



**NSS** **NORTHEAST**  
SITE SOLUTIONS

*Turnkey Wireless Development*

October 23, 2015

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

RE: Notice of Tower Share Application  
168 Catoona Lane, Stamford CT 06902  
Longitude: -73.563056  
Latitude: 41.052813  
Senet Site#: CT-31

Members of the Siting Council:

On behalf of Senet, Northeast Site Solutions (NSS) is submitting a tower share application to the Connecticut Siting Council for a proposed whip antenna installation on the existing tower facility located at 168 Catoona Lane, Stamford CT 06902.

The 168 Catoona Lane, Stamford CT facility consists of a three hundred (300) foot lattice tower owned and operated by American Tower Corporation. Senet is a wireless propane and oil tank monitoring company proposing to install a receive only whip antenna located at one hundred thirty (130) foot antenna center line.

Original approval for this site does not list any equipment conditions for antenna installation. Please accept this letter and attachments as notification, pursuant to R.C.S.A. Section 16-50j-89. In compliance with R.C.S.A. Section 16-50j-88, 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 the Senet project, Senet desires to install the equipment which will provide new game changing technology to the home fuel and heating industry. The result is monitored fuel tank delivery. No more run outs or unnecessary deliveries, reduction in fuel costs and operating expenses by 30%, quicker response times and better customer service.

Please find attached a copy of the proposed construction drawings as drafted by Hundson Design Group, receive only power density calculations prepared by C Squared, the passing American Tower structural analysis and Senet's equipment specifications, as well as, the required filing fee of \$625.



# NSS NORTHEAST SITE SOLUTIONS

*Turnkey Wireless Development*

The changes to the facility do not constitute modifications as defined in Connecticut General Statutes 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-89.

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.
3. The proposed changes will not increase the noise level at the existing facility.
4. Due to the fact that this is a receive only application, 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 Northeast Site Solutions (NSS) on behalf of Senet, respectfully submits that the proposed changes at the referenced site constitute tower share under R.C.S.A. Section 16-50aa.

Please feel free to call me at 860.209.4690 with any questions you may have concerning this matter.

Sincerely,

**Denise Sabo**

**Mobile:** 860-209-4690

**Fax:** 413-521-0558

**Office:** 199 Brickyard Rd, Farmington, CT 06032

**Email:** [denise@northeastsitesolutions.com](mailto:denise@northeastsitesolutions.com)

CC. Stamford Government Center, 888 Washington BLVD, 7<sup>th</sup> fl, Stamford CT 06904, Attn: David Martin, Mayor, City of Stamford Attn: David Kileen, Town Planner. Property and Structure Owner-American Tower Corporation, 10 Presidential Way, Woburn MA 01801, Attn- Emily Hannon.

NORTHEAST SITE SOLUTIONS, LLC  
199 BRICKYARD RD  
FARMINGTON, CT 06032  
(860) 677-1999

WEBSTER BANK  
FARMINGTON, CT 06032  
51-7010/2111

2450

10/13/2015

PAY TO THE  
ORDER OF

Connecticut Siting Council

\$ 625.00

DOLLARS

Six hundred twenty five <sup>00</sup>/<sub>100</sub>

MEMO

Senet Project CT-31

*Lisa J. Allen*  
AUTHORIZED SIGNATURE

⑈002450⑈ ⑆211170101⑆10 0010608887⑈

NORTHEAST SITE SOLUTIONS, LLC

2450

Senet CT-31

\$625.00

Tower Share App

Details on Back.

Security Features Included

C Squared Systems, LLC  
65 Dartmouth Drive  
Auburn, NH 03032  
603-644-2800  
dan.goulet@csquaredsystems.com



September 29, 2015

Connecticut Siting Council

Subject: Senet Inc., Site Stamford CT-31 - 168 Catoona Lane, Stamford, CT 06902

Dear Connecticut Siting Council:

C Squared Systems has been retained by Senet Inc., to provide documentation to the Council regarding their proposed antenna installation on the existing lattice tower located at 168 Catoona Lane, Stamford, CT. Senet plans to add one whip antenna and receiver to the tower at a centerline of 130'.

Below is a listing of the equipment Senet Inc. proposes to install at the facility.

- One L-com HG908U-PRO 63" Omni fiberglass whip antenna or:
- One L-com HGV-906U 2' Omni fiberglass whip antenna and,
- One EnerTrac 0005845 Receiver
- Fiber interconnect from receiver unit to equipment to be located at the base of the tower.

Table 1 (attached to this letter) provides the carrier information for the existing and planned operators at this site. As shown in this table the cumulative power density for the site is 40.56% of the FCC Limit (as recorded in the CSC database as of 5/4/2015).

This letter serves to confirm that where the proposed Senet antenna and associated equipment is a 900 MHz receive-only configuration, it will have no impact on the existing power density levels at this site. The facility will remain fully compliant with federal and state Maximum Permissible Exposure standards and furthermore, the proposed Senet installation will have no environmental impact on the area.

Enclosures:

Sincerely,

A handwritten signature in black ink, appearing to read 'Daniel L. Goulet'. The signature is fluid and cursive.

Daniel L. Goulet  
C Squared Systems, LLC

## ATTACHMENT

Carrier	Operating Frequency (MHz)	Antenna Height (Feet)	Number of Trans.	ERP Per Transmitter (Watts)	Power Density (mw/cm <sup>2</sup> )	Limit	%MPE	Site Total	
Sirius XM Sat Radio	2300	268	1	1000	0.005	1.0000	0.50%		
Sirius XM Sat Radio	2300	260	1	1000	0.0053	1.0000	0.53%		
Bell Industries	930	303	1	1000	0.0039	0.6200	0.63%		
Lojack	173	310	1	200	0.0007	0.2000	0.37%		
US Treasury	400	245	1	100	0.0006	0.2667	0.22%		
US Treasury	400	205	1	100	0.0009	0.2667	0.32%		
USA Mobility	900	183	1	500	0.0054	0.6000	0.89%		
USA Mobility	900	173	1	500	0.006	0.6000	1.00%		
Sensus (CL&P)	940.1125	142	1	200	0.0036	0.6267	0.57%		
Mediacast	716	289					4.20%		
AT&T UMTS	880	235	2	500	0.0065	0.5867	1.11%		
AT&T UMTS	1900	235	1	500	0.0033	1.0000	0.33%		
AT&T LTE	700	235	1	500	0.0033	0.4667	0.70%		
AT&T LTE	1900	235	1	500	0.0033	1.0000	0.33%		
AT&T LTE	2300	235	1	500	0.0033	1.0000	0.33%		
T-Mobile LTE	2100	267	2	24	0.0002	1.0000	0.02%		
T-Mobile GSM/UMTS	1950	267	2	12	0.0001	1.0000	0.01%		
T-Mobile UMTS	2100	267	2	12	0.0001	1.0000	0.01%		
Nextel	851	195	9	100	0.0085	0.5673	1.50%		
Marcus	450	189	5	100	0.005	0.3000	1.68%		
Marcus	450	209	5	100	0.0041	0.3000	1.37%		
Marcus	450	209	5	100	0.0041	0.3000	1.37%		
Marcus	5.8GHz	300	1	0.1	0	1.0000	0.00%		
Clearwire	2496	167	2	153	0.0039	1.0000	0.39%		
Clearwire	11 GHz	300	1	211	0.0008	1.0000	0.08%		
Sprint CDMA/LTE	1900	150	6	693	0.0664	1.0000	6.64%		
Sprint CDMA/LTE	850	150	1	390	0.0062	0.5667	1.10%		
Sprint CDMA/LTE	2500	150	2	390	0.0125	1.0000	1.25%		
SNET Paging	931.1875	315	2	1500	0.0109	0.6208	1.75%		
Skytel		303	Receive only - no RF emissions						
Rescue 21	165.313	199	5	158.5	0.0072	0.2000	3.60%		
Rescue 21	412.975	199	1	158.5	0.0014	0.2753	0.52%		
MetroPCS	2310	160	7	734	0.0722	1.0000	7.22%		
Senet	900 MHz	130	Receive only - no RF emissions						
								<b>40.56%</b>	

**Table 1: Carrier Information and %MPE**

# EnerTrac

46 River Rd.  
Hudson, NH 03051  
(603) 821-0003  
www.enertrac.com

## EnerTrac Base Station - Typical Tower Equipment

### Top of Tower

#### Antenna

L-com HG908U-PRO  
Omni fiberglass whip  
Gain 8 dBi  
Length 63"  
Weight 3.75 lbs.  
Max Wind Velocity 130mph

OR

L-com HGV-906U  
Omni fiberglass whip  
Gain 6 dBi  
Length 23.6"  
Weight 2.4 lbs.  
Max Wind Velocity 108mph

#### Antenna mount

4ft standoff

Contractor Provides

#### Enclosure

TYCON Power Systems ENC-DC Die Cast  
External Size 11x8.5x3.5  
Internal Size 10x7.75x3  
Weight 4 lbs.  
NEMA 4X / IP65

#### Receiver

EnerTrac 0005845

#### Jumper

L-com Low Loss CA-400 series coax cable (CA4NMLPNM010 for 10 feet)  
Diameter .405"  
Weight 0.68lbs/10 feet

### Feed Line

Cat 5 for runs up to 5k ft. (2/c # 16 AWG 1 Cat-5e shielded)  
Weight 9.2lbs/100ft

## **Base of Tower**

### **Enclosure**

Size 20x18x9

Can be mounted to wall or supplied with pole mounting brackets

Weight 25 lbs.

### **Power requirements**

120 Volts AC

40 Watts

## **Frequency of Operations**

902-928Mhz ISM band Title 47, Part 15 certified

Frequency Hopping Spread Spectrum

## **Top of tower Enclosure Photo**





**AMERICAN TOWER**  
CORPORATION

Structural Evaluation	
ATC Site Number & Name	<b>88018, Stamford (katoona), CT</b>
Carrier Site Number & Name	<b>CT-31, Catoona Lane</b>
Site Location	CATOONA LANE Stamford, CT 06902-4573, Fairfield County 41.052825 N / -73.563047 W
Tower Description	<b>300 ft Self Supported Tower</b>
Basic Wind Speed	85 mph (Fastest Mile)
Basic Wind Speed w/ Ice	74 mph (Fastest Mile) w/ ½" ice
Code	TIA/EIA-222-F / 2003 IBC, Sec. 1609.1.1, Exception (5) & Sec. 3108.4 / 2005 Connecticut Supplement & 2009 Connecticut Amendments

**Existing and Reserved Equipment**

Elevation <sup>1</sup> (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
300.0	306.0	1	3' HP Dish	Platform w/ Handrails	(2) 1 1/4" Coax (3) 7/8" Coax (1) 1/2" Coax	-
	300.0	3	DragonWave Horizon Compact			Clearwire
		3	DragonWave A-ANT-18G-2-C			Marcus Comm.
	311.0	1	Radio/ODU			
	307.0	1	4' Dish w/ Radome			
289.0	289.0	1	TX RX Systems 101-68-10-X-03N	Side Arm	(1) 3 1/8" HL	Qualcomm
269.0	275.0	1	Dielectric TLP-08M-2E	Side Arm	(2) 7/8" Coax	US Dept Of Homeland Security
265.0	268.0	2	Rohde & Schwarz ADD090	Sector Frame	(13) 1 5/8" Coax (1) EW20 (1) 1 1/4" (1.25") Fiber	Sirius XM Radio
		3	Til-Tek TA-2350-DAB			T-Mobile
	265.0	3	RFS ATMAA1412D-1A20			
	3	Ericsson AIR 21, 1.3 M, B2A B4P				
240.0	250.0	1	Ericsson AIR 21, 1.3M, B4A B2P	Sector Frame	(3) 7/8" Coax	US Dept Of Homeland Security
	245.0	1	Sinclair SC281-L			
235.0	235.0	6	Sinclair SC381-HL	Sector Frame	(12) 1 5/8" Coax (2) 0.74" 8 AWG 7 (1) 3" conduit (1) 0.28" RG-6	AT&T Mobility
		3	LGP LGP21903			
		6	Raycap DC2-48-60-0-9E			
		6	Powerwave LGP21401			
		1	Ericsson RRUS A2			
		6	Raycap FC12-PC6-10E			
		3	Ericsson RRUS 12 w/ Solar Shield			
		3	Ericsson RRUS E2 B29			
		3	Ericsson RRUS-32			
		3	Ericsson RRUS-11			
3	Powerwave 7770.00					
9	Andrew SBNHH-1D65A					
224.0	222.0	12	Decibel DB844H90E-XY	Sector Frame	(15) 1 5/8" Coax	Sprint Nextel
200.0	207.0	2	TX RX Systems 101-68-10-X-03N	Side Arm	(2) 1 1/4" Coax (1) 1/2" Coax	Marcus Comm.
	210.0	1	Sinclair SC281-L			US Dept Of Homeland Security
189.0	193.0	1	30" x 30" Reflector	Side Arm	(2) 3/8" Coax	Town Of Stamford
178.0	183.0	3	Antel BCD-85010	Side Arm	(3) 7/8" Coax	
171.0	175.0	1	24" x 24" Junction Box	T-Arm	(2) 2" conduit (2) 7/8" Coax	Clearwire
		3	NextNet BTS-2500			
	3	Argus LLPX310R				
160.0	160.0	15	RCU	Leg	(12) 1 5/8" Coax	Metro PCS



**Existing and Reserved Equipment Cont.**

Elevation <sup>1</sup> (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
150.0	150.0	3	Alcatel-Lucent ALU 800MHz External Notch Filter	Sector Frame	(5) 1 1/4" Hybriflex (2) 3/8" Coax	Sprint Nextel
		3	RFS IBC1900HB-2			
		3	Alcatel-Lucent 800MHz RRH			
		6	Alcatel-Lucent 1900MHz RRH			
		3	Alcatel-Lucent TD-RRH8x20-25 w/ Solar Shield			
		3	RFS APXVTM14-C-120			
		3	RFS APXVSP18-C-A20			
	158.0	1	Channel Master Type 120			Town Of Stanford
137.0	142.0	1	Antel BCD-87010 ___ 4°	Stand-Off	(1) 7/8" Coax	Sensus Metering Systems
100.0	107.0	1	TX RX Systems 101-68-10-X-03N	Side Arm	(1) 1 1/4" Coax	Marcus Comm.
92.0	92.0	3	Alcatel-Lucent RRH2X60-1900A-4R	Sector Frame	(2) 1 5/8" Hybriflex	Verizon
		3	Alcatel-Lucent RRH2X60-AWS			
		3	Alcatel-Lucent RRH2x40-07U			
		2	RFS DB-T1-6Z-8AB-0Z			
		6	Antel WWX063X19G00			
		2	CSS X7C-FRO-660			
		4	CSS X7C-FRO-640-V			
24.0	25.0	1	Til-Tek TA-2324-LHCP	Leg	(1) 7/8" Coax	Sirius XM Radio
6.0	6.0	1	Trimble Acutime 2000	Leg	(1) 1/4" Coax	Spok Holdings
		1	Channel Master Type 120	Stand-Off	(1) 1/2" Coax	

**Equipment to be Removed**

Elevation <sup>1</sup> (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
No loading considered as to be removed						



**Proposed Equipment**

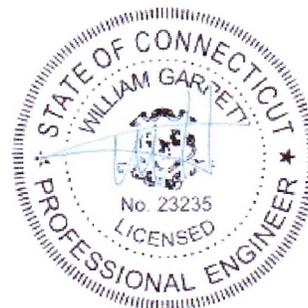
Elevation <sup>1</sup> (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
128.0	130.0	1	Tycon ENC-DC	Stand-Off	-	Senet
127.0		1	L-com HG908U-PRO	Stand-Off	(1) 0.38" Cat 5e	

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

Install proposed coax on least face.

The existing and proposed loads listed in the tables above are compared to the tower’s current design capacity or previous structural analysis. The tower should be re-evaluated as future loads are added or if actual loads are found different from those listed in the tables. The subject tower and foundation **are adequate** to support the above stated loads in conformance with specified requirements.

Reviewed by:  
William Garrett, PE  
Chief Engineer



Jul 29 2015 5:06 PM

SWF/NEK

**PROJECT INFORMATION**

SCOPE OF WORK: TELECOMMUNICATIONS EQUIPMENT INSTALLATION:  
 1. INSTALL (1) OMNI FIBERGLASS WHIP ANTENNA & 1/2" CAT5 CABLE.  
 2. INSTALL EQUIPMENT CABINET ON PROPOSED BACKBOARD

SITE ADDRESS: 168 CATOONA LN, STAMFORD, CT 06902  
 PARCEL ID: 000/ 0370  
 LATITUDE: 41.052813 N  
 LONGITUDE: -73.563056 W  
 CURRENT USE: TELECOMMUNICATIONS FACILITY  
 PROPOSED USE: TELECOMMUNICATIONS FACILITY



**SITE NUMBER: CT-31**  
**SITE NAME: STAMFORD**

**DRAWING INDEX**

**REV**

T-1 TITLE SHEET  
 GN-1 GENERAL NOTES  
 A-1 COMPOUND PLAN  
 A-2 ELEVATION  
 A-3 DETAILS

0  
 0  
 0  
 0  
 0

**VICINITY MAP**

DIRECTIONS TO SITE:  
 START OUT GOING SOUTHEAST ON BRICKYARD RD TOWARD EASTVIEW DR. 0.9 MI. TURN LEFT ONTO FARMINGTON AVE/CT-4. CONTINUE TO FOLLOW FARMINGTON AVE. FARMINGTON AVE IS 0.1 MILES PAST GRANDVIEW DR. 3.1 MI.GET ON I-84 FROM CT-4 E 9 MIN (4.4 MI) FOLLOW I-84, CT-8 S AND I-95 S TO GRENHART RD IN STAMFORD. TAKE EXIT 6 FROM I-95 S 1 H 12 MIN (73.9 MI) CONTINUE ON GRENHART RD. TAKE HARVARD AVE AND ALVORD LN TO CATOONA LN 3 MIN (0.8 MI)



**GENERAL NOTES**

1. THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF SENET. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.
2. THE FACILITY IS AN UNMANNED PRIVATE AND SECURED EQUIPMENT INSTALLATION. IT IS ONLY ACCESSED BY TRAINED TECHNICIANS FOR PERIODIC ROUTINE MAINTENANCE AND THEREFORE DOES NOT REQUIRE ANY WATER OR SANITARY SEWER SERVICE. THE FACILITY IS NOT GOVERNED BY REGULATIONS REQUIRING PUBLIC ACCESS PER ADA REQUIREMENTS.
3. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE SENET REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

**ATC SITE NAME: STAMFORD**  
**ATC SITE NUMBER: 88018**

CALL



BEFORE YOU DIG



CALL TOLL FREE 888-DIG-SAFE OR DIAL 811

UNDERGROUND SERVICE ALERT



1400 OSGOOD STREET  
 BUILDING 01-NORTH SUITE 300  
 N. ANDOVER, MA 01845  
 TEL: (978) 557-5553  
 FAX: (978) 336-5584



199 BRICKYARD ROAD  
 FARMINGTON, CT 06032  
 TEL: (203) 275-6669  
 FAX: (413) 321-0338

**SITE NUMBER: CT-31**  
**SITE NAME: STAMFORD**  
 168 CATOONAH LANE  
 STAMFORD, CT 06901  
 FAIRFIELD COUNTY



46 RIVER ROAD  
 HUDSON, NH 03051

NO.	DATE	ISSUED FOR REVIEW	REVISIONS	BY	CHK	APP'D
0	09/21/15	ISSUED FOR REVIEW		EB	AT	DPH
A	09/19/15	ISSUED FOR REVIEW		EB	AT	DPH
SCALE: AS SHOWN		DESIGNED BY: RP		DRAWN BY: EB		

SENET

TITLE SHEET

JOB NUMBER	DRAWING NUMBER	REV
CT-31	T-1	0

<b>GROUNDING NOTES</b>	<b>GENERAL NOTES</b>
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1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADAPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LPI, OR NFPA) LIGHTING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.

2. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GES'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.

3. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.

4. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.

5. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS 2 AWG STRANDED COPPER FOR OUTDOOR BTS.

6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.

7. APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.

8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.

9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.

10. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.

11. METAL CONDUIT SHALL BE MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH 6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.

12. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE 1/2" OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID TINNED COPPER GROUND WIRE, PER NEC 250.50

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:  
 CONTRACTOR – NSS  
 SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)  
 OWNER – SENET

2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.

3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.

4. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.

5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.

6. "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.

7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.

8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE CONTRACTOR.

9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.

10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.

11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.

12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.

13. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.

14. ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL BE AIR-ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.

15. ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (Fy = 36 ksi) UNLESS OTHERWISE NOTED. PIPES SHALL BE ASTM A53 TYPE E (Fy = 36 ksi). ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCHUP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.

16. CONSTRUCTION SHALL COMPLY WITH SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF AT&T MOBILITY SITES."

17. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.

18. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.

19. SINCE THE CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE ADVISED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.

20. APPLICABLE BUILDING CODES:  
 SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.  
 BUILDING CODE: 2003 IBC WITH 2005 CT SUPPLEMENT & 2009 & 2013 CT AMENDMENTS  
 ELECTRICAL CODE: REFER TO ELECTRICAL DRAWINGS  
 LIGHTNING CODE: REFER TO ELECTRICAL DRAWINGS

SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:

AMERICAN CONCRETE INSTITUTE (ACI) 318; BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE;  
 AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)  
 MANUAL OF STEEL CONSTRUCTION, ASD, 14TH EDITION;  
 TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-F, STRUCTURAL STANDARDS FOR STEEL  
 ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES; REFER TO ELECTRICAL DRAWINGS FOR SPECIFIC ELECTRICAL STANDARDS.

FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

ABBREVIATIONS					
AGL	ABOVE GRADE LEVEL	G.C.	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
AWG	AMERICAN WIRE GAUGE	MGB	MASTER GROUND BUS		
BCW	BARE COPPER WIRE	MIN	MINIMUM	TBD	TO BE DETERMINED
BTS	BASE TRANSCIVER STATION	PROPOSED	NEW	TBR	TO BE REMOVED
EXISTING EXISTING		N.T.S.	NOT TO SCALE	TBRR	TO BE REMOVED AND REPLACED
EG	EQUIPMENT GROUND	REF	REFERENCE		
EGR	EQUIPMENT GROUND RING	REQ	REQUIRED	TYP	TYPICAL



1400 CIGWOOD STREET  
 BUILDING 30 NORTH SHIRE 3010  
 N. ANDOVER, MA 01845  
 TEL: (978) 551-5533  
 FAX: (978) 558-6986



**NSS** NORTHEAST  
 TANKS & METALS  
 199 BRICKYARD ROAD  
 FARMINGTON, CT 06032  
 TEL: (203) 275-6669  
 FAX: (413) 571-0336

**SITE NUMBER: CT-31**  
**SITE NAME: STAMFORD**  
 168 CATOONAH LANE  
 STAMFORD, CT 06901  
 FAIRFIELD COUNTY



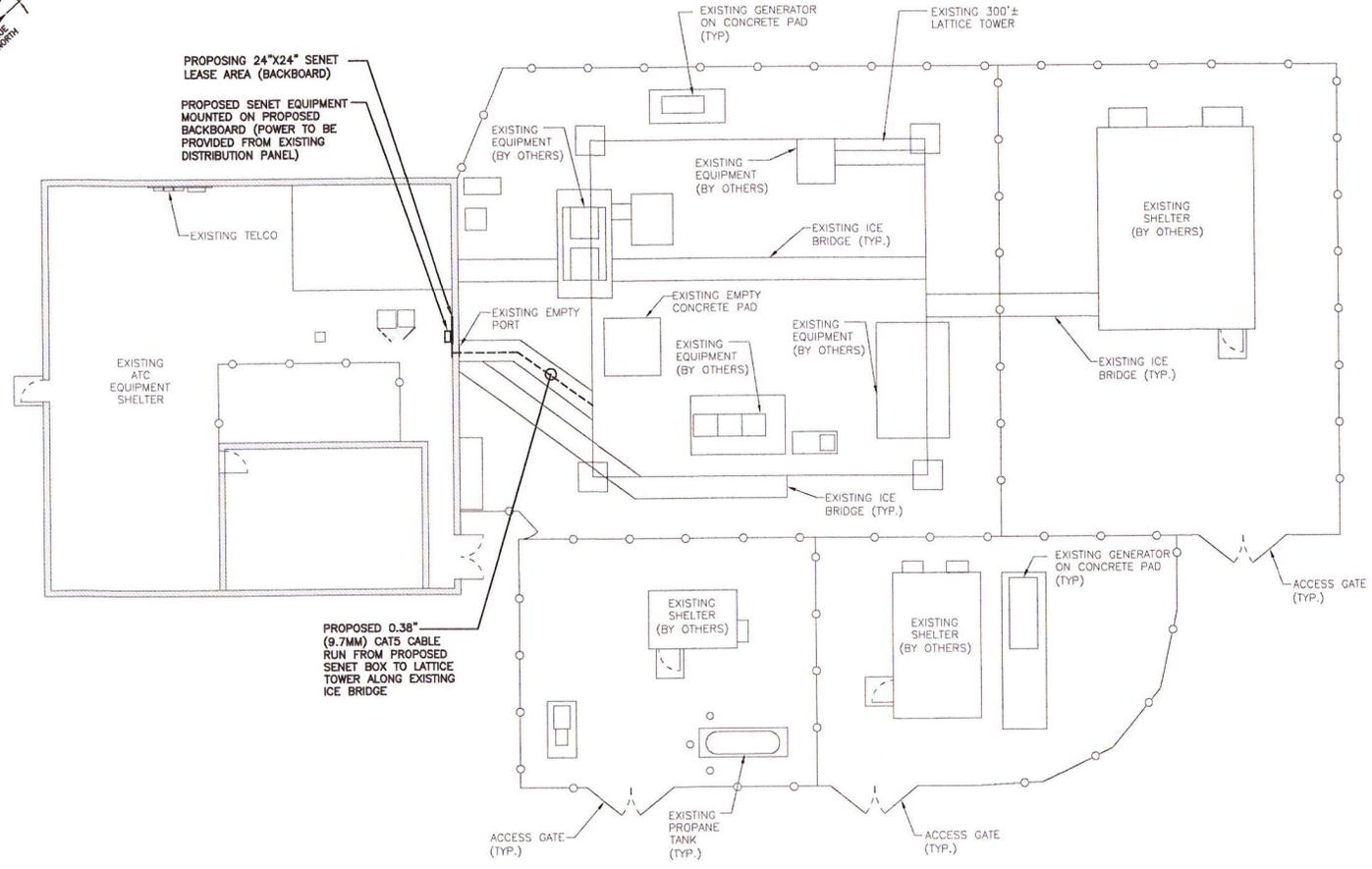
senet  
 the sensible network company  
 46 RIVER ROAD  
 HUDSON, NH 03051

0	09/21/15	ISSUED FOR REVIEW	EB	AT	DPH
A	08/19/15	ISSUED FOR REVIEW	EB	AT	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: RP	DRAWN BY: EB		

SENET	
GENERAL NOTES	
JOB NUMBER	DRAWING NUMBER
CT-31	GN-1
REV	0

**NOTE:**  
 REFER TO STRUCTURAL EVALUATION  
 BY: AMERICAN TOWER,  
 DATED: JULY 29, 2015,  
 FOR THE CAPACITY OF THE  
 EXISTING STRUCTURES TO SUPPORT  
 THE PROPOSED EQUIPMENT.

**NOTE:**  
 REFER TO THE FINAL RF DATA  
 SHEET FOR FINAL ANTENNA  
 SETTINGS.



**1** **COMPOUND PLAN**  
 SCALE: 1/8"=1'-0"  
 0 4'-0" 8'-0" 16'-0" 24'-0"

**Hudson**  
 Design Group, LLC  
 1400 OSSGOOD STREET  
 BUILDING 20 NORTH, SUITE 3090  
 K. ANDOVER, MA 01845  
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 FAX: (978) 356-6586

**NSS NORTHEAST**  
 Land Use Planning  
 199 BRICKYARD ROAD  
 FARMINGTON, CT 06032  
 TEL: (203) 275-6669  
 FAX: (413) 521-6288

**SITE NUMBER: CT-31**  
**SITE NAME: STAMFORD**  
 168 CATOONAH LANE  
 STAMFORD, CT 06901  
 FAIRFIELD COUNTY

**senet**  
 the sensible network company  
 46 RIVER ROAD  
 HUDSON, NH 03051

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SENET		
COMPOUND PLAN		
JOB NUMBER	DRAWING NUMBER	REV
CT-31	A-1	0

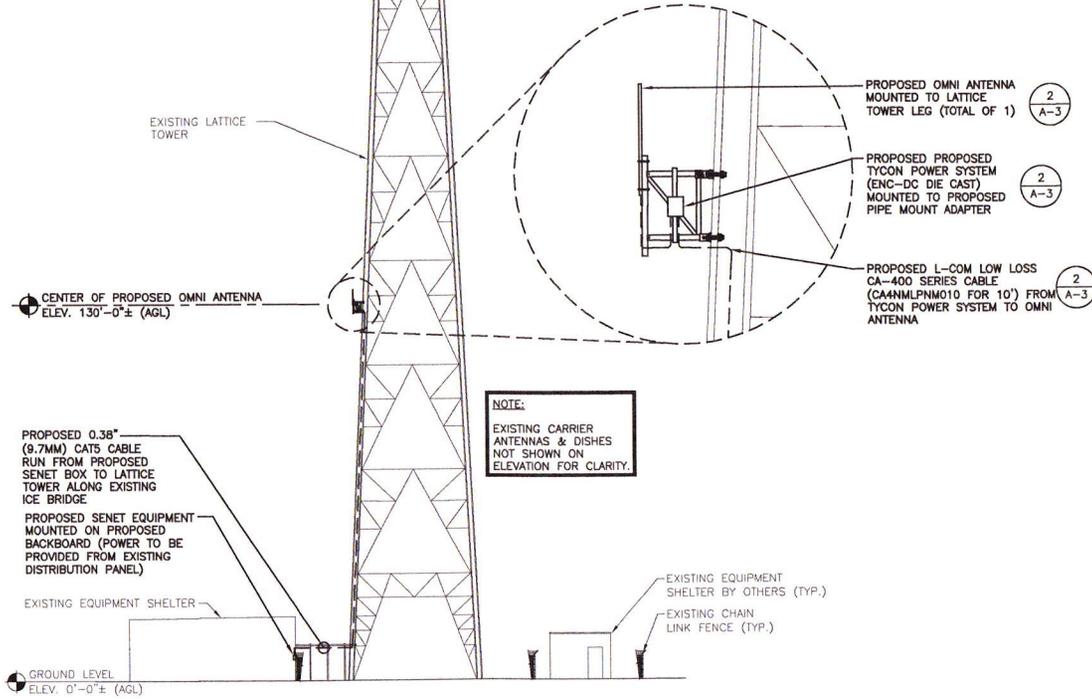
● CENTER OF EXISTING DISH ANTENNA  
ELEV. 306'-0"± (AGL)

● TOP OF EXISTING TOWER  
ELEV. 300'-0"± (AGL)

● CENTER OF EXISTING ANTENNA  
ELEV. 265'-0"± (AGL)

**NOTE:**  
REFER TO STRUCTURAL EVALUATION  
BY: AMERICAN TOWER,  
DATED: JULY 28, 2015,  
FOR THE CAPACITY OF THE  
EXISTING STRUCTURES TO SUPPORT  
THE PROPOSED EQUIPMENT.

**NOTE:**  
REFER TO THE FINAL RF DATA  
SHEET FOR FINAL ANTENNA  
SETTINGS.



**NOTE:**  
EXISTING CARRIER  
ANTENNAS & DISHES  
NOT SHOWN FOR CLARITY.

1  
A-2 EAST ELEVATION  
N.T.S.

**Hudson**  
Design Group

1600 OSGOOD STREET  
BUILDING 20 NORTH SUITE 300  
N. ANDOVER, MA 01810  
TEL: 978-337-5533  
FAX: 978-336-8586

**NSS** NORTHEAST  
SITE SOLUTIONS

199 BRACKYARD ROAD  
FAIRFIELD, CT 06424  
TEL: (203) 273-6667  
FAX: (413) 357-8238

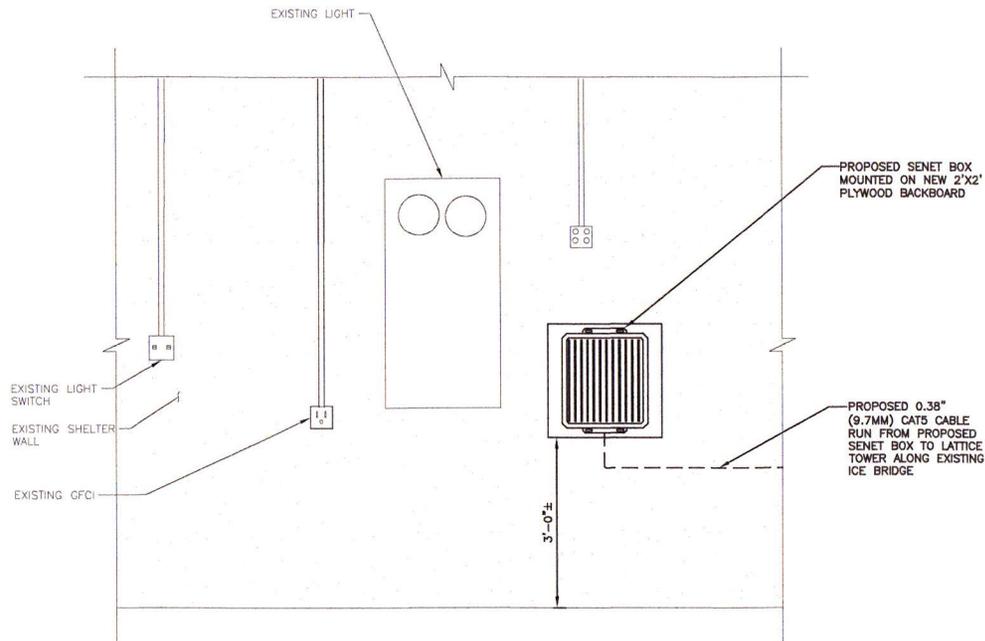
**SITE NUMBER: CT-31**  
**SITE NAME: STAMFORD**  
168 CATONAH LANE  
STAMFORD, CT 06901  
FAIRFIELD COUNTY

**senet**  
the sensible network company

46 RIVER ROAD  
HUDSON, NH 03051

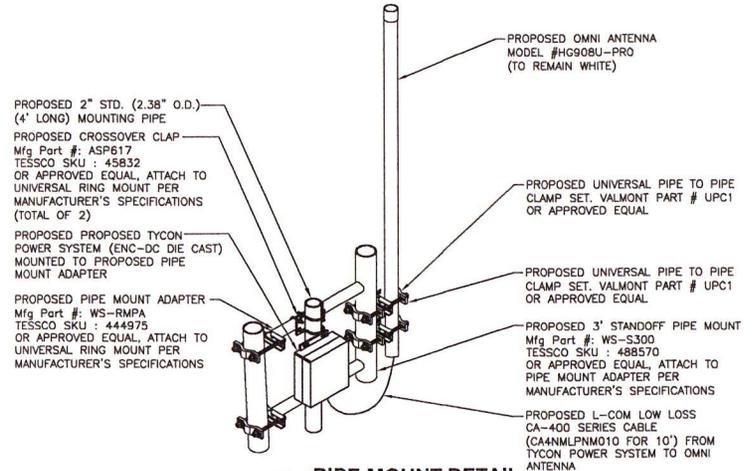
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SCALE: AS SHOWN		DESIGNED BY: RP	DRAWN BY: EB		

SENET		
ELEVATION		
JOB NUMBER	DRAWING NUMBER	REV
CT-31	A-2	0

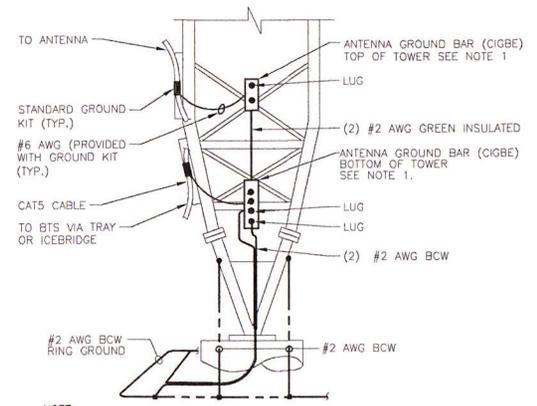


NOTE:  
MOUNT PROPOSED EQUIPMENT PER  
MANUFACTURER'S SPECIFICATIONS

**1**  
**A-3** **POWER SERVICE UNIT MOUNTING DETAIL**  
N.T.S.



**2**  
**A-3** **PIPE MOUNT DETAIL**  
N.T.S.



NOTE:  
1. NUMBER OF GROUND BARS MAY VARY DEPENDING ON THE TYPE OF TOWER. ANTENNA LOCATION AND CONNECTION ANTENNA LOCATION AND CONNECTION ORIENTATION, PROVIDE AS REQUIRED.  
2. A SEPARATE GROUND BAR TO BE USED FOR GPS ANTENNA IF REQUIRED.

**3**  
**A-3** **ANTENNA CABLE GROUNDING**  
N.T.S.

**Hudson**  
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BUILDING 21 NORTH SUITE 3070  
F, ANDOVER, MA 01845  
TEL: 978-331-3333  
FAX: 978-331-3386

**NSS** **NORTHEAST**  
SOLUTIONS  
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FARMINGTON, CT 06030  
TEL: (203) 275-6669  
FAX: 413-921-6388

**SITE NUMBER: CT-31**  
**SITE NAME: STAMFORD**  
168 CATOONAH LANE  
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FAIRFIELD COUNTY

**senet**  
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46 RIVER ROAD  
HUDSON, NH 03051

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SENET		
DETAILS		
JOB NUMBER	DRAWING NUMBER	REV
CT-31	A-3	0