July 9, 2014

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

RE: Notice of Exempt Modification
71 Moxley Road
Montville, CT 06353
Sprint Site #: NV2.5_CT23XC400
N 41° 26' 06.76"
W -72° 7' 23.95"

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 71 Moxley Road, Montville, CT.

The 71 Moxley Road facility consists of a 190' GUYED Tower owned and operated by SBA Towers II, 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

71 Moxley Road, Montville, CT
Site number CT23XC400

Tower Owner: SBA Towers II LLC

Equipment Configuration: Guyed Tower

Current and/or approved:

- (3) RFS APXVSPP18-C-A20
- (3) ALU 1900 MHz RRHs
- (3) ALU 800 MHz RRHs
- (3) ALU 800 MHz External Notch Filters
- (4) RFS ACU-A20-N RETs
- (3) 1-1/4" Feed lines

Planned Modifications:

- (3) RFS APXVSPP18-C-A20
- (3) RFS APXVTM14-C-I20
- (3) ALU TD-RRH8x20-25 RRHs
- (3) ALU 1900 MHz RRHs
- (3) ALU 800 MHz RRHs
- (3) ALU 800 MHz External Notch Filters
- (4) RFS ACU-A20-N RETs
- (4) 1-1/4" Feed lines

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 2.06% of the allowable FCC established general public limit. The anticipated composite MPE value for this site assuming all carriers present is 44.93% of the allowable FCC established general public limit sampled at the ground level.

Site Composite MPE %	
Carrier	MPE %
Sprint	2.06%
Verizon Wireless	18.87%
Nextel	1.67%
T-Mobile	1.48%
MetroPCS	1.56%
AT&T	19.29%
Total Site MPE %	44.93%

July 9, 2014

Mayor Ronald K. McDaniel
Montville Town Hall, 2nd Floor
310 Norwich-New London Tpke.
Uncasville, CT 06382

RE: Telecommunications Facility @ 71 Moxley Road, Montville, CT 06353

Dear Mayor McDaniel,

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

July 9, 2014

Ernest and Walter Wainwright, Jr.
149 Great Neck Road
Waterford, CT 06385

RE: Telecommunications Facility @ 71 Moxley Road, Montville, CT 06353

Dear Mssrs. Wainright,

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
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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: CT23XC400

Montville S.

71 Moxley Road
Montville, CT 06353

June 23, 2014

EBI Project Number: 62143563

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

EBI Consulting
environmental | engineering | due diligence

June 23, 2014

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

Re: Radio Frequency Maximum Permissible Exposure (MPE) Assessment for Site:
CT23XC400 - Montville S.

Site Total: 44.93% - MPE% in full compliance

EBI Consulting was directed to analyze the proposed upgrades to the existing Sprint facility located at 71 Moxley Road, Montville, 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 71 Moxley Road, Montville, CT, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. All calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was focused at the base of the tower. For this report the sample point is the top of a 6 foot person standing at the base of the tower.

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

1) 2 channels in the 1900 MHz Band were considered for each sector of the proposed installation.
2) 1 channel in the 800 MHz Band was considered for each sector of the proposed installation
3) 2 channels in the 2500 MHz Band were considered for each sector of the proposed installation.
4) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
5) For the following calculations the sample point was the top of a six foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufactures supplied specifications minus 10 dB was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

6) The antennas used in this modeling are the RFS APXVSPP18-C-A20 and the RFS APXVTM14-C-I20. This is based on feedback from the carrier with regards to anticipated antenna selection. The RFS APXVSPP18-C-A20 has a 15.9 dBd gain value at its main lobe at 1900 MHz and 13.4 dBd at its main lobe for 850 MHz. The RFS APXVTM14-C-I20 has a 15.9 dBd gain value at its main lobe at 2500 MHz. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
7) The antenna mounting height centerline for the proposed antennas is **160 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	CT23XC400 - Montville S.
Site Addresss	71 Moxley Road, Montville, CT, 06353
Site Type	Guyed Tower

Sector 1

Antenna Number	Antenna Make	Antenna Model	Radio Type	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain (10 db reduction)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss (dB)	ERP	Power Density Percentage
1a	RFS	APXVSPP18-C-A20	RRH	1900 MHz	CDMA / LTE	20	2	40	5.9	160	154	1/2 "	0.5	0	138.69	0.21%
1a	RFS	APXVSPP18-C-A20	RRH	850 MHz	CDMA / LTE	20	1	20	3.4	160	154	1/2 "	0.5	0	39.00	0.10%
1B	RFS	APXVTMM14-C-120	RRH	2500 MHz	CDMA / LTE	20	2	40	5.9	160	154	1/2 "	0.5	0	138.69	0.37%
														Sector total Power Density Value:		0.69%

Sector 2

Antenna Number	Antenna Make	Antenna Model	Radio Type	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain (10 db reduction)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss (dB)	ERP	Power Density Percentage
2a	RFS	APXVSPP18-C-A20	RRH	1900 MHz	CDMA / LTE	20	2	40	5.9	160	154	1/2 "	0.5	0	138.69	0.21%
2a	RFS	APXVSPP18-C-A20	RRH	850 MHz	CDMA / LTE	20	1	20	3.4	160	154	1/2 "	0.5	0	39.00	0.10%
2B	RFS	APXVTMM14-C-120	RRH	2500 MHz	CDMA / LTE	20	2	40	5.9	160	154	1/2 "	0.5	0	138.69	0.37%
														Sector total Power Density Value:		0.69%

Sector 3

Antenna Number	Antenna Make	Antenna Model	Radio Type	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain (10 db reduction)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss (dB)	ERP	Power Density Percentage
3a	RFS	APXVSPP18-C-A20	RRH	1900 MHz	CDMA / LTE	20	2	40	5.9	160	154	1/2 "	0.5	0	138.69	0.21%
3a	RFS	APXVSPP18-C-A20	RRH	850 MHz	CDMA / LTE	20	1	20	3.4	160	154	1/2 "	0.5	0	39.00	0.10%
3B	RFS	APXVTMM14-C-120	RRH	2500 MHz	CDMA / LTE	20	2	40	5.9	160	154	1/2 "	0.5	0	138.69	0.37%
														Sector total Power Density Value:		0.69%

Site Composite MPE %	
Carrier	MPE %
Sprint	2.06%
Verizon Wireless	18.87%
Nextel	1.67%
T-Mobile	1.48%
MetroPCS	1.56%
AT&T	19.29%
Total Site MPE %	**44.93%**

EBI Consulting
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Summary

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

The anticipated Maximum Composite contributions from the Sprint facility are **2.06% (0.69% from sector 1, 0.69% from sector 2 and 0.69% from sector 3)** of the allowable FCC established general public limit considering all three sectors simultaneously sampled at the ground level.

The anticipated composite MPE value for this site assuming all carriers present is **44.93%** 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.

190' Guyed Tower

SBA Site Name: Montville 3
SBA Site ID: CT10016-A-03
Sprint Site ID: CT23XC400

FDH Project Number 1465RU1400

Analysis Results

Tower Components	99.4%	Sufficient
Foundation	52.5%	Sufficient

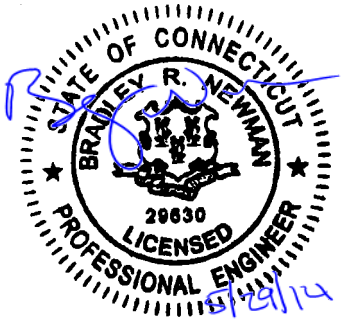
Prepared By:

Christopher B. Stryffeler, EI
Project Engineer

Reviewed By:

Bradley Newman, PE
Senior Project Engineer
CT License No. 29630

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



May 29, 2014

Prepared pursuant to ANSI/TIA-222-G Structural Standard for Antenna Supporting Structures and Antennas and the 2005 Connecticut 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 guyed tower located in Uncasville, CT to determine whether the tower is structurally adequate to support both the existing and proposed loads pursuant to the *Structural Standard for Antenna Supporting Structures and Antennas, ANSI/TIA-222-G* and the *2005 Connecticut Building Code (CBC).* Information pertaining to the existing/proposed antenna loading, current tower geometry, the member sizes, geotechnical data, and foundation dimensions was obtained from:

- Rohn, Inc. (Eng. File No. 37183AE001) original design drawings dated April 21, 1998
- FDH, Inc. (Project No. 07-0319T) TIA Inspection Report dated April 13, 2007
- FDH Engineering, Inc. (Project No. 11-02193E G1) Geotechnical Evaluation of Subsurface Conditions dated August 10, 2011
- FDH Engineering, Inc. (Project No. 1465RU1400) Modification Drawings for a 190' Guyed Tower dated May 29, 2014
- SBA Network Services, Inc.

The *basic design wind speed* per the *ANSI/TIA-222-G* standard and the *2005 CBC* is 120 mph without ice and 50 mph with 3/4" radial ice. Ice is considered to increase in thickness with height. Furthermore, this structure was analyzed as a Class II structure in Exposure Category B, Topographical Factor of 1, and Spectral Response Acceleration of S_S = 0.234 and S_1 = 0.095.

Note: Per Section 2.7.3 of the *ANSI/TIA-222-G* standard, the seismic/earthquake loading effects can be ignored if spectral response acceleration at short periods (S_S) is less than or equal to 1.00. The tower's location mandates a design S_S of less than 1.00, thus seismic loading was not considered as part of the analysis of this structure.

Conclusions

With the existing and proposed loading from Sprint in place at 160 ft, the tower meets the requirements of the *ANSI/TIA-222-G* standard and the *2005 CBC* provided the **Recommendations** listed below are satisfied. Furthermore, given the dimensions of the existing foundations (see Rohn, Inc. Eng. File No. 37183AE001) and utilizing the existing geotechnical data (see FDH Engineering, Inc. Project No. 11-02193E 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 *ANSI/TIA-222-G* standard and the *2005 CBC* are met with the existing and proposed loading in place, we have the following recommendations:

1. The feed lines should be installed as shown in **Figure 1**.
2. RRU/RRH Stipulation: The equipment may be installed in any arrangement determined by the client.
3. The modifications listed in FDH Engineering, Inc. Project No. 1465RU1400 Modification Drawings for a 190' Guyed Tower dated May 29, 2014 must be completed as specified 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	Feed Lines	Carrier	Mount Elevation (ft)	Mount Type
183	(9) Allgon 7130.16.33.00	(9) 1-5/8"	Nextel[1]	183	(3) 12' T-Frames
175	(6) Kathrein 800 10504 (6) Kathrein 860-10118 RETs	(12) 1-5/8" (1) 3/8"	Metro PCS	175	(3) T-Frames (Andrew P/N QT-SF10-2-72)
160	(3) RFS APXVSPP18-C-A20 (3) ALU 1900 MHz RRHs (3) ALU 800 MHz RRHs (3) ALU 800 MHz External Notch Filters (4) RFS ACU-A20-N RETs	(3) 1-1/4"	Sprint	159.5	(3) 15.5' T-Frames
150.5	(3) Ericsson AIR 21 B2A/B4P (3) Ericsson AIR 21 B4A/B2P (3) Ericsson KRY 112 144/1 TMAs	(12) 1-5/8" (1) 1-5/8" Fiber	T-Mobile	150.5	(3) 15' T-Frames
141.5	(3) Antel BXA-70063/6CF (6) Rymsa AT-41-645TX (3) Rymsa MGD5-800T2 (6) RFS FD9R6004/2C-3L Diplexers	(12) 1-5/8"	Verizon	141.5	(3) 13.5' T-Frames
130	(3) Powerwave 7770 (1) KMW AM-X-CD-16-65-00T (1) KMW AM-X-CD-14-65-00T (1) Andrew SBNH 1D6565C (6) Powerwave LGP21401 TMAs (6) Ericsson RRUS-11 RRUs (1) Raycap DC6-48-60-18-8F Surge Arrestor	(12) 1-1/4" (2) DC Power (1) Fiber	AT&T	130	(3) 12' T-Frames
76.5	(1) GPS (7.5" x 3")	(1) 1/2'	Verizon	76.5	(1) 38" Standoff

1. Nextel to remove all existing loading prior to the Sprint installation. This loading was not considered in this analysis.

Proposed Loading:

Antenna Elevation (ft)	Description	Feed Lines	Carrier	Mount Elevation (ft)	Mount Type
160	(3) RFS APXVSPP18-C-A20 (3) RFS APXVTM14-C-I20 (3) ALU TD-RRH8x20-25 RRHs (3) ALU 1900 MHz RRHs (3) ALU 800 MHz RRHs (3) ALU 800 MHz External Notch Filters (4) RFS ACU-A20-N RETs	(4) 1-1/4"	Sprint	159.5	(3) 15.5' T-Frames

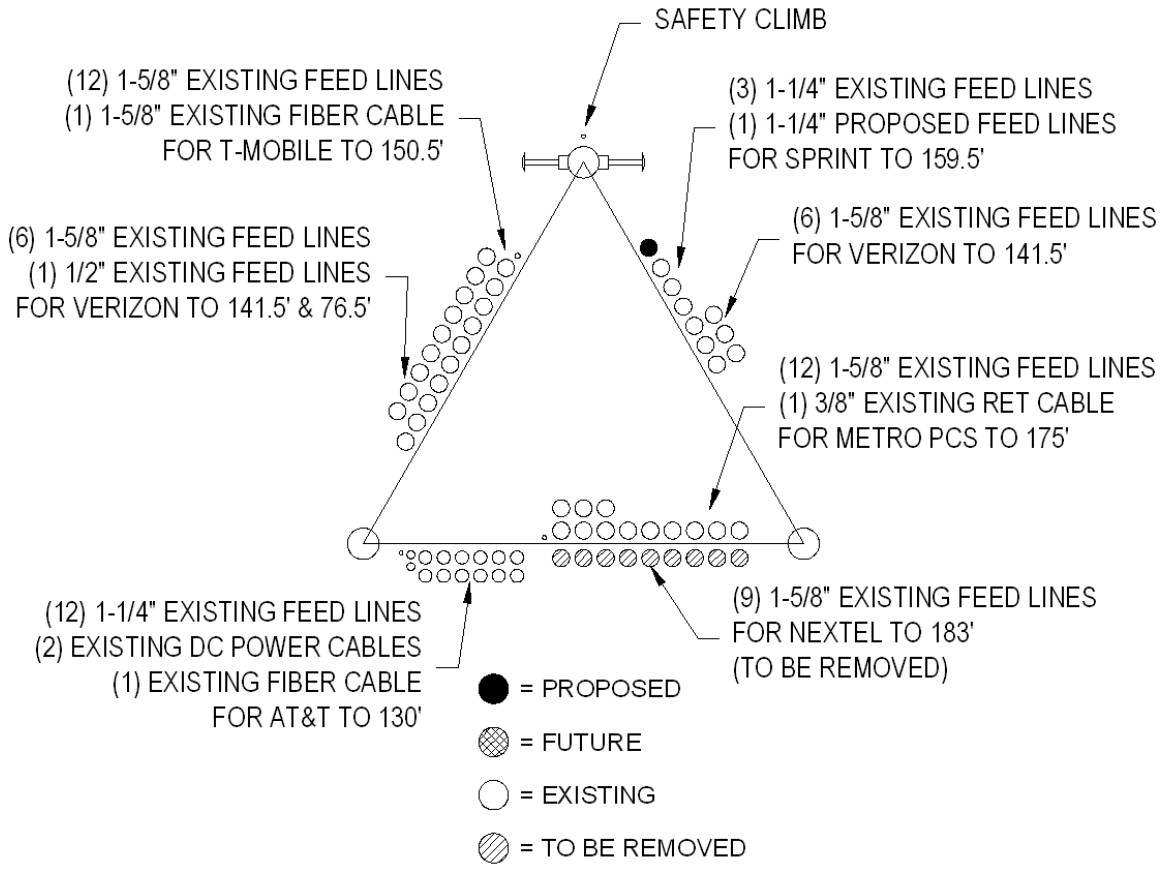


Figure 1 – Feed Line Layout

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 [Assumed]
Bracing	36 ksi [Assumed]

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. *Note: Capacities up to 100% are considered acceptable.* **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	190 - 170	Leg	ROHN 3 EH	11.6	Pass
		Diagonal	L2x2x1/4	11.1 25.3 (b)	Pass
		Top Girt	L2x2x1/4	0.3	Pass
		Bottom Girt	L2x2x1/4	6.1	Pass
T2	170 - 150	Leg	ROHN 3 EH	68.3	Pass
		Diagonal	L2x2x1/4	33.4 76.4 (b)	Pass
		Top Girt	L2x2x1/4	13.3	Pass
		Bottom Girt	L2x2x1/4	9.0	Pass
		Guy A@167.227	7/8	47.5	Pass
		Guy B@167.227	7/8	47.7	Pass
		Guy C@167.227	7/8	47.7	Pass
		Torque Arm Top@167.227	C15x40	43.9	Pass
T3	150 - 147.227	Leg	2.875 OD x 0.276 + 180 deg 3.5 OD x 0.3 (v4.02)	66.7	Pass
		Diagonal	ROHN TS1.5x16 ga	47.1 49.0 (b)	Pass
		Top Girt	ROHN TS1.5x16 ga	1.8	Pass
T4	147.227 - 144.818	Leg	2.875 OD x 0.276 + 180 deg 3.5 OD x 0.3 (v4.02)	61.7	Pass
		Diagonal	ROHN TS1.5x16 ga	34.7 42.7 (b)	Pass
T5	144.818 - 142.409	Leg	2.875 OD x 0.276 + 180 deg 3.5 OD x 0.3 (v4.02)	63.8	Pass
		Diagonal	ROHN TS1.5x16 ga	33.8 37.8 (b)	Pass
T6	142.409 - 140	Leg	2.875 OD x 0.276 + 180 deg 3.5 OD x 0.3 (v4.02)	65.6	Pass

Section No.	Elevation (ft)	Component Type	Size	% Capacity	Pass Fail
		Diagonal	ROHN TS1.5x16 ga	15.8 18.3 (b)	Pass
T7	140 - 137.591	Leg	2.875 OD x 0.276 + 180 deg 3.5 OD x 0.3 (v4.02)	65.3	Pass
		Diagonal	ROHN TS1.5x16 ga	14.9 17.5 (b)	Pass
T8	137.591 - 135.182	Leg	2.875 OD x 0.276 + 180 deg 3.5 OD x 0.3 (v4.02)	64.4	Pass
		Diagonal	ROHN TS1.5x16 ga	18.3 19.6 (b)	Pass
T9	135.182 - 132.773	Leg	2.875 OD x 0.276 + 180 deg 3.5 OD x 0.3 (v4.02)	63.4	Pass
		Diagonal	ROHN TS1.5x16 ga	20.5 26.2 (b)	Pass
T10	132.773 - 130	Leg	2.875 OD x 0.276 + 180 deg 3.5 OD x 0.3 (v4.02)	69.5	Pass
		Diagonal	ROHN TS1.5x16 ga	35.2	Pass
		Bottom Girt	ROHN TS1.5x16 ga	3.4	Pass
T11	130 - 110	Leg	ROHN 2.5 X-STR	99.4	Pass
		Diagonal	ROHN TS1.5x11 ga	57.4 62.6 (b)	Pass
		Top Girt	ROHN TS1.5x11 ga	11.4	Pass
		Bottom Girt	ROHN TS1.5x11 ga	7.7	Pass
T12	110 - 90	Leg	ROHN 3 EH	73.9	Pass
		Diagonal	ROHN TS1.5x11 ga	82.9 90.8 (b)	Pass
		Top Girt	ROHN TS1.5x11 ga	9.4	Pass
		Bottom Girt	ROHN TS1.5x11 ga	13.8	Pass
		Guy A@92.7734	5/8	79.0	Pass
		Guy B@92.7734	5/8	79.2	Pass
		Guy C@92.7734	5/8	79.1	Pass
		Torque Arm Top@92.7734	C15x40	29.4	Pass
T13	90 - 87.2266	Leg	ROHN 3 EH	68.7	Pass
		Diagonal	L2x2x1/4	26.7 78.1 (b)	Pass
		Top Girt	ROHN TS1.5x16 ga	8.8	Pass
T14	87.2266 - 84.8177	Leg	ROHN 3 EH	59.3	Pass
		Diagonal	ROHN TS1.5x16 ga	61.7 81.4 (b)	Pass
T15	84.8177 - 82.4089	Leg	ROHN 3 EH	54.1	Pass
		Diagonal	ROHN TS1.5x16 ga	73.1 84.8 (b)	Pass
T16	82.4089 - 80	Leg	ROHN 3 EH	49.2	Pass
		Diagonal	ROHN TS1.5x16 ga	66.9 80.5 (b)	Pass
T17	80 - 77.5911	Leg	ROHN 3 EH	44.6	Pass
		Diagonal	ROHN TS1.5x16 ga	63.3 76.1 (b)	Pass
T18	77.5911 - 75.1823	Leg	ROHN 3 EH	41.2	Pass
		Diagonal	ROHN TS1.5x16 ga	59.9 70.7 (b)	Pass
T19	75.1823 - 72.7734	Leg	ROHN 3 EH	40.9	Pass
		Diagonal	ROHN TS1.5x16 ga	52.1 67.5 (b)	Pass
T20	72.7734 - 70	Leg	ROHN 3 EH	40.8	Pass
		Diagonal	ROHN TS1.5x16 ga	66.9	Pass

Section No.	Elevation (ft)	Component Type	Size	% Capacity	Pass Fail
				67.2 (b)	
		Bottom Girt	ROHN TS1.5x16 ga	9.9	Pass
T21	70 - 50	Leg	ROHN 3 EH	65.4	Pass
		Diagonal	ROHN TS1.5x11 ga	55.3 60.4 (b)	Pass
		Top Girt	ROHN TS1.5x11 ga	16.3	Pass
		Bottom Girt	ROHN TS1.5x11 ga	4.7	Pass
T22	50 - 35	Leg	ROHN 3 EH	68.1	Pass
		Diagonal	ROHN TS1.5x16 ga	36.6	Pass
		Top Girt	ROHN TS1.5x16 ga	5.2	Pass
		Bottom Girt	ROHN TS1.5x16 ga	3.2	Pass
T23	35 - 20	Leg	ROHN 3 EH	68.0	Pass
		Diagonal	ROHN TS1.5x16 ga	60.1 64.8 (b)	Pass
		Top Girt	ROHN TS1.5x16 ga	4.6	Pass
		Bottom Girt	ROHN TS1.5x16 ga	6.8	Pass
T24	20 - 5	Leg	ROHN 3 EH	60.3	Pass
		Diagonal	ROHN TS1.5x11 ga	44.8 48.9 (b)	Pass
		Top Girt	ROHN TS1.5x11 ga	5.6	Pass
		Bottom Girt	ROHN TS1.5x11 ga	20.3	Pass
T25	5 - 0	Leg	ROHN 3 EH	48.6	Pass
		Horizontal	L3x3x1/4	19.7	Pass

Table 4 - Maximum Base Reactions

	Current Analysis* *(ANSI/TIA-222-G)*		Original Design *(TIA/EIA-222-F)*	
Reaction	Horizontal	Vertical	Horizontal	Vertical
Tower Base	5 k	178 k	---	173 k
Anchor	63 k	53 k	66 k	59 k

* Foundation determined to be 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.

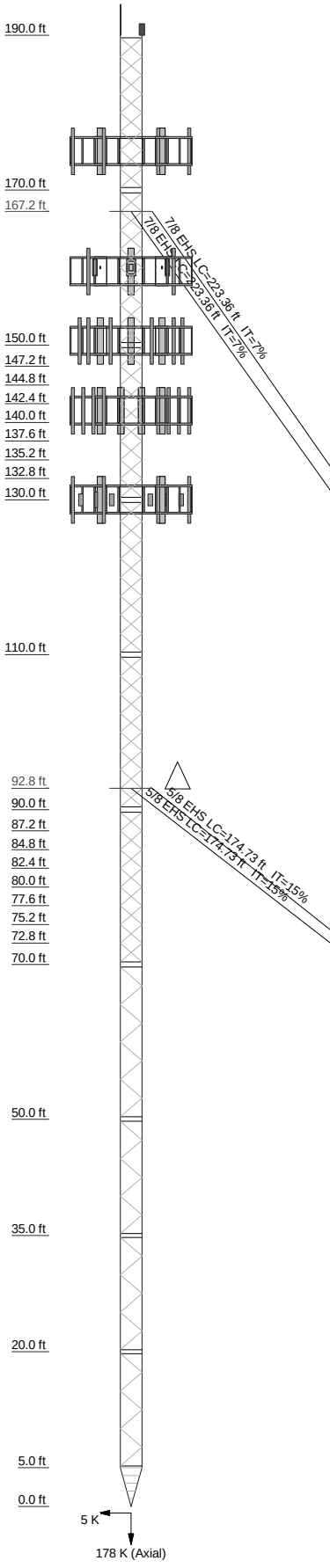
LIMITATIONS

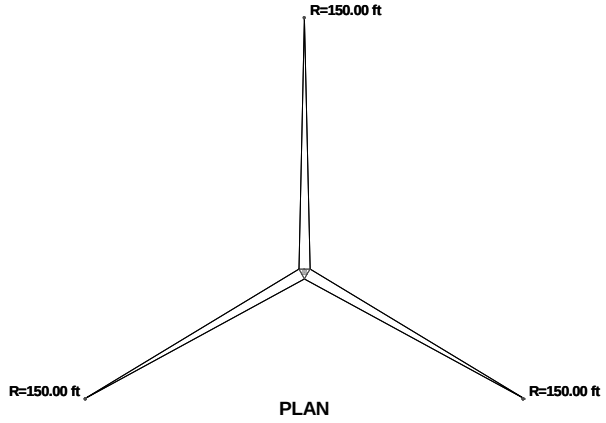
All opinions and conclusions are considered accurate to a reasonable degree of engineering certainty based upon the evidence available at the time of this report. All opinions and conclusions are subject to revision based upon receipt of new or additional/updated information. All services are provided 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

Section	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14	T15	T16	T17	T18	T19	T20	T21	T22	T23	T24	T25
Legs	ROHN 3 EH		A								ROHN 2.5 X-STR										ROHN 3 EH				
Leg Grade	A572-50																								
Diagonals	L2x2x1/4		ROHN TS1.5x16 ga		N.A.		N.A.			D	ROHN TS1.5x11 ga		B	ROHN TS1.5x16 ga		N.A.			D	ROHN TS1.5x11 ga		ROHN TS1.5x16 ga		C	N.A.
Diagonal Grade	A36																								N.A.
Top Girts	L2x2x1/4		ROHN TS1.5x16 ga		N.A.		N.A.			D	ROHN TS1.5x11 ga			N.A.						D	ROHN TS1.5x11 ga		ROHN TS1.5x16 ga		C	N.A.
Bottom Girts	L2x2x1/4		ROHN TS1.5x16 ga		N.A.		N.A.			D	ROHN TS1.5x11 ga			N.A.						D	ROHN TS1.5x11 ga		ROHN TS1.5x16 ga		C	N.A.
Horizontals											N.A.														E
Face Width (ft)	3.41667																								
# Panels @ (ft)	74 @ 2.40885																								5 @ 1
Weight (K)	13	21	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.9	1.8	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.8	0.5	0.5	0.6	0.3

10.9





PLAN

SYMBOL LIST

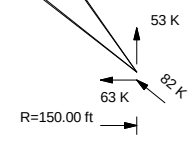
MARK	SIZE	MARK	SIZE
A	2.875 OD x 0.276 + 180 deg 3.5 OD x 0.3 (v4.02)	D	ROHN TS1.5x16 ga
B	L2x2x1/4	E	L3x3x1/4
C	ROHN TS1.5x11 ga		

MATERIAL STRENGTH

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

TOWER DESIGN NOTES

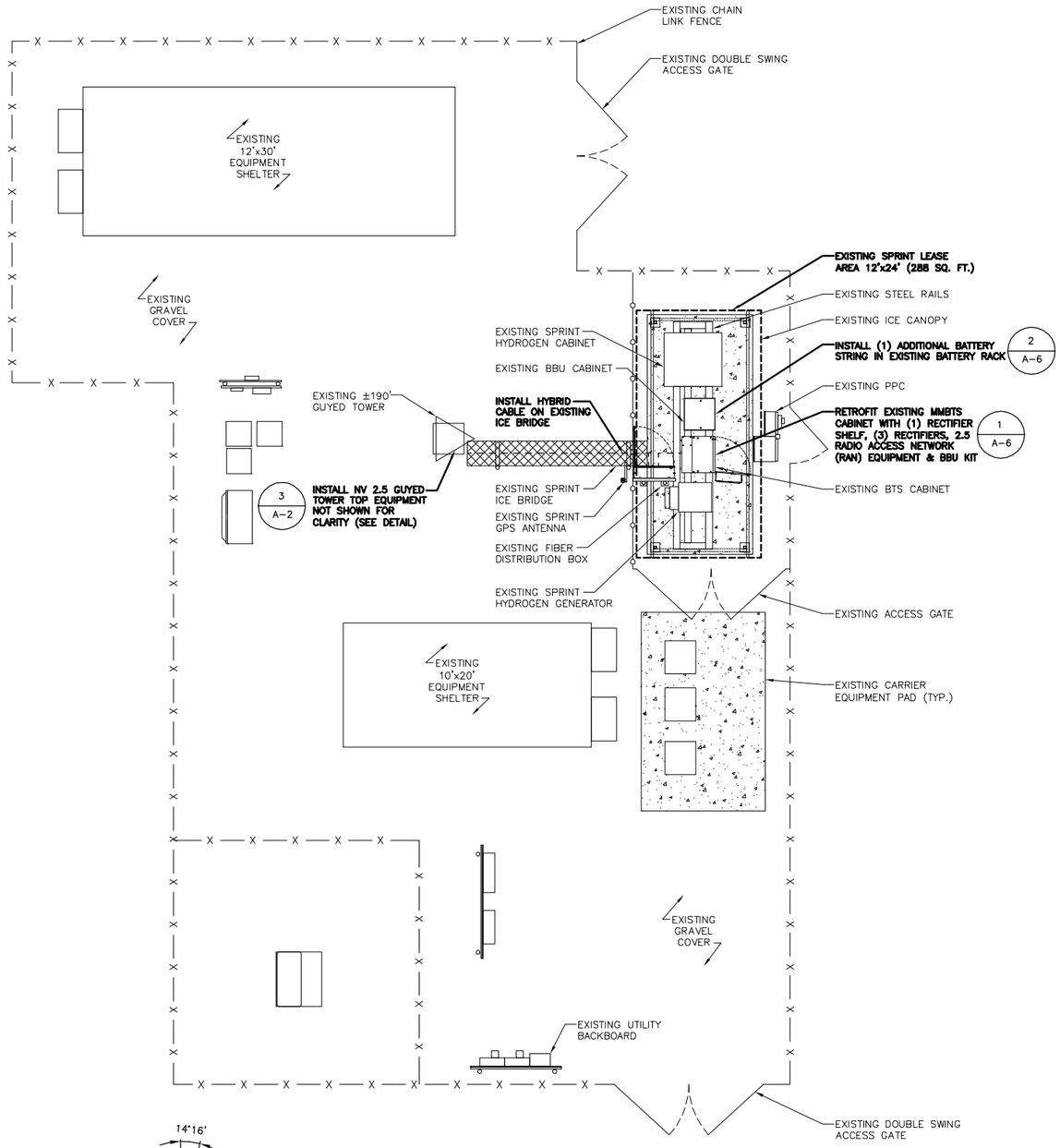
1. Tower is located in New London County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-G Standard.
3. Tower designed for a 120 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 50 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Structure Class II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 99.4%



ALL REACTIONS ARE FACTORED

FDH Engineering, Inc.
6521 Meridien Drive
Raleigh, NC 27616
Phone: (919) 755 1012
FAX: (919) 755 1031
Tower Analysis

Job: ***Montville 3, CT10016-A-03***			
Project: ***1465RU1400***			
Client: SBA Network Services, Inc.	Drawn by: Christopher B. Stryffeler, EI	App'd:	
Code: TIA-222-G	Date: 05/29/14	Scale: NTS	
Path:		Dwg No. E-1	



COMPOUND PLAN

SCALE: 3/16"=1'-0"

1
A-1

SOURCE: SPRINT AUDIT 10-30-13

RAN EQUIPMENT PHOTO DETAIL

SCALE: N.T.S.

2
A-1

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 TEL: (978) 557-5553
N. ANDOVER, MA 01845 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	05/08/14	ISSUED FOR CONSTRUCTION	SF
0	05/01/14	ISSUED FOR CONSTRUCTION	GM

SITE NUMBER:
CT23XC400-A

SITE NAME:
MONTVILLE S.

SITE ADDRESS:
71 MOXLEY ROAD
MONTVILLE, CT 6353

SHEET TITLE
COMPOUND PLAN

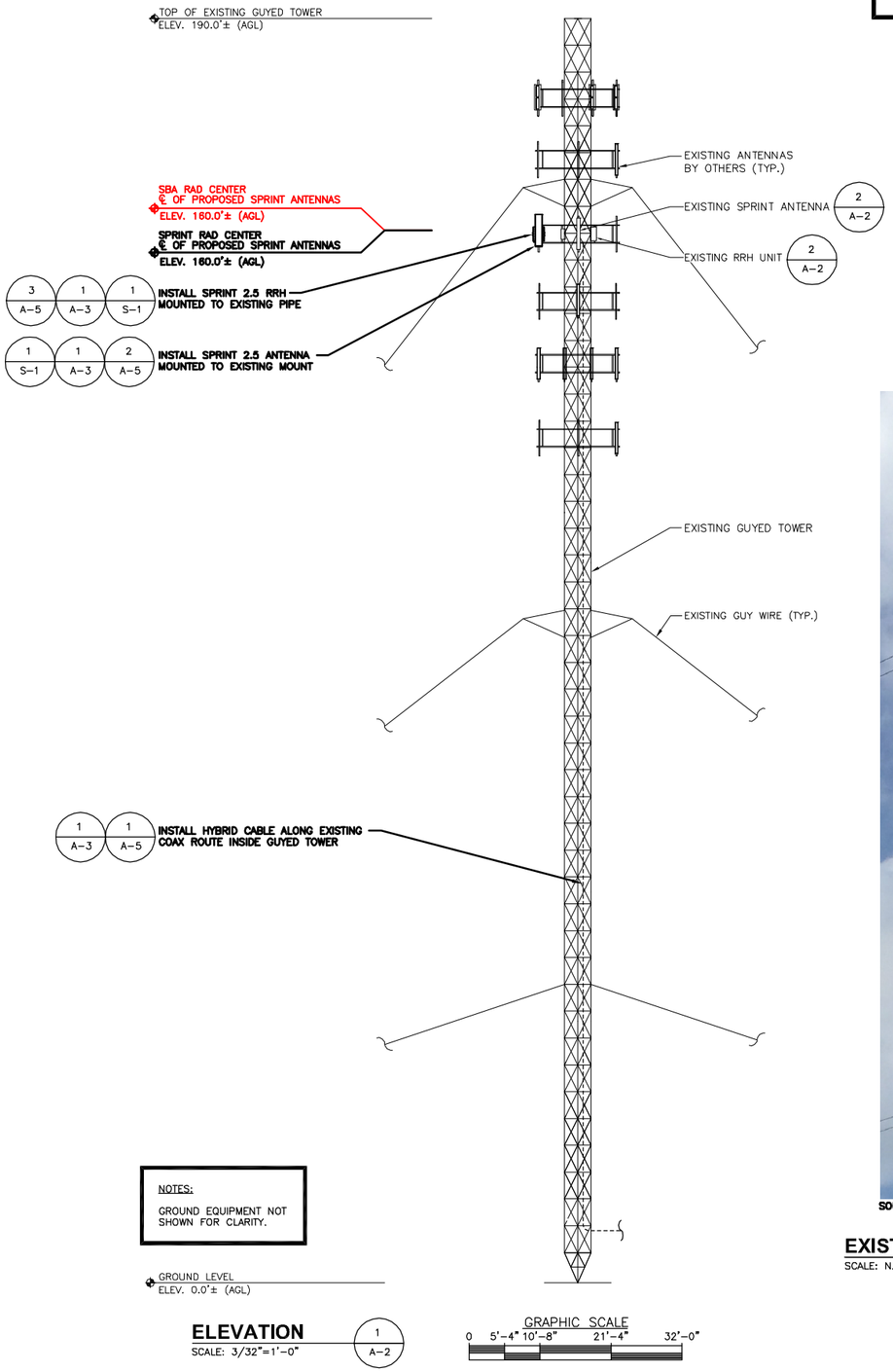
SHEET NUMBER
A-1

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:
EXISTING AZIMUTHS FROM SPRINT SITE AUDIT DATED 10/30/13

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.

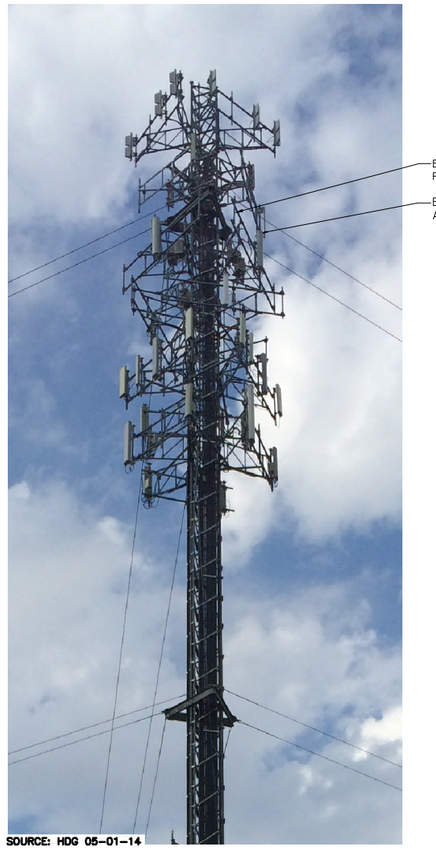
SPECIAL CONSTRUCTION NOTE:
THE SPRINT NETWORK VISION 2.5 GHz TOWER TOP WORK IS CONTINGENT UPON COMPLETION OF ALL REQUIRED STRUCTURAL MODIFICATIONS, ENGINEERING CONSTRUCTION CONTROL INSPECTIONS, FINAL ENGINEERING AFFIDAVIT, AND ACCEPTENCE/APPROVAL BY SBA COMMUNICATIONS CORP.



NOTES:
GROUND EQUIPMENT NOT SHOWN FOR CLARITY.

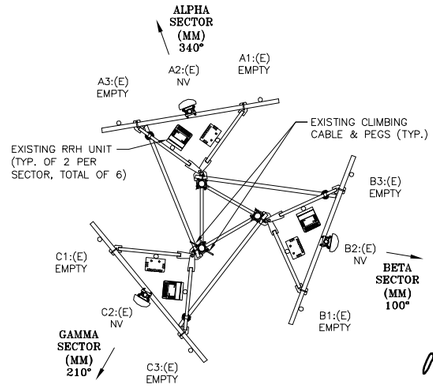
ELEVATION
SCALE: 3/32"=1'-0" (1 / A-2)

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



SOURCE: HDG 05-01-14

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



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

SPECIAL WORK NOTE:
JUMPERS FROM 2.5 RRH TO 2.5 ANTENNA CAN NOT EXCEED 15'. NOTIFY SPRINT CONSTRUCTION MANAGER OF ANY DISCREPANCY.

NOTES:
1) VERIFY PROPOSED AZIMUTHS WITH RF ENGINEER PRIOR TO INSTALLATION.

ANTENNA STATUS LEGEND:

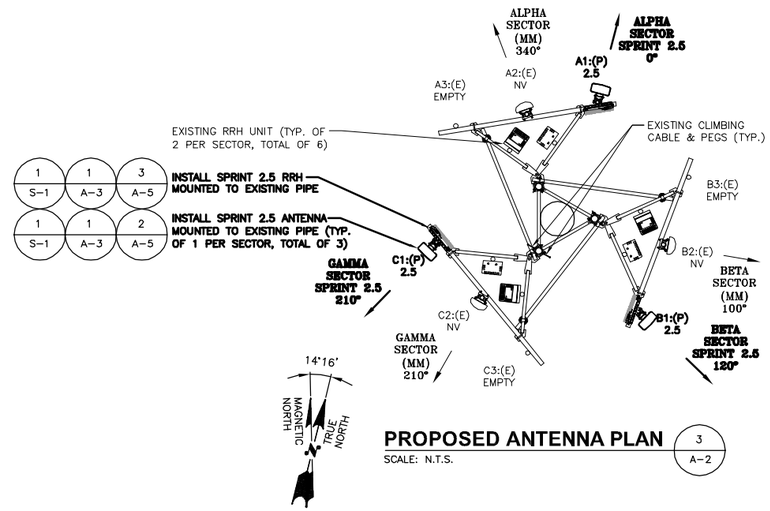
EMPTY – EMPTY PIPE

(E) – EXISTING

(P) – INSTALL

NV – SPRINT ANTENNA MODEL (APXVSPP18-C-A2)

2.5 – SPRINT ANTENNA



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

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
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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	05/08/14	ISSUED FOR CONSTRUCTION	SF
0	05/01/14	ISSUED FOR CONSTRUCTION	GM

SITE NUMBER:
CT23XC400-A

SITE NAME:
MONTVILLE S.

SITE ADDRESS:
71 MOXLEY ROAD
MONTVILLE, CT 6353

SHEET TITLE
ELEVATION AND ANTENNA PLANS

SHEET NUMBER
A-2

THE MODIFICATIONS DEPICTED ON THESE DRAWINGS ARE BASED ON THE RECOMMENDATIONS OUTLINED IN THE STRUCTURAL ANALYSIS COMPLETED BY FDH ENGINEERING, INC., PROJECT NO. 1462G41400 DATED APRIL 10, 2014.

THIS REPORT WAS BASED ON A SPECIFIC ANTENNA AND COAX CONFIGURATION PROVIDED BY THE TOWER OWNER. ANY CHANGE TO THIS INFORMATION MUST BE REVIEWED BY FDH ENGINEERING, INC.

ALL DIMENSIONS, MEASUREMENTS, QUANTITIES, PART NUMBERS AND COAX/ANTENNA PLACEMENTS TO BE FIELD VERIFIED BY CONTRACTOR PRIOR TO MATERIAL ORDERS AND CONSTRUCTION.

FOR INQUIRIES REGARDING THE CONTENT OF THESE MODIFICATION DRAWINGS, PLEASE CONTACT STEVEN STRICKLAND WITH THE FDH CONSTRUCTION DEPARTMENT (919) 755-1012

PROJECT DESCRIPTION:

MODIFICATION DRAWINGS FOR A 190' GUYED TOWER

SBA

SITE NAME:

MONTVILLE 3

SITE NUMBER:

CT10016-A-03

SITE ADDRESS:

71 MOXLEY ROAD
UNCASVILLE, CT 06382

COORDINATES:

LATITUDE: 41.4352°
LONGITUDE: -72.1233°

SHEET INDEX

SHT. NO.	DESCRIPTION
T-1	TITLE SHEET
N-1	POST CONSTRUCTION INSPECTION NOTES
N-2	GENERAL NOTES
S-1	MODIFICATION SCHEDULE
S-2	DIAGONAL REPLACEMENT DETAILS
S-3	SPLIT PIPE LEG REINFORCEMENT DETAILS
S-4	TENSION CHARTS

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
BRADLEY R. NEWMAN
29630
LICENSED
PROFESSIONAL ENGINEER

05/29/14
BRADLEY R. NEWMAN, P.E.
CONNECTICUT LIC. NO. 29630

DRAWN BY:	WJD
CHECKED BY:	CBS
ENG APPV'D:	BRN
PROJECT NO:	1465RU1400

SUBMITTALS

DATE	DESCRIPTION	REV
05/29/14	CONSTRUCTION	0

SITE NAME:
MONTVILLE 3

SITE NUMBER:
CT10016-A-03

SITE ADDRESS:
71 MOXLEY ROAD
UNCASVILLE, CT 06382

SHEET TITLE

TITLE SHEET

SHEET NUMBER

T-1

POST CONSTRUCTION INSPECTION NOTES:

PCI CHECKLIST

CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED	REPORT ITEM
PRE-CONSTRUCTION	
X	PCI CHECKLIST DRAWING
N/A	EOR APPROVED SHOP DRAWINGS
N/A	FABRICATION INSPECTION
N/A	FABRICATOR CERTIFIED WELD INSPECTION
X	MATERIAL TEST REPORT (MTR)
N/A	FABRICATOR NDE INSPECTION
N/A	NDE REPORT OF MONOPOLE BASE PLATE (AS REQUIRED)
X	PACKING SLIPS
ADDITIONAL TESTING AND INSPECTIONS:	
CONSTRUCTION	
X	CONSTRUCTION INSPECTIONS
N/A	FOUNDATION INSPECTIONS
N/A	CONCRETE COMP. STRENGTH AND SLUMP TESTS
N/A	POST INSTALLED ANCHOR ROD VERIFICATION
N/A	BASE PLATE GROUT VERIFICATION
X	CONTRACTOR'S CERTIFIED WELD INSPECTION
N/A	EARTHWORK: LIFT AND DENSITY
X	ON SITE COLD GALVANIZING VERIFICATION
X	GUY WIRE TENSION REPORT
X	GC AS-BUILT DOCUMENTS
ADDITIONAL TESTING AND INSPECTIONS:	
POST-CONSTRUCTION	
X	PCI INSPECTOR REDLINE OR RECORD DRAWING(S)
N/A	POST INSTALLED ANCHOR ROD PULL-OUT TESTING
X	PHOTOGRAPHS
ADDITIONAL TESTING AND INSPECTIONS:	

NOTE: X DENOTES A DOCUMENT NEEDED FOR THE PCI REPORT
N/A DENOTES A DOCUMENT THAT IS NOT REQUIRED FOR THE PCI REPORT

GENERAL

1. THE POST CONSTRUCTION INSPECTION (PCI) IS A VISUAL INSPECTION OF TOWER MODIFICATIONS AND A REVIEW OF CONSTRUCTION INSPECTIONS AND OTHER REPORTS TO ENSURE THE INSTALLATION WAS CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, NAMELY THE MODIFICATION DRAWINGS, AS DESIGNED BY THE ENGINEER OF RECORD (EOR).
2. THE PCI IS TO CONFIRM INSTALLATION CONFIGURATION AND WORKMANSHIP ONLY AND IS NOT A REVIEW OF THE MODIFICATION DESIGN ITSELF, NOR DOES THE PCI INSPECTOR TAKE OWNERSHIP OF THE MODIFICATION DESIGN. OWNERSHIP OF THE STRUCTURAL MODIFICATION DESIGN EFFECTIVENESS AND INTEGRITY RESIDES WITH THE EOR AT ALL TIMES.
3. ALL PCI'S SHALL BE CONDUCTED BY A PCI INSPECTOR THAT IS APPROVED TO PERFORM ELEVATED WORK FOR FDH ENGINEERING, INC.
4. TO ENSURE THAT THE REQUIREMENTS OF THE PCI ARE MET, IT IS VITAL THAT THE GENERAL CONTRACTOR (GC) AND THE PCI INSPECTOR BEGIN COMMUNICATING AND COORDINATING AS SOON AS A PO IS RECEIVED. IT IS EXPECTED THAT EACH PARTY WILL BE PROACTIVE IN REACHING OUT TO THE OTHER PARTY. IF CONTACT INFORMATION IS NOT KNOWN, CONTACT YOUR FDH POINT OF CONTACT (POC).
5. REFER TO CCR-01 : CONTRACTOR CLOSEOUT REQUIREMENTS FOR FURTHER DETAILS AND REQUIREMENTS.

PCI INSPECTOR

1. THE PCI INSPECTOR IS REQUIRED TO CONTACT THE GC AS SOON AS RECEIVING A PO FOR THE PCI TO, AT A MINIMUM:
   - REVIEW THE REQUIREMENTS OF THE PCI CHECKLIST
   - WORK WITH THE GC TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE INSPECTIONS, INCLUDING FOUNDATION INSPECTIONS
2. THE PCI INSPECTOR IS RESPONSIBLE FOR COLLECTING ALL GENERAL CONTRACTOR (GC) INSPECTION AND TEST REPORTS, REVIEWING THE DOCUMENTS FOR ADHERENCE TO THE CONTRACT DOCUMENTS, CONDUCTING THE IN-FIELD INSPECTIONS, AND SUBMITTING THE PCI REPORT TO FDH.

CORRECTION OF FAILING PCI'S

1. IF THE MODIFICATION INSTALLATION WOULD FAIL THE PCI ("FAILED PCI"), THE GC SHALL WORK WITH FDH TO COORDINATE A REMEDIATION PLAN IN ONE OF TWO WAYS:
   - CORRECT FAILING ISSUES TO COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE ORIGINAL CONTRACT DOCUMENTS AND COORDINATE A SUPPLEMENT PCI.
   - OR, WITH FDH'S APPROVAL, THE GC MAY WORK WITH THE EOR TO RE-ANALYZE THE MODIFICATION/REINFORCEMENT USING THE AS-BUILT CONDITION.

REQUIRED PHOTOS

1. BETWEEN THE GC AND THE PCI INSPECTOR THE FOLLOWING PHOTOGRAPHS, AT A MINIMUM, ARE TO BE TAKEN AND INCLUDED IN THE PCI REPORT:
   - PRE-CONSTRUCTION GENERAL SITE CONDITION
   - PHOTOGRAPHS DURING THE REINFORCEMENT MODIFICATION CONSTRUCTION/ERECTION AND INSPECTION
     - RAW MATERIALS
     - PHOTOS OF ALL CRITICAL DETAILS
     - FOUNDATION MODIFICATIONS
     - WELD PREPARATION
     - BOLT INSTALLATION AND TORQUE
     - FINAL INSTALLED CONDITION
     - SURFACE COATING REPAIR
   - POST CONSTRUCTION PHOTOGRAPHS
     - FINAL INFIELD CONDITION
2. PHOTOS OF ELEVATED MODIFICATIONS TAKEN FROM THE GROUND SHALL BE CONSIDERED INADEQUATE.

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

PREPARED FOR:

SBA
5900 BROKEN SOUND PARKWAY, NW
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(800) 487-SITE

STATE OF CONNECTICUT
BRADLEY R. NEWMAN
29630
LICENSED
PROFESSIONAL ENGINEER

05/29/14
BRADLEY R. NEWMAN, P.E.
CONNECTICUT LIC. NO. 29630

DRAWN BY:	WJD
CHECKED BY:	CBS
ENG APPV'D:	BRN
PROJECT NO:	1465RU1400

SUBMITTALS		
DATE	DESCRIPTION	REV
05/29/14	CONSTRUCTION	0

SITE NAME:
MONTVILLE 3

SITE NUMBER:
CT10016-A-03

SITE ADDRESS:
71 MOXLEY ROAD
UNCASVILLE, CT 06382

SHEET TITLE
POST CONSTRUCTION INSPECTION NOTES

SHEET NUMBER
N-1

GENERAL NOTES:

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND ORDINANCES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL PERMITS NECESSARY TO COMPLETE THE PROJECT AND ABIDE BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS, ELEVATIONS AND EXISTING CONDITIONS AT THE SITE BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWINGS. ANY SUCH DISCREPANCY IN DIMENSION WHICH MAY BE FOUND SHALL BE SUBMITTED TO FDH ENGINEERING FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREAS.
3. INCORRECTLY FABRICATED, DAMAGED, OTHERWISE MISFITTING, OR NON-CONFORMING MATERIALS AND CONDITIONS SHALL BE REPORTED TO FDH ENGINEERING PRIOR TO ANY REMEDIAL OR CORRECTIVE ACTION. ALL ACTIONS SHALL REQUIRE FDH ENGINEERING APPROVAL.
4. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO ENSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION AND/OR FIELD MODIFICATIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF TEMPORARY BRACING, GUYS OR TIE DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AFTER THE COMPLETION OF THE PROJECT.
5. CONTRACTOR SHALL PROMPTLY REMOVE ANY & ALL DEBRIS FROM SITE AND RESTORE AS BEST AS POSSIBLE TO PRECONSTRUCTION CONDITION.

CONTRACTOR QUALIFICATION NOTES:

1. ALL REPAIRS SHALL BE PERFORMED BY A TOWER CONTRACTOR WITH A MINIMUM 5 YEARS EXPERIENCE IN TOWER ERECTION AND RETROFIT AND WITH WORKING KNOWLEDGE OF THE ANSI/TIA-222-G "STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS".
2. CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION MEANS AND METHODS. SHOULD THE CONTRACTOR REQUIRE DIRECT CONSULTATION, FDH ENGINEERING, INC. IS WILLING TO OFFER SERVICES BASED UPON AN AGREED FEE FOR THE WORK REQUIRED.
3. ALL SUBMITTAL INFORMATION MUST BE SENT TO FDH ENGINEERING, INC. 6521 MERIDIEN DRIVE, RALEIGH NC, 27616, TEL. (919) 755-1012, FAX. (919) 755-1031, E-MAIL INFO@FDH-INC.COM. ANY VARIATION OF THESE SPECIFICATIONS OR DRAWINGS WITHOUT CONSENT FROM FDH ENGINEERING, INC. WILL VOID ANY RESPONSIBILITY OR LIABILITY FOR DAMAGE (MATERIAL OR PHYSICAL) TOWARDS FDH ENGINEERING, INC.
4. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THE TIA-1019-A STANDARD.

JOB SITE SAFETY & NOTES:

1. NEITHER THE PROFESSIONAL ACTIVITIES OF FDH ENGINEERING, INC. NOR THE PRESENCE OF FDH ENGINEERING, INC. OR EMPLOYEES AND SUB-CONSULTANTS AT THE CONSTRUCTION SITE, SHALL RELIEVE THE GENERAL CONTRACTOR AND OR SUBCONTRACTORS AND ANY OTHER ENTITY OF THEIR OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, SUPERINTENDING OR COORDINATING ALL PORTIONS OF THE WORK OF CONSTRUCTION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES. THE GENERAL CONTRACTOR AND OR SUBCONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SAFETY, AND WARRANTS THAT THIS INTENT IS EVIDENT BY ACCEPTING THIS WORK.

STEEL:

1. ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST AISC CODE AND ASTM SPECIFICATIONS.

   *ALL STEEL ANGLE SHALL BE ASTM A36 (Fy=36KSI) UNLESS OTHERWISE SPECIFIED.

   *ALL STEEL PLATE SHALL BE ASTM A36 (Fy=36KSI) UNLESS OTHERWISE SPECIFIED.

   *ALL U-BOLTS TO BE MADE OF ASTM A36 (Fy=36KSI) UNLESS OTHERWISE SPECIFIED.

   *ALL PIPE STEEL SHALL BE ASTM A500 GR. C (Fy=50KSI) UNLESS OTHERWISE SPECIFIED.
2. ALL CONNECTIONS OF STRUCTURAL STEEL MEMBERS SHALL BE MADE USING SPECIFIED WELDS WITH WELDING ELECTRODES E-70XX OR SPECIFIED HIGH STRENGTH BOLTS TO BE ASTM A325N, THREAD INCLUDED WITH SHEAR PLANE (UNLESS OTHERWISE NOTED).
3. ALL BOLTED CONNECTIONS TO BE INSTALLED TO A SNUG-TIGHTENED CONDITION IN ACCORDANCE WITH AISC 13 PART 16.2, "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS", SECTION 8.1, UNLESS OTHERWISE SPECIFIED. WHEN "X" TYPE BOLTS ARE USED, CONTRACTOR MAY BE REQUIRED TO STACK ADDITIONAL WASHERS TO OBTAIN PROPER SNUG TIGHT INSTALLATION. ALL NUTS SHALL BE HEAVY HEX UNLESS OTHERWISE NOTED.
4. ALL STEEL, AFTER FABRICATION, SHALL BE HOT DIPPED GALVANIZED PER ASTM A-123. ALL DAMAGED SURFACES, WELDED AREAS AND AUTHORIZED NON-GALVANIZED MEMBERS OR PARTS (EXISTING OR NEW) SHALL BE PAINTED WITH MULTIPLE COATS OF ZRC COLD GALVANIZING COMPOUND ACHEIVING A MINIMUM OF 4 MILS DRY FILM PER ASTM A 780.
5. ALL SHOP AND FIELD WELDING SHALL BE DONE BY WELDERS QUALIFIED AS DESCRIBED IN THE "AMERICAN WELDING SOCIETY'S STANDARD QUALIFICATION PROCEDURE" TO PERFORM THE TYPE OF WORK REQUIRED. CONTRACTOR IS REQUIRED TO PROVIDE FDH ENGINEERING, INC. WITH A PASSING CERTIFIED WELDING INSPECTION FOR ALL WELDS.
6. STRUCTURAL STEEL MAY NOT BE TORCH CUT FOR FABRICATION. ALL STEEL FABRICATION MUST FOLLOW AISC STANDARDS.

MISC. NOTES:

1. ALL MODIFICATIONS ARE ASSUMED TO BE MADE ON AN EMPTY TOWER. CONTRACTOR IS RESPONSIBLE TO MAKE PROVISIONS TO SUPPORT OR WORK AROUND EXISTING ANTENNAS AND TRANSMISSION LINES. MODIFICATIONS MUST BE CONTINUOUS THROUGH ALL AREAS SHOWN.
2. CONTRACTOR FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.

FABRICATION NOTES:

1. ALL DIMENSIONS ARE PRELIMINARY UNTIL FIELD VERIFIED BY CONTRACTOR. ANY CHANGES MUST BE APPROVED BY ENGINEER OF RECORD IN WRITING PRIOR TO FABRICATION AND INSTALLATION.
2. NEW STEEL MEMBERS MUST HAVE SINGLE DRILLED HOLES. SLOTTED AND DOUBLE DRILLED HOLES ARE NOT ACCEPTABLE MEANS OF FABRICATION.

SUBSTITUTES AND/OR EQUALS:

1. IF CONTRACTOR WISHES TO FURNISH OR USE A SUBSTITUTE ITEM OF MATERIAL OR EQUIPMENT, CONTRACTOR SHALL FIRST MAKE WRITTEN APPLICATION TO ENGINEER OF RECORD FOR ACCEPTANCE THEREOF, CERTIFYING THAT THE PROPOSED SUBSTITUTE WILL PERFORM ADEQUATELY THE FUNCTIONS AND ACHIEVE THE RESULTS CALLED FOR BY THE GENERAL DESIGN, BE SIMILAR IN SUBSTANCE TO THAT SPECIFIED AND SUITED TO THE SAME USE AS THAT SPECIFIED. ALL VARIATIONS OF THE PROPOSED SUBSTITUTE FROM THAT SPECIFIED WILL BE IDENTIFIED IN THE APPLICATION AND AVAILABLE MAINTENANCE, REPAIR AND REPLACEMENT SERVICE WILL BE INDICATED. THE APPLICATION WILL ALSO CONTAIN AN ITEMIZED ESTIMATE OF ALL COSTS OR CREDITS THAT WILL RESULT DIRECTLY OR INDIRECTLY FROM ACCEPTANCE OF SUCH SUBSTITUTE INCLUDING COSTS OF REDESIGN AND CLAIMS OF OTHER CONTRACTORS AFFECTED BY THE RESULTING CHANGE, ALL OF WHICH WILL BE CONSIDERED BY ENGINEER OF RECORD IN EVALUATION OF THE PROPOSED SUBSTITUTE. ENGINEER OF RECORD MAY REQUIRE CONTRACTOR TO FURNISH ADDITIONAL DATA ABOUT THE PROPOSED SUBSTITUTE.

COLD GALVANIZATION/SURFACE PREPARATION NOTES:

1. CONTRACTOR TO USE ZINGA OR ZRC COLD GALVANIZATION COMPOUNDS OR APPROVED EQUIVALENT.
2. PREPARE RUSTED/CORRODED SURFACE FOR TREATMENT ACCORDING TO MANUFACTURE'S RECOMMENDATIONS.
3. CONTRACTOR TO APPLY (2) COATS OF COLD GALVANIZATION COMPOUND PER MANUFACTURER'S RECOMMENDATION. DRYING AND CURING TIMES MUST BE UTILIZED PER MANUFACTURER'S RECOMMENDATION.
4. APPLY ALL COATINGS BY BRUSH IN CALM WIND CONDITIONS. THE USE OF AEROSOL IS NOT PERMITTED.
5. IF THE TOWER IS PAINTED, BRUSH PAINT ALL TREATED AREAS TO MATCH TOWER AFTER COLD GALVANIZATION COMPOUND IS ALLOWED TO CURE.

SPLIT-PIPE REINFORCEMENT NOTES:

1. CONTRACTOR MUST FIELD VERIFY ALL LENGTHS PRIOR TO CONSTRUCTION.
2. ALL DIMENSIONS ARE PRELIMINARY UNTIL FIELD VERIFIED BY CONTRACTOR. ANY CHANGES MUST BE APPROVED BY ENGINEER OF RECORD IN WRITING PRIOR TO FABRICATION AND INSTALLATION.

SURFACE PREPARATION:

1. PREPARE SURFACE TO BE WELDED BY REMOVING PAINT OR GALVANIZATION TO BARE METAL USING POWER WIRE BRUSHING IN ACCORDANCE WITH SSPC-SP11, (STEEL STRUCTURES PAINTING COUNCIL). FOLLOWING POWER WIRE BRUSHING CONTRACTOR SHALL POLISH METAL SURFACE WITH HIGH SPEED GRINDER WITH 400+ GRIT SANDPAPER.
2. BUTTER INTERIOR (SIDE IN CONTACT WITH LEG) OF REINFORCEMENT WITH SILICON GEL TO FORM GASKET BETWEEN CONTACT SURFACE.

SPLIT PIPE WELDING:

1. ALL WELDING TO THE EXISTING TOWER SHALL BE PERFORMED BY CERTIFIED WELDERS UTILIZING PROCEDURES QUALIFIED IN ACCORDANCE WITH AWS D1.1 AND AWS C5.4.
2. CONTRACTOR SHALL COMPLY WITH AWS D1.1 FOR PROCEDURES, APPEARANCE AND QUALITY OF WELDS AND FOR METHODS USED IN CORRECTING WELDING. ALL WELDERS AND WELDING PROCESSES SHALL BE QUALIFIED IN ACCORDANCE WITH AWS "STANDARD QUALIFICATION PROCEDURES". CONTRACTOR SHALL SUBMIT CERTIFICATION OF WELDERS TO THE ENGINEER PRIOR TO COMMENCEMENT OF THE WORK.
3. CONTRACTOR RESPONSIBLE FOR TEMPORARY HEAT SHIELDING AS REQUIRED DURING WELDING.
4. ALL WELDS TO BE VISUALLY INSPECTED BY A CERTIFIED WELD INSPECTOR PER AWS D1.1.
5. CONTRACTOR TO BE AWARE THAT EXISTING TOWER LEG THICKNESS IS EXTREMELY THIN. CONTRACTOR TO USE CAUTION WHEN WELDING TO PREVENT LEG BLOW OUT.

GUY WIRE SPECIFICATIONS:

1. ADJUST INITIAL TENSION AS REQUIRED FOR TEMPERATURE CONDITIONS UPON INSTALLATION OF GUY WIRES. CONTACT ENGINEER OF RECORD IF NECESSARY.

PREPARED BY:

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PREPARED FOR:

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STATE OF CONNECTICUT
BRADLEY R. NEWMAN
29630
LICENSED
PROFESSIONAL ENGINEER

05/29/14
BRADLEY R. NEWMAN, P.E.
CONNECTICUT LIC. NO. 29630

DRAWN BY:	WJD
CHECKED BY:	CBS
ENG APPV'D:	BRN
PROJECT NO:	1465RU1400

SUBMITTALS

DATE	DESCRIPTION	REV
05/29/14	CONSTRUCTION	0

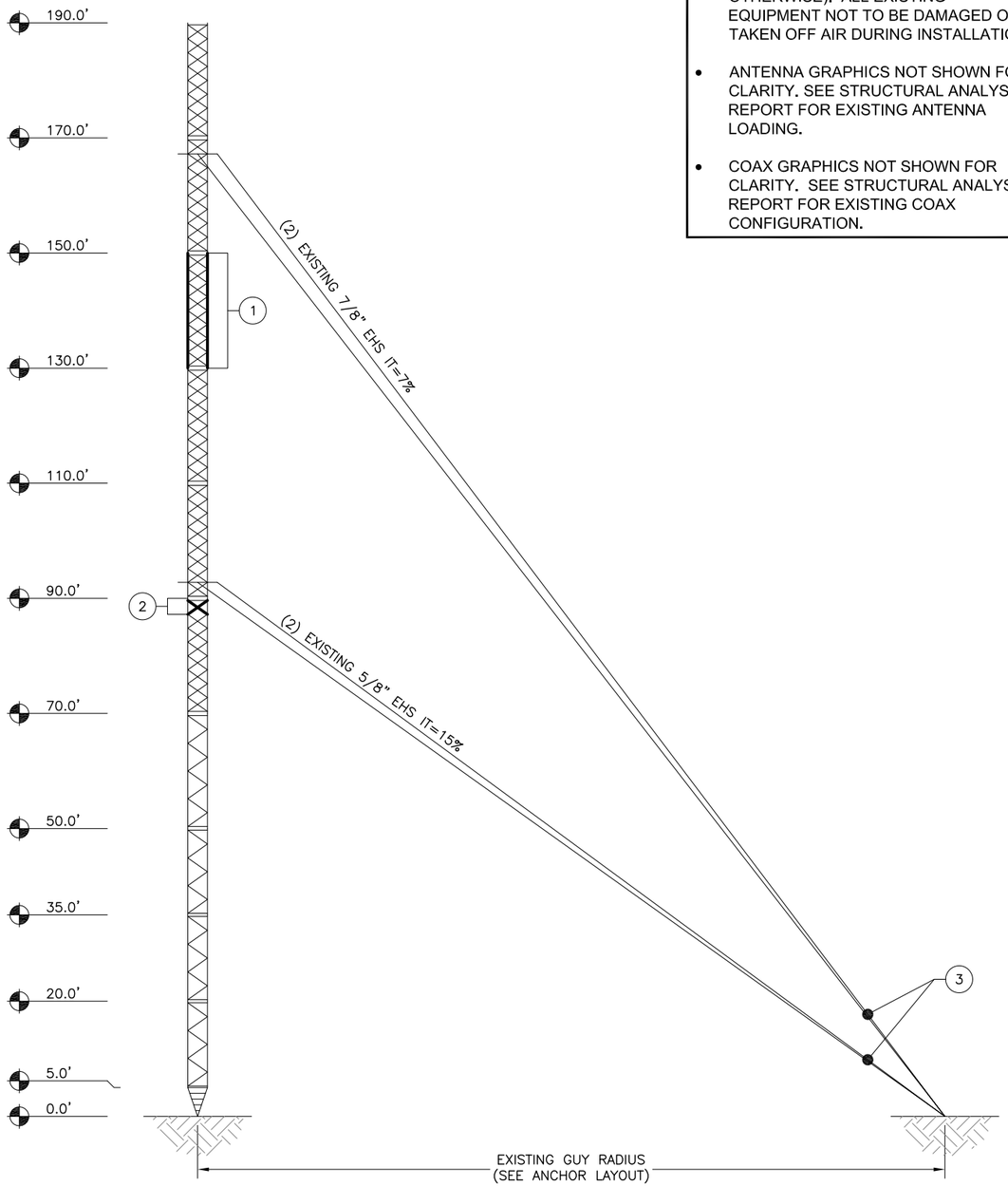
SITE NAME:
MONTVILLE 3

SITE NUMBER:
CT10016-A-03

SITE ADDRESS:
71 MOXLEY ROAD
UNCASVILLE, CT 06382

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
N-2



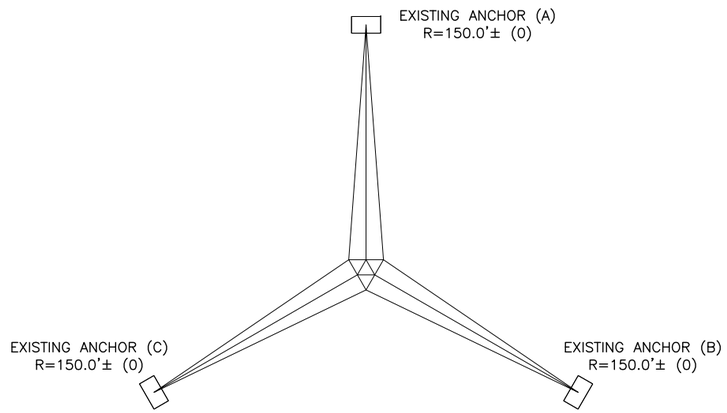
TOWER ELEVATION
SCALE: NTS

- 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 SPLIT PIPE LEG REINFORCEMENT. SEE S-3 FOR DETAILS.	130.0±	150.0±
2	INSTALLATION OF NEW REPLACEMENT DIAGONALS. SEE S-2 FOR DETAILS.	87.2±	89.6±
3	CONTRACTOR TO PLUMB TOWER AND TENSION ALL GUY WIRES TO INITIAL TENSIONS (IT) AS SHOWN. SEE S-4 FOR DETAILS.	–	VARIES

TOWER FINISH: GALVANIZED



ANCHOR LAYOUT
SCALE: NTS

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STATE OF CONNECTICUT
BRADLEY R. NEWMAN
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LICENSED PROFESSIONAL ENGINEER

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CONNECTICUT LIC. NO. 29630

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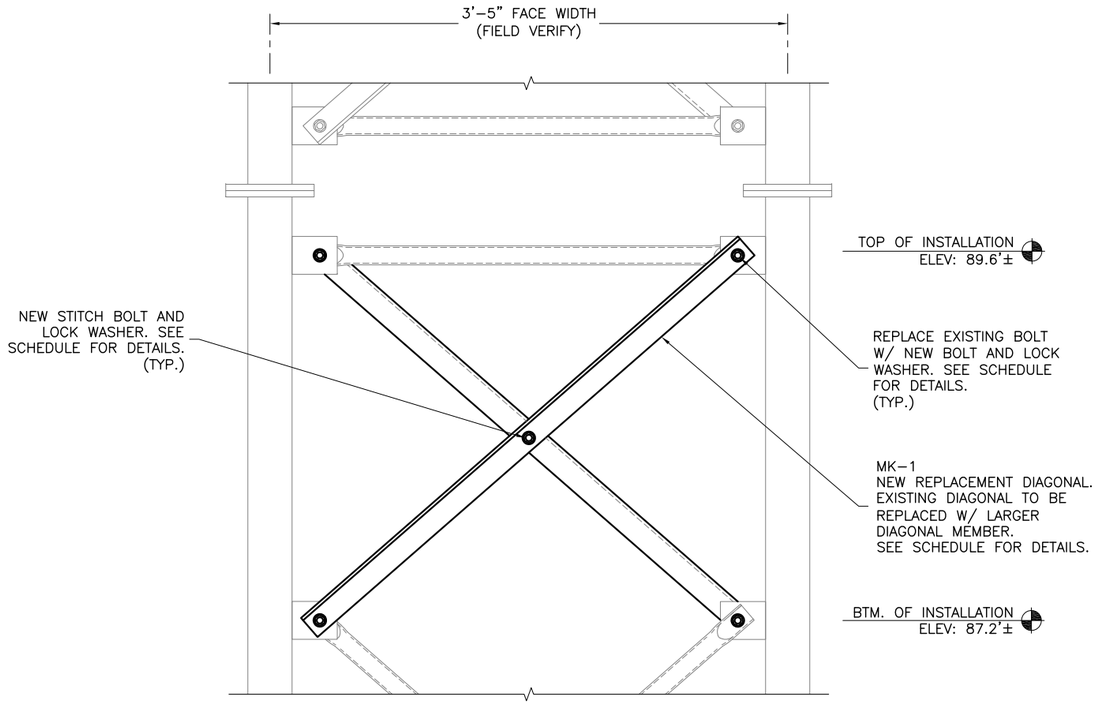
SHEET TITLE
MODIFICATION SCHEDULE

SHEET NUMBER
S-1

MK-1 REPLACEMENT DIAGONAL SCHEDULE

ELEVATION	EXISTING MEMBER	PROPOSED MEMBER	ESTIMATED LENGTH, A*	BOLT SIZE	HOLE SIZE	STITCH BOLT SIZE	STITCH HOLE SIZE	GAGE LINE**	EDGE DISTANCE***	BOLT GRADE
87.2'± TO 89.6'±	(6) ROHN TS1.5X16 GA.	(6) L2X2X1/4	4'-2"±	1/2"ø	9/16"ø	1/2"ø	9/16"ø	1 1/8"	1"	A325N
1 BAY REQUIRES DIAGONAL REPLACEMENT										

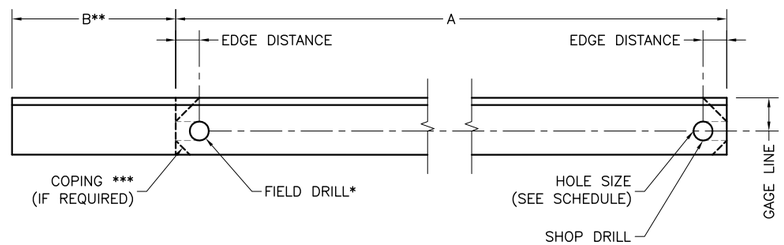
*CONTRACTOR TO FIELD VERIFY LENGTH PRIOR TO MATERIAL ORDERS.
**DISTANCE FROM HEEL OF ANGLE TO CENTER OF BOLT HOLE.
***EDGE DISTANCE FROM CENTER OF BOLT HOLE TO EDGE OF CONNECTED PART.



DIAGONAL REPLACEMENT
ELEVATION VIEW

1 / S-2 ELEVATION
NTS

EXISTING FEEDLINE LADDERS TO BE RE-INSTALLED USING EXISTING HARDWARE TO NEW DIAGONALS WHERE POSSIBLE & REPLACED IN ALL OTHER LOCATIONS AS NECESSARY. CONTRACTOR RESPONSIBLE FOR ALL PARTS ASSOCIATED WITH TEMPORARY & FINAL COAX & CLIMBING LADDER SUPPORT.



* ESTIMATED HOLE LOCATION. CONTRACTOR TO FIELD VERIFY LOCATION OF THIS HOLE PRIOR TO DRILLING HOLE TO ENSURE PROPER FIT. CONTRACTOR TO FIELD CUT EXCESS MATERIAL AFTER HOLE LOCATION IS VERIFIED.

** "B" WE SUGGEST THE PRELIMINARY CUT LENGTH IS 6" LONGER THAN OUR ESTIMATED LENGTH FOR MEMBERS 10' OR LESS, & 12" FOR MEMBERS GREATER THAN 10'.

*** COPING MAY BE REQUIRED; COPING NOT TO EXCEED "TEAR-OUT" PLANE OF BOLT HOLE AS SHOWN.

DIAGONAL
FRONT VIEW

MK-1 / S-2 DETAIL
NTS

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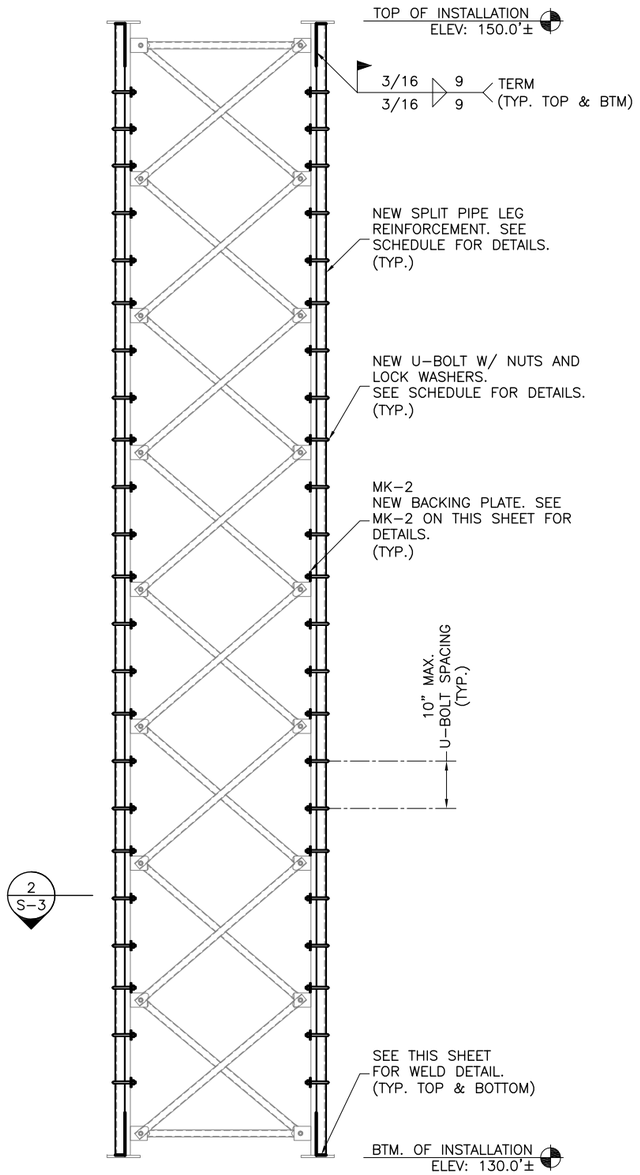
SHEET TITLE
DIAGONAL REPLACEMENT DETAILS

SHEET NUMBER
S-2



SPLIT PIPE LEG REINFORCEMENT
ELEVATION VIEW

1 / S-3 — ELEVATION
SCALE: 3/8" = 1'-0"

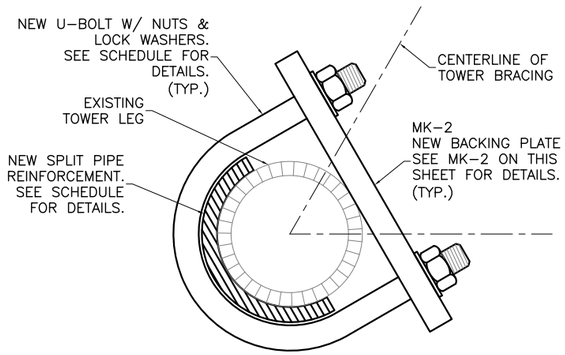
EXISTING FLANGE BOLTS NOT SHOWN FOR CLARITY.

SPLIT PIPE LEG REINFORCEMENT INSTALLATION SCHEDULE

ELEVATION	EXISTING LEG SIZE	NEW SPLIT PIPE	PRELIMINARY LENGTH	BACKING PLATE	U-BOLT W/ NUTS & LOCK WASHERS
130.0'± TO 150.0'±	P2.5X0.276 (2.875 OD)	(3) 180° P3X0.300 (3.5 OD)	20'-0"±	(69) MK-2	(69) 1/2"ø

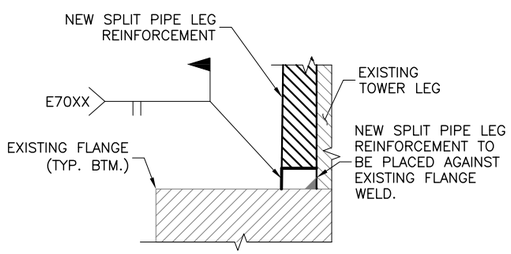
CONTRACTOR TO INSTALL NEW SPLIT PIPE REINFORCEMENT CONTINUOUSLY THROUGH EXISTING EQUIPMENT.

CONTRACTOR TO NOTCH NEW SPLIT PIPE REINFORCEMENT AROUND EXISTING FLANGE BOLTS AS REQUIRED. CONTRACTOR NOT TO REMOVE MORE THAN HALF OF NEW SPLIT PIPE REINFORCEMENT AREA AT FLANGE CONNECTION. (AT LEAST HALF OF THE TOTAL SPLIT PIPE REINFORCEMENT AREA MUST BE WELDED TO BOTTOM FLANGES ONLY)



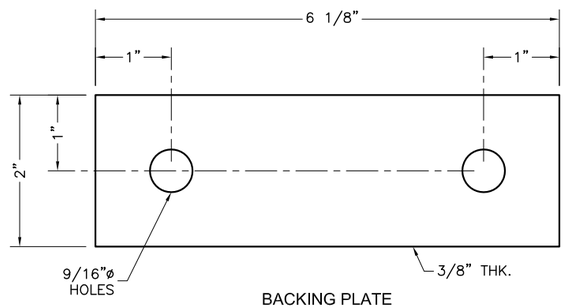
SPLIT PIPE LEG REINFORCEMENT
PLAN VIEW

2 / S-3 — SECTION
NTS



TERMINATION WELD DETAIL
ELEVATION VIEW

3 / S-3 — DETAIL
NTS



BACKING PLATE
FRONT VIEW

MK-2 / S-3 — DETAIL
SCALE 6" = 1'-0"

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SHEET TITLE
SPLIT PIPE LEG REINFORCEMENT DETAILS

SHEET NUMBER
S-3

GUY #	HEIGHT (ft.)	DIA. (in)	RADIUS (ft.)	ANCHOR ELEV. (ft.)	GUY LENGTH (ft.)
1 & 2	162.7	7/8" EHS	150	0	221.3

Initial Tension	Temp. (F)	Guy tension (kips)	(KN)
7%	0	7.61	33.85
	10	7.27	32.35
	20	6.94	30.85
	30	6.60	29.35
	40	6.26	27.85
	50	5.92	26.35
	60	**5.59**	**24.85**
	70	5.25	23.34
	80	4.91	21.84
	90	4.57	20.34
	100	4.24	18.84

GUY #	HEIGHT (ft.)	DIA. (in)	RADIUS (ft.)	ANCHOR ELEV. (ft.)	GUY LENGTH (ft.)
3 & 4	92.8	5/8" EHS	150	0	176.4

Initial Tension	Temp. (F)	Guy tension (kips)	(KN)
15%	0	8.05	35.81
	10	7.77	34.55
	20	7.49	33.30
	30	7.21	32.05
	40	6.92	30.80
	50	6.64	29.54
	60	**6.36**	**28.29**
	70	6.08	27.04
	80	5.80	25.78
	90	5.51	24.53
	100	5.23	23.28

THE CONTRACTOR SHALL CLEARLY LABEL ALL GUY WIRES AT GUY ANCHORS INDICATING THE PERCENT BREAKING STRENGTH THE GUY WIRES ARE TENSIONED TO. CONTACT TOWER OWNER FOR PREFERRED LABELING PROCEDURE.

TENSION CHARTS

1 / S-4 ANCHORS "A", "B", & "C"

NTS

ANCHOR DROPOFFS AND RADII MAY VARY. CONTRACTOR TO PERFORM SITE VISIT PRIOR TO MATERIAL ORDERS.

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ENGINEERING INNOVATION

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SHEET TITLE
TENSION CHARTS

SHEET NUMBER
S-4