June 03, 2014

David Martin and
Members of the Siting Council
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: Notice of Exempt Modification
331 Killingworth Road
Guilford, CT 06437
Sprint Site #: NV2.5_CT03XC068
N 41° 21' 11.4"
W -72° 41' 17.7"

Dear Mr. Martin and Members of the Siting Council:

On behalf of Sprint Spectrum, SBA Communications is submitting an exempt modification application to the Connecticut Siting council for modification of existing equipment at a tower facility located at 331 Killingworth Road, Guilford CT.

The 331 Killingworth Road facility consists of a 152' SELF SUPPORT Tower owned and operated by SBA Towers IV, LLC. In order to accommodate technological changes and enhance system performance in the State of Connecticut, Sprint Spectrum plans to modify the equipment configurations at many of its existing cell sites. Please accept this letter and attachments as notification, pursuant to R.C.S.A. Section 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2). In compliance with R.C.S.A. Section 16-50j-73, a copy of this letter and attachments is being sent to the chief elected official of the municipality in which the affected cell site is located.

As part of Sprint's Network Vision modification project, Sprint desires to upgrade their equipment to meet the new standards of 4G technology. The new equipment will allow customers to download files and browse the internet at a high rate of speed while also allowing their phones to be compatible with the latest 4G technology.

Attached is a summary of the planned modifications, including power density calculations reflecting the change in Sprint's operations at the site along with the required fee of $625.

The changes to the facility do not constitute modifications as defined in Connecticut General Statutes ("C.G.S.") Section 16-50i(d) because the general physical characteristics of the facility will not be

significantly changed or altered. Rather, the planned changes to the facility fall squarely within those activities explicitly provided for in R.C.S.A. Section 16-50j-72(b)(2).

1. The overall height of the structure will be unaffected.

2. The proposed changes will not extend the site boundaries. There will be no effect on the site compound other than the new equipment cabinets.

3. The proposed changes will not increase the noise level at the existing facility by six decibels or more.

4. The changes in radio frequency power density will not increase the calculated "worst case" power density for the combined operations at the site to a level at or above the applicable standard for uncontrolled environments as calculated for a mixed frequency site.

For the foregoing reasons, SBA Communications on behalf of Sprint Spectrum, respectfully submits that he proposed changes at the referenced site constitute exempt modifications under R.C.S.A. Section 16-50j-72(b)(2).

Please feel free to call me at (508) 251-0720 x 3804 with any questions you may have concerning this matter.

Thank you,

Kri Pelletier
SBA Communications Corporation
33 Boston Post Road West Suite 320
Marlborough, MA 01752
508-251-0720 x 3804 + T
508-251-1755 + F
203-446-7700 + C
kpelletier@sbasite.com

Sprint Spectrum
Equipment Modification

331 Killingworth Road, Guilford CT
Site number CT03XC068

Tower Owner: SBA Towers IV, LLC

Equipment Configuration: SELF SUPPORT Tower

Current and/or approved:

- (3) RFS APXVSPP18-C-A20
- (3) Alcatel Lucent 1900 MHz RRHs
- (3) Alcatel Lucent 800 MHz RRHs
- (3) Alcatel Lucent 800 MHz Filters
- (4) RFS ACU-A20-N RETs
- (3) 1-1/4" Fiber

Planned Modifications:

- (3) RFS APXVSPP18-C-A20
- (3) RFS APXVTM14-C-I20
- (3) Alcatel Lucent 1900 MHz RRHs
- (3) Alcatel Lucent 800 MHz RRHs
- (3) Alcatel Lucent 800 MHz Filters
- (3) Alcatel Lucent TD-RRH8x20-25 RRHs
- (4) RFS ACU-A20-N RETs
- (4) 1-1/4" Fiber

Structural Information:

The attached structural analysis demonstrates that the tower and foundation will have adequate structural capacity to accommodate the proposed modifications.

Power Density:

The anticipated Maximum Composite contributions from the Sprint facility are 12.758% of the allowable FCC established general public limit. The anticipated composite MPE value for this site assuming all carriers present is 56.408% of the allowable FCC established general public limit sampled at the ground level.

Site Composite MPE %	
Carrier	MPE %
Sprint	12.758%
AT&T	14.570%
Nextel	5.850%
Verizon Wireless	23.230%
Total Site MPE %	56.408%

June 03, 2014

Joseph S. Mazza
First Selectman
Town of Guilford
Town Hall
331 Killingworth Road
Guilford, CT 06437

RE: Telecommunications Facility @ 331 Killingworth Road, Guilford CT

Dear Mr. Mazza,

In order to accommodate technological changes and enhance system performance in the State of Connecticut, Sprint Spectrum will be changing its equipment configuration at certain cell sites.

As required by Regulations of Connecticut State Agencies (R.C.S.A.) Section 16-50j-73, the Connecticut Siting Council has been notified of the changes and will review Sprint's proposal. Please accept this letter as notification under Section 16-50j-73 of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2).

The accompanying letter to the Siting Council fully describes Sprint's proposal for the referenced cell site. However, if you have any questions or require any further information on our plans or the Siting Council's procedures, please call me at (508) 251-0720 x 3804.

Thank you,

Kri Pelletier
SBA Communications Company
33 Boston Post Road West, Suite 320
Marlborough, MA 01752
508-251-0720 x 3804 + T
508-251-1755 + F
203-446-7700 + C
kpelletier@sbasite.com

June 03, 2014

Mr. David E. and Mrs. Kathleen L. Acampora
331 Route 80
Guilford, CT 06437

Wireless Capital Partners, LLC
Department #6609 WCP HVB WCP #148326
Los Angeles, CA 90084-6609

RE: Telecommunications Facility @ 331 Killingworth Road, Guilford CT

Dear Mr. and Mrs. Acampora and Wireless Capital Partners,

In order to accommodate technological changes and enhance system performance in the State of Connecticut, Sprint Spectrum will be changing its equipment configuration at certain cell sites.

As required by Regulations of Connecticut State Agencies (R.C.S.A.) Section 16-50j-73, the Connecticut Siting Council has been notified of the changes and will review Sprint's proposal. Please accept this letter as notification under Section 16-50j-73 of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2).

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June 03, 2014

Mr. David E. and Mrs. Kathleen L. Acampora
331 Route 80
Guilford, CT 06437

Wireless Capital Partners, LLC
Department #6609 WCP HVB WCP #148326
Los Angeles, CA 90084-6609

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The accompanying letter to the Siting Council fully describes Sprint's proposal for the referenced cell site. However, if you have any questions or require any further information on our plans or the Siting Council's procedures, please call me at (508) 251-0720 x 3804.

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EBI Consulting
environmental | engineering | due diligence

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

Sprint Existing Facility

Site ID: CT03XC068

North Guilford

331 Killingworth Road
Guilford, CT 06437

May 20, 2014

EBI Project Number: 62143079

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

EBI Consulting
environmental | engineering | due diligence

May 20, 2014

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

Re: Radio Frequency Maximum Permissible Exposure (MPE) Assessment for Site:
CT03XC068 - North Guilford

Site Total: 56.408% - MPE% in full compliance

EBI Consulting was directed to analyze the proposed upgrades to the existing Sprint facility located at 331 Killingworth Road, Guilford, CT, for the purpose of determining whether the radio frequency (RF) exposure levels from the proposed Sprint equipment upgrades on this property are within specified federal limits.

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

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

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

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

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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed upgrades to the existing Sprint Wireless antenna facility located at 331 Killingworth Road, Guilford, CT, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. All calculations were performed assuming the main lobe of the antenna was focused at the base of the tower to present a worst case scenario. Actual values seen from this site will be dramatically less than those shown in this report. For this report the sample point is the top of a 6 foot person standing at the base of the tower.

For all calculations, all emissions were calculated using the following assumptions:

1) 3 channels in the 1900 MHz Band were considered for each sector of the proposed installation.
2) 1 channel in the 800 MHz Band was considered for each sector of the proposed installation
3) 2 channels in the 2500 MHz Band were considered for each sector of the proposed installation.
4) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
5) For the following calculations the sample point was the top of a six foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufactures supplied specifications was used in this direction.

6) The antennas used in this modeling are the RFS APXVSPP18-C-A20 and the RFS APXVTMM-C-120. This is based on feedback from the carrier with regards to anticipated antenna selection. The RFS APXVSPP18-C-A20 has a 15.9 dBd gain value at its main lobe at 1900 MHz and 13.4 dBd at its main lobe for 850 MHz. The RFS APXVTMM-C-120 has a 15.9 dBd gain value at its main lobe at 2500 MHz. All calculations were performed assuming the main lobe of the antenna was focused at the base of the tower to present a worst case scenario.
7) The antenna mounting height centerline for the proposed antennas is**138.5 feet** above ground level (AGL).
8) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

All calculation were done with respect to uncontrolled / general public threshold limits

Site ID	CT03XC068 - North Guilford
Site Addresss	331 Killingworth Road, Guilford, CT 06437
Site Type	Self Support Tower

Sector 1

Antenna Number	Antenna Make	Antenna Model	Radio Type	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBd)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss (dB)	ERP	Power Density Percentage
1a	RFS	APXVSPP18-C-A20	RRH	1900 MHz	CDMA / LTE	20	3	60	15.9	138.5	132.5	1/2 "	0.5	3	1042.6805	2.13514%
1a	RFS	APXVSPP18-C-A20	RRH	850 MHz	CDMA / LTE	20	1	20	13.4	138.5	132.5	1/2 "	0.5	3	195.44744	0.70586%
1B	RFS	APXVTMM14-C-120	RRH	2500 MHz	CDMA / LTE	20	2	40	13.4	138.5	132.5	1/2 "	0.5	3	390.89489	1.41173%
														Sector total Power Density Value:		4.253%

Sector 2

Antenna Number	Antenna Make	Antenna Model	Radio Type	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBd)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss (dB)	ERP	Power Density Percentage
2a	RFS	APXVSPP18-C-A20	RRH	1900 MHz	CDMA / LTE	20	3	60	15.9	138.5	132.5	1/2 "	0.5	3	1042.6805	2.13514%
2a	RFS	APXVSPP18-C-A20	RRH	850 MHz	CDMA / LTE	20	1	20	13.4	138.5	132.5	1/2 "	0.5	3	195.44744	0.70586%
2B	RFS	APXVTMM14-C-120	RRH	2500 MHz	CDMA / LTE	20	2	40	13.4	138.5	132.5	1/2 "	0.5	3	390.89489	1.41173%
														Sector total Power Density Value:		4.253%

Sector 3

Antenna Number	Antenna Make	Antenna Model	Radio Type	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBd)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss (dB)	ERP	Power Density Percentage
3a	RFS	APXVSPP18-C-A20	RRH	1900 MHz	CDMA / LTE	20	3	60	15.9	138.5	132.5	1/2 "	0.5	3	1042.6805	2.13514%
3a	RFS	APXVSPP18-C-A20	RRH	850 MHz	CDMA / LTE	20	1	20	13.4	138.5	132.5	1/2 "	0.5	3	195.44744	0.70586%
3B	RFS	APXVTMM14-C-120	RRH	2500 MHz	CDMA / LTE	20	2	40	13.4	138.5	132.5	1/2 "	0.5	3	390.89489	1.41173%
														Sector total Power Density Value:		4.253%

Site Composite MPE %	
Carrier	MPE %
Sprint	12.758%
AT&T	14.570%
Nextel	5.850%
Verizon Wireless	23.230%
Total Site MPE %	**56.408%**

EBI Consulting
environmental | engineering | due diligence

Summary

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

The anticipated Maximum Composite contributions from the Sprint facility are **12.758% (4.253% from each sector)** of the allowable FCC established general public limit considering all three sectors simultaneously sampled at the ground level.

The anticipated composite MPE value for this site assuming all carriers present is **56.408%** of the allowable FCC established general public limit sampled at 6 feet above ground level. This total composite site value is based upon MPE values listed in the Connecticut Siting Council database for existing carrier emissions.

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

Scott Heffernan
RF Engineering Director

EBI Consulting
21 B Street
Burlington, MA 01803

Structural Analysis for SBA Network Services, Inc.

152' Self-Support Tower

SBA Site Name: Guilford
SBA Site ID: CT13065-A-03
Sprint Site ID: CT03XC068

FDH Project Number 14664X1400

Analysis Results

Tower Components	98.8%	Sufficient
Foundation	84.2%	Sufficient

Prepared By:

Michael Brennan, EI
Project Engineer

Reviewed By:

Dennis D. Abel, PE
Director of Structural Engineering
CT PE License No. 23247

FDH Engineering, Inc.
6521 Meridien Drive
Raleigh, NC 27616
(919) 755-1012
info@fdh-inc.com

STATE OF CONNECTICUT
DENNIS D. ABEL
No. 23247
LICENSED
PROFESSIONAL ENGINEER

05-29-2014

May 29, 2014

Prepared pursuant to TIA/EIA-222-F Structural Standards for Steel Antenna Towers and Antenna Supporting Structures and 2005 Connecticut State Building Code

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EXECUTIVE SUMMARY

At the request of SBA Network Services, Inc., FDH Engineering, Inc. performed a structural analysis of the existing self-supported tower located in Guilford, CT to determine whether the tower is structurally adequate to support both the existing and proposed loads pursuant to the *Structural Standards for Steel Antenna Towers and Antenna Supporting Structures, TIA/EIA-222-F* and *2005 Connecticut State Building Code*. Information pertaining to the existing/proposed antenna loading, current tower geometry, the member sizes, and foundation dimensions was obtained from:

- Rohn (File No. 21046FH) original design drawings dated August 8, 1985
- FDH, Inc. (Job No. 09-09006T T1) TIA Inspection Report dated January 14, 2010
- All-Points Technology Corporation, P.C. (Job No. CT200101) Tower Reinforcement Drawings dated April 28, 2005
- FDH Engineering, Inc. (Project No. 09-03151E N1) Dispersive Wave Propagation Testing of an Existing Tower Foundation dated June 10, 2009
- FDH Engineering, Inc. (Project No. 09-03151E G1) Geotechnical Evaluation of Subsurface Conditions dated May 5, 2009
- FDH Engineering, Inc. (Project No. 09-03151E S2) Modification Drawings for a 152' Self Support Tower dated July 31, 2009
- FDH Engineering, Inc. (Project No. 11-10199E S2) Modification Drawings for a 152' Self Support Tower dated April 19, 2012
- FDH Engineering, Inc. (Project No. 11-10199E S2) Post Construction Inspection Report dated May 24, 2012
- FDH Engineering, Inc. (Project No. 12-04638E S3) Modification Drawings For A 152' Self-Support Tower dated February 6, 2013
- FDH Engineering, Inc. (Project No. 1300691700) Modification Inspection Report dated July 9. 2013
- FDH Engineering, Inc. (Project No. 1300691700) TIA Inspection Report dated May 20, 2013
- FDH Engineering, Inc. (Project No. 14256J1400) Modification Drawings for a 152' Self-Support Tower dated May 2, 2014
- FDH Engineering, Inc. (Project No. 14664X1400) Modification Drawings for a 152' Self-Support Tower dated May 29, 2014
- SBA Network Services, Inc.

The *basic design wind speed* per the *TIA/EIA-222-F* standards is 85 mph without ice and 38 mph with 3/4" radial ice. Ice is considered to increase in thickness with height.

Conclusions

With the existing and proposed antennas from Sprint in place at 140.4 ft, the tower meets the requirements of the *TIA/EIA-222-F* standards and *2005 Connecticut State Building Code* provided the **Recommendations** listed below are satisfied. Furthermore, given the existing foundation dimensions (see FDH Engineering, Inc. Project No. 09-03151E N1) and soil parameters (see FDH Engineering, Inc. Project No. 09-03151E G1), the foundations should have the necessary capacity to support the existing and proposed loading. For a more detailed description of the analysis of the tower, see the **Results** section of this report.

Our structural analysis has been performed assuming all information provided to FDH Engineering, Inc. is accurate (i.e., the steel data, tower layout, existing antenna loading, and proposed antenna loading) and that the tower has been properly erected and maintained per the original design drawings.

Recommendations

To ensure the requirements of the *TIA/EIA-222-F* standards and *2005 Connecticut State Building Code* are met with the existing and proposed loading in place, we have the following recommendations:

1. Feed lines must be installed as shown in **Figure 1**.
2. RRU/RRH Stipulation: The equipment may be installed in any arrangement as determined by the client.
3. Modifications outlined in FDH Engineering, Inc. (Project No. 14256J1400) Modification Drawings for a 152' Self-Support Tower dated May 2, 2014 must be correctly installed in order for this analysis to be valid.
4. Modifications outlined in FDH Engineering, Inc. (Project No. 14664X1400) Modification Drawings for a 152' Self-Support Tower dated May 29, 2014 must be correctly installed in order for this analysis to be valid.

APPURTENANCE LISTING

The proposed and existing antennas with their corresponding cables/coax lines are shown in **Table 1**. *If the actual layout determined in the field deviates from the layout, FDH Engineering, Inc. should be contacted to perform a revised analysis.*

Table 1 - Appurtenance Loading

Existing Loading:

Antenna Elevation (ft)	Description	Coax and Lines	Carrier	Mount Elevation (ft)	Mount Type
157	(1) Phillips Dodge 201-7 Omni	(1) 7/8"	TCI Cablevision	150	Direct
154.3	(1) Decibel DB589 Omni	(1) 7/8"	American Messaging	150	(1) Pipe Mount
148.5 [1]	(6) Powerwave 7770.00 w/ mount pipe (3) KMW AM-X-CD-16-65-00T (6) Ericsson RRUS-11 RRUs (1) Raycap DC6-48-60-18-8F Surge Arrestor	(12) 1-5/8" (1) 10mm Fiber Trunk (2) DC Cables	AT&T	148.9	(3) T-Frames
145.5	(6) Powerwave LGP21401 TMAs (6) Powerwave LGP21901 Diplexers				
138.5	(3) RFS APXVSPP18-C-A20 (3) Alcatel Lucent 1900 MHz RRHs (3) Alcatel Lucent 800 MHz RRHs (3) Alcatel Lucent 800 MHz Filters (4) RFS ACU-A20-N RETs	(3) 1-1/4" Fiber	Sprint	137.5	(3) 13' T-Frames
131	(1) DB26 GPS	(12) 1-5/8" (1) 1-5/8" Fiber	Verizon	128.2	(3) 12.5' T-Frames
130.5	(2) Antel BXA-70063-4CF (2) Antel BXA-171063-8BF (1) Antel BXA-70063-6CF (1) Antel BXA-171063-12BF (4) Antel LPA-80063-4CF (2) Antel LPA-80063-6CF (3) Kathrein 742 213-2110-P45-02.0 (3) Alcatel Lucent RRH2x40-AWS RRHs (6) RFS FD9R6004-2C-3L Diplexers (1) RFS DB-T1-6Z-8AB-0Z Distribution Box				
116.64	(12) Decibel DB844H90E-XY	(12) 1-5/8"	Nextel[2]	116.64	(3) 12.5' T-Frames
84.9	(1) Decibel DB26 GPS	(1) 1/2"	Verizon	83.9	(1) Pipe Mount
10	(1) Channel Master 6922 Dish	(1) RG-6	American Messaging	10	(1) Pipe Mount

1. (1) 10mm Fiber Trunk and (2) DC Cables installed inside a 3" innderduct.
2. Nextel loading is to be removed prior to the installation of the proposed loading listed below. Equipment was not considered in this analysis.

Proposed Loading:

Antenna Elevation (ft)	Description	Coax and Lines	Carrier	Mount Elevation (ft)	Mount Type
140.4	(3) RFS APXVSPP18-C-A20 (3) RFS APXVTM14-C-I20 (3) Alcatel Lucent 1900 MHz RRHs (3) Alcatel Lucent 800 MHz RRHs (3) Alcatel Lucent 800 MHz Filters (3) Alcatel Lucent TD-RRH8x20-25 RRHs (4) RFS ACU-A20-N RETs	(4) 1-1/4" Fiber	Sprint	137.5	(3) 13' T-Frames

RESULTS

The following yield strength of steel for individual members was used for analysis:

Table 2 - Material Strength

Member Type	Yield Strength
Legs	50 ksi
Bracing	36 ksi

Table 3 displays the summary of the ratio (as a percentage) of force in the member to their capacities. Values greater than 100% indicate locations where the maximum force in the member exceeds its capacity. **Table 4** displays the maximum foundation reactions.

If the assumptions outlined in this report differ from actual field conditions, FDH Engineering, Inc. should be contacted to perform a revised analysis. Furthermore, as no information pertaining to the allowable twist and sway requirements for the existing or proposed appurtenances was provided, deflection and rotation were not taken into consideration when performing this analysis.

See the **Appendix** for detailed modeling information.

Table 3 - Summary of Working Percentage of Structural Components

Section No.	Elevation ft	Component Type	Size	% Capacity*	Pass Fail
T1	152 - 140	Leg	ROHN 2 STD	19.8	Pass
		Diagonal	L1 1/2x1 1/2x1/8	56.7 61.4 (b)	Pass
		Top Girt	L2x2x1/8	17.8	Pass
T2	140 - 135	Leg	ROHN 2.5 STD	23.8	Pass
		Diagonal	L1 3/4x1 3/4x1/8	60.7 64.6 (b)	Pass
T3	135 - 130	Leg	ROHN 2.5 STD	35.7	Pass
		Diagonal	L1 3/4x1 3/4x1/8	79.3 80.1 (b)	Pass
T4	130 - 125	Leg	ROHN 2.5 STD	52.2	Pass
		Diagonal	L1 3/4x1 3/4x1/4	68.2 79.1 (b)	Pass
T5	125 - 120	Leg	ROHN 2.5 STD	69.6	Pass
		Diagonal	L1 3/4x1 3/4x1/4	87.7 93.2 (b)	Pass
T6	120 - 113.333	Leg	ROHN 2.5 X-STR	84.2	Pass
		Diagonal	L2x2x1/8 w/ L2x2x1/8	51.3 98.0 (b)	Pass
T7	113.333 - 106.667	Leg	ROHN 2.5 X-STR	72.9	Pass
		Diagonal	L2x2x1/8 w/ L2x2x1/8	56.7 69.0 (b)	Pass
		Secondary Horizontal	L2x2x1/4	10.4 11.1 (b)	Pass
T8	106.667 - 100	Leg	ROHN 2.5 X-STR	86.2	Pass
		Diagonal	L2x2x1/8 w/ L2x2x1/8	62.5 69.4 (b)	Pass
		Secondary Horizontal	L2 1/2x2 1/2x3/16	9.3 13.1 (b)	Pass
T9	100 - 93.3333	Leg	ROHN 2.5 X-STR	98.8	Pass
		Diagonal	L2x2x3/8	77.2	Pass

Section No.	Elevation ft	Component Type	Size	% Capacity*	Pass Fail
		Secondary Horizontal	L2 1/2x2 1/2x3/16	12.0 15.1 (b)	Pass
T10	93.3333 - 86.6667	Leg	2.875 OD x 0.276 + 180 deg 4 OD x 0.318 (v4.02)	91.6	Pass
		Diagonal	L2x2x3/8	83.7	Pass
T11	86.6667 - 80	Leg	2.875 OD x 0.276 + L3 x 3 x 3/8 (v4.02)	88.6	Pass
		Diagonal	L2x2x3/8	93.6	Pass
T12	80 - 73.3333	Leg	3.5 OD x 0.3 + 180 deg 4.5 OD x 0.337 (v4.02)	72.7	Pass
		Diagonal	L2 1/2x2 1/2x3/16	94.9	Pass
T13	73.3333 - 66.6667	Leg	3.5 OD x 0.3 + 180 deg 4.5 OD x 0.337 (v4.02)	78.8	Pass
		Diagonal	L2 1/2x2 1/2x1/4	82.8	Pass
T14	66.6667 - 60	Leg	3.5 OD x 0.3 + 180 deg 4.5 OD x 0.337 (v4.02)	84.9	Pass
		Diagonal	L2 1/2x2 1/2x1/4	91.0	Pass
T15	60 - 50	Leg	ROHN 4 X-STR	86.3	Pass
		Diagonal	L3x3x1/4	83.9	Pass
		Secondary Horizontal	L2 1/2x2 1/2x3/16	40.3	Pass
T16	50 - 40	Leg	ROHN 4 X-STR	94.7	Pass
		Diagonal	L3x3x1/4	94.8	Pass
		Secondary Horizontal	L2 1/2x2 1/2x3/16	50.4	Pass
T17	40 - 30	Leg	4.5 OD x 0.337 + 180 deg 5.563 OD x 0.375 (v4.02)	85.9	Pass
		Diagonal	L3x3x3/8	69.9 83.6 (b)	Pass
T18	30 - 20	Leg	4.5 OD x 0.337 + 180 deg 5.563 OD x 0.375 (v4.02)	92.6	Pass
		Diagonal	L3x3x3/8	78.4 85.9 (b)	Pass
T19	20 - 10	Leg	5.563 OD x 0.258 + 180 deg 6.625 OD x 0.432 (v4.02)	77.2	Pass
		Diagonal	L3 1/2x3 1/2x1/4	77.7 88.9 (b)	Pass
T20	10 - 0	Leg	5.563 OD x 0.258 + 180 deg 6.625 OD x 0.432 (v4.02)	82.2	Pass
		Diagonal	L3 1/2x3 1/2x1/4	91.4 96.1 (b)	Pass

*Capacities include 1/3 allowable increase for wind per *TIA/EIA-222-F* standards.

Table 4 - Maximum Base Reactions

Load Type	Direction	Current Analysis* *(TIA/EIA-222-F)*	Original Design *(EIA-222-C)*
Individual Foundation	Horizontal	22 k	---
	Uplift	171 k	80 k
	Compression	197 k	95 k
Overturning Moment	---	3,375 k-ft	1,557 k-ft

*Foundations determined adequate per independent analysis.

GENERAL COMMENTS

This engineering analysis is based upon the theoretical capacity of the structure. It is not a condition assessment of the tower and its foundation. It is the responsibility of SBA Network Services, Inc. to verify that the tower modeled and analyzed is the correct structure (with accurate antenna loading information) modeled. If there are substantial modifications to be made or the assumptions made in this analysis are not accurate, FDH Engineering, Inc. should be notified immediately to perform a revised analysis.

LIMITATIONS

All opinions and conclusions are considered accurate to a reasonable degree of engineering certainty based upon the evidence available at the time of this report. All opinions and conclusions are subject to revision based upon receipt of new or additional/updated information. All services are provided exercising a level of care and diligence equivalent to the standard and care of our profession. No other warranty or guarantee, expressed or implied, is offered. Our services are confidential in nature and we will not release this report to any other party without the client's consent. The use of this engineering work is limited to the express purpose for which it was commissioned and it may not be reused, copied, or distributed for any other purpose without the written consent of FDH Engineering, Inc.

APPENDIX

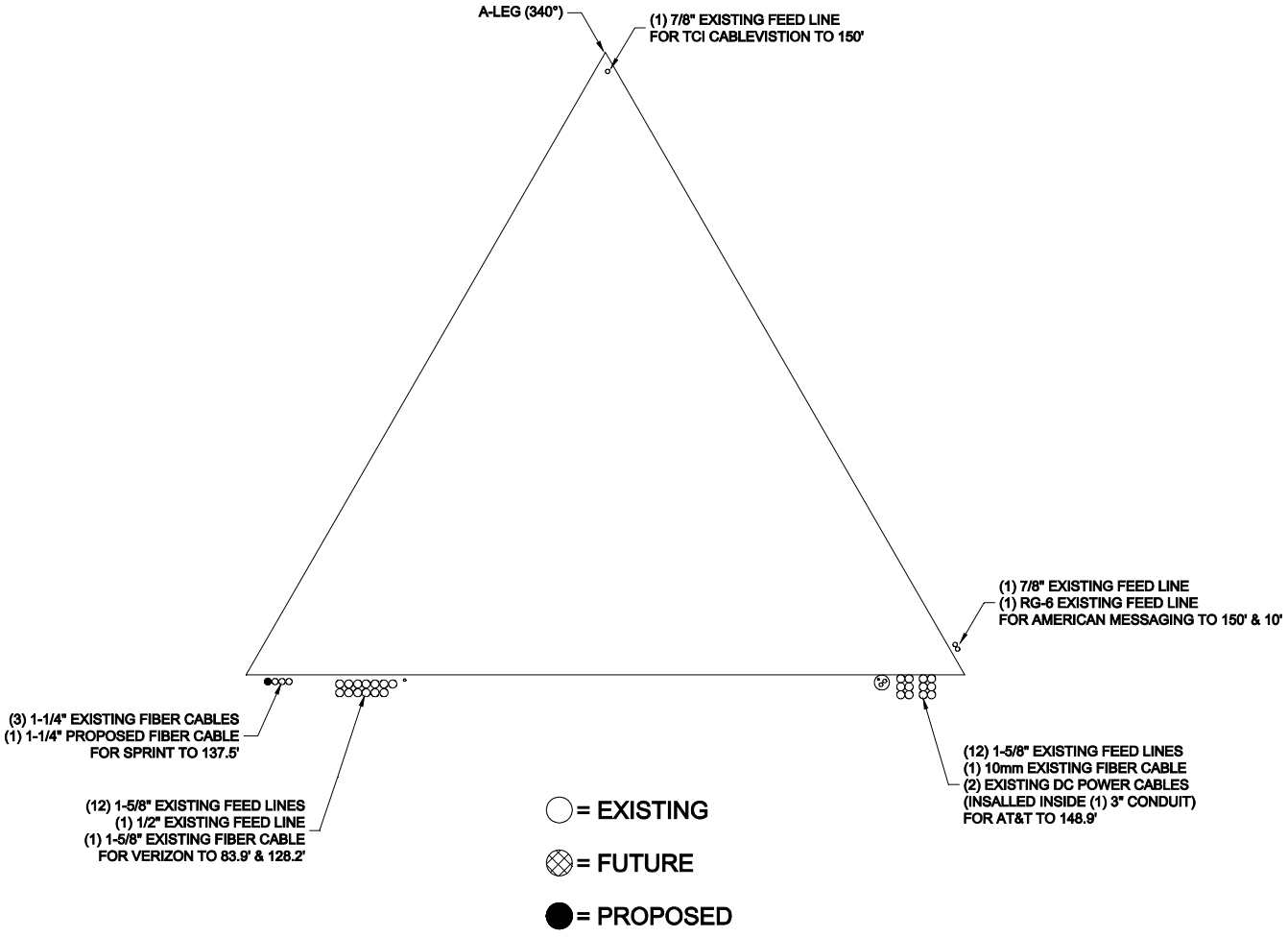
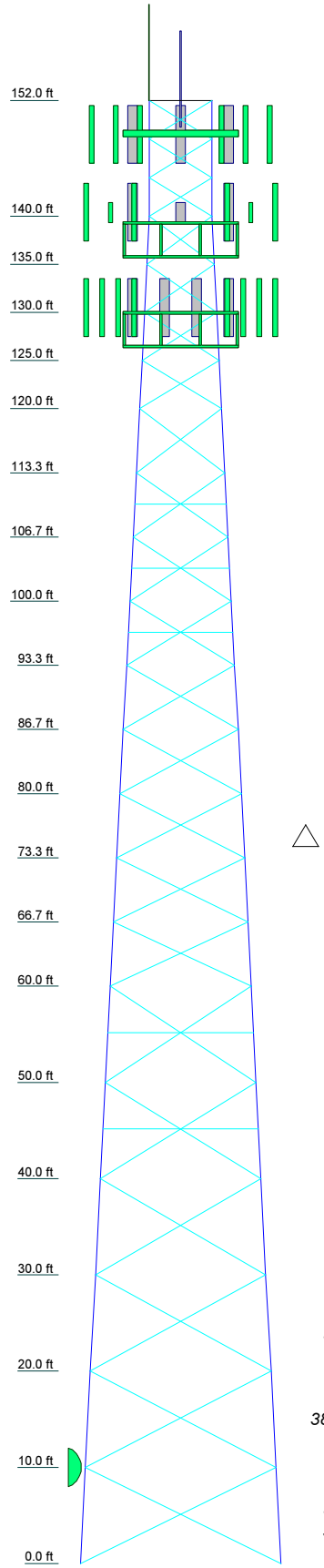


Figure 1 – Feed Line Layout

Section	T20	T19	T18	T17	T16	T15	T14	T13	T12	T11	T10	T9	T8	T7	T6	T5	T4	T3	T2	T1
Legs	E		D		ROHN 4 X-STR		C			B	A		ROHN 2.5 X-STR			ROHN 2.5 STD				ROHN 2 STD
Leg Grade	A572-50																			
Diagonals	L3 1/2x3 1/2x1/4		L3x3x3/8		L3x3x1/4		L2 1/2x2 1/2x1/4		H	L2x2x3/8			L2x2x1/8 w/ L2x2x1/8			G		F		L1 1/2x1 1/2x1/8
Diagonal Grade	A36																			
Top Girts	N.A.																			L2x2x1/8
Sec. Horizontals	N.A.				L2 1/2x2 1/2x3/16		14	13.3021	12.6042	11.9236	11.2431	10.5625	L2 1/2x2 1/2x3/16	9.89583	L2x2x1/4	9.22917	N.A.	8.0625	7.5625	7.0625	6.5625	6.52083
Face Width (ft)	20.7813	19.776	18.7708	17.7344	16.6979	15.6979	14.6979								8.5625						
# Panels @ (ft)				6 @ 10							9 @ 6.66667					4 @ 5				3 @ 4
Weight (K)	15.4	1.6	1.7	1.6	1.2	1.1	0.7	0.7	0.6	0.7	0.7	0.6	0.5	0.5	0.4	0.2	0.2	0.2	0.2	0.3



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
201-7	150	RFS ACU-A20-N RET	137.5
DB589	150	(2) RFS ACU-A20-N RET	137.5
(1) Pipe Mount MNT	150	(3) 13' T-Frames MNT	137.5
(2) 7770.00 w/ mount pipe	148.9	RFS APXVSPP18-C-A20 w/Mount Pipe	137.5
(2) 7770.00 w/ mount pipe	148.9	APXVTM14-C-I20 w/ Mount Pipe	137.5
(2) LGP21401 TMA	148.9	APXVTM14-C-I20 w/ Mount Pipe	137.5
(2) LGP21401 TMA	148.9	APXVTM14-C-I20 w/ Mount Pipe	137.5
(2) LGP21401 TMA	148.9	TD-RRH8x20-25	137.5
(2) LGP21901 Diplexer	148.9	TD-RRH8x20-25	137.5
(2) LGP21901 Diplexer	148.9	TD-RRH8x20-25	137.5
(2) LGP21901 Diplexer	148.9	LPA-80063-4CF w/ Mount Pipe	128.2
AM-X-CD-16-65-00T-RET w/ Mount Pipe	148.9	LPA-80063-4CF w/ Mount Pipe	128.2
AM-X-CD-16-65-00T-RET w/ Mount Pipe	148.9	LPA-80063-6CF w/ Mount Pipe	128.2
AM-X-CD-16-65-00T-RET w/ Mount Pipe	148.9	LPA-80063-6CF w/ Mount Pipe	128.2
(2) RRUS-11	148.9	742 213 w/ Mount Pipe	128.2
(2) RRUS-11	148.9	742 213 w/ Mount Pipe	128.2
(2) RRUS-11	148.9	742 213 w/ Mount Pipe	128.2
DC6-48-60-18-8F	148.9	RRH2X40-AWS	128.2
(3) T-Frames MNT	148.9	RRH2X40-AWS	128.2
(2) 7770.00 w/ mount pipe	148.9	RRH2X40-AWS	128.2
RFS APXVSPP18-C-A20 w/Mount Pipe	137.5	(2) FD9R6004/2C-3L Diplexer	128.2
RFS APXVSPP18-C-A20 w/Mount Pipe	137.5	(2) FD9R6004/2C-3L Diplexer	128.2
1900 MHz RRH	137.5	(2) FD9R6004/2C-3L Diplexer	128.2
1900 MHz RRH	137.5	DB-T1-6Z-8AB-0Z	128.2
1900 MHz RRH	137.5	(3) 12.5' T-Frames MNT	128.2
Alcatel Lucent 800 MHz RRH	137.5	BXA-70063-4CF w/ Mount Pipe	128.2
Alcatel Lucent 800 MHz RRH	137.5	BXA-70063-4CF w/ Mount Pipe	128.2
Alcatel Lucent 800 MHz RRH	137.5	BXA-171063-8BF w/ Mount Pipe	128.2
Alcatel Lucent 800 MHz Filter	137.5	BXA-171063-8BF w/ Mount Pipe	128.2
Alcatel Lucent 800 MHz Filter	137.5	BXA-70063-6CF w/ Mount Pipe	128.2
Alcatel Lucent 800 MHz Filter	137.5	BXA-171063-12BF w/ Mount Pipe	128.2
RFS ACU-A20-N RET	137.5	(2) LPA-80063-4CF w/ Mount Pipe	128.2
		DB26 GPS	83.9
		(1) Pipe Mount MNT	83.9
		(1) Pipe Mount MNT	10
		Channel Master 6922 Dish	10

SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	2.875 OD x 0.276 + 180 deg 4 OD x 0.318 (v4.02)	E	5.563 OD x 0.258 + 180 deg 6.625 OD x 0.432 (v4.02)
B	2.875 OD x 0.276 + L3 x 3 x 3/8 (v4.02)	F	L1 3/4x1 3/4x1/8
C	3.5 OD x 0.3 + 180 deg 4.5 OD x 0.337 (v4.02)	G	L1 3/4x1 3/4x1/4
D	4.5 OD x 0.337 + 180 deg 5.563 OD x 0.375 (v4.02)	H	L2 1/2x2 1/2x3/16

MATERIAL STRENGTH

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

MAX.
DOWN: 197 K
SHEAR: 22 K
UP
SH

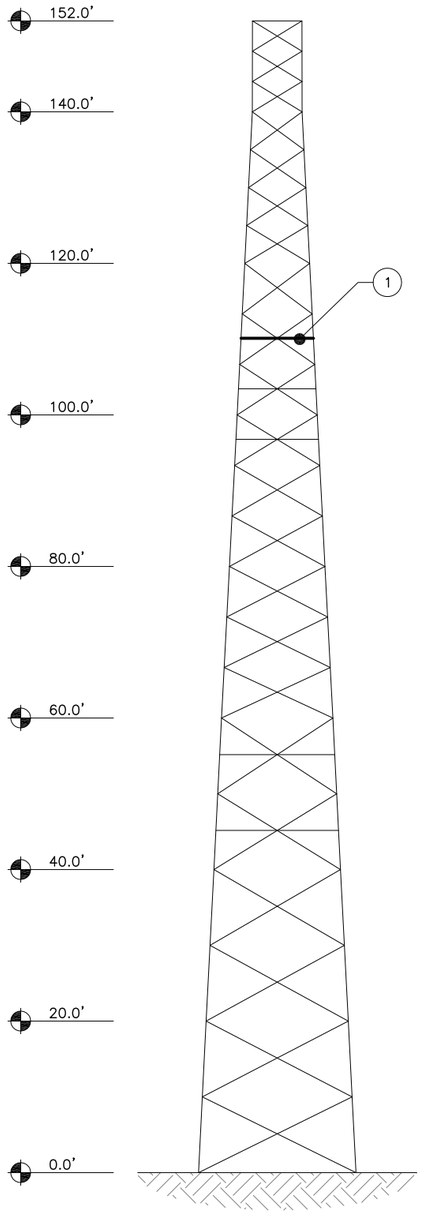
50 K
SHEAR 11 K
MOMENT 991 kip-ft
TORQUE 5 kip-ft
38 mph WIND - 0.7500 in ICE
AXIAL 28 K
SHEAR 37 K
MOMENT 3375 kip-ft
TORQUE 29 kip-ft
REACTIONS - 85 mph WIND

TOWER DESIGN NOTES

1. Tower is located in New Haven County, Connecticut.
2. Tower designed for a 85 mph basic wind in accordance with the TIA/EIA-222-F Standard.
3. Tower is also designed for a 38 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 50 mph wind.
5. TOWER RATING: 98.8%

FDH Engineering, Inc.
6521 Meridien Drive, Suite 107
Raleigh, North Carolina
Phone: 9197551012
FAX: 9197551031
Tower Analysis

Job: Guilford, CT13065-A-03			
Project: 14664X1400			
Client: SBA Network Services, Inc.	Drawn by: MBrennan	App'd:	
Code: TIA/EIA-222-F	Date: 05/29/14	Scale: NTS	
Path: C:\Users\MBrennan\Desktop\Current Projects\Guilford, CT\Analysis\Guilford, CT13065-A.eri		Dwg No. E-1	



TOWER ELEVATION
SCALE: NTS

- APPURTENANCES MAY INTERFERE WITH PROPOSED MODIFICATIONS.
- ALL MODIFICATIONS TO BE INSTALLED CONTINUOUSLY THROUGH EXISTING EQUIPMENT (UNLESS NOTED OTHERWISE). ALL EXISTING EQUIPMENT NOT TO BE DAMAGED OR TAKEN OFF AIR DURING INSTALLATION.
- ANTENNA GRAPHICS NOT SHOWN FOR CLARITY. SEE STRUCTURAL ANALYSIS REPORT FOR EXISTING ANTENNA LOADING.
- COAX GRAPHICS NOT SHOWN FOR CLARITY. SEE STRUCTURAL ANALYSIS REPORT FOR EXISTING COAX CONFIGURATION.

TOWER MODIFICATION SCHEDULE

NO.	TYPE OF MODIFICATION	BOTTOM ELEV. (FT)	TOP ELEV. (FT)
1	INSTALLATION OF NEW SUBHORIZONTALS. SEE S-2 & S-3 FOR DETAILS.	–	110.0±
TOWER FINISH: GALVANIZED			

PREPARED BY:
FDH
6521 MERIDIEN DRIVE
RALEIGH, NC 27616
PHONE: 919-755-1012
FAX: 919-755-1031
ENGINEERING INNOVATION

PREPARED FOR:
SBA
5900 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487
(800) 487-SITE

STATE OF CONNECTICUT
DENNIS D. ABEL
No. 23247
LICENSED
PROFESSIONAL ENGINEER

05/29/14
DENNIS D. ABEL, P.E.
CONNECTICUT LIC. NO. 23247

DRAWN BY:	BTK
CHECKED BY:	MTB
ENG APPV'D:	DDA
PROJECT NO:	14664X1400

SUBMITTALS

DATE	DESCRIPTION	REV
05/29/14	CONSTRUCTION	0

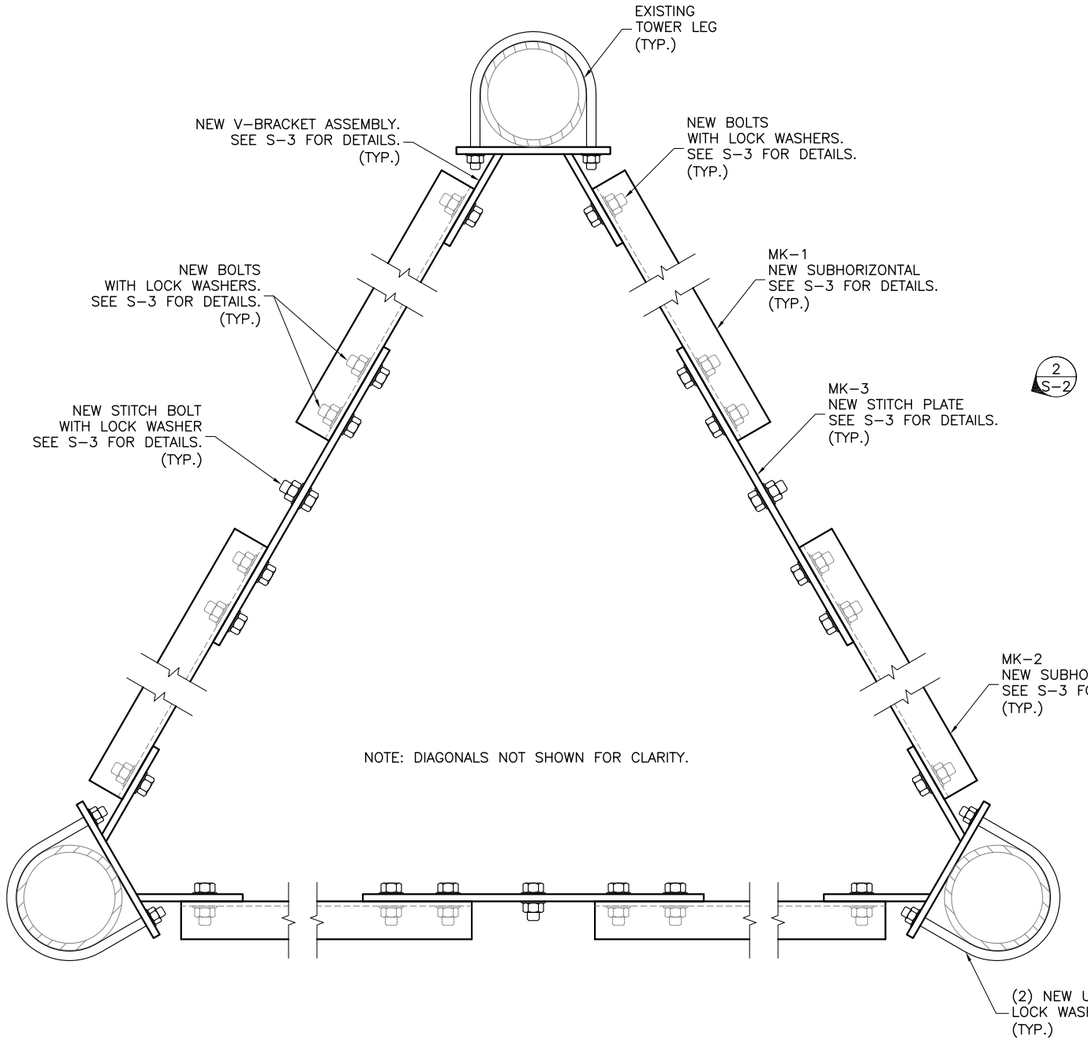
SITE NAME:
GUILFORD

SITE NUMBER:
CT13065-A-03

SITE ADDRESS:
331 KILLINGWORTH ROAD
GUILFORD, CT 06437

SHEET TITLE
MODIFICATION SCHEDULE

SHEET NUMBER
S-1

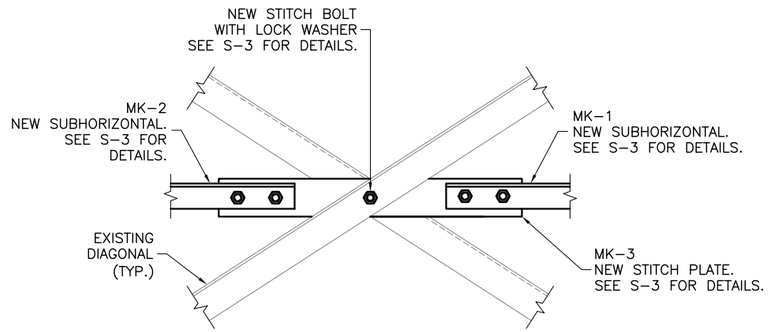


SUBHORIZONTAL LAYOUT
PLAN VIEW

1 / S-2 DETAIL
NTS

SUBHORIZONTAL REINFORCEMENT MATERIAL LIST

PART #	QTY.	LENGTH	DESCRIPTION
MK–1	3	SEE S–3 FOR DETAILS	SUBHORIZONTAL
MK–2	3	SEE S–3 FOR DETAILS	SUBHORIZONTAL
MK–3	3	SEE S–3 FOR DETAILS	STITCH PLATE
–	3	SEE S–3 FOR DETAILS	V–BRACKET ASSEMBLY
–	6	–	1/2"ø U–BOLTS W/ LOCK WASHERS
–	18	SEE S–3 FOR DETAILS	5/8"ø BOLTS W/ LOCK WASHERS
–	3	SEE S–3 FOR DETAILS	1/2"ø BOLTS W/ LOCK WASHERS
1 BAY REQUIRES SUBHORIZONTAL INSTALLATION			



STITCH PLATE ASSEMBLY
ELEVATION VIEW

2 / S-2 DETAIL
NTS

PREPARED BY:
FDH
6521 MERIDIEN DRIVE
RALEIGH, NC 27616
PHONE: 919-755-1012
FAX: 919-755-1031
ENGINEERING INNOVATION

PREPARED FOR:
SBA
5900 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487
(800) 487–SITE

STATE OF CONNECTICUT
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05/29/14
DENNIS D. ABEL, P.E.
CONNECTICUT LIC. NO. 23247

DRAWN BY:	BTK
CHECKED BY:	MTB
ENG APPV'D:	DDA
PROJECT NO:	14664X1400

SUBMITTALS

DATE	DESCRIPTION	REV
05/29/14	CONSTRUCTION	0

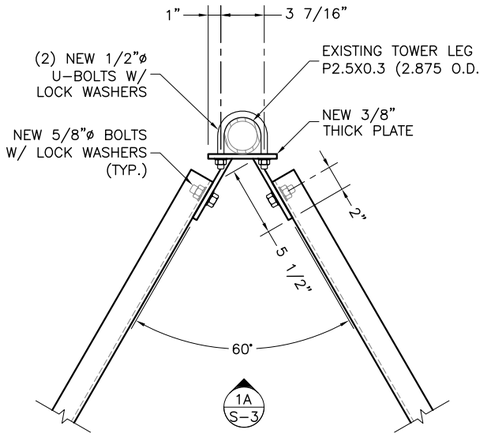
SITE NAME:
GUILFORD

SITE NUMBER:
CT13065-A-03

SITE ADDRESS:
331 KILLINGWORTH ROAD
GUILFORD, CT 06437

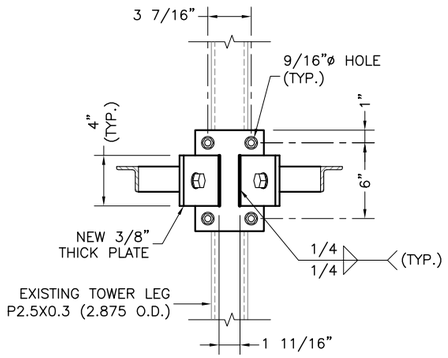
SHEET TITLE
SUBHORIZONTAL
INSTALLATION
DETAILS I

SHEET NUMBER
S-2



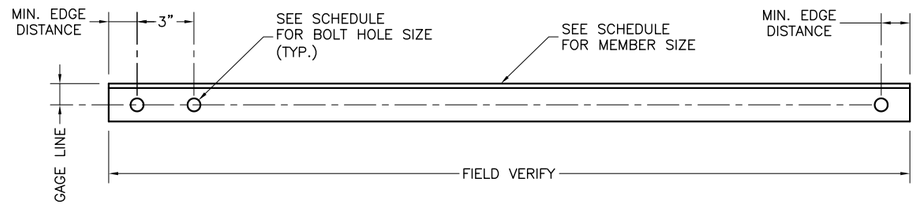
V-BRACKET ASSEMBLY "A"
PLAN VIEW

1 / S-3 — DETAIL
SCALE: 1" = 1'-0"



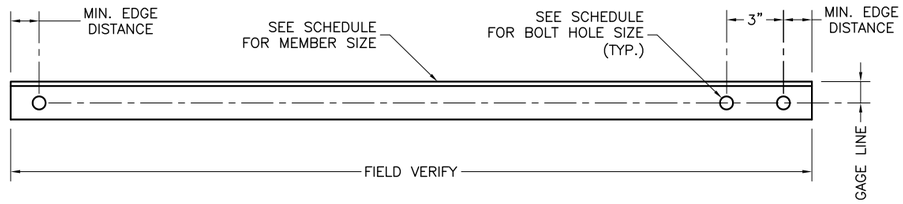
V-BRACKET ASSEMBLY "A"
ELEVATION VIEW

1A / S-3 — DETAIL
SCALE: 1" = 1'-0"



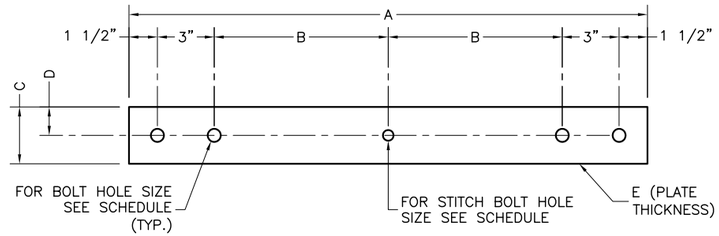
SUBHORIZONTAL LAYOUT
FRONT VIEW

MK-1 / S-3 — DETAIL
NTS



SUBHORIZONTAL LAYOUT
FRONT VIEW

MK-2 / S-3 — DETAIL
NTS



STITCH PLATE LAYOUT
FRONT VIEW

MK-3 / S-3 — DETAIL
NTS

SUBHORIZONTAL REINFORCEMENT INSTALLATION SCHEDULE

SUBHORIZONTAL BRACE ELEVATION	TOWER LEG SIZE	FACE WIDTH* (CENTER OF LEG TO CENTER OF LEG)	STITCH PLATE SPECIFICATIONS					BOLT HOLE SIZE (TYP.)	BOLT SIZE (TYP.)	STITCH BOLT HOLE SIZE (TYP.)	STITCH BOLT SIZE (TYP.)	MIN. EDGE DISTANCE**	SUBHORIZONTAL SIZE	GAGE LINE***	BOLT GRADE
			A	B	C	D	E								
110.0'±	P2.5X0.3 (2.875 O.D.)	9'-7"±	22"	6 1/2"	3"	1 1/2"	3/8"	11/16"ø	5/8"ø	9/16"ø	1/2"ø	1 1/4"	L2X2X1/4	1 1/8"	A325N

*FIELD VERIFY FACE WIDTH PRIOR TO FABRICATION. CONFIRM WITH ENGINEER OF RECORD.
**MINIMUM EDGE DISTANCE FROM CENTER OF STANDARD HOLE TO EDGE OF CONNECTED PART.
***DISTANCE FROM HEEL OF ANGLE TO CENTER OF BOLT HOLE.

PREPARED BY:
FDH ENGINEERING INNOVATION
6521 MERIDIEN DRIVE
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PHONE: 919-755-1012
FAX: 919-755-1031

PREPARED FOR:
SBA
5900 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487
(800) 487-SITE

STATE OF CONNECTICUT
DENNIS D. ABEL
No. 23247
LICENSED PROFESSIONAL ENGINEER
05/29/14
DENNIS D. ABEL, P.E.
CONNECTICUT LIC. NO. 23247

DRAWN BY:	BTK
CHECKED BY:	MTB
ENG APPV'D:	DDA
PROJECT NO:	14664X1400

SUBMITTALS

DATE	DESCRIPTION	REV
05/29/14	CONSTRUCTION	0

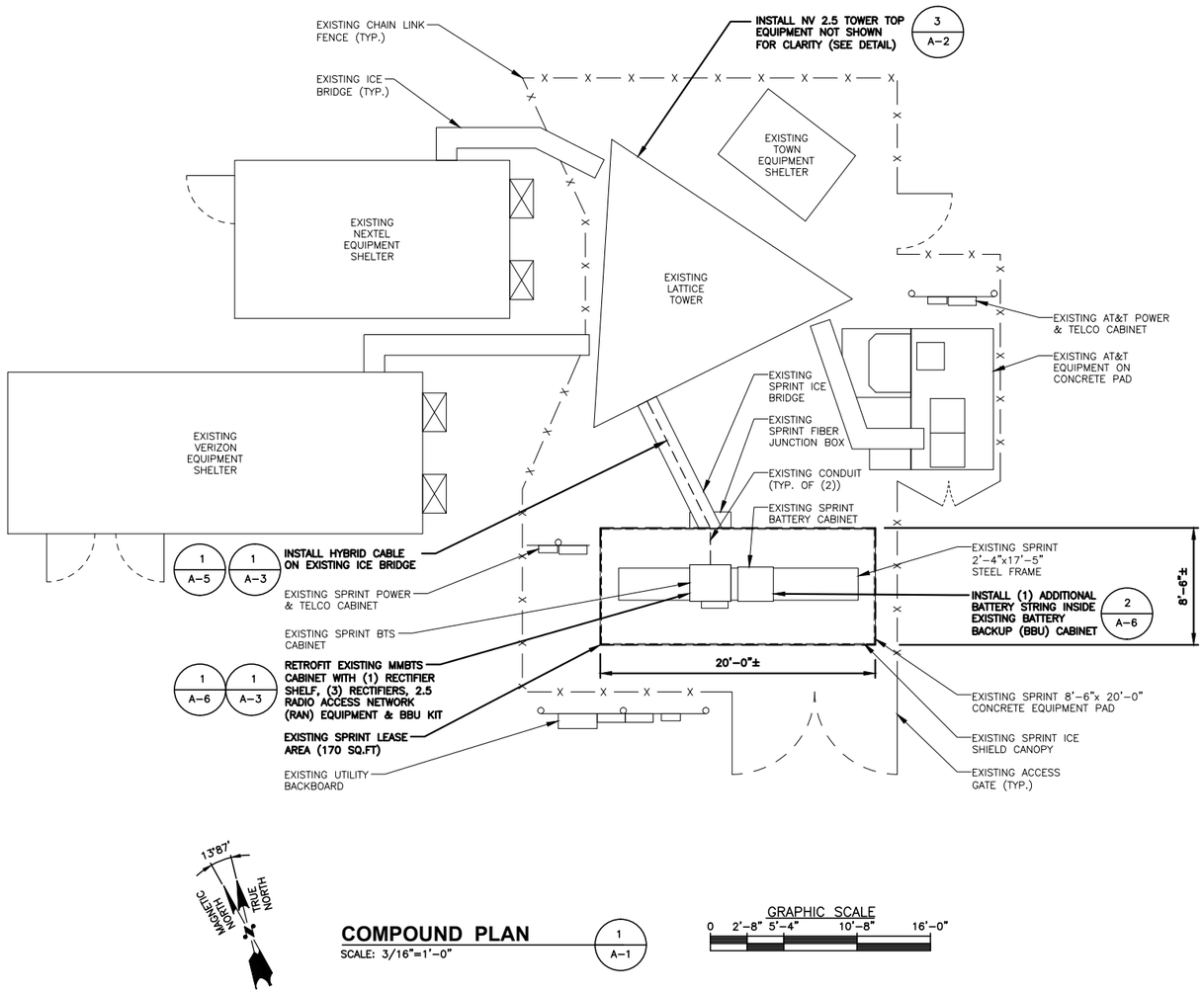
SITE NAME:
GUILFORD

SITE NUMBER:
CT13065-A-03

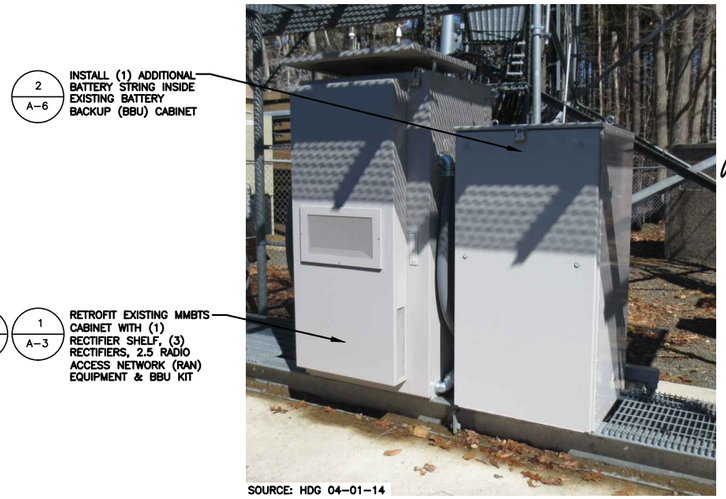
SITE ADDRESS:
331 KILLINGWORTH ROAD
GUILFORD, CT 06437

SHEET TITLE
SUBHORIZONTAL INSTALLATION DETAILS II

SHEET NUMBER
S-3



COMPOUND PLAN
1 / A-1
SCALE: 3/16"=1'-0"



SOURCE: HDG 04-01-14

RAN EQUIPMENT PHOTO DETAIL
2 / A-1
SCALE: N.T.S.

Sprint
1 INTERNATIONAL BLVD, SUITE 800
MAHWAH, NJ 07495
TEL: (800) 357-7641

SBA
SBA COMMUNICATIONS CORP.
33 BOSTON POST ROAD WEST, SUITE 320
MARLBOROUGH, MA 01752 TEL: (508) 251-0720

Hudson Design Group LLC
1600 OSGOOD STREET
BUILDING 20 NORTH, SUITE 3090
N. ANDOVER, MA 01845 TEL: (978) 557-5553
FAX: (978) 336-5586

STATE OF CONNECTICUT
DANIEL P. HAMM
No. 24178
LICENSED PROFESSIONAL ENGINEER
Daniel P. Hamm

CHECKED BY: KB

APPROVED BY: DPH

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
1	05/22/14	ISSUED FOR CONSTRUCTION	SF
0	05/05/14	ISSUED FOR CONSTRUCTION	SF

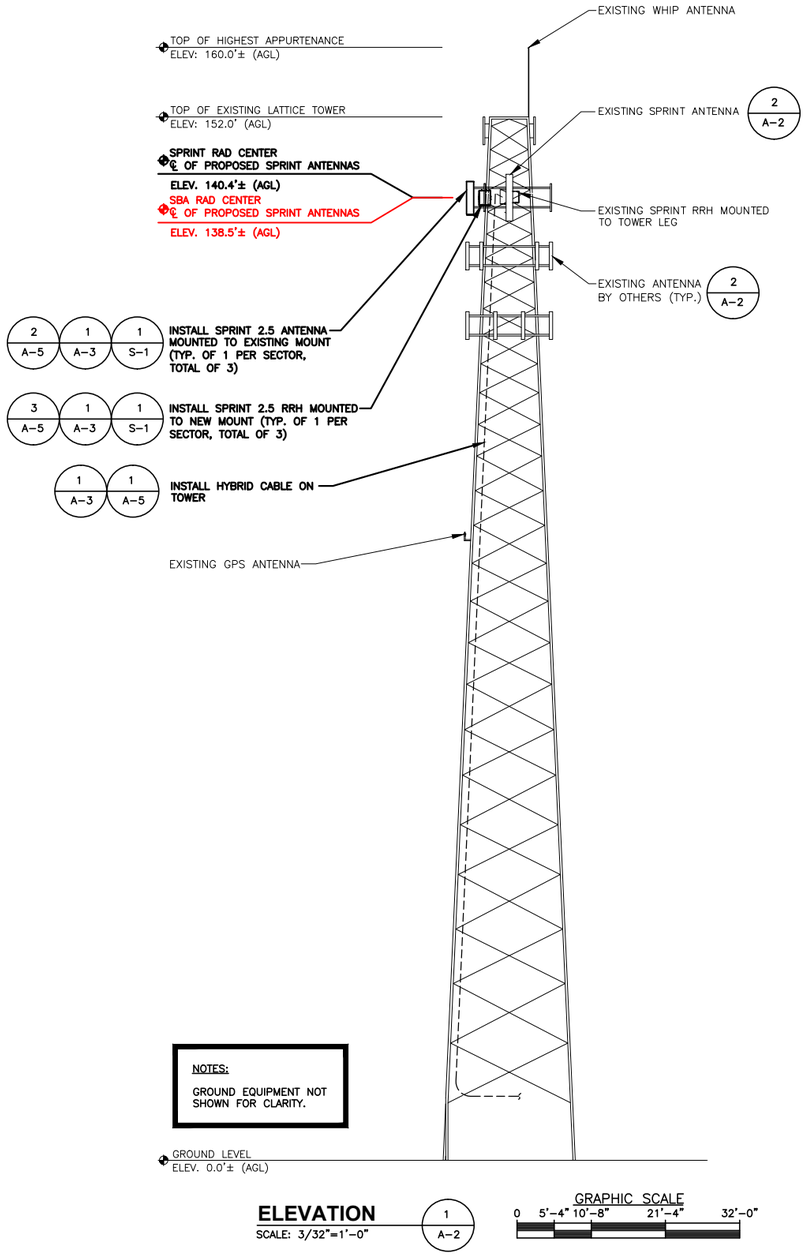
SITE NUMBER:
CT03XC068-A

SITE NAME:
NORTH GUILFORD

SITE ADDRESS:
331 KILLINGWORTH ROAD
GUILFORD, CT 06437

SHEET TITLE
COMPOUND PLAN

SHEET NUMBER
A-1



NOTES:
GROUND EQUIPMENT NOT SHOWN FOR CLARITY.

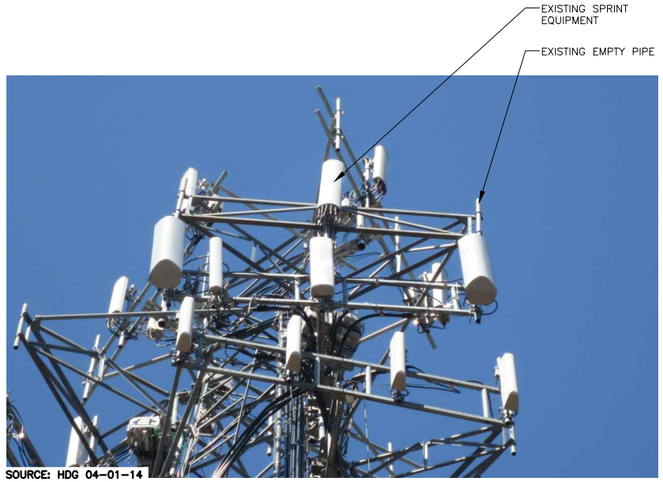
ELEVATION
1 A-2
SCALE: 3/32"=1'-0"

GRAPHIC SCALE
0 5'-4" 10'-8" 21'-4" 32'-0"

SPECIAL CONSTRUCTION NOTE:
SPRINT TOWER TOP WORK IS CONTINGENT ON THE FOLLOWING:
- COMPLETION OF A GLOBAL STRUCTURAL STABILITY ANALYSIS (PROVIDED BY TOWER OWNER).
- COMPLETION OF AN ANTENNA/RRH MOUNT STRUCTURAL ASSESSMENT (PROVIDED BY A&E VENDOR).
- GC SHALL FURNISH, INSTALL AND COMPLETE ALL REQUIRED STRUCTURAL MODIFICATIONS AS INDICATED IN BEFORE-MENTIONED ANALYSIS AND ASSESSMENT.
- SBA COMMUNICATIONS CORPORATION SHALL PROVIDE WRITTEN ACCEPTANCE/APPROVAL FOR THE COMPLETION OF ALL TOWER/FOUNDATION STRUCTURAL MODIFICATIONS INCLUDING (AS NECESSARY) CONTROLLED CONSTRUCTION INSPECTIONS, SHOP-DRAWING APPROVALS, MATERIALS TEST RESULTS, AND FINAL ENGINEER'S AFFIDAVIT.

NOTE:
SPRINT RAD CENTER SHOWN IN RED TEXT BASED ON SBA-PROVIDED COLLOCATION APPLICATION, EQUIPMENT DATABASE, AND STRUCTURAL ANALYSIS. THE SBA-PROVIDED ANTENNA RAD CENTER SHALL SUPERSEDE ANY CONFLICTING INFORMATION DERIVED FROM THE SPRINT NV 2.5 RFDS.

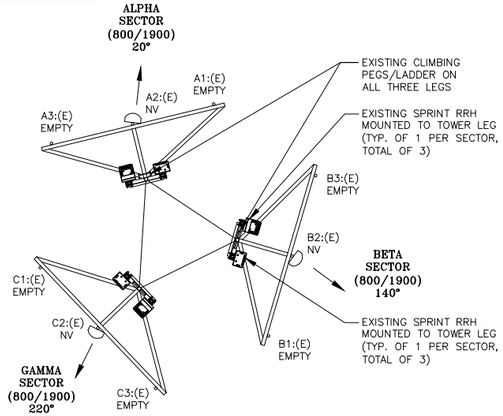
SPECIAL CONSTRUCTION NOTE:
THE SPRINT NETWORK VISION 2.5 GHz TOWER TOP WORK IS CONTINGENT UPON COMPLETION OF ALL REQUIRED STRUCTURAL MODIFICATIONS, ENGINEERING CONSTRUCTION CONTROL INSPECTIONS, FINAL ENGINEERING AFFIDAVIT, AND ACCEPTENCE/APPROVAL BY SBA COMMUNICATIONS CORP.

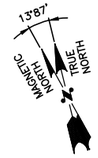


SOURCE: HDG 04-01-14

EXISTING PARTIAL ELEVATION PHOTO DETAIL
SCALE: N.T.S.

NOTE:
EXISTING AZIMUTHS FROM SPRINT SITE AUDIT DATED 08/28/13

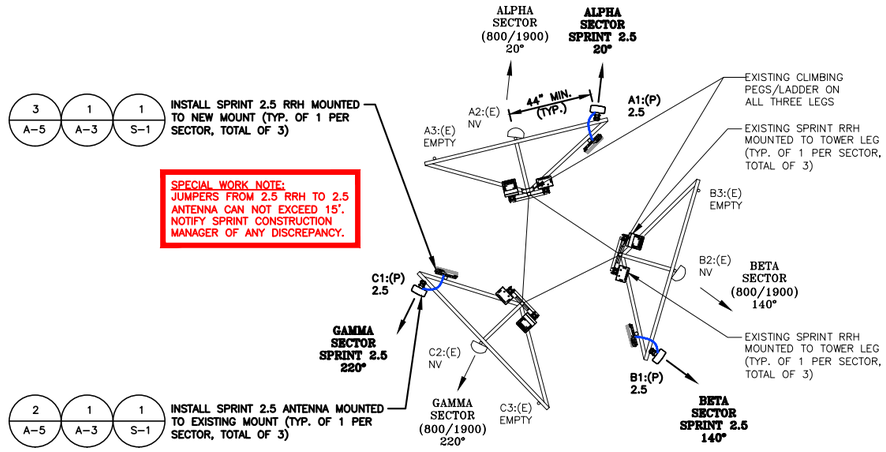




EXISTING ANTENNA PLAN
2 A-2
SCALE: N.T.S.

NOTES:
1) VERIFY EXISTING AZIMUTHS WITH RF ENGINEER PRIOR TO INSTALLATION
2) EXISTING RRH'S NOT SHOWN FOR CLARITY

ANTENNA STATUS LEGEND:
EMPTY – EMPTY PIPE
(E) – EXISTING
(P) – INSTALL
NV – SPRINT ANTENNA MODEL APXVSPP18-C-A20
2.5 – SPRINT ANTENNA



PROPOSED ANTENNA PLAN
3 A-2
SCALE: N.T.S.

Sprint
1 INTERNATIONAL BLVD, SUITE 800
MAHWAH, NJ 07495
TEL: (800) 357-7641

SBA
SBA COMMUNICATIONS CORP.
33 BOSTON POST ROAD WEST, SUITE 320
MARLBOROUGH, MA 01752 TEL: (508) 251-0720

Hudson Design Group LLC
1600 OSGOOD STREET
BUILDING 20 NORTH, SUITE 3090
N. ANDOVER, MA 01845 TEL: (978) 557-5553 FAX: (978) 336-5586

STATE OF CONNECTICUT
DANIEL P. HAMM
No. 24178
LICENSED PROFESSIONAL ENGINEER

CHECKED BY: KB

APPROVED BY: DPH

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
1	05/22/14	ISSUED FOR CONSTRUCTION	SF
0	05/05/14	ISSUED FOR CONSTRUCTION	SF

SITE NUMBER:
CT03XC068-A

SITE NAME:
NORTH GUILFORD

SITE ADDRESS:
331 KILLINGWORTH ROAD
GUILFORD, CT 06437

SHEET TITLE
ELEVATION AND ANTENNA PLANS

SHEET NUMBER
A-2