut P.E. License Number: PEN.0029460

KC/NRO



AZ CA CO FL GA IL MD NC NH NJ NY TN TX WA

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Envelope Only Solution

Infinigy Engineering PLLC

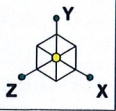
NRO

526-104

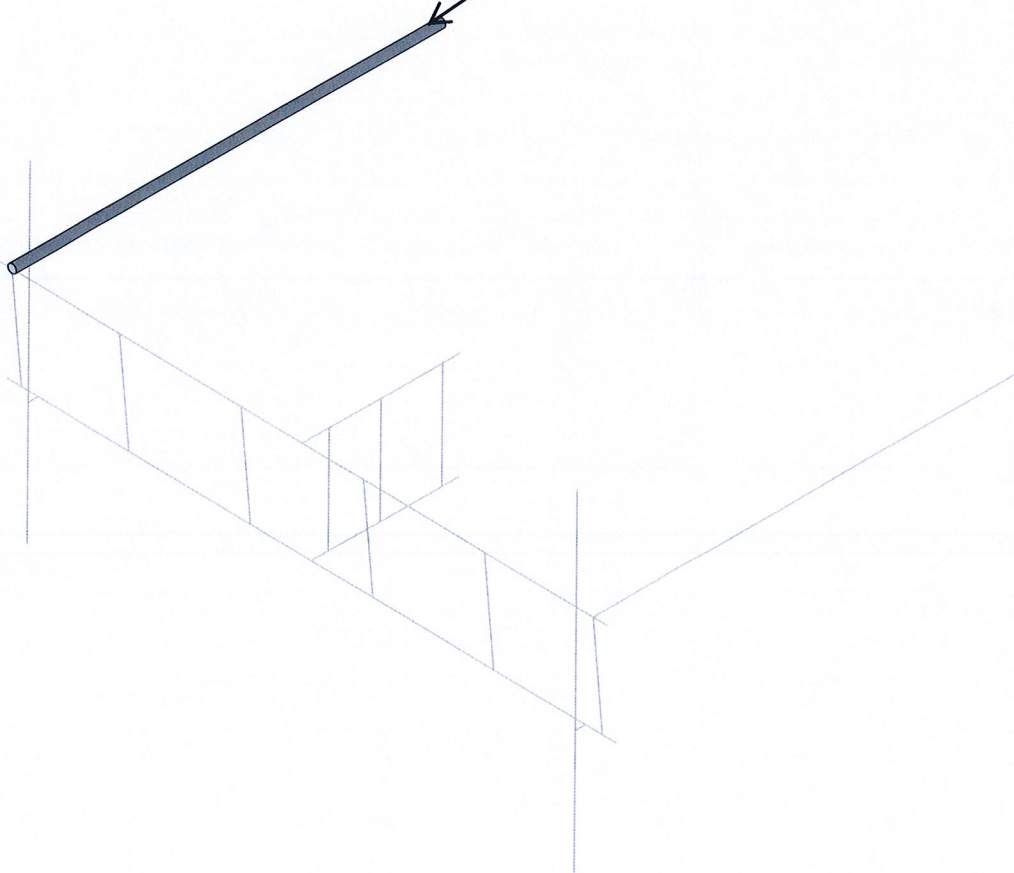
CT03XC151
Existing Configuration

Dec 1, 2017 at 1:27 AM

CT03XC151.r3d



**Install (1) SitePro1 STK-U
Stiff Arm kit at end of top
horizontal at unbraced end
of each sector frame.**



Envelope Only Solution

Infinigy Engineering PLLC

NRO

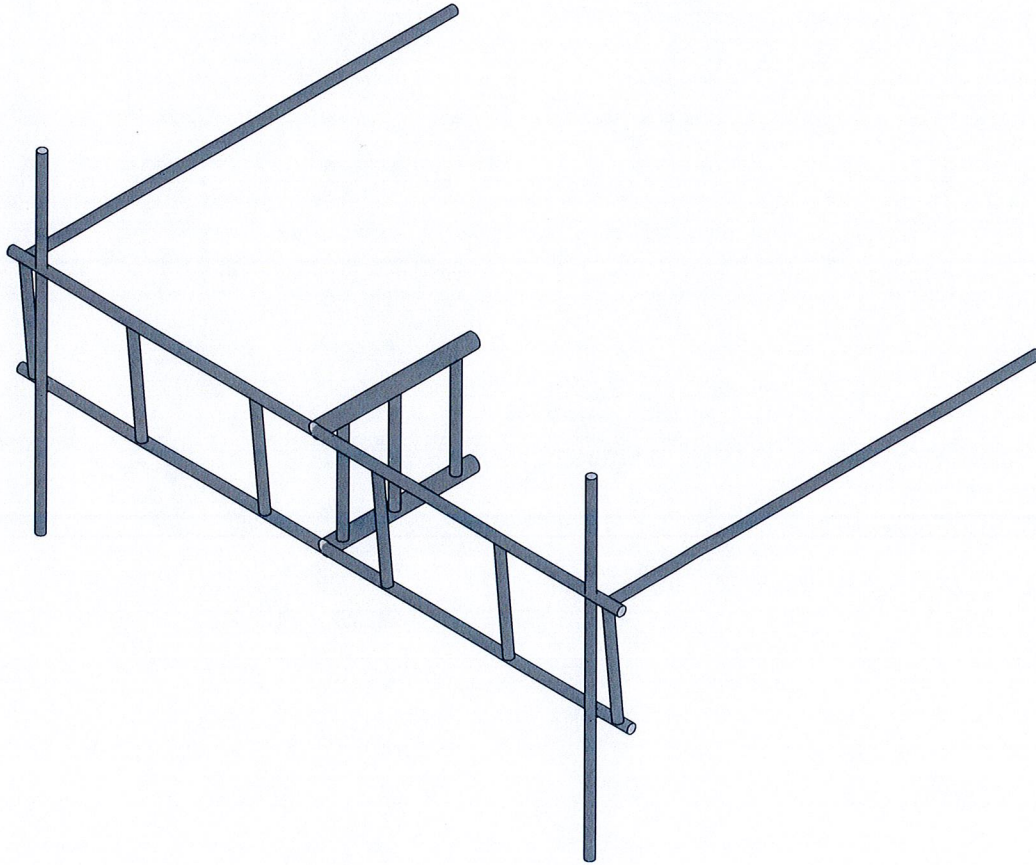
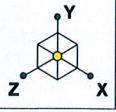
526-104

CT03XC151

Proposed Modification

Dec 1, 2017 at 1:27 AM

CT03XC151.r3d



Envelope Only Solution

Infinigy Engineering PLLC

NRO

526-104

CT03XC151
Final Configuration

Dec 1, 2017 at 1:26 AM

CT03XC151.r3d

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N1	N3			P4x0.226	Beam	Pipe	A53 Gr B	Typical
2	M2	N2	N4			P4x0.226	Beam	Pipe	A53 Gr B	Typical
3	M3	N8	N7			P 2.5x0.1875	Beam	Pipe	A53 Gr B	Typical
4	M4	N6	N5			P 2.5x0.1875	Beam	Pipe	A53 Gr B	Typical
5	M5	N25	N26			P 2.5x0.1875	Beam	Pipe	A53 Gr B	Typical
6	M6	N19	N15			P 2.5x0.1875	Beam	Pipe	A53 Gr B	Typical
7	M7	N20	N16			P 2.5x0.1875	Beam	Pipe	A53 Gr B	Typical
8	M8	N21	N17			P 2.5x0.1875	Beam	Pipe	A53 Gr B	Typical
9	M9	N22	N18			P 2.5x0.1875	Beam	Pipe	A53 Gr B	Typical
10	M10	N23	N24			P 2.5x0.1875	Beam	Pipe	A53 Gr B	Typical
11	M11	N11	N12			P 2.5x0.1875	Beam	Pipe	A53 Gr B	Typical
12	M12	N13	N14			P 2.5x0.1875	Beam	Pipe	A53 Gr B	Typical
13	M13	N9	N10			P 2.5x0.1875	Beam	Pipe	A53 Gr B	Typical
14	M14	N25	N27			P2.375x0.1875	Beam	Pipe	A53 Gr B	Typical
15	MP5	N40	N36			P2.375x0.1875	Beam	Pipe	A53 Gr B	Typical
16	MP1	N41	N37			P2.375x0.1875	Beam	Pipe	A53 Gr B	Typical
17	M19	N28	N44			RIGID	None	None	RIGID	Typical
18	M22	N30	N45			RIGID	None	None	RIGID	Typical
19	M23	N23	N49			P2.375x0.1875	Beam	Pipe	A53 Gr B	Typical

Material Takeoff

	Material	Size	Pieces	Length[in]	Weight[K]
1	General				
2	RIGID		2	6	0
3	Total General		2	6	0
4					
5	Hot Rolled Steel				
6	A53 Gr B	HSS2.375x0.188	4	444	.2
7	A53 Gr B	HSS2.5x0.188	11	639.9	.2
8	A53 Gr B	HSS4x0.226	2	89	0
9	Total HR Steel		17	1172.9	.4

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me...	Surface(P...
1	Self Weight	DL		-1			8		
2	Wind Load AZI 000	WLZ					8	1	
3	Wind Load AZI 090	WLX					8	1	
4	Ice Weight	OL1					8	19	
5	Wind + Ice Load AZI ...	OL2					8	1	
6	Wind + Ice Load AZI ...	OL3					8	1	
7	Service Live 1	LL				2			
8	BLC 2 Transient Area..	None						11	
9	BLC 3 Transient Area..	None						17	
10	BLC 5 Transient Area..	None						11	
11	BLC 6 Transient Area..	None						17	

Load Combinations

	Description Sol...	PD...	SR...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...
1	1.4D	Yes	Y	DL	1.4								
2	1.2D + 1.6...	Yes	Y	DL	1.2	WLZ	1.6						
3	1.2D + 1.6...	Yes	Y	DL	1.2	WLZ	1.386	W...	.8				

Load Combinations (Continued)

Description	Sol.	PD	SR	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.
4	1.2D + 1.6..	Yes	Y	DL 1.2	WLZ .8	W...	1.386						
5	1.2D + 1.6..	Yes	Y	DL 1.2		W...	1.6						
6	1.2D + 1.6..	Yes	Y	DL 1.2	WLZ -.8	W...	1.386						
7	1.2D + 1.6..	Yes	Y	DL 1.2	WLZ -1.3...	W...	.8						
8	1.2D + 1.6..	Yes	Y	DL 1.2	WLZ -1.6								
9	1.2D + 1.6..	Yes	Y	DL 1.2	WLZ -1.3...	W...	-.8						
10	1.2D + 1.6..	Yes	Y	DL 1.2	WLZ -.8	W...	-1.3...						
11	1.2D + 1.6..	Yes	Y	DL 1.2		W...	-1.6						
12	1.2D + 1.6..	Yes	Y	DL 1.2	WLZ .8	W...	-1.3...						
13	1.2D + 1.6..	Yes	Y	DL 1.2	WLZ 1.386	W...	-.8						
14	0.9D + 1.6..	Yes	Y	DL .9	WLZ 1.6								
15	0.9D + 1.6..	Yes	Y	DL .9	WLZ 1.386	W...	.8						
16	0.9D + 1.6..	Yes	Y	DL .9	WLZ .8	W...	1.386						
17	0.9D + 1.6..	Yes	Y	DL .9		W...	1.6						
18	0.9D + 1.6..	Yes	Y	DL .9	WLZ -.8	W...	1.386						
19	0.9D + 1.6..	Yes	Y	DL .9	WLZ -1.3...	W...	.8						
20	0.9D + 1.6..	Yes	Y	DL .9	WLZ -1.6								
21	0.9D + 1.6..	Yes	Y	DL .9	WLZ -1.3...	W...	-.8						
22	0.9D + 1.6..	Yes	Y	DL .9	WLZ -.8	W...	-1.3...						
23	0.9D + 1.6..	Yes	Y	DL .9		W...	-1.6						
24	0.9D + 1.6..	Yes	Y	DL .9	WLZ .8	W...	-1.3...						
25	0.9D + 1.6..	Yes	Y	DL .9	WLZ 1.386	W...	-.8						
26	1.2D + 1.0..	Yes	Y	DL 1.2	OL1 1								
27	1.2D + 1.0..	Yes	Y	DL 1.2	OL1 1	OL2 1							
28	1.2D + 1.0..	Yes	Y	DL 1.2	OL1 1	OL2 .866	OL3 .5						
29	1.2D + 1.0..	Yes	Y	DL 1.2	OL1 1	OL2 .5	OL3 .866						
30	1.2D + 1.0..	Yes	Y	DL 1.2	OL1 1		OL3 1						
31	1.2D + 1.0..	Yes	Y	DL 1.2	OL1 1	OL2 -.5	OL3 .866						
32	1.2D + 1.0..	Yes	Y	DL 1.2	OL1 1	OL2 -.866	OL3 .5						
33	1.2D + 1.0..	Yes	Y	DL 1.2	OL1 1	OL2 -1							
34	1.2D + 1.0..	Yes	Y	DL 1.2	OL1 1	OL2 -.866	OL3 -.5						
35	1.2D + 1.0..	Yes	Y	DL 1.2	OL1 1	OL2 -.5	OL3 -.866						
36	1.2D + 1.0..	Yes	Y	DL 1.2	OL1 1		OL3 -1						
37	1.2D + 1.0..	Yes	Y	DL 1.2	OL1 1	OL2 .5	OL3 -.866						
38	1.2D + 1.0..	Yes	Y	DL 1.2	OL1 1	OL2 .866	OL3 -.5						
39	1.2D + 1.5..	Yes	Y	DL 1.2	LL 1.5	WLZ .111							
40	1.2D + 1.5..	Yes	Y	DL 1.2	LL 1.5	WLZ .096	W... .056						
41	1.2D + 1.5..	Yes	Y	DL 1.2	LL 1.5	WLZ .056	W... .096						
42	1.2D + 1.5..	Yes	Y	DL 1.2	LL 1.5		W... .111						
43	1.2D + 1.5..	Yes	Y	DL 1.2	LL 1.5	WLZ -.056	W... .096						
44	1.2D + 1.5..	Yes	Y	DL 1.2	LL 1.5	WLZ -.096	W... .056						
45	1.2D + 1.5..	Yes	Y	DL 1.2	LL 1.5	WLZ -.111							
46	1.2D + 1.5..	Yes	Y	DL 1.2	LL 1.5	WLZ -.096	W... -.056						
47	1.2D + 1.5..	Yes	Y	DL 1.2	LL 1.5	WLZ -.056	W... -.096						
48	1.2D + 1.5..	Yes	Y	DL 1.2	LL 1.5		W... -.111						
49	1.2D + 1.5..	Yes	Y	DL 1.2	LL 1.5	WLZ .056	W... -.096						
50	1.2D + 1.5..	Yes	Y	DL 1.2	LL 1.5	WLZ .096	W... -.056						

Envelope Joint Reactions

Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC	
1	N1	max	1168.444	17	1441.351	33	84.394	20	-.474	20	3.236	17	.039	4
2		min	-1166.751	23	364.397	14	-2153.249	27	-2.304	27	-3.232	23	-.178	35
3	N2	max	1204.872	5	1432.742	27	2543.846	27	-.475	20	3.321	5	.037	14
4		min	-1207.066	11	360.369	20	-799.069	20	-2.299	27	-3.326	11	-.186	34
5	N27	max	111.09	5	77.081	33	1059.695	14	NC	NC	0	1	0	1

Envelope Joint Reactions (Continued)

Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC	
6		min	-111.498	11	17.988	14	-1114.656	8	NC	NC	0	1	0	1
7	N49	max	111.497	5	76.202	33	784.893	14	NC	NC	0	1	0	1
8		min	-111.091	11	18.02	14	-839.846	8	NC	NC	0	1	0	1
9	Totals:	max	2595.781	5	3021.928	27	2652.383	2						
10		min	-2595.781	11	775.63	20	-2652.382	20						

Envelope AISC 14th(360-10): LRFD Steel Code Checks

Member	Shape	Code Ch...	Loc[i]	LC	Shear Check	Loc[in]	Dir	LC	phi*Pnc...	phi*Pnt...	phi*Mn...	phi*Mn...	Cb	Eqn
1	MP5	HSS2.375x...	.626	36	20	.051	67	20	17463.1...	37800	2.218	2.218	2...	H1-1b
2	M6	HSS2.5x0...	.600	0	36	.297	0	2	38791.7...	40005	2.475	2.475	2...	H1-1b
3	M3	HSS2.5x0...	.543	90	13	.318	7.5	8	21765.4...	40005	2.475	2.475	1	H1-1b
4	M9	HSS2.5x0...	.542	0	30	.198	0	2	38791.7...	40005	2.475	2.475	2...	H1-1b
5	M7	HSS2.5x0...	.474	31.1...	27	.229	31.145	2	38791.7...	40005	2.475	2.475	2...	H1-1b
6	M5	HSS2.5x0...	.450	0	8	.226	0	8	38791.7...	40005	2.475	2.475	2...	H1-1b
7	M8	HSS2.5x0...	.444	31.1...	28	.151	31.145	2	38791.7...	40005	2.475	2.475	2...	H1-1b
8	M11	HSS2.5x0...	.437	0	27	.097	31	38	38802.8...	40005	2.475	2.475	2...	H1-1b
9	M2	HSS4x0.226	.436	0	11	.092	23.292	35	74716.6...	78750	7.928	7.928	2...	H1-1b
10	M1	HSS4x0.226	.424	0	5	.088	5.271	35	74151.5...	78750	7.928	7.928	2...	H1-1b
11	M4	HSS2.5x0...	.415	71.25	28	.541	5.625	8	21765.4...	40005	2.475	2.475	1	H1-1b
12	M12	HSS2.5x0...	.407	31	27	.091	31	37	38802.8...	40005	2.475	2.475	1...	H1-1b
13	MP1	HSS2.375x...	.356	36	20	.041	67	20	17463.1...	37800	2.218	2.218	2...	H1-1b
14	M10	HSS2.5x0...	.303	31.1...	30	.151	31.145	7	38791.7...	40005	2.475	2.475	2...	H1-1b
15	M14	HSS2.375x...	.147	63	4	.010	0	5	10430.4...	37800	2.218	2.218	1...	H1-1b
16	M13	HSS2.5x0...	.146	31	27	.032	31	38	38802.8...	40005	2.475	2.475	2...	H1-1b
17	M23	HSS2.375x...	.141	63	12	.010	0	5	10430.4...	37800	2.218	2.218	1...	H1-1b



DEPARTMENT OF ADMINISTRATIVE SERVICES

August 7, 2018

Art Perkowski, Site Acquisition Specialist
Airosmith Development
32 Clinton Street
Saratoga Springs, NY 12866

Re: Structural Analysis Report for Site #6260
118C Wintechog Hill Rd. North Stonington

Mr. Perkowski,

Based on the Structural Analysis Report by American Tower Corporation, dated July 13, 2018, the proposed additions to this tower comply with the structural requirements of the 2016 Connecticut State Building Code.

If you have any questions you may contact me as 860-713-5900.

Sincerely,

A handwritten signature in blue ink, appearing to read "JCassidy".

Joseph V. Cassidy, P.E.
State Building Inspector



AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure : 250 ft Self Supported Tower
ATC Site Name : North Stonington CT, CT
ATC Site Number : 6260
Engineering Number : OAA712586_C3_06
Proposed Carrier : Sprint Nextel
Carrier Site Name : North Stonington CT
Carrier Site Number : CT03XC151
Site Location : 118C Wintechog Hill Rd., off of Rt. 2
North Stonington, CT 06359-1228
41.459800,-71.927300
County : New London
Date : July 13, 2018
Max Usage : 102%
Result : Pass

Prepared By:
Tyler Ferguson, E.I.
Structural Engineer I

Reviewed By:



Authorized by "EOR"
Jul 13 2018 2:22 PM

cosign

COA: PEC.0001553



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Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 250 ft self supported tower to reflect the change in loading by Sprint Nextel.

Supporting Documents

Tower Drawings	FWT Job #19240001, dated September 13, 1999
Foundation Drawing	FWT Job #19240001, dated September 13, 1999
Geotechnical Report	Clarence Welti Associates, dated August 31, 1999

Analysis

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

Basic Wind Speed:	105 mph (3-Second Gust, V_{asd}) / 135 mph (3-second Gust, V_{ult})
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 3/4" radial ice concurrent
Code:	ANSI/TIA-222-G / 2012 IBC / 2016 Connecticut State Building Code
Structure Class:	II
Exposure Category:	B
Topographic Category:	1
Crest Height:	0 ft
Spectral Response:	$S_s = 0.16$, $S_1 = 0.06$
Site Class:	D - Stiff Soil

Conclusion

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

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



Existing and Reserved Equipment

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
250.0	260.5	1	Decibel DB809DK-XT	Leg	(6) 1 5/8" Coax	State Of CT
	260.0	2	10' Omni			
246.0	250.0	1	Box Enclosures BEN-92P	Modified Sector Frames	(4) 0.21" Cat 5e (1) 1" conduit	Sprint Nextel
225.0	225.0	3	Andrew LNX-6515DS-VTM	Sector Frames	(12) 1 5/8" Coax (6) 3/8" Coax (2) 1 5/8" Hybriflex	T-Mobile
		3	Ericsson AIR 21, 1.3M, B4A B2P			
		3	Ericsson AIR 21, 1.3 M, B2A B4P			
		3	Ericsson RRUS 11 (Band 12)			
		3	Ericsson KRY 112 144/1			
210.0	210.0	12	Andrew SMR08-09012-0D	Sector Frames	(12) 1 5/8" Coax	Sprint Nextel
200.0	207.2	3	Sinclair SC479-HF1LDF(E5765)	Side Arms	(3) 1 5/8" Coax (1) 0.51" Cable	State Of CT
	200.0	1	Bird 432E-83I-01-T			
175.0	175.0	1	Powerwave P65-17-XLH-RR	Sector Frames	(2) 0.78" 8 AWG 6 (12) 1 5/8" Coax (1) 3" conduit (1) 0.39" Fiber Trunk	AT&T Mobility
		1	Andrew SBNH-1D6565C			
		6	Allgon 7770.00			
		1	KMW AM-X-CD-14-65-00T-RET			
		3	Ericsson RRUS-11 1900MHz			
		6	Powerwave LGP17201			
		1	Raycap DC6-48-60-18-8F (23.5" Height)			
		6	LGP LGP21903			
164.0	172.0	1	RFI Antennas BA8080-67-DIN	Side Arm	(2) 7/8" Coax	Repeater Network
158.0	158.0	6	Kathrein 800 10504	Sector Frames	(12) 1 5/8" Coax (6) 3/8" Coax	Metro PCS
		6	Kathrein 860 10025			
96.0	96.0	1	24" x 24" Ice Shield	Leg	-	State Of CT
89.0	89.0	1	6' Dish w/ Radome	Leg	(1) 1/2" Coax (1) EW52	
83.0	83.0	1	RFS PA6-65AC w/ Radome	Leg	(1) WE65	

Equipment to be Removed

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
246.0	250.0	3	RFS APXVSP18-C-A20	-	(3) 1.25" Hybrid (1) 0.88" 8 AWG 6 (1) 1" conduit	Sprint Nextel
		3	Commscope LLPX310R-V1			
		3	Nokia FWHR			
		3	Alcatel-Lucent 1900MHz 4X45 RRH			
		3	Alcatel-Lucent RRH2x50-08			



Proposed Equipment

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
246.0	246.0	3	KMW ETCR-654L12H6	Modified Sector Frames	(4) 1 1/4" Hybriflex	Sprint Nextel
		3	RFS APXVSPP18-C-A20			
		3	Alcatel-Lucent TD-RRH8x20-25			
		3	Alcatel-Lucent 1900MHz 4X45 RRH			
		6	Alcatel-Lucent RRH2x50-08			

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

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

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Legs	59%	Pass
Diagonals	102%	Pass
Horizontals	9%	Pass
Anchor Bolts	55%	Pass
Leg Bolts	53%	Pass

Foundations

Reaction Component	Original Design Reactions	Factored Design Reactions*	Analysis Reactions	% of Design
Uplift (Kips)	556.7	751.5	541.6	72%
Axial (Kips)	673.9	909.8	632.0	69%
Shear (Kips)	63.2	85.3	64.2	75%

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

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

Deflection, Twist, and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Twist (°)	Sway (Rotation) (°)
246.0	Alcatel-Lucent RRH2x50-08	Sprint Nextel	0.367	0.014	0.207
	Alcatel-Lucent 1900 MHz 4X45 RRH				
	Alcatel-Lucent TD-RRH8x20-25				
	RFS APXVSPP18-C-A20				
	KMW ETCR-654L12H6				
89.0	6' Dish w/ Radome	State of CT	0.043	0.005	0.058
83.0	RFS PA6-65AC w/ Radome				

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

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

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

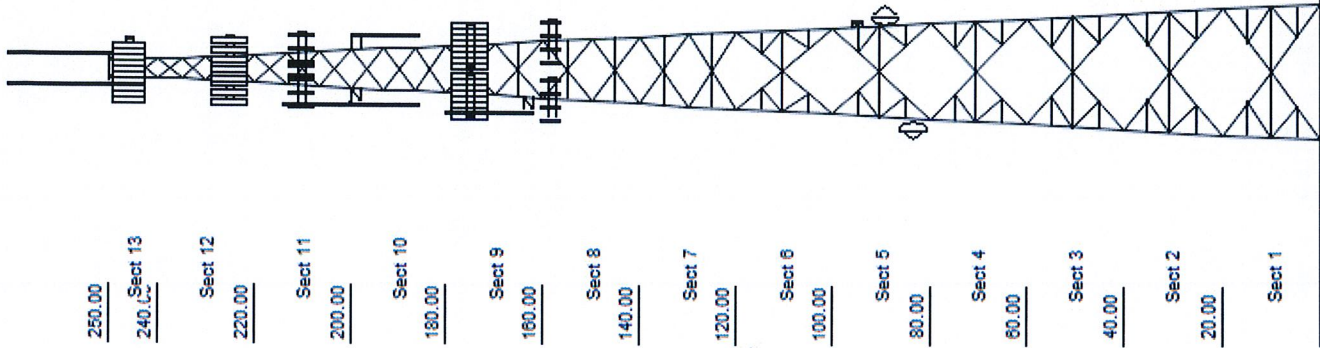
All assets of American Tower Corporation, its affiliates and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with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

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

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

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Loads: 105 mph no ice
 50 mph w/ 3/4" radial ice
 Site Class: D Ss: 0.16 S1: 0.06
 60 mph Serviceability



Job Information	
Tower : 6260	Location : NORTH
Client : Sprint Nextel	Base Width : 28.00 ft
Code : ANSI/TIA-222-G	Top Width : 4.00 ft
	Tower Ht : 250.00 ft
	Shape : Triangle

Sections Properties			
Section	Leg Members	Diagonal Members	Horizontal Members
1	SOL 50 ksi 5 3/4" SOLID	DAE 36 ksi 3X3X0.25	
2	SOL 50 ksi 5 1/2" SOLID	DAE 36 ksi 3X3X0.25	
3	SOL 50 ksi 5 1/4" SOLID	DAE 36 ksi 3X3X0.25	
4	SOL 50 ksi 5" SOLID	DAE 36 ksi 3X3X0.1875	
5	SOL 50 ksi 4 3/4" SOLID	DAE 36 ksi 3X3X0.1875	
6	SOL 50 ksi 4 1/2" SOLID	DAE 36 ksi 3X3X0.1875	
7	SOL 50 ksi 4 1/4" SOLID	DAE 36 ksi 2.5X2.5X0.1875	
8	SOL 50 ksi 4" SOLID	DAE 36 ksi 2.5X2.5X0.1875	
9	SOL 50 ksi 3 3/4" SOLID	SAE 36 ksi 3.5X3.5X0.25	
10	SOL 50 ksi 3 1/4" SOLID	SAE 36 ksi 3X3X0.1875	
11	SOL 50 ksi 3 1/4" SOLID	SAE 36 ksi 2.5X2.5X0.1875	
12	SOL 50 ksi 2 1/4" SOLID	SAE 36 ksi 1.75X1.75X0.1875	
13	SOL 50 ksi 2" SOLID	SAE 36 ksi 1.75X1.75X0.1875	SAE 36 ksi 2X2X0.1875

Redundant Secondary Bracing						
Section	Sub Diag 1	Sub Horiz 1	Sub Diag 2	Sub Horiz 2	Sub Diag 3	Sub Horiz 3
1	D2.5X2.5X0.1875	D2.5X2.5X0.1875	D2.5X2.5X0.1875	D3X3X0.1875	-	D2.5X2.5X0.1875
2	D2X2X0.1875	D2X2X0.1875	D2X2X0.1875	D3X3X0.1875	-	D2X2X0.1875
3	D2X2X0.1875	D2X2X0.1875	D2X2X0.1875	D2.5X2.5X0.1875	-	D2X2X0.1875
4	S3X3X0.1875	S2.5X2.5X0.1875	S3X3X0.1875	S3.5X3.5X0.25	-	S2.5X2.5X0.1875
5	S3X3X0.1875	S2.5X2.5X0.1875	S3X3X0.1875	S3X3X0.25	-	S2.5X2.5X0.1875
6	S2.5X2.5X0.1875	S2X2X0.1875	S2.5X2.5X0.1875	S3X3X0.1875	-	S2X2X0.1875
7	-	S3X3X0.1875	-	-	-	-
8	-	S2.5X2.5X0.1875	-	-	-	-
9	-	S2X2X0.1875	-	-	-	-
10 - 13	-	-	-	-	-	-

Discrete Appurtenance		
Elev (ft)	Type	Qty Description
250.00	Whip	1 Decibel DB809DK-XT
250.00	Whip	2 10" Omni
246.00	Panel	3 KMW ETCR-654L12H6
246.00	Panel	3 RFS APXVSP18-C-A20
246.00	Panel	1 Box Enclosures BEN-92P
246.00	Mounting Frame	3 Round Sector Frames
246.00	Panel	3 Alcatel-Lucent TD-RRH8x20-25
246.00	Panel	3 Alcatel-Lucent 1900 MHz 4X45 R
246.00	Panel	6 Alcatel-Lucent RRH2x50-08
225.00	Mounting Frame	3 Round Sector Frames
225.00	Panel	3 Andrew LNX-6515DS-VTM
225.00	Panel	3 Ericsson AIR 21, 1.3M, B4A B2P
225.00	Panel	3 Ericsson AIR 21, 1.3 M, B2A B4
225.00	Panel	3 Ericsson RRUS 11 (Band 12)
225.00	Panel	3 Ericsson KRY 112 144/1
210.00	Mounting Frame	3 Round Sector Frames
210.00	Panel	12 Andrew SMR08-09012-0D
200.00	Whip	2 Sinclair SC479-HF1LDF(E5765)
200.00	Straight Arm	3 Flat Side Arm
200.00	Whip	1 Sinclair SC479-HF1LDF(E5765)
200.00	Panel	1 Bird 432E-831-01-T
175.00	Mounting Frame	3 Round Sector Frames
175.00	Panel	1 Powerwave P65-17-XLH-RR
175.00	Panel	1 Andrew SBNH-1D6565C
175.00	Panel	6 Allgon 7770.00

Job Information	
Tower : 6260	Location : NORTH
Client : Sprint Nextel	Base Width : 28.00 ft
Code : ANS/ITIA-222-G	Top Width : 4.00 ft
	Tower Ht : 250.00 ft
	Shape : Triangle

175.00	Panel	1	KMW AM-X-CD-14-65-00T-RET
175.00	Panel	3	Ericsson RRUS-11 1900 MHz
175.00	Panel	6	Powerwave LGP17201
175.00	Whip	1	Raycap DC6-48-60-18-8F (23.5"
175.00	Panel	6	LGP Alligon LGP21903
164.00	Whip	1	RFI Antennas BA8080-67-DIN
164.00	Straight Arm	1	Flat Side Arm
158.00	Mounting Frame	3	Flat Light Sector Frame
158.00	Panel	6	Kathrein 800 10504
158.00	Panel	6	Kathrein 860 10025
95.00	Panel	1	24" x 24" Ice Shield
89.00	Dish	1	6' Dish w/ Radome
83.00	Dish	1	BES BA6-65AC w/ Radome

Linear Appurtenance

Elev (ft)		From	To	Qty	Description
10.00	250.00	6	1 5/8" Coax		
0.00	250.00	1	Waveguide		
0.00	250.00	1	Climbing Ladder		
10.00	246.00	1	1" conduit		
10.00	246.00	4	1 1/4" Hybriflex Cab		
10.00	246.00	4	0.21" (5.3mm) Cat 5e		
0.00	246.00	1	Waveguide		
10.00	225.00	6	3/8" Coax		
10.00	225.00	2	1 5/8" Hybriflex		
10.00	225.00	12	1 5/8" Coax		
0.00	225.00	1	Waveguide		
10.00	210.00	12	1 5/8" Coax		
0.00	210.00	1	Waveguide		
10.00	200.00	3	1 5/8" Coax		
10.00	200.00	1	0.51" (13mm) Cable		
0.00	200.00	1	Waveguide		
10.00	175.00	1	3" conduit		
10.00	175.00	12	1 5/8" Coax		
10.00	175.00	2	0.78" (19.7mm) 8 AWG		
10.00	175.00	1	0.39" (10mm) Fiber T		
0.00	175.00	1	Waveguide		
10.00	164.00	2	7/8" Coax		
10.00	158.00	6	3/8" Coax		
10.00	158.00	12	1 5/8" Coax		
0.00	158.00	1	Waveguide		
10.00	89.00	1	EW52		
10.00	89.00	1	1/2" Coax		
10.00	83.00	1	WE65		

Global Base Foundation Design Loads

Load Case	Moment (k-ft)	Vertical (kip)	Horizontal (kip)
DL + WL	14,418.84	112.21	108.06
DL + WL + IL	4,611.18	295.03	35.54

Individual Base Foundation Design Loads

Vertical (kip)	Uplift (kip)	Horizontal (kip)
632.03	541.56	64.23

Job Information

Tower : 6260

Location : NORTH

Base Width : 28.00 ft

Client : Sprint Nextel

Top Width : 4.00 ft

Code : ANSI/TIA-222-G

Tower Ht : 250.00 ft

Shape : Triangle

Site Number: 6260

Code: ANSI/TIA-222-G

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Site Name: NORTH STONINGTON CT, CT

Engineering Number: OAA712586_C3_06

7/13/2018 11:40:41 AM

Customer: Sprint Nextel

Analysis Parameters

Location:	NEW LONDON County, CT	Height (ft):	250
Code:	ANSI/TIA-222-G	Base Elevation (ft):	0.00
Shape:	Triangle	Bottom Face Width (ft):	28.00
Tower Manufacturer:	FWT	Top Face Width (ft):	4.00
Tower Type:	Self Support	Anchor Bolt Detail Type	d
Kd:			
Ke:			

Ice & Wind Parameters

Structure Class:	II	Design Windspeed Without Ice:	105 mph
Exposure Category:	B	Design Windspeed With Ice:	50 mph
Topographic Category:	1	Operational Windspeed:	60 mph
Crest Height:	0 ft	Design Ice Thickness:	0.75 in

Seismic Parameters

Analysis Method:	Equivalent Modal Analysis & Equivalent Lateral Force Methods		
Site Class:	D - Stiff Soil		
Period Based on Rayleigh Method (sec):	0.89		
T _L (sec):	6	p:	1.3
S _s :	0.163	S ₁ :	0.059
F _a :	1.600	F _v :	2.400
S _{ds} :	0.174	S _{d1} :	0.094
		C _s :	0.035
		C _{s, Max} :	0.035
		C _{s, Min} :	0.030

Load Cases

1.2D + 1.6W Normal	105 mph Normal with No Ice
1.2D + 1.6W 60 deg	105 mph 60 degree with No Ice
1.2D + 1.6W 90 deg	105 mph 90 degree with No Ice
1.2D + 1.6W 120 deg	105 mph 120 degree with No Ice
1.2D + 1.6W 180 deg	105 mph 180 degree with No Ice
1.2D + 1.6W 210 deg	105 mph 210 degree with No Ice
1.2D + 1.6W 240 deg	105 mph 240 degree with No Ice
1.2D + 1.6W 300 deg	105 mph 300 degree with No Ice
1.2D + 1.6W 330 deg	105 mph 330 degree with No Ice
0.9D + 1.6W Normal	105 mph Normal with No Ice (Reduced DL)
0.9D + 1.6W 60 deg	105 mph 60 deg with No Ice (Reduced DL)
0.9D + 1.6W 90 deg	105 mph 90 deg with No Ice (Reduced DL)
0.9D + 1.6W 120 deg	105 mph 120 deg with No Ice (Reduced DL)
0.9D + 1.6W 180 deg	105 mph 180 deg with No Ice (Reduced DL)
0.9D + 1.6W 210 deg	105 mph 210 deg with No Ice (Reduced DL)
0.9D + 1.6W 240 deg	105 mph 240 deg with No Ice (Reduced DL)
0.9D + 1.6W 300 deg	105 mph 300 deg with No Ice (Reduced DL)
0.9D + 1.6W 330 deg	105 mph 330 deg with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi Normal	50 mph Normal with 0.75 in Radial Ice

Site Number: 6260

Code:

ANSI/TIA-222-G

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Site Name: NORTH STONINGTON CT, CT

Engineering Number: OAA712586_C3_06

7/13/2018 11:40:41 AM

Customer: Sprint Nextel

Analysis Parameters

1.2D + 1.0Di + 1.0Wi 60 deg	50 mph 60 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 90 deg	50 mph 90 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 120 deg	50 mph 120 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 180 deg	50 mph 180 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 210 deg	50 mph 210 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 240 deg	50 mph 240 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 300 deg	50 mph 300 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 330 deg	50 mph 330 deg with 0.75 in Radial Ice
(1.2 + 0.2Sds) * DL + E Normal	Seismic Normal
(1.2 + 0.2Sds) * DL + E 60 deg	Seismic 60 deg
(1.2 + 0.2Sds) * DL + E 90 deg	Seismic 90 deg
(1.2 + 0.2Sds) * DL + E 120 deg	Seismic 120 deg
(1.2 + 0.2Sds) * DL + E 180 deg	Seismic 180 deg
(1.2 + 0.2Sds) * DL + E 210 deg	Seismic 210 deg
(1.2 + 0.2Sds) * DL + E 240 deg	Seismic 240 deg
(1.2 + 0.2Sds) * DL + E 300 deg	Seismic 300 deg
(1.2 + 0.2Sds) * DL + E 330 deg	Seismic 330 deg
(0.9 - 0.2Sds) * DL + E Normal	Seismic (Reduced DL) Normal
(0.9 - 0.2Sds) * DL + E 60 deg	Seismic (Reduced DL) 60 deg
(0.9 - 0.2Sds) * DL + E 90 deg	Seismic (Reduced DL) 90 deg
(0.9 - 0.2Sds) * DL + E 120 deg	Seismic (Reduced DL) 120 deg
(0.9 - 0.2Sds) * DL + E 180 deg	Seismic (Reduced DL) 180 deg
(0.9 - 0.2Sds) * DL + E 210 deg	Seismic (Reduced DL) 210 deg
(0.9 - 0.2Sds) * DL + E 240 deg	Seismic (Reduced DL) 240 deg
(0.9 - 0.2Sds) * DL + E 300 deg	Seismic (Reduced DL) 300 deg
(0.9 - 0.2Sds) * DL + E 330 deg	Seismic (Reduced DL) 330 deg
1.0D + 1.0W Service Normal	Serviceability - 60 mph Wind Normal
1.0D + 1.0W Service 60 deg	Serviceability - 60 mph Wind 60 deg
1.0D + 1.0W Service 90 deg	Serviceability - 60 mph Wind 90 deg
1.0D + 1.0W Service 120 deg	Serviceability - 60 mph Wind 120 deg
1.0D + 1.0W Service 180 deg	Serviceability - 60 mph Wind 180 deg
1.0D + 1.0W Service 210 deg	Serviceability - 60 mph Wind 210 deg
1.0D + 1.0W Service 240 deg	Serviceability - 60 mph Wind 240 deg
1.0D + 1.0W Service 300 deg	Serviceability - 60 mph Wind 300 deg
1.0D + 1.0W Service 330 deg	Serviceability - 60 mph Wind 330 deg

Site Number: 6260

Code: ANSITIA-222-G

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Site Name: NORTH STONINGTON CT, CT

Engineering Number: OAA712586_C3_06

7/13/2018 11:40:41 AM

Customer: Sprint Nextel

Tower Loading

Discrete Appurtenance Properties 1.2D + 1.6W

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _s	Orient. Factor	Vert. Ecc.(ft)	M _u (lb-ft)	Q _z (psf)	F _s (WL) (lb)	P _s (DL) (lb)
250.0	10' Omni	2	25	3.0	10.0	3.0	3.0	1.00	1.00	10.0	2541.9	31.15	254	60
250.0	Decibel DB809DK-XT	1	64	6.3	21.2	3.0	3.0	1.00	1.00	10.5	2826.2	31.17	269	77
246.0	Alcatel-Lucent 1900	3	60	2.3	2.1	11.1	10.7	0.80	0.50	0.0	0.0	30.66	116	216
246.0	Alcatel-Lucent	6	53	1.7	1.3	13.0	9.8	0.80	0.50	0.0	0.0	30.66	170	381
246.0	Alcatel-Lucent TD-	3	66	3.7	2.1	17.5	5.7	0.80	0.50	0.0	0.0	30.66	185	238
246.0	Box Enclosures BEN-	1	2	0.8	0.8	8.0	5.1	0.80	0.50	4.0	52.3	30.80	13	3
246.0	KMW ETCR-	3	85	15.7	7.1	21.0	6.3	0.80	0.61	0.0	0.0	30.66	959	306
246.0	RFS APXVSP18-C-	3	57	8.0	6.0	11.8	7.0	0.80	0.69	0.0	0.0	30.66	554	205
246.0	Round Sector	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.0	30.66	1013	1080
225.0	Andrew LNX-	3	51	11.4	8.0	11.9	7.1	0.80	0.70	0.0	0.0	29.89	781	185
225.0	Ericsson AIR 21, 1.3	3	83	6.1	4.7	12.0	8.0	0.80	0.71	0.0	0.0	29.89	419	299
225.0	Ericsson AIR 21,	3	82	6.1	4.7	12.1	7.9	0.80	0.70	0.0	0.0	29.89	416	293
225.0	Ericsson KRY 112	3	11	0.4	0.6	6.1	2.7	0.80	0.50	0.0	0.0	29.89	20	40
225.0	Ericsson RRUS 11	3	50	2.6	1.5	17.3	7.2	0.80	0.50	0.0	0.0	29.89	125	180
225.0	Round Sector	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	29.89	882	1080
210.0	Andrew SMR08-	12	26	6.9	5.7	10.5	5.0	0.80	0.66	0.0	0.0	29.31	1735	374
210.0	Round Sector	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	29.31	865	1080
200.0	Bird 432E-831-01-T	1	25	1.2	1.0	12.0	7.5	1.00	1.00	0.0	0.0	28.90	47	30
200.0	Flat Side Arm	3	150	6.3	0.0	0.0	0.0	1.00	0.67	0.0	0.0	28.90	498	540
200.0	Sinclair SC479-	2	34	5.0	14.4	3.5	3.5	1.00	1.00	-7.2	2817.2	28.60	391	82
200.0	Sinclair SC479-	1	34	5.0	14.4	3.5	3.5	1.00	1.00	7.2	1437.9	29.19	200	41
175.0	Allgon 7770.00	6	35	5.5	4.6	11.0	5.0	0.80	0.65	0.0	0.0	27.82	650	252
175.0	Andrew SBNH-	1	61	11.4	8.0	11.9	7.1	0.80	0.70	0.0	0.0	27.82	243	73
175.0	Ericsson RRUS-11	3	44	2.5	1.4	17.8	7.2	0.80	0.67	0.0	0.0	27.82	153	158
175.0	KMW AM-X-CD-14-	1	36	5.0	4.0	11.8	5.9	0.80	0.66	0.0	0.0	27.82	100	44
175.0	LGP Allgon	6	6	0.3	0.4	6.3	3.0	0.80	0.50	0.0	0.0	27.82	25	40
175.0	Powerwave	6	31	1.7	1.2	14.4	3.7	0.80	0.50	0.0	0.0	27.82	152	223
175.0	Powerwave P65-17-	1	59	11.5	8.0	12.0	6.0	0.80	0.67	0.0	0.0	27.82	233	71
175.0	Raycap DC6-48-60-	1	20	1.1	2.0	9.7	9.7	0.80	1.00	0.0	0.0	27.82	34	24
175.0	Round Sector	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	27.82	821	1080
164.0	Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	27.31	234	180
164.0	RFI Antennas	1	44	6.5	16.4	2.5	2.5	1.00	1.00	8.0	1969.7	27.68	246	53
158.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	27.02	1110	1440
158.0	Kathrein 800 10504	6	18	3.3	4.5	6.1	2.7	0.80	0.67	0.0	0.0	27.02	395	127
158.0	Kathrein 860 10025	6	1	0.2	0.6	2.4	2.0	0.80	0.50	0.0	0.0	27.02	16	9
96.00	24" x 24" Ice Shield	1	50	0.9	0.3	24.0	24.0	1.00	1.00	0.0	0.0	23.43	30	60
89.00	6' Dish w/ Radome	1	250	24.4	6.0	72.0	0.0	1.00	1.00	0.0	0.0	22.93	761	300
83.00	RFS PA6-65AC w/	1	308	24.4	6.0	72.0	0.0	1.00	1.00	0.0	0.0	22.48	746	370
Totals		113	9409	701.3									15861	11290

Discrete Appurtenance Properties 0.9D + 1.6W

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _s	Orient. Factor	Vert. Ecc.(ft)	M _u (lb-ft)	Q _z (psf)	F _s (WL) (lb)	P _s (DL) (lb)
250.0	10' Omni	2	25	3.0	10.0	3.0	3.0	1.00	1.00	10.0	2541.9	31.15	254	45
250.0	Decibel DB809DK-XT	1	64	6.3	21.2	3.0	3.0	1.00	1.00	10.5	2826.2	31.17	269	58
246.0	Alcatel-Lucent 1900	3	60	2.3	2.1	11.1	10.7	0.80	0.50	0.0	0.0	30.66	116	162
246.0	Alcatel-Lucent	6	53	1.7	1.3	13.0	9.8	0.80	0.50	0.0	0.0	30.66	170	286
246.0	Alcatel-Lucent TD-	3	66	3.7	2.1	17.5	5.7	0.80	0.50	0.0	0.0	30.66	185	178
246.0	Box Enclosures BEN-	1	2	0.8	0.8	8.0	5.1	0.80	0.50	4.0	52.3	30.80	13	2
246.0	KMW ETCR-	3	85	15.7	7.1	21.0	6.3	0.80	0.61	0.0	0.0	30.66	959	229
246.0	RFS APXVSP18-C-	3	57	8.0	6.0	11.8	7.0	0.80	0.69	0.0	0.0	30.66	554	154

Site Number: 6260

Code: ANSI/TIA-222-G

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Site Name: NORTH STONINGTON CT, CT

Engineering Number: OAA712586_C3_06

7/13/2018 11:40:41 AM

Customer: Sprint Nextel

Tower Loading

246.0	Round Sector	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.0	30.66	1013	810
225.0	Andrew LNX-	3	51	11.4	8.0	11.9	7.1	0.80	0.70	0.0	0.0	29.89	781	139
225.0	Ericsson AIR 21, 1.3	3	83	6.1	4.7	12.0	8.0	0.80	0.71	0.0	0.0	29.89	419	224
225.0	Ericsson AIR 21,	3	82	6.1	4.7	12.1	7.9	0.80	0.70	0.0	0.0	29.89	416	220
225.0	Ericsson KRY 112	3	11	0.4	0.6	6.1	2.7	0.80	0.50	0.0	0.0	29.89	20	30
225.0	Ericsson RRUS 11	3	50	2.6	1.5	17.3	7.2	0.80	0.50	0.0	0.0	29.89	125	135
225.0	Round Sector	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	29.89	882	810
210.0	Andrew SMR08-	12	26	6.9	5.7	10.5	5.0	0.80	0.66	0.0	0.0	29.31	1735	281
210.0	Round Sector	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	29.31	865	810
200.0	Bird 432E-831-01-T	1	25	1.2	1.0	12.0	7.5	1.00	1.00	0.0	0.0	28.90	47	23
200.0	Flat Side Arm	3	150	6.3	0.0	0.0	0.0	1.00	0.67	0.0	0.0	28.90	498	405
200.0	Sinclair SC479-	2	34	5.0	14.4	3.5	3.5	1.00	1.00	-7.2	2817.2	28.60	391	61
200.0	Sinclair SC479-	1	34	5.0	14.4	3.5	3.5	1.00	1.00	7.2	1437.9	29.19	200	31
175.0	Allgon 7770.00	6	35	5.5	4.6	11.0	5.0	0.80	0.65	0.0	0.0	27.82	650	189
175.0	Andrew SBNH-	1	61	11.4	8.0	11.9	7.1	0.80	0.70	0.0	0.0	27.82	243	55
175.0	Ericsson RRUS-11	3	44	2.5	1.4	17.8	7.2	0.80	0.67	0.0	0.0	27.82	153	119
175.0	KMW AM-X-CD-14-	1	36	5.0	4.0	11.8	5.9	0.80	0.66	0.0	0.0	27.82	100	33
175.0	LGP Allgon	6	6	0.3	0.4	6.3	3.0	0.80	0.50	0.0	0.0	27.82	25	30
175.0	Powerwave	6	31	1.7	1.2	14.4	3.7	0.80	0.50	0.0	0.0	27.82	152	167
175.0	Powerwave P65-17-	1	59	11.5	8.0	12.0	6.0	0.80	0.67	0.0	0.0	27.82	233	53
175.0	Raycap DC6-48-60-	1	20	1.1	2.0	9.7	9.7	0.80	1.00	0.0	0.0	27.82	34	18
175.0	Round Sector	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	27.82	821	810
164.0	Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	27.31	234	135
164.0	RFI Antennas	1	44	6.5	16.4	2.5	2.5	1.00	1.00	8.0	1969.7	27.68	246	40
158.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	27.02	1110	1080
158.0	Kathrein 800 10504	6	18	3.3	4.5	6.1	2.7	0.80	0.67	0.0	0.0	27.02	395	95
158.0	Kathrein 860 10025	6	1	0.2	0.6	2.4	2.0	0.80	0.50	0.0	0.0	27.02	16	6
96.00	24" x 24" Ice Shield	1	50	0.9	0.3	24.0	24.0	1.00	1.00	0.0	0.0	23.43	30	45
89.00	6' Dish w/ Radome	1	250	24.4	6.0	72.0	0.0	1.00	1.00	0.0	0.0	22.93	761	225
83.00	RFS PA6-65AC w/	1	308	24.4	6.0	72.0	0.0	1.00	1.00	0.0	0.0	22.48	746	277
Totals		113	9409	701.3									15861	8468

Discrete Appurtenance Properties 1.2D + 1.0Di + 1.0Wi

Elevation (ft)	Description	Qty	Ice Wt (lb)	Ice EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc.(ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
250.0	10' Omni	2	168	6.0	10.0	3.0	3.0	1.00	1.00	10.0	726.4	7.06	73	346
250.0	Decibel DB809DK-XT	1	361	14.3	21.2	3.0	3.0	1.00	1.00	10.5	903.0	7.07	86	374
246.0	Alcatel-Lucent 1900	3	161	3.0	2.1	11.1	10.7	0.80	0.50	0.0	0.0	6.95	21	519
246.0	Alcatel-Lucent	6	129	2.3	1.3	13.0	9.8	0.80	0.50	0.0	0.0	6.95	32	837
246.0	Alcatel-Lucent TD-	3	171	4.5	2.1	17.5	5.7	0.80	0.50	0.0	0.0	6.95	32	552
246.0	Box Enclosures BEN-	1	34	1.0	0.8	8.0	5.1	0.80	0.50	4.0	10.0	6.98	2	35
246.0	KMW ETCR-	3	427	17.5	7.1	21.0	6.3	0.80	0.61	0.0	0.0	6.95	151	1331
246.0	RFS APXVSP18-C-	3	269	9.4	6.0	11.8	7.0	0.80	0.69	0.0	0.0	6.95	92	841
246.0	Round Sector	3	687	31.8	0.0	0.0	0.0	0.75	0.75	0.0	0.0	6.95	317	2241
225.0	Andrew LNX-	3	328	13.2	8.0	11.9	7.1	0.80	0.70	0.0	0.0	6.78	127	1016
225.0	Ericsson AIR 21, 1.3	3	261	7.2	4.7	12.0	8.0	0.80	0.71	0.0	0.0	6.78	71	833
225.0	Ericsson AIR 21,	3	259	7.2	4.7	12.1	7.9	0.80	0.70	0.0	0.0	6.78	70	827
225.0	Ericsson KRY 112	3	29	0.6	0.6	6.1	2.7	0.80	0.50	0.0	0.0	6.78	4	92
225.0	Ericsson RRUS 11	3	136	3.3	1.5	17.3	7.2	0.80	0.50	0.0	0.0	6.78	22	438
225.0	Round Sector	3	685	31.7	0.0	0.0	0.0	0.75	0.67	0.0	0.0	6.78	275	2234
210.0	Andrew SMR08-	12	193	8.1	5.7	10.5	5.0	0.80	0.66	0.0	0.0	6.65	291	2380
210.0	Round Sector	3	681	31.6	0.0	0.0	0.0	0.75	0.67	0.0	0.0	6.65	269	2224
200.0	Bird 432E-831-01-T	1	77	1.7	1.0	12.0	7.5	1.00	1.00	0.0	0.0	6.55	9	82
200.0	Flat Side Arm	3	225	8.8	0.0	0.0	0.0	1.00	0.67	0.0	0.0	6.55	99	765
200.0	Sinclair SC479-	2	161	10.3	14.4	3.5	3.5	1.00	1.00	-7.2	817.7	6.49	114	336

Site Number: 6260

Code: ANSI/TIA-222-G

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Site Name: NORTH STONINGTON CT, CT

Engineering Number: OAA712586_C3_06

7/13/2018 11:40:42 AM

Customer: Sprint Nextel

Tower Loading

200.0 Sinclair SC479-	1	251	10.4	14.4	3.5	3.5	1.00	1.00	7.2	419.9	6.62	58	258
175.0 Allgon 7770.00	6	172	6.6	4.6	11.0	5.0	0.80	0.65	0.0	0.0	6.31	110	1075
175.0 Andrew SBNH-	1	328	13.1	8.0	11.9	7.1	0.80	0.70	0.0	0.0	6.31	39	340
175.0 Ericsson RRUS-11	3	126	3.2	1.4	17.8	7.2	0.80	0.67	0.0	0.0	6.31	27	404
175.0 KMW AM-X-CD-14-	1	170	6.0	4.0	11.8	5.9	0.80	0.66	0.0	0.0	6.31	17	177
175.0 LGP Allgon	6	19	0.5	0.4	6.3	3.0	0.80	0.50	0.0	0.0	6.31	6	123
175.0 Powerwave	6	80	2.2	1.2	14.4	3.7	0.80	0.50	0.0	0.0	6.31	29	519
175.0 Powerwave P65-17-	1	313	13.1	8.0	12.0	6.0	0.80	0.67	0.0	0.0	6.31	38	325
175.0 Raycap DC6-48-60-	1	102	1.7	2.0	9.7	9.7	0.80	1.00	0.0	0.0	6.31	7	106
175.0 Round Sector	3	673	31.2	0.0	0.0	0.0	0.75	0.67	0.0	0.0	6.31	252	2200
164.0 Flat Side Arm	1	223	8.8	0.0	0.0	0.0	1.00	1.00	0.0	0.0	6.19	46	253
164.0 RFI Antennas	1	237	10.0	16.4	2.5	2.5	1.00	1.00	8.0	427.3	6.28	53	246
158.0 Flat Light Sector	3	702	33.0	0.0	0.0	0.0	0.75	0.75	0.0	0.0	6.13	290	2345
158.0 Kathrein 800 10504	6	99	4.3	4.5	6.1	2.7	0.80	0.67	0.0	0.0	6.13	72	617
158.0 Kathrein 860 10025	6	12	0.4	0.6	2.4	2.0	0.80	0.50	0.0	0.0	6.13	5	71
96.00 24" x 24" Ice Shield	1	138	1.9	0.3	24.0	24.0	1.00	1.00	0.0	0.0	5.31	8	148
89.00 6' Dish w/ Radome	1	908	26.6	6.0	72.0	0.0	1.00	1.00	0.0	0.0	5.20	118	958
83.00 RFS PA6-65AC w/	1	965	26.6	6.0	72.0	0.0	1.00	1.00	0.0	0.0	5.10	115	1027
Totals	113	27614	1074.7									3452	29496

Discrete Appurtenance Properties 1.0D + 1.0W Service

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc.(ft)	M _u (lb-ft)	Q _z (psf)	F _s (WL) (lb)	P _s (DL) (lb)
250.0	10' Omni	2	25	3.0	10.0	3.0	3.0	1.00	1.00	10.0	518.7	10.17	52	50
250.0	Decibel DB809DK-XT	1	64	6.3	21.2	3.0	3.0	1.00	1.00	10.5	576.8	10.18	55	64
246.0	Alcatel-Lucent 1900	3	60	2.3	2.1	11.1	10.7	0.80	0.50	0.0	0.0	10.01	24	180
246.0	Alcatel-Lucent	6	53	1.7	1.3	13.0	9.8	0.80	0.50	0.0	0.0	10.01	35	317
246.0	Alcatel-Lucent TD-	3	66	3.7	2.1	17.5	5.7	0.80	0.50	0.0	0.0	10.01	38	198
246.0	Box Enclosures BEN-	1	2	0.8	0.8	8.0	5.1	0.80	0.50	4.0	10.7	10.06	3	2
246.0	KMW ETCR-	3	85	15.7	7.1	21.0	6.3	0.80	0.61	0.0	0.0	10.01	196	255
246.0	RFS APXVSP18-C-	3	57	8.0	6.0	11.8	7.0	0.80	0.69	0.0	0.0	10.01	113	171
246.0	Round Sector	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.0	10.01	207	900
225.0	Andrew LNX-	3	51	11.4	8.0	11.9	7.1	0.80	0.70	0.0	0.0	9.76	159	154
225.0	Ericsson AIR 21, 1.3	3	83	6.1	4.7	12.0	8.0	0.80	0.71	0.0	0.0	9.76	86	249
225.0	Ericsson AIR 21,	3	82	6.1	4.7	12.1	7.9	0.80	0.70	0.0	0.0	9.76	85	245
225.0	Ericsson KRY 112	3	11	0.4	0.6	6.1	2.7	0.80	0.50	0.0	0.0	9.76	4	33
225.0	Ericsson RRUS 11	3	50	2.6	1.5	17.3	7.2	0.80	0.50	0.0	0.0	9.76	26	150
225.0	Round Sector	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	9.76	180	900
210.0	Andrew SMR08-	12	26	6.9	5.7	10.5	5.0	0.80	0.66	0.0	0.0	9.57	354	312
210.0	Round Sector	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	9.57	177	900
200.0	Bird 432E-83I-01-T	1	25	1.2	1.0	12.0	7.5	1.00	1.00	0.0	0.0	9.44	10	25
200.0	Flat Side Arm	3	150	6.3	0.0	0.0	0.0	1.00	0.67	0.0	0.0	9.44	102	450
200.0	Sinclair SC479-	2	34	5.0	14.4	3.5	3.5	1.00	1.00	-7.2	574.9	9.34	80	68
200.0	Sinclair SC479-	1	34	5.0	14.4	3.5	3.5	1.00	1.00	7.2	293.5	9.53	41	34
175.0	Allgon 7770.00	6	35	5.5	4.6	11.0	5.0	0.80	0.65	0.0	0.0	9.08	133	210
175.0	Andrew SBNH-	1	61	11.4	8.0	11.9	7.1	0.80	0.70	0.0	0.0	9.08	50	61
175.0	Ericsson RRUS-11	3	44	2.5	1.4	17.8	7.2	0.80	0.67	0.0	0.0	9.08	31	132
175.0	KMW AM-X-CD-14-	1	36	5.0	4.0	11.8	5.9	0.80	0.66	0.0	0.0	9.08	20	36
175.0	LGP Allgon	6	6	0.3	0.4	6.3	3.0	0.80	0.50	0.0	0.0	9.08	5	33
175.0	Powerwave	6	31	1.7	1.2	14.4	3.7	0.80	0.50	0.0	0.0	9.08	31	186
175.0	Powerwave P65-17-	1	59	11.5	8.0	12.0	6.0	0.80	0.67	0.0	0.0	9.08	47	59
175.0	Raycap DC6-48-60-	1	20	1.1	2.0	9.7	9.7	0.80	1.00	0.0	0.0	9.08	7	20
175.0	Round Sector	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	9.08	168	900
164.0	Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	8.92	48	150
164.0	RFI Antennas	1	44	6.5	16.4	2.5	2.5	1.00	1.00	8.0	402.0	9.04	50	44

Site Number: 6260

Code: ANSITIA-222-G

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Site Name: NORTH STONINGTON CT, CT

Engineering Number: OAA712586_C3_06

7/13/2018 11:40:42 AM

Customer: Sprint Nextel

Tower Loading

158.0 Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	8.82	227	1200
158.0 Kathrein 800 10504	6	18	3.3	4.5	6.1	2.7	0.80	0.67	0.0	0.0	8.82	81	106
158.0 Kathrein 860 10025	6	1	0.2	0.6	2.4	2.0	0.80	0.50	0.0	0.0	8.82	3	7
96.00 24" x 24" Ice Shield	1	50	0.9	0.3	24.0	24.0	1.00	1.00	0.0	0.0	7.65	6	50
89.00 6' Dish w/ Radome	1	250	24.4	6.0	72.0	0.0	1.00	1.00	0.0	0.0	7.49	155	250
83.00 RFS PA6-65AC w/	1	308	24.4	6.0	72.0	0.0	1.00	1.00	0.0	0.0	7.34	152	308
Totals	113	9409	701.3									3237	9409

Site Number: 6260

Code: ANSI/TIA-222-G

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Site Name: NORTH STONINGTON CT, CT

Engineering Number: OAA712586_C3_06

7/13/2018 11:40:42 AM

Customer: Sprint Nextel

Tower Loading

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
0.00	250.0	Climbing Ladder	1	2.00	6.90	0	3	Individual	0.00	N	1.00	1.00	0.00
0.00	250.0	Waveguide	1	2.00	6.00	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
10.00	250.0	1 5/8" Coax	6	1.98	0.82	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
0.00	246.0	Waveguide	1	2.00	6.00	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
10.00	246.0	0.21" (5.3mm) Cat	4	0.21	0.02	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
10.00	246.0	1 1/4" Hybriflex	4	1.54	1.00	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
10.00	246.0	1" conduit	1	1.32	1.68	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
0.00	225.0	Waveguide	1	2.00	6.00	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
10.00	225.0	1 5/8" Coax	12	1.98	0.82	50	Lin App	Block	0.00	N	0.50	1.00	0.00
10.00	225.0	1 5/8" Hybriflex	2	1.98	1.30	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
10.00	225.0	3/8" Coax	6	0.44	0.08	50	Lin App	Block	0.00	N	0.50	1.00	0.00
0.00	210.0	Waveguide	1	2.00	6.00	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
10.00	210.0	1 5/8" Coax	12	1.98	0.82	0	Lin App	Individual	0.00	N	0.50	1.00	0.00
0.00	200.0	Waveguide	1	2.00	6.00	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
10.00	200.0	0.51" (13mm)	1	0.51	0.14	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
10.00	200.0	1 5/8" Coax	3	1.98	0.82	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
0.00	175.0	Waveguide	1	2.00	6.00	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
10.00	175.0	0.39" (10mm) Fiber	1	0.39	0.06	0	Lin App	Individual	0.00	N	1.00	1.00	0.01
10.00	175.0	0.78" (19.7mm) 8	2	0.78	0.59	0	Lin App	Individual	0.00	N	1.00	1.00	0.01
10.00	175.0	1 5/8" Coax	12	1.98	0.82	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
10.00	175.0	3" conduit	1	3.50	7.58	0	Lin App	Individual	0.00	N	1.00	1.00	0.01
10.00	164.0	7/8" Coax	2	1.09	0.33	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
0.00	158.0	Waveguide	1	2.00	6.00	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
10.00	158.0	1 5/8" Coax	12	1.98	0.82	0	Lin App	Individual	0.00	N	0.50	1.00	0.00
10.00	158.0	3/8" Coax	6	0.44	0.08	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
10.00	89.00	1/2" Coax	1	0.63	0.15	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
10.00	89.00	EW52	1	2.25	0.59	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
10.00	83.00	WE65	1	2.03	0.53	0	Lin App	Individual	0.00	N	1.00	1.00	0.00

Site Number: 6260

Code: ANSI/TIA-222-G

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Site Name: NORTH STONINGTON CT, CT

Engineering Number: OAA712586_C3_06

7/13/2018 11:40:42 AM

Customer: Sprint Nextel

Equivalent Lateral Force Method

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

Spectral Response Acceleration for Short Period (S_g):	0.16
Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.06
Long-Period Transition Period (T_L - Seconds):	6
Importance Factor (I_p):	1.00
Site Coefficient F_a :	1.60
Site Coefficient F_v :	2.40
Response Modification Coefficient (R):	3.00
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.17
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.09
Seismic Response Coefficient (C_s):	0.04
Upper Limit C_s :	0.04
Lower Limit C_s :	0.03
Period based on Rayleigh Method (sec):	0.89
Redundancy Factor (ρ):	1.30
Seismic Force Distribution Exponent (k):	1.20
Total Unfactored Dead Load:	93.51 k
Seismic Base Shear (E):	4.28 k

LoadCase (1.2 + 0.2Sds) * DL + E

Seismic

Section	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
13	245.00	762	551,547	0.021	91	940
12	230.00	1,860	1,248,67	0.048	206	2,296
11	210.00	3,360	2,023,02	0.078	335	4,148
10	190.00	4,466	2,385,41	0.092	394	5,514
9	170.00	5,286	2,471,47	0.096	409	6,527
8	150.00	6,277	2,526,50	0.098	418	7,750
7	130.00	6,855	2,324,79	0.090	384	8,464
6	110.00	7,256	2,014,90	0.078	333	8,960
5	90.00	7,900	1,725,36	0.067	285	9,755
4	70.00	8,491	1,372,63	0.053	227	10,485
3	50.00	10,486	1,133,09	0.044	187	12,947
2	30.00	10,449	612,632	0.024	101	12,902
1	10.00	10,651	167,645	0.006	28	13,152
10' Omni	250.00	50	37,094	0.001	6	62
Decibel DB809DK-XT	250.00	64	47,481	0.002	8	79
Alcatel-Lucent 1900 MHz 4X45 RRH	246.00	180	130,986	0.005	22	222
Alcatel-Lucent RRH2x50-08	246.00	317	230,972	0.009	38	392
Alcatel-Lucent TD-RRH8x20-25	246.00	198	144,085	0.006	24	244
Box Enclosures BEN-92P	246.00	2	1,601	0.000	0	3
KMW ETCR-654L12H6	246.00	255	185,345	0.007	31	314
RFS APXVSP18-C-A20	246.00	171	124,437	0.005	21	211
Round Sector Frames	246.00	900	654,930	0.025	108	1,111
Andrew LNX-6515DS-VTM	225.00	154	100,648	0.004	17	190

Site Number: 6260

Code:

ANSI/TIA-222-G

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Site Name: NORTH STONINGTON CT, CT

Engineering Number: OAA712586_C3_06

7/13/2018 11:40:42 AM

Customer: Sprint Nextel

Equivalent Lateral Force Method

Ericsson AIR 21, 1.3 M, B2A B4P	225.00	249	162,841	0.006	27	307
Ericsson AIR 21, 1.3M, B4A B2P	225.00	244	159,899	0.006	26	302
Ericsson KRY 112 144/1	225.00	33	21,581	0.001	4	41
Ericsson RRUS 11 (Band 12)	225.00	150	98,097	0.004	16	185
Round Sector Frames	225.00	900	588,584	0.023	97	1,111
Andrew SMR08-09012-0D	210.00	312	187,869	0.007	31	385
Round Sector Frames	210.00	900	541,929	0.021	90	1,111
Bird 432E-83I-01-T	200.00	25	14,200	0.001	2	31
Flat Side Arm	200.00	450	255,593	0.010	42	556
Sinclair SC479-HF1LDF(E5765)	200.00	68	38,623	0.001	6	84
Sinclair SC479-HF1LDF(E5765)	200.00	34	19,311	0.001	3	42
Allgon 7770.00	175.00	210	101,657	0.004	17	259
Andrew SBNH-1D6565C	175.00	61	29,432	0.001	5	75
Ericsson RRUS-11 1900 MHz	175.00	132	63,899	0.002	11	163
KMW AM-X-CD-14-65-00T-RET	175.00	36	17,621	0.001	3	45
LGP Allgon LGP21903	175.00	33	15,975	0.001	3	41
Powerwave LGP17201	175.00	186	90,039	0.003	15	230
Powerwave P65-17-XLH-RR	175.00	59	28,561	0.001	5	73
Raycap DC6-48-60-18-8F (23.5" Height)	175.00	20	9,682	0.000	2	25
Round Sector Frames	175.00	900	435,674	0.017	72	1,111
Flat Side Arm	164.00	150	67,183	0.003	11	185
RFI Antennas BA8080-67-DIN	164.00	44	19,707	0.001	3	54
Flat Light Sector Frame	158.00	1,200	514,016	0.020	85	1,482
Kathrein 800 10504	158.00	106	45,233	0.002	7	130
Kathrein 860 10025	158.00	7	3,084	0.000	1	9
24" x 24" Ice Shield	96.00	50	11,796	0.000	2	62
6' Dish w/ Radome	89.00	250	53,872	0.002	9	309
RFS PA6-65AC w/ Radome	83.00	308	61,051	0.002	10	380
		93,506	25,872,312	1.000	4,279	115,459

LoadCase (0.9 - 0.2Sds) * DL + E

Seismic (Reduced DL)

Section	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
13	245.00	762	551,547	0.021	91	659
12	230.00	1,860	1,248,67	0.048	206	1,609
11	210.00	3,360	2,023,02	0.078	335	2,907
10	190.00	4,466	2,385,41	0.092	394	3,864
9	170.00	5,286	2,471,47	0.096	409	4,573
8	150.00	6,277	2,526,50	0.098	418	5,431
7	130.00	6,855	2,324,80	0.090	384	5,931
6	110.00	7,256	2,014,90	0.078	333	6,278
5	90.00	7,900	1,725,36	0.067	285	6,836
4	70.00	8,491	1,372,63	0.053	227	7,347
3	50.00	10,486	1,133,09	0.044	187	9,072
2	30.00	10,449	612,632	0.024	101	9,041
1	10.00	10,651	167,645	0.006	28	9,215
10' Omni	250.00	50	37,094	0.001	6	43
Decibel DB809DK-XT	250.00	64	47,481	0.002	8	55
Alcatel-Lucent 1900 MHz 4X45 RRH	246.00	180	130,986	0.005	22	156
Alcatel-Lucent RRH2x50-08	246.00	317	230,972	0.009	38	275
Alcatel-Lucent TD-RRH8x20-25	246.00	198	144,085	0.006	24	171
Box Enclosures BEN-92P	246.00	2	1,601	0.000	0	2
KMW ETCR-654L12H6	246.00	255	185,345	0.007	31	220

Site Number: 6260

Code:

ANSI/TIA-222-G

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Site Name: NORTH STONINGTON CT, CT

Engineering Number: OAA712586_C3_06

7/13/2018 11:40:42 AM

Customer: Sprint Nextel

Equivalent Lateral Force Method

RFS APXVSP18-C-A20	246.00	171	124,437	0.005	21	148
Round Sector Frames	246.00	900	654,930	0.025	108	779
Andrew LNX-6515DS-VTM	225.00	154	100,648	0.004	17	133
Ericsson AIR 21, 1.3 M, B2A B4P	225.00	249	162,841	0.006	27	215
Ericsson AIR 21, 1.3M, B4A B2P	225.00	244	159,899	0.006	26	212
Ericsson KRY 112 144/1	225.00	33	21,581	0.001	4	29
Ericsson RRUS 11 (Band 12)	225.00	150	98,097	0.004	16	130
Round Sector Frames	225.00	900	588,584	0.023	97	779
Andrew SMR08-09012-0D	210.00	312	187,869	0.007	31	270
Round Sector Frames	210.00	900	541,929	0.021	90	779
Bird 432E-83I-01-T	200.00	25	14,200	0.001	2	22
Flat Side Arm	200.00	450	255,593	0.010	42	389
Sinclair SC479-HF1LDF(E5765)	200.00	68	38,623	0.001	6	59
Sinclair SC479-HF1LDF(E5765)	200.00	34	19,311	0.001	3	29
Allgon 7770.00	175.00	210	101,657	0.004	17	182
Andrew SBNH-1D6565C	175.00	61	29,432	0.001	5	53
Ericsson RRUS-11 1900 MHz	175.00	132	63,899	0.002	11	114
KMW AM-X-CD-14-65-00T-RET	175.00	36	17,621	0.001	3	31
LGP Allgon LGP21903	175.00	33	15,975	0.001	3	29
Powerwave LGP17201	175.00	186	90,039	0.003	15	161
Powerwave P65-17-XLH-RR	175.00	59	28,561	0.001	5	51
Raycap DC6-48-60-18-8F (23.5" Height)	175.00	20	9,682	0.000	2	17
Round Sector Frames	175.00	900	435,674	0.017	72	779
Flat Side Arm	164.00	150	67,183	0.003	11	130
RFI Antennas BA8080-67-DIN	164.00	44	19,707	0.001	3	38
Flat Light Sector Frame	158.00	1,200	514,016	0.020	85	1,038
Kathrein 800 10504	158.00	106	45,233	0.002	7	91
Kathrein 860 10025	158.00	7	3,084	0.000	1	6
24" x 24" Ice Shield	96.00	50	11,796	0.000	2	43
6' Dish w/ Radome	89.00	250	53,872	0.002	9	216
RFS PA6-65AC w/ Radome	83.00	308	61,051	0.002	10	266
		93,506	25,872,312	1.000	4,279	80,904

Site Number: 6260

Code: ANSI/TIA-222-G

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Site Name: NORTH STONINGTON CT, CT

Engineering Number: OAA712586_C3_06

7/13/2018 11:40:42 AM

Customer: Sprint Nextel

Equivalent Modal Analysis Method

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

Spectral Response Acceleration for Short Period (S_a):	0.16
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.06
Importance Factor (I_a):	1.00
Site Coefficient F_a :	1.60
Site Coefficient F_v :	2.40
Response Modification Coefficient (R):	3.00
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.17
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.09
Period Based on Rayleigh Method (sec):	0.89
Redundancy Factor (ρ):	1.30

LoadCase (1.2 + 0.2Sds) * DL + E

Seismic

Section	Height		Seismic				Horizontal Force (lb)	Vertical Force (lb)
	Above Base (ft)	Weight (lb)	a	b	c	S_{az}		
13	245.00	762	1.815	1.608	1.004	0.338	112	940
12	230.00	1,860	1.600	0.778	0.670	0.233	188	2,296
11	210.00	3,360	1.334	0.170	0.367	0.134	195	4,148
10	190.00	4,466	1.092	-0.074	0.182	0.077	149	5,514
9	170.00	5,286	0.874	-0.121	0.078	0.052	120	6,527
8	150.00	6,277	0.680	-0.081	0.026	0.047	128	7,750
7	130.00	6,855	0.511	-0.020	0.008	0.048	142	8,464
6	110.00	7,256	0.366	0.028	0.008	0.046	145	8,960
5	90.00	7,900	0.245	0.056	0.018	0.041	140	9,755
4	70.00	8,491	0.148	0.068	0.030	0.034	124	10,485
3	50.00	10,486	0.076	0.072	0.040	0.027	123	12,947
2	30.00	10,449	0.027	0.067	0.040	0.021	95	12,902
1	10.00	10,651	0.003	0.037	0.021	0.011	50	13,152
10' Omni	250.00	50	1.890	1.980	1.140	0.379	8	62
Decibel DB809DK-XT	250.00	64	1.890	1.980	1.140	0.379	11	79
Alcatel-Lucent 1900 MHz 4X45	246.00	180	1.830	1.678	1.030	0.346	27	222
Alcatel-Lucent RRH2x50-08	246.00	317	1.830	1.678	1.030	0.346	48	392
Alcatel-Lucent TD-RRH8x20-25	246.00	198	1.830	1.678	1.030	0.346	30	244
Box Enclosures BEN-92P	246.00	2	1.830	1.678	1.030	0.346	0	3
KMW ETCR-654L12H6	246.00	255	1.830	1.678	1.030	0.346	38	314
RFS APXVSP18-C-A20	246.00	171	1.830	1.678	1.030	0.346	26	211
Round Sector Frames	246.00	900	1.830	1.678	1.030	0.346	135	1,111
Andrew LNX-6515DS-VTM	225.00	154	1.531	0.580	0.580	0.204	14	190
Ericsson AIR 21, 1.3 M, B2A B4P	225.00	249	1.531	0.580	0.580	0.204	22	307
Ericsson AIR 21, 1.3M, B4A B2P	225.00	244	1.531	0.580	0.580	0.204	22	302
Ericsson KRY 112 144/1	225.00	33	1.531	0.580	0.580	0.204	3	41
Ericsson RRUS 11 (Band 12)	225.00	150	1.531	0.580	0.580	0.204	13	185
Round Sector Frames	225.00	900	1.531	0.580	0.580	0.204	80	1,111
Andrew SMR08-09012-0D	210.00	312	1.334	0.170	0.367	0.134	18	385
Round Sector Frames	210.00	900	1.334	0.170	0.367	0.134	52	1,111
Bird 432E-83I-01-T	200.00	25	1.210	0.014	0.262	0.101	1	31
Flat Side Arm	200.00	450	1.210	0.014	0.262	0.101	20	556
Sinclair SC479-HF1LDF(E5765)	200.00	68	1.210	0.014	0.262	0.101	3	84
Sinclair SC479-HF1LDF(E5765)	200.00	34	1.210	0.014	0.262	0.101	1	42
Allgon 7770.00	175.00	210	0.926	-0.121	0.098	0.056	5	259
Andrew SBNH-1D6565C	175.00	61	0.926	-0.121	0.098	0.056	1	75
Ericsson RRUS-11 1900 MHz	175.00	132	0.926	-0.121	0.098	0.056	3	163
KMW AM-X-CD-14-65-00T-RET	175.00	36	0.926	-0.121	0.098	0.056	1	45

Site Number: 6260

Code: ANSI/TIA-222-G

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Site Name: NORTH STONINGTON CT, CT

Engineering Number: OAA712586_C3_06

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Customer: Sprint Nextel

Equivalent Modal Analysis Method

LGP Allgon LGP21903	175.00	33	0.926	-0.121	0.098	0.056	1	41
Powerwave LGP17201	175.00	186	0.926	-0.121	0.098	0.056	5	230
Powerwave P65-17-XLH-RR	175.00	59	0.926	-0.121	0.098	0.056	1	73
Raycap DC6-48-60-18-8F (23.5"	175.00	20	0.926	-0.121	0.098	0.056	0	25
Round Sector Frames	175.00	900	0.926	-0.121	0.098	0.056	22	1,111
Flat Side Arm	164.00	150	0.813	-0.114	0.058	0.049	3	185
RFI Antennas BA8080-67-DIN	164.00	44	0.813	-0.114	0.058	0.049	1	54
Flat Light Sector Frame	158.00	1,200	0.755	-0.102	0.042	0.048	25	1,482
Kathrein 800 10504	158.00	106	0.755	-0.102	0.042	0.048	2	130
Kathrein 860 10025	158.00	7	0.755	-0.102	0.042	0.048	0	9
24" x 24" Ice Shield	96.00	50	0.279	0.050	0.014	0.043	1	62
6' Dish w/ Radome	89.00	250	0.240	0.057	0.018	0.041	4	309
RFS PA6-65AC w/ Radome	83.00	308	0.208	0.062	0.022	0.039	5	380
		93,506	55.004	20.717	18.416	7.056	2,364	115,459

LoadCase (0.9 - 0.2Sds) * DL + E

Seismic (Reduced DL)

Section	Height Above Base (ft)	Weight (lb)	a	b	c	S _{az}	Horizontal Force (lb)	Vertical Force (lb)
13	245.00	762	1.815	1.608	1.004	0.338	112	659
12	230.00	1,860	1.600	0.778	0.670	0.233	188	1,609
11	210.00	3,360	1.334	0.170	0.367	0.134	195	2,907
10	190.00	4,466	1.092	-0.074	0.182	0.077	149	3,864
9	170.00	5,286	0.874	-0.121	0.078	0.052	120	4,573
8	150.00	6,277	0.680	-0.081	0.026	0.047	128	5,431
7	130.00	6,855	0.511	-0.020	0.008	0.048	142	5,931
6	110.00	7,256	0.366	0.028	0.008	0.046	145	6,278
5	90.00	7,900	0.245	0.056	0.018	0.041	140	6,836
4	70.00	8,491	0.148	0.068	0.030	0.034	124	7,347
3	50.00	10,486	0.076	0.072	0.040	0.027	123	9,072
2	30.00	10,449	0.027	0.067	0.040	0.021	95	9,041
1	10.00	10,651	0.003	0.037	0.021	0.011	50	9,215
10' Omni	250.00	50	1.890	1.980	1.140	0.379	8	43
Decibel DB809DK-XT	250.00	64	1.890	1.980	1.140	0.379	11	55
Alcatel-Lucent 1900 MHz 4X45	246.00	180	1.830	1.678	1.030	0.346	27	156
Alcatel-Lucent RRH2x50-08	246.00	317	1.830	1.678	1.030	0.346	48	275
Alcatel-Lucent TD-RRH8x20-25	246.00	198	1.830	1.678	1.030	0.346	30	171
Box Enclosures BEN-92P	246.00	2	1.830	1.678	1.030	0.346	0	2
KMW ETCR-654L12H6	246.00	255	1.830	1.678	1.030	0.346	38	220
RFS APXVSP18-C-A20	246.00	171	1.830	1.678	1.030	0.346	26	148
Round Sector Frames	246.00	900	1.830	1.678	1.030	0.346	135	779
Andrew LNX-6515DS-VTM	225.00	154	1.531	0.580	0.580	0.204	14	133
Ericsson AIR 21, 1.3 M, B2A B4P	225.00	249	1.531	0.580	0.580	0.204	22	215
Ericsson AIR 21, 1.3M, B4A B2P	225.00	244	1.531	0.580	0.580	0.204	22	212
Ericsson KRY 112 144/1	225.00	33	1.531	0.580	0.580	0.204	3	29
Ericsson RRUS 11 (Band 12)	225.00	150	1.531	0.580	0.580	0.204	13	130
Round Sector Frames	225.00	900	1.531	0.580	0.580	0.204	80	779
Andrew SMR08-09012-0D	210.00	312	1.334	0.170	0.367	0.134	18	270
Round Sector Frames	210.00	900	1.334	0.170	0.367	0.134	52	779
Bird 432E-83I-01-T	200.00	25	1.210	0.014	0.262	0.101	1	22
Flat Side Arm	200.00	450	1.210	0.014	0.262	0.101	20	389
Sinclair SC479-HF1LDF(E5765)	200.00	68	1.210	0.014	0.262	0.101	3	59
Sinclair SC479-HF1LDF(E5765)	200.00	34	1.210	0.014	0.262	0.101	1	29
Allgon 7770.00	175.00	210	0.926	-0.121	0.098	0.056	5	182
Andrew SBNH-1D6565C	175.00	61	0.926	-0.121	0.098	0.056	1	53
Ericsson RRUS-11 1900 MHz	175.00	132	0.926	-0.121	0.098	0.056	3	114
KMW AM-X-CD-14-65-00T-RET	175.00	36	0.926	-0.121	0.098	0.056	1	31
LGP Allgon LGP21903	175.00	33	0.926	-0.121	0.098	0.056	1	29
Powerwave LGP17201	175.00	186	0.926	-0.121	0.098	0.056	5	161
Powerwave P65-17-XLH-RR	175.00	59	0.926	-0.121	0.098	0.056	1	51
Raycap DC6-48-60-18-8F (23.5"	175.00	20	0.926	-0.121	0.098	0.056	0	17
Round Sector Frames	175.00	900	0.926	-0.121	0.098	0.056	22	779
Flat Side Arm	164.00	150	0.813	-0.114	0.058	0.049	3	130

Site Number: 6260

Code: ANS/TIA-222-G

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Site Name: NORTH STONINGTON CT, CT

Engineering Number: OAA712586_C3_06

7/13/2018 11:40:42 AM

Customer: Sprint Nextel

Equivalent Modal Analysis Method

RFI Antennas BA8080-67-DIN	164.00	44	0.813	-0.114	0.058	0.049	1	38
Flat Light Sector Frame	158.00	1,200	0.755	-0.102	0.042	0.048	25	1,038
Kathrein 800 10504	158.00	106	0.755	-0.102	0.042	0.048	2	91
Kathrein 860 10025	158.00	7	0.755	-0.102	0.042	0.048	0	6
24" x 24" Ice Shield	96.00	50	0.279	0.050	0.014	0.043	1	43
6' Dish w/ Radome	89.00	250	0.240	0.057	0.018	0.041	4	216
RFS PA6-65AC w/ Radome	83.00	308	0.208	0.062	0.022	0.039	5	266
		93,506	55.004	20.717	18.416	7.056	2,364	80,904

Site Number: 6260

Code: ANSI/TIA-222-G

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Site Name: NORTH STONINGTON CT, CT

Engineering Number: OAA712586_C3_06

7/13/2018 11:40:42 AM

Customer: Sprint Nextel

Force/Stress Summary

Section: 1 Base Bot Elev (ft): 0.00 Height (ft): 20.000

		Pu		Len	Bracing %			F'y	Phic Pn	Num	Shear		Bear	Use	
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	(ksi)	(kip)	Bolts	Holes	phiRnv	phiRn	%	Controls
LEG	SOL - 5 3/4" SOLID	-606.41	1.2D + 1.6W	20.03	25	25	25	41.8	50.0	1,028.3	0	0	0.00	0.00	58 Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0
DIAG	DAE - 3X3X0.25	-23.02	1.2D + 1.6W 90	33.60	25	50	13	170.0	36.0	22.53	4	2	49.70	69.60	102 Member Y

Max Tension Member		Pu		Fy	Fu	Phit Pn	Num	Num	Shear	Bear	Blk Shear	Use	
		(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes	phiRnv	phiRn	phiRn	%	Controls
LEG	SOL - 5 3/4" SOLID	521.71	0.9D + 1.6W 60	50	65	1,168.5	0	0	0.00	0.00			44 Member
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00	0.00	0	
DIAG	DAE - 3X3X0.25	21.55	1.2D + 1.6W 90	36	58	81.73	4	2	49.70	55.68	41.05	52	Blk Shear

Max Splice Forces		Pu		phiRnt	Use	Num	
		(kip)	Load Case	(kip)	%	Bolts	Bolt Type
Top Tension		497.42	0.9D + 1.6W 180	0.00	0	0	
Top Compression		581.34	1.2D + 1.6W	0.00	0		
Bot Tension		545.55	0.9D + 1.6W 180	1373.63	48	6	2.75" A36
Bot Compression		632.48	1.2D + 1.6W	1373.63	55	6	2.75" A36

Section: 2 1 Bot Elev (ft): 20.00 Height (ft): 20.000

		Pu		Len	Bracing %			F'y	Phic Pn	Num	Shear		Bear	Use	
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	(ksi)	(kip)	Bolts	Holes	phiRnv	phiRn	%	Controls
LEG	SOL - 5 1/2" SOLID	-553.43	1.2D + 1.6W	20.03	25	25	25	43.7	50.0	929.73	0	0	0.00	0.00	59 Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0
DIAG	DAE - 3X3X0.25	-23.69	1.2D + 1.6W 90	32.02	25	50	13	161.9	36.0	24.81	4	2	49.70	69.60	95 Member Y

Max Tension Member		Pu		Fy	Fu	Phit Pn	Num	Num	Shear	Bear	Blk Shear	Use	
		(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes	phiRnv	phiRn	phiRn	%	Controls
LEG	SOL - 5 1/2" SOLID	474.56	0.9D + 1.6W 60	50	65	1,069.1	0	0	0.00	0.00			44 Member
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00	0.00	0	
DIAG	DAE - 3X3X0.25	23.66	1.2D + 1.6W 90	36	58	81.73	4	2	49.70	55.68	41.05	57	Blk Shear

Max Splice Forces		Pu		phiRnt	Use	Num	
		(kip)	Load Case	(kip)	%	Bolts	Bolt Type
Top Tension		448.30	0.9D + 1.6W 180	0.00	0	0	
Top Compression		526.17	1.2D + 1.6W	0.00	0		
Bot Tension		497.42	0.9D + 1.6W 180	1349.04	37	6	2" A325
Bot Compression		581.34	1.2D + 1.6W	0.00	0		

Site Number: 6260

Code: ANSI/TIA-222-G

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Site Name: NORTH STONINGTON CT, CT

Engineering Number: OAA712586_C3_06

7/13/2018 11:40:42 AM

Customer: Sprint Nextel

Force/Stress Summary

Section: 3 2		Bot Elev (ft): 40.00		Height (ft): 20.000											
		Pu (kip)	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phiT Pn (kip)	Use %	Controls
Max Compression Member		Load Case		X	Y	Z	KL/R								
LEG SOL - 5 1/4" SOLID	-494.61	1.2D + 1.6W	20.03	25	25	25	45.8	50.0	835.70	0	0	0.00	0.00	59	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG DAE - 3X3X0.25	-24.11	1.2D + 1.6W 90	30.48	25	50	13	154.2	36.0	27.37	4	2	49.70	69.60	88	Member Y

		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	PhiT (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phiT Pn (kip)	Use %	Controls
Max Tension Member													
LEG SOL - 5 1/4" SOLID	419.70	1.2D + 1.6W 60	50	65	974.16	0	0	0	0.00	0.00		43	Member
HORIZ	0.00		0	0	0.00	0	0	0	0.00	0.00	0.00	0	
DIAG DAE - 3X3X0.25	22.92	1.2D + 1.6W 90	36	58	81.73	4	2	2	49.70	55.68	41.05	55	Blk Shear

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		398.83	0.9D + 1.6W 180	0.00	0	0	
Top Compression		466.27	1.2D + 1.6W	0.00	0		
Bot Tension		448.30	0.9D + 1.6W 180	1349.04	33	6	2" A325
Bot Compression		526.17	1.2D + 1.6W	0.00	0		

Section: 4 3		Bot Elev (ft): 60.00		Height (ft): 20.000											
		Pu (kip)	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phiT Pn (kip)	Use %	Controls
Max Compression Member		Load Case		X	Y	Z	KL/R								
LEG SOL - 5" SOLID	-433.55	1.2D + 1.6W	20.03	25	25	25	48.1	50.0	746.17	0	0	0.00	0.00	58	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG DAE - 3X3X0.1875	-23.32	1.2D + 1.6W 90	29.00	25	50	13	147.2	36.0	22.73	4	2	49.70	52.20	102	Member Y

		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	PhiT (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phiT Pn (kip)	Use %	Controls
Max Tension Member													
LEG SOL - 5" SOLID	375.09	0.9D + 1.6W 60	50	65	883.58	0	0	0	0.00	0.00		42	Member
HORIZ	0.00		0	0	0.00	0	0	0	0.00	0.00	0.00	0	
DIAG DAE - 3X3X0.1875	22.75	1.2D + 1.6W 90	36	58	61.95	4	2	2	49.70	41.76	30.79	73	Blk Shear

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		347.66	0.9D + 1.6W 180	0.00	0	0	
Top Compression		405.42	1.2D + 1.6W	0.00	0		
Bot Tension		398.83	0.9D + 1.6W 180	758.83	53	6	1.5" A325
Bot Compression		466.27	1.2D + 1.6W	0.00	0		

Site Number: 6260

Code: ANSI/TIA-222-G

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Site Name: NORTH STONINGTON CT, CT

Engineering Number: OAA712586_C3_06

7/13/2018 11:40:42 AM

Customer: Sprint Nextel

Force/Stress Summary

Section: 5		4		Bot Elev (ft): 80.00				Height (ft): 20.000								
		Pu		Len	Bracing %			F'y	Phic Pn	Num	Shear Bear		Use			
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls
LEG SOL - 4 3/4" SOLID		-373.82	1.2D + 1.6W	20.03	25	25	25	50.6	50.0	661.25	0	0	0.00	0.00	56	Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG DAE - 3X3X0.1875		-21.90	1.2D + 1.6W 90	27.59	25	50	13	140.0	36.0	25.12	4	2	49.70	52.20	87	Member Y
Max Tension Member		Pu		Fy	Fu	Phit Pn	Num	Num		Shear	Bear	Blk Shear	Use			
		(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes		phiRnv	phiRn	phit Pn	%	Controls		
LEG SOL - 4 3/4" SOLID		319.33	1.2D + 1.6W 60	50	65	797.45	0	0		0.00	0.00		40	Member		
HORIZ		0.00		0	0	0.00	0	0		0.00	0.00	0.00	0			
DIAG DAE - 3X3X0.1875		21.40	1.2D + 1.6W 90	36	58	61.95	4	2		49.70	41.76	30.79	69	Blk Shear		
Max Splice Forces		Pu		phiRnt	Use	Num										
		(kip)	Load Case	(kip)	%	Bolts	Bolt Type									
Top Tension		296.93	0.9D + 1.6W 180	0.00	0	0										
Top Compression		345.39	1.2D + 1.6W	0.00	0											
Bot Tension		347.66	0.9D + 1.6W 180	758.83	46	6	1.5" A325									
Bot Compression		405.42	1.2D + 1.6W	0.00	0											

Section: 6		5		Bot Elev (ft): 100.0				Height (ft): 20.000								
		Pu		Len	Bracing %			F'y	Phic Pn	Num	Shear Bear		Use			
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls
LEG SOL - 4 1/2" SOLID		-313.06	1.2D + 1.6W	20.03	25	25	25	53.4	50.0	580.89	0	0	0.00	0.00	53	Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG DAE - 3X3X0.1875		-21.39	1.2D + 1.6W 90	26.25	25	50	13	133.2	36.0	27.74	4	2	49.70	52.20	77	Member Y
Max Tension Member		Pu		Fy	Fu	Phit Pn	Num	Num		Shear	Bear	Blk Shear	Use			
		(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes		phiRnv	phiRn	phit Pn	%	Controls		
LEG SOL - 4 1/2" SOLID		272.24	0.9D + 1.6W 180	50	65	715.68	0	0		0.00	0.00		38	Member		
HORIZ		0.00		0	0	0.00	0	0		0.00	0.00	0.00	0			
DIAG DAE - 3X3X0.1875		20.43	1.2D + 1.6W 90	36	58	61.95	4	2		49.70	41.76	30.79	66	Blk Shear		
Max Splice Forces		Pu		phiRnt	Use	Num										
		(kip)	Load Case	(kip)	%	Bolts	Bolt Type									
Top Tension		244.83	0.9D + 1.6W 180	0.00	0	0										
Top Compression		285.62	1.2D + 1.6W	0.00	0											
Bot Tension		296.93	0.9D + 1.6W 180	758.83	39	6	1.5" A325									
Bot Compression		345.39	1.2D + 1.6W	0.00	0											

Site Number: 6260

Code: ANSI/TIA-222-G

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Site Name: NORTH STONINGTON CT, CT

Engineering Number: OAA712586_C3_06

7/13/2018 11:40:42 AM

Customer: Sprint Nextel

Force/Stress Summary

Section: 7		6		Bot Elev (ft): 120.0				Height (ft): 20.000							
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SOL - 4 1/4" SOLID		-269.94	1.2D + 1.6W	10.02	50	50	50	56.6	50.0	505.21	0	0	0.00	0.00	53 Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0
DIAG DAE - 2.5X2.5X0.1875		-13.90	1.2D + 1.6W 90	18.44	50	50	25	145.9	36.0	19.09	4	2	49.70	52.20	72 Member Y

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SOL - 4 1/4" SOLID		230.91	1.2D + 1.6W 60	50	65	638.37	0	0	0.00	0.00		36	Member
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00	0.00	0	
DIAG DAE - 2.5X2.5X0.1875		14.02	1.2D + 1.6W 90	36	58	49.55	4	2	49.70	41.76	28.75	48	Blk Shear

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		196.36	0.9D + 1.6W 180	0.00	0	0	
Top Compression		227.52	1.2D + 1.6W	0.00	0		
Bot Tension		244.83	0.9D + 1.6W 180	623.64	39	6	1.375" A325
Bot Compression		285.62	1.2D + 1.6W	0.00	0		

Section: 8		7		Bot Elev (ft): 140.0				Height (ft): 20.000							
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SOL - 4" SOLID		-213.31	1.2D + 1.6W	10.02	50	50	50	60.1	50.0	434.22	0	0	0.00	0.00	49 Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0
DIAG DAE - 2.5X2.5X0.1875		-12.72	1.2D + 1.6W 90	16.80	50	50	25	132.9	36.0	23.01	4	2	49.70	52.20	55 Member Y

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SOL - 4" SOLID		181.73	1.2D + 1.6W 60	50	65	565.47	0	0	0.00	0.00		32	Member
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00	0.00	0	
DIAG DAE - 2.5X2.5X0.1875		12.73	1.2D + 1.6W 90	36	58	49.55	4	2	49.70	41.76	28.75	44	Blk Shear

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		146.56	0.9D + 1.6W 180	0.00	0	0	
Top Compression		171.14	1.2D + 1.6W	0.00	0		
Bot Tension		196.36	0.9D + 1.6W 180	523.32	38	6	1.25" A325
Bot Compression		227.52	1.2D + 1.6W	0.00	0		

Site Number: 6260

Code: ANSI/TIA-222-G

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Site Name: NORTH STONINGTON CT, CT

Engineering Number: OAA712586_C3_06

7/13/2018 11:40:42 AM

Customer: Sprint Nextel

Force/Stress Summary

Section: 9		8	Bot Elev (ft): 160.0				Height (ft): 20.000									
		Pu	Len	Bracing %			F'y	Phic Pn Num	Shear	Bear	Use					
Max Compression Member		(kip) Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip) Bolts	Holes	phiRnv (kip)	phiRn (kip)	% Controls			
LEG SOL - 3 3/4" SOLID		-156.93	1.2D + 1.6W	10.02	50	50	50	64.1	50.0	368.03	0	0	0.00	0.00	42	Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 3.5X3.5X0.25		-10.60	1.2D + 1.6W 90	15.24	50	50	50	132.9	36.0	21.60	2	1	24.85	34.80	49	Member Z

		Pu	Fy	Fu	Phit Pn Num	Num	Shear	Bear	Blk Shear	Use		
Max Tension Member		(kip) Load Case	(ksi)	(ksi)	(kip) Bolts	Holes	phiRnv (kip)	phiRn (kip)	phit Pn (kip)	%	Controls	
LEG SOL - 3 3/4" SOLID		135.67	50	65	497.02	0	0	0.00	0.00		27	Member
HORIZ		0.00	0	0	0.00	0	0	0.00	0.00		0	
DIAG SAE - 3.5X3.5X0.25		10.54	36	58	49.02	2	1	24.85	27.84	23.25	45	Blk Shear

Max Splice Forces		Pu	phiRnt	Use	Num		
		(kip) Load Case	(kip)	%	Bolts	Bolt Type	
Top Tension		104.18	0.9D + 1.6W 180	0.00	0	0	
Top Compression		120.72	1.2D + 1.6W	0.00	0		
Bot Tension		146.56	0.9D + 1.6W 180	412.17	36	6 1 1/8 A325	
Bot Compression		171.14	1.2D + 1.6W	0.00	0		

Section: 10		10	Bot Elev (ft): 180.0				Height (ft): 20.000									
		Pu	Len	Bracing %			F'y	Phic Pn Num	Shear	Bear	Use					
Max Compression Member		(kip) Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip) Bolts	Holes	phiRnv (kip)	phiRn (kip)	% Controls			
LEG SOL - 3 3/4" SOLID		-113.03	1.2D + 1.6W	6.68	100	100	100	85.5	50.0	291.33	0	0	0.00	0.00	38	Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG SAE - 3X3X0.1875		-6.99	1.2D + 1.6W 90	11.74	50	50	50	118.7	36.0	16.83	2	1	24.85	26.10	41	Member Z

		Pu	Fy	Fu	Phit Pn Num	Num	Shear	Bear	Blk Shear	Use		
Max Tension Member		(kip) Load Case	(ksi)	(ksi)	(kip) Bolts	Holes	phiRnv (kip)	phiRn (kip)	phit Pn (kip)	%	Controls	
LEG SOL - 3 3/4" SOLID		96.54	50	65	497.02	0	0	0.00	0.00		19	Member
HORIZ		0.00	0	0	0.00	0	0	0.00	0.00		0	
DIAG SAE - 3X3X0.1875		7.00	36	58	30.97	2	1	24.85	20.88	15.39	45	Blk Shear

Max Splice Forces		Pu	phiRnt	Use	Num		
		(kip) Load Case	(kip)	%	Bolts	Bolt Type	
Top Tension		64.83	0.9D + 1.6W 180	0.00	0	0	
Top Compression		76.02	1.2D + 1.6W	0.00	0		
Bot Tension		104.18	0.9D + 1.6W 180	412.17	25	6 1 1/8 A325	
Bot Compression		120.72	1.2D + 1.6W	0.00	0		

Site Number: 6260

Code: ANSI/TIA-222-G

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Site Name: NORTH STONINGTON CT, CT

Engineering Number: OAA712586_C3_06

7/13/2018 11:40:42 AM

Customer: Sprint Nextel

Force/Stress Summary

Section: 11 11		Bot Elev (ft): 200.0		Height (ft): 20.000								
		Pu	Len	Bracing %			F'y	Phic Pn Num	Shear	Bear	Use	
Max Compression Member		(kip) Load Case	(ft)	X	Y	Z	KL/R (ksi)	(kip) Bolts	Num	phiRnv	phiRn	% Controls
LEG SOL - 3 1/4" SOLID		-68.54 1.2D + 1.6W	6.68	100	100	100	98.6	50.0	183.32	0	0	37 Member X
HORIZ		0.00	0.000	0	0	0	0.0	0.0	0.00	0	0	0
DIAG SAE - 2.5X2.5X0.1875		-5.87 1.2D + 1.6W 90	10.16	50	50	50	123.2	36.0	13.15	2	1	44 Member Z

		Pu	Fy	Fu	Phit Pn Num	Num	Shear	Bear	Blk Shear	Use
Max Tension Member		(kip) Load Case	(ksi)	(ksi)	(kip) Bolts	Holes	phiRnv (kip)	phiRn (kip)	phit Pn (kip)	% Controls
LEG SOL - 3 1/4" SOLID		56.96 1.2D + 1.6W 60	50	65	373.32	0	0	0.00	0.00	15 Member
HORIZ		0.00	0	0	0.00	0	0	0.00	0.00	0
DIAG SAE - 2.5X2.5X0.1875		5.79 1.2D + 1.6W 90	36	58	24.84	2	1	24.85	20.88	40 Blk Shear

Max Splice Forces		Pu	phiRnt	Use	Num	Bolt Type
		(kip) Load Case	(kip)	%	Bolts	
Top Tension		32.65 0.9D + 1.6W 180	0.00	0	0	
Top Compression		38.90 1.2D + 1.6W	0.00	0		
Bot Tension		64.83 0.9D + 1.6W 180	327.10	20	6	1 A325
Bot Compression		76.02 1.2D + 1.6W	0.00	0		

Section: 12 12		Bot Elev (ft): 220.0		Height (ft): 20.000								
		Pu	Len	Bracing %			F'y	Phic Pn Num	Shear	Bear	Use	
Max Compression Member		(kip) Load Case	(ft)	X	Y	Z	KL/R (ksi)	(kip) Bolts	Num	phiRnv	phiRn	% Controls
LEG SOL - 2 1/4" SOLID		-34.30 1.2D + 1.6W	5.01	100	100	100	106.8	50.0	77.66	0	0	44 Member X
HORIZ		0.00	0.000	0	0	0	0.0	0.0	0.00	0	0	0
DIAG SAE - 1.75X1.75X0.18		-3.56 1.2D + 1.6W 90	7.621	50	50	50	133.3	36.0	7.89	2	1	45 Member Z

		Pu	Fy	Fu	Phit Pn Num	Num	Shear	Bear	Blk Shear	Use
Max Tension Member		(kip) Load Case	(ksi)	(ksi)	(kip) Bolts	Holes	phiRnv (kip)	phiRn (kip)	phit Pn (kip)	% Controls
LEG SOL - 2 1/4" SOLID		28.99 0.9D + 1.6W 180	50	65	178.92	0	0	0.00	0.00	16 Member
HORIZ		0.00	0	0	0.00	0	0	0.00	0.00	0
DIAG SAE - 1.75X1.75X0.18		3.52 1.2D + 1.6W 90	36	58	16.44	2	1	15.90	16.64	35 Blk Shear

Max Splice Forces		Pu	phiRnt	Use	Num	Bolt Type
		(kip) Load Case	(kip)	%	Bolts	
Top Tension		8.90 0.9D + 1.6W 180	0.00	0	0	
Top Compression		11.44 1.2D + 1.6W	0.00	0		
Bot Tension		32.65 0.9D + 1.6W 180	122.04	27	6	5/8 A325
Bot Compression		38.90 1.2D + 1.6W	0.00	0		

Site Number: 6260

Code: ANSI/TIA-222-G

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Site Name: NORTH STONINGTON CT, CT

Engineering Number: OAA712586_C3_06

7/13/2018 11:40:42 AM

Customer: Sprint Nextel

Force/Stress Summary

Section: 13 13		Bot Elev (ft): 240.0		Height (ft): 10.000											
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing % X Y Z			F'y (ksi)	Phic Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG SOL - 2" SOLID		-7.73	1.2D + 1.6W	5.00	100	100	100	120.0	50.0	49.29	0	0	0.00	0.00	15 Member X
HORIZ SAE - 2X2X0.1875		-0.67	1.2D + 1.6W 60	4.000	100	100	100	121.8	36.0	10.61	1	1	12.43	13.05	6 Member Z
DIAG SAE - 1.75X1.75X0.18		-2.80	1.2D + 1.6W 90	6.403	50	50	50	114.0	36.0	10.15	2	1	15.90	20.88	27 Member Z

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SOL - 2" SOLID		5.73	0.9D + 1.6W 180	50	65	141.37	0	0	0.00	0.00			4 Member
HORIZ SAE - 2X2X0.1875		0.62	0.9D + 1.6W 90	36	58	18.74	1	1	12.43	7.83	6.83		9 Blk Shear
DIAG SAE - 1.75X1.75X0.18		2.71	1.2D + 1.6W 90	36	58	16.44	2	1	15.90	16.64	9.99		27 Blk Shear

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		0.00		0.00	0	0	
Top Compression		0.73	1.2D + 1.0Di +	0.00	0		
Bot Tension		8.90	0.9D + 1.6W 180	81.36	11	4	5/8 A325
Bot Compression		11.44	1.2D + 1.6W	0.00	0		

Sprint



PROJECT: DO MACRO UPGRADE
SITE NAME: NORTH STONINGTON/AMERICAN TOWER
SITE CASCADE: CT03XC151
SITE ADDRESS: 118C WINTECHOG HILL ROAD
 NORTH STONINGTON, CT 06359
SITE TYPE: SELF SUPPORT TOWER
MARKET: NORTHEAST

PLANS PREPARED FOR:

PLANS PREPARED BY:

FROM ZERO TO INFINIGY
the solutions are endless

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

PROJECT MANAGER:

ENGINEERING LICENSE:

DRAWING NOTICE:

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REVISIONS:

DESCRIPTION	DATE	BY	REV
REVISED/ISSUED FOR PERMIT	08/08/18	JDL	1
ISSUED FOR PERMIT	01/05/18	JDL	0

SITE NAME:
**NORTH STONINGTON/
AMERICAN TOWER**

SITE NUMBER:
CT03XC151

SITE ADDRESS:
**118C WINTECHOG HILL RD.
NORTH STONINGTON, CT 06359**

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' 35.43" N
-71.92734166° W

LONGITUDE (NAD83):
71° 55' 38.43" W
-71.92734166°

COUNTY:
NEW LONDON COUNTY

ZONING JURISDICTION:
CONNECTICUT SITING COUNCIL

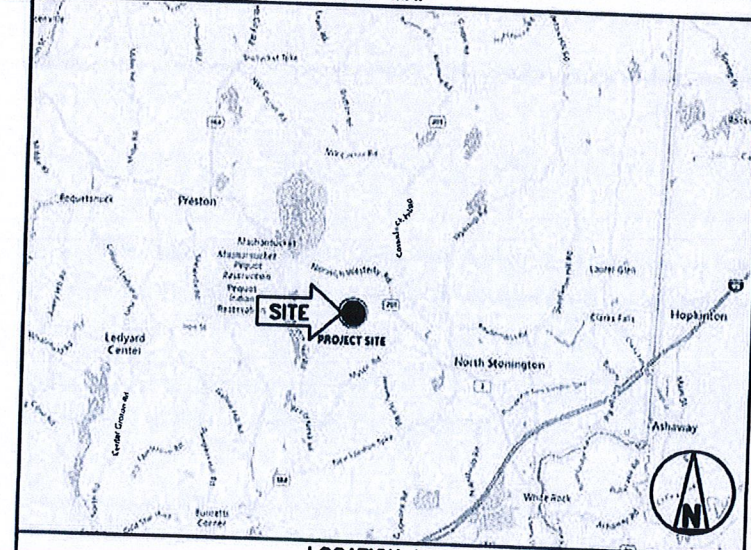
ZONING DISTRICT:
TBD

POWER COMPANY:
NORTHEAST UTILITIES
PHONE: (800) 286-2000

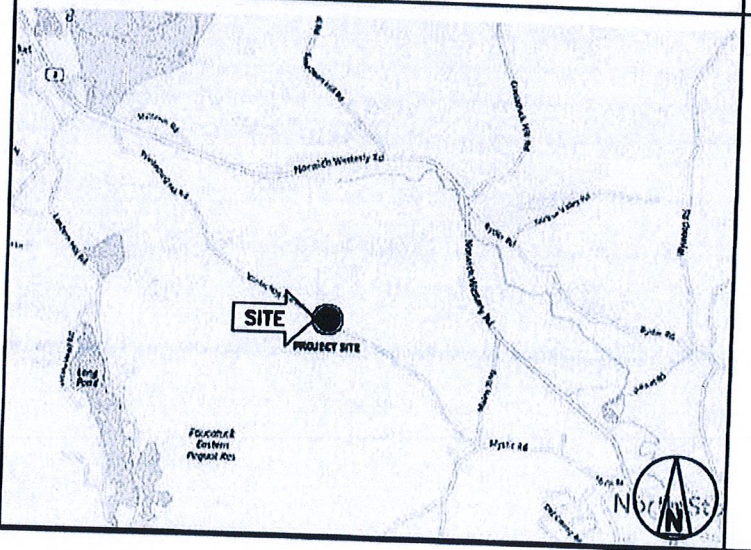
AAV PROVIDER:
FRONTIER COMMUNICATIONS
PHONE: (866) 502-7167

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

AREA MAP



LOCATION MAP



PROJECT DESCRIPTION

SPRINT PROPOSES TO MODIFY AN EXISTING UNMANNED TELECOMMUNICATIONS FACILITY.

- REMOVE (6) PANEL ANTENNAS
- INSTALL (6) PANEL ANTENNAS
- RELOCATE (3) 1900 MHz RRH'S BEHIND ANTENNAS
- INSTALL (3) 2.5 GHz & (3) 800 MHz RRH'S BEHIND ANTENNAS
- INSTALL (3) 800 MHz RRH'S ON EXISTING PIPE MOUNT
- INSTALL (48) JUMPER CABLES
- INSTALL (4) HYBRID CABLE
- INSTALL 2.5 EQUIPMENT INSIDE EXISTING N.V. MMBS CABINET

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

APPLICABLE CODES

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

- INTERNATIONAL BUILDING CODE (2015 IBC)
- TIA-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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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.

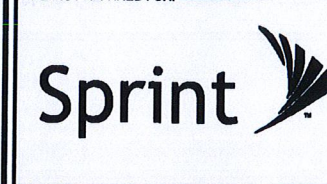
PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

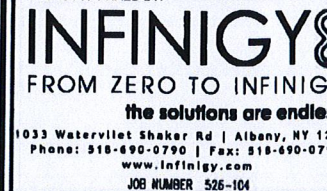
3.1 FUNCTIONAL REQUIREMENTS:

- 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:



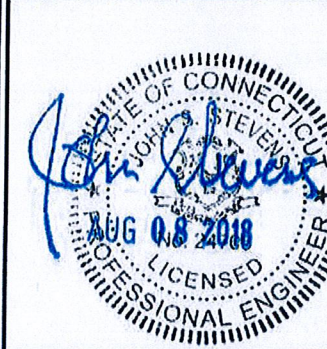
PLANS PREPARED BY:



PROJECT MANAGER:



ENGINEERING LICENSE:



DRAWING NOTICE:

THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF SPRINT AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF SPRINT.

REVISIONS:

DESCRIPTION	DATE	BY	REV.
REVISED / ISSUED FOR PERMIT	08/08/18	JDL	1
ISSUED FOR PERMIT	01/05/18	JDL	0

SITE NAME:

**NORTH STONNINGTON/
AMERICAN TOWER**

SITE NUMBER:

CT03XC151

SITE ADDRESS:

**118C WINTTECHOG HILL RD.
NORTH STONNINGTON, CT 06359**

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, AASJTO, AND OTHER METHODS IS NEEDED.
4. EXPERIENCE IN SOILS, CONCRETE, MASONRY, AGGREGATE, AND ASPHALT TESTING USING ASTM, AASJTO, AND OTHER METHODS IS NEEDED.

3.2 REQUIRED TESTS:

- A. CONTRACTOR SHALL ACCOMPLISH TESTING INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
 1. CONCRETE CYLINDER BREAK TESTS FOR THE TOWER AND ANCHOR FOUNDATIONS AS SPECIFIED IN SECTION: PORTLAND CEMENT CONCRETE PAVING.
 2. ASPHALT ROADWAY COMPACTED THICKNESS, SURFACE SMOOTHNESS, AND COMPACTED DENSITY TESTING AS SPECIFIED IN SECTION: HOT MIX ASPHALT PAVING.
 3. FIELD QUALITY CONTROL TESTING AS SPECIFIED IN SECTION: PORTLAND CEMENT CONCRETE PAVING.
 4. TESTING REQUIRED UNDER SECTION: AGGREGATE BASE FOR ACCESS ROADS, PADS AND ANCHOR LOCATIONS
 5. STRUCTURAL BACKFILL COMPACTION TESTS FOR THE TOWER FOUNDATION.
 6. SITE RESISTANCE TO EARTH TESTING PER EXHIBIT: CELL SITE GROUNDING SYSTEM DESIGN.
 7. ANTENNA AND COAX SWEEP TESTS PER EXHIBIT: ANTENNA TRANSMISSION LINE ACCEPTANCE STANDARDS.
 8. GROUNDING AT ANTENNA MASTS FOR GPS AND ANTENNAS
 9. ALL OTHER TESTS REQUIRED BY COMPANY OR JURISDICTION.

3.3 REQUIRED INSPECTIONS

- A. SCHEDULE INSPECTIONS WITH COMPANY REPRESENTATIVE.
- B. CONDUCT INSPECTIONS INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
 1. GROUNDING SYSTEM INSTALLATION PRIOR TO EARTH CONCEALMENT DOCUMENTED WITH DIGITAL PHOTOGRAPHS BY CONTRACTOR, APPROVED BY A&E OR SPRINT REPRESENTATIVE.
 2. FORMING FOR CONCRETE AND REBAR PLACEMENT PRIOR TO POUR DOCUMENTED WITH DIGITAL PHOTOGRAPHS BY CONTRACTOR, APPROVED BY A&E OR SPRINT REPRESENTATIVE.
 3. COMPACTION OF BACKFILL MATERIALS; AGGREGATE BASE FOR ROADS, PADS, AND ANCHORS; ASPHALT PAVING; AND SHAFT BACKFILL FOR CONCRETE AND WOOD POLES, BY INDEPENDENT THIRD PARTY AGENCY.
 4. PRE- AND POST-CONSTRUCTION ROOFTOP AND STRUCTURAL INSPECTIONS ON EXISTING FACILITIES.
 5. TOWER ERECTION SECTION STACKING AND PLATFORM ATTACHMENT DOCUMENTED BY DIGITAL PHOTOGRAPHS BY THIRD PARTY AGENCY.
 6. ANTENNA AZIMUTH, DOWN TILT AND PER SUNLIGHT TOOL SUNSIGHT INSTRUMENTS - ANTENNALIGN ALIGNMENT TOOL (AAT)

PLANS PREPARED FOR:



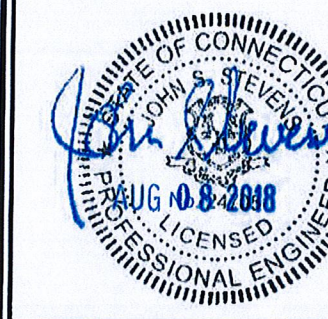
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JOB NUMBER 526-104

PROJECT MANAGER:



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SITE NAME:

**NORTH STONNINGTON/
AMERICAN TOWER**

SITE NUMBER:

CT03XC151

SITE ADDRESS:

118C WINTTECHOG HILL RD.
NORTH STONNINGTON, CT 06359

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.

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SITE NAME:

**NORTH STONNINGTON/
AMERICAN TOWER**

SITE NUMBER:

CT03XC151

SITE ADDRESS:

118C WINTBCHOG HILL RD.
NORTH STONNINGTON, CT 06359

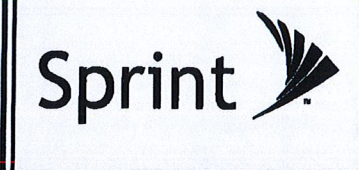
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SPRINT SPECIFICATIONS

SHEET NUMBER:

SP-3

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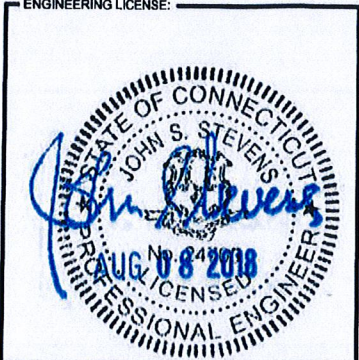
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SITE NUMBER:

CT03XC151

SITE ADDRESS:

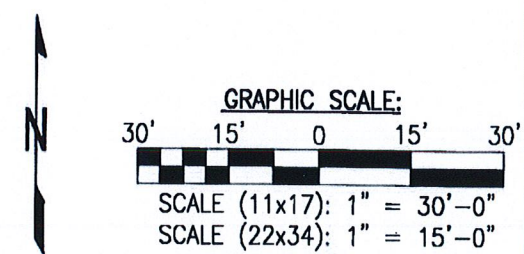
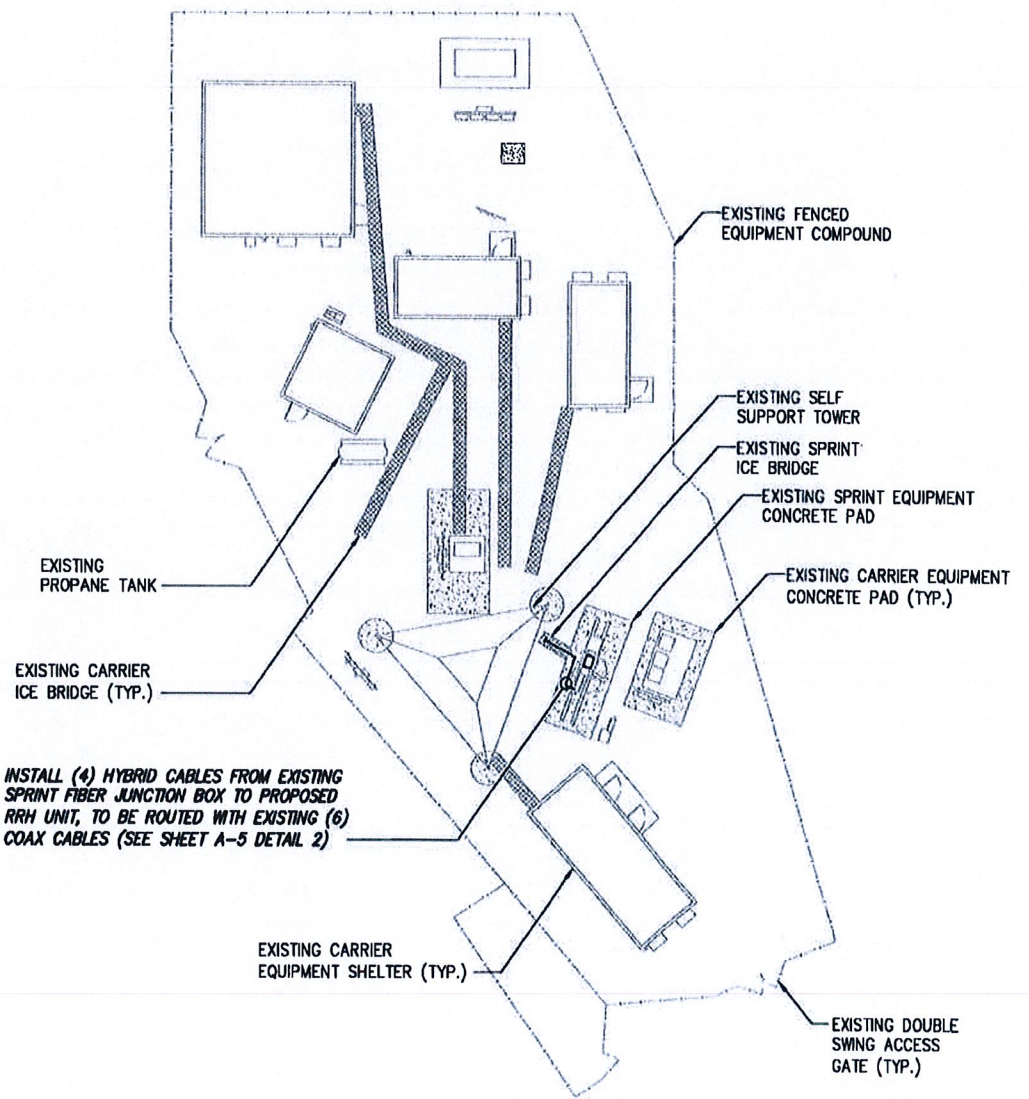
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SITE PLAN

SHEET NUMBER:

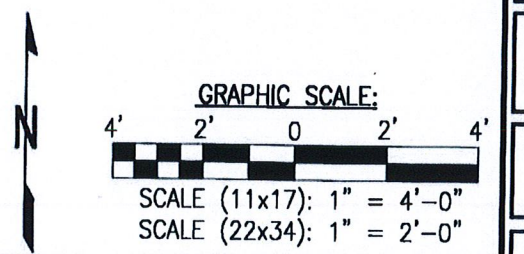
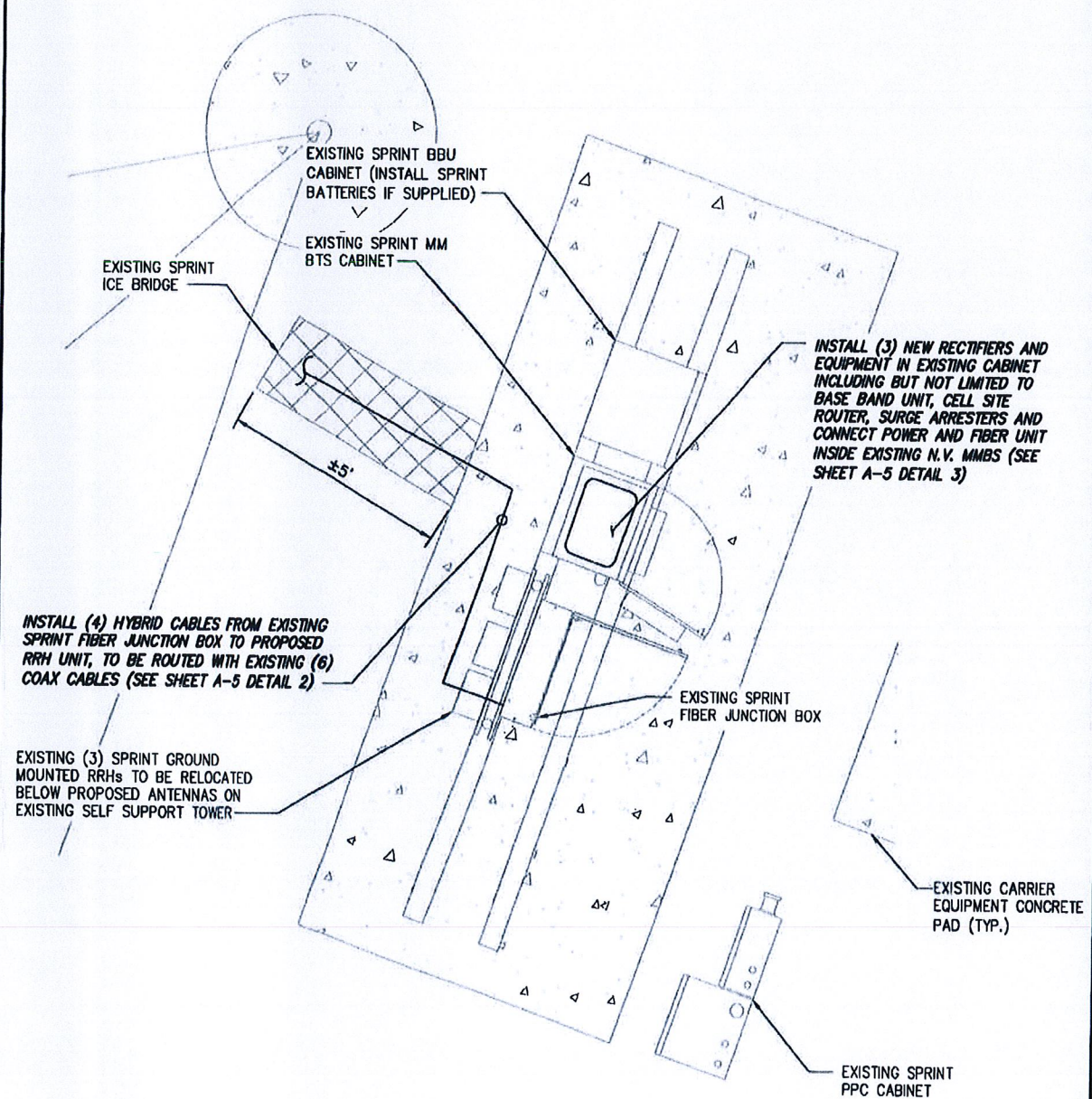
A-1



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



SPRINT EQUIPMENT PLAN

SCALE: AS NOTED 2

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

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

TOP OF TOWER
 ELEV. = ±250'-0" A.G.L.
 ⌀ OF EXISTING/TOWER TO BE
 INSTALLED SPRINT ANTENNAS
 ELEV. = 246'-0" A.G.L.

INSTALL (1) SPRINT TRIBAND ANTENNA TO REPLACE EXISTING ANTENNA EACH SECTOR (SEE SHEET A-4 DETAIL 3)

INSTALL (1) SITEPRO 1 STK-U STIFF ARM KIT, OR APPROVED EQUAL, AT THE END OF TOP HORIZONTAL AT UNBRACED END OF EACH SECTOR FRAME (SEE DETAIL 3)

INSTALL (1) 800 MHz RRH MOUNTED BEHIND PROPOSED ANTENNA EACH SECTOR (SEE SHEET A-4 DETAIL 4)

INSTALL (1) 800 MHz RRH MOUNTED BEHIND PROPOSED ANTENNA EACH SECTOR (SEE SHEET A-4 DETAIL 4)

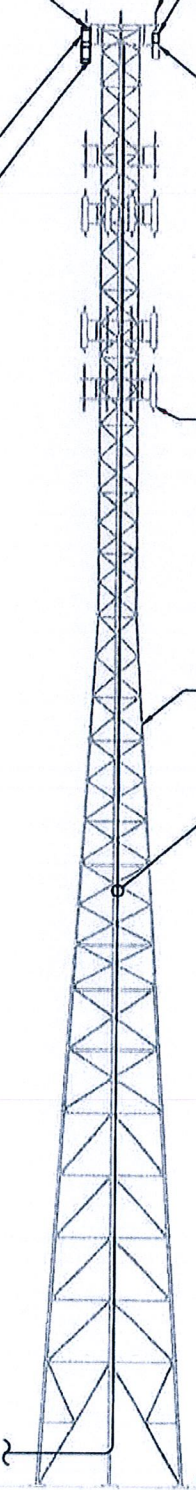
EXISTING (1) SPRINT 1900 MHz RRH RELOCATED BEHIND PROPOSED ANTENNA EACH SECTOR

INSTALL (1) 2.5 GHz RRH EACH SECTOR MOUNTED BEHIND PROPOSED ANTENNA (SEE SHEET A-4 DETAIL 1)

NOTE:
 STRUCTURAL ANALYSIS COMPLETED BY AMERICAN TOWER CORPORATION. FOR ADDITIONAL INFORMATION SEE REPORT TITLED: "STRUCTURAL ANALYSIS REPORT, CARRIER SITE NUMBER: CT03XC151", DATED: "JULY 13, 2018". ACCORDING TO RESULTS OF STRUCTURAL MODIFICATION REPORT, THE STRUCTURE HAS SUFFICIENT CAPACITY TO SUPPORT THE PROPOSED LOADING.

ANTENNA AND RRH SUPPORT EVALUATION COMPLETED BY INFINIGY. FOR ADDITIONAL INFORMATION SEE REPORT TITLED: "SPRINT PROJECT MOUNT ANALYSIS", DATED: "DECEMBER 1, 2017". ACCORDING TO THE RESULTS OF REVIEW, THE ANTENNA AND RRH SUPPORTS WILL BE ADEQUATE TO SUPPORT THE PROPOSED LOADING WITH THE FOLLOWING MODIFICATION:

CONTRACTOR TO INSTALL SITEPRO1 STK-U STIFF ARM KIT AT THE END OF TOP HORIZONTAL AT UNBRACED END OF EACH SECTOR FRAME.



INSTALL (4) HYBRID CABLES FROM EXISTING SPRINT FIBER JUNCTION BOX TO PROPOSED RRH UNIT, TO BE ROUTED WITH EXISTING (6) COAX CABLES (SEE SHEET A-5 DETAIL 2)

SITE LOADING CHART

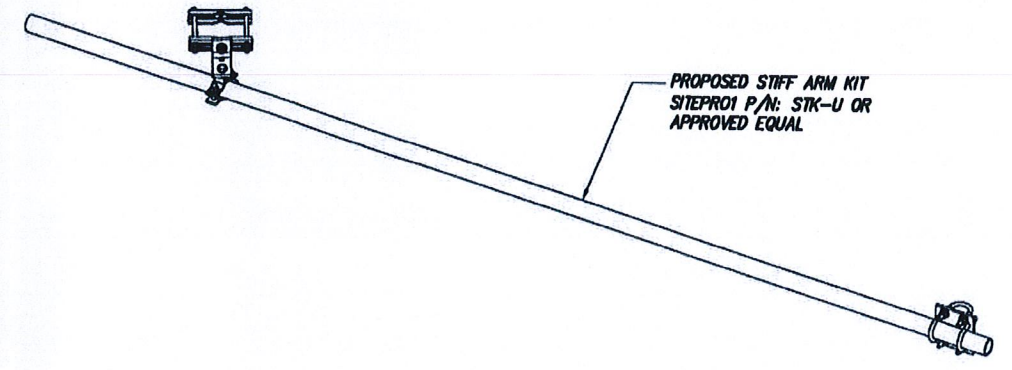
SECTOR	EXISTING/PROPOSED	ANTENNA MODEL #	VENDOR	AZIMUTH	QTY.	REMAIN/REMOVED	RRH (QTY/MODEL)	CABLE	CABLE LENGTH	RAD CENTER
ALPHA	PROPOSED	ETCR-654L2H6	KMW	30°	1	-	(2) 800 MHz 2X50W RRH W/ FILTER	SEE SHEET A-5 DETAIL 1	±246' AGL	±246' AGL
	EXISTING	LLPX310R-V1	COMMSCOPE	30°	1	REMOVE	(1) TD-RRHBX20-25 W/ SOLAR SHIELD	SEE SHEET A-5 DETAIL 1		
	EXISTING	APXVSP18-C-A20	RFS	30°	1	REMAIN	(1) 1900 MHz 4X45 RRH	EXISTING COAX		
BETA	PROPOSED	ETCR-654L2H6	KMW	30°	1	-	(2) 800 MHz 2X50W RRH W/ FILTER	SEE SHEET A-5 DETAIL 1	±281'	±246' AGL
	EXISTING	LLPX310R-V1	COMMSCOPE	30°	1	REMOVE	(1) TD-RRHBX20-25 W/ SOLAR SHIELD	SEE SHEET A-5 DETAIL 1		
	EXISTING	APXVSP18-C-A20	RFS	30°	1	REMAIN	(1) 1900 MHz 4X45 RRH	EXISTING COAX		
GAMMA	PROPOSED	ETCR-654L2H6	KMW	30°	1	-	(2) 800 MHz 2X50W RRH W/ FILTER	SEE SHEET A-5 DETAIL 1	±246' AGL	±246' AGL
	EXISTING	LLPX310R-V1	COMMSCOPE	30°	1	REMOVE	(1) TD-RRHBX20-25 W/ SOLAR SHIELD	SEE SHEET A-5 DETAIL 1		
	EXISTING	APXVSP18-C-A20	RFS	30°	1	REMAIN	(1) 1900 MHz 4X45 RRH	EXISTING COAX		

PROJECT SCOPE:
 REMOVE: (3) PANEL ANTENNAS INSTALL: (3) PANEL ANTENNAS (3) 2.5 GHz RRH'S AND (6) 800 MHz RRH'S RELOCATE: (2) EXISTING RRH'S

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

SITE LOADING CHART

NO SCALE 2



STIFF ARM KIT DETAIL

NO SCALE 3

TOWER ELEVATION

NO SCALE 1

PLANS PREPARED FOR:

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DESCRIPTION	DATE	BY	REV.
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ISSUED FOR PERMIT	01/05/18	JUL	0

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 AMERICAN TOWER

SITE NUMBER:
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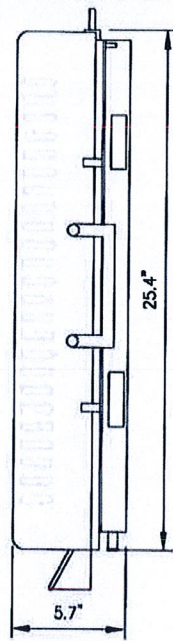
SITE ADDRESS:
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 NORTH STONNINGTON, CT 06359

SHEET DESCRIPTION:
 TOWER ELEVATION

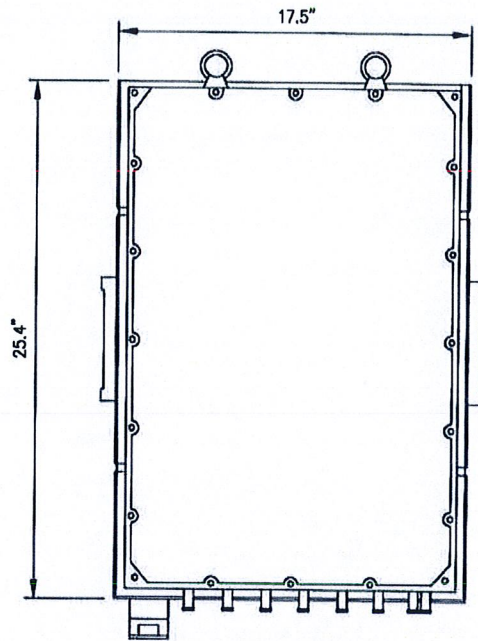
SHEET NUMBER:
 A-2

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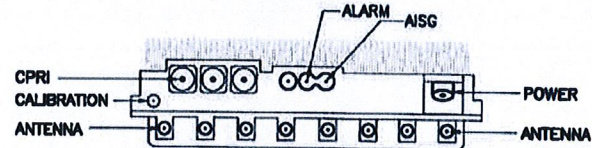
COLOR: LIGHT GREY
WEIGHT: 70 LBS.



SIDE VIEW



FRONT VIEW



PLAN VIEW

NOTES

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

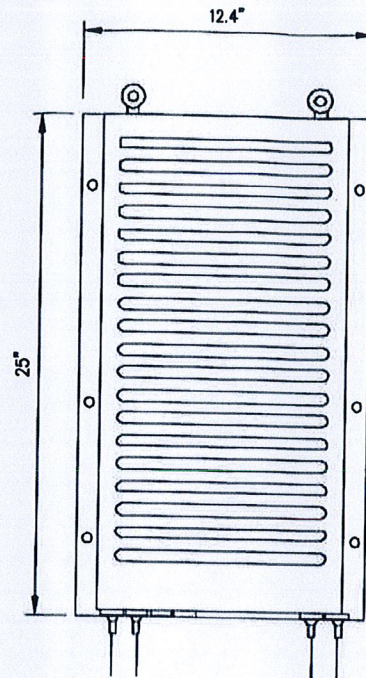
2.5 GHz RRH

NO SCALE

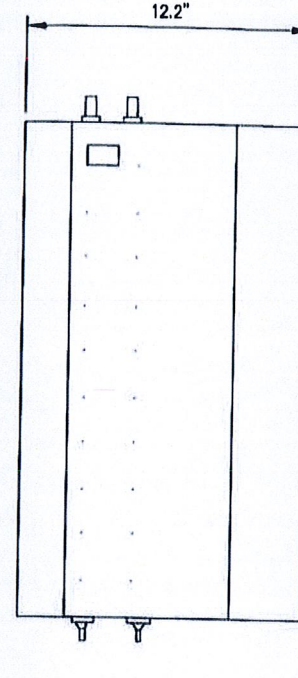
1

RRH: ALCATEL LUCENT 1900 MHz

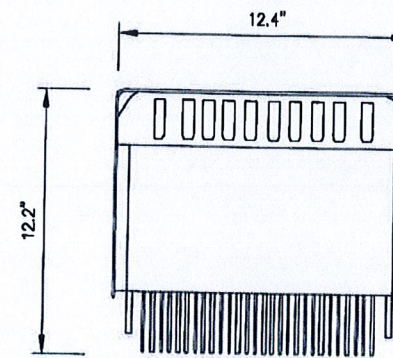
COLOR: LIGHT GREY
WEIGHT: 70 LBS.
(INCLUDING OPTIONAL SOLAR SHIELD)



FRONT VIEW



SIDE VIEW



TOP VIEW

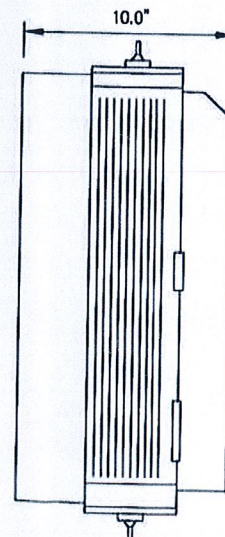
EXISTING 1900 MHz RRH

NO SCALE

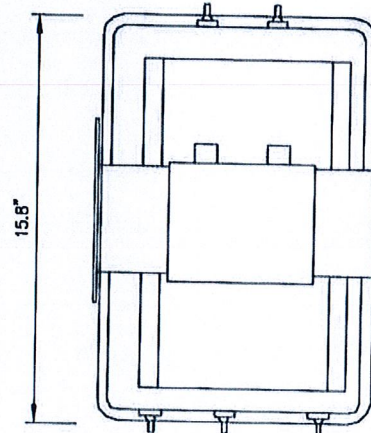
2

RRH: ALCATEL LUCENT RRH 800 MHz 2x50W

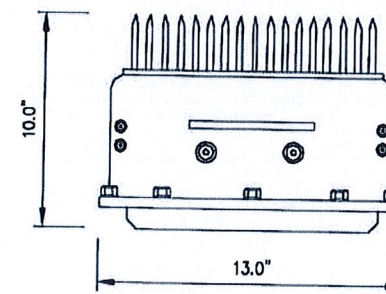
COLOR: LIGHT GREY
WEIGHT: 53 LBS.



SIDE VIEW



FRONT VIEW



PLAN VIEW

NOTES

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

DETAIL NOT USED

NO SCALE

3

800 MHz RRH

NO SCALE

4

PLANS PREPARED FOR:



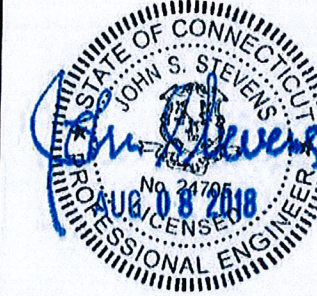
PLANS PREPARED BY:

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www.infinigy.com
JOB NUMBER 526-104

PROJECT MANAGER:

AIROSMITH
DEVELOPMENT

ENGINEERING LICENSE:



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ISSUED FOR PERMIT		01/05/16	JDL	0

SITE NAME:

**NORTH STONNINGTON/
AMERICAN TOWER**

SITE NUMBER:

CT03XC151

SITE ADDRESS:

118C WINTCHOG HILL RD.
NORTH STONNINGTON, CT 06359

SHEET DESCRIPTION:

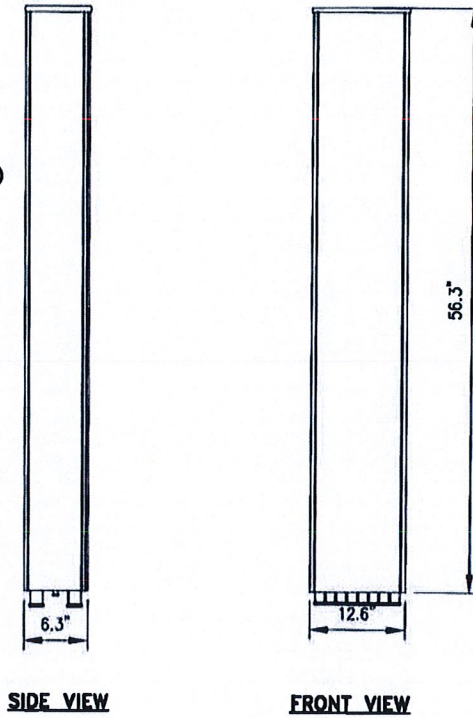
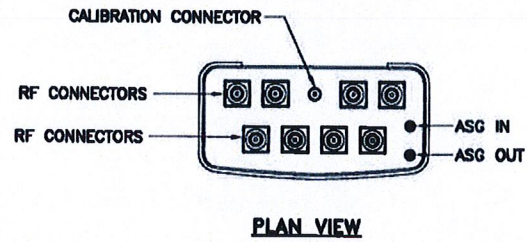
**EQUIPMENT &
MOUNTING DETAILS**

SHEET NUMBER:

A-4

ANTENNA RFS APXVTM14-ALU-120

RADOME MATERIAL: ASA
 RADOME COLOR: LIGHT GREY
 DIMENSIONS, HxWxD.in(m/m): 56.3"x12.6"x6.3" (1549x439x300mm)
 WEIGHT: 56.2 lbs
 CONNECTORS: (8) 4.1/9.5 DIN FEMALE
 (1) NF - CALIBRATION CONNECTOR



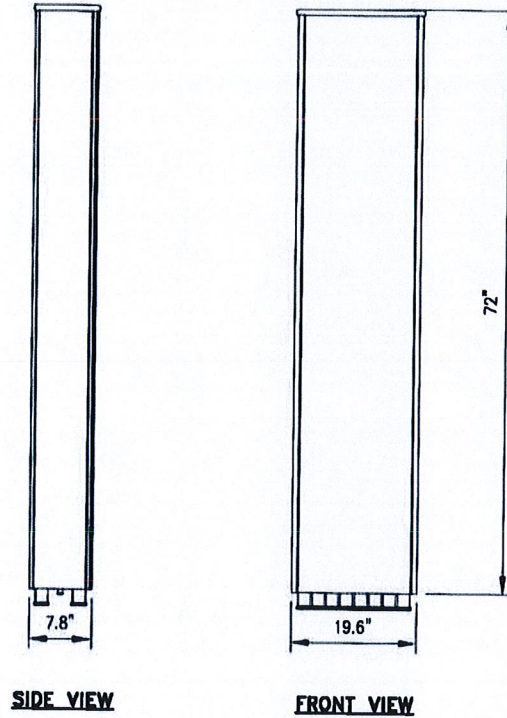
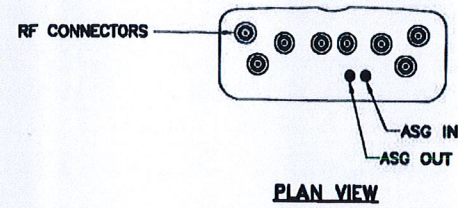
2.5 ANTENNA DETAIL

NO SCALE

1

ANTENNA COMMSCOPE NNVV-65B-R4

RADOME MATERIAL: FIBERGLASS
 RADOME COLOR: LIGHT GREY
 DIMENSIONS, HxWxD.in(m/m): 72"x19.6"x7.8" (1829x498x198mm)
 WEIGHT: 77.4 lbs
 CONNECTORS: (8) PIN DIN FEMALE
 (8) 8 PIN DIN MALE



DUAL BAND ANTENNA DETAIL

NO SCALE

2

DETAIL NOT USED

NO SCALE

3

DETAIL NOT USED

NO SCALE

4

PLANS PREPARED FOR:



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 DEVELOPMENT

ENGINEERING LICENSE:



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ISSUED FOR PERMIT		01/05/18	JDL	0

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SITE NUMBER:

CT03XC151

SITE ADDRESS:

**118C WINTECHOG HILL RD.
 NORTH STONNINGTON, CT 06359**

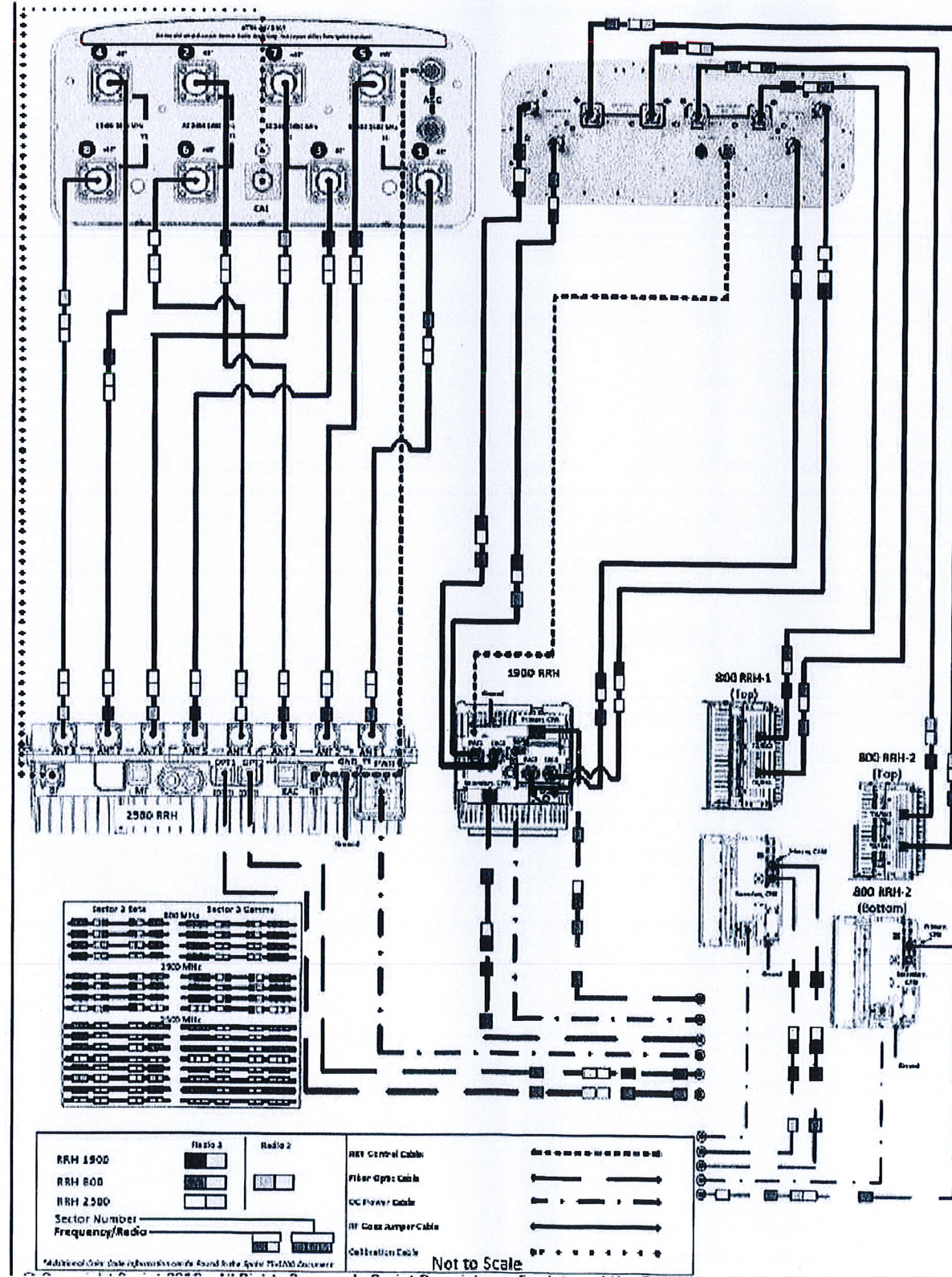
SHEET DESCRIPTION:

**EQUIPMENT &
 MOUNTING DETAILS**

SHEET NUMBER:

A-5

ALU-NSN 211 APXVTM14-ALU-I20 & NNVV-65B-R4 wo Filters



PLUMBING DIAGRAM

NO SCALE

1

PLANS PREPARED FOR:



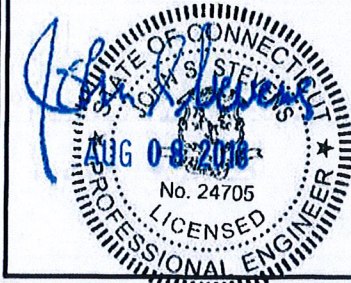
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SITE ADDRESS:

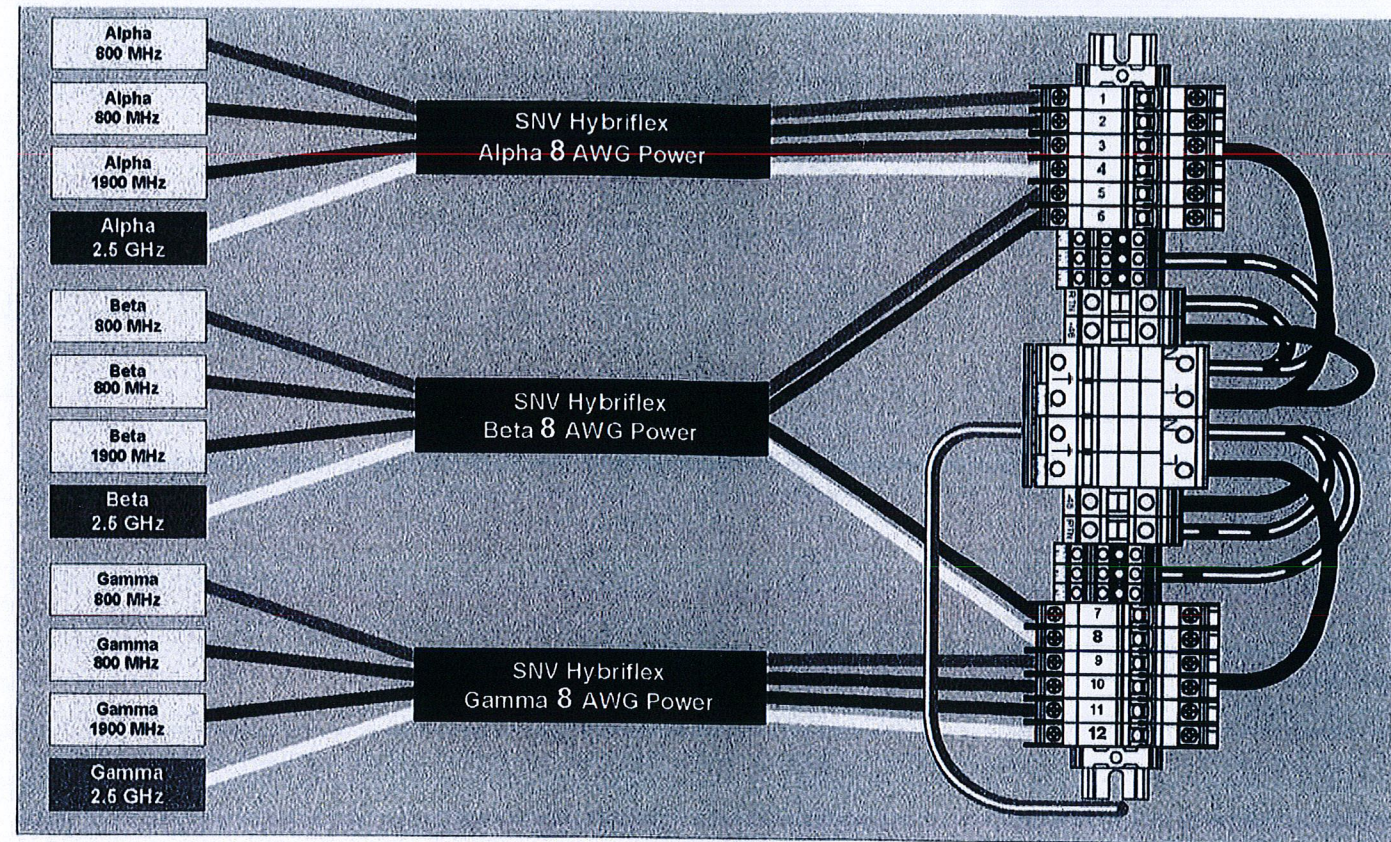
118C WINTCHOG HILL RD.
NORTH STONNINGTON, CT 06359

SHEET DESCRIPTION:

PLUMBING DIAGRAM

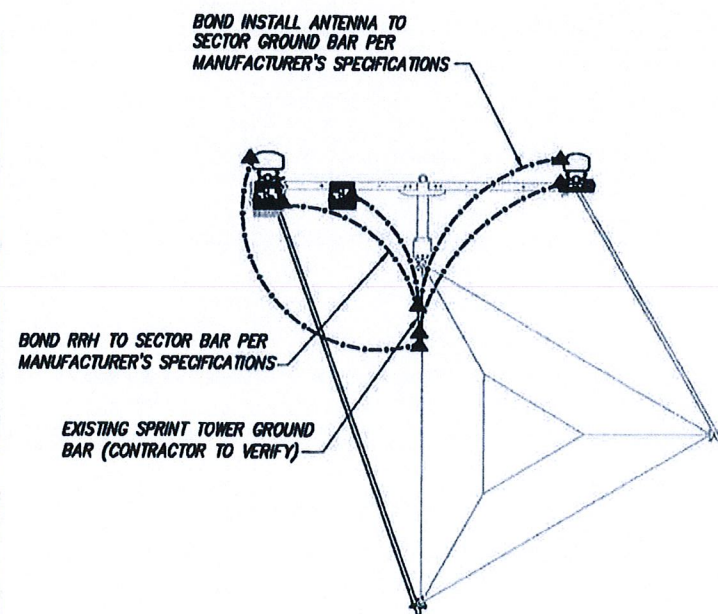
SHEET NUMBER:

A-7



RRH TO DISTRIBUTION BOX POWER CONNECTIVITY

NO SCALE 1

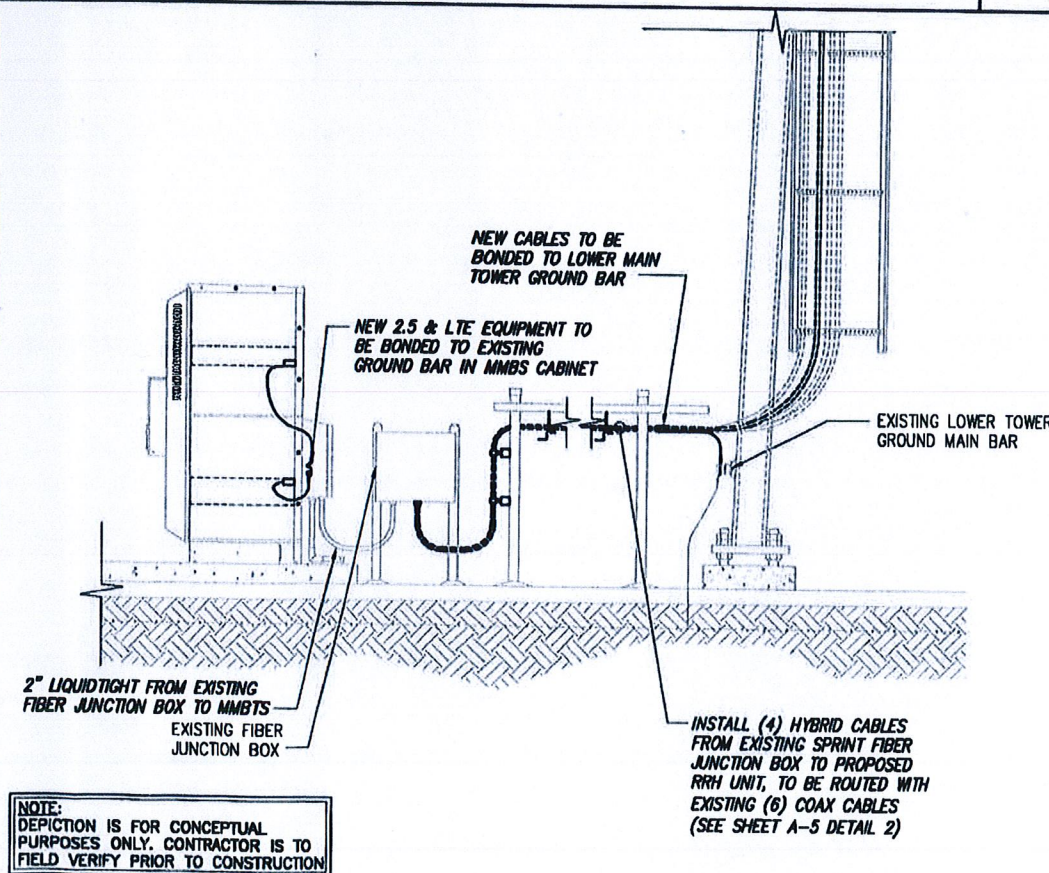


TYPICAL ANTENNA GROUNDING PLAN

NO SCALE

2

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



TYPICAL EQUIPMENT GROUNDING PLAN (ELEVATION)

NO SCALE

3

PLANS PREPARED FOR:



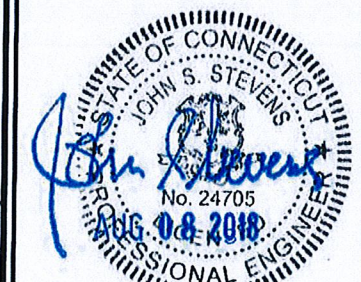
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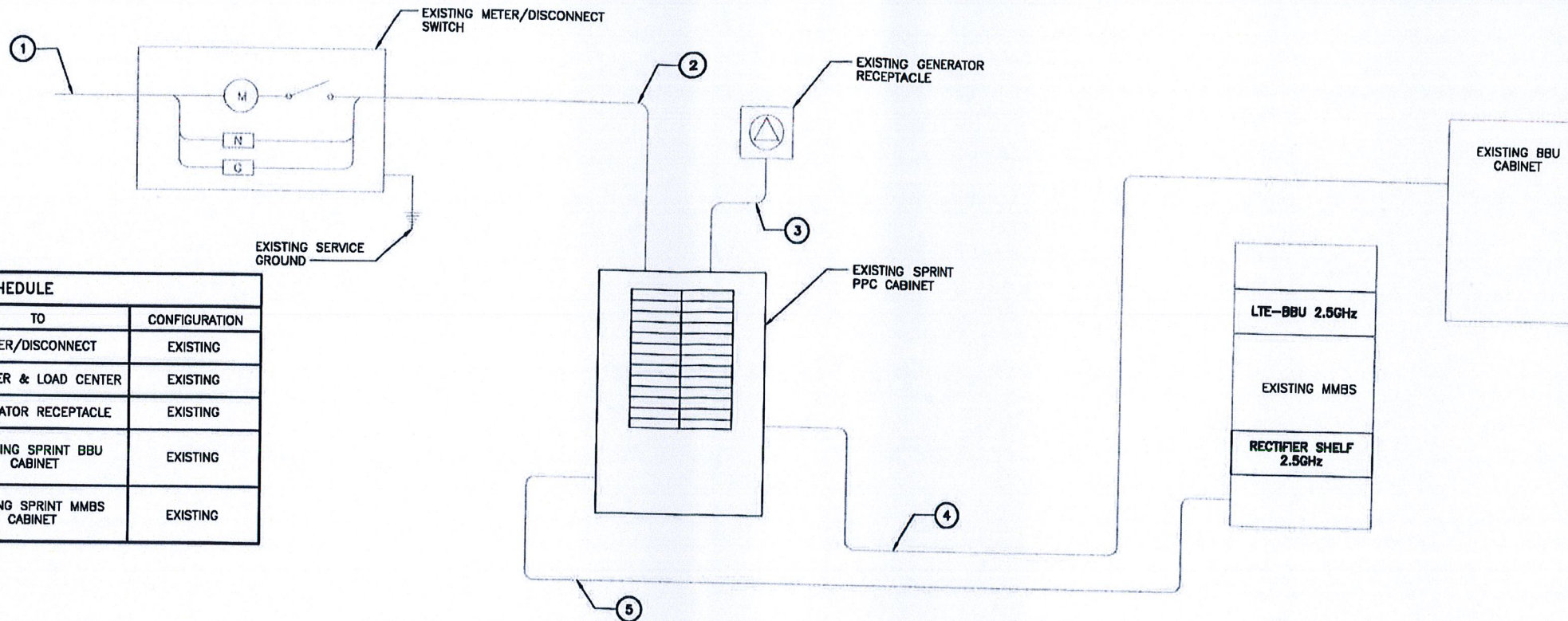
SHEET DESCRIPTION:

**ELECTRICAL &
GROUNDING PLAN**

SHEET NUMBER:

E-1

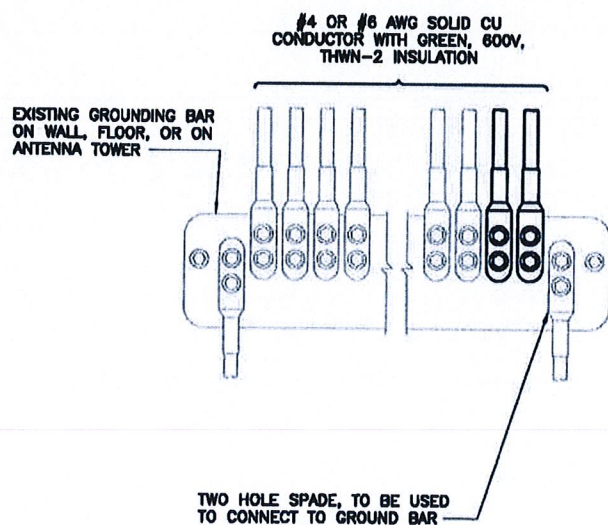
NOTES
 CG SHALL REFERENCE ALL SPECS FOR "CONNECTING THE POWER SUPPLY" OF THE NEW INSTALLATION DOCUMENTS, FOR ALL CONNECTION SPECIFICATIONS.



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

ELECTRICAL ONE-LINE DIAGRAM

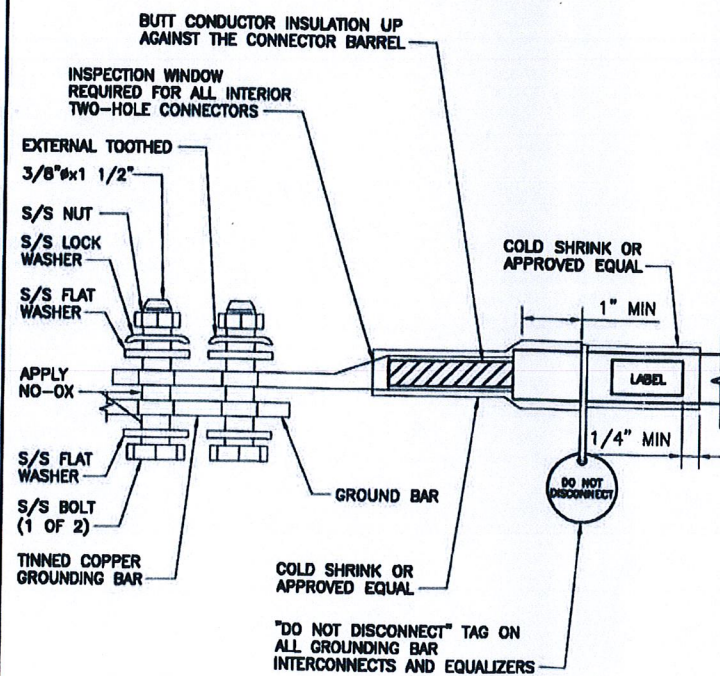
NO SCALE 1



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

INSTALLATION OF GROUNDING CONDUCTOR TO GROUNDING BAR

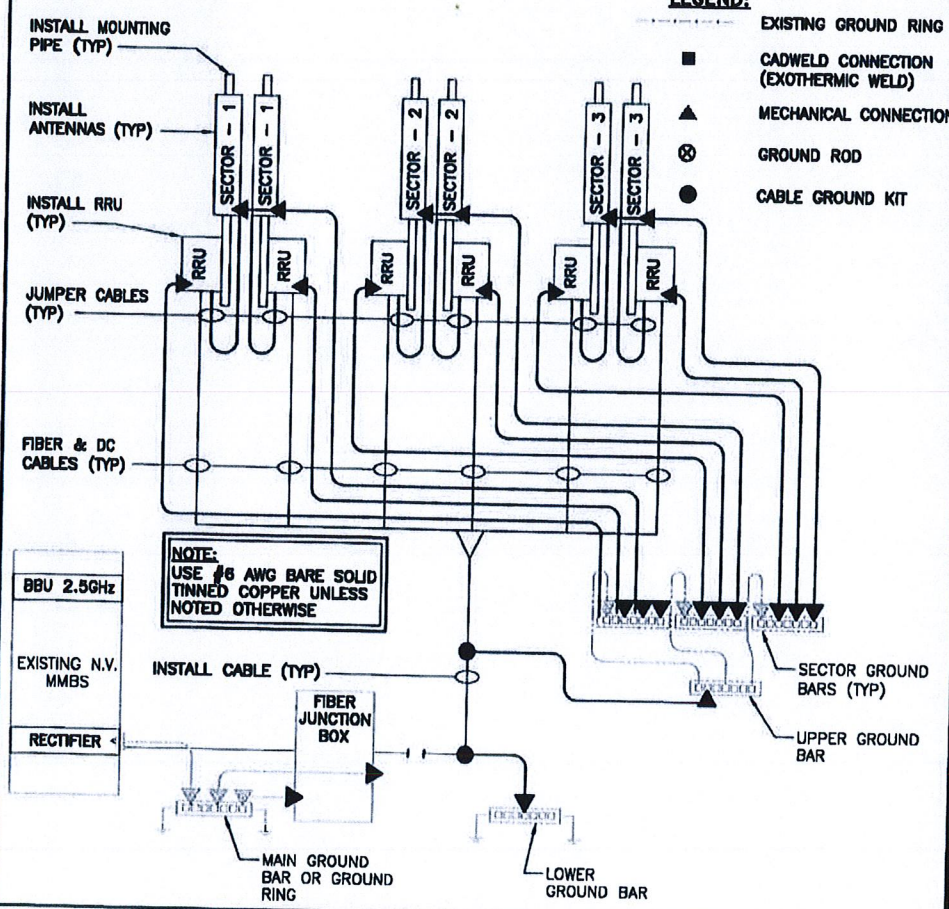
NO SCALE 2



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

TWO HOLE LUG

NO SCALE 3



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

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

GROUNDING RISER DIAGRAM

NO SCALE 4

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PROJECT MANAGER:
AIRSMITH
 DEVELOPMENT

ENGINEERING LICENSE:

 JOHN S. STEVENS
 PROFESSIONAL ENGINEER
 AUG 8 2018

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 NORTH STONNINGTON, CT 06359

SHEET DESCRIPTION:
ELECTRICAL & GROUNDING DETAILS

SHEET NUMBER:
E-2