



May 2, 2022

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

Re: Notice of Exempt Modification New Cingular Wireless PCS LLC ("AT&T") Site CT2141
652 Glenbrook Road, Stamford, CT 06906 (the "Property")
Latitude: 41.075408N Longitude: -73.519276 W

Dear Ms. Bachman:

AT&T currently maintains (9) antennas at the 106' level on the existing 104-foot water tank at 652 Glenbrook Road, Stamford, CT. The water tank and the property are owned by Glenbrook Industrial Park, LLC. AT&T intends to modify its facility by removing (3) antennas and adding (3) AIR6449 B77 antennas at the 104'4" level and (3) AIR6419 B77G antennas at the 108' level of the water tank. The AIR6419 B77G & AIR6649 B77D antennas are stacked one on top of the other. The height of AT&Ts existing antennas is 106'. The height of the existing & proposed antennas is 104'4", 106' and 108' level on the water tank.

This modification may include B2, B5, B17, B14, B29, B30, B66 & n77 hardware that is 4G(LTE) and/or 5GNR capable through remote software configuration and either or both services may be turned on or off at various times.

AT&T received CT Siting Council approval under TS-AT&T-135-991014 on January 5, 2000. The City of Stamford issued a zoning enforcement approval on April 13, 2021, and a building permit on April 19, 2021. These approvals contained no conditions that could feasibly be violated by this modification, including facility height or mounting restrictions. AT&Ts modification complies with the above-mentioned approvals.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies ("R.C.S.A") §16-50j-73 for construction that constitutes an exempt modification pursuant to R.C.S.A §16-50j-72(b)(2). In accordance with to R.C.S.A §16-50j-73, a copy of this letter is being sent to Hon. Caroline Simmons, Mayor, City of Stamford, chief elected official, Mr. Ralph Blessing, Land Use Bureau Chief, City of Stamford, and Glenbrook Industrial Park, LLC, the property and water tank owner.

The planned modification of the facility falls squarely within those activities explicitly provided for in R.C.S.A §16-50j-72(b)(2). Specifically:

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modifications will not require an extension of the site boundary.
3. The proposed modification will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the modified facility will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and foundation can support the proposed loading.

For the foregoing reasons, AT&T respectfully submits the proposed modifications to the above referenced telecommunication facility constitute an exempt modification pursuant to R.C.S.A §16-50j-72(b)(2).

Sincerely,

Hollis M. Redding

Hollis M. Redding
SAI Communications, LLC
12 Industrial Way
Salem, NH 03079
Mobile: 860-834-6964
hredding@saigrp.com

Enclosures

Cc:

Hon. Caroline Simmons, Mayor, chief elected official, City of Stamford
Mr. Ralph Blessing, Land Use Bureau Chief, City of Stamford
Glenbrook Industrial Park, LLC, the property & water tank owner



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

Calculated Radio Frequency Exposure



CT2141

652 Glenbrook Road, Stamford, CT 06906

April 29, 2022

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1. Introduction

The purpose of this report is to investigate compliance with applicable FCC regulations for the proposed modification of the AT&T antenna arrays on an existing water tower located at 652 Glenbrook Road in Stamford, CT. The coordinates of the proposed tower are 41° 04' 31 N, 73° 31' 09" W.

AT&T is proposing the following:

- 1) Install twelve (12) multi-band antennas (four (4) per sector) to support its commercial LTE network and the FirstNet National Public Safety Broadband Network ("NPSBN").

This report considers the planned antenna configuration for AT&T¹ to derive the resulting % Maximum Permissible Exposure of its proposed installation.

2. FCC Guidelines for Evaluating RF Radiation Exposure Limits

In 1985, the FCC established rules to regulate radio frequency (RF) exposure from FCC licensed antenna facilities. In 1996, the FCC updated these rules, which were further amended in August 1997 by OET Bulletin 65 Edition 97-01. These new rules include Maximum Permissible Exposure (MPE) limits for transmitters operating between 300 kHz and 100 GHz. The FCC MPE limits are based upon those recommended by the National Council on Radiation Protection and Measurements (NCRP), developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI).

The FCC general population/uncontrolled limits set the maximum exposure to which most people may be subjected. General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

Public exposure to radio frequencies is regulated and enforced in units of milliwatts per square centimeter (mW/cm²). The general population exposure limits for the various frequency ranges are defined in the attached "FCC Limits for Maximum Permissible Exposure (MPE)" in Attachment B of this report.

Higher exposure limits are permitted under the occupational/controlled exposure category, but only for persons who are exposed as a consequence of their employment and who have been made fully aware of the potential for exposure, and they must be able to exercise control over their exposure. General population/uncontrolled limits are five times more stringent than the levels that are acceptable for occupational, or radio frequency trained individuals. Attachment B contains excerpts from OET Bulletin 65 and defines the Maximum Exposure Limit.

Finally, it should be noted that the MPE limits adopted by the FCC for both general population/uncontrolled exposure and for occupational/controlled exposure incorporate a substantial margin of safety and have been established to be well below levels generally accepted as having the potential to cause adverse health effects.

¹ As referenced to AT&T's Radio Frequency Design Sheet dated 02/15/2022.

3. RF Exposure Calculation Methods

The power density calculation results were generated using the following formula as outlined in FCC bulletin OET 65, and Connecticut Siting Council recommendations:

$$\text{Power Density} = \left(\frac{1.6^2 \times 1.64 \times \text{ERP}}{4\pi \times R^2} \right) \times \text{Off Beam Loss}$$

Where:

ERP = Effective Radiated Power

$$R = \text{Radial Distance} = \sqrt{H^2 + V^2}$$

H = Horizontal Distance from antenna

V = Vertical Distance from radiation center of antenna

Ground reflection factor of 1.6

Off Beam Loss is determined by the selected antenna pattern

These calculations assume that the antennas are operating at 100 percent capacity and power, and that all antenna channels are transmitting simultaneously. Obstructions (trees, buildings, etc.) that would normally attenuate the signal are not taken into account. The calculations assume even terrain in the area of study and do not consider actual terrain elevations which could attenuate the signal. As a result, the predicted signal levels reported below are much higher than the actual signal levels will be from the final installations.

4. Calculation Results

Table 1 below outlines the cumulative power density information for the AT&T modification on the existing tower at the site. The proposed antennas are directional in nature; therefore, the majority of the RF power is focused out towards the horizon. As a result, there will be less RF power directed below the antennas relative to the horizon, and consequently lower power density levels around the base of the tower. Please refer to Attachment C for the vertical pattern of the proposed AT&T antennas. The calculated results for AT&T in Table 1 include a nominal 10 dB off-beam pattern loss to account for the lower relative gain below the antennas.

Carrier	Antenna Height (Feet)	Operating Frequency (MHz)	Number of Trans.	ERP Per Transmitter (Watts)	Power Density (mw/cm ²)	Limit	% MPE
T-Mobile	85	2500	1	19239	0.1109	1.0000	11.09%
T-Mobile	85	2500	1	19239	0.1109	1.0000	11.09%
T-Mobile	85	1900	4	1028	0.0237	1.0000	2.37%
T-Mobile	85	1900	2	2057	0.0237	1.0000	2.37%
T-Mobile	85	2100	2	2308	0.0266	1.0000	2.66%
T-Mobile	85	600	2	592	0.0068	0.4000	1.71%
T-Mobile	85	600	1	1578	0.0091	0.4000	2.27%
T-Mobile	85	700	2	649	0.0075	0.4667	1.60%
T-Mobile	85	1900	2	2204	0.0254	1.0000	2.54%
T-Mobile	85	2100	2	1295	0.0149	1.0000	1.49%
MetroPCS	102	2130	7	882	0.0241	1.0000	2.41%
Sprint	93	850	1	377	0.0018	0.5667	0.32%
Sprint	93	850	2	942	0.0090	0.5667	1.58%
Sprint	93	1900	5	512	0.0122	1.0000	1.22%
Sprint	93	1900	2	1280	0.0122	1.0000	1.22%
Sprint	93	2500	8	640	0.0243	1.0000	2.43%
Sprint	93	11000	1	7852	0.0373	1.0000	3.73%
AT&T	106	739	1	2507	0.0090	0.4927	1.83%
AT&T	106	763	1	2945	0.0106	0.5087	2.08%
AT&T	106	885	1	2813	0.0101	0.5900	1.72%
AT&T	106	1900	3	6013	0.0649	1.0000	6.49%
AT&T	106	2100	2	9890	0.0712	1.0000	7.12%
AT&T	106	2300	1	6594	0.0237	1.0000	2.37%
AT&T	104.33	3500	1	24286	0.0904	1.0000	9.04%
AT&T	108	3500	1	24286	0.0840	1.0000	8.40%
						Total	91.15%

Table 1: Carrier Information²

² The existing record in the CSC Power Density Table for AT&T should be removed and replaced with the updated AT&T technologies and values provided in Table 1. The power density information for DISH, Verizon and T-Mobile was taken directly from the CSC database dated 01/21/2022. Please note that % MPE values listed are rounded to two decimal points and the total % MPE listed is a summation of each unrounded contribution. Therefore, summing each rounded value may not identically match the total value reflected in the table.

5. Conclusion

The above analysis concludes that RF exposure at ground level from the proposed site will be below the maximum power density levels as outlined by the FCC in the OET Bulletin 65 Ed. 97-01. Using conservative calculation methods, the highest expected percent of Maximum Permissible Exposure at ground level is **91.15% of the FCC General Population/Uncontrolled limit.**

As noted previously, the calculated % MPE levels are more conservative (higher) than the actual signal levels will be from the finished modifications.

6. Statement of Certification

I certify to the best of my knowledge that the statements in this report are true and accurate. The calculations follow guidelines set forth in FCC OET Bulletin 65 Edition 97-01, ANSI/IEEE Std. C95.1 and ANSI/IEEE Std. C95.3.



April 29, 2022
Date

Reviewed/Approved By: Martin J. Lavin
Senior RF Engineer
C Squared Systems, LLC

Attachment A: References

OET Bulletin 65 - Edition 97-01 - August 1997 Federal Communications Commission Office of Engineering & Technology

IEEE C95.1-2005, IEEE Standard Safety Levels With Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz IEEE-SA Standards Board

IEEE C95.3-2002 (R2008), IEEE Recommended Practice for Measurements and Computations of Radio Frequency Electromagnetic Fields With Respect to Human Exposure to Such Fields, 100 kHz-300 GHz IEEE-SA Standards Board

Attachment B: FCC Limits for Maximum Permissible Exposure (MPE)

(A) Limits for Occupational/Controlled Exposure³

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f ²)*	6
30-300	61.4	0.163	1.0	6
300-1500	-	-	f/300	6
1500-100,000	-	-	5	6

(B) Limits for General Population/Uncontrolled Exposure⁴

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1500	-	-	f/1500	30
1500-100,000	-	-	1.0	30

f = frequency in MHz * Plane-wave equivalent power density

Table 2: FCC Limits for Maximum Permissible Exposure (MPE)

³ Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure

⁴ General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure

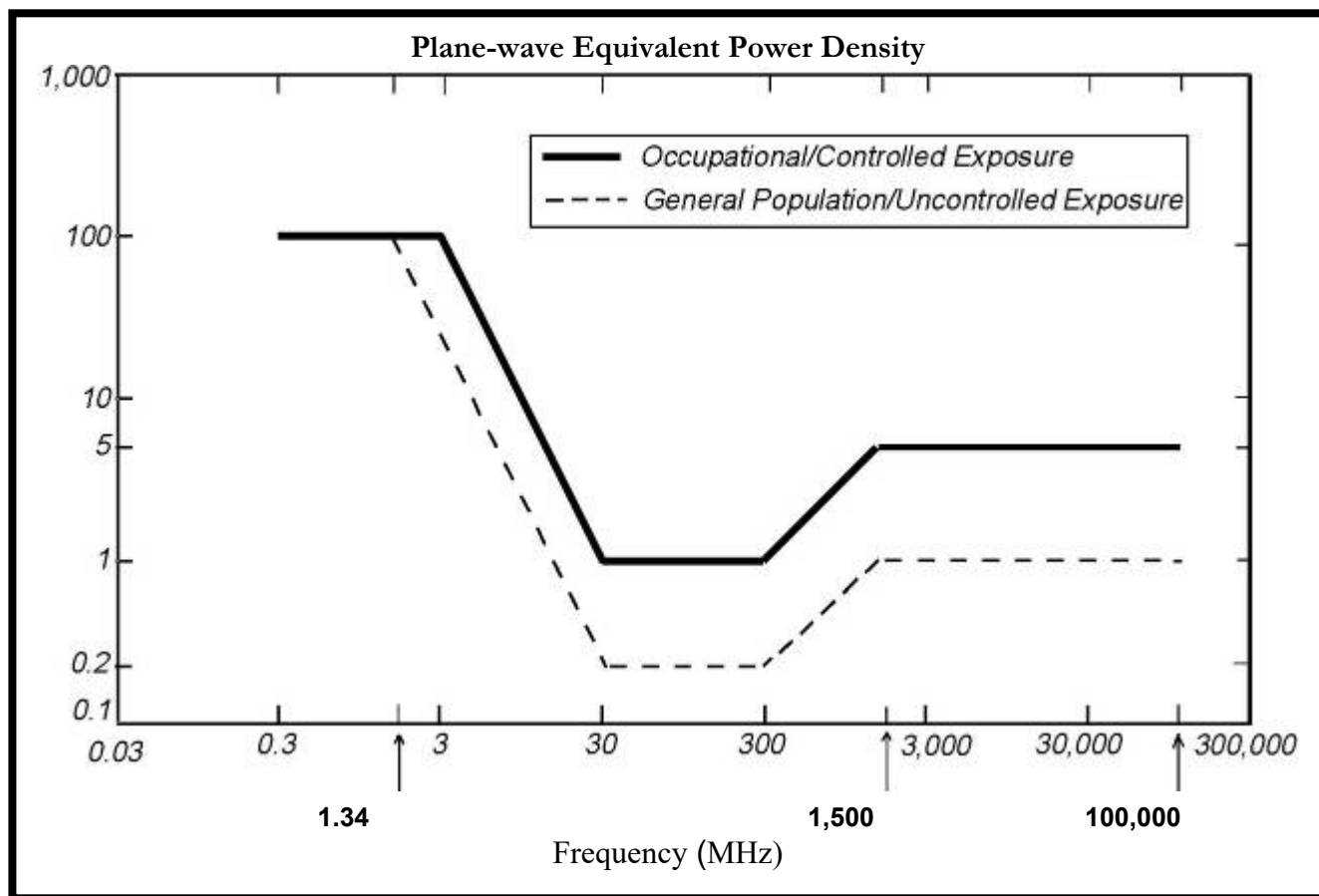
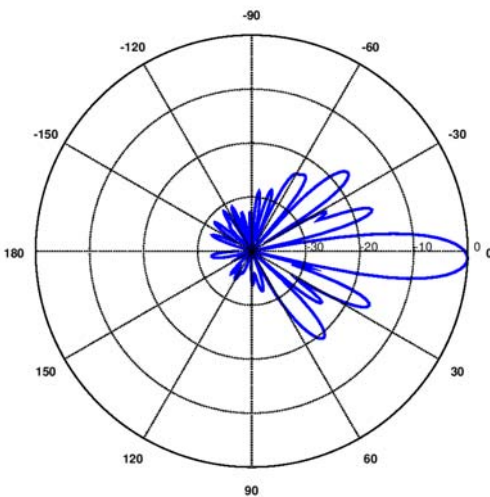
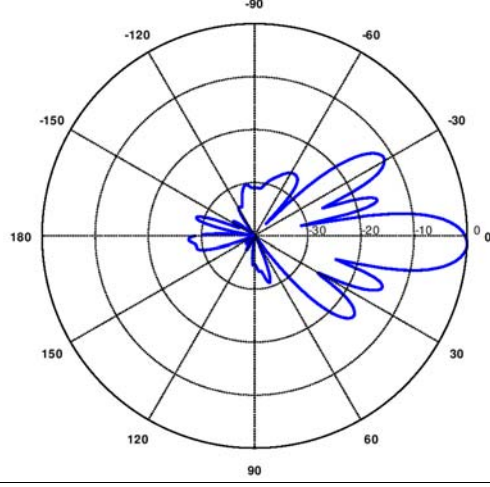
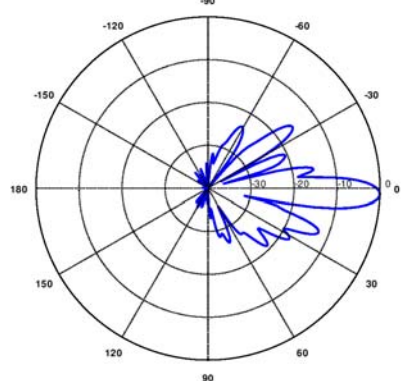
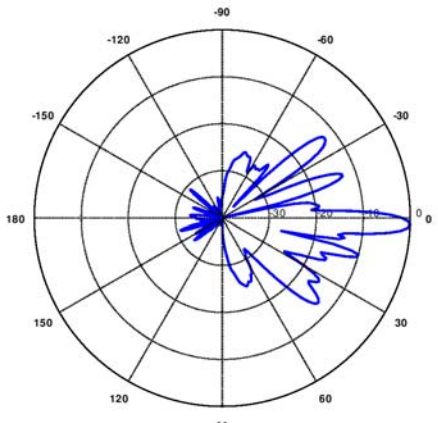
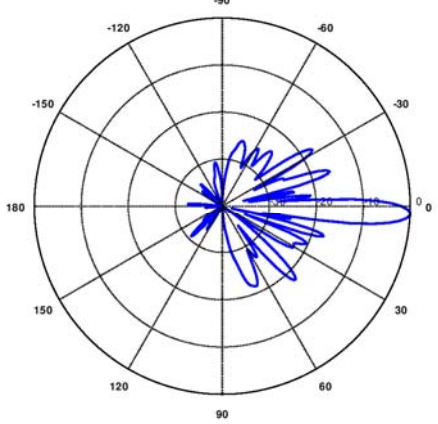


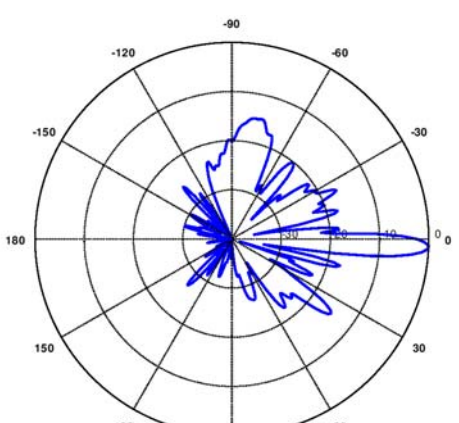
Figure 1: Graph of FCC Limits for Maximum Permissible Exposure (MPE)

Attachment C: AT&T Antenna Data Sheets and Electrical Patterns

739 MHz		
Manufacturer:	CCI Products	
Model #:	DMP65R-BU8D	
Frequency Band:	698-798 MHz	
Gain:	15.1 dBi	
Vertical Beamwidth:	9.5°	
Horizontal Beamwidth:	75°	
Polarization:	Dual Linear 45°	
Size L x W x D:	96.0" x 20.7" x 7.7"	
763 MHz		
Manufacturer:	Kathrein	
Model #:	80010965	
Frequency Band:	698 - 806MHz	
Gain:	14.8 dBi	
Vertical Beamwidth:	11.6°	
Horizontal Beamwidth:	63°	
Polarization:	Dual Linear 45°	
Size L x W x D:	78.7" x 20.0" x 6.9"	
885 MHz		
Manufacturer:	CCI Products	
Model #:	DMP65R-BU8D	
Frequency Band:	824 - 896 MHz	
Gain:	16.0 dBi	
Vertical Beamwidth:	8.0°	
Horizontal Beamwidth:	64°	
Polarization:	Dual Linear 45°	
Size L x W x D:	96.0" x 20.7" x 7.7"	

1900 MHz		
Manufacturer:	CCI	
Model #:	DMP65R-BU6DA	
Frequency Band:	1920-1990 MHz	
Gain:	17.7 dBi	
Vertical Beamwidth:	5.2°	
Horizontal Beamwidth:	69°	
Polarization:	Dual Linear 45°	
Size L x W x D:	71.2" x 20.7" x 7.7"	

2100 MHz		
Manufacturer:	Kathrein	
Model #:	80010965	
Frequency Band:	1920-2180 MHz	
Gain:	18.3 dBi	
Vertical Beamwidth:	5.5°	
Horizontal Beamwidth:	62°	
Polarization:	Dual Linear 45°	
Size L x W x D:	78.7" x 20.0" x 6.9"	

2300 MHz		
Manufacturer:	Kathrein	
Model #:	80010965	
Frequency Band:	2300-2400 MHz	
Gain:	18.0 dBi	
Vertical Beamwidth:	4.8°	
Horizontal Beamwidth:	56°	
Polarization:	Dual Linear 45°	
Size L x W x D:	78.7" x 20.0" x 6.9"	

PROJECT INFORMATION		
SCOPE OF WORK:	<u>ITEMS TO BE MOUNTED ON THE EXISTING WATER TANK:</u> <ul style="list-style-type: none">• NEW AT&T ANTENNAS: AIR6419 B77G (TYP. OF 1 PER SECTOR, TOTAL OF 3).• NEW AT&T ANTENNAS: AIR6449 B77 (TYP. OF 1 PER SECTOR, TOTAL OF 3).• EXISTING AT&T ANTENNAS: 800-10965 (TYP. OF 1 PER ALPHA & BETA SECTOR, TOTAL OF 3) (TO BE RELOCATED TO POS. 3).• EXISTING AT&T RRUS: RRUS-32 B30 (WCS) (TYP. OF 1 PER ALPHA & BETA SECTOR, TOTAL OF 2) (TO BE RELOCATED TO POS. 3).• EXISTING AT&T RRUS: RRUS-32 B2 (PCS) (TYP. OF 1 PER ALPHA & BETA SECTOR, TOTAL OF 2) (TO BE RELOCATED TO POS. 4).• EXISTING AT&T RRUS: RRUS-32 B2 (PCS) (TOTAL OF 1 PER GAMMA SECTOR) (TO BE RELOCATED TO POS. 1).• EXISTING AT&T RRUS: RRUS-4478 B14 (700) (TYP. OF 1 PER ALPHA & BETA SECTOR, TOTAL OF 2) (TO BE RELOCATED TO POS. 3).• EXISTING AT&T RRUS: RRUS-4426 B66 (AWS) (TYP. OF 1 PER ALPHA & BETA SECTOR, TOTAL OF 2) (TO BE RELOCATED TO POS. 3).• EXISTING AT&T RRUS: RRUUS-4426 B66 (AWS) (TOTAL OF 1 PER GAMMA SECTOR) (TO BE RELOCATED TO POS. 2).• NEW AT&T DC & FIBER SURGE ARRESTOR DC9-48-60-24-8C-EV WITH (3) AWG6 DC TRUNK AND (3) 24-PAIR FIBER TRUNKS (TO REPLACE EXISTING) (TYP. OF 1 PER SECTOR, TOTAL OF 3).• NEW AT&T HIGH BAND COMBINERS (DBC0062F3V52-1) (TYP. OF 2 PER SECTOR, TOTAL OF 6).• ADD (3) Y-CABLES.	
	<u>ITEMS TO BE MOUNTED AT EQUIPMENT LOCATION:</u> <ul style="list-style-type: none">• ADD (1) 6648 + XCEDE CABLE.• ADD (3) RECTIFIERS.• ADD (1) INDOOR DC12.	
	<u>ITEMS TO BE REMOVED:</u> <ul style="list-style-type: none">• EXISTING AT&T ANTENNA: HPA-65R-BUU-H6 (TYP. OF 1 PER SECTOR, TOTAL OF 3).• EXISTING AT&T (12) COAX CABLES.• EXISTING AT&T (3) FIBER TRUNKS.	
	<u>ITEMS TO REMAIN:</u> <ul style="list-style-type: none">• (6) ANTENNAS, (15) RRU'S & (6) DC POWER.	
SITE ADDRESS:	652 GLENBROOK ROAD STAMFORD, CT 06906	
LATITUDE:	41.075408° N, 41° 4' 31.47" N	
LONGITUDE:	-73.519276° W, 73° 31' 9.39" W	
TYPE OF SITE:	WATER TANK / INDOOR EQUIPMENT	
STRUCTURE HEIGHT:	104'-0"±	
RAD CENTER:	106-0"± (LTE), 108'-0"± (DOD) & 104'-5"± (C-BAND)	
CURRENT USE:	TELECOMMUNICATIONS FACILITY	
PROPOSED USE:	TELECOMMUNICATIONS FACILITY	

DRAWING INDEX		
SHEET NO.	DESCRIPTION	REV.
T-1	TITLE SHEET	1
GN-1	GENERAL NOTES	1
A-1	COMPOUND & EQUIPMENT PLANS	1
A-2	ANTENNA LAYOUTS	1
A-3	ELEVATION	1
A-4	DETAILS	1
G-1	GROUNDING DETAILS	1
RF-1	RF PLUMBING DIAGRAM	1
RF-2	RF PLUMBING DIAGRAM	1



45 BEECHWOOD DRIVE
NORTH ANDOVER, MA 01845

TEL: (978) 557-5553
FAX: (978) 336-5586



12 INDUSTRIAL WAY
SALEM, NH 03079

SITE NUMBER: CT2141
SITE NAME: BELLTOWN

652 GLENBROOK ROAD
STAMFORD, CT 06906
FAIRFIELD COUNTY



500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

1		4/12/22	ISSUED FOR CONSTRUCTION	HC	DPH	AT&T	
A		02/04/22	ISSUED FOR REVIEW	HC	DPH	TITLE SHEET	
NO.	DATE	REVISIONS		BY	CHK	APP'D	5G NR 1SR C-BAND UPGRADE
SCALE:	AS SHOWN	DESIGNED BY:	HC	DRAWN BY:	-		
						CT2141	T-1
							1



SITE NUMBER: CT2141
SITE NAME: BELLTOWN
FA CODE: 10035137

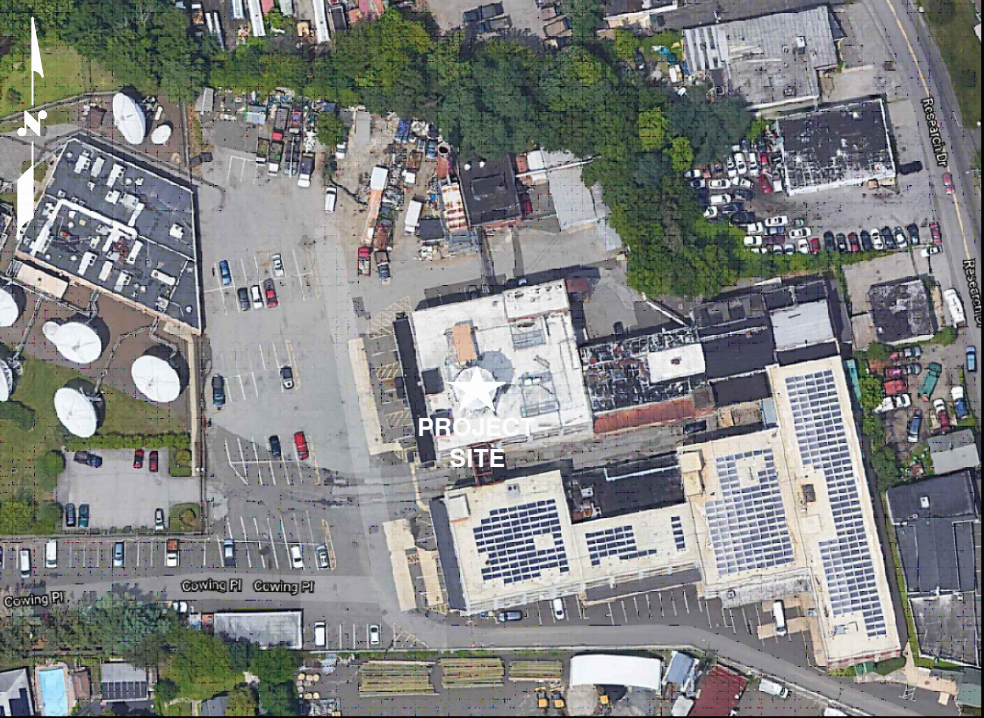
PACE ID: MRCTB057780, MRCTB057800, MRCTB052242, MRCTB050986

PROJECT: 5G NR 1SR C-BAND UPGRADE

VICINITY MAP

DIRECTIONS TO SITE:

GET ON I-91 S FROM ENTERPRISE DR. HEAD SOUTHEAST TOWARD CAPITAL BLVD TURN LEFT ONTO CAPITAL BLVD. USE THE LEFT LANE TO TURN LEFT ONTO STATE HWY 411 TURN LEFT TO MERGE ONTO I-91 S. TAKE CT-15 S TO CT-106 S/OLD STAMFORD RD IN NEW CANAAN. TAKE EXIT 36 FROM CT-15 S. MERGE ONTO I-91 S. KEEP RIGHT TO STAY ON I-91 S TAKE EXIT 17 TO MERGE ONTO CT-15 S. KEEP RIGHT TO STAY ON CT-15 S, FOLLOW SIGNS FOR W CROSS PKWY. TAKE EXIT 36 FOR CT-106/OLD STAMFORD RD. CONTINUE ON CT-106 S TO YOUR DESTINATION IN STAMFORD. TURN RIGHT ONTO CT-106 S/OLD STAMFORD RD. TURN RIGHT ONTO MIDDLESEX RD. CONTINUE ONTO CT-106 S/GLENBROOK RD. TURN RIGHT DESTINATION WILL BE ON THE RIGHT. 652 GLENBROOK RD STAMFORD, CT 06906



GENERAL NOTES

1. THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF AT&T. 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 AT&T MOBILITY REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.
4. CONSTRUCTION DRAWINGS ARE VALID FOR SIX MONTHS AFTER ENGINEER OF RECORD'S STAMPED AND SIGNED SUBMITTAL DATE LISTED HEREIN.

72 HOURS

CALL BEFORE YOU DIG

CALL TOLL FREE 1-800-922-4455
OR CALL 811

UNDERGROUND SERVICE ALERT



GROUNDING NOTES

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 ADOPTED 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 STANDARDS) 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 AND #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 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 OF 1/2 IN. OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BARE TINNED COPPER GROUND WIRE, PER NEC 250.50

GENERAL NOTES

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
- CONTRACTOR – SAI
SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
OWNER – AT&T MOBILITY
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. TOUCH UP 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 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: IBC 2015 WITH 2018 CT STATE BUILDING CODE AMENDMENTS
ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE (NFPA 70-2017)

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, FOURTEENTH EDITION;

TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-H, STRUCTURAL STANDARDS FOR STEEL

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	EQ	EQUAL	REQ	REQUIRED
AWG	AMERICAN WIRE GAUGE	GC	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
BBU	BATTERY BACKUP UNIT	GRC	GALVANIZED RIGID CONDUIT	TBD	TO BE DETERMINED
BTCW	BARE TINNED SOLID COPPER WIRE	MGB	MASTER GROUND BAR	TBR	TO BE REMOVED
BGR	BURIED GROUND RING	MIN	MINIMUM	TBRR	TO BE REMOVED AND REPLACED
BTS	BASE TRANSCEIVER STATION	P	PROPOSED	TYP	TYPICAL
E	EXISTING	NTS	NOT TO SCALE	UG	UNDER GROUND
EGB	EQUIPMENT GROUND BAR	RAD	RADIATION CENTER LINE	VIF	VERIFY IN FIELD
EGR	EQUIPMENT GROUND RING	REF	REFERENCE		



45 BEECHWOOD DRIVE
NORTH ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 336-5586



12 INDUSTRIAL WAY
SALEM, NH 03079

SITE NUMBER: CT2141
SITE NAME: BELLTOWN

652 GLENBROOK ROAD
STAMFORD, CT 06906
FAIRFIELD COUNTY

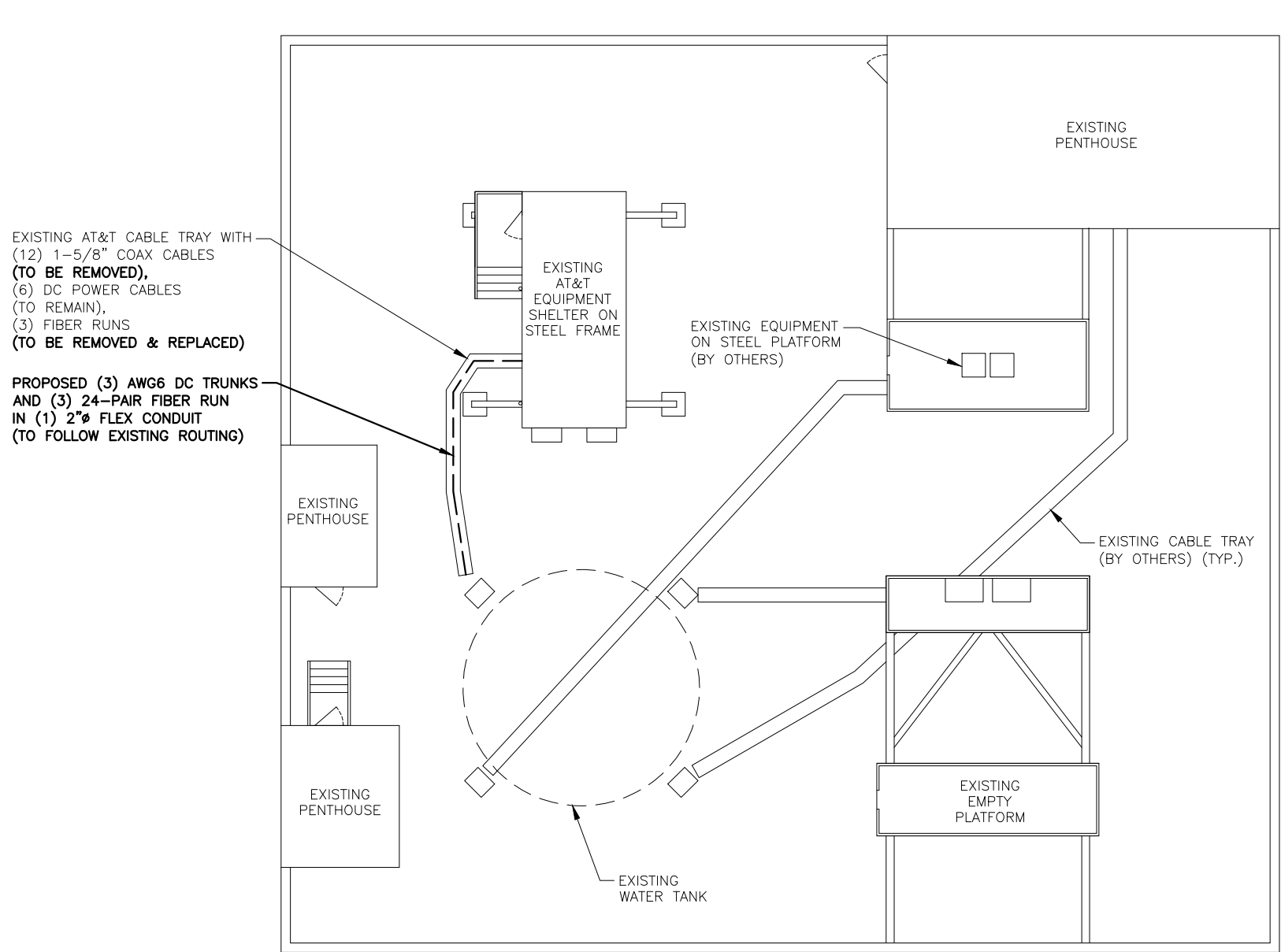


500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

				AT&T		
				GENERAL NOTES		
				5G NR 1SR C-BAND UPGRADE		
NO.	DATE	REVISIONS	BY	CHK	APP'D	
1	4/12/22	ISSUED FOR CONSTRUCTION	HC	DPH		
A	02/04/22	ISSUED FOR REVIEW	HC	DPH		
SCALE: AS SHOWN		DESIGNED BY: HC	DRAWN BY: -			
				PROJECT NUMBER	DRAWING NUMBER	REV
				CT2141	GN-1	1

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

NOTE:
REFER TO THE STRUCTURAL ANALYSIS
BY: HUDSON DESIGN GROUP, LLC
DATED: FEBRUARY 25, 2022
FOR THE CAPACITY OF THE EXISTING
STRUCTURES TO SUPPORT THE
PROPOSED EQUIPMENT.

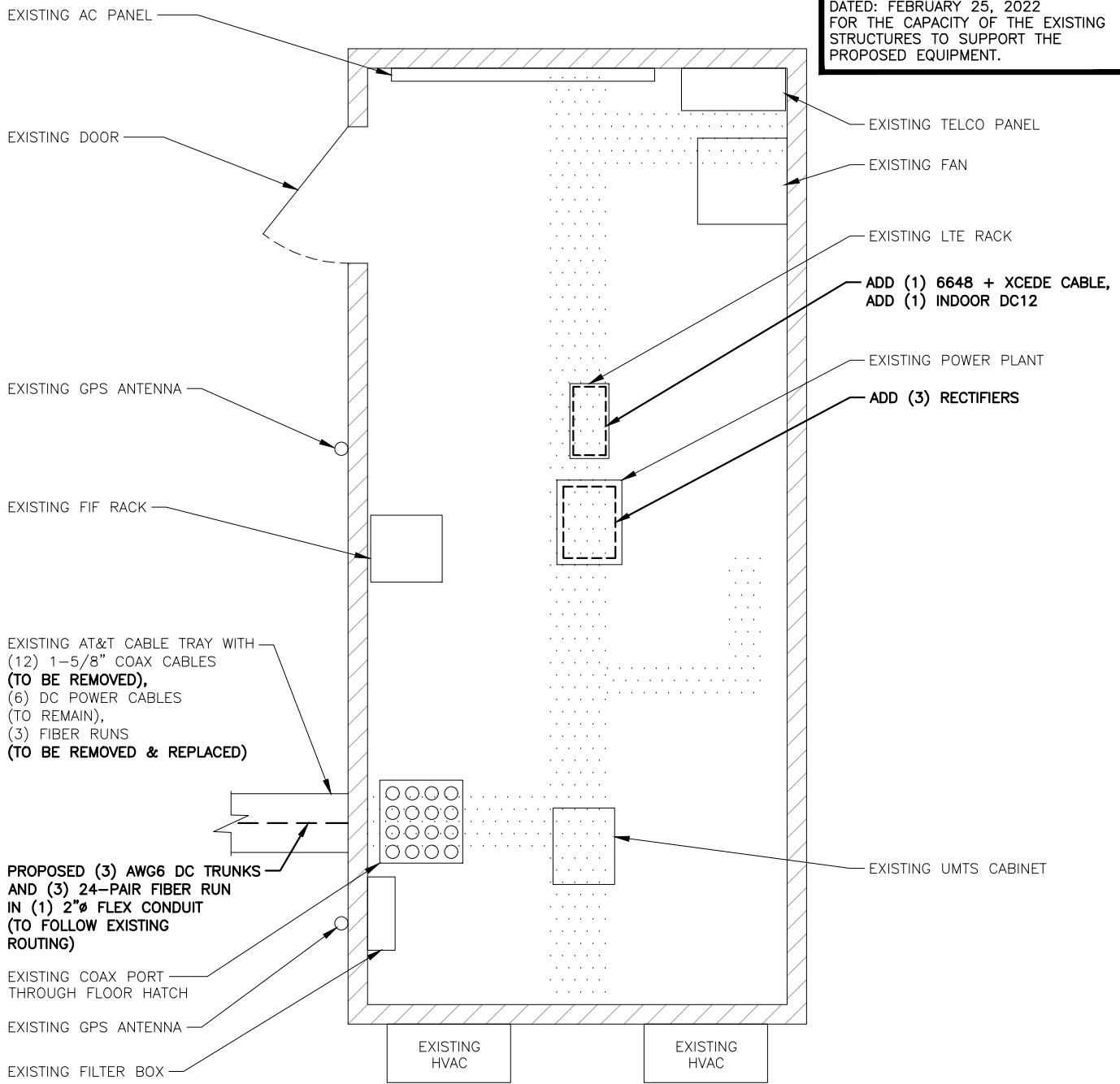


COMPOUND PLAN

22x34 SCALE: 1/4"=1'-0"
11x17 SCALE: 1/8"=1'-0"

1
A-1

0 2'-0" 4'-0" 8'-0" 12'-0"



EQUIPMENT PLAN

22x34 SCALE: 1/2"=1'-0"
11x17 SCALE: 1/4"=1'-0"

2
A-1

0 2'-0" 4'-0" 6'-0"



45 BEECHWOOD DRIVE
NORTH ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 336-5586



12 INDUSTRIAL WAY
SALEM, NH 03079

SITE NUMBER: CT2141
SITE NAME: BELLTOWN

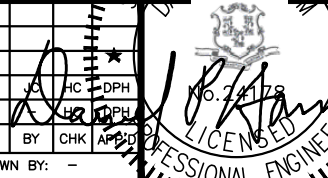
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STAMFORD, CT 06906
FAIRFIELD COUNTY



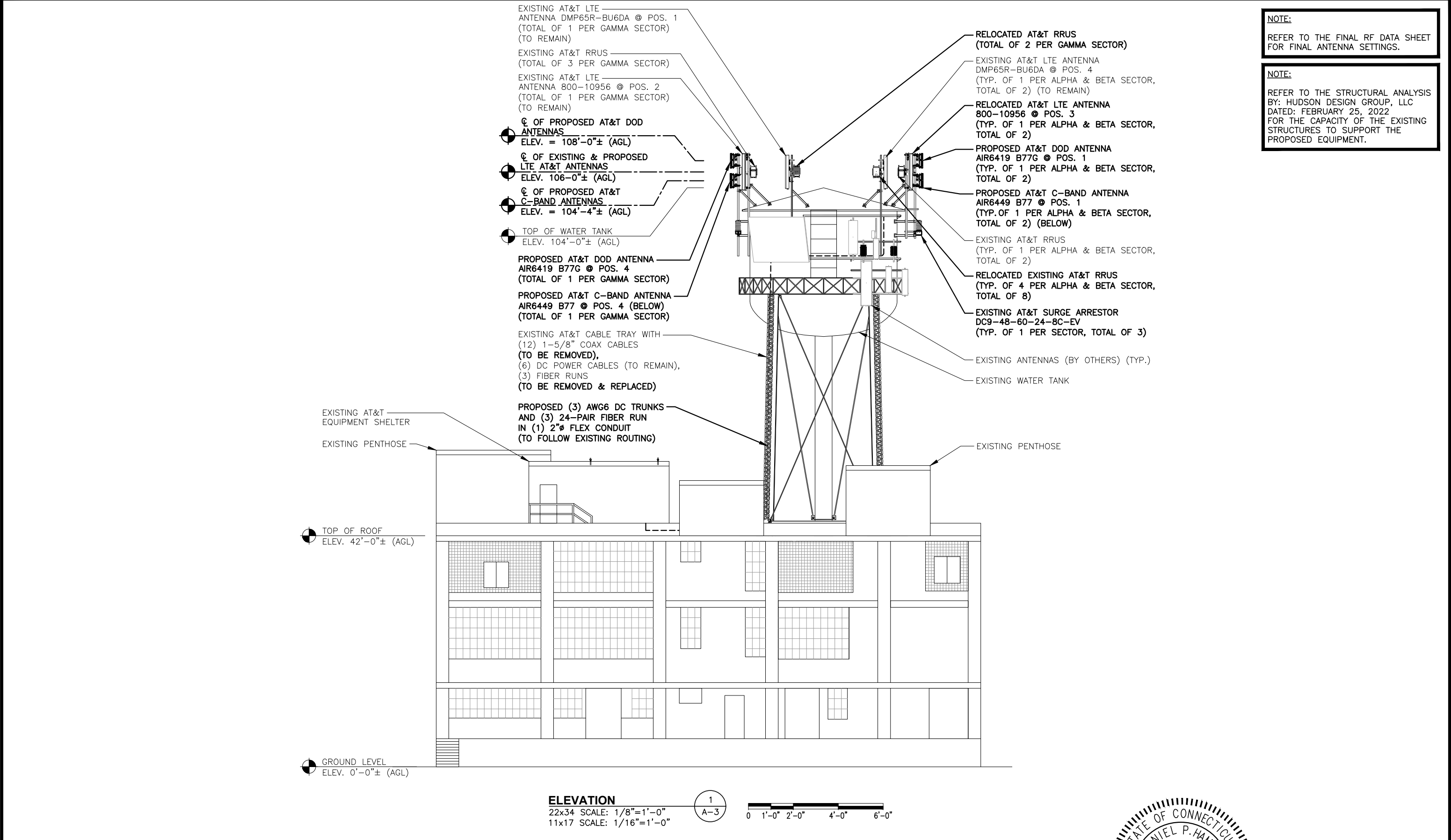
500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

NO.	DATE	REVISIONS	BY	CHK	APP
1	4/12/22	ISSUED FOR CONSTRUCTION	HC	DPH	
A	02/04/22	ISSUED FOR REVIEW	HC	DPH	

SCALE: AS SHOWN DESIGNED BY: HC DRAWN BY: -



AT&T		
COMPOUND & EQUIPMENT PLAN		
5G NR 1SR C-BAND UPGRADE		
SHEET NUMBER	DRAWING NUMBER	REV
CT2141	A-1	1



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

NOTE:
REFER TO THE STRUCTURAL ANALYSIS BY: HUDSON DESIGN GROUP, LLC DATED: FEBRUARY 25, 2022 FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT.

45 BEECHWOOD DRIVE
NORTH ANDOVER, MA 01845
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12 INDUSTRIAL WAY
SALEM, NH 03079

SITE NUMBER: CT2141
SITE NAME: BELLTOWN

652 GLENBROOK ROAD
STAMFORD, CT 06906
FAIRFIELD COUNTY

500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

1	4/12/22	ISSUED FOR CONSTRUCTION	AC	DPH	NO. 22-1176
A	02/04/22	ISSUED FOR REVIEW	AC	DPH	
NO.	DATE	REVISIONS	BY	CHK	APP
SCALE: AS SHOWN		DESIGNED BY: HC	DRAWN BY: -		

AT&T

ELEVATION

5G NR 1SR C-BAND UPGRADE

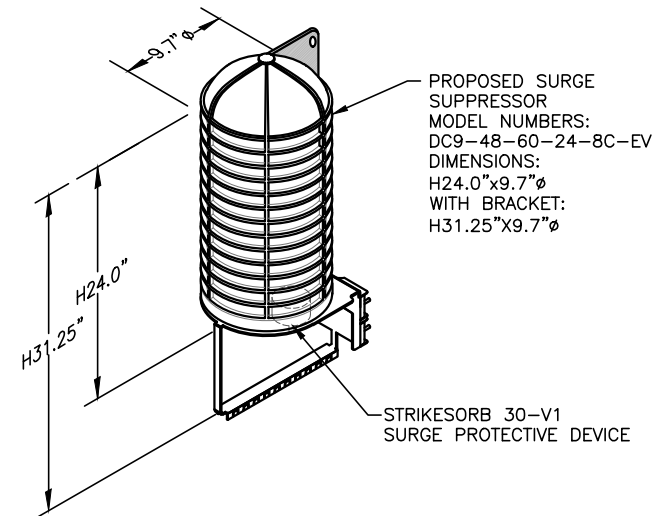
SHEET NUMBER	DRAWING NUMBER	REV
CT2141	A-3	1

ANTENNA SCHEDULE												
SECTOR	EXISTING/ PROPOSED	BAND	ANTENNA	SIZE (INCHES) (L x W x D)	ANTENNA CL HEIGHT	ANTENNA TIP HEIGHT	AZIMUTH	TMA/ DIPLEXER	RRU	SIZE (INCHES) (L x W x D)	FEEDER	RAYCAP
A1	PROPOSED	DOD + C-BAND	AIR6419 B77G + AIR6449 B77 (STACKED)	31.1X16.1X7.3 30.6X15.9X10.6	108'-0"± 104'-5"±	109'-3"± 105'-9"±	30°	-	-	-	-	(P) (1) RAYCAP DC9-48-60-24-8C-EV
A2	-	-	-	-	-	-	-	-	-	-	-	
A3	EXISTING	LTE B14/ AWS/WCS	800-10965	78.7X20X6.9	106-0"±	109'-3"±	30°	(P)(2) DBC0062F3V52-1	(E)(1) 4478 B14 (700) (E)(1) RRUS-32 B30 (WCS) E(1) 4426 B66 (AWS)	-	(E)(2) DC POWER, (P)(1) DC POWER & (P)(1) FIBER	
A4	EXISTING	LTE 700 BC/850/PCS	DMP65R-BU6DA	71.2x20x7.7	106-0"±	109'-0"±	30°	-	(E)(1) 4449 B5/B12 (850/700) (E)(1) RRUS-32 B2 (PCS)	-	(E)(1) Y-CABLE (P)(1) Y-CABLE	
B1	PROPOSED	DOD + C-BAND	AIR6419 B77G + AIR6449 B77 (STACKED)	31.1X16.1X7.3 30.6X15.9X10.6	108'-0"± 104'-5"±	109'-3"± 105'-9"±	150°	-	-	-	-	(P) (1) RAYCAP DC9-48-60-24-8C-EV
B2	-	-	-	-	-	-	-	-	-	-	-	
B3	EXISTING	LTE B14/ AWS/WCS	800-10965	78.7X20X6.9	106-0"±	109'-3"±	150°	(P)(2) DBC0062F3V52-1	(E)(1) 4478 B14 (700) (E)(1) RRUS-32 B30 (WCS) E(1) 4426 B66 (AWS)	-	(E)(2) DC POWER, (P)(1) DC POWER & (P)(1) FIBER	
B4	EXISTING	LTE 700 BC/850/PCS	DMP65R-BU6DA	71.2x20x7.7	106-0"±	109'-0"±	150°	-	(E)(1) 4449 B5/B12 (850/700) (E)(1) RRUS-32 B2 (PCS)	-	(E)(1) Y-CABLE (P)(1) Y-CABLE	
C1	EXISTING	LTE 700 BC/850/PCS	DMP65R-BU6DA	71.2x20x7.7	106-0"±	109'-0"±	270°	-	(E)(1) 4449 B5/B12 (850/700) (E)(1) RRUS-32 B2 (PCS)	-	(E)(1) Y-CABLE (P)(1) Y-CABLE	(P) (1) RAYCAP DC9-48-60-24-8C-EV
C2	EXISTING	LTE B14/ AWS/WCS	800-10965	78.7X20X6.9	106-0"±	109'-3"±	270°	(P)(2) DBC0062F3V52-1	(E)(1) 4478 B14 (700) (E)(1) RRUS-32 B30 (WCS) E(1) 4426 B66 (AWS)	-	(E)(2) DC POWER, (P)(1) DC POWER & (P)(1) FIBER	
C3	-	-	-	-	-	-	-	-	-	-	-	
C4	PROPOSED	DOD + C-BAND	AIR6419 B77G + AIR6449 B77 (STACKED)	31.1X16.1X7.3 30.6X15.9X10.6	108'-0"± 104'-5"±	109'-3"± 105'-9"±	270°	-	-	-	-	

RRU CHART		
QUANTITY	MODEL	SIZE (L x W x D)
E(3)	4478 B14 (700)	18.1"x13.4"x8.3"
E(3)	4449 B5/B12 (700)	17.9"x13.2"x10.4"
E(3)	RRUS-32 B30 (WCS)	27.2"x12.1"x7.0"
E(3)	4426 B66 (AWS)	14.9"x13.2"x5.8"
E(3)	RRUS-32 B2 (PCS)	27.2"x12.1"x7.0"
NOTE: MOUNT PER MANUFACTURER'S SPECIFICATIONS		

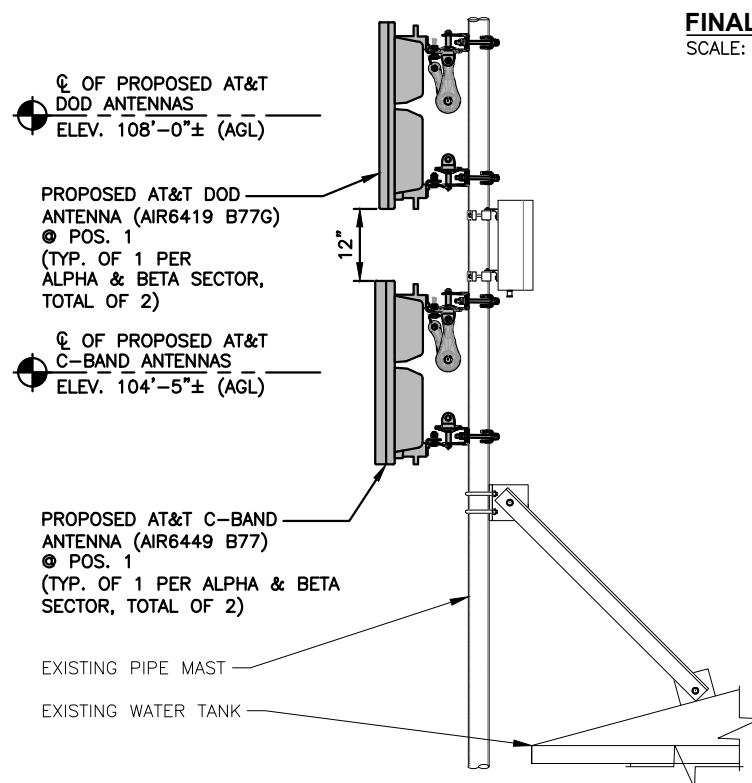
NOTE:
REFER TO THE FINAL RF DATA SHEET
FOR FINAL ANTENNA SETTINGS.

NOTE:
REFER TO THE STRUCTURAL ANALYSIS
BY: HUDSON DESIGN GROUP, LLC
DATED: FEBRUARY 25, 2022
FOR THE CAPACITY OF THE EXISTING
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PROPOSED EQUIPMENT.

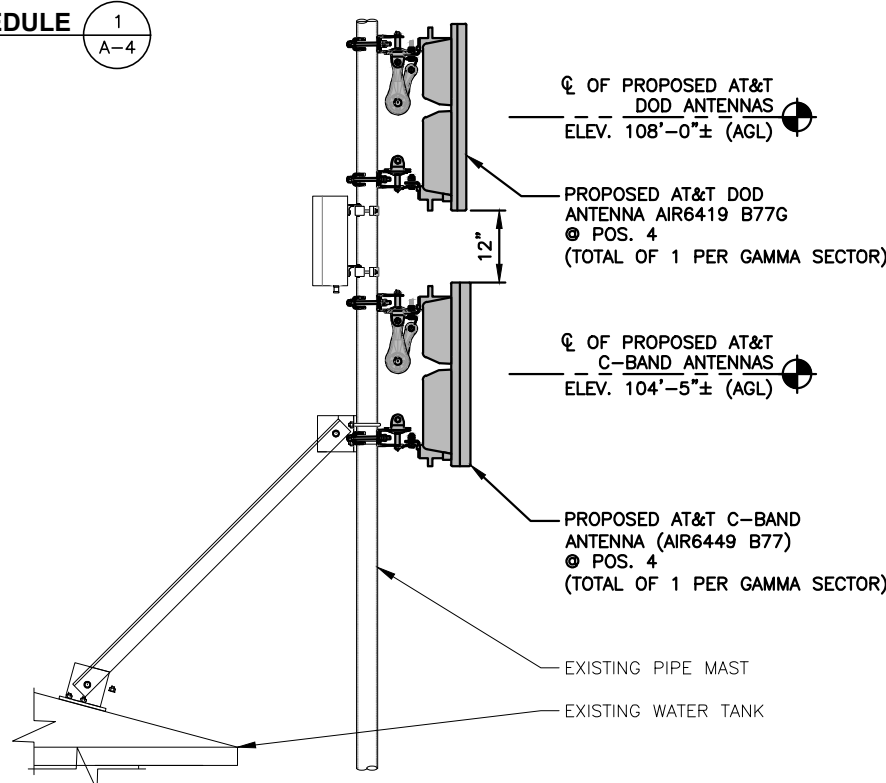


NOTE:
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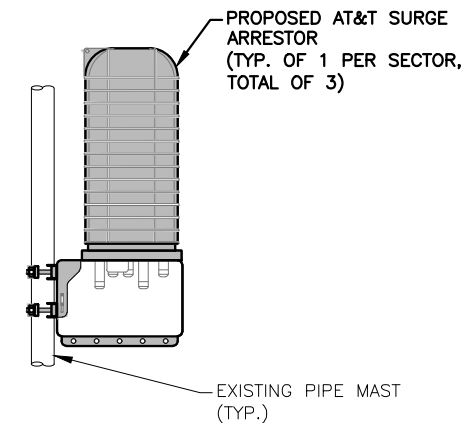
DC SURGE SUPPRESSOR DETAIL 2
SCALE: N.T.S.
A-4



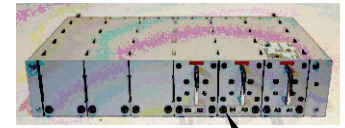
PROPOSED C-BAND ANTENNA
MOUNTING DETAIL (ALPHA & BETA SECTOR) 3
22x34 SCALE: 3/4"=1'-0"
11x17 SCALE: 3/8"=1'-0"



PROPOSED C-BAND ANTENNA
MOUNTING DETAIL (GAMMA SECTOR) 4
22x34 SCALE: 3/4"=1'-0"
11x17 SCALE: 3/8"=1'-0"



PROPOSED SURGE ARRESTOR
MOUNTING DETAIL 5
SCALE: N.T.S.
A-4



NOTE:
MOUNT PER
MANUFACTURER'S
SPECIFICATIONS.

DC12 DETAIL 6
SCALE: N.T.S.
A-4

45 BEECHWOOD DRIVE
NORTH ANDOVER, MA 01845
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12 INDUSTRIAL WAY
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SITE NUMBER: CT2141
SITE NAME: BELLTOWN

652 GLENBROOK ROAD
STAMFORD, CT 06906
FAIRFIELD COUNTY

500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

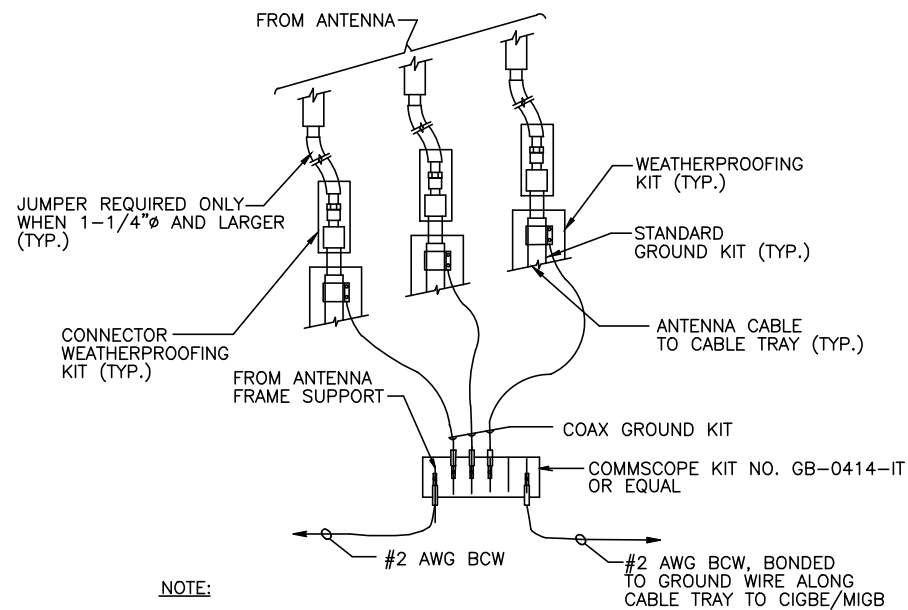
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A	02/04/22	ISSUED FOR REVIEW	BY: JAC DPH	
NO.	DATE	REVISIONS	BY	CHK
SCALE:	AS SHOWN	DESIGNED BY: HC	DRAWN BY: -	

AT&T

DETAILS

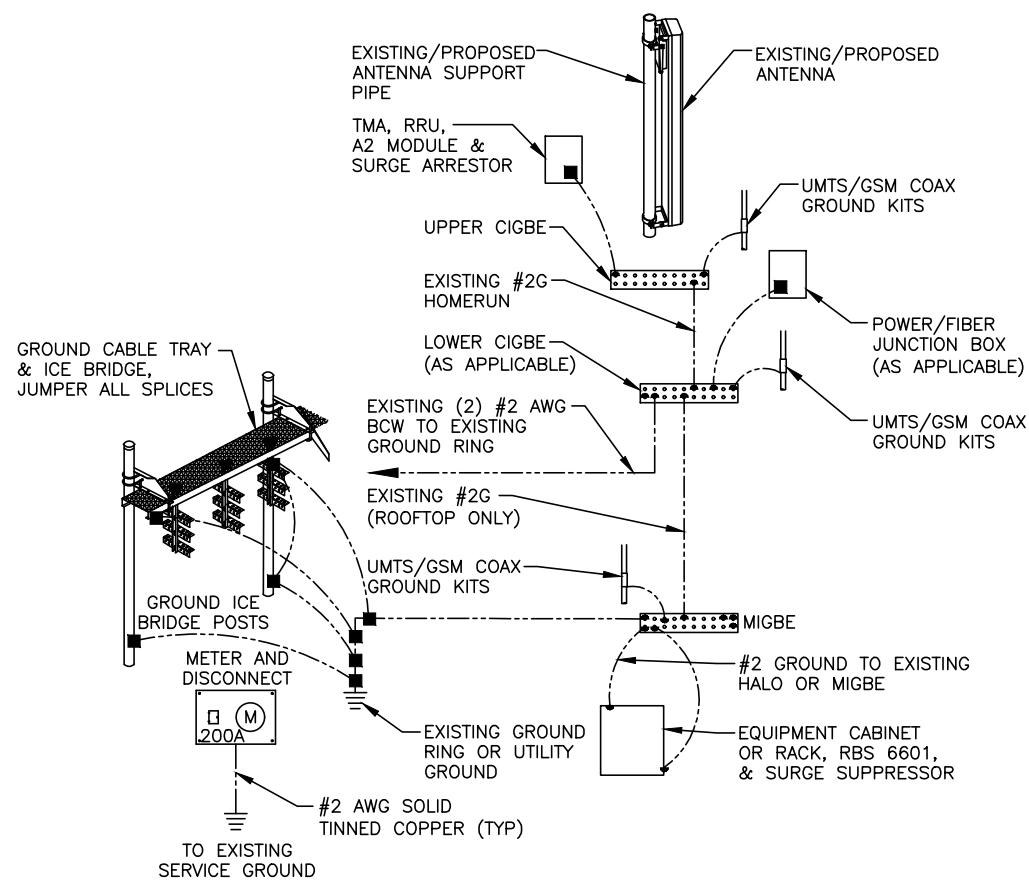
5G NR 1SR C-BAND UPGRADE

SHEET NUMBER	DRAWING NUMBER	REV
CT2141	A-4	1



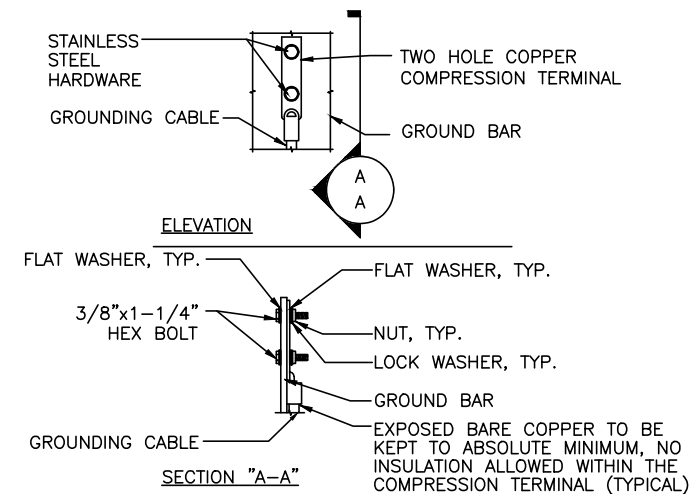
GROUND WIRE TO GROUND BAR CONNECTION DETAIL
SCALE: N.T.S.

1
G-1



GROUNDING RISER DIAGRAM
SCALE: N.T.S.

2
G-1



- NOTES:
1. "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED.
 2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATION.
 3. CADWELD DOWNLEADS FROM UPPER EGB, LOWER EGB, AND MGB

TYPICAL GROUND BAR CONNECTION DETAIL
SCALE: N.T.S.

3
G-1

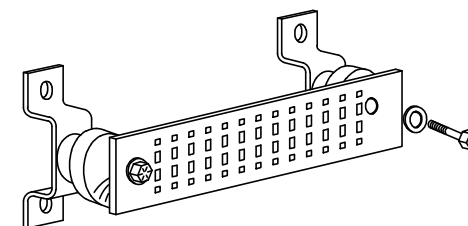
EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

SECTION "P" - SURGE PRODUCERS

CABLE ENTRY PORTS (HATCH PLATES) (#2 AWG)
GENERATOR FRAMEWORK (IF AVAILABLE) (#2 AWG)
TELCO GROUND BAR
COMMERCIAL POWER COMMON NEUTRAL/GROUND BOND (#2 AWG)
+24V POWER SUPPLY RETURN BAR (#2 AWG)
-48V POWER SUPPLY RETURN BAR (#2 AWG)
RECTIFIER FRAMES.

SECTION "A" - SURGE ABSORBERS

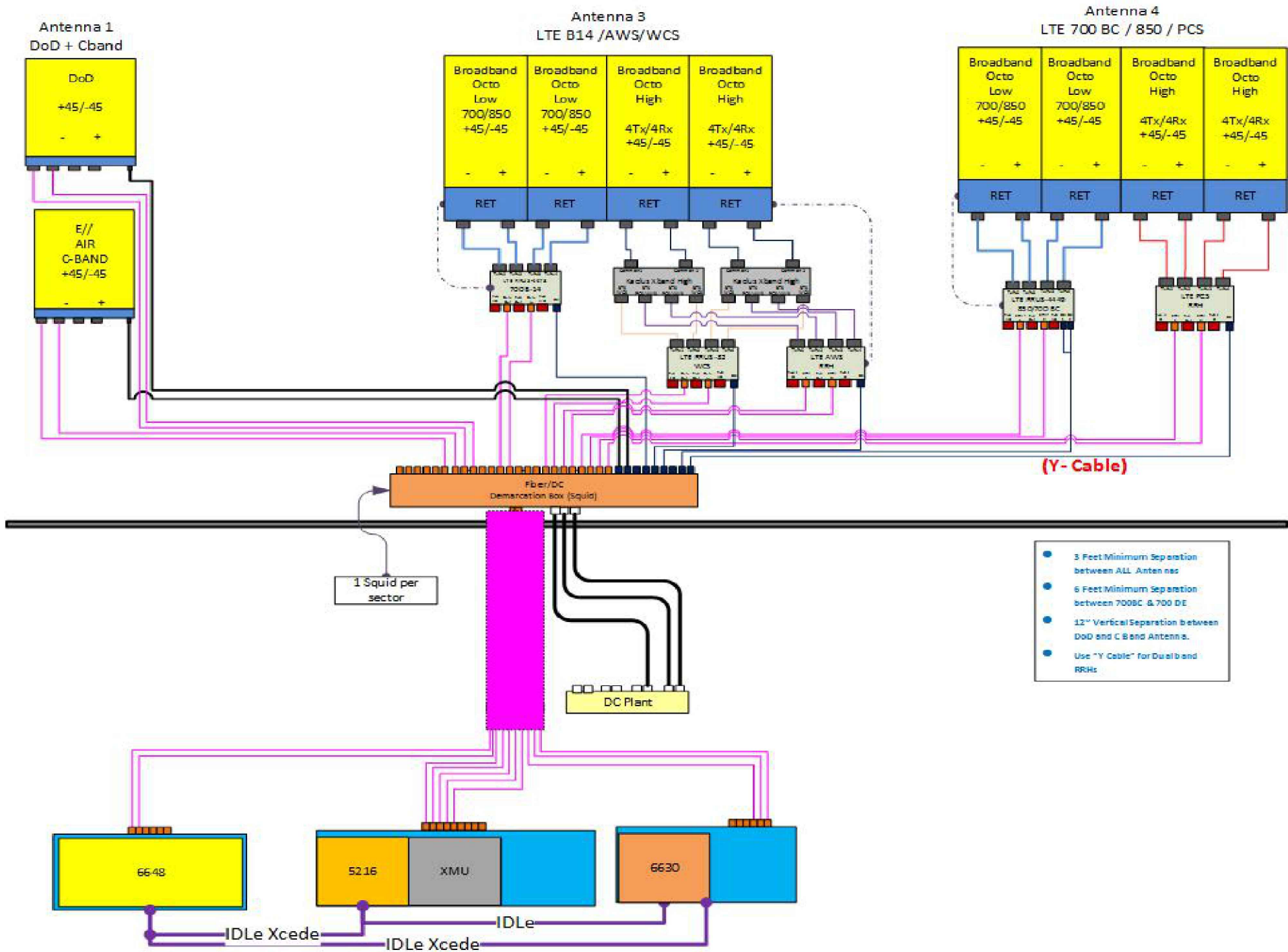
INTERIOR GROUND RING (#2 AWG)
EXTERNAL EARTH GROUND FIELD (BURIED GROUND RING) (#2 AWG)
METALLIC COLD WATER PIPE (IF AVAILABLE) (#2 AWG)
BUILDING STEEL (IF AVAILABLE) (#2 AWG)



GROUND BAR - DETAIL (AS REQUIRED)
SCALE: N.T.S.

ALPHA AND BETA SECTOR

NOTE:
REV: 2
DATED: 04/26/2021
RFDS ID: 4397235



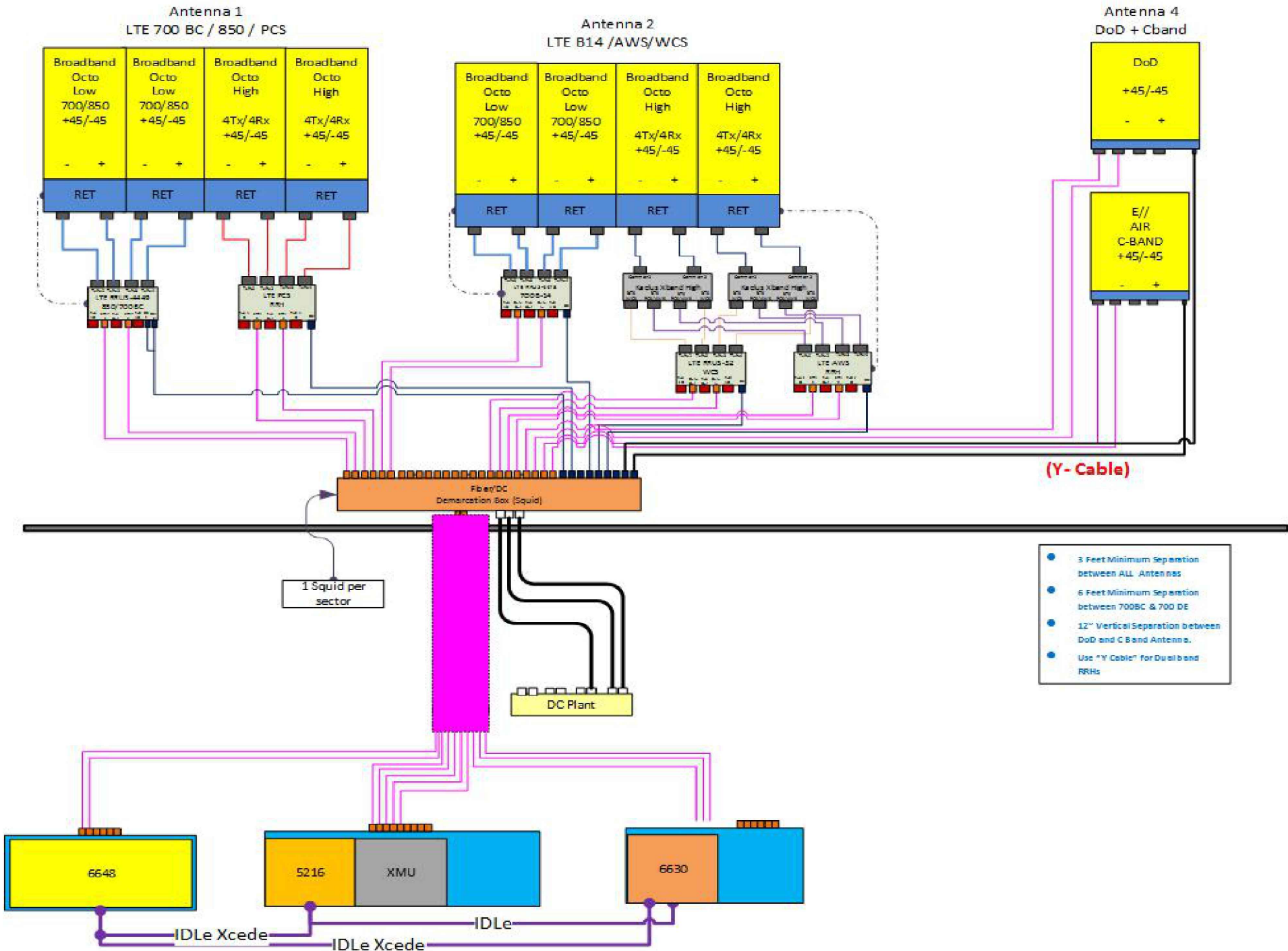
RF PLUMBING DIAGRAM
SCALE: N.T.S

NOTE:
1. CONTRACTOR TO CONFIRM ALL PARTS.
2. INSTALL ALL EQUIPMENT TO MANUFACTURER'S RECOMMENDATIONS.
3. RFDS USED FOR REFERENCE.

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

GAMMA SECTOR

NOTE:
REV: 2
DATED: 04/26/2021
RFDS ID: 4397235



NOTE:
1. CONTRACTOR TO CONFIRM ALL PARTS.
2. INSTALL ALL EQUIPMENT TO MANUFACTURER'S RECOMMENDATIONS.
3. RFDS USED FOR REFERENCE.

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

STRUCTURAL ANALYSIS REPORT

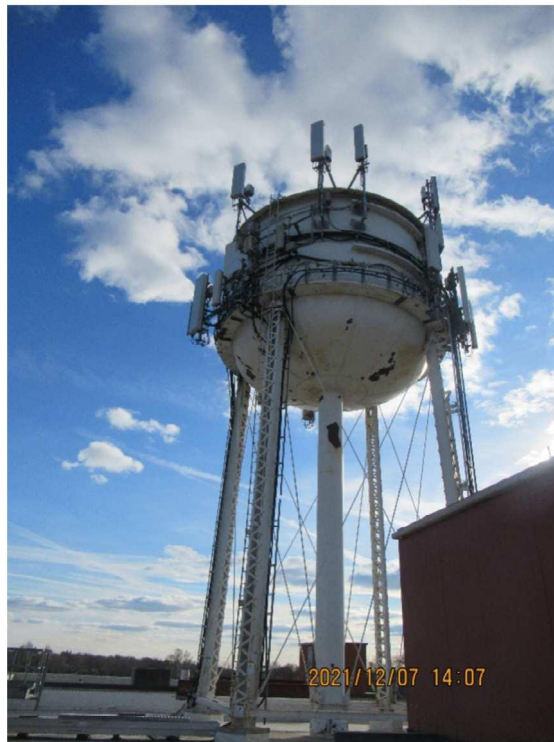
For

CT2141

STAMFORD GLENBROOK H20

652 Glenbrook Road
Stamford, CT 06906

Antennas Mounted on Water Tank Façade



Prepared for:



Dated: February 25, 2022

Prepared by:



45 Beechwood Drive
North Andover, MA 01845
Phone: (978) 557-5553

www.hudsondesigngroupllc.com





SCOPE OF WORK:

Hudson Design Group LLC (HDG) has been authorized by AT&T to conduct a structural evaluation of the structure supporting the proposed AT&T equipment located in the areas depicted in the latest HDG construction drawings.

This report represents this office's findings, conclusions and recommendations pertaining to the support of AT&T's proposed equipment.

This office conducted an on-site visual survey of the above site on December 7, 2021. Attendees included Patrick Barrett (HDG – Field Technician).

The following documents were used for our reference:

- Mapping Report prepared by ProVertic LLC date September 24, 2020.
- Previous HDG Structural Analysis dated February 3, 2021.

CONCLUSION SUMMARY:

Based on our evaluation, we have determined that the existing structure **IS CAPABLE** of supporting the proposed equipment loading.

Based on our evaluation, we have determined that the existing antenna mounts **ARE CAPABLE** of supporting the proposed equipment loading.

	Member	Controlling Load Case	Stress Ratio	Pass/Fail
Antenna Mount (Alpha & Gamma)	1	LC1	31%	PASS
Antenna Mount (Beta)	2	LC1	49%	PASS

Based on our evaluation, we have determined that the existing connections **ARE CAPABLE** of supporting the proposed equipment loading.

	Member	Stress Ratio	Pass/Fail
Existing Stud Welds (Alpha & Gamma)	5/16-18 Stud	52%	PASS
Existing Stud Welds (Beta)	5/16-18 Stud	53%	PASS

A condition assessment on the existing water tank was not part of the scope of work.



APPURTENANCE CONFIGURATION:

Appurtenances	Dimensions	Weight	**Elevation	Mount
(3) DMP65R-BU6DA Antennas	71.2"x20.7"x7.7"	80 lbs	106'	Pipe Mast
(3) 800-10965 Antennas	78.7"x20.0"x6.9"	109 lbs	106'	Pipe Mast
(3) B14 4478 RRH's	18.1"x13.4"x8.3"	60 lbs	-	Pipe Mast
(3) RRUS-32 B2 RRH's	27.2"x12.1"x7.0"	60 lbs	-	Pipe Mast
(3) RRUS-32 B30 RRH's	27.2"x12.1"x7.0"	60 lbs	-	Pipe Mast
(3) B5/B12 4449 RRH's	17.9"x13.2"x9.4"	73 lbs	-	Pipe Mast
(3) 4426 B66 RRH's	14.9"x13.2"x5.8"	49 lbs	-	Pipe Mast
(3) AIR6419 Antennas	31.0"x16.1"x7.3"	66 lbs	108'	Pipe Mast
(3) AIR6449 Antennas	30.6"x15.9"x10.6"	82 lbs	104'-5"	Pipe Mast
(6) DBC0062F3V52-1 Diplexers	9.7"x8.8"x2.6"	14 lbs	-	Pipe Mast
(3) DC9-48-60-24-8C-EV Surge Arrestor	31.4"x10.2"Ø	29 lbs	-	Pipe Mast

* Proposed equipment shown in bold.

** Elevation to antenna centerline.



DESIGN CRITERIA:

International Building Code (IBC) 2015 with 2018 Connecticut State Building Code Amendments, and ASCE 7-10 (Minimum Design Loads for Buildings and Other Structures).		
Wind		
Reference Wind Speed:	130 mph	(2018 CSBC Appendix N)
Exposure Category:	B	(ASCE 7-10 Chapter 26)
Risk Category:	IV	(ASCE 7-10 Table 1.5-1)
Snow		
Ground Snow, P_g :	30	(2018 CSBC Appendix N)
Importance Factor (I_s):	1.2	(ASCE 7-10 Table 1.5-2)
Exposure Factor (C_e):	0.9	(Fully Exposed, Table 7-2)
Thermal Factor (C_t):	1.0	(ASCE 7-10 Table 7-3)
Flat Roof Snow Load:	23 psf	(ASCE 7-10 Equation 7.3-1)
Min. Flat Roof Snow Load:	30 psf	
EIA/TIA-222-H Structural Standards for Steel Antenna Towers and Antenna Supporting Structures		
Wind		
City/Town:	Stamford	
County:	Fairfield	
Wind Load:	130 mph	(TIA-222-H Figure B-2)
Ice		
Design Ice Thickness (t_i):	1.00 in	(TIA-222-H Figure B-9)
Structure Class:	IV	(TIA-222-H Table 2-1)
Importance Factor (I_l):	1.25	(TIA-222-H Table 2-3)
Factored Thickness of Radial Ice (t_{iz}):	1.41 in	(TIA-222-H Sec. 2.6.10)



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ANTENNA/RRH SUPPORT RECOMMENDATIONS:

The new antennas and RRH's are proposed to be mounted on existing pipe masts installed on existing stand-off mounts secured to the face of the water tank with capacity discharge (CD) stud welds.

Limitations and assumptions:

1. Reference the latest HDG construction drawings for all the equipment locations and details.
2. All structural members and their connections are assumed to be in good condition and are free from defects with no deterioration to its member capacities.
3. All antennas, coax cables and waveguide cables are assumed to be properly installed and supported as per the manufacturer requirements.
4. HDG is not responsible for any modifications completed prior to and hereafter which HDG was not directly involved.
5. If field conditions differ from what is assumed in this report, then the engineer of record is to be notified as soon as possible.
6. A condition assessment on the existing water tank was not part of the scope of work.



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FIELD PHOTOS:



Photo 1: Sample photo illustrating the existing antennas and RRH's.



Photo 2: Sample photo illustrating the existing antennas and RRH's.



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Wind & Ice Calculations

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 Project No.: CT2141
 Designed By: ID Checked By: MSC



2.6.5.2 Velocity Pressure Coeff:

$$K_z = 2.01 (z/z_g)^{2/\alpha}$$

$K_z =$ **1.006**

$z =$ **108** (ft)
 $z_g =$ **1200** (ft)
 $\alpha =$ **7.0**

$$K_{zmin} \leq K_z \leq 2.01$$

Table 2-4

Exposure	Z_g	α	K_{zmin}	K_c
B	1200 ft	7.0	0.70	0.9
C	900 ft	9.5	0.85	1.0
D	700 ft	11.5	1.03	1.1

2.6.6.2 Topographic Factor:

Table 2-5

Topo. Category	K_t	f
2	0.43	1.25
3	0.53	2.0
4	0.72	1.5

$$K_{zt} = [1 + (K_c K_t / K_h)]^2$$

$$K_h = e^{(fz/H)}$$

$$K_{zt} =$$
 1

(If Category 1 then $K_{zt} = 1.0$)

$$\text{Category} =$$
 1

$K_h =$ **1**
 $K_c =$ **0.9** (from Table 2-4)
 $K_t =$ (from Table 2-5)
 $f =$ (from Table 2-5)
 $z =$ **108**
 $z_s =$ **45** (Mean elevation of base of structure above sea level)
 $H =$ **0** (Ht. of the crest above surrounding terrain)
 $K_{zt} =$ **1.00** (from 2.6.6.2.1)
 $K_e =$ **1.00** (from 2.6.8)

2.6.10 Design Ice Thickness

Max Ice Thickness =
 Importance Factor =

$t_i =$ **1.00** in
 $I =$ **1.25** (from Table 2-3)
 $K_{iz} =$ **1.12** (from Sec. 2.6.10)

$$t_{iz} = t_i * I * K_{iz} * (K_{zt})^{0.35}$$

$t_{iz} =$ **1.41** in

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2.6.9 Gust Effect Factor

2.6.9.1 Self Supporting Lattice Structures

$G_h = 1.0$ Latticed Structures > 600 ft

$G_h = 0.85$ Latticed Structures 450 ft or less

$G_h = 0.85 + 0.15 [h/150 - 3.0]$

$h =$ ht. of structure

$h =$ 101

$G_h =$ 0.85

2.6.9.2 Guyed Masts

$G_h =$ 0.85

2.6.9.3 Pole Structures

$G_h =$ 1.1

2.6.9 Appurtenances

$G_h =$ 1.0

2.6.9.4 Structures Supported on Other Structures

(Cantilevered tubular or latticed spines, pole, structures on buildings (ht. : width ratio > 5)

$G_h =$ 1.35

$G_h =$ 1.00

2.6.11.2 Design Wind Force on Appurtenances

$$F = q_z * G_h * (EPA)_A$$

$$q_z = 0.00256 * K_z * K_{zt} * K_s * K_e * K_d * V_{max}^2$$

$q_z =$ 41.30

$q_{z(ice)} =$ 6.11

$q_{z(30)} =$ 2.20

$K_z =$ 1.006 (from 2.6.5.2)

$K_{zt} =$ 1.0 (from 2.6.6.2.1)

$K_s =$ 1.0 (from 2.6.7)

$K_e =$ 1.00 (from 2.6.8)

$K_d =$ 0.95 (from Table 2-2)

$V_{max} =$ 130 mph (Ultimate Wind Speed)

$V_{max(ice)} =$ 50 mph

$V_{30} =$ 30 mph

Table 2-2

Structure Type	Wind Direction Probability Factor, K_d
Latticed structures with triangular, square or rectangular cross sections	0.85
Tubular pole structures, latticed structures with other cross sections, appurtenances	0.95
Tubular pole structures supporting antennas enclosed within a cylindrical shroud	1.00

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Determine Ca:

Table 2-9

Force Coefficients (Ca) for Appurtenances				
Member Type		Aspect Ratio ≤ 2.5	Aspect Ratio = 7	Aspect Ratio ≥ 25
		Ca	Ca	Ca
Flat		1.2	1.4	2.0
Square/Rectangular HSS		$1.2 - 2.8(r_g) \geq 0.85$	$1.4 - 4.0(r_g) \geq 0.90$	$2.0 - 6.0(r_g) \geq 1.25$
Round	C < 39 (Subcritical)	0.7	0.8	1.2
	$39 \leq C \leq 78$ (Transitional)	$4.14/(C^{0.485})$	$3.66/(C^{0.415})$	$46.8/(C^{1.0})$
	C > 78 (Supercritical)	0.5	0.6	0.6

Aspect Ratio is the overall length/width ratio in the plane normal to the wind direction.
 (Aspect ratio is independent of the spacing between support points of a linear appurtenance.)

Note: Linear interpolation may be used for aspect ratios other than those shown.

Ice Thickness = 1.41 in Angle = 0 (deg) Equivalent Angle = 180 (deg)

Appurtenances	Height	Width	Depth	Flat Area	Aspect Ratio	Ca	Force (lbs)	Force (lbs) (w/ Ice)	Force (lbs) (30 mph)
800-10965 Antenna	78.7	20.0	6.9	10.93	3.94	1.26	570	100	30
DMP65R-BU6DA Antenna	71.2	20.7	7.7	10.24	3.44	1.24	525	92	28
AIR6419 Antenna	31.0	16.1	7.3	3.47	1.93	1.20	172	33	9
AIR6449 Antenna	30.6	15.9	10.6	3.38	1.92	1.20	167	32	9
B14 4478 RRH	18.1	8.3	13.4	1.04	2.18	1.20	52	12	3
B14 4478 RRH (Shielded)	18.1	4.2	13.4	0.52	4.36	1.28	28	8	1
4426 B66 RRH	14.9	13.2	5.8	1.37	1.13	1.20	68	14	4
RRUS-32 RRH	27.2	7.0	12.1	1.32	3.89	1.26	69	16	4
RRUS-32 RRH (Shielded)	27.2	3.5	12.1	0.66	7.77	1.43	39	11	2
4449 B5/B12 RRH	14.9	9.4	13.2	0.97	1.59	1.20	48	11	3
4449 B5/B12 RRH (Shielded)	14.9	4.7	9.4	0.49	3.17	1.23	25	7	1
DBC0062F3V52-1 Combiners	9.7	8.8	2.6	0.59	1.10	1.20	29	7	2
DC9-48-60-24-8C-EV Surge Arrestor	31.4	10.2	10.2	2.22	3.08	0.70	64	13	3
2" Pipe	2.4	12.0		0.20	0.20	1.20	10	4	1
2-1/2" Pipe	2.9	12.0		0.24	0.24	1.20	12	4	1
3x3 Angle	3.0	12.0		0.25	0.25	2.00	21	7	1
HSS 4x4	4.0	12.0		0.33	0.33	1.25	17	5	1

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2.6.5.2 Velocity Pressure Coeff:

$$K_z = 2.01 (z/z_g)^{2/\alpha}$$

$$K_z = 1.006$$

$$\begin{aligned} z &= 106.6 \text{ (ft)} \\ z_g &= 1200 \text{ (ft)} \\ \alpha &= 7.0 \end{aligned}$$

$$K_{zmin} \leq K_z \leq 2.01$$

Table 2-4

Exposure	Z_g	α	K_{zmin}	K_c
B	1200 ft	7.0	0.70	0.9
C	900 ft	9.5	0.85	1.0
D	700 ft	11.5	1.03	1.1

2.6.6.2 Topographic Factor:

Table 2-5

Topo. Category	K_t	f
2	0.43	1.25
3	0.53	2.0
4	0.72	1.5

$$K_{zt} = [1 + (K_c K_t / K_h)]^2$$

$$K_{zt} = 1$$

(If Category 1 then $K_{zt} = 1.0$)

$$\text{Category} = 1$$

$$K_h = e^{(fz/H)}$$

$$K_h = 1$$

$$K_c = 0.9 \text{ (from Table 2-4)}$$

$$K_t = \text{(from Table 2-5)}$$

$$f = \text{(from Table 2-5)}$$

$$z = 106.6$$

$$z_s = 45 \text{ (Mean elevation of base of structure above sea level)}$$

$$H = 0 \text{ (Ht. of the crest above surrounding terrain)}$$

$$K_{zt} = 1.00 \text{ (from 2.6.6.2.1)}$$

$$K_e = 1.00 \text{ (from 2.6.8)}$$

2.6.10 Design Ice Thickness

Max Ice Thickness =

Importance Factor =

$$t_i = 1.00 \text{ in}$$

$$I = 1.25 \text{ (from Table 2-3)}$$

$$K_{iz} = 1.12 \text{ (from Sec. 2.6.10)}$$

$$t_{iz} = t_i * I * K_{iz} * (K_{zt})^{0.35}$$

$$t_{iz} = 1.41 \text{ in}$$

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2.6.9 Gust Effect Factor

2.6.9.1 Self Supporting Lattice Structures

$G_h = 1.0$ Latticed Structures > 600 ft

$G_h = 0.85$ Latticed Structures 450 ft or less

$G_h = 0.85 + 0.15 [h/150 - 3.0]$

$h =$ ht. of structure

$h =$ 101

$G_h =$ 0.85

2.6.9.2 Guyed Masts

$G_h =$ 0.85

2.6.9.3 Pole Structures

$G_h =$ 1.1

2.6.9 Appurtenances

$G_h =$ 1.0

2.6.9.4 Structures Supported on Other Structures

(Cantilevered tubular or latticed spines, pole, structures on buildings (ht. : width ratio > 5)

$G_h =$ 1.35

$G_h =$ 1.00

2.6.11.2 Design Wind Force on Appurtenances

$$F = q_z * G_h * (EPA)_A$$

$$q_z = 0.00256 * K_z * K_{zt} * K_s * K_e * K_d * V_{max}^2$$

$q_z =$ 41.30

$q_{z(ice)} =$ 6.11

$q_{z(30)} =$ 2.20

$K_z =$ 1.006 (from 2.6.5.2)

$K_{zt} =$ 1.0 (from 2.6.6.2.1)

$K_s =$ 1.0 (from 2.6.7)

$K_e =$ 1.00 (from 2.6.8)

$K_d =$ 0.95 (from Table 2-2)

$V_{max} =$ 130 mph (Ultimate Wind Speed)

$V_{max(ice)} =$ 50 mph

$V_{30} =$ 30 mph

Table 2-2

Structure Type	Wind Direction Probability Factor, K_d
Latticed structures with triangular, square or rectangular cross sections	0.85
Tubular pole structures, latticed structures with other cross sections, appurtenances	0.95
Tubular pole structures supporting antennas enclosed within a cylindrical shroud	1.00

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Determine Ca:

Table 2-9

Force Coefficients (Ca) for Appurtenances				
Member Type		Aspect Ratio ≤ 2.5	Aspect Ratio = 7	Aspect Ratio ≥ 25
		Ca	Ca	Ca
Flat		1.2	1.4	2.0
Square/Rectangular HSS		$1.2 - 2.8(r_g) \geq 0.85$	$1.4 - 4.0(r_g) \geq 0.90$	$2.0 - 6.0(r_g) \geq 1.25$
Round	C < 39 (Subcritical)	0.7	0.8	1.2
	$39 \leq C \leq 78$ (Transitional)	$4.14/(C^{0.485})$	$3.66/(C^{0.415})$	$46.8/(C^{1.0})$
	C > 78 (Supercritical)	0.5	0.6	0.6

Aspect Ratio is the overall length/width ratio in the plane normal to the wind direction.
 (Aspect ratio is independent of the spacing between support points of a linear appurtenance.)

Note: Linear interpolation may be used for aspect ratios other than those shown.

Ice Thickness = 1.41 in Angle = 0 (deg) Equivalent Angle = 180 (deg)

Appurtenances	Height	Width	Depth	Flat Area	Aspect Ratio	Ca	Force (lbs)	Force (lbs) (w/ Ice)	Force (lbs) (30 mph)
800-10965 Antenna	78.7	20.0	6.9	10.93	3.94	1.26	570	100	30
DMP65R-BU6DA Antenna	71.2	20.7	7.7	10.24	3.44	1.24	525	92	28
AIR6419 Antenna	31.0	16.1	7.3	3.47	1.93	1.20	172	33	9
AIR6449 Antenna	30.6	15.9	10.6	3.38	1.92	1.20	167	32	9
B14 4478 RRH	18.1	8.3	13.4	1.04	2.18	1.20	52	12	3
B14 4478 RRH (Shielded)	18.1	4.2	13.4	0.52	4.36	1.28	28	8	1
4426 B66 RRH	14.9	13.2	5.8	1.37	1.13	1.20	68	14	4
RRUS-32 RRH	27.2	7.0	12.1	1.32	3.89	1.26	69	16	4
RRUS-32 RRH (Shielded)	27.2	3.5	12.1	0.66	7.77	1.43	39	11	2
4449 B5/B12 RRH	14.9	9.4	13.2	0.97	1.59	1.20	48	11	3
4449 B5/B12 RRH (Shielded)	14.9	4.7	9.4	0.49	3.17	1.23	25	7	1
DBC0062F3V52-1 Combiners	9.7	8.8	2.6	0.59	1.10	1.20	29	7	2
DC9-48-60-24-8C-EV Surge Arrestor	31.4	10.2	10.2	2.22	3.08	0.70	64	13	3
2" Pipe	2.4	12.0		0.20	0.20	1.20	10	4	1
2-1/2" Pipe	2.9	12.0		0.24	0.24	1.20	12	4	1
3x3 Angle	3.0	12.0		0.25	0.25	2.00	21	7	1
HSS 4x4	4.0	12.0		0.33	0.33	1.25	17	5	1

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Designed By: ID Checked By: MSC



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ICE WEIGHT CALCULATIONS

Thickness of ice: 1.41 in.

Density of ice: 56 pcf

800-10965 Antenna

Weight of ice based on total radial SF area:

Height (in): 78.7

Width (in): 20.0

Depth (in): 6.9

Total weight of ice on object: 255 lbs

Weight of object: 109.0 lbs

Combined weight of ice and object: 364 lbs

DMP65R-BU6DA Antenna

Weight of ice based on total radial SF area:

Height (in): 71.2

Width (in): 20.7

Depth (in): 7.7

Total weight of ice on object: 240 lbs

Weight of object: 80.0 lbs

Combined weight of ice and object: 320 lbs

AIR6419 Antenna

Weight of ice based on total radial SF area:

Height (in): 31.0

Width (in): 16.1

Depth (in): 7.3

Total weight of ice on object: 85 lbs

Weight of object: 66.0 lbs

Combined weight of ice and object: 151 lbs

AIR6449 Antenna

Weight of ice based on total radial SF area:

Height (in): 30.6

Width (in): 15.9

Depth (in): 10.6

Total weight of ice on object: 90 lbs

Weight of object: 82.0 lbs

Combined weight of ice and object: 172 lbs

B14 4478 RRH

Weight of ice based on total radial SF area:

Height (in): 18.1

Width (in): 13.4

Depth (in): 8.3

Total weight of ice on object: 45 lbs

Weight of object: 60.0 lbs

Combined weight of ice and object: 105 lbs

4426 B66 RRH

Weight of ice based on total radial SF area:

Height (in): 14.9

Width (in): 13.2

Depth (in): 5.8

Total weight of ice on object: 34 lbs

Weight of object: 49.0 lbs

Combined weight of ice and object: 83 lbs

RRUS-32 RRH

Weight of ice based on total radial SF area:

Height (in): 27.2

Width (in): 12.1

Depth (in): 7.0

Total weight of ice on object: 60 lbs

Weight of object: 60.0 lbs

Combined weight of ice and object: 120 lbs

4449 B5/B12 RRH

Weight of ice based on total radial SF area:

Height (in): 17.9

Width (in): 13.2

Depth (in): 9.4

Total weight of ice on object: 45 lbs

Weight of object: 73.0 lbs

Combined weight of ice and object: 118 lbs

DBC0062F3V52-1 Combiners

Weight of ice based on total radial SF area:

Height (in): 9.7

Width (in): 8.8

Depth (in): 2.6

Total weight of ice on object: 15 lbs

Weight of object: 14.0 lbs

Combined weight of ice and object: 29 lbs

DC9-48-60-24-8C-EV Surge Arrestor

Weight of ice based on total radial SF area:

Depth (in): 31.4

Diameter(in): 10.2

Total weight of ice on object: 52 lbs

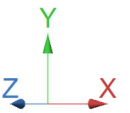
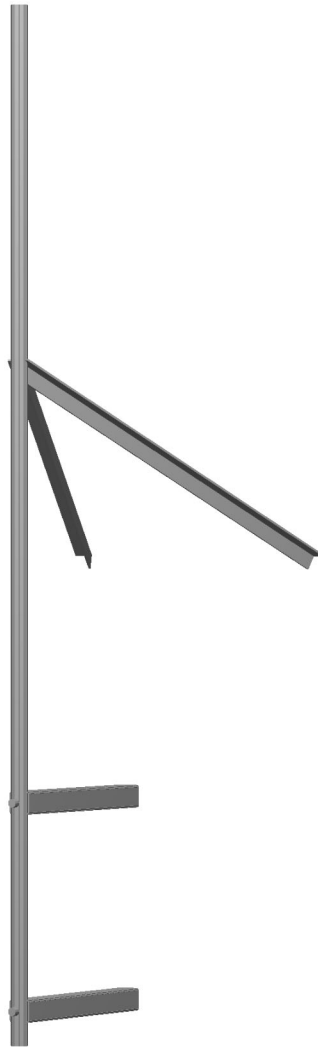
Weight of object: 29 lbs

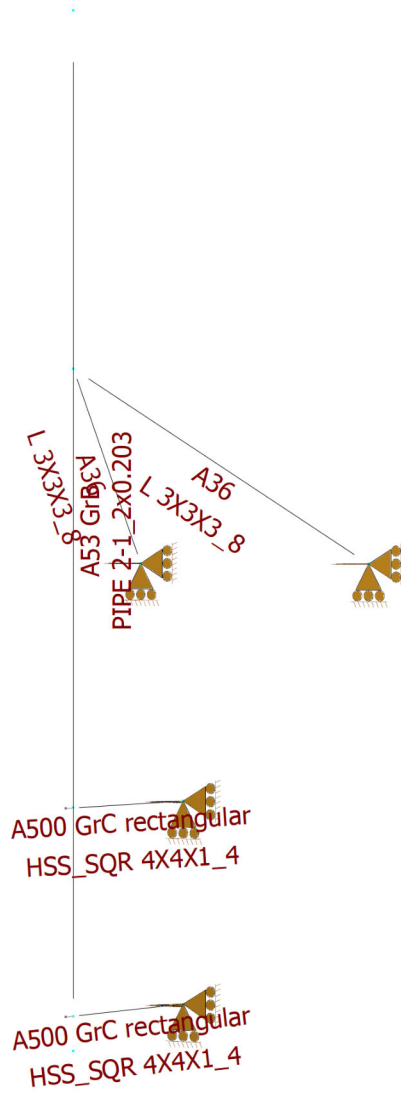
Combined weight of ice and object: 81 lbs



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Alpha and Gamma Sector Calculations

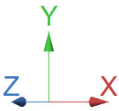
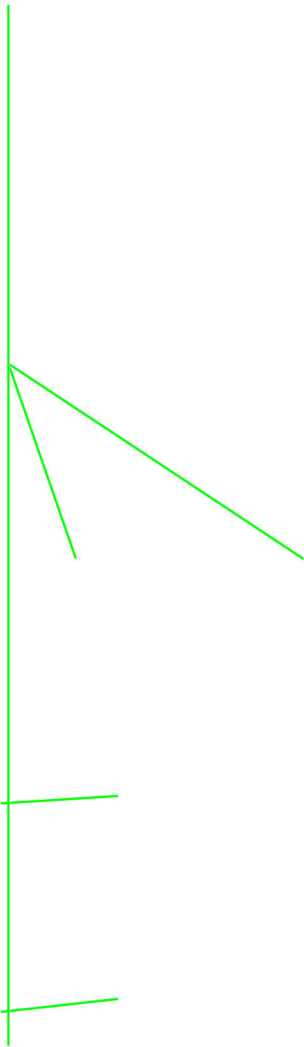


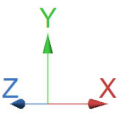
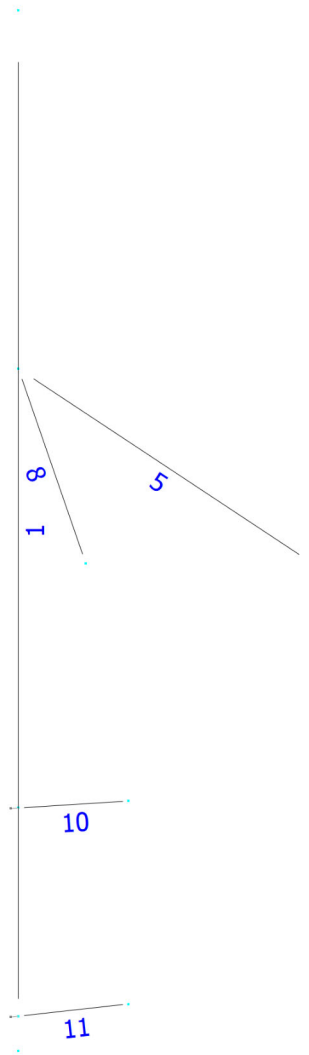




Design status

- Not designed
- Error on design
- Design O.K.
- With warnings





Current Date: 2/28/2022 10:02 AM
 Units system: English

Load data

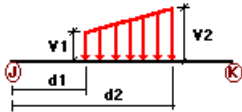
GLOSSARY

Comb : Indicates if load condition is a load combination

Load Conditions

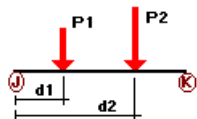
Condition	Description	Comb.	Category
DL	Dead Load	No	DL
Wf	Wind Load (FRONT)	No	WIND
Ws	Wind Load (SIDE)	No	WIND
Wfice	Wind ICE (FRONT)	No	WIND
Wside	Wind ICE (SIDE)	No	WIND
Di	Ice Load	No	LL

Distributed force on members



Condition	Member	Dir1	Val1 [Kip/ft]	Val2 [Kip/ft]	Dist1 [ft]	%	Dist2 [ft]	%
Wf	1	z	-0.012	0.00	0.00	No	0.00	No
	5	z	-0.021	0.00	0.00	No	0.00	No
	8	z	-0.021	0.00	0.00	No	0.00	No
Ws	1	x	-0.012	0.00	0.00	No	0.00	No
	5	x	-0.021	0.00	0.00	No	0.00	No
	8	x	-0.021	0.00	0.00	No	0.00	No
	10	x	-0.017	0.00	0.00	No	0.00	No
	11	x	-0.017	0.00	0.00	No	0.00	No
Di	1	y	-0.007	0.00	0.00	No	0.00	No
	5	y	-0.01	0.00	0.00	No	0.00	No
	8	y	-0.01	0.00	0.00	No	0.00	No
	10	y	-0.012	0.00	0.00	No	0.00	No
	11	y	-0.012	0.00	0.00	No	0.00	No

Concentrated forces on members



Condition	Member	Dir1	Value1 [Kip]	Dist1 [ft]	%
DL	1	y	-0.033	0.50	No
		y	-0.033	3.50	No
		y	-0.041	4.50	No
		y	-0.041	7.50	No
		y	-0.049	4.00	Yes
		y	-0.029	10.00	No
Wf	1	z	-0.086	0.50	No
		z	-0.086	3.50	No
		z	-0.084	4.50	No
		z	-0.084	7.50	No
		z	-0.068	4.00	Yes
		z	-0.064	10.00	No
Ws	1	x	-0.042	0.50	No
		x	-0.042	3.50	No
		x	-0.057	4.50	No
		x	-0.057	7.50	No
		x	-0.03	4.00	Yes
		x	-0.064	10.00	No
Wfice	1	z	-0.017	0.50	No
		z	-0.017	3.50	No
		z	-0.016	4.50	No
		z	-0.016	7.50	No
		z	-0.014	4.00	Yes
		z	-0.013	10.00	No
Wsice	1	x	-0.009	0.50	No
		x	-0.009	3.50	No
		x	-0.012	4.50	No
		x	-0.012	7.50	No
		x	-0.008	4.00	Yes
		x	-0.013	10.00	No
Di	1	y	-0.033	0.50	No
		y	-0.033	3.50	No
		y	-0.041	4.50	No
		y	-0.041	7.50	No
		y	-0.049	4.00	Yes
		y	-0.049	4.00	Yes

Self weight multipliers for load conditions

Condition	Description	Self weight multiplier			
		Comb.	MultX	MultY	MultZ
DL	Dead Load	No	0.00	-1.00	0.00
Wf	Wind Load (FRONT)	No	0.00	0.00	0.00
Ws	Wind Load (SIDE)	No	0.00	0.00	0.00
Wfice	Wind ICE (FRONT)	No	0.00	0.00	0.00
Wsice	Wind ICE (SIDE)	No	0.00	0.00	0.00
Di	Ice Load	No	0.00	0.00	0.00

Earthquake (Dynamic analysis only)

Condition	a/g	Ang. [Deg]	Damp. [%]
DL	0.00	0.00	0.00
Wf	0.00	0.00	0.00
Ws	0.00	0.00	0.00
Wfice	0.00	0.00	0.00
Wsice	0.00	0.00	0.00
Di	0.00	0.00	0.00

Current Date: 2/28/2022 10:02 AM
 Units system: English

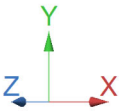
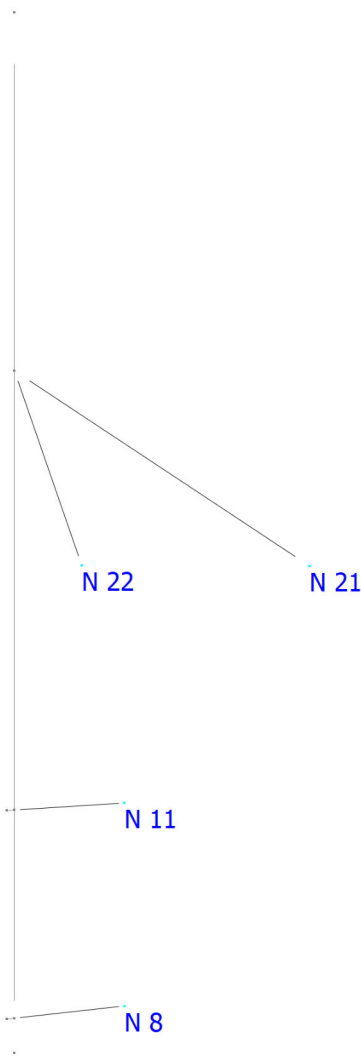
Steel Code Check

Report: Summary - Group by member

Load conditions to be included in design :

LC1=1.2DL+Wf
 LC2=1.2DL+Ws
 LC3=0.9DL+Wf
 LC4=0.9DL+Ws
 LC5=1.2DL+Wfice+Di
 LC6=1.2DL+Wsice+Di
 LC7=1.4DL
 LC8=0.9DL

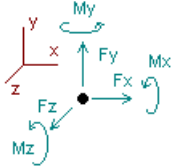
Description	Section	Member	Ctrl Eq.	Ratio	Status	Reference
	<i>HSS_SQR 4X4X1_4</i>	10	LC6 at 0.00%	0.07	OK	
		11	LC6 at 0.00%	0.06	OK	
	<i>L 3X3X3_8</i>	5	LC1 at 0.00%	0.12	OK	
		8	LC1 at 0.00%	0.12	OK	
	<i>PIPE 2-1_2x0.203</i>	1	LC1 at 34.38%	0.31	OK	



Analysis result

Envelope for nodal reactions

Note.- **Ic** is the controlling load condition



Direction of positive forces and moments

Envelope of nodal reactions for :

LC1=1.2DL+Wf
 LC2=1.2DL+Ws
 LC3=0.9DL+Wf
 LC4=0.9DL+Ws
 LC5=1.2DL+Wfice+Di
 LC6=1.2DL+Wsice+Di
 LC7=1.4DL
 LC8=0.9DL

Node		Forces						Moments					
		Fx	Ic	Fy	Ic	Fz	Ic	Mx	Ic	My	Ic	Mz	Ic
		[Kip]		[Kip]		[Kip]		[Kip*ft]		[Kip*ft]		[Kip*ft]	
8	Max	0.124	LC2	0.387	LC6	0.693	LC6	0.00000	LC1	0.00000	LC1	0.00000	LC1
	Min	0.000	LC6	-0.036	LC3	-0.079	LC3	0.00000	LC1	0.00000	LC1	0.00000	LC1
11	Max	0.025	LC2	0.449	LC6	0.137	LC3	0.00000	LC1	0.00000	LC1	0.00000	LC1
	Min	0.000	LC1	-0.066	LC3	-0.646	LC6	0.00000	LC1	0.00000	LC1	0.00000	LC1
21	Max	0.345	LC2	0.266	LC1	0.370	LC3	0.00000	LC1	0.00000	LC1	0.00000	LC1
	Min	-0.112	LC3	-0.389	LC4	-0.773	LC2	0.00000	LC1	0.00000	LC1	0.00000	LC1
22	Max	0.324	LC4	0.431	LC2	0.746	LC4	0.00000	LC1	0.00000	LC1	0.00000	LC1
	Min	-0.014	LC7	0.018	LC8	-0.018	LC7	0.00000	LC1	0.00000	LC1	0.00000	LC1

Date: 2/28/2022
 Project Name: BELLTOWN
 Project No.: CT2141
 Designed By: ID Checked By: MSC



HUDSON
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CHECK STUD WELD CAPACITY → WORST CASE (ALPHA & GAMMA SECTOR)

Reference: Cox Industries

Stud Material = Low Carbon Copper Flashed Steel

Stud Weld Size = 5/16 - 18

Ultimate Tensile Load = 2900 lbs.

Maximum Shear Load = 2200 lbs.

Safety Factor = 4

Testing Torque	Max. Fastening Torque
11.9 ft. lbs	6.0 ft. lbs

Allowable Tensile Load =

$F_{Tall} = 725 \text{ lbs.}$

Allowable Shear Load =

$F_{Vall} = 550 \text{ lbs.}$

TENSILE FORCES

Reaction $F = 389 \text{ lbs.}$ (See Bentley Output)

SHEAR FORCES

Reactions in X direction: 345 lbs. (See Bentley Output)

Reactions in Z direction: 773 lbs. (See Bentley Output)

Resultant: 846 lbs.

No. of Supports = 1

No. of Studs / Support = 4 Min.

Tension Design Load / Stud =

$f_t = 97.25 \text{ lbs.} < 725 \text{ lbs.}$ Therefore, OK !

Shear Design Load / Stud =

$f_v = 211.62 \text{ lbs.} < 550 \text{ lbs.}$ Therefore, OK !

CHECK COMBINED TENSION AND SHEAR

$$\begin{array}{ccccccc} f_t / F_T & + & f_v / F_V & \leq & 1.0 \\ 0.134 & + & 0.385 & = & 0.519 & < & 1.0 \end{array} \text{ Therefore, OK !}$$

Date: 2/28/2022
 Project Name: BELLTOWN
 Project No.: CT2141
 Designed By: ID Checked By: MSC



HUDSON
 Design Group LLC

CHECK BENDING ON THE WATER TANK:

*Water tank plans were not available. ProVertic conducted an on-site survey and mapping of the existing AT&T antenna mounts on September 15, 2020.

Lid Thickness, t_l	0.296 in.	
Assumed Effective Width, b	36 in.	
Span, L	24 in.	
Vertical Reaction, P	773 lbs.	(See Bentley Results)

$$M_u = PL/4$$

$$= \boxed{4638.00 \text{ lb-in}}$$

$$S = (b \times t_l^2)/6$$

$$= \boxed{0.526 \text{ in}^3}$$

$$Z = (b \times t_l^2)/4$$

$$= \boxed{0.789 \text{ in}^3}$$

$$\phi M_{n_z} = 0.9 \times 36000 \text{ psi} \times Z$$

$$= \boxed{25548.83 \text{ lb-in}}$$

$$\phi M_{n_s} = 36000 \text{ psi} \times 1.6 \times S$$

$$= \boxed{27252.08 \text{ lb-in}}$$

$$\phi M_{n_z} > M_{\max}$$

$$\boxed{25548.83 \text{ lb-in} > 4638.00 \text{ lb-in}} \text{ OK !}$$

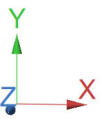
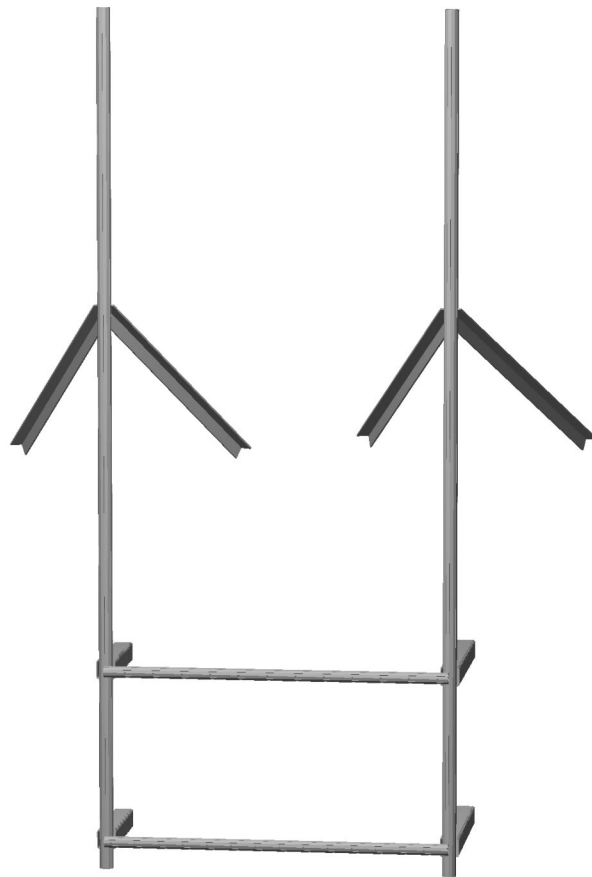
Conclusion

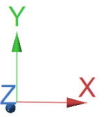
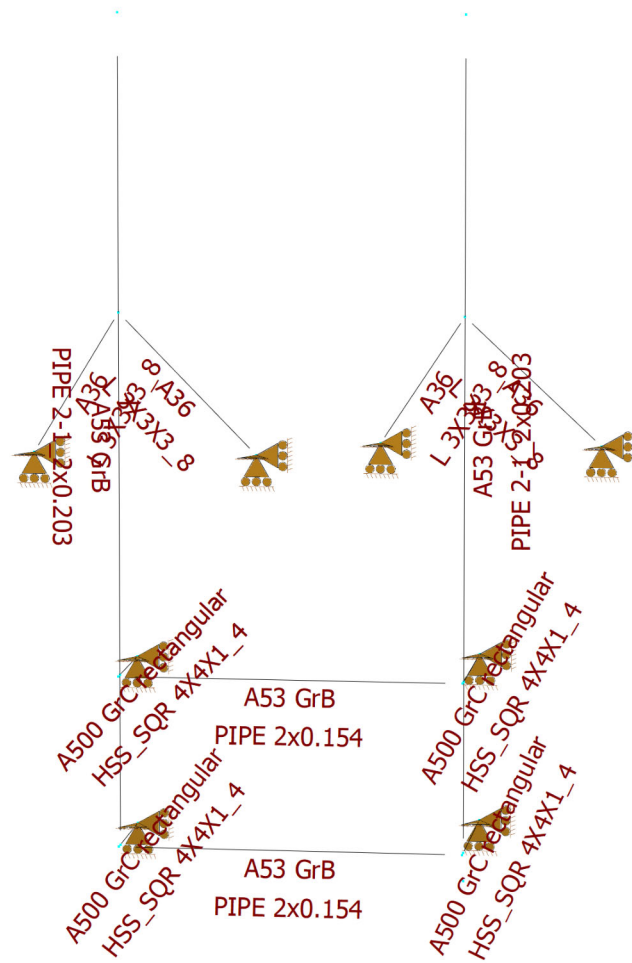
The water tank lid is capable of supporting the proposed loads.



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Beta Sector Calculations

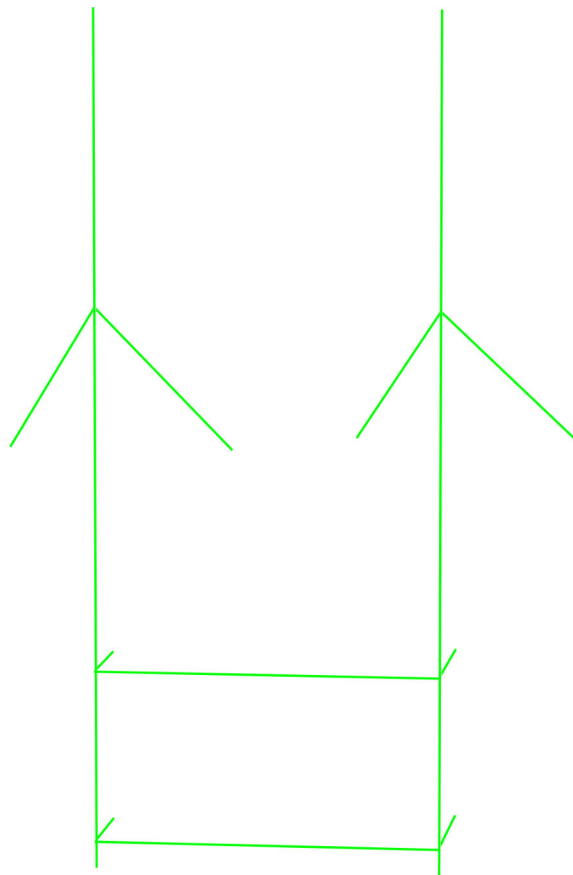


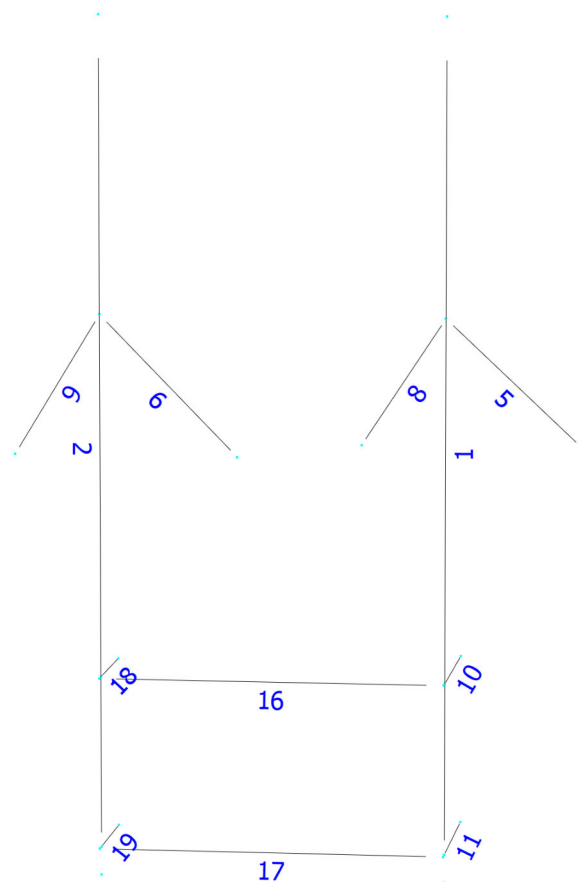




Design status

- Not designed
- Error on design
- Design O.K.
- With warnings





Current Date: 2/28/2022 10:05 AM
 Units system: English

Load data

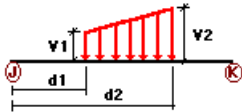
GLOSSARY

Comb : Indicates if load condition is a load combination

Load Conditions

Condition	Description	Comb.	Category
DL	Dead Load	No	DL
Wf	Wind Load (FRONT)	No	WIND
Ws	Wind Load (SIDE)	No	WIND
Wfice	Wind ICE (FRONT)	No	WIND
Wside	Wind ICE (SIDE)	No	WIND
Di	Ice Load	No	LL

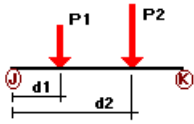
Distributed force on members



Condition	Member	Dir1	Val1 [Kip/ft]	Val2 [Kip/ft]	Dist1 [ft]	%	Dist2 [ft]	%
Wf	1	z	-0.012	0.00	0.00	No	0.00	No
	2	z	-0.012	0.00	0.00	No	0.00	No
	5	z	-0.021	0.00	0.00	No	0.00	No
	6	z	-0.021	0.00	0.00	No	0.00	No
	8	z	-0.021	0.00	0.00	No	0.00	No
	9	z	-0.021	0.00	0.00	No	0.00	No
	16	z	-0.01	0.00	0.00	No	0.00	No
	17	z	-0.01	0.00	0.00	No	0.00	No
Ws	1	x	-0.012	0.00	0.00	No	0.00	No
	2	x	-0.012	0.00	0.00	No	0.00	No
	5	x	-0.021	0.00	0.00	No	0.00	No
	6	x	-0.021	0.00	0.00	No	0.00	No
	8	x	-0.021	0.00	0.00	No	0.00	No
	9	x	-0.021	0.00	0.00	No	0.00	No
	10	x	-0.017	0.00	0.00	No	0.00	No
	11	x	-0.017	0.00	0.00	No	0.00	No
	16	x	-0.01	0.00	0.00	No	0.00	No
	17	x	-0.01	0.00	0.00	No	0.00	No
Di	18	x	-0.017	0.00	0.00	No	0.00	No
	19	x	-0.017	0.00	0.00	No	0.00	No
	1	y	-0.007	0.00	0.00	No	0.00	No
	2	y	-0.007	0.00	0.00	No	0.00	No
	5	y	-0.01	0.00	0.00	No	0.00	No
	6	y	-0.01	0.00	0.00	No	0.00	No
	8	y	-0.01	0.00	0.00	No	0.00	No
	9	y	-0.01	0.00	0.00	No	0.00	No
	10	y	-0.012	0.00	0.00	No	0.00	No
	11	y	-0.012	0.00	0.00	No	0.00	No
	16	y	-0.007	0.00	0.00	No	0.00	No
	17	y	-0.007	0.00	0.00	No	0.00	No
	18	y	-0.012	0.00	0.00	No	0.00	No

19 y -0.012 0.00 0.00 No 0.00 No

Concentrated forces on members



Condition	Member	Dir1	Value1 [Kip]	Dist1 [ft]	%
DL	1	y	-0.033	0.50	No
		y	-0.033	3.50	No
		y	-0.041	4.50	No
		y	-0.041	7.50	No
		y	-0.049	4.00	Yes
	2	y	-0.055	0.50	No
		y	-0.055	5.50	No
		y	-0.06	3.00	No
		y	-0.06	3.00	No
		y	-0.014	3.00	No
Wf	1	z	-0.086	0.50	No
		z	-0.086	3.50	No
		z	-0.084	4.50	No
		z	-0.084	7.50	No
		z	-0.068	4.00	Yes
	2	z	-0.286	0.50	No
		z	-0.286	5.50	No
		z	-0.028	3.00	No
		z	-0.039	3.00	No
		z	-0.029	3.00	No
Ws	1	x	-0.042	0.50	No
		x	-0.042	3.50	No
		x	-0.057	4.50	No
		x	-0.057	7.50	No
		x	-0.03	4.00	Yes
	2	x	-0.121	0.50	No
		x	-0.121	5.50	No
		x	-0.113	3.00	No
		x	-0.009	3.00	No
		x	-0.009	3.00	No
Wfice	1	z	-0.017	0.50	No
		z	-0.017	3.50	No
		z	-0.016	4.50	No
		z	-0.016	7.50	No
		z	-0.014	4.00	Yes
	2	z	-0.05	0.50	No
		z	-0.05	5.50	No
		z	-0.008	3.00	No
		z	-0.011	3.00	No
		z	-0.007	3.00	No
Wsice	1	x	-0.009	0.50	No
		x	-0.009	3.50	No
		x	-0.012	4.50	No
		x	-0.012	7.50	No
		x	-0.008	4.00	Yes
	2	x	-0.025	0.50	No
		x	-0.025	5.50	No
		x	-0.023	3.00	No
		x	-0.003	3.00	No
		x	-0.003	3.00	No
Di	1	y	-0.033	0.50	No
		y	-0.033	3.50	No
		y	-0.041	4.50	No

2	y	-0.041	7.50	No
	y	-0.049	4.00	Yes
	y	-0.055	0.50	No
	y	-0.055	5.50	No
	y	-0.06	3.00	No
	y	-0.06	3.00	No
	y	-0.014	3.00	No

Self weight multipliers for load conditions

Condition	Description	Self weight multiplier			
		Comb.	MultX	MultY	MultZ
DL	Dead Load	No	0.00	-1.00	0.00
Wf	Wind Load (FRONT)	No	0.00	0.00	0.00
Ws	Wind Load (SIDE)	No	0.00	0.00	0.00
Wfice	Wind ICE (FRONT)	No	0.00	0.00	0.00
Wsice	Wind ICE (SIDE)	No	0.00	0.00	0.00
Di	Ice Load	No	0.00	0.00	0.00

Earthquake (Dynamic analysis only)

Condition	a/g	Ang. [Deg]	Damp. [%]
DL	0.00	0.00	0.00
Wf	0.00	0.00	0.00
Ws	0.00	0.00	0.00
Wfice	0.00	0.00	0.00
Wsice	0.00	0.00	0.00
Di	0.00	0.00	0.00

Current Date: 2/28/2022 10:05 AM
 Units system: English

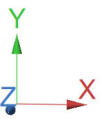
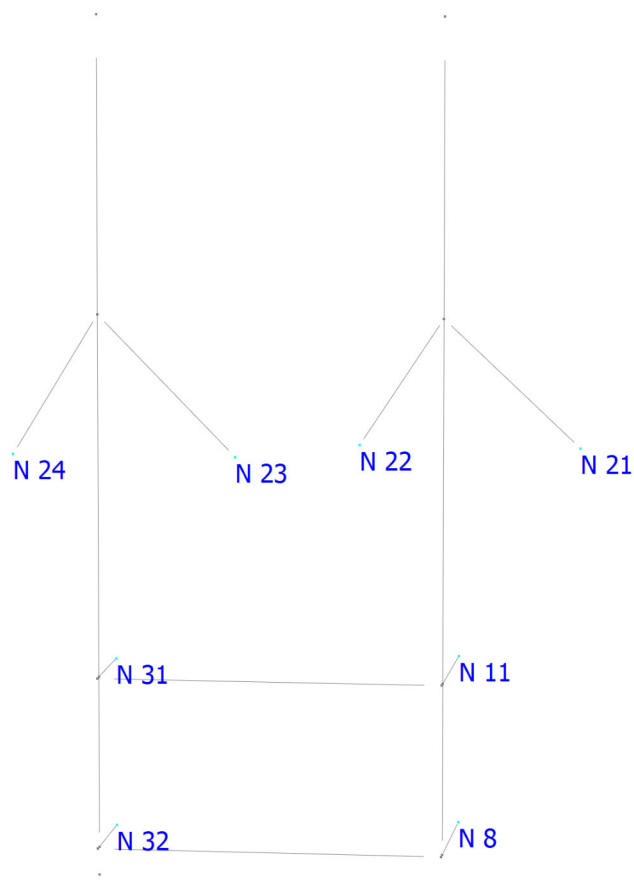
Steel Code Check

Report: Summary - Group by member

Load conditions to be included in design :

LC1=1.2DL+Wf
 LC2=1.2DL+Ws
 LC3=0.9DL+Wf
 LC4=0.9DL+Ws
 LC5=1.2DL+Wfice+Di
 LC6=1.2DL+Wsice+Di
 LC7=1.4DL
 LC8=0.9DL

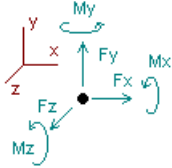
Description	Section	Member	Ctrl Eq.	Ratio	Status	Reference
<i>HSS_SQR 4X4X1_4</i>		10	LC6 at 0.00%	0.07	OK	
		11	LC6 at 0.00%	0.06	OK	
		18	LC3 at 0.00%	0.06	OK	
		19	LC6 at 0.00%	0.05	OK	
<i>L 3X3X3_8</i>		5	LC1 at 0.00%	0.12	OK	
		6	LC1 at 0.00%	0.19	OK	
		8	LC1 at 0.00%	0.13	OK	
		9	LC1 at 0.00%	0.22	OK	
<i>PIPE 2-1_2x0.203</i>		1	LC1 at 34.38%	0.31	OK	
		2	LC1 at 34.38%	0.49	OK	
<i>PIPE 2x0.154</i>		16	LC6 at 0.00%	0.05	OK	
		17	LC5 at 0.00%	0.04	OK	



Analysis result

Envelope for nodal reactions

Note.- **lc** is the controlling load condition



Direction of positive forces and moments

Envelope of nodal reactions for :

LC1=1.2DL+Wf
 LC2=1.2DL+Ws
 LC3=0.9DL+Wf
 LC4=0.9DL+Ws
 LC5=1.2DL+Wfice+Di
 LC6=1.2DL+Wsice+Di
 LC7=1.4DL
 LC8=0.9DL

Node		Forces						Moments					
		Fx	lc	Fy	lc	Fz	lc	Mx	lc	My	lc	Mz	lc
		[Kip]		[Kip]		[Kip]		[Kip*ft]		[Kip*ft]		[Kip*ft]	
8	Max	0.056	LC2	0.392	LC6	0.701	LC6	0.00000	LC1	0.00000	LC1	0.00000	LC1
	Min	-0.005	LC3	-0.035	LC3	-0.055	LC3	0.00000	LC1	0.00000	LC1	0.00000	LC1
11	Max	0.028	LC4	0.455	LC6	0.117	LC3	0.00000	LC1	0.00000	LC1	0.00000	LC1
	Min	-0.012	LC6	-0.084	LC3	-0.645	LC6	0.00000	LC1	0.00000	LC1	0.00000	LC1
21	Max	0.326	LC2	0.267	LC1	0.369	LC3	0.00000	LC1	0.00000	LC1	0.00000	LC1
	Min	-0.112	LC3	-0.368	LC4	-0.667	LC2	0.00000	LC1	0.00000	LC1	0.00000	LC1
22	Max	0.304	LC4	0.410	LC2	0.641	LC4	0.00000	LC1	0.00000	LC1	0.00000	LC1
	Min	-0.015	LC7	0.017	LC8	-0.020	LC7	0.00000	LC1	0.00000	LC1	0.00000	LC1
23	Max	0.377	LC2	0.643	LC1	0.559	LC3	0.00000	LC1	0.00000	LC1	0.00000	LC1
	Min	-0.322	LC3	-0.548	LC4	-0.522	LC2	0.00000	LC1	0.00000	LC1	0.00000	LC1
24	Max	0.359	LC4	0.640	LC1	0.554	LC3	0.00000	LC1	0.00000	LC1	0.00000	LC1
	Min	-0.015	LC7	0.012	LC8	-0.017	LC7	0.00000	LC1	0.00000	LC1	0.00000	LC1
31	Max	0.018	LC4	0.493	LC6	0.311	LC3	0.00000	LC1	0.00000	LC1	0.00000	LC1
	Min	-0.025	LC6	-0.527	LC3	-0.501	LC6	0.00000	LC1	0.00000	LC1	0.00000	LC1
32	Max	0.078	LC2	0.417	LC6	0.531	LC6	0.00000	LC1	0.00000	LC1	0.00000	LC1
	Min	0.009	LC8	-0.322	LC3	-0.371	LC3	0.00000	LC1	0.00000	LC1	0.00000	LC1

Date: 2/28/2022
 Project Name: BELLTOWN
 Project No.: CT2141
 Designed By: ID Checked By: MSC



CHECK STUD WELD CAPACITY → WORST CASE (BETA SECTOR)

Reference: Cox Industries

Stud Material =	Low Carbon Copper Flashed Steel		
Stud Weld Size =	5/16 - 18		
Ultimate Tensile Load =	2900 lbs.	Testing Torque	Max. Fastening Torque
Maximum Shear Load =	2200 lbs.	11.9 ft. lbs	6.0 ft. lbs
Safety Factor =	4		

Allowable Tensile Load =

$$F_{Tall} = 725 \text{ lbs.}$$

Allowable Shear Load =

$$F_{Vall} = 550 \text{ lbs.}$$

TENSILE FORCES

Reaction $F = 643 \text{ lbs.}$ (See Bentley Output)

SHEAR FORCES

Reactions in X direction: 559 lbs. (See Bentley Output)
 Reactions in Z direction: 377 lbs. (See Bentley Output)

Resultant: 674 lbs.

No. of Supports = 1
 No. of Studs / Support = 4 Min.

Tension Design Load / Stud =

$$f_t = 160.75 \text{ lbs.} < 725 \text{ lbs.} \text{ Therefore, OK !}$$

Shear Design Load / Stud=

$$f_v = 168.56 \text{ lbs.} < 550 \text{ lbs.} \text{ Therefore, OK !}$$

CHECK COMBINED TENSION AND SHEAR

$$\begin{array}{ccccccc} f_t / F_T & + & f_v / F_V & \leq & 1.0 \\ 0.222 & + & 0.306 & = & 0.528 & < & 1.0 \text{ Therefore, OK !} \end{array}$$

Date: 2/28/2022
Project Name: BELLTOWN
Project No.: CT2141
Designed By: ID Checked By: MSC



HUDSON
Design Group LLC

CHECK BENDING ON THE WATER TANK:

*Water tank plans were not available. ProVertic conducted an on-site survey and mapping of the existing AT&T antenna mounts on September 15, 2020.

Lid Thickness, t_l	0.296 in.	
Assumed Effective Width, b	36 in.	
Span, L	24 in.	
Vertical Reaction, P	641 lbs.	(See Bentley Results)

$$M_u = PL/4$$
$$= \boxed{3846.00 \text{ lb-in}}$$

$$S = (b \times t_l^2)/6$$
$$= \boxed{0.526 \text{ in}^3}$$

$$Z = (b \times t_l^2)/4$$
$$= \boxed{0.789 \text{ in}^3}$$

$$\phi M_{n_z} = 0.9 \times 36000 \text{ psi} \times Z$$
$$= \boxed{25548.83 \text{ lb-in}}$$

$$\phi M_{n_s} = 36000 \text{ psi} \times 1.6 \times S$$
$$= \boxed{27252.08 \text{ lb-in}}$$

$$\phi M_{n_z} > M_{\max}$$

$$\boxed{25548.83 \text{ lb-in} > 3846.00 \text{ lb-in}} \text{ OK !}$$

Conclusion

The water tank lid is capable of supporting the proposed loads.

CURRENT OWNER				TOPO		UTILITIES		STRT / ROAD		LOCATION		CURRENT ASSESSMENT						6135 STAMFORD, CT VISION										
GLENBROOK INDUSTRIAL PARK LLC C/O SPINNAKER RE PARTNERS 1 N WATER STREET SUITE 100 NORWALK CT 06854						3	Public Sewer	2	Semi-Improve			Description		Code	Appraisec		Assessed											
						1	All Public	1	Paved			COM BLDG		2-2	143,730		100,610											
						4	Gas					IND LAND		3-1	5,740,400		4,018,280											
				SUPPLEMENTAL DATA										IND BLDG		3-2	4,730,900		3,311,650									
				Alt Prcl ID 106 319 A				DSSD				IND OBY		3-3	300,860		210,610											
				Survey1 11488				Agent Nam																				
				Survey2 10437				Roll 1																				
				Census Tr 211				Common GLENBROOK IN																				
				Census Bl 1005				Neighborh GLENBR:																				
				Sewer Acct																								
				GIS ID W 421 3362				Assoc Pid#																				
Total												10,915,890		7,641,150														
RECORD OF OWNERSHIP				BK-VOL/PAGE		SALE DATE		Q/U		V/I		SALE PRICE		VC		PREVIOUS ASSESSMENTS (HISTORY)												
GLENBROOK INDUSTRIAL PARK LLC GLENBROOK INDUSTRIAL PARK ASC GLENBROOK INDUSTRIAL PARK ASC GLENBROOK INDUSTRIAL PARK ASC				7365		0192		01-29-2004		U		I		0		25		Year	Code	Assessed	Year	Code	Assessed	Year	Code	Assessed		
				5077		0267		09-01-1998		U		I		0				2020	2-2	100,610	2020	2-2	100,610	2019	2-2	100,610		
				5077		0267		08-31-1998		U		I		0					3-1	4,018,280	3-1	4,018,280	3-1	4,018,280				
				1691		0178		11-04-1997		U		I		0		25			3-2	3,311,650	3-2	3,311,650	3-2	3,311,650				
																	3-3	210,610	3-3	210,610	3-3	210,610						
Total												7641150		Total		7641150		Total		7641150								
EXEMPTIONS						OTHER ASSESSMENTS										This signature acknowledges a visit by a Data Collector or Assessor												
Year	Code	Description			Amount	Code	Description			Number	Amount	Comm Int																
Total					0.00																							
ASSESSING NEIGHBORHOOD												APPRAISED VALUE SUMMARY																
Nbhd		Nbhd Name			B		Tracing			Batch			Appraised Bldg. Value (Card)						4,460,710									
0400													Appraised Xf (B) Value (Bldg)						413,920									
NOTES KIRBY TANK SIZE UNKNOWN 8/12 LESTER LLC PCI CREATIVE GROUP KEVIN THOMAS STUDIO + 25 OTHERS SPACE FOR RENT												Appraised Ob (B) Value (Bldg)						300,860										
												Appraised Land Value (Bldg)						5,740,400										
												Special Land Value						0										
												Total Appraised Parcel Value						10,915,890										
												Valuation Method						C										
												Total Appraised Parcel Value						10,915,890										
BUILDING PERMIT RECORD												VISIT / CHANGE HISTORY																
Permit Id		Issue Date		Type	Description		Amount		Insp Date		% Comp		Date Comp		Comments		Date		Id		Type	Is	Cd	Purpost/Result				
B-20-1867		11-04-2020		NV	No Value		0				0				UPGRADE AND REPLACEME		01-11-2018		CK				21	Informal Hearing (NC)				
B-19-133		03-20-2019		NV	No Value						0				INSTALL 25kW NATURAL GA		05-12-2014		NR				24	Court Stipulation				
B-18-1102		11-19-2018		NV	No Value						0				SWAPPING 6 ANTENNAS FO		04-12-2013		RGB				17	Permit (C.O.)				
B-18-1628		11-15-2018		NV	No Value						0				REPLACE/INSTALL NEW ANT		04-10-2013		BJ				18	Board of Assessment Appe				
B-17-176		03-30-2017		NV	No Value						0				REPLACE EXISTING REMOT		01-16-2013		TM				40	No change				
2010-0478		06-24-2010		AI	Attached Impr						100		05-02-2012		CO# 2012-0748		10-03-2012		SM				80	Walk Around, No one hom				
2004-0013		01-09-2004		NC	New Construct				01-11-2005		100		12-23-2004		CO# 2004-1182 NO CO APPT		08-29-2012		MJF				00	Measur+Listed				
LAND LINE VALUATION SECTION																												
B	Use Code	Description		Zone	Distri	District Desc.		Land Units		Unit Price		I. Factor	Site Index	Cond.	Nbhd.	Nhbd Adj	Notes		Location Adjustment		Adj Unit Pric		Land Value					
1	300	Industrial MDL-9		MZN	4			186,437 SF		27.99		1.10000	C	1.00	0400	1.000					0		30.79 5,740,400					
Total Card Land Units												4.280	AC	Parcel Total Land Area: 4.2800										Total Land Value				5,740,400

CONSTRUCTION DETAIL						CONSTRUCTION DETAIL (CONTINUED)					
Element	Cd	Description	Element	Cd	Description						
Style:	62	Industry Light									
Model	96	Ind/Comm									
Grade	03	C-									
Stories:	2										
Occupancy	29.00										
Exterior Wall 1	20	Brick									
Exterior Wall 2	17	Stucco Mas									
Roof Structure	01	Flat									
Roof Cover	04	T&G/Rubber									
Interior Wall 1	05	Drywall/Plaste									
Interior Wall 2											
Interior Floor 1	03	Concrete Slab									
Interior Floor 2											
Heating Fuel	02	Gas/LP									
Heating Type	03	Forced Air-Duc									
AC Type	01	None									
Bldg Use	300	Industrial MDL-96									
Total Rooms											
Total Bedrms	00										
Total Baths	0										
Heat/AC	00	None									
Frame Type	05	Steel									
Baths/Plumbing	02	Average									
Ceiling/Wall	03	Sus-Ceil/Mn WL									
Rooms/Prtns	02	Average									
Wall Height	14.00										
% Conn Wall											
1st Floor Use:	300										

CURRENT OWNER				TOPO		UTILITIES		STRT / ROAD		LOCATION		CURRENT ASSESSMENT				<div>6135</div> <div>STAMFORD, CT</div> <div>VISION</div>								
GLENBROOK INDUSTRIAL PARK LLC C/O SPINNAKER RE PARTNERS 1 N WATER STREET SUITE 100 NORWALK CT 06854						3	Public Sewer	2	Semi-Improve			Description	Code	Appraisec	Assessed									
						1	All Public	1	Paved			COM BLDG	2-2	143,730	100,610									
						4	Gas					IND LAND	3-1	5,740,400	4,018,280									
				SUPPLEMENTAL DATA				IND BLDG	3-2	4,730,900	3,311,650													
				Alt Prcl ID 106 319 A Survey1 11488 Survey2 10437 Census Tr 211 Census Bl 1005 Sewer Acct GIS ID W 421 3362		DSSD Agent Nam Roll 1 Common GLENBROOK IN Neighbrh GLENBR: Assoc Pid#				IND OBY	3-3	300,860	210,610											
												Total		10,915,890	7,641,150									
RECORD OF OWNERSHIP				BK-VOL/PAGE		SALE DATE		Q/U		V/I		SALE PRICE		VC		PREVIOUS ASSESSMENTS (HISTORY)								
																Year	Code	Assessed	Year	Code	Assessed	Year	Code	Assessed
																2020	2-2	100,610	2020	2-2	100,610	2019	2-2	100,610
																	3-1	4,018,280		3-1	4,018,280		3-1	4,018,280
																	3-2	3,311,650		3-2	3,311,650		3-2	3,311,650
																	3-3	210,610		3-3	210,610		3-3	210,610
												Total		7641150	Total		7641150	Total		7641150				
EXEMPTIONS				OTHER ASSESSMENTS				This signature acknowledges a visit by a Data Collector or Assessor																
Year	Code	Description		Amount		Code	Description		Number	Amount		Comm Int												
Total																								
ASSESSING NEIGHBORHOOD														APPRAISED VALUE SUMMARY										
Nbhd		Nbhd Name		B		Tracing		Batch						Appraised Bldg. Value (Card)				4,460,710						
0400														Appraised Xf (B) Value (Bldg)				413,920						
														Appraised Ob (B) Value (Bldg)				300,860						
														Appraised Land Value (Bldg)				5,740,400						
														Special Land Value				0						
														Total Appraised Parcel Value				10,915,890						
														Valuation Method				C						
														Total Appraised Parcel Value				10,915,890						
BUILDING PERMIT RECORD														VISIT / CHANGE HISTORY										
Permit Id	Issue Date	Type	Description	Amount	Insp Date	% Comp	Date Comp	Comments						Date	Id	Type	Is	Cd	Purpost/Result					
LAND LINE VALUATION SECTION																								
B	Use Code	Description	Zone	Distri	District Desc.	Land Units	Unit Price	I. Factor	Site Index	Cond.	Nbhd.	Nbhd Adj	Notes	Location Adjustment		Adj Unit Pric	Land Value							
Total Card Land Units						Parcel Total Land Area:						Total Land Value						5,740,400						

CONSTRUCTION DETAIL						CONSTRUCTION DETAIL (CONTINUED)				
Element	Cd	Description	Element	Cd	Description					
Style:	62	Industry Light								
Model	96	Ind/Comm								
Grade	03	C-								
Stories:	2									
Occupancy	29.00									
Exterior Wall 1	20	Brick								
Exterior Wall 2	17	Stucco Mas								
Roof Structure	01	Flat								
Roof Cover	04	T&G/Rubber								
Interior Wall 1	05	Drywall/Plaste								
Interior Wall 2										
Interior Floor 1	03	Concrete Slab								
Interior Floor 2										
Heating Fuel	02	Gas/LP								
Heating Type	03	Forced Air-Duc								
AC Type	01	None								
Bldg Use	300	Industrial MDL-96								
Total Rooms										
Total Bedrms	00									
Total Baths	0									
Heat/AC	00	None								
Frame Type	05	Steel								
Baths/Plumbing	02	Average								
Ceiling/Wall	03	Sus-Ceil/Mn WL								
Rooms/Prtns	02	Average								
Wall Height	14.00									
% Comn Wall										
1st Floor Use:	300									
<div> <div>RCN</div> <div> Year Built Effective Year Built Depreciation Code Remodel Rating Year Remodeled Depreciation % Functional Obsol External Obsol Trend Factor Condition Condition % Percent Good RCNLD Dep % Ovr Dep Ovr Comment Misc Imp Ovr Misc Imp Ovr Comment Cost to Cure Ovr Cost to Cure Ovr Comment </div> </div>										
OB - OUTBUILDING & YARD ITEMS(L) / XF - BUILDING EXTRA FEATURES(B)										
Code	Description	L/B	Units	Unit Price	Yr Blt	Cond. Cd	% Good	Grade	Grade Adj	Appr. Value
HL1	Hydro Lift Com	B	3	4500.00	1967		41	A	2.00	11,070
BUILDING SUB-AREA SUMMARY SECTION										
Code	Description	Living Area	Floor Area	Eff Area	Unit Cost	Undeprec Value				
Ttl Gross Liv / Lease Area										

CURRENT OWNER				TOPO		UTILITIES		STRT / ROAD		LOCATION		CURRENT ASSESSMENT						6135 STAMFORD, CT VISION							
GLENBROOK INDUSTRIAL PARK LLC C/O SPINNAKER RE PARTNERS 1 N WATER STREET SUITE 100 NORWALK CT 06854						3	Public Sewer	2	Semi-Improve			Description		Code	Appraisec		Assessed								
						1	All Public	1	Paved			COM BLDG		2-2	143,730		100,610								
						4	Gas					IND LAND		3-1	5,740,400		4,018,280								
				SUPPLEMENTAL DATA										IND BLDG		3-2	4,730,900			3,311,650					
				Alt Prcl ID 106 319 A				DSSD				IND OBY		3-3	300,860		210,610								
				Survey1 11488				Agent Nam																	
				Survey2 10437				Roll 1																	
				Census Tr 211				Common GLENBROOK IN																	
				Census Bl 1005				Neighborh GLENBR:																	
				Sewer Acct																					
				GIS ID W 421 3362				Assoc Pid#																	
Total												10,915,890		7,641,150											
RECORD OF OWNERSHIP				BK-VOL/PAGE		SALE DATE		Q/U	V/I	SALE PRICE		VC	PREVIOUS ASSESSMENTS (HISTORY)												
GLENBROOK INDUSTRIAL PARK LLC GLENBROOK INDUSTRIAL PARK ASC GLENBROOK INDUSTRIAL PARK ASC GLENBROOK INDUSTRIAL PARK ASC				7365		0192		01-29-2004		U	I	0		25	Year	Code	Assessed	Year	Code	Assessed	Year	Code	Assessed		
				5077		0267		09-01-1998		U	I	0			2020	2-2	100,610	2020	2-2	100,610	2019	2-2	100,610		
				5077		0267		08-31-1998		U	I	0				3-1	4,018,280		3-1	4,018,280		3-1	4,018,280		
				1691		0178		11-04-1997		U	I	0		25		3-2	3,311,650		3-2	3,311,650		3-2	3,311,650		
																3-3	210,610		3-3	210,610		3-3	210,610		
Total												7641150		Total		7641150		Total		7641150					
EXEMPTIONS						OTHER ASSESSMENTS						This signature acknowledges a visit by a Data Collector or Assessor													
Year	Code	Description			Amount		Code	Description		Number												Amount		Comm Int	
Total				0.00																					
ASSESSING NEIGHBORHOOD														APPRAISED VALUE SUMMARY Appraised Bldg. Value (Card) 4,460,710 Appraised Xf (B) Value (Bldg) 413,920 Appraised Ob (B) Value (Bldg) 300,860 Appraised Land Value (Bldg) 5,740,400 Special Land Value 0 Total Appraised Parcel Value 10,915,890 Valuation Method C Total Appraised Parcel Value 10,915,890											
Nbhd		Nbhd Name			B		Tracing				Batch														
0400																									
NOTES																									
8/12 BLDG IS VACANT																									
BUILDING PERMIT RECORD														VISIT / CHANGE HISTORY											
Permit Id	Issue Date	Type	Description	Amount		Insp Date	% Comp	Date Comp	Comments					Date	Id	Type	Is	Cd	Purpost/Result						
LAND LINE VALUATION SECTION																									
B	Use Code	Description		Zone	Distri	District Desc.		Land Units		Unit Price	I. Factor	Site Index	Cond.	Nbhd.	Nhbd Adj	Notes		Location Adjustment		Adj Unit Pric	Land Value				
2	200	Commercial MD		MZN	4			0 SF		0	0.00000	0	1.00	0400	1.000					0	0	0			
Total Card Land Units				0.000	AC	Parcel Total Land Area: 4.2800										Total Land Value				5,740,400					

CONSTRUCTION DETAIL						CONSTRUCTION DETAIL (CONTINUED)				
Element		Cd	Description			Element		Cd	Description	
Style:	62		Industry Light							
Model	94		Comm/Ind							
Grade	04		C							
Stories:	3									
Occupancy	1.00					MIXED USE				
Exterior Wall 1	20		Brick			Code	Description		Percentage	
Exterior Wall 2						200	Commercial MDL-94		100	
Roof Structure	01		Flat						0	
Roof Cover	04		T&G/Rubber						0	
Interior Wall 1	05		Drywall/Plaste			COST / MARKET VALUATION				
Interior Wall 2						RCN		188,766		
Interior Floor 1	12		Hardwood							
Interior Floor 2						Year Built		1958		
Heating Fuel	02		Gas/LP			Effective Year Built				
Heating Type	05		Hot Wtr Bbd			Depreciation Code		A		
AC Type	04		Unit/AC			Remodel Rating				
Bldg Use	200		Commercial MDL-94			Year Remodeled				
Total Rooms						Depreciation %		25		
Total Bedrms	00					Functional Obsol				
Total Baths	0					External Obsol				
Heat/AC	00		None			Trend Factor		1		
Frame Type	05		Steel			Condition				
Baths/Plumbing	02		Average			Condition %				
Ceiling/Wall	05		Sus-Ceil&Wall			Percent Good		75		
Rooms/Prtns	02		Average			RCNLD		141,570		
Wall Height	14.00					Dep % Ovr				
% Comn Wall						Dep Ovr Comment				
1st Floor Use:	200					Misc Imp Ovr				
						Misc Imp Ovr Comment				
						Cost to Cure Ovr				
						Cost to Cure Ovr Comment				
OB - OUTBUILDING & YARD ITEMS(L) / XF - BUILDING EXTRA FEATURES(B)										
Code	Description	L/B	Units	Unit Price	Yr Blt	Cond. Cd	% Good	Grade	Grade Adj	Appr. Value
SPR1	Sprinklers - Wet	B	1,804	1.60	1992		75	C	1.00	2,160
BUILDING SUB-AREA SUMMARY SECTION										
Code	Description		Living Area	Floor Area	Eff Area	Unit Cost	Undeprec Value			
BAS	First Floor		1,924	1,924		73.88	142,147			
EAF	Attic, Expansion, Finished		631	1,804		25.84	46,619			
Ttl Gross Liv / Lease Area			2,555	3,728			188,766			

CURRENT OWNER		TOPO	UTILITIES	STRT / ROAD	LOCATION	CURRENT ASSESSMENT				<div>6135</div> <div>STAMFORD, CT</div> <div>VISION</div>									
GLENBROOK INDUSTRIAL PARK LLC C/O SPINNAKER RE PARTNERS 1 N WATER STREET SUITE 100 NORWALK CT 06854			3 Public Sewer	2 Semi-Improve		Description	Code	Appraisec	Assessed										
			1 All Public	1 Paved		COM BLDG	2-2	143,730	100,610										
			4 Gas			IND LAND	3-1	5,740,400	4,018,280										
		SUPPLEMENTAL DATA				IND BLDG	3-2	4,730,900	3,311,650										
		Alt Prcl ID 106 319 A Survey1 11488 Survey2 10437 Census Tr 211 Census Bl 1005 Sewer Acct GIS ID W 421 3362		DSSD Agent Nam Roll 1 Common GLENBROOK IN Neighborh GLENBR: Assoc Pid#		IND OBY	3-3	300,860	210,610										
						Total		10,915,890	7,641,150										
RECORD OF OWNERSHIP		BK-VOL/PAGE	SALE DATE	Q/U	V/I	SALE PRICE	VC	PREVIOUS ASSESSMENTS (HISTORY)											
GLENBROOK INDUSTRIAL PARK LLC GLENBROOK INDUSTRIAL PARK ASC GLENBROOK INDUSTRIAL PARK ASC GLENBROOK INDUSTRIAL PARK ASC		7365	0192	01-29-2004	U	I	0	25	Year	Code	Assessed	Year	Code	Assessed	Year	Code	Assessed		
		5077	0267	09-01-1998	U	I	0		2020	2-2	100,610	2020	2-2	100,610	2019	2-2	100,610		
		5077	0267	08-31-1998	U	I	0			3-1	4,018,280		3-1	4,018,280		3-1	4,018,280		
		1691	0178	11-04-1997	U	I	0	25		3-2	3,311,650		3-2	3,311,650		3-2	3,311,650		
										3-3	210,610		3-3	210,610		3-3	210,610		
		Total						7641150		Total		7641150		Total		7641150			
EXEMPTIONS			OTHER ASSESSMENTS					This signature acknowledges a visit by a Data Collector or Assessor											
Year	Code	Description	Amount	Code	Description	Number	Amount	Comm Int	<div>APPRAISED VALUE SUMMARY</div> <div>Appraised Bldg. Value (Card) 4,460,710</div> <div>Appraised Xf (B) Value (Bldg) 413,920</div> <div>Appraised Ob (B) Value (Bldg) 300,860</div> <div>Appraised Land Value (Bldg) 5,740,400</div> <div>Special Land Value 0</div> <div>Total Appraised Parcel Value 10,915,890</div> <div>Valuation Method C</div> <div>Total Appraised Parcel Value 10,915,890</div>										
Total		0.00																	
ASSESSING NEIGHBORHOOD																			
Nbhd		Nbhd Name		B		Tracing		Batch											
0400																			
NOTES																			
CELL TOWERS: NEXTEL / SPRINT, VERIZON, METRO PCS, AT+T RECEIVERS ARE ON SMOKE STACK - BOILER ROOM																			
BUILDING PERMIT RECORD								VISIT / CHANGE HISTORY											
Permit Id	Issue Date	Type	Description	Amount	Insp Date	% Comp	Date Comp	Comments	Date	Id	Type	Is	Cd	Purpost/Result					
LAND LINE VALUATION SECTION																			
B	Use Code	Description	Zone	Distri	District Desc.	Land Units	Unit Price	I. Factor	Site Index	Cond.	Nbhd.	Nbhd Adj	Notes	Location Adjustment	Adj Unit Pric	Land Value			
3	300	Industrial MDL-9	MZN	4		0 SF	0	0.00000	0	1.00	0400	1.000		0	0	0			
Total Card Land Units 0.000 AC																Parcel Total Land Area: 4.2800		Total Land Value 5,740,400	

CONSTRUCTION DETAIL						CONSTRUCTION DETAIL (CONTINUED)				
Element	Cd	Description				Element	Cd	Description		
Style:	62	Industry Light								
Model	96	Ind/Comm								
Grade	04	C								
Stories:	3									
Occupancy	1.00									
Exterior Wall 1	20	Brick								
Exterior Wall 2										
Roof Structure	01	Flat								
Roof Cover	04	T&G/Rubber								
Interior Wall 1	01	Minimum								
Interior Wall 2										
Interior Floor 1	03	Concrete Slab								
Interior Floor 2										
Heating Fuel	02	Gas/LP								
Heating Type	04	Hot Air-no Duc								
AC Type	01	None								
Bldg Use	300	Industrial MDL-96								
Total Rooms										
Total Bedrms	00									
Total Baths	0									
Heat/AC	00	None								
Frame Type	05	Steel								
Baths/Plumbing	02	Average								
Ceiling/Wall	02	Ceiling Only								
Rooms/Prtns	02	Average								
Wall Height	20.00									
% Conn Wall										
1st Floor Use:	300									

State Use 300
4/15/2021 10:26:55 A

CONSTRUCTION DETAIL						CONSTRUCTION DETAIL (CONTINUED)					
Element		Cd	Description			Element		Cd	Description		
Style:		32	Auto Repair								
Model		96	Ind/Comm								
Grade		04	C								
Stories:		3									
Occupancy		1.00									
Exterior Wall 1		15	Concr/Cinder								
Exterior Wall 2											
Roof Structure		01	Flat								
Roof Cover		04	T&G/Rubber								
Interior Wall 1		01	Minimum								
Interior Wall 2											
Interior Floor 1		03	Concrete Slab			RCN			164,193		
Interior Floor 2											
Heating Fuel		02	Gas/LP			Year Built			1950		
Heating Type		04	Hot Air-no Duc			Effective Year Built					
AC Type		01	None			Depreciation Code			A		
Bldg Use		300	Industrial MDL-96			Remodel Rating					
Total Rooms						Year Remodeled					
Total Bedrms		00				Depreciation %			30		
Total Baths		0				Functional Obsol					
Heat/AC		00	None			External Obsol					
Frame Type		03	Masonry			Trend Factor			1		
Baths/Plumbing		02	Average			Condition					
Ceiling/Wall		03	Sus-Ceil/Mn WL			Condition %					
Rooms/Prtns		02	Average			Percent Good			70		
Wall Height		14.00				RCNLD			114,940		
% Comn Wall						Dep % Ovr					
1st Floor Use:		300				Dep Ovr Comment					
						Misc Imp Ovr					
						Misc Imp Ovr Comment					
						Cost to Cure Ovr					
						Cost to Cure Ovr Comment					
OB - OUTBUILDING & YARD ITEMS(L) / XF - BUILDING EXTRA FEATURES(B)											
Code	Description	L/B	Units	Unit Price	Yr Blt	Cond. Cd	% Good	Grade	Grade Adj	Appr. Value	
OH1	Door Overhd C	B	1	3700.00	1987		70	C	1.00	2,590	
BUILDING SUB-AREA SUMMARY SECTION											
Code	Description	Living Area	Floor Area	Eff Area	Unit Cost	Undeprec Value					
BAS	First Floor	2,040	2,040		80.49	164,193					
Ttl Gross Liv / Lease Area		2,040	2,040			164,193					

State Use 300
4/15/2021 10:26:57 A

VISION

CONSTRUCTION DETAIL						CONSTRUCTION DETAIL (CONTINUED)																																									
Element	Cd	Description	Element	Cd	Description																																										
Style:	32	Auto Repair																																													
Model	94	Comm/Ind																																													
Grade	03	C-																																													
Stories:	3																																														
Occupancy	1.00																																														
Exterior Wall 1	15	Concr/Cinder																																													
Exterior Wall 2																																															
Roof Structure	01	Flat																																													
Roof Cover	02	Rolled Compos																																													
Interior Wall 1	01	Minimum																																													
Interior Wall 2	05	Drywall/Plaste																																													
Interior Floor 1	03	Concrete Slab																																													
Interior Floor 2																																															
Heating Fuel	02	Gas/LP																																													
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OB - OUTBUILDING & YARD ITEMS(L) / XF - BUILDING EXTRA FEATURES(B)																																															
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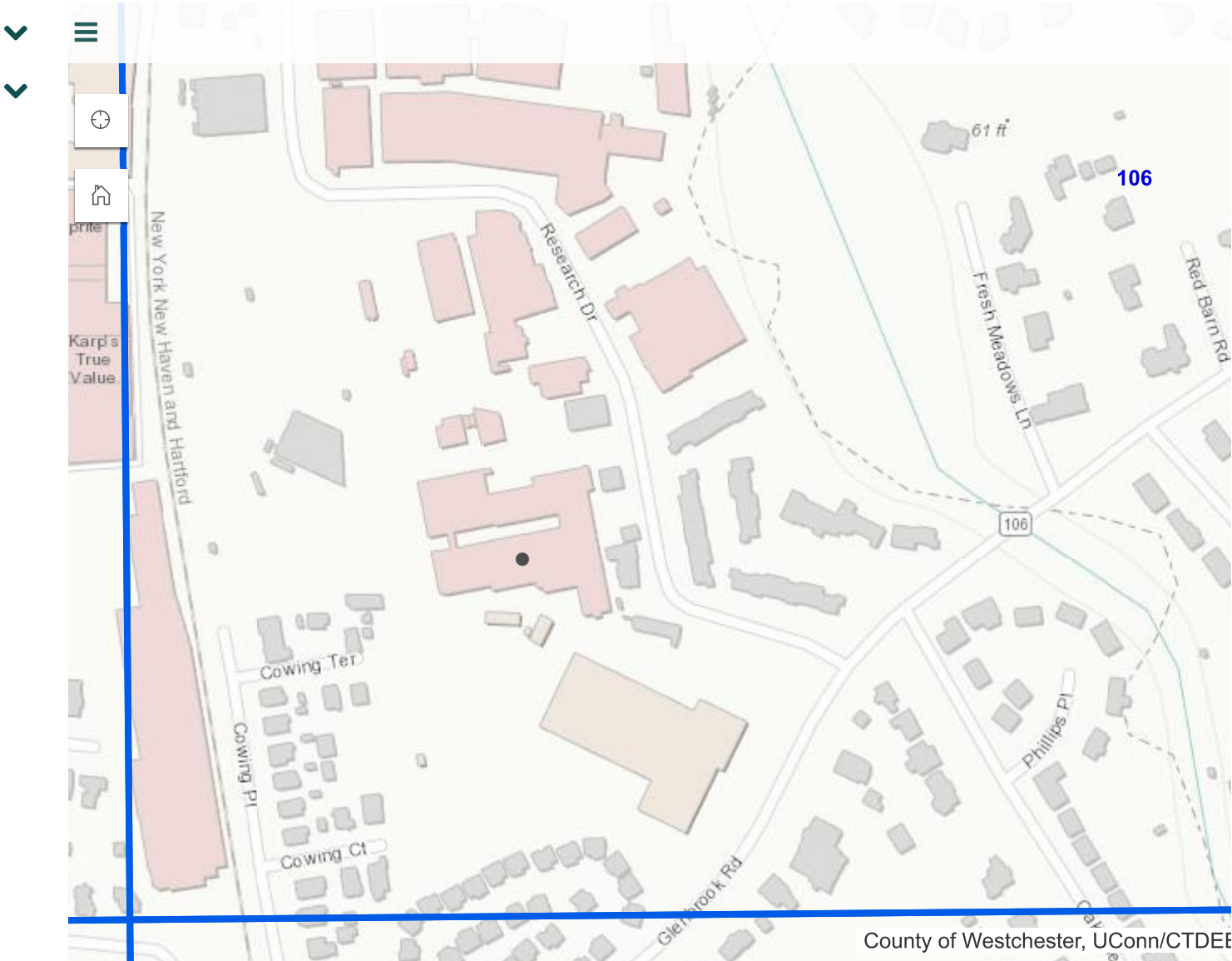
BAS

24

57

BLDG 5 - GARAGE

Legend
About





STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Ten Franklin Square
New Britain, Connecticut 06051
Phone: (860) 827-2935
Fax: (860) 827-2950

January 6, 2000

Christopher B. Fisher
Cuddy & Feder & Worby LLP
90 Maple Avenue
White Plains, NY 10601-5196

RE: TS-AT&T-135-991014 – AT&T Wireless PCS request for an order to approve tower sharing at an existing telecommunications facility located at 652 Glenbrook Road in Stamford, Connecticut.

Dear Attorney Fisher:

At a public meeting held January 5, 2000, the Connecticut Siting Council (Council) ruled that the shared use of this existing tower site is technically, legally, environmentally, and economically feasible and meets public safety concerns, and therefore, in compliance with General Statutes § 16-50aa, the Council has ordered the shared use of this facility to avoid the unnecessary proliferation of tower structures, conditioned on the requirement that the tower and antennas be painted by all wireless carriers on or before June 30, 2000.

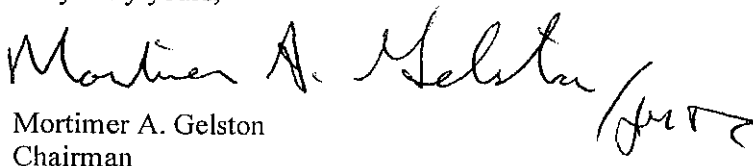
This facility has been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower. Any additional change to this facility will require an explicit request to this agency pursuant to § 16-50aa or notice pursuant to Regulations of Connecticut State Agencies Section 16-50j-73, as applicable. Such request or notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

This decision applies only to this request for tower sharing and is not applicable to any other request or construction.

The proposed shared use is to be implemented as specified in your letter dated October 13, 1999, and in additional information dated December 14, 1999 and December 15, 1999, and as conditioned by the Council.

Thank you for your attention and cooperation.

Very truly yours,


Mortimer A. Gelston
Chairman

MAG/SLL/sll

cc: Honorable Dannel P. Malloy, Mayor, City of Stamford
Ronald C. Clark, Manager – Real Estate Operations, Nextel Communications, Inc.
Peter W. van Wilgen, Director of Real Estate Operations, SNET Wireless, Inc.

Zoning Enforcement Approval

✔ **Complete.** This step was completed on Apr 13, 2021 at 10:29am.



Michael Moran

Apr 13, 2021 at 10:29 am

Approval for Antenna and RRU swap per Zoning Board
[Architectural and Engineering Plans](#)

Uploaded by Hollis Redding on Mar 12, 2021 8:14 AM



Hollis Redding

Apr 9, 2021 at 10:48 am

EPB endorsed on March 29th, but wasn't able to complete the sign off, see below notes from Ms. Fausty.

Mar 29th 2021, 4:00pm

EPB sign off could not be completed. Contacted @David Nelson for assistance.

Hollis Redding

From: City of Stamford, CT <noreply@viewpointcloud.com>
Sent: Wednesday, March 31, 2021 9:45 AM
To: Hollis Redding
Subject: Vineeta Mathur commented on Zoning Board Approval for #B-21-494



City of Stamford, CT

Vineeta Mathur commented on Zoning Board Approval for #B-21-494

"Ok for replacement of 3 antennas, 3 RRUs and addition of 3 RRUs on existing water tank. Ancillary equipment changes within existing shelter."

[View Details](#)



Powered by the OpenGov platform

DISPLAY PERMIT IN A CONSPICUOUS PLACE ON THE PREMISES

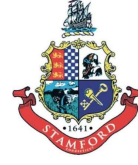


City of Stamford

Building Department

888 Washington Boulevard, 7th Floor Stamford, CT 06901

Tel. (203) 977-5700

Permit No. **B-21-494****BUILDING PERMIT**Construction Cost: **90,000**Fee Paid: **6533.4**Date Issued: **April 19, 2021**This certifies that **GLENBROOK INDUSTRIAL PARK LLC C/O SPINNAKER RE PARTNERS**has permission to erect, alter, or demolish a building on: **650 GLENBROOK ROAD**

No. of Units:

as follows: **AT&T Wireless to swap out 3 antennas, swap 3 RRUs and add 3 RRUs on existing water tank. Ancillary equipment changes within existing shelter.**

provided that the person accepting this permit shall in every respect conform to the terms of the application therefore on file in this office, and to the provisions of regulations or ordinances relating to the Location, Inspection, Alteration and Construction of Buildings in the City of Stamford.

NOTE: The recipient of this permit accepts this permit on the condition that, as owner or as agent of the owner, he/she agrees to comply with all Building & Zoning Regulations of the City of Stamford & the State Statutes of the State of Connecticut regarding the use, occupancy & type of building or structure to be constructed, added to, demolished, or altered. The recipient also agrees that this building is to be located the proper distance from all street lines, all property yard lines & required distances from all other zones & is located in a zone in which the building & its use is allowed or has been approved.

Current Use Group:

Proposed Use Group:

Construction Type: **IA: Non-combustible building elements**

Occupant Load:

GLENBROOK INDUSTRIAL PARK LLC C/O
SPINNAKER RE PARTNERS
1 N WATER STREET
NORWALK, CT 06854

1150 1ST AVE STE 600

OwnerApplicant Hollis Redding
8608346964Contractor KING OF PRUSSIA

PA

194061300

Required Inspections:Plan Review Departments: (The departments shown here are required to sign-off electronically prior to CO/COA)Expiration Date: **October 16, 2021**
April 19, 2021Bharat Gami
Chief Building Official**All Other Work and MEPs Require Separate Permits**

All permits approved are subject to inspections performed by a representative of this office. Requests for inspections must be made by the permit holder at least 48 hours in advance.
This card must be displayed in a conspicuous place on the premise until sign-off and not torn down or removed.

April 22, 2022

AT&T Site ID: CT2141

Site Address: 652 Glenbrook Road, Stamford, CT 06906

RE: Application for Zoning and Permitting in the City of Stamford, County of Fairfield CT.

To Whom It May Concern:

This letter authorizes SAI Group LLC to file for all necessary administrative approvals, zoning approvals and building permit applications (local, state and federal) for the purposes of upgrading, installing, operating and maintaining a telecommunications facility at the site/property referenced above on behalf of AT&T.



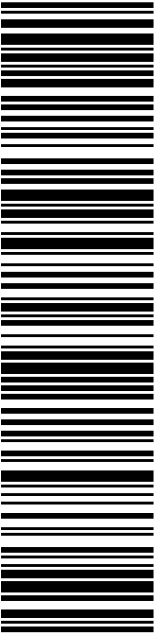
All fees or charges associated with any applications or permits, and any conditions placed on the Applicant shall be the responsibility of AT&T, its subsidiaries and/or agents.

Signature: 



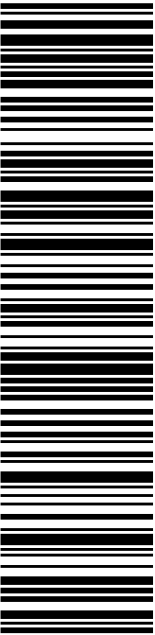
Print Name: JOHN DISTLER

Title: Property Manager

Date: 4/22/22

 UNITED STATES POSTAL SERVICE®		Click-N-Ship®	
P	<small>usps.com</small> \$8.95 US POSTAGE <small>Flat Rate Env</small>	<small>9405 5036 9930 0237 8638 73 0089 5000 0020 6901</small>	
			
<small>05/02/2022</small>		<small>Mailed from 03079</small>	
PRIORITY MAIL 2-DAY™			
<small>HOLLIS M REDDING SAI GROUP 12 INDUSTRIAL WAY SALEM NH 03079-2837</small>		<small>Expected Delivery Date: 05/05/22 Ref#: CT2141</small> 0006	
<div>C024</div>			
<small>SHIP TO: HON CAROLINE SIMMONS, MAYOR RALPH BLESSING STAMFORD GOVERNMENT CENTER 888 WASHINGTON BLVD # 10 STAMFORD CT 06901-2924</small>			
USPS TRACKING #			
			
9405 5036 9930 0237 8638 73			
Electronic Rate Approved #038555749			

Cut on dotted line.

 UNITED STATES POSTAL SERVICE®		Click-N-Ship®	
P	<small>usps.com</small> \$8.95 US POSTAGE <small>Flat Rate Env</small>	<small>9405 5036 9930 0237 8638 97 0089 5000 0020 6854</small>	
			
<small>05/02/2022</small>		<small>Mailed from 03079</small>	
PRIORITY MAIL 2-DAY™			
<small>HOLLIS M REDDING SAI GROUP 12 INDUSTRIAL WAY SALEM NH 03079-2837</small>		<small>Expected Delivery Date: 05/05/22 Ref#: CT2141</small> 0006	
<div>C012</div>			
<small>SHIP TO: JOHN DISTLER GLENBROOK INDUSTRIAL PARK C/O SPINNAKER RE 1 N WATER ST NORWALK CT 06854-2260</small>			
USPS TRACKING #			
			
9405 5036 9930 0237 8638 97			
Electronic Rate Approved #038555749			



UNITED STATES
POSTAL SERVICE®

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P

usps.com 9405 5036 9930 0237 8639 10 0092 5000 0020 6051

\$9.25

US POSTAGE

Legal Flat Rate

U.S. POSTAGE PAID
Click-N-Ship®

05/02/2022

Mailed from 03079

PRIORITY MAIL 2-DAY™

HOLLIS M REDDING

Expected Delivery Date: 05/05/22

SAI GROUP

12 INDUSTRIAL WAY

SALEM NH 03079-2837

0006

C006

SHIP

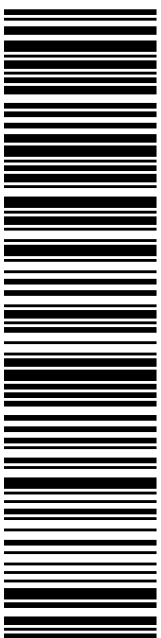
TO: MELANIE BACHMAN EXECUTIVE DIRECTOR

CT SITING COUNCIL

10 FRANKLIN SQ

NEW BRITAIN CT 06051-2655

USPS TRACKING #



9405 5036 9930 0237 8639 10

Electronic Rate Approved #038555749

Cut on dotted line.



From: auto-reply@usps.com
Sent: Monday, May 2, 2022 3:11 PM
To: Hollis Redding
Subject: USPS® Expected Delivery by Thursday, May 5, 2022 arriving by 9:00pm
9405503699300237863873



Hello **HOLLIS M REDDING**,

USPS is now in possession of your item as of 2:51 pm on May 2, 2022 in MERIDEN, CT 06450.

Tracking Number: [9405503699300237863873](#)

Expected Delivery By



By 9:00pm



Tracking & Delivery Op

My Account

Visit [USPS Tracking®](#) to check the most up-to-date status of your package. Sign up for [Informed Delivery®](#) to digitally preview the address side of your incoming letter-sized mail and manage your packages scheduled to arrive soon! To update how frequently you receive emails from USPS, log in to your [USPS.com](#) account.

From: auto-reply@usps.com
Sent: Monday, May 2, 2022 3:12 PM
To: Hollis Redding
Subject: USPS® Expected Delivery by Thursday, May 5, 2022 arriving by 9:00pm
9405503699300237863897

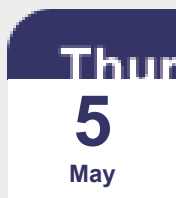


Hello **HOLLIS M REDDING**,

USPS is now in possession of your item as of 2:51 pm on May 2, 2022 in MERIDEN, CT 06450.

Tracking Number: [9405503699300237863897](#)

Expected Delivery By



By 9:00pm



Tracking & Delivery Op

My Account

Visit [USPS Tracking®](#) to check the most up-to-date status of your package. Sign up for [Informed Delivery®](#) to digitally preview the address side of your incoming letter-sized mail and manage your packages scheduled to arrive soon! To update how frequently you receive emails from USPS, log in to your [USPS.com](#) account.