



April 20, 2024

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 CT2074
2798 Whitney Ave, Hamden, CT 06518 (the "Property")
Latitude: 41-23-52.43 N Longitude: 72-53-52.18 W

Dear Ms. Bachman:

AT&T currently maintains (6) antennas at the 50' & 44' levels on the existing 20' flagpole tower ("Tower") located on the rooftop of the 33'6" building at 2798 Whitney Ave, Hamden, CT. The top of the flagpole is 56'. The Tower is managed by SBA Towers and the property is owned by the Whitney Manor Realty, LLC. AT&T intends to modify its Facility by removing the (6) antennas from the existing Tower and installing (3) OPA65R-BU4DA antennas at the 52' level and (3) OPA65R-BU4DA antennas at the 44' level of the Tower. AT&T intends on replacing the existing 25" flagpole shrouds with 42" shrouds & new support pipe. The height of AT&Ts existing antennas is 50' & 44' and proposed antennas is 52' & 44' on the Tower.

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.

The rooftop installation was approved by the Town of Hamden Planning & Zoning Commission on May 9, 2006. The approval contained no conditions that could be violated by this modification. Therefore, AT&Ts modification complies with the above-mentioned approval.

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 the Honorable Lauren Garrett, Mayor, Town of Hamden, as elected official, Mr. Eugene Livshits, Town Planner, Town of Hamden, Whitney Manor Realty, LLC, the property owner and SBA Towers, the tower manager.

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 modifications 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 modification to the above referenced telecommunication facility constitute an exempt modification pursuant to R.C.S.A §16-50j-72(b)(2).

Please contact me at 860-834-6964 if you should have any questions regarding this matter. Thank you for your time & consideration.

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: The Honorable Lauren Garrett, Mayor, Town of Hamden
Mr. Eugene Livshits, Town Planner, Town of Hamden
Whitney Manor, LLC, the property owner
SBA Towers, Tower manager



C Squared Systems, LLC
65 Dartmouth Drive
Auburn, NH 03032
(603) 644-2800

support@csquaredsystems.com

Calculated Radio Frequency Emissions Report



CT2074

2798 Whitney Avenue, Hamden, CT 06518

April 16, 2024

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1. Introduction

The purpose of this report is to investigate compliance with applicable FCC regulations for the proposed modification of AT&T antenna arrays with centerlines of 44'-0" and 52'-0" AGL on top of a rooftop located at 2798 Whitney Avenue in Hamden, CT. The coordinates of the rooftop are 41° 23' 52.43" N, 72° 53' 52.18" W.

AT&T is proposing the following:

- 1) Install six (6) multi-band antennas to support its commercial LTE/5G network and the FirstNet National Public Safety Broadband Network ("NPSBN").

This report considers the planned antenna configuration for AT&T¹ to derive the resulting % MPE of its proposed modification.

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 C 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 C 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 8/10/2023 and TEP Northeast's Construction Drawing, rev 2, dated 2/16/2024.

3. RF Exposure Prediction Methods

The emission field calculation results displayed in the following figures were generated using the following formula as outlined in FCC bulletin OET 65:

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

Where:

EIRP = Effective Isotropic Radiated Power

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

H = Horizontal Distance from antenna in meters

V = Vertical Distance from radiation center of antenna in meters

Off Beam Loss is determined by the selected antenna patterns

GRF = Ground Reflection Factor of 1.6

These calculations assume that the antennas are operating at 100 percent capacity, that all antenna channels are transmitting simultaneously, and that the radio transmitters are operating at full power. 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 take into account 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. Antenna Inventory

Table 1 below outlines AT&T’s proposed antenna configuration for the site. The associated data sheets and antenna patterns for these specific antenna models are included in Attachments C.

Sector / Azimuth	TX Freq (MHz)	Power at Antenna (Watts)	Ant Gain (dBi)	Power EIRP (Watts)	Antenna Model	Beam Width	Mech. Tilt	Length (ft)	Antenna Centerline Height (ft)
Alpha / 20°	739	160	13.2	3343	OPA65R-BU4DA	73	0	4.00	52.0
	850	160	14.0	4019		63			
	2100	240	16.7	11226		70			
	763	160	13.2	3343		73			
	1900	160	16.4	6984		67			44.0
Beta / 140°	739	160	13.2	3343	OPA65R-BU4DA	73	0	4.00	52.0
	850	160	14.0	4019		63			
	2100	240	16.7	11226		70			
	763	160	13.2	3343		73			
	1900	160	16.4	6984		67			44.0
Gamma / 260°	739	160	13.2	3343	OPA65R-BU4DA	73	0	4.00	52.0
	850	160	14.0	4019		63			
	2100	240	16.7	11226		70			
	763	160	13.2	3343		73			
	1900	160	16.4	6984		67			44.0

Table 1: Proposed Antenna Inventory²³

² Antenna heights are in reference to TEP Northeast’s Construction Drawing, rev 2, dated 2/16/2024.

³ Transmit power assumes 0 dB of cable loss.

5. Calculation Results

The calculated power density results are shown in Figure 1 below. For completeness, the calculations for this analysis range from 0 feet horizontal distance (directly below the antennas) to a value of 3,000 feet horizontal distance from the site. In addition to the other worst-case scenario considerations that were previously mentioned, the power density calculations to each horizontal distance point away from the antennas was completed using a local maximum off beam antenna gain (within ± 5 degrees of the true mathematical angle) to incorporate a realistic worst-case scenario.

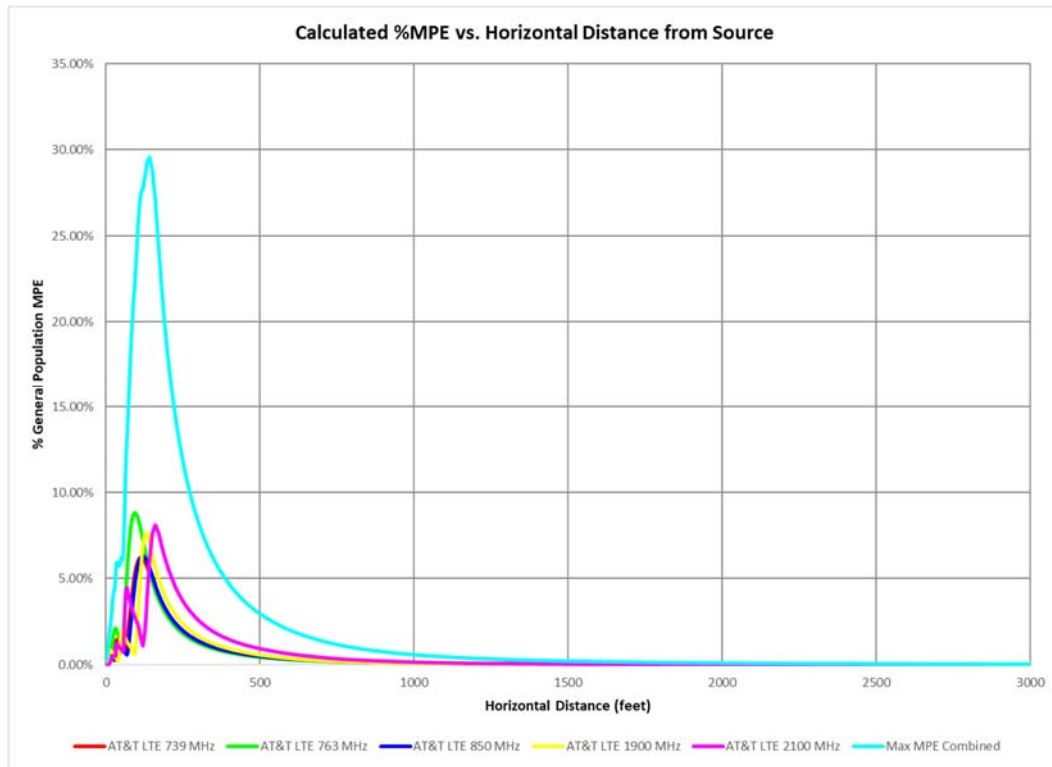


Figure 1: Graph of General Population % MPE vs. Distance

The highest percent of MPE (**29.56%** of the General Population limit) is calculated to occur at a horizontal distance of 142 feet from antennas. Please note that the percent of MPE calculations close to the site take into account off beam loss, which is determined from the vertical pattern of the antennas used. Therefore, RF power density levels may increase as the distance from the site increases. At distances of approximately 1500 feet and beyond, one would now be in the main beam of the antenna pattern and off beam loss is no longer considered. Beyond this point, RF levels become calculated solely on distance from the site and the percent of MPE decreases significantly as distance from the site increases.

Table 2 below lists percent of MPE values as well as the associated parameters that were included in the calculations. The highest percent of MPE value was calculated to occur at a horizontal distance of 142 feet from the site (reference Figure 1).

As stated in Section 3, all calculations assume that the antennas are operating at 100 percent capacity, that all antenna channels are transmitting simultaneously, and that the radio transmitters are operating at full power. Obstructions (trees, buildings etc.) that would normally attenuate the signal are not taken into account. In addition, a six-foot height offset was considered in this analysis to account for average human height. As a result, the predicted signal levels are significantly higher than the actual signal levels will be from the final configuration. The results presented in Figure 1 and Table 2 assume level ground elevation from the base of the tower out to the horizontal distances calculated.

Carrier	Number of Transmitters	Power out of Base Station Per Transmitter (Watts)	Antenna Height (Feet)	Distance to the Base of Antennas (Feet)	Power Density (mW/cm ²)	Limit (mW/cm ²)	% MPE
AT&T LTE 739 MHz	1	160.0	52.0	142	0.026041	0.493	5.29%
AT&T LTE 763 MHz	1	160.0	44.0	142	0.027574	0.509	5.42%
AT&T LTE 850 MHz	1	160.0	52.0	142	0.031824	0.567	5.62%
AT&T LTE 1900 MHz	1	160.0	44.0	142	0.070877	1.000	7.09%
AT&T LTE 2100 MHz	1	240.0	52.0	142	0.061466	1.000	6.15%
						Total	29.56%

Table 2: Maximum Percent of General Population Exposure Values ^{4,5}

⁴ Frequencies listed are representative of the operating band and are not the specific operating frequency.

⁵ The total % MPE listed is a summation of each unrounded contribution. Therefore, summing each rounded value may not reflect the total value listed in the table.

6. Conclusion

The above analysis verifies that RF exposure levels from the site with AT&T's proposed antenna configuration will be well below the maximum permissible levels as outlined by the FCC in the OET Bulletin 65 Ed. 97-01. Using the conservative calculation methods and parameters detailed above, the maximum cumulative percent of MPE in consideration of all transmitters is calculated to be **29.56% of the FCC limit (General Population/Uncontrolled)**. This maximum cumulative percent of MPE value is calculated to occur 142 feet away from the site.

7. 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 ANSI/IEEE Std. C95.3, ANSI/IEEE Std. C95.1 and FCC OET Bulletin 65 Edition 97-01.



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

April 16, 2024
Date

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

AT&T's Radio Frequency Design Sheet updated 8/10/2023

TEP Northeast's Construction Drawing, rev 2, dated 2/16/2024

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

(A) Limits for Occupational/Controlled Exposure⁶				
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 Exposure⁷				
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 3: FCC Limits for Maximum Permissible Exposure

⁶ 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.

⁷ 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.

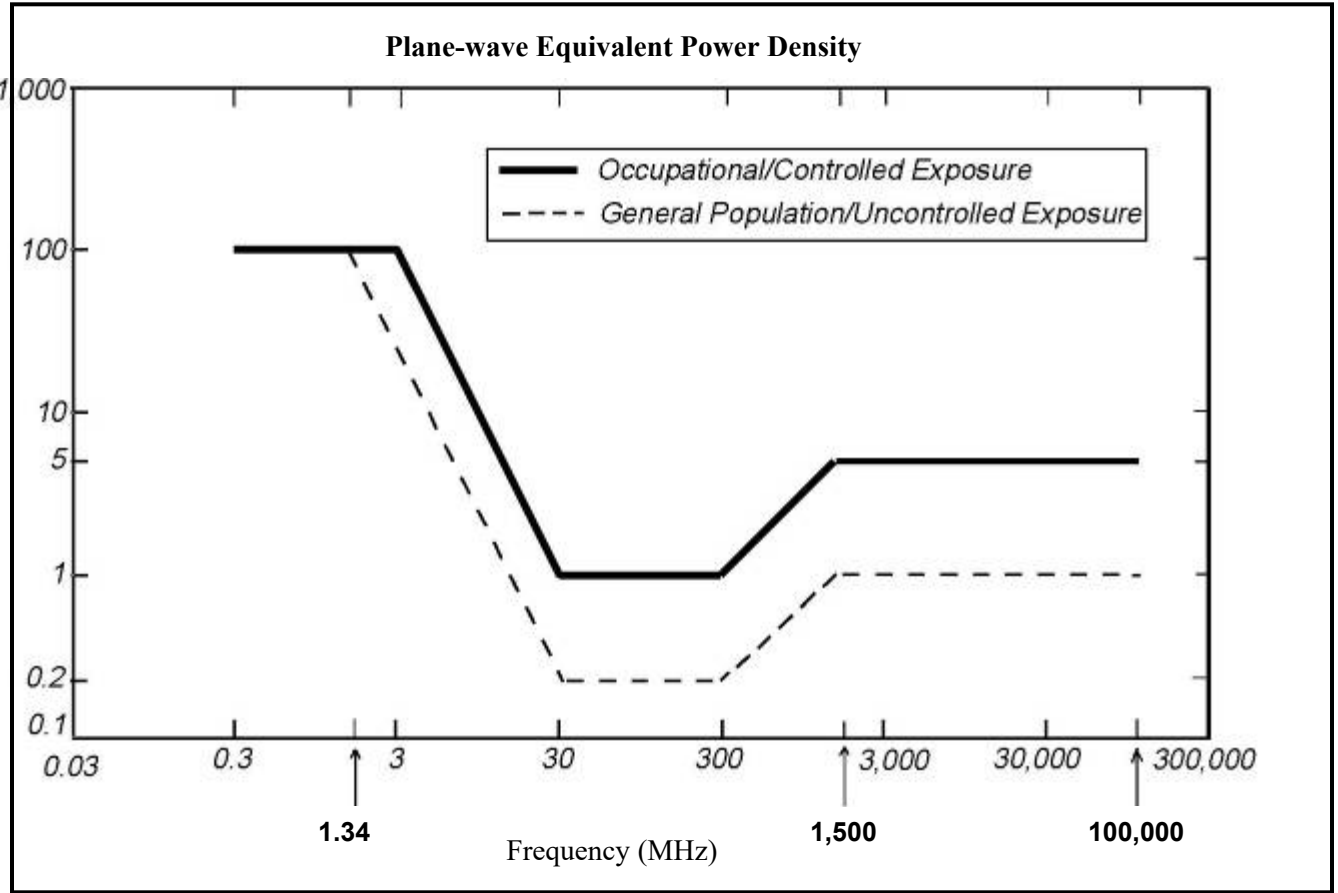
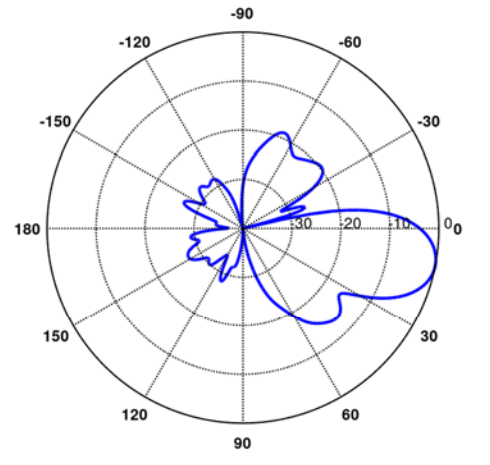
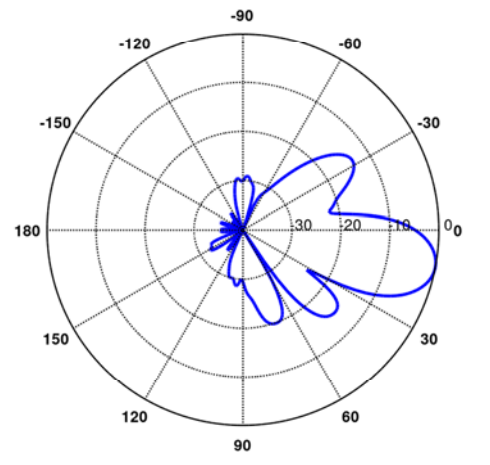
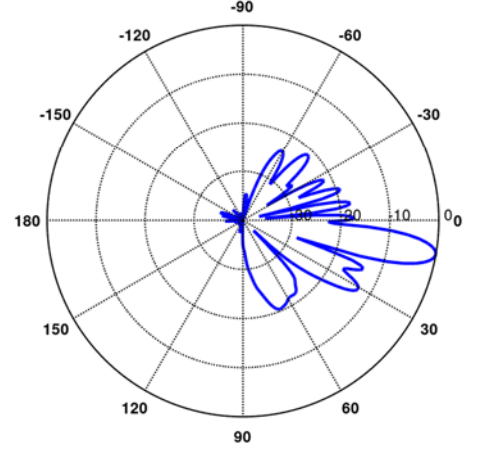
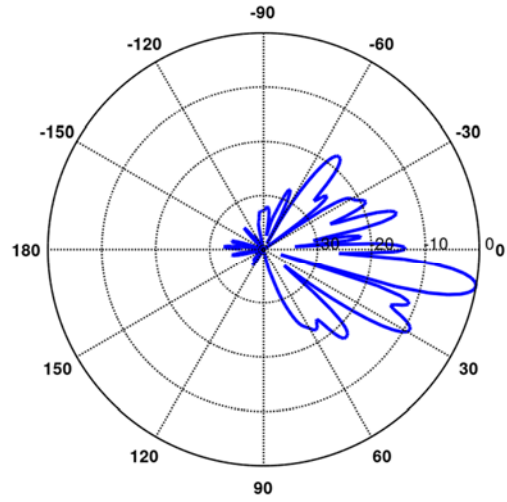


Figure 2: Graph of FCC Limits for Maximum Permissible Exposure (MPE)

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

700 MHz		
Manufacturer:	CCI	
Model #:	OPA65R-BU4D	
Frequency Band:	698-806 MHz	
Gain:	13.2 dBi	
Vertical Beamwidth:	20.1°	
Horizontal Beamwidth:	73°	
Dimensions (L x W x D):	48" x 20.7" x 7.7"	
850 MHz		
Manufacturer:	CCI	
Model #:	OPA65R-BU4D	
Frequency Band:	824-896 MHz	
Gain:	14.0 dBi	
Vertical Beamwidth:	17.7°	
Horizontal Beamwidth:	62°	
Dimensions (L x W x D):	48" x 20.7" x 7.7"	
1900 MHz		
Manufacturer:	CCI	
Model #:	OPA65R-BU4D	
Frequency Band:	1850-1990 MHz	
Gain:	16.4 dBi	
Vertical Beamwidth:	7.3°	
Horizontal Beamwidth:	69°	
Dimensions (L x W x D):	48" x 20.7" x 7.7"	

2100 MHz	
Manufacturer:	CCI
Model #:	OPA65R-BU4D
Frequency Band:	1920-2180 MHz
Gain:	16.7 dBi
Vertical Beamwidth:	6.7°
Horizontal Beamwidth:	70°
Polarization:	±45°
Dimensions (L x W x D):	48" x 20.7" x 7.7"



PROJECT INFORMATION

SCOPE OF WORK: ITEMS TO BE MOUNTED ON EXISTING ROOF TOP:

- NEW AT&T ANTENNAS: OPA65R-BU4DA (TYP. OF 2 PER SECTOR, TOTAL OF 6).
- NEW AT&T RRUS: 4449 B5/B12 (850/700) (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T RRUS: 8843 B2/B66A (PCS/AWS) (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T RRUS: 4478 B14 (700) (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T SURGE ARRESTOR DC6-48-60-18 (TOTAL OF 1).
- ADD (2) 6AWG DC TRUNKS & (1) 18-PAIR FIBER.
- ADD (6) Y-CABLES.
- NEW FLAGPOLE SHROUD, POLE AND BASE PLATE (TO REPLACE EXISTING).

ITEMS TO BE MOUNTED AT EQUIPMENT LOCATION:

- ADD BB6651 + XCEDE CABLE.
- ADD DC12-48-68-RM

ITEMS TO BE REMOVED:

- EXISTING AT&T ANTENNA: 7770 (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- EXISTING AT&T ANTENNA: AM-X-CD-14-65-00T-RET (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- EXISTING AT&T RRUS: RRUS-11 B12 (700) (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- EXISTING AT&T TMA'S: LGP21401 (TYP. OF 2 PER SECTOR, TOTAL OF 6).
- EXISTING AT&T DIPLEXERS: LGP21901 (TYP. OF 2 PER SECTOR, TOTAL OF 6).
- EXISTING FLAGPOLE SHROUD, POLE AND BASE PLATE.

ITEMS TO REMAIN:

- (1) SURGE ARRESTOR, (6) COAX CABLES, (2) DC POWER & (1) FIBER.

SITE ADDRESS: 2798 WHITNEY AVENUE
HAMDEN, CT 06518

LATITUDE: 41.397898° N, 41° 23' 52.43" N

LONGITUDE: 72.897827° W, 72° 53' 52.18" W

TYPE OF SITE: ROOF TOP - FLAGPOLE/ OUTDOOR EQUIPMENT

STRUCTURE HEIGHT: 56-0"±

RAD CENTER: 44'-0"± & 52'-0"±

CURRENT USE: TELECOMMUNICATIONS FACILITY

PROPOSED USE: TELECOMMUNICATIONS FACILITY



SITE NUMBER: CTL02074

SITE NAME: HAMDEN WHITNEY MANOR

FA CODE: 10087479

**PACE ID: MRCTB062220, MRCTB062293, MRCTB062210, MRCTB062145,
MRCTB062148, MRCTB062215, MRCTB068170**

**PROJECT: 5G NR 1DR-1, 5G NR 1DR-2, 5G NR RADIO, LTE 3C, LTE 2C,
4TX4RX SOFTWARE RETROFIT, ANTENNA MODIFICATIONS UPGRADE**

VICINITY MAP

DIRECTIONS TO SITE:

START OUT GOING EAST ON ENTERPRISE DR TOWARD CAPITAL BLVD. TURN LEFT ONTO CAPITAL BLVD. TURN LEFT ONTO WEST ST. MERGE ONTO I-91 S VIA THE RAMP ON THE LEFT TOWARD NEW HAVEN. MERGE ONTO CT-15 S VIA EXIT 17 TOWARD E MAIN ST. TAKE EXIT 63 TOWARD NORTH HAVEN/CT-22. TURN LEFT ONTO HARTFORD TURNPIKE. TURN RIGHT ONTO BISHOP ST/CT-22. CONTINUE TO FOLLOW CT-22. TURN RIGHT ONTO DAVIS RD/CT-22. CONTINUE TO FOLLOW CT-22. CT-22 IS 0.1 MILES PAST MELISSA DR. TURN SLIGHT LEFT ONTO IVES ST/CT-22. IVES ST IS 0.2 MILES PAST PATTERSON RD. TURN LEFT ONTO WHITNEY AVE/CT-10. WHITNEY AVE IS 0.1 MILES PAST S NEW RD. CARMEL GARDENS FLOWER SHOPPE IS ON THE CORNER. IF YOU ARE ON DICKERMAN ST AND REACH TABOR RD YOU'VE GONE A LITTLE TOO FAR. 2798 WHITNEY AVE, HAMDEN, CT 06518-2554, 2798 WHITNEY AVE IS ON THE RIGHT.



GENERAL NOTES

- 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.
- 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.
- 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.
- CONSTRUCTION DRAWINGS ARE VALID FOR SIX MONTHS AFTER ENGINEER OF RECORD'S STAMPED AND SIGNED SUBMITTAL DATE LISTED HEREIN.
- NOTE TO GENERAL CONTRACTOR: (PRIOR TO CONSTRUCTION COMPLETION)
TEP NORTHEAST (TEP OPCO, LLC.) TO PERFORM POST/CLIMB AND INSPECTION TO CONFIRM PROPOSED INSTALLATION COMPLIES WITH THE RECORD STAMPED DRAWINGS AND STRUCTURAL REPORTS PRIOR TO SUBMITTING FCCA (FINAL CONSTRUCTION CONTROL AFFIDAVIT). GC IS RESPONSIBLE FOR COORDINATING INSPECTIONS WITH TEP NORTHEAST (TEP OPCO, LLC.) PRIOR TO CONSTRUCTION BEING COMPLETED.

DRAWING INDEX

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A-4	DETAILS	2
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SN-1	STRUCTURAL NOTES	2
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S-2	MOUNT MODIFICATION DESIGN	2
G-1	GROUNDING DETAILS	2
RF-1	RF PLUMBING DIAGRAM	2

72 HOURS

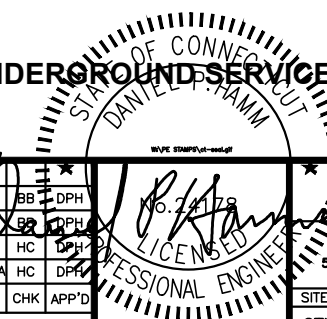


CALL BEFORE YOU DIG

CALL TOLL FREE 1-800-922-4455

OR CALL 811

UNDERGROUND SERVICE ALERT



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



12 INDUSTRIAL WAY
SALEM, NH 03079

SITE NUMBER: CTL02074
SITE NAME: HAMDEN WHITNEY MANOR

2798 WHITNEY AVENUE
HAMDEN, CT 06518
NEW HAVEN COUNTY



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

NO.	DATE	REVISIONS	BY	CHK	APP'D
2	02/16/24	ISSUED FOR CONSTRUCTION	VA	BB	DPH
1	03/29/23	ISSUED FOR CONSTRUCTION	VA	BB	DPH
0	03/29/23	ISSUED FOR REVIEW	AM	HC	DPH
A	11/09/22	ISSUED FOR REVIEW	VA/GA	HC	DPH

SCALE: AS SHOWN | DESIGNED BY: BB | DRAWN BY: VA

AT&T

TITLE SHEET
5G NR 1DR-1, 5G NR 1DR-2, 5G NR RADIO, LTE 3C, LTE 2C,
4TX4RX SOFTWARE RETROFIT, ANTENNA MODIFICATIONS

SITE NUMBER	DRAWING NUMBER	REV
CTL02074	T-1	2

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 2021 WITH 2022 CT STATE BUILDING CODE AMENDMENTS
 ELECTRICAL CODE: 2020 NATIONAL ELECTRICAL CODE (NFPA 70-2020)**

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

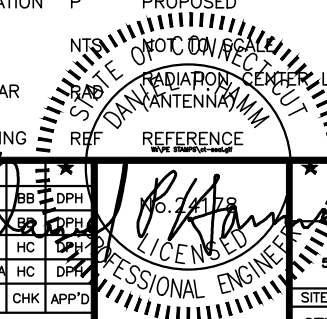
AMERICAN CONCRETE INSTITUTE (ACI) 318; BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE;

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			UG	UNDER GROUND
EGB	EQUIPMENT GROUND BAR			VIF	VERIFY IN FIELD
EGR	EQUIPMENT GROUND RING	REF	REFERENCE		



TEP
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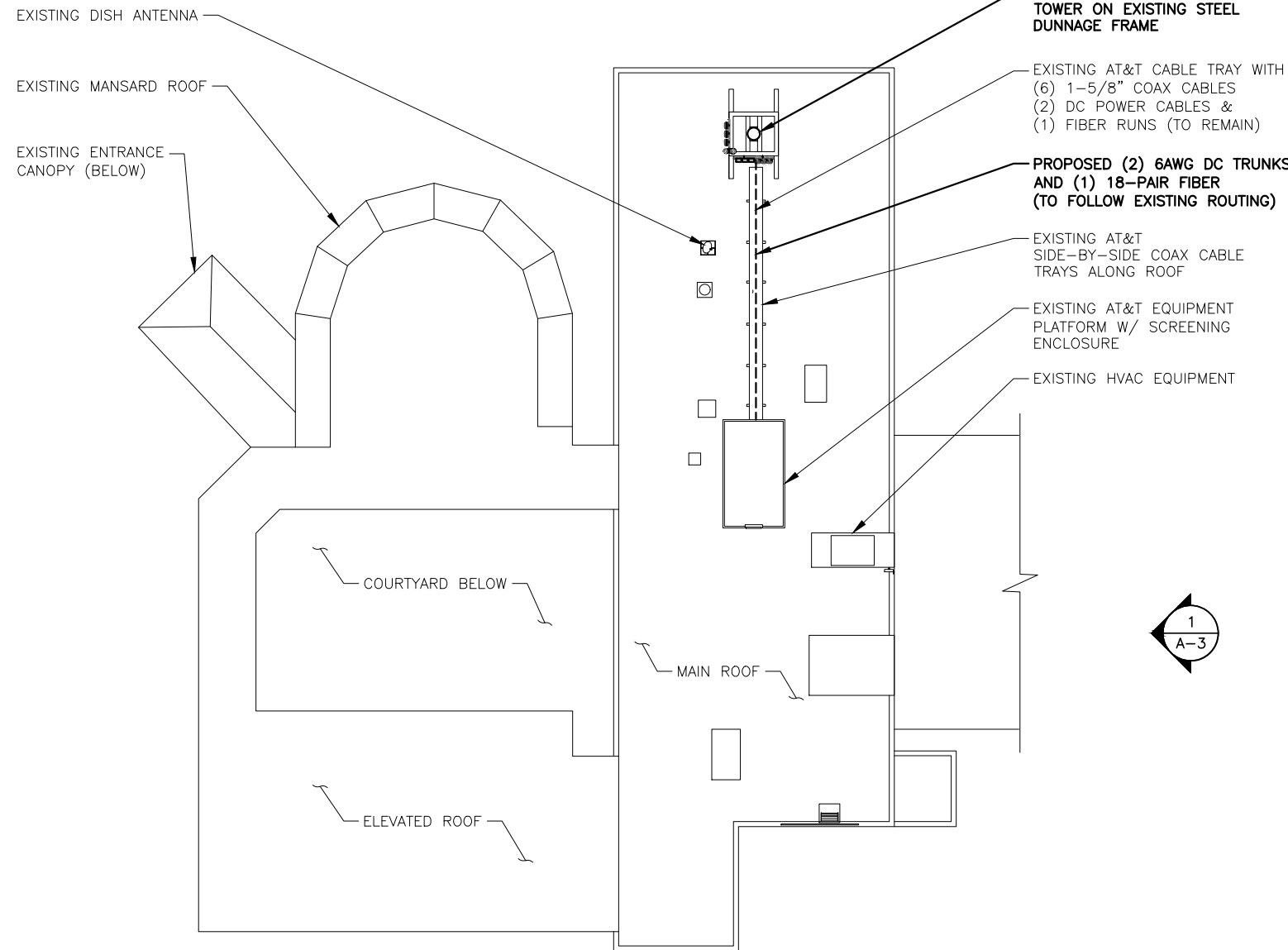
SAI
 12 INDUSTRIAL WAY
 SALEM, NH 03079

SITE NUMBER: CTL02074
SITE NAME: HAMDEN WHITNEY MANOR
 2798 WHITNEY AVENUE
 HAMDEN, CT 06518
 NEW HAVEN COUNTY

AT&T
 500 ENTERPRISE DRIVE, SUITE 3A
 ROCKY HILL, CT 06067

NO.	DATE	REVISIONS	BY	CHK	APP'D
2	02/16/24	ISSUED FOR CONSTRUCTION	VA	BB	DPH
1	03/29/23	ISSUED FOR CONSTRUCTION	VA	BB	DPH
0	03/29/23	ISSUED FOR REVIEW	AM	HC	DPH
A	11/09/22	ISSUED FOR REVIEW	VA/GA	HC	DPH

AT&T
GENERAL NOTES
 5G NR 1DR-1, 5G NR 1DR-2, 5G NR RADIO, LTE 3C, LTE 2C, 4TX4RX SOFTWARE RETROFIT, ANTENNA MODIFICATIONS
 SCALE: AS SHOWN DESIGNED BY: BB DRAWN BY: VA
 SITE NUMBER: CTL02074 DRAWING NUMBER: GN-1 REV: 2



EXISTING AT&T CABLE TRAY WITH
 (6) 1-5/8" COAX CABLES
 (2) DC POWER CABLES &
 (1) FIBER RUNS (TO REMAIN)

PROPOSED (2) 6AWG DC TRUNKS
 AND (1) 18-PAIR FIBER
 (TO FOLLOW EXISTING ROUTING)

EXISTING AT&T DIPLEXERS
 (LGP21901) (TYP. OF 2
 PER SECTOR, TOTAL OF 6)
 (TO BE REMOVED)

EXISTING AT&T GPS
 ANTENNA (TOTAL OF 2)

ADD (1) DC12-48-68-RM

ADD BB6651 +
 XCEDE CABLE

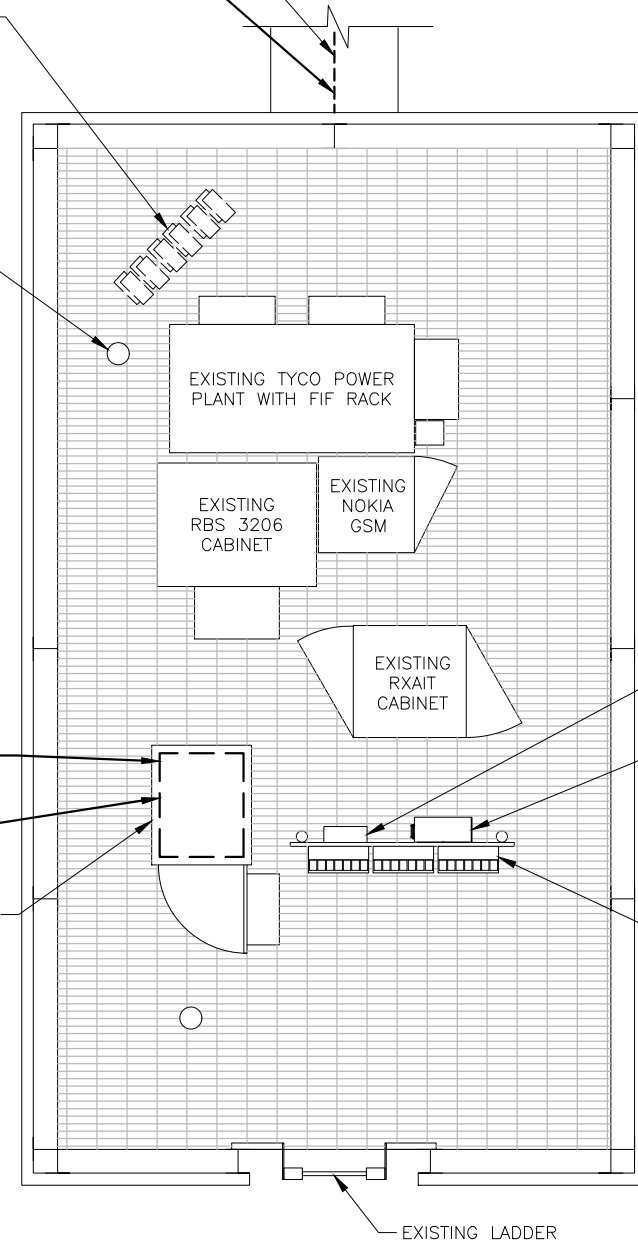
EXISTING PURCELL CABINET

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

NOTE:
 REFER TO LOCALIZED **STRUCTURAL
 ANALYSIS**
 BY: TEP NORTHEAST
 DATED: MARCH 29, 2023
 FOR THE CAPACITY OF THE EXISTING
 FLAGPOLE STRUCTURE TO SUPPORT
 THE PROPOSED EQUIPMENT. ANALYSIS
 OF EXISTING TOWER STEEL SUPPORT
 FRAME AND BUILDING STRUCTURE TO
 BE COMPLETED BY OTHERS.

NOTE TO GENERAL CONTRACTOR:
 (PRIOR TO CONSTRUCTION
 COMPLETION)

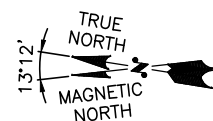
TEP NORTHEAST (TEP OPCO, LLC.)
 TO PERFORM POST/CLIMB AND
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 INSTALLATION COMPLIES WITH THE
 RECORD STAMPED DRAWINGS AND
 STRUCTURAL REPORTS PRIOR TO
 SUBMITTING FCCA (FINAL
 CONSTRUCTION CONTROL AFFIDAVIT).
 GC IS RESPONSIBLE FOR
 COORDINATING INSPECTIONS WITH
 TEP NORTHEAST (TEP OPCO, LLC.)
 PRIOR TO CONSTRUCTION BEING
 COMPLETED.



EXISTING FIBER
 MANAGEMENT BOX

EXISTING DC6 SURGE
 ARRESTOR

EXISTING AT&T RRU'S
 (TOTAL OF 3)

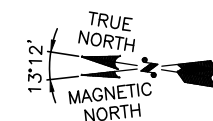


ROOF PLAN

22x34 SCALE: 1/16"=1'-0"
 11x17 SCALE: 1/32"=1'-0"



0 8'-0" 16'-0" 32'-0" 48'-0"

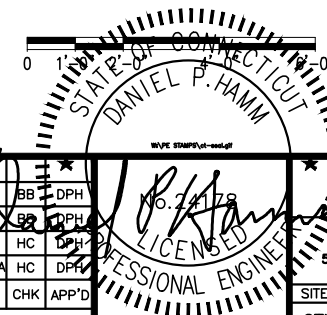


EQUIPMENT PLAN

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



0 1' 2' 3' 4' 5' 6' 7' 8' 9' 10' 11' 12'



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



12 INDUSTRIAL WAY
 SALEM, NH 03079

SITE NUMBER: CTL02074
 SITE NAME: HAMDEN WHITNEY MANOR

2798 WHITNEY AVENUE
 HAMDEN, CT 06518
 NEW HAVEN COUNTY



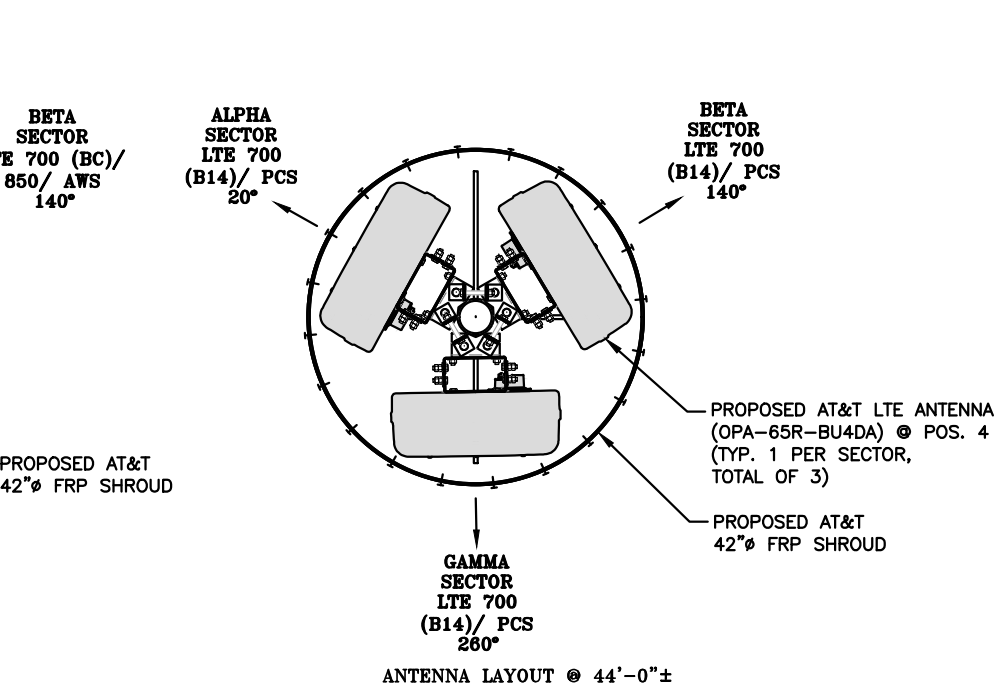
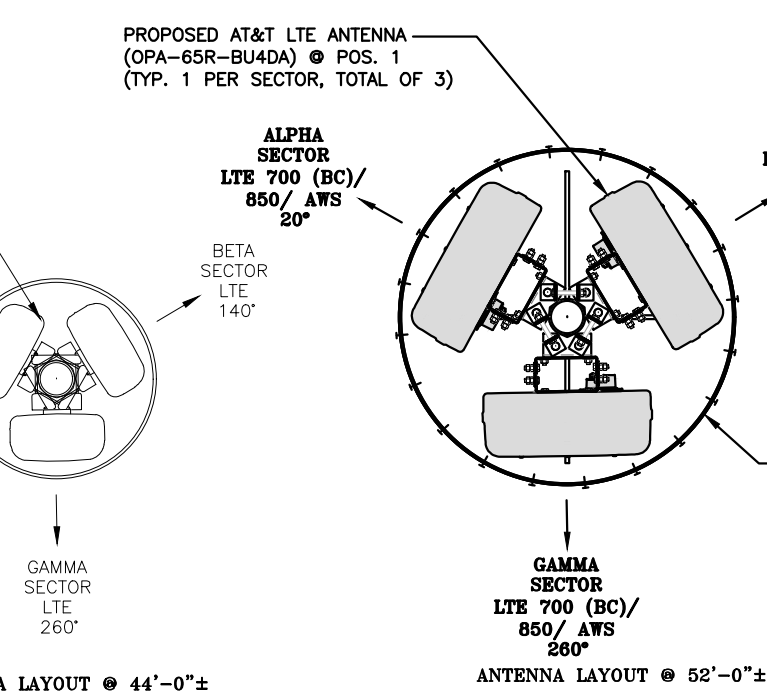
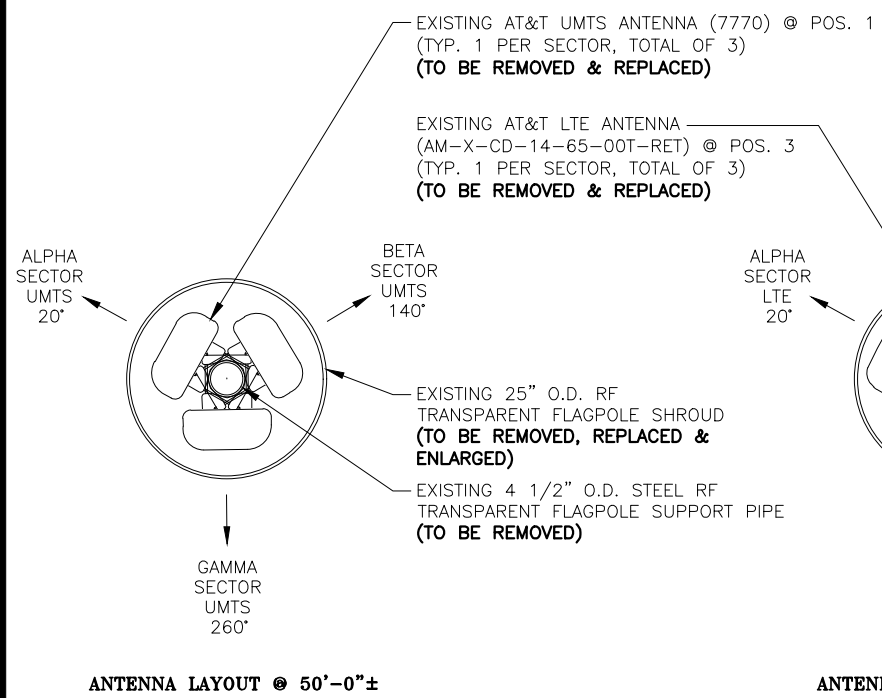
500 ENTERPRISE DRIVE, SUITE 3A
 ROCKY HILL, CT 06067

2	02/16/24	ISSUED FOR CONSTRUCTION	BB	DPH
1	03/29/23	ISSUED FOR CONSTRUCTION	VA	DPH
0	03/29/23	ISSUED FOR REVIEW	AM	HC
A	11/09/22	ISSUED FOR REVIEW	VA/GA	HC
NO.	DATE	REVISIONS	BY	CHK
SCALE:	AS SHOWN	DESIGNED BY:	BB	DRAWN BY:
			VA	

AT&T

ROOFTOP & EQUIPMENT PLANS
 5G NR 1DR-1, 5G NR 1DR-2, 5G NR RADIO, LTE 3C, LTE 2C,
 4TX4RX SOFTWARE RETROFIT, ANTENNA MODIFICATIONS

SITE NUMBER	DRAWING NUMBER	REV
CTL02074	A-1	2



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

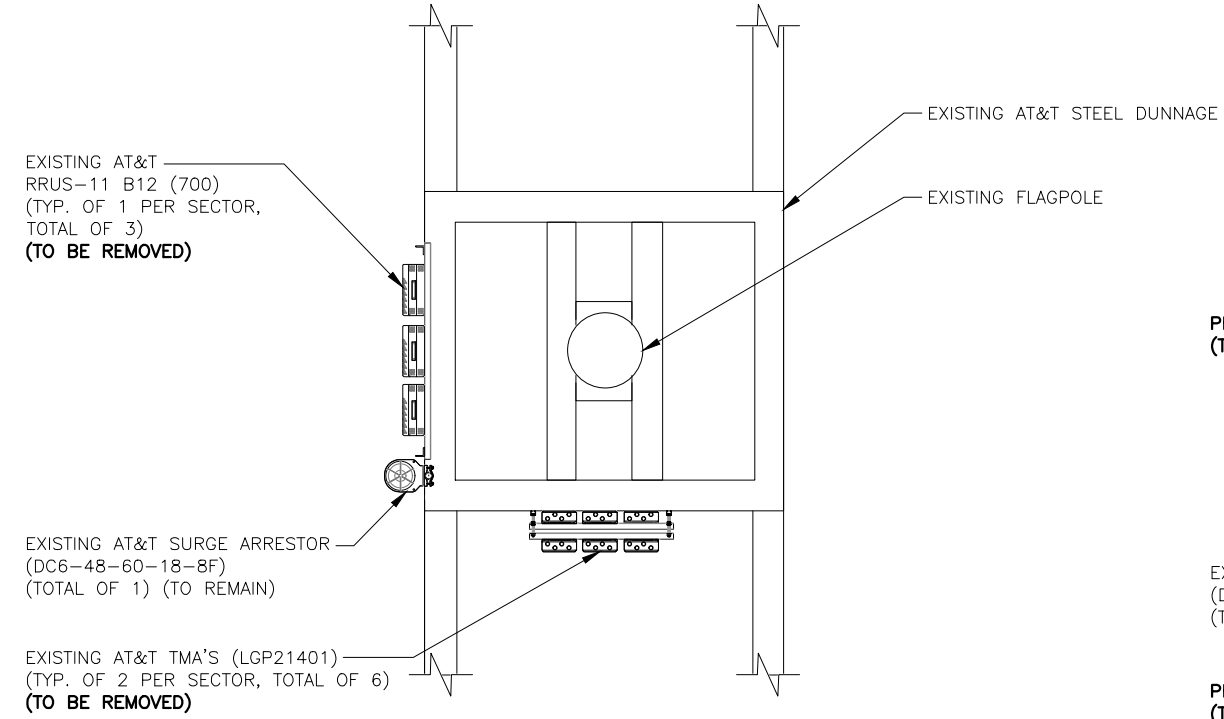
NOTE:
REFER TO LOCALIZED STRUCTURAL ANALYSIS BY: TEP NORTHEAST DATED: MARCH 29, 2023 FOR THE CAPACITY OF THE EXISTING FLAGPOLE STRUCTURE TO SUPPORT THE PROPOSED EQUIPMENT. ANALYSIS OF EXISTING TOWER STEEL SUPPORT FRAME AND BUILDING STRUCTURE TO BE COMPLETED BY OTHERS.

NOTE TO GENERAL CONTRACTOR:
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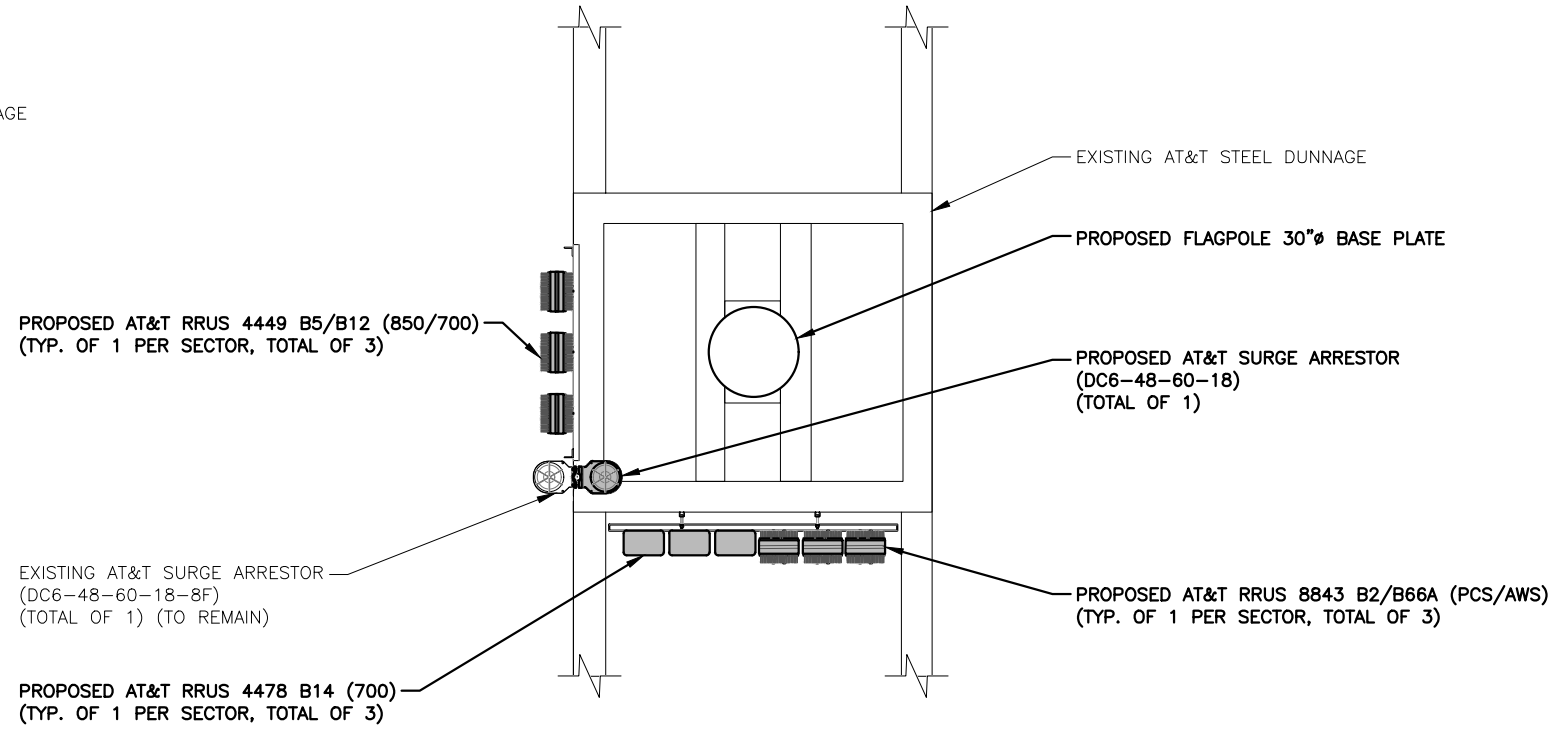
TEP NORTHEAST (TEP OPCO, LLC.) TO PERFORM POST/CLIMB AND INSPECTION TO CONFIRM PROPOSED INSTALLATION COMPLIES WITH THE RECORD STAMPED DRAWINGS AND STRUCTURAL REPORTS PRIOR TO SUBMITTING FCCA (FINAL CONSTRUCTION CONTROL AFFIDAVIT). GC IS RESPONSIBLE FOR COORDINATING INSPECTIONS WITH TEP NORTHEAST (TEP OPCO, LLC.) PRIOR TO CONSTRUCTION BEING COMPLETED.

EXISTING ANTENNA LAYOUT 1
SCALE: N.T.S.

PROPOSED ANTENNA LAYOUT 2
SCALE: N.T.S.

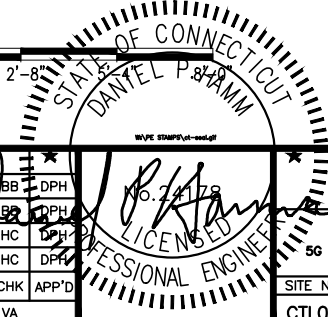


EXISTING EQUIPMENT LAYOUT 3
22x34 SCALE: 3/8"=1'-0"
11x17 SCALE: 3/16"=1'-0"



PROPOSED EQUIPMENT LAYOUT 4
22x34 SCALE: 3/8"=1'-0"
11x17 SCALE: 3/16"=1'-0"

0 1'-4" 2'-8" 5'-4" 8'-0"



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SAI
12 INDUSTRIAL WAY
SALEM, NH 03079

SITE NUMBER: CTL02074
SITE NAME: HAMDEN WHITNEY MANOR
2798 WHITNEY AVENUE
HAMDEN, CT 06518
NEW HAVEN COUNTY

AT&T
500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

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0	03/29/23	ISSUED FOR REVIEW	AM	HC
A	11/09/22	ISSUED FOR REVIEW	VA/GA	HC
NO.	DATE	REVISIONS	BY	CHK
SCALE: AS SHOWN		DESIGNED BY: BB	DRAWN BY: VA	

AT&T
ANTENNA & EQUIPMENT LAYOUTS
5G NR 1DR-1, 5G NR 1DR-2, 5G NR RADIO, LTE 3C, LTE 2C,
4TX4RX SOFTWARE RETROFIT, ANTENNA MODIFICATIONS

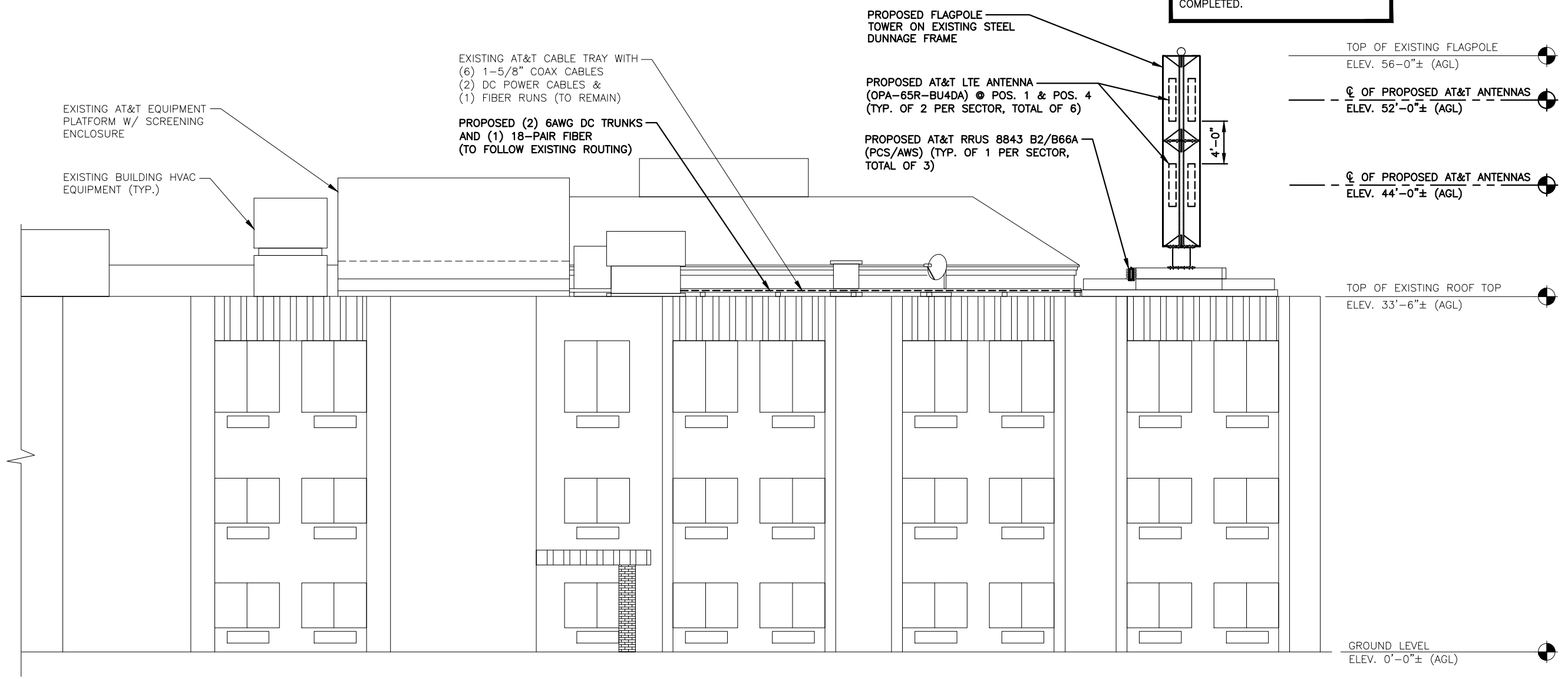
SITE NUMBER	DRAWING NUMBER	REV
CTL02074	A-2	2

NOTE TO GENERAL CONTRACTOR:
(PRIOR TO CONSTRUCTION COMPLETION)

TEP NORTHEAST (TEP OPCO, LLC.) TO PERFORM POST/CLIMB AND INSPECTION TO CONFIRM PROPOSED INSTALLATION COMPLIES WITH THE RECORD STAMPED DRAWINGS AND STRUCTURAL REPORTS PRIOR TO SUBMITTING FCCA (FINAL CONSTRUCTION CONTROL AFFIDAVIT). GC IS RESPONSIBLE FOR COORDINATING INSPECTIONS WITH TEP NORTHEAST (TEP OPCO, LLC.) PRIOR TO CONSTRUCTION BEING COMPLETED.

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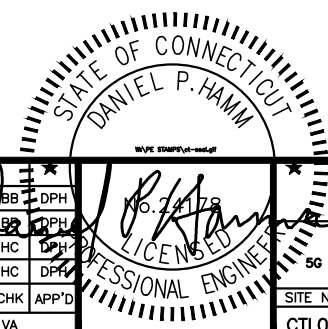
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BY: TEP NORTHEAST
DATED: MARCH 29, 2023
FOR THE CAPACITY OF THE EXISTING FLAGPOLE STRUCTURE TO SUPPORT THE PROPOSED EQUIPMENT. ANALYSIS OF EXISTING TOWER STEEL SUPPORT FRAME AND BUILDING STRUCTURE TO BE COMPLETED BY OTHERS.



ELEVATION
22x34 SCALE: 3/16"=1'-0"
11x17 SCALE: 3/32"=1'-0"

1
A-3

0 2'-8" 5'-4" 10'-8" 16'-0"



TEP NORTHEAST

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SCALE: AS SHOWN DESIGNED BY: BB DRAWN BY: VA

AT&T

ELEVATION
5G NR 1DR-1, 5G NR 1DR-2, 5G NR RADIO, LTE 3C, LTE 2C,
4TX4RX SOFTWARE RETROFIT, ANTENNA MODIFICATIONS

SITE NUMBER	DRAWING NUMBER	REV
CTL02074	A-3	2

ANTENNA SCHEDULE												
SECTOR	EXISTING/ PROPOSED	BAND	ANTENNA	SIZE (INCHES) (L x W x D)	ANTENNA ϕ HEIGHT	ANTENNA TIP HEIGHT	AZIMUTH	TMA/ DIPLEXER	RRU	SIZE (INCHES) (L x W x D)	FEEDER	RAYCAP
A1	PROPOSED	LTE 700 (BC)/ 850/ AWS	OPA65R-BU4DA	48.2X21X7.8	52'-0"±	54'-0"±	20°	-	(P)(1) 4449 B5/B12 (850/700)	17.9x13.2x10.4	(E)(2) DC POWER (E)(1) FIBER (E)(2) 7/8 COAX (P)(1) Y-CABLE	(E) (1) RAYCAP DC6-48-60-18-8F
A2	-	-	-	-	-	-	-	-	-	-	-	
A3	-	-	-	-	-	-	-	-	-	-	-	
A4	PROPOSED	LTE 700 (B14)/ PCS	OPA65R-BU4DA	48.2X21X7.8	44'-0"±	46'-0"±	20°	-	(P)(1) 8843 B2/B66A (PCS/AWS) (P)(1) 4478 B14 (700)	18.1x13.4x8.3 14.9x13.2x10.9	(P)(2) DC POWER (P)(1) FIBER (P)(1) Y-CABLE	
B1	PROPOSED	LTE 700 (BC)/ 850/ AWS	OPA65R-BU4DA	48.2X21X7.8	52'-0"±	54'-0"±	140°	-	(P)(1) 4449 B5/B12 (850/700)	17.9x13.2x10.4	(P)(1) Y-CABLE	(P) (1) RAYCAP DC6-48-60-18
B2	-	-	-	-	-	-	-	-	-	-	-	
B3	-	-	-	-	-	-	-	-	-	-	-	
B4	PROPOSED	LTE 700 (B14)/ PCS	OPA65R-BU4DA	48.2X21X7.8	44'-0"±	46'-0"±	140°	-	(P)(1) 8843 B2/B66A (PCS/AWS) (P)(1) 4478 B14 (700)	18.1x13.4x8.3 14.9x13.2x10.9	(E)(2) 7/8 COAX (P)(1) Y-CABLE	
C1	PROPOSED	LTE 700 (BC)/ 850/ AWS	OPA65R-BU4DA	48.2X21X7.8	52'-0"±	54'-0"±	260°	-	(P)(1) 4449 B5/B12 (850/700)	17.9x13.2x10.4	(P)(1) Y-CABLE	SHARED
C2	-	-	-	-	-	-	-	-	-	-	-	
C3	-	-	-	-	-	-	-	-	-	-	-	
C4	PROPOSED	LTE 700 (B14)/ PCS	OPA65R-BU4DA	48.2X21X7.8	44'-0"±	46'-0"±	260°	-	(P)(1) 8843 B2/B66A (PCS/AWS) (P)(1) 4478 B14 (700)	18.1x13.4x8.3 14.9x13.2x10.9	(E)(2) 7/8 COAX (P)(1) Y-CABLE	

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DATED: MARCH 29, 2023
FOR THE CAPACITY OF THE EXISTING FLAGPOLE STRUCTURE TO SUPPORT THE PROPOSED EQUIPMENT. ANALYSIS OF EXISTING TOWER STEEL SUPPORT FRAME AND BUILDING STRUCTURE TO BE COMPLETED BY OTHERS.

NOTE TO GENERAL CONTRACTOR:
(PRIOR TO CONSTRUCTION COMPLETION)

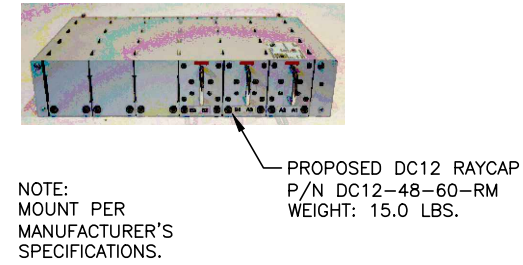
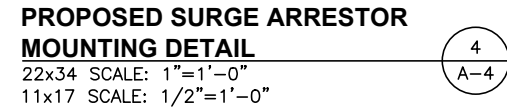
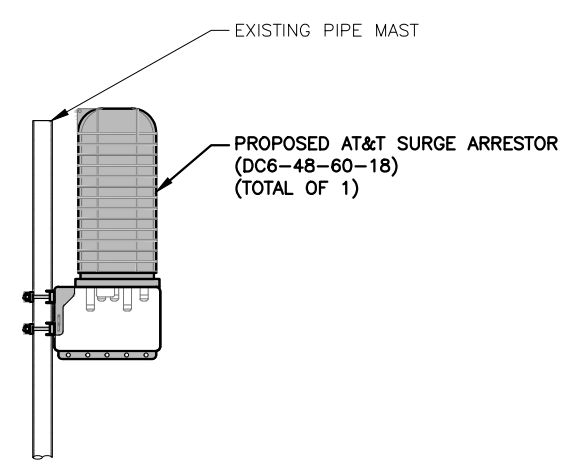
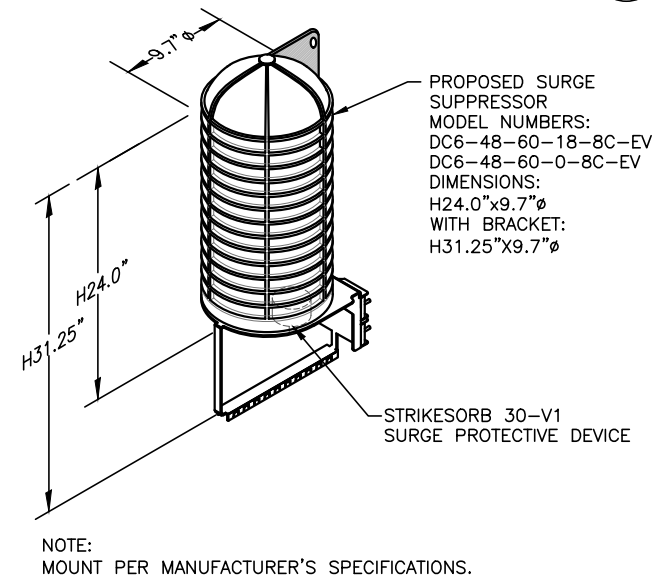
TEP NORTHEAST (TEP OPCO, LLC.) TO PERFORM POST/CLIMB AND INSPECTION TO CONFIRM PROPOSED INSTALLATION COMPLIES WITH THE RECORD STAMPED DRAWINGS AND STRUCTURAL REPORTS PRIOR TO SUBMITTING FCCA (FINAL CONSTRUCTION CONTROL AFFIDAVIT). GC IS RESPONSIBLE FOR COORDINATING INSPECTIONS WITH TEP NORTHEAST (TEP OPCO, LLC.) PRIOR TO CONSTRUCTION BEING COMPLETED.

FINAL ANTENNA SCHEDULE 1
SCALE: N.T.S. A-4

RRU CHART

QUANTITY	MODEL	SIZE (L x W x D)
P(3)	4449 B5/B12 (850/700)	17.9"x13.2"x10.4"
P(3)	8843 B2/B66A (PCS/AWS)	14.9"x13.2"x10.9"
P(3)	4478 B14 (700)	18.1"x13.4"x8.3"

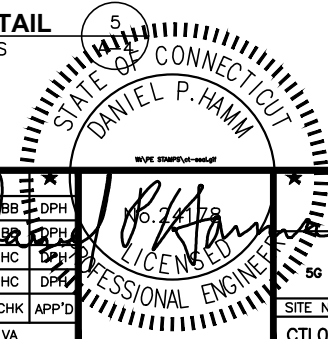
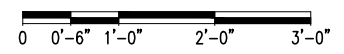
NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS



NOTE:
SEE RFDS FOR RRU FREQUENCY AND MODEL NUMBER

PROPOSED RRU REFER TO THE FINAL RFDS AND CHART FOR QUANTITY, MODEL AND DIMENSIONS

NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.



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

SAI
12 INDUSTRIAL WAY
SALEM, NH 03079

SITE NUMBER: CTL02074
SITE NAME: HAMDEN WHITNEY MANOR

2798 WHITNEY AVENUE
HAMDEN, CT 06518
NEW HAVEN COUNTY

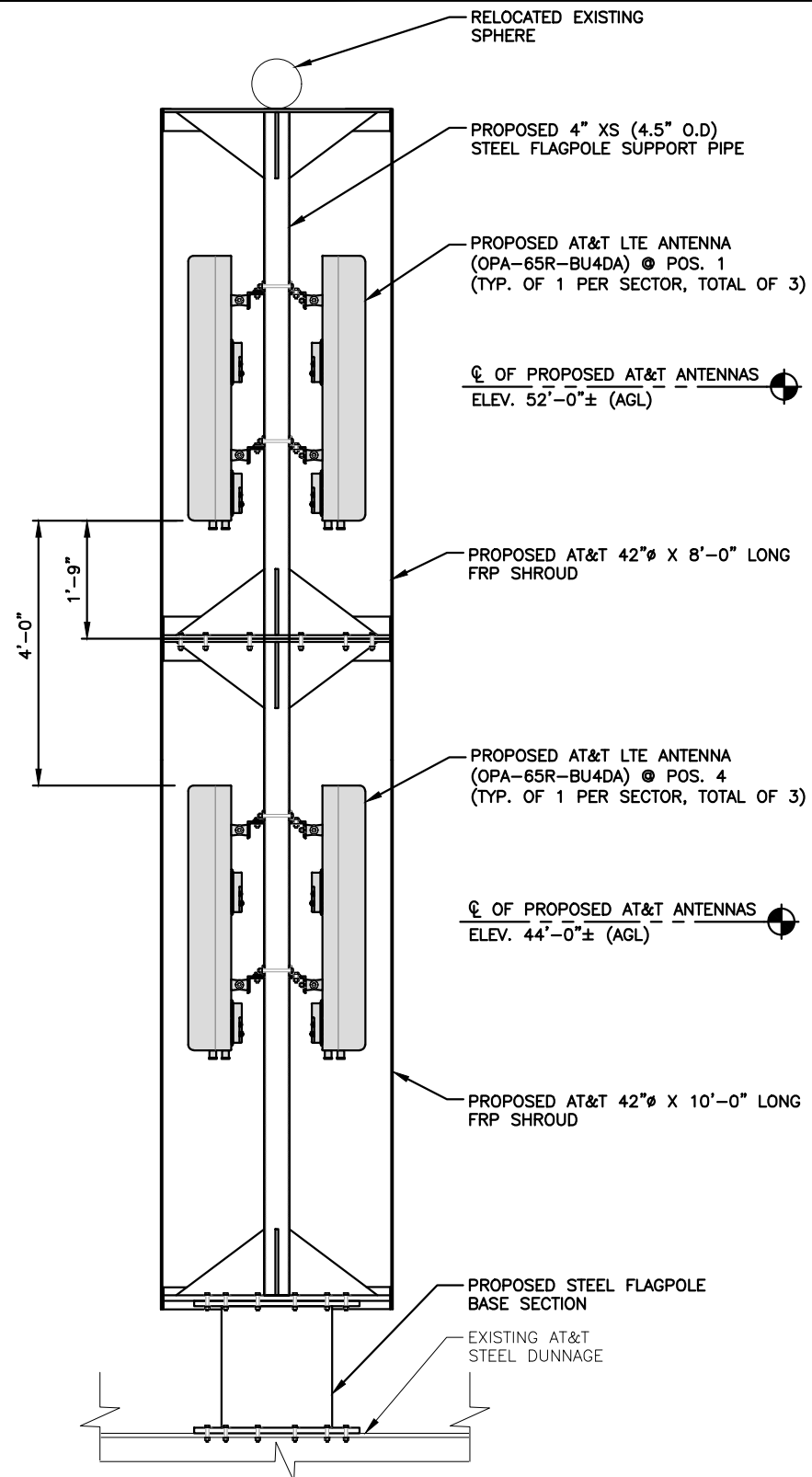
AT&T
500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

NO.	DATE	REVISIONS	BY	CHK	APP'D
2	02/16/24	ISSUED FOR CONSTRUCTION	VA	BB	DPH
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0	03/29/23	ISSUED FOR REVIEW	AM	HC	DPH
A	11/09/22	ISSUED FOR REVIEW	VA/GA	HC	DPH

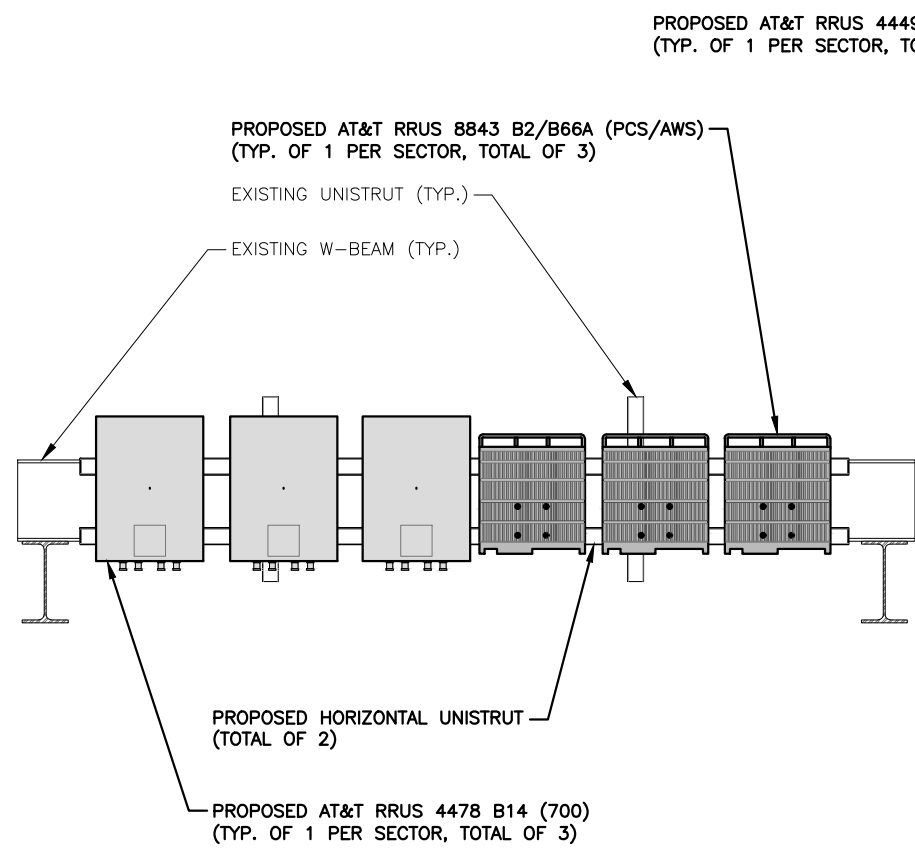
SCALE: AS SHOWN DESIGNED BY: BB DRAWN BY: VA

AT&T
DETAILS
5G NR 1DR-1, 5G NR 1DR-2, 5G NR RADIO, LTE 3C, LTE 2C,
4TX4RX SOFTWARE RETROFIT, ANTENNA MODIFICATIONS

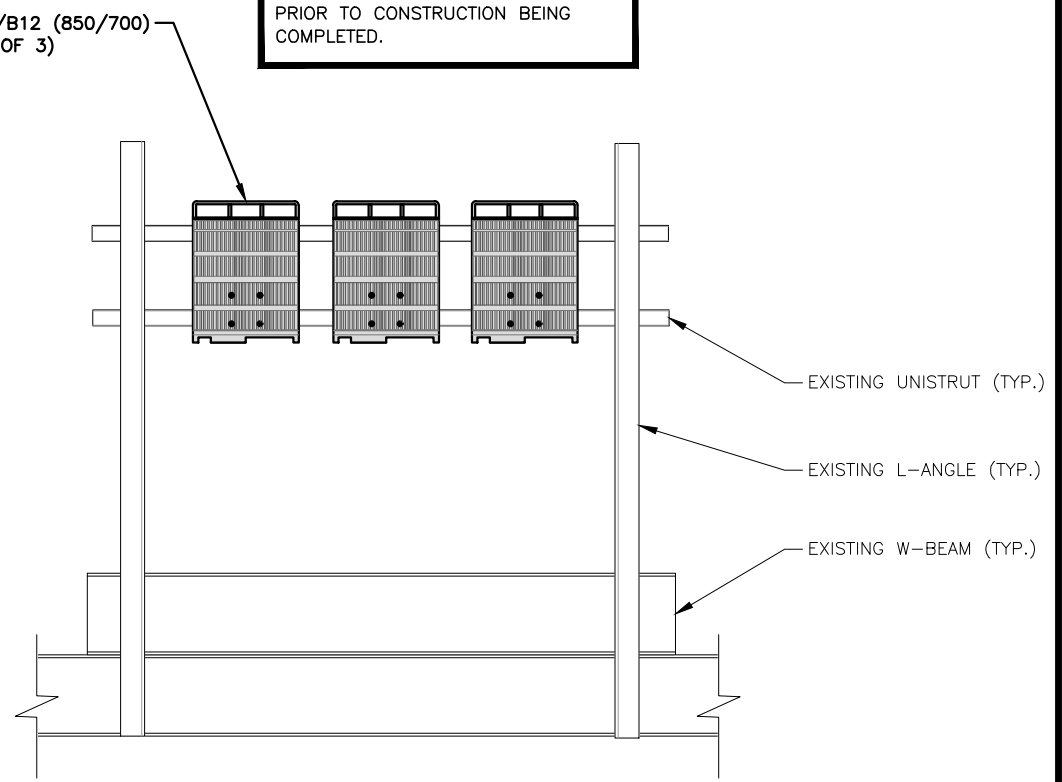
SITE NUMBER	DRAWING NUMBER	REV
CTL02074	A-4	2



PROPOSED LTE ANTENNAS MOUNTING DETAIL 1
 22x34 SCALE: 3/4"=1'-0"
 11x17 SCALE: 3/8"=1'-0"
 A-5



PROPOSED RRUS MOUNTING DETAIL 2
 22x34 SCALE: 1"=1'-0"
 11x17 SCALE: 1/2"=1'-0"
 A-5



PROPOSED RRUS MOUNTING DETAIL 3
 22x34 SCALE: 1"=1'-0"
 11x17 SCALE: 1/2"=1'-0"
 A-5

NOTE TO GENERAL CONTRACTOR:
 (PRIOR TO CONSTRUCTION COMPLETION)

TEP NORTHEAST (TEP OPCO, LLC.) TO PERFORM POST/CLIMB AND INSPECTION TO CONFIRM PROPOSED INSTALLATION COMPLIES WITH THE RECORD STAMPED DRAWINGS AND STRUCTURAL REPORTS PRIOR TO SUBMITTING FCCA (FINAL CONSTRUCTION CONTROL AFFIDAVIT). GC IS RESPONSIBLE FOR COORDINATING INSPECTIONS WITH TEP NORTHEAST (TEP OPCO, LLC.) PRIOR TO CONSTRUCTION BEING COMPLETED.

NOTE:
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NOTE:
 REFER TO LOCALIZED **STRUCTURAL ANALYSIS**
 BY: TEP NORTHEAST
 DATED: MARCH 29, 2023
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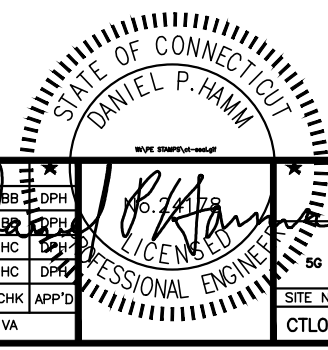
SITE NUMBER: CTL02074
SITE NAME: HAMDEN WHITNEY MANOR

2798 WHITNEY AVENUE
 HAMDEN, CT 06518
 NEW HAVEN COUNTY



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0	03/29/23	ISSUED FOR REVIEW	AM	HC	DPH
A	11/09/22	ISSUED FOR REVIEW	VA/GA	HC	DPH

SCALE: AS SHOWN DESIGNED BY: BB DRAWN BY: VA



AT&T

MOUNTING DETAILS
 5G NR 1DR-1, 5G NR 1DR-2, 5G NR RADIO, LTE 3C, LTE 2C,
 4TX4RX SOFTWARE RETROFIT, ANTENNA MODIFICATIONS

SITE NUMBER	DRAWING NUMBER	REV
CTL02074	A-5	2

STRUCTURAL NOTES:

- DESIGN REQUIREMENTS ARE PER STATE BUILDING CODE AND APPLICABLE SUPPLEMENTS, INTERNATIONAL BUILDING CODE, EIA/TIA-222-H STRUCTURAL STANDARDS FOR STEEL ANTENNA, TOWERS AND ANTENNA SUPPORTING STRUCTURES.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND ENGINEER OF RECORD.
- DESIGN AND CONSTRUCTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
- STRUCTURAL STEEL SHALL CONFORM TO ASTM A992 (Fy=50 ksi), MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A36 UNLESS OTHERWISE INDICATED.
- STEEL PIPE SHALL CONFORM TO ASTM A500 "COLD-FORMED WELDED & SEAMLESS CARBON STEEL STRUCTURAL TUBING", GRADE B, OR ASTM A53 PIPE STEEL BLACK AND HOT-DIPPED ZINC-COATED WELDED AND SEAMLESS TYPE E OR S, GRADE B. PIPE SIZES INDICATED ARE NOMINAL. ACTUAL OUTSIDE DIAMETER IS LARGER.
- STRUCTURAL CONNECTION BOLTS SHALL BE HIGH STRENGTH BOLTS (BEARING TYPE) AND CONFORM TO ASTM A325 TYPE-X "HIGH STRENGTH BOLTS FOR STRUCTURAL JOINTS, INCLUDING SUITABLE NUTS AND PLAIN HARDENED WASHERS". ALL BOLTS SHALL BE 3/4" DIA UON.
- ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS OTHERWISE NOTED.
- ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS OTHERWISE NOTED.
- FIELD WELDS, DRILL HOLES, SAW CUTS AND ALL DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED WITH AN ORGANIC ZINC REPAIR PAINT COMPLYING WITH REQUIREMENTS OF ASTM A780. GALVANIZING REPAIR PAINT SHALL HAVE 65 PERCENT ZINC BY WEIGHT, ZIRP BY DUNCAN GALVANIZING, GALVA BRIGHT PREMIUM BY CROWN OR EQUAL. THICKNESS OF APPLIED GALVANIZING REPAIR PAINT SHALL BE NOT LESS THAN 4 COATS (ALLOW TIME TO DRY BETWEEN COATS) WITH A RESULTING COATING THICKNESS REQUIRED BY ASTM A123 OR A153 AS APPLICABLE.
- CONTRACTOR SHALL COMPLY WITH AWS CODE FOR PROCEDURES, APPEARANCE AND QUALITY OF WELDS, AND FOR METHODS USED IN CORRECTING WELDING. ALL WELDERS AND WELDING PROCESSES SHALL BE QUALIFIED IN ACCORDANCE WITH AWS "STANDARD QUALIFICATION PROCEDURES". ALL WELDING SHALL BE DONE USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND D.I. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "STEEL CONSTRUCTION MANUAL". 14TH EDITION.
- INCORRECTLY FABRICATED, DAMAGED OR OTHERWISE MISFITTING OR NON-CONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE CONSTRUCTION MANAGER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE CONSTRUCTION MANAGER APPROVAL.
- UNISTRUT SHALL BE FORMED STEEL CHANNEL STRUT FRAMING AS MANUFACTURED BY UNISTRUT CORP., WAYNE, MI OR EQUAL. STRUT MEMBERS SHALL BE 1 5/8"x1 5/8"x12GA, UNLESS OTHERWISE NOTED, AND SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.
- EPOXY ANCHOR ASSEMBLY SHALL CONSIST OF STAINLESS STEEL ANCHOR ROD WITH NUTS & WASHERS, AN INTERNALLY THREADED INSERT, A SCREEN TUBE AND A EPOXY ADHESIVE. THE ANCHORING SYSTEM SHALL BE THE HILTI-HIT HY-270 AND OR HY-200 SYSTEMS (AS SPECIFIED IN DWG.) OR ENGINEERS APPROVED EQUAL.
- EXPANSION BOLTS SHALL CONFORM TO FEDERAL SPECIFICATION FF-S-325, GROUP II, TYPE 4, CLASS I, HILTI KWIK BOLT III OR APPROVED EQUAL. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- LUMBER SHALL COMPLY WITH THE REQUIREMENTS OF THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION AND THE NATIONAL FOREST PRODUCTS ASSOCIATION'S NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION. ALL LUMBER SHALL BE PRESSURE TREATED AND SHALL BE STRUCTURAL GRADE NO. 2 OR BETTER.
- WHERE ROOF PENETRATIONS ARE REQUIRED, THE CONTRACTOR SHALL CONTACT AND COORDINATE RELATED WORK WITH THE BUILDING OWNER AND THE EXISTING ROOF INSTALLER. WORK SHALL BE PERFORMED IN SUCH A MANNER AS TO NOT VOID THE EXISTING ROOF WARRANTY. ROOF SHALL BE WATERTIGHT.
- ALL FIBERGLASS MEMBERS USED ARE AS MANUFACTURED BY STRONGWELL COMPANY OF BRISTOL, VA 24203. ALL DESIGN CRITERIA FOR THESE MEMBERS IS BASED ON INFORMATION PROVIDED IN THE DESIGN MANUAL. ALL REQUIREMENTS PUBLISHED IN SAID MANUAL MUST BE STRICTLY ADHERED TO.
- NO MATERIALS TO BE ORDERED AND NO WORK TO BE COMPLETED UNTIL SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED IN WRITING.
- SUBCONTRACTOR SHALL FIREPROOF ALL STEEL TO PRE-EXISTING CONDITIONS.

SPECIAL INSPECTIONS (REFERENCE IBC CHAPTER 17):

GENERAL: WHERE APPLICATION IS MADE FOR CONSTRUCTION, THE OWNER OR THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE ACTING AS THE OWNER'S AGENT SHALL EMPLOY ONE OR MORE APPROVED AGENCIES TO PERFORM INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED IN THE INSPECTION CHECKLIST ABOVE.

THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND ENGINEERS OF RECORD INVOLVED IN THE DESIGN OF THE PROJECT ARE PERMITTED TO ACT AS THE APPROVED AGENCY AND THEIR PERSONNEL ARE PERMITTED TO ACT AS THE SPECIAL INSPECTOR FOR THE WORK DESIGNED BY THEM, PROVIDED THOSE PERSONNEL MEET THE QUALIFICATION REQUIREMENTS.

STATEMENT OF SPECIAL INSPECTIONS: THE APPLICANT SHALL SUBMIT A STATEMENT OF SPECIAL INSPECTIONS PREPARED BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE IN ACCORDANCE WITH SECTION 107.1 AS A CONDITION FOR ISSUANCE. THIS STATEMENT SHALL BE IN ACCORDANCE WITH SECTION 1705.

REPORT REQUIREMENT: SPECIAL INSPECTORS SHALL KEEP RECORDS OF INSPECTIONS. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. REPORTS SHALL INDICATE THAT WORK INSPECTED WAS OR WAS NOT COMPLETED IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THEY ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS SHALL BE SUBMITTED.

NOTES:

- ALL CONNECTIONS TO BE SHOP WELDED & FIELD BOLTED USING 3/4"Ø A325-X BOLTS, UNLESS OTHERWISE NOTIFIED.
- SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED BEFORE ORDERING MATERIAL.
- SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED PRIOR TO STEEL FABRICATION.
- VERIFICATION OF EXISTING ROOF CONSTRUCTION IS REQUIRED PRIOR TO THE INSTALLATION OF THE ROOF PLATFORM. ENGINEER OF RECORD IS TO APPROVE EXISTING CONDITIONS IN ORDER TO MOVE FORWARD.
- CENTERLINE OF PROPOSED STEEL PLATFORM SUPPORT COLUMNS TO BE CENTRALLY LOCATED OVER THE EXISTING BUILDING COLUMNS.
- EXISTING BRICK MASONRY COLUMNS/BEARING TO BE REPAIRED/REPLACED AT ALL PROPOSED PLATFORM SUPPORT POINTS. ENGINEER OF RECORD TO REVIEW AND APPROVE.

NOTES:

- REQUIRED FOR ANY NEW SHOP FABRICATED FRP OR STEEL.
- PROVIDED BY MANUFACTURER, REQUIRED IF HIGH STRENGTH BOLTS OR STEEL.
- PROVIDED BY GENERAL CONTRACTOR; PROOF OF MATERIALS.
- HIGH WIND ZONE INSPECTION CATB 120MPH OR CAT C,D 110MPH INSPECT FRAMING OF WALLS, ANCHORING, FASTENING SCHEDULE.
- ADHESIVE FOR REBAR AND ANCHORS SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ACI 355.4 AND ICC-ES AC308 FOR CRACKED CONCRETE AND SEISMIC APPLICATIONS. DESIGN ADHESIVE BOND STRENGTH HAS BEEN BASED ON ACI 355.4 TEMPERATURE CATEGORY B WITH INSTALLATIONS INTO DRY HOLES DRILLED USING A CARBIDE BIT INTO CRACKED CONCRETE THAT HAS CURED FOR AT LEAST 21 DAYS. ADHESIVE ANCHORS REQUIRING CERTIFIED INSTALLATIONS SHALL BE INSTALLED BY A CERTIFIED ADHESIVE ANCHOR INSTALLER PER ACI 318-11 D.9.2.2. INSTALLATIONS REQUIRING CERTIFIED INSTALLERS SHALL BE INSPECTED PER ACI 318-11 D.8.2.4. AS REQUIRED; FOR ANY FIELD CHANGES TO THE ITEMS IN THIS TABLE.

SPECIAL INSPECTION CHECKLIST

BEFORE CONSTRUCTION

CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	ENGINEER OF RECORD APPROVED SHOP DRAWINGS ¹
N/A	MATERIAL SPECIFICATIONS REPORT ²
N/A	FABRICATOR NDE INSPECTION
REQUIRED	PACKING SLIPS ³

ADDITIONAL TESTING AND INSPECTIONS:

DURING CONSTRUCTION

CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	STEEL INSPECTIONS
N/A	HIGH STRENGTH BOLT INSPECTIONS
N/A	HIGH WIND ZONE INSPECTIONS ⁴
N/A	FOUNDATION INSPECTIONS
N/A	CONCRETE COMP. STRENGTH, SLUMP TESTS AND PLACEMENT
N/A	POST INSTALLED ANCHOR VERIFICATION ⁵
N/A	GROUT VERIFICATION
N/A	CERTIFIED WELD INSPECTION
N/A	EARTHWORK: LIFT AND DENSITY
N/A	ON SITE COLD GALVANIZING VERIFICATION
N/A	GUY WIRE TENSION REPORT

ADDITIONAL TESTING AND INSPECTIONS:

AFTER CONSTRUCTION

CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	MODIFICATION INSPECTOR REDLINE OR RECORD DRAWINGS ⁶
N/A	POST INSTALLED ANCHOR PULL-OUT TESTING
REQUIRED	PHOTOGRAPHS

ADDITIONAL TESTING AND INSPECTIONS:



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



12 INDUSTRIAL WAY
SALEM, NH 03079

SITE NUMBER: CTL02074
SITE NAME: HAMDEN WHITNEY MANOR

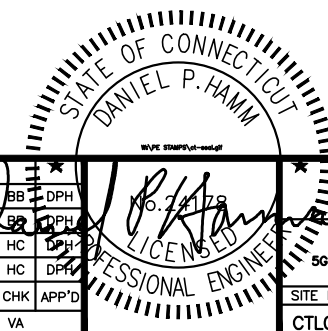
2798 WHITNEY AVENUE
HAMDEN, CT 06518
NEW HAVEN COUNTY



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

NO.	DATE	REVISIONS	BY	CHK	APP'D
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0	03/29/23	ISSUED FOR REVIEW	AM	HC	
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SCALE: AS SHOWN DESIGNED BY: BB DRAWN BY: VA

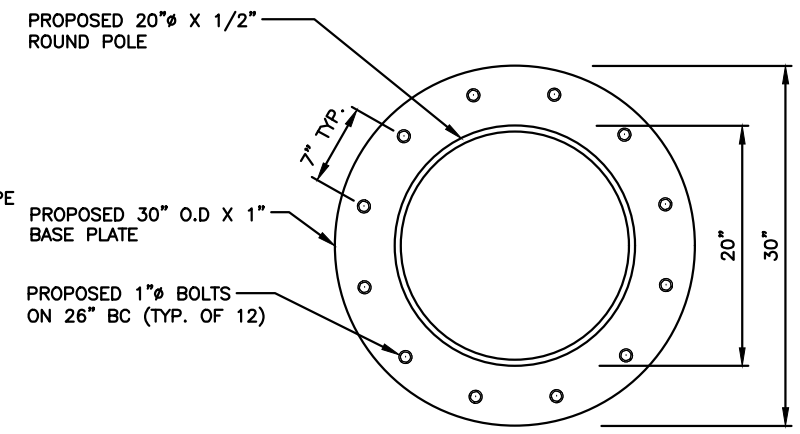
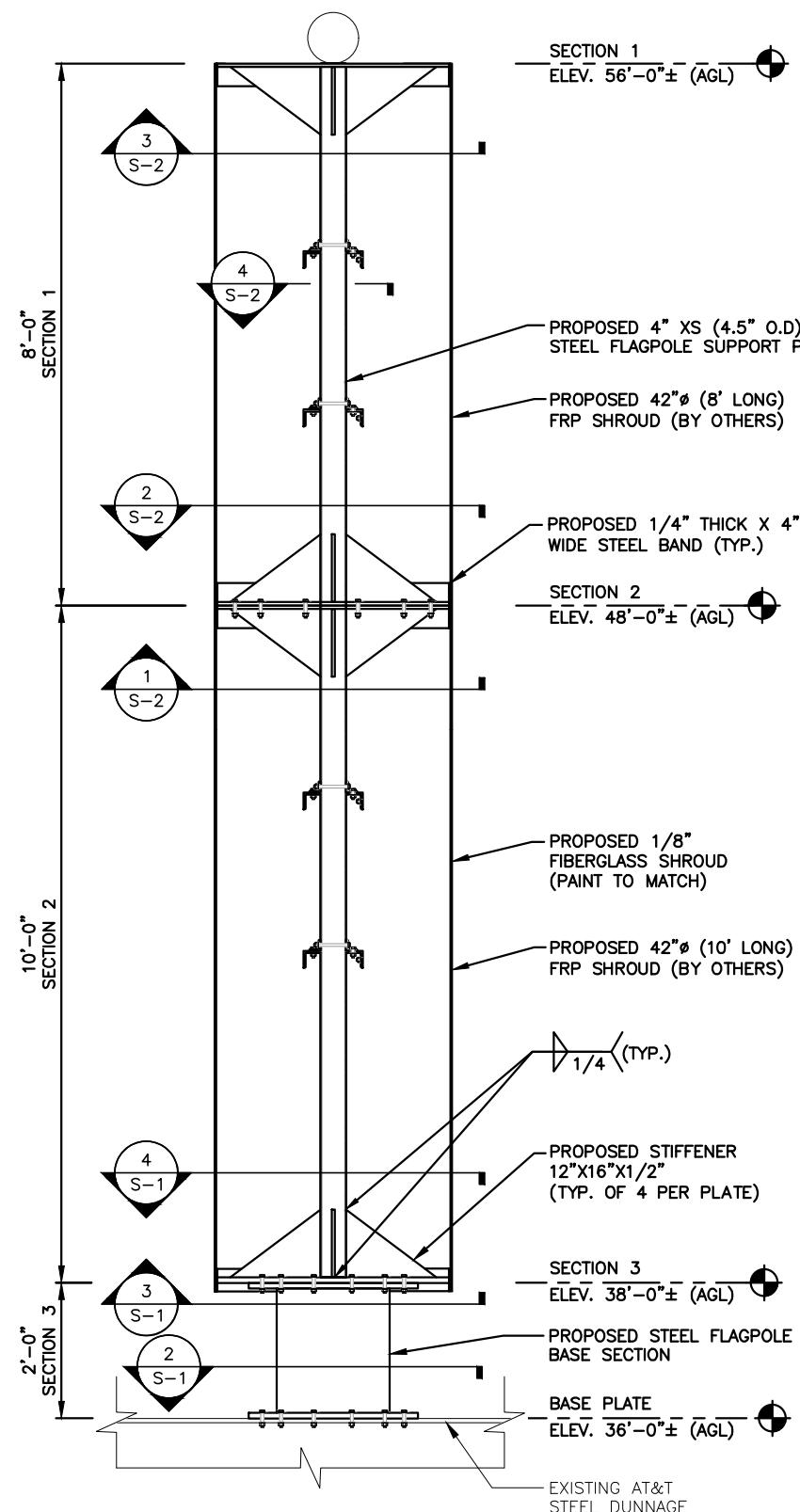


AT&T

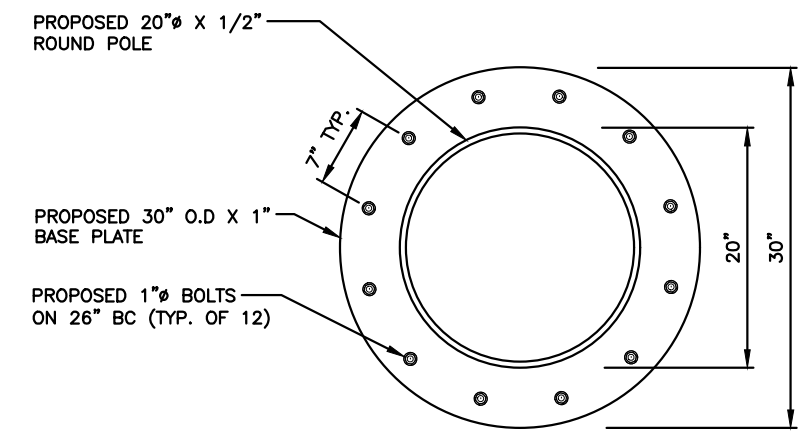
STRUCTURAL NOTES

5G NR 1DR-1, 5G NR 1DR-2, 5G NR RADIO, LTE 3C, LTE 2C, 4TX4RX SOFTWARE RETROFIT, ANTENNA MODIFICATIONS

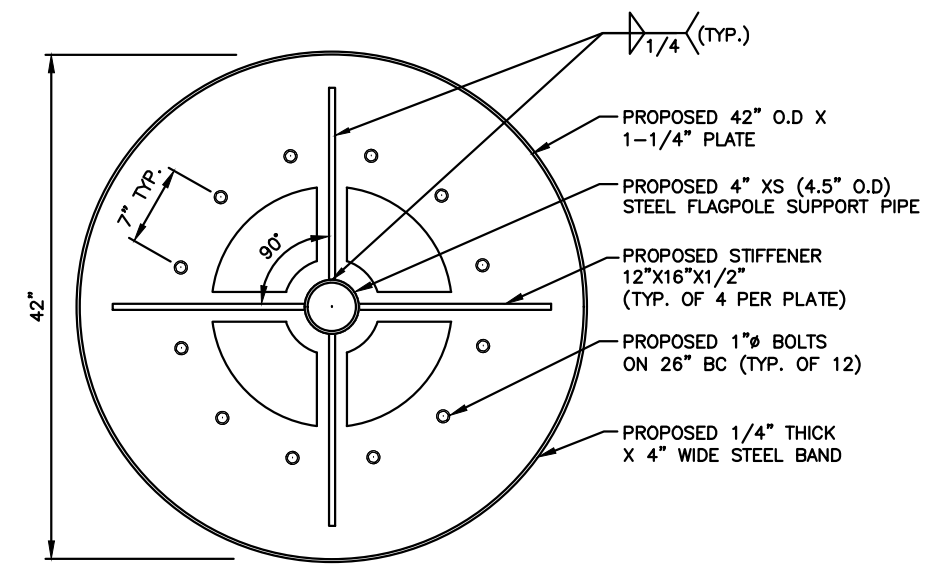
SITE NUMBER	DRAWING NUMBER	REV
CTL02074	SN-1	2



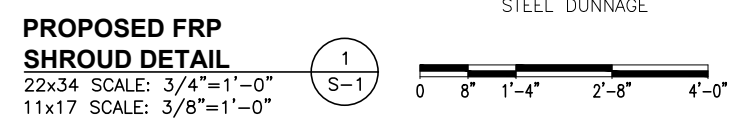
**BASE PLATE DETAIL
(SECTION 3) @ 36'- 0"**
22x34 SCALE: 1-1/2"=1'-0"
11x17 SCALE: 3/4"=1'-0"



**TOP PLATE DETAIL
(SECTION 3) @ 38'- 0"**
22x34 SCALE: 1-1/2"=1'-0"
11x17 SCALE: 3/4"=1'-0"



**BOTTOM PLATE DETAIL
(SECTION 2) @ 38'- 0"**
22x34 SCALE: 1-1/2"=1'-0"
11x17 SCALE: 3/4"=1'-0"



PROPOSED FRP SHROUD DETAIL
22x34 SCALE: 3/4"=1'-0"
11x17 SCALE: 3/8"=1'-0"

NOTE:
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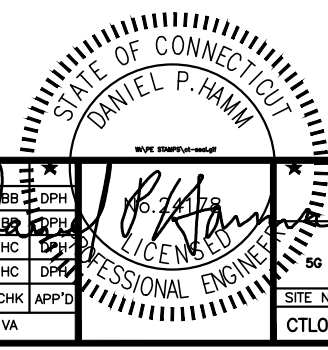
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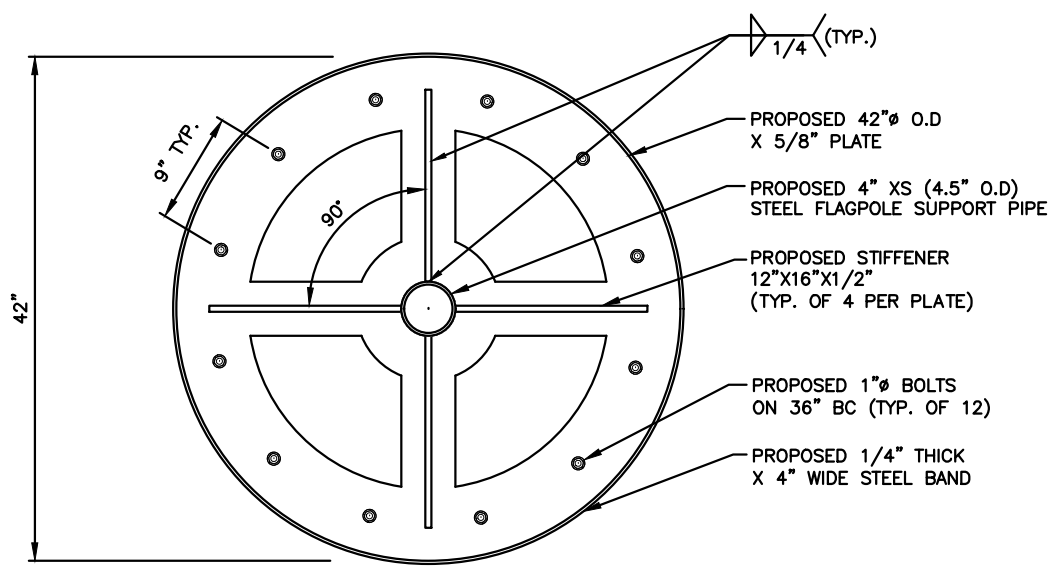
AT&T		
MOUNT MODIFICATION DESIGN		
5G NR 1DR-1, 5G NR 1DR-2, 5G NR RADIO, LTE 3C, LTE 2C, 4TX4RX SOFTWARE RETROFIT, ANTENNA MODIFICATIONS		
SITE NUMBER	DRAWING NUMBER	REV
CTL02074	S-1	2

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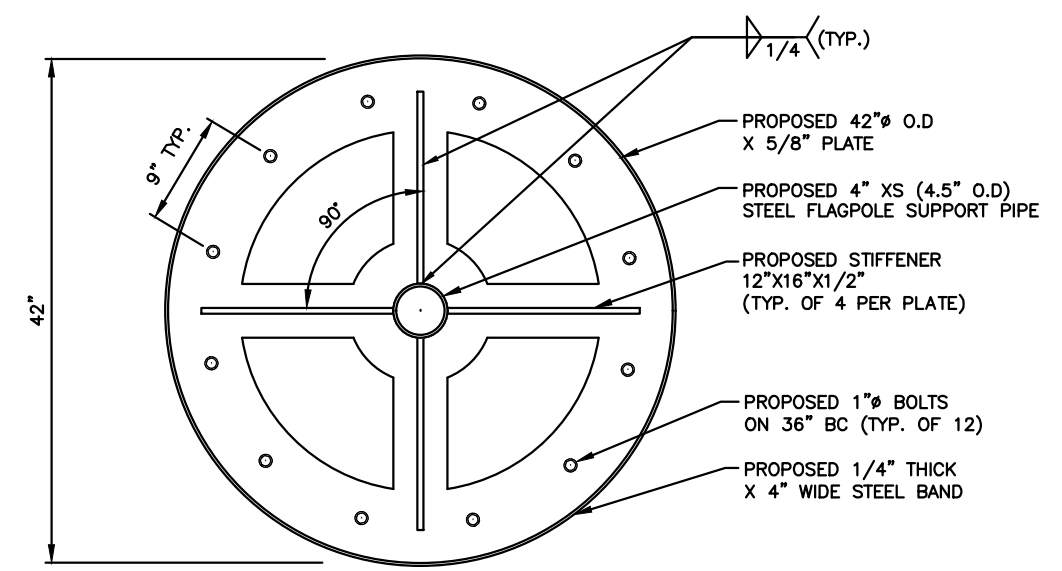
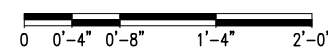
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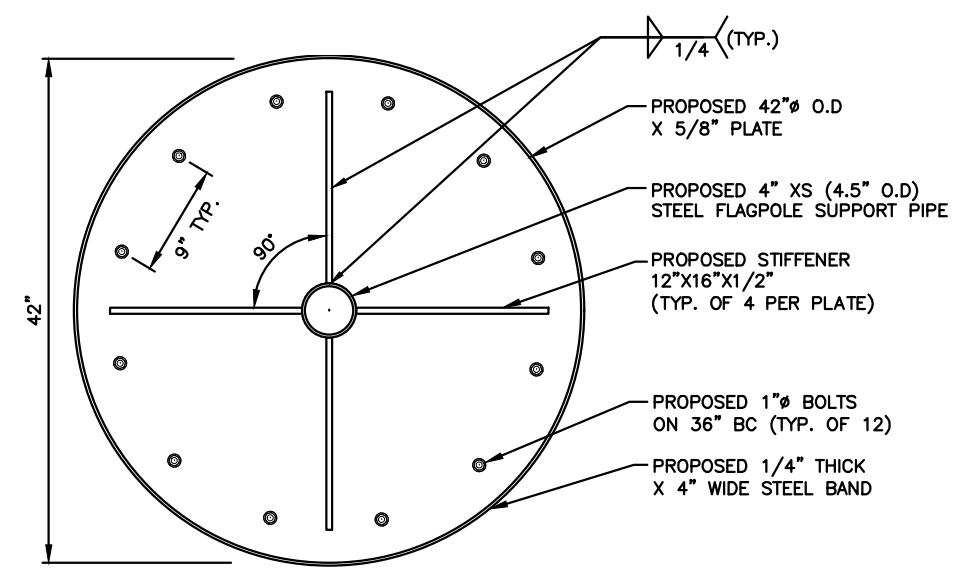
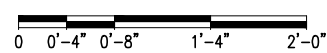
**TOP PLATE DETAIL
(SECTION 2) @ 48'-0"**

22x34 SCALE: 1-1/2"=1'-0"
11x17 SCALE: 3/4"=1'-0"



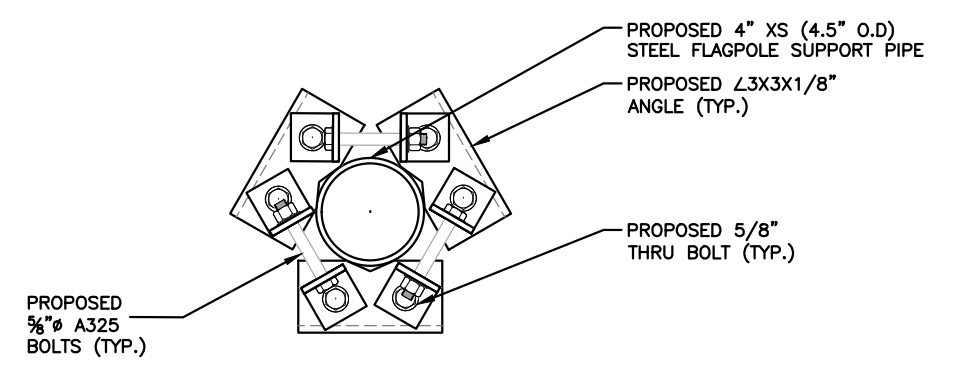
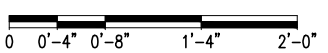
**BOTTOM PLATE DETAIL
(SECTION 1) @ 48'-0"**

22x34 SCALE: 1-1/2"=1'-0"
11x17 SCALE: 3/4"=1'-0"



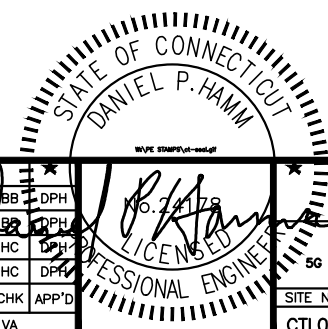
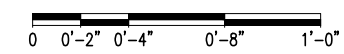
**TOP PLATE DETAIL
(SECTION 1) @ 56'-0"**

22x34 SCALE: 1-1/2"=1'-0"
11x17 SCALE: 3/4"=1'-0"



CONNECTION DETAIL

22x34 SCALE: 3"=1'-0"
11x17 SCALE: 1-1/2"=1'-0"



SITE NUMBER: CTL02074
SITE NAME: HAMDEN WHITNEY MANOR

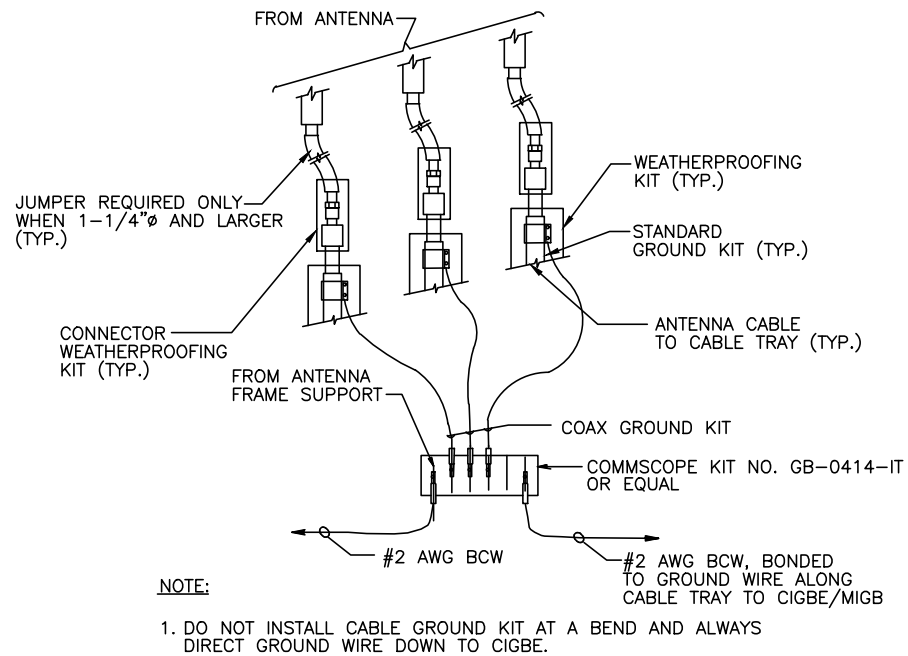
2798 WHITNEY AVENUE
HAMDEN, CT 06518
NEW HAVEN COUNTY



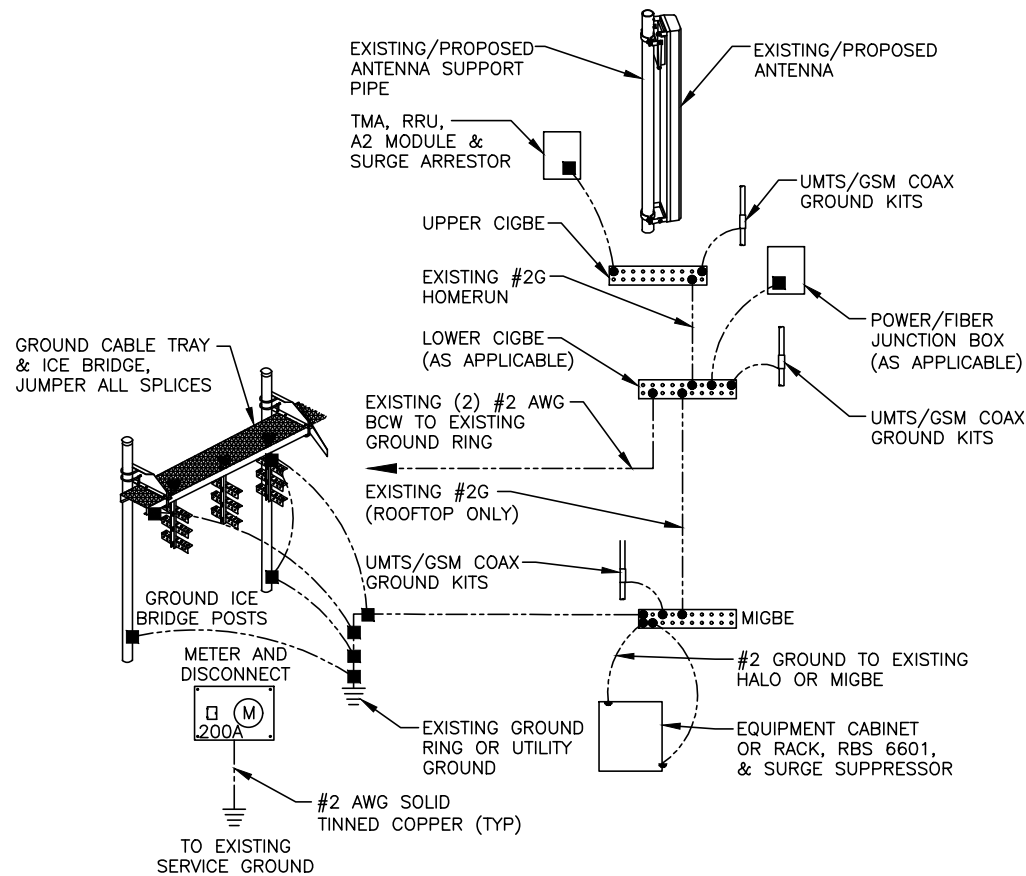
NO.	DATE	REVISIONS	BY	CHK	APP'D
2	02/16/24	ISSUED FOR CONSTRUCTION	BB	DPH	
1	03/29/23	ISSUED FOR CONSTRUCTION	VA	DPH	
0	03/29/23	ISSUED FOR REVIEW	AM	HC	
A	11/09/22	ISSUED FOR REVIEW	VA/GA	HC	DPH

SCALE: AS SHOWN DESIGNED BY: BB DRAWN BY: VA

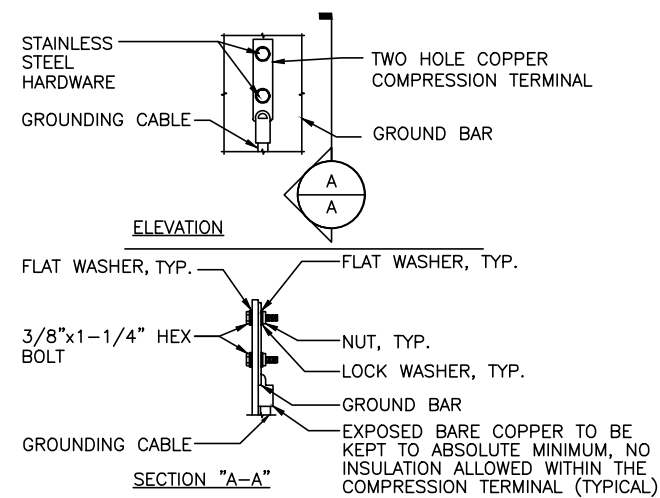
AT&T		
MOUNT MODIFICATION DESIGN		
5G NR 1DR-1, 5G NR 1DR-2, 5G NR RADIO, LTE 3C, LTE 2C, 4TX4RX SOFTWARE RETROFIT, ANTENNA MODIFICATIONS		
SITE NUMBER	DRAWING NUMBER	REV
CTL02074	S-2	2



GROUND WIRE TO GROUND BAR CONNECTION DETAIL 1
SCALE: N.T.S. G-1



GROUNDING RISER DIAGRAM 2
SCALE: N.T.S. 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 3
SCALE: N.T.S. G-1

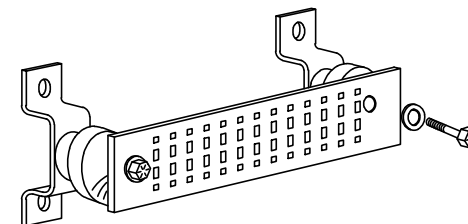
EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

SECTION "P" - SURGE PRODUCERS

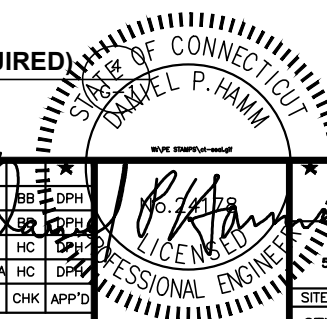
- CABLE ENTRY PORTS (HATCH PLATES) (#2 AWG)
- GENERATOR FRAMEWORK (IF AVAILABLE) (#2 AWG)
- TELCO GROUND BAR
- COMMERCIAL POWER COMMON NEUTRAL/GROUND BOND (#2 AWG)
- +24V POWER SUPPLY RETURN BAR (#2 AWG)
- 48V POWER SUPPLY RETURN BAR (#2 AWG)
- RECTIFIER FRAMES.

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.



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



12 INDUSTRIAL WAY
SALEM, NH 03079

SITE NUMBER: CTL02074
SITE NAME: HAMDEN WHITNEY MANOR

2798 WHITNEY AVENUE
HAMDEN, CT 06518
NEW HAVEN COUNTY



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

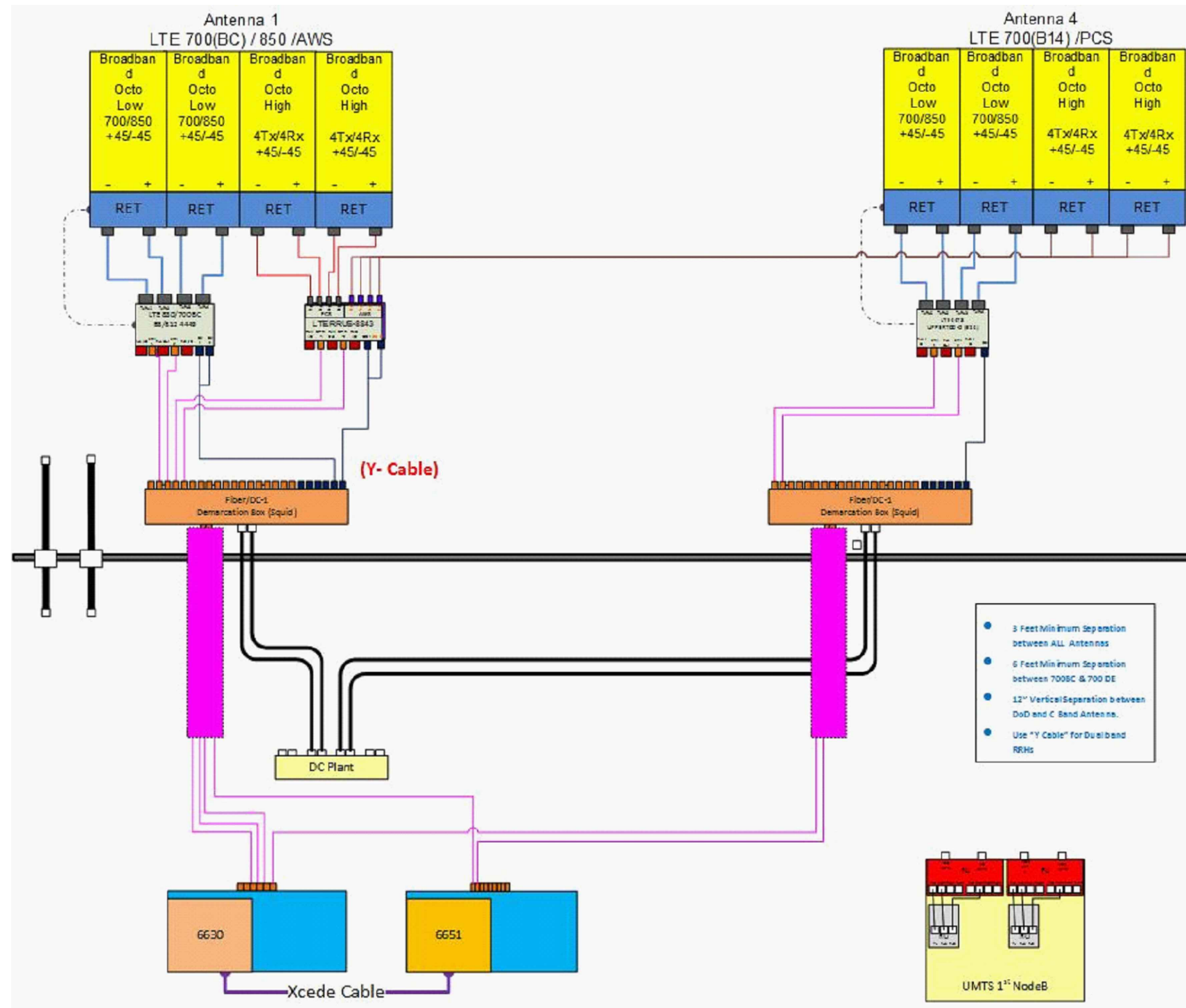
2	02/16/24	ISSUED FOR CONSTRUCTION	VA	BB	DPH
1	03/29/23	ISSUED FOR CONSTRUCTION	VA	BB	DPH
0	03/29/23	ISSUED FOR REVIEW	AM	HC	DPH
A	11/09/22	ISSUED FOR REVIEW	VA/GA	HC	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: BB	DRAWN BY: VA		

AT&T

GROUNDING DETAILS
5G NR 1DR-1, 5G NR 1DR-2, 5G NR RADIO, LTE 3C, LTE 2C,
4TX4RX SOFTWARE RETROFIT, ANTENNA MODIFICATIONS

SITE NUMBER	DRAWING NUMBER	REV
CTL02074	G-1	2

NOTE:
 REV: 4
 DATED: 05/23/2023
 RFDS ID: 5108836



RF PLUMBING DIAGRAM 1
 SCALE: N.T.S. RF-1

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.



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 NORTH ANDOVER, MA 01845
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12 INDUSTRIAL WAY
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SITE NAME: HAMDEN WHITNEY MANOR

2798 WHITNEY AVENUE
 HAMDEN, CT 06518
 NEW HAVEN COUNTY



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

2	02/16/24	ISSUED FOR CONSTRUCTION	TR	BB	DPH
1	03/29/23	ISSUED FOR CONSTRUCTION	GA	BB	DPH
0	03/29/23	ISSUED FOR REVIEW	AM	HC	DPH
A	11/09/22	ISSUED FOR REVIEW	VA/GA	HC	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: BB	DRAWN BY: VA		

AT&T

RF PLUMBING DIAGRAM
 5G NR 1DR-1, 5G NR 1DR-2, 5G NR RADIO, LTE 3C, LTE 2C,
 4TX4RX SOFTWARE RETROFIT, ANTENNA MODIFICATIONS

SITE NUMBER	DRAWING NUMBER	REV
CTL02074	RF-1	2

Structural Analysis Report

Flagpole Dunnage Frame & Host Structure

*Proposed AT&T
Antenna Upgrade*

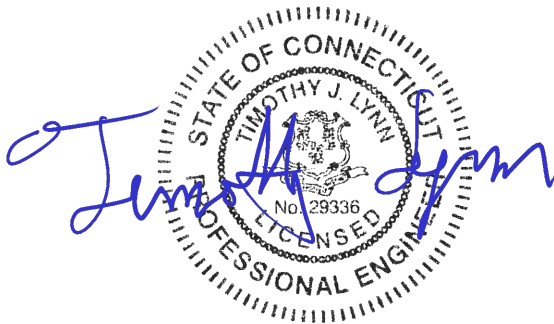
Site Ref: CT2074

*2798 Whitney Avenue
Hamden, CT*

Centek Project No. 22113.00

~~*Date: November 8, 2022*~~

Rev 1: April 6, 2023



Prepared for:
AT&T Mobility
500 Enterprise Drive, Suite 3A
Rocky Hill, CT 06067

Table of Contents

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- INTRODUCTION
- ANTENNA AND APPURTENANCE SUMMARY
- PRIMARY ASSUMPTIONS USED IN THE ANALYSIS
- ANALYSIS
- LOADING
- RESULTS
- CONCLUSION

SECTION 2 – CONDITIONS & SOFTWARE

- STANDARD ENGINEERING CONDITIONS
- GENERAL DESCRIPTION OF STRUCTURAL ANALYSIS PROGRAM

SECTION 3 – CALCULATIONS

- CONNECTION PLATE ANALYSIS
- RISA 3D OUTPUT REPORT – DUNNAGE PLATFORM
- HOST BUILDING BEARING WALL ANALYSIS

Introduction

The purpose of this report is to summarize the results of the analysis of the impacted structural components affected by the AT&T equipment upgrade on the host building located in Hamden, Connecticut.

The site consists of an existing steel flagpole structure with antennas located within concealment canisters bolted to a steel dunnage platform. The platform is located on the roof of the building located directly above two (2) building CMU bearing walls. The existing flagpole will be replaced to accommodate the proposed equipment (by others). This analysis is limited to the dunnage frame and host building structure.

Antenna and appurtenance information were obtained from an AT&T RF data sheet.

Antenna and Appurtenance Summary

- **AT&T (Final Equipment Configuration):**
Antennas: Three (3) CCI OPA65R-BU4D panel antennas within a concealment canister with a rad center elevation of ± 50 -ft above grade level. Three (3) CCI OPA65R-BU4D panel antennas within a concealment canister with a rad center elevation of ± 44 -ft above grade level.
Appurtenances: Three (3) Ericsson 4449 B5/B12 remote radio heads, three (3) Ericsson 4478 B14 remote radio heads, three (3) Ericsson 8843 B2/B66A remote radio heads and two (2) OVP boxes mounted to the dunnage platform.

Existing flagpole structure to be replaced (design by others).

Primary Assumptions Used in the Analysis

- The structure's theoretical capacity not including any assessment of the condition.
- The dunnage platform carries the horizontal and vertical loads due to the weight and wind load on the flagpole.
- Platform is properly installed and maintained.
- Platform is in plumb condition.
- Loading for antennas and mounts as listed in this report.
- All bolts are appropriately tightened providing the necessary connection continuity.
- All welds are fabricated with ER-70S-6 electrodes.
- All members are "hot dipped" galvanized in accordance with ASTM A123 and ASTM A153 Standards.
- All member protective coatings are in good condition.
- Any deviation from the analyzed antenna loading will require a new analysis for verification of structural adequacy.
- All coax cables to be installed as indicated in this report.

A n a l y s i s

A preliminary evaluation of the proposed tower was conducted for the purpose of developing tower base reactions used to analysis the supporting structure. The base reactions were calculated using a comprehensive computer program entitled *tnxTower*. The program analyzes the tower, considering the worst case loading condition. The tower is considered as loaded by concentric forces along the tower, and the model assumes that the tower members are subjected to bending, axial, and shear forces.

The existing tower was analyzed for the controlling basic wind speed (3-second gust) with no ice and the applicable wind and ice combination to determine stresses in members as per guidelines of TIA-222-H entitled “Structural Standard for Antenna Support Structures and Antennas”, the American Institute of Steel Construction (AISC) and the Manual of Steel Construction; Load and Resistance Factor Design (LRFD).

The controlling wind speed is determined by evaluating the local available wind speed data as provided in Appendix P of the CSBC¹ and the wind speed data available in the TIA-222-H Standard.

L o a d i n g

Tower loading was determined by the basic wind speed as applied to projected surface areas with modification factors per TIA-222-H, gravity loads of the tower structure and its components, and the application of 1.00” radial ice on the tower structure and its components.

Load Cases:	<u>Load Case 1</u> ; 120 mph (Ultimate) wind speed w/ no ice plus gravity load – used in calculation of tower stresses and rotation.	<i>[Appendix P of the 2022 CT Building Code]</i>
	<u>Load Case 2</u> ; 50 mph wind speed w/ 1.00” radial ice plus gravity load – used in calculation of tower stresses.	<i>[Annex B of TIA-222-H]</i>

¹ The 2021 International Building Code as amended by the 2022 Connecticut State Building Code (CSBC).

Results

The below flagpole base reactions were obtained from the analysis report prepared by TEP Northeast dated March 29, 2023 and utilized in the dunnage frame and host building analysis.

Location	Vector	Proposed Reactions
Base	Shear	1.5 kips
	Compression	1.5 kips
	Moment	16 kip-ft

- Calculated stresses for the support platform and host building were found to **be within allowable** limits.

Location	Component	Stress Ratio (percentage of capacity)	Result
Host Platform	Connection Plate	12.8%	PASS
	W16x89 (Platform Member)	2.3%	PASS
	W12x53 (Platform Member)	7.1%	PASS
Host Building	8" CMU (Exist. Building Bearing Wall)	63.0%	PASS

CENTEK Engineering, Inc.

Structural Analysis – Flagpole Dunnage Frame & Host Structure

AT&T Antenna Upgrade – CT2074

Hamden, CT

Rev 1 ~ April 6, 2023

Conclusion

This analysis shows that the subject dunnage frame and host building **are adequate** to support the proposed modified flagpole.

The analysis is based, in part, on the information provided to this office by AT&T. If the existing conditions are different than the information in this report, Centek Engineering, Inc. must be contacted for resolution of any potential issues.

Please feel free to call with any questions or comments.

Respectfully Submitted by:



Timothy J. Lynn, PE
Structural Engineer



*Standard Conditions for Furnishing of
Professional Engineering Services on
Existing Structures*

All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessarily limited to:

- Information supplied by the client regarding the structure itself, its foundations, the soil conditions, the antenna and feed line loading on the structure and its components, or other relevant information.
- Information from the field and/or drawings in the possession of Centek Engineering, Inc. or generated by field inspections or measurements of the structure.
- It is the responsibility of the client to ensure that the information provided to Centek Engineering, Inc. and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and are in an uncorroded condition and have not deteriorated. It is therefore assumed that its capacity has not significantly changed from the “as new” condition.
- All services will be performed to the codes specified by the client, and we do not imply to meet any other codes or requirements unless explicitly agreed in writing. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes, the client shall specify the exact requirement. In the absence of information to the contrary, all work will be performed in accordance with the latest revision of ANSI/ASCE10 & ANSI/EIA-222
- All services performed, results obtained, and recommendations made are in accordance with generally accepted engineering principles and practices. Centek Engineering, Inc. is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.

Plate Analysis:**Input Data:**Tower Reactions:

Overturing Moment =	$M_U := 16\text{-ft-kips}$	(Input From trnTower)
Shear Force =	Shear := 1.5-kips	(Input From trnTower)
Axial Force =	$R_U := 1.5\text{-kips}$	(Input From trnTower)

Bolt Data:

Number of Bolts =	$N := 12$	(User Input)
Diameter of Bolt Circle =	$D_{BC} := 26\text{-in}$	(User Input)

Plate Data:

Use ASTM A36

Plate Yield Strength =	$F_{yf} := 36\text{-ksi}$	(User Input)
Plate Thickness =	$t_{TP} := 1\text{-in}$	(User Input)
Plate Diameter =	$D_{OD} := 32\text{-in}$	(User Input)

Weld Data:

Weld Grade	E70XX	(User Input)
Weld Yield Stress =	$F_{yw} := 70\text{-ksi}$	(User Input)
Weld Size =	$sw := 0.375\text{-in}$	(User Input)
Pole Diameter =	$D_p := 16\text{-in}$	(User Input)

Geometric Layout Data:

Distance from Bolts to Centroid of Pole:

Radius of Bolt Circle = $R_{bc} := \frac{D_{BC}}{2} = 13\text{-in}$

Distance to Bolts = $i := 1..N$

$$d_i := \begin{cases} \theta \leftarrow 2\pi \cdot \left(\frac{i}{N}\right) \\ d \leftarrow R_{bc} \cdot \sin(\theta) \end{cases}$$

	$d_1 = 6.50\text{-in}$	$d_7 = -6.50\text{-in}$
	$d_2 = 11.26\text{-in}$	$d_8 = -11.26\text{-in}$
	$d_3 = 13.00\text{-in}$	$d_9 = -13.00\text{-in}$
	$d_4 = 11.26\text{-in}$	$d_{10} = -11.26\text{-in}$
	$d_5 = 6.50\text{-in}$	$d_{11} = -6.50\text{-in}$
	$d_6 = 0.00\text{-in}$	$d_{12} = -0.00\text{-in}$

Polar Moment of Inertia = $I_p := \sum_i (d_i)^2 = 1014\text{-in}^2$

Maximum Tensile Force = $T_{Max} := M_u \cdot \frac{R_{bc}}{I_p} - \frac{R_u}{N} = 2.3\text{-kips}$

Plate Check:

Design Bending Stress = $F_b := 0.9 \cdot F_{yf} = 32.4\text{-ksi}$

Moment Arm = $K := 3\text{-in}$

Effective Width of Plate for Bending (per bolt) = $B_{eff} := 6.75\text{-in}$

Moment in Plate = $M := K \cdot T_{Max} = 7.01\text{-kips-in}$

Plastic Modulus = $Z_{plt} := \frac{1}{4} \cdot B_{eff} \cdot t_{TP}^2 = 1.69\text{-in}^3$

Bending Stress = $f_b := \frac{M}{Z_{plt}} = 4.15\text{-ksi}$

Condition1 := if($f_b < F_b$, "OK", "Overstressed")

Condition1 = "OK"

Plate to Dunnage Frame Weld Check:

Design Weld Stress = $F_w := 0.45 \cdot F_{yw} = 31.5 \text{ ksi}$

Weld Area = $A_w := \frac{\pi}{4} \cdot \left[(D_p + 2sw \cdot 0.707)^2 - D_p^2 \right] = 13.55 \cdot \text{in}^2$

Weld Moment of Inertia = $I_w := \frac{\pi}{64} \cdot \left[(D_p + 2sw \cdot 0.707)^4 - D_p^4 \right] = 448.12 \cdot \text{in}^4$

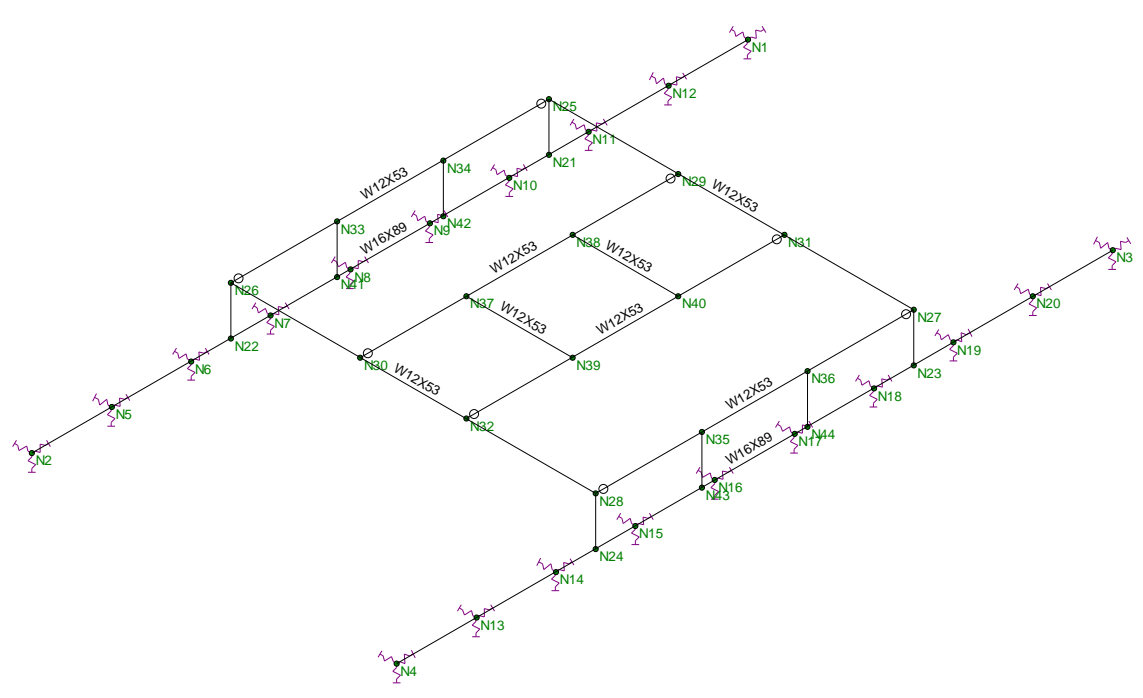
$c := \frac{D_p}{2} + sw \cdot 0.707 = 8.27 \cdot \text{in}$

Section Modulus of Weld = $S_w := \frac{I_w}{c} = 54.22 \cdot \text{in}^3$

Weld Stress = $f_w := \frac{M_u}{S_w} + \frac{\text{Shear}}{A_w} = 3.65 \text{ ksi}$

Condition2 := if($f_w < F_w$, "OK", "Overstressed")

Condition2 = "OK"



Envelope Only Solution

Centek Engineers	CT2074 - Flagpole Dunnage Member Framing	Nov 8, 2022 at 11:45 AM
TJL		Dunnage Frame.r3d
22113.00		

(Global) Model Settings

Display Sections for Member Calcs	5
Max Internal Sections for Member Calcs	97
Include Shear Deformation?	Yes
Increase Nailing Capacity for Wind?	Yes
Include Warping?	Yes
Trans Load Btwn Intersecting Wood Wall?	Yes
Area Load Mesh (in^2)	144
Merge Tolerance (in)	.12
P-Delta Analysis Tolerance	0.50%
Include P-Delta for Walls?	Yes
Automatically Iterate Stiffness for Walls?	Yes
Max Iterations for Wall Stiffness	3
Gravity Acceleration (ft/sec^2)	32.2
Wall Mesh Size (in)	12
Eigensolution Convergence Tol. (1.E-)	4
Vertical Axis	Y
Global Member Orientation Plane	XZ
Static Solver	Sparse Accelerated
Dynamic Solver	Accelerated Solver

Hot Rolled Steel Code	AISC 15th(360-16): ASD
Adjust Stiffness?	Yes(Iterative)
RISAConnection Code	AISC 14th(360-10): ASD
Cold Formed Steel Code	AISI S100-10: ASD
Wood Code	AWC NDS-12: ASD
Wood Temperature	< 100F
Concrete Code	ACI 318-11
Masonry Code	ACI 530-11: ASD
Aluminum Code	AA ADM1-10: ASD - Building
Stainless Steel Code	AISC 14th(360-10): ASD
Adjust Stiffness?	Yes(Iterative)

Number of Shear Regions	4
Region Spacing Increment (in)	4
Biaxial Column Method	Exact Integration
Parme Beta Factor (PCA)	.65
Concrete Stress Block	Rectangular
Use Cracked Sections?	Yes
Use Cracked Sections Slab?	Yes
Bad Framing Warnings?	No
Unused Force Warnings?	Yes
Min 1 Bar Diam. Spacing?	No
Concrete Rebar Set	REBAR_SET_ASTMA615
Min % Steel for Column	1
Max % Steel for Column	8

(Global) Model Settings, Continued

Seismic Code	ASCE 7-10
Seismic Base Elevation (ft)	Not Entered
Add Base Weight?	Yes
Ct X	.02
Ct Z	.02
T X (sec)	Not Entered
T Z (sec)	Not Entered
R X	3
R Z	3
Ct Exp. X	.75
Ct Exp. Z	.75
SD1	1
SDS	1
S1	1
TL (sec)	5
Risk Cat	I or II
Drift Cat	Other
Om Z	1
Om X	1
Cd Z	4
Cd X	4
Rho Z	1
Rho X	1
Footing Overturning Safety Factor	1
Optimize for OTM/Sliding	No
Check Concrete Bearing	No
Footing Concrete Weight (k/ft^3)	0
Footing Concrete f'c (ksi)	4
Footing Concrete Ec (ksi)	3644
Lambda	1
Footing Steel fy (ksi)	60
Minimum Steel	0.0018
Maximum Steel	0.0075
Footing Top Bar	#3
Footing Top Bar Cover (in)	2
Footing Bottom Bar	#3
Footing Bottom Bar Cover (in)	3.5
Pedestal Bar	#3
Pedestal Bar Cover (in)	1.5
Pedestal Ties	#3

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (\... Density[k/ft^3]	Yield[ksi]	Ry	Fu[ksi]	Rt	
1	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
2	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	58	1.2
3	A992	29000	11154	.3	.65	.49	50	1.1	58	1.2
4	A500 Gr.42	29000	11154	.3	.65	.49	42	1.3	58	1.1
5	A500 Gr.46	29000	11154	.3	.65	.49	46	1.2	58	1.1
6	FRP	2800	450	.35	.44	.11	16.67	1.5	50	1.3
7	A53 Grade B	29000	11154	.3	.65	.49	35	1.5	58	1.2

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design R...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	W16X89	W16X89	Beam	None	A36 Gr.36	Typical	26.2	163	1300	5.45
2	W12X53	W12X53	Beam	None	A36 Gr.36	Typical	15.6	95.8	425	1.58

Hot Rolled Steel Design Parameters

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[...Lcomp bot[...L-torq...	Kyy	Kzz	Cb	Funci...
1	M1	W16X89	18			Lbyy				Lateral
2	M2	W16X89	18			Lbyy				Lateral
3	M7	W12X53	9.17			Lbyy				Lateral
4	M8	W12X53	9.17			Lbyy				Lateral
5	M9	W12X53	8			Lbyy				Lateral
6	M10	W12X53	8			Lbyy				Lateral
7	M11	W12X53	8			Lbyy				Lateral
8	M12	W12X53	8			Lbyy				Lateral
9	M13	W12X53	2.67			Lbyy				Lateral
10	M14	W12X53	2.67			Lbyy				Lateral

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(...	Section/Shape	Type	Design List	Material	Design ...
1	M1	N2	N1			W16X89	Beam	None	A36 Gr.36	Typical
2	M2	N4	N3			W16X89	Beam	None	A36 Gr.36	Typical
3	M3	N25	N21			RIGID	None	None	RIGID	Typical
4	M4	N27	N23			RIGID	None	None	RIGID	Typical
5	M5	N28	N24			RIGID	None	None	RIGID	Typical
6	M6	N26	N22			RIGID	None	None	RIGID	Typical
7	M7	N26	N28			W12X53	Beam	None	A36 Gr.36	Typical
8	M8	N25	N27			W12X53	Beam	None	A36 Gr.36	Typical
9	M9	N26	N25			W12X53	Beam	None	A36 Gr.36	Typical
10	M10	N28	N27			W12X53	Beam	None	A36 Gr.36	Typical
11	M11	N30	N29			W12X53	Beam	None	A36 Gr.36	Typical
12	M12	N32	N31			W12X53	Beam	None	A36 Gr.36	Typical
13	M13	N37	N39			W12X53	Beam	None	A36 Gr.36	Typical
14	M14	N38	N40			W12X53	Beam	None	A36 Gr.36	Typical
15	M15	N33	N41			RIGID	None	None	RIGID	Typical
16	M16	N34	N42			RIGID	None	None	RIGID	Typical
17	M17	N35	N43			RIGID	None	None	RIGID	Typical
18	M18	N36	N44			RIGID	None	None	RIGID	Typical

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N1	0	0	0	0	
2	N2	0	0	18	0	
3	N3	9.17	0	0	0	
4	N4	9.17	0	18	0	
5	N5	0	0	16	0	
6	N6	0	0	14	0	
7	N7	0	0	12	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
8	N8	0	0	10	0	
9	N9	0	0	8	0	
10	N10	0	0	6	0	
11	N11	0	0	4	0	
12	N12	0	0	2	0	
13	N13	9.17	0	16	0	
14	N14	9.17	0	14	0	
15	N15	9.17	0	12	0	
16	N16	9.17	0	10	0	
17	N17	9.17	0	8	0	
18	N18	9.17	0	6	0	
19	N19	9.17	0	4	0	
20	N20	9.17	0	2	0	
21	N21	0	0	5	0	
22	N22	0	0	13	0	
23	N23	9.17	0	5	0	
24	N24	9.17	0	13	0	
25	N25	0	1.21	5	0	
26	N26	0	1.21	13	0	
27	N27	9.17	1.21	5	0	
28	N28	9.17	1.21	13	0	
29	N29	3.25	1.21	5	0	
30	N30	3.25	1.21	13	0	
31	N31	5.92	1.21	5	0	
32	N32	5.92	1.21	13	0	
33	N33	0	1.21	10.333333	0	
34	N34	0	1.21	7.666667	0	
35	N35	9.17	1.21	10.333333	0	
36	N36	9.17	1.21	7.666667	0	
37	N37	3.25	1.21	10.333333	0	
38	N38	3.25	1.21	7.666667	0	
39	N39	5.92	1.21	10.333333	0	
40	N40	5.92	1.21	7.666667	0	
41	N41	0	0	10.333333	0	
42	N42	0	0	7.666667	0	
43	N43	9.17	0	10.333333	0	
44	N44	9.17	0	7.666667	0	

Joint Boundary Conditions

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	N1	S500	S500	S500			
2	N2	S500	S500	S500			
3	N3	S500	S500	S500			
4	N4	S500	S500	S500			
5	N5	S500	S500	S500			
6	N6	S500	S500	S500			
7	N7	S500	S500	S500			
8	N8	S500	S500	S500			
9	N9	S500	S500	S500			
10	N10	S500	S500	S500			

Joint Boundary Conditions (Continued)

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
11	N11	S500	S500	S500			
12	N12	S500	S500	S500			
13	N13	S500	S500	S500			
14	N14	S500	S500	S500			
15	N15	S500	S500	S500			
16	N16	S500	S500	S500			
17	N17	S500	S500	S500			
18	N18	S500	S500	S500			
19	N19	S500	S500	S500			
20	N20	S500	S500	S500			

Member Point Loads (BLC 3 : Pole - Axial)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	M11	Y	-.5	%50
2	M12	Y	-.5	%50
3	M13	Y	-.5	%50
4	M14	Y	-.5	%50

Member Point Loads (BLC 4 : Pole - Loads X)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	M11	X	.75	%50
2	M12	X	.75	%50
3	M11	Y	6	%50
4	M12	Y	-6	%50

Member Point Loads (BLC 5 : Pole - Loads Z)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	M14	Z	.75	%50
2	M13	Z	.75	%50
3	M14	Y	6	%50
4	M13	Y	-6	%50

Member Distributed Loads (BLC 2 : Dead: Equip.)

	Member Label	Direction	Start Magnitude[k/ft,...]	End Magnitude[k/ft,F...]	Start Location[ft,%]	End Location[ft,%]
1	M7	Y	-.1	-.1	0	0
2	M9	Y	-.1	-.1	0	0

Basic Load Cases

	BLC Description	Category	X Gra...	Y Gra...	Z Gra...	Joint	Point	Distrib..	Area(... Surfa...
1	Dead: Self	DL		-1					
2	Dead: Equip.	DL						2	
3	Pole - Axial	DL					4		
4	Pole - Loads X	WLX					4		
5	Pole - Loads Z	WLZ					4		

Load Combinations

	Description	So...	P...	S...	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..
1	IBC 16-8	Yes	Y		DL	1									
2	IBC 16-9	Yes	Y		DL	1	LL	1	LLS	1					
3	IBC 16-12 (a) (a)	Yes	Y		DL	1	W...	.6							
4	IBC 16-12 (a) (b)	Yes	Y		DL	1	W...	.6							
5	IBC 16-13 (a) (a)	Yes	Y		DL	1	W...	.45	LL	.75	LLS	.75			
6	IBC 16-13 (a) (b)	Yes	Y		DL	1	W...	.45	LL	.75	LLS	.75			
7	IBC 16-15 (a)	Yes	Y		DL	.6	W...	.6							
8	IBC 16-15 (b)	Yes	Y		DL	.6	W...	.6							

Envelope Joint Reactions

	Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N1	max	-.012	7	.155	2	.014	2	0	8	0	8	0	8
2		min	-.032	1	.021	8	-.036	8	0	1	0	1	0	1
3	N2	max	-.018	7	.273	4	-.007	7	0	8	0	8	0	8
4		min	-.049	4	.094	7	-.06	4	0	1	0	1	0	1
5	N3	max	.04	3	.181	3	.012	3	0	8	0	8	0	8
6		min	.012	8	.021	8	-.039	8	0	1	0	1	0	1
7	N4	max	.05	3	.272	4	-.009	7	0	8	0	8	0	8
8		min	.033	8	.146	7	-.055	4	0	1	0	1	0	1
9	N5	max	.304	4	.563	4	-.007	7	0	8	0	8	0	8
10		min	.074	7	.179	7	-.061	4	0	1	0	1	0	1
11	N6	max	.673	4	.845	4	-.007	7	0	8	0	8	0	8
12		min	.179	7	.259	7	-.063	4	0	1	0	1	0	1
13	N7	max	.567	4	.896	4	-.005	7	0	8	0	8	0	8
14		min	.174	7	.296	7	-.057	4	0	1	0	1	0	1
15	N8	max	.253	4	.786	4	0	2	0	8	0	8	0	8
16		min	.088	7	.299	7	-.043	4	0	1	0	1	0	1
17	N9	max	.182	2	.715	2	.004	3	0	8	0	8	0	8
18		min	.068	7	.281	7	-.04	8	0	1	0	1	0	1
19	N10	max	.319	2	.681	2	.011	2	0	8	0	8	0	8
20		min	.042	8	.241	7	-.039	8	0	1	0	1	0	1
21	N11	max	.323	2	.575	2	.015	2	0	8	0	8	0	8
22		min	-.046	8	.187	8	-.038	8	0	1	0	1	0	1
23	N12	max	.132	2	.365	2	.014	2	0	8	0	8	0	8
24		min	-.045	8	.102	8	-.037	8	0	1	0	1	0	1
25	N13	max	-.141	7	.521	4	-.009	7	0	8	0	8	0	8
26		min	-.303	4	.331	7	-.056	4	0	1	0	1	0	1
27	N14	max	-.34	7	.759	4	-.009	7	0	8	0	8	0	8
28		min	-.672	4	.514	7	-.058	4	0	1	0	1	0	1
29	N15	max	-.328	7	.817	3	-.006	7	0	8	0	8	0	8
30		min	-.568	4	.514	8	-.052	4	0	1	0	1	0	1
31	N16	max	-.167	8	.743	3	.001	3	0	8	0	8	0	8
32		min	-.256	3	.398	8	-.042	8	0	1	0	1	0	1
33	N17	max	-.072	8	.714	3	.002	2	0	8	0	8	0	8
34		min	-.224	3	.299	8	-.041	8	0	1	0	1	0	1
35	N18	max	-.043	8	.726	3	.009	3	0	8	0	8	0	8
36		min	-.397	3	.211	8	-.042	8	0	1	0	1	0	1
37	N19	max	.046	8	.642	3	.012	3	0	8	0	8	0	8
38		min	-.403	3	.136	8	-.041	8	0	1	0	1	0	1



Envelope Joint Reactions (Continued)

	Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
39	N20	max	.046	8	.412	3	.012	3	0	8	0	8	0	8
40		min	-.165	3	.077	8	-.04	8	0	1	0	1	0	1
41	Totals:	max	0	8	9.882	4	0	7						
42		min	-.9	3	5.929	7	-.9	4						

Envelope Joint Displacements

	Joint		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC
1	N1	max	0	2	0	8	0	8	1.709e-05	2	3.012e-06	8	1.374e-06	8
2		min	0	7	0	1	0	1	5.314e-06	7	-1.303e-05	1	-5.999e-05	1
3	N2	max	0	4	0	7	0	4	-6.814e-06	7	2.843e-05	4	-3.806e-05	7
4		min	0	7	0	4	0	7	-2.278e-05	4	7.266e-06	7	-1.178e-04	4
5	N3	max	0	8	0	8	0	8	1.868e-05	3	1.628e-05	3	7.418e-05	3
6		min	0	3	0	3	0	3	5.049e-06	8	-3.04e-06	8	1.02e-06	8
7	N4	max	0	8	0	7	0	4	-1.294e-05	8	-1.382e-05	7	1.218e-04	4
8		min	0	3	0	4	0	7	-2.118e-05	3	-2.839e-05	4	6.085e-05	7
9	N5	max	0	7	0	7	0	4	-6.258e-06	7	3.219e-05	4	-3.806e-05	7
10		min	0	4	-.001	4	0	7	-2.075e-05	4	8.602e-06	7	-1.178e-04	4
11	N6	max	0	7	0	7	0	4	-4.245e-06	7	2.031e-05	4	-3.806e-05	7
12		min	-.001	4	-.002	4	0	7	-1.221e-05	1	6.979e-06	7	-1.178e-04	4
13	N7	max	0	7	0	7	0	4	4.334e-06	8	-7.37e-06	7	-3.5e-05	7
14		min	-.001	4	-.002	4	0	7	-1.724e-06	3	-3.059e-05	4	-9.917e-05	4
15	N8	max	0	7	0	7	0	4	7.205e-06	4	-4.371e-06	7	-2.963e-05	7
16		min	0	4	-.002	4	0	1	5.889e-07	7	-1.58e-05	4	-6.654e-05	4
17	N9	max	0	7	0	7	0	8	8.89e-06	4	5.399e-06	2	-2.802e-05	7
18		min	0	1	-.001	1	0	3	1.874e-06	7	-2.549e-06	8	-6.059e-05	1
19	N10	max	0	8	0	7	0	8	1.04e-05	4	1.21e-05	2	-1.104e-05	8
20		min	0	1	-.001	1	0	1	3.134e-06	7	-5.65e-06	8	-6.005e-05	1
21	N11	max	0	8	0	8	0	8	1.289e-05	4	-4.038e-06	8	1.374e-06	8
22		min	0	1	-.001	1	0	1	4.248e-06	7	-1.274e-05	1	-5.999e-05	1
23	N12	max	0	8	0	8	0	8	1.617e-05	2	2.108e-06	8	1.374e-06	8
24		min	0	1	0	1	0	1	5.019e-06	7	-1.548e-05	1	-5.999e-05	1
25	N13	max	0	4	0	7	0	4	-1.145e-05	8	-1.633e-05	7	1.218e-04	4
26		min	0	7	-.001	4	0	7	-1.958e-05	3	-3.216e-05	4	6.085e-05	7
27	N14	max	.001	4	-.001	7	0	4	-4.9e-06	8	-1.31e-05	7	1.218e-04	4
28		min	0	7	-.002	4	0	7	-1.237e-05	3	-2.038e-05	4	6.085e-05	7
29	N15	max	.001	4	-.001	8	0	4	5.678e-06	4	3.051e-05	4	1.032e-04	4
30		min	0	7	-.002	3	0	7	3.013e-07	7	1.379e-05	7	5.641e-05	7
31	N16	max	0	3	0	8	0	8	7.842e-06	4	1.579e-05	4	7.57e-05	3
32		min	0	8	-.001	3	0	3	1.245e-06	7	7.632e-06	7	4.367e-05	8
33	N17	max	0	3	0	8	0	8	8.254e-06	4	2.551e-06	8	7.3e-05	3
34		min	0	8	-.001	3	0	1	1.218e-06	7	-7.027e-06	3	3.555e-05	8
35	N18	max	0	3	0	8	0	8	8.4e-06	4	5.695e-06	8	7.357e-05	3
36		min	0	8	-.001	3	0	3	1.765e-06	7	-1.526e-05	3	1.346e-05	8
37	N19	max	0	3	0	8	0	8	1.238e-05	3	1.585e-05	3	7.418e-05	3
38		min	0	8	-.001	3	0	3	6.256e-06	8	4.078e-06	8	1.02e-06	8
39	N20	max	0	3	0	8	0	8	1.752e-05	3	1.932e-05	3	7.418e-05	3
40		min	0	8	0	3	0	3	5.193e-06	8	-2.127e-06	8	1.02e-06	8
41	N21	max	0	8	0	7	0	8	1.148e-05	4	4.842e-07	2	1.374e-06	8
42		min	0	1	-.001	1	0	1	3.397e-06	7	-1.123e-05	8	-5.999e-05	1
43	N22	max	0	7	0	7	0	4	8.434e-07	8	-4.694e-07	7	-3.806e-05	7



Envelope Joint Displacements (Continued)

Joint	X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC		
44	min	4	-.001	4	-.002	4	0	7	-5.264e-06	1	-1.298e-05	4	-1.178e-04	4
45	N23	max	0	3	0	8	0	8	9.284e-06	4	1.134e-05	8	7.418e-05	3
46	min	8	0	8	-.002	3	0	3	4.256e-06	7	-7.13e-07	3	1.02e-06	8
47	N24	max	.001	4	-.001	8	0	4	2.158e-06	8	1.281e-05	4	1.218e-04	4
48	min	7	0	7	-.002	3	0	7	-4.16e-06	3	1.176e-06	7	6.085e-05	7
49	N25	max	0	3	0	7	0	4	1.148e-05	4	4.842e-07	2	1.374e-06	8
50	min	8	0	8	-.001	1	0	7	3.397e-06	7	-1.123e-05	8	-5.999e-05	1
51	N26	max	0	4	0	7	0	8	8.434e-07	8	-4.694e-07	7	-3.806e-05	7
52	min	7	0	7	-.002	4	0	1	-5.264e-06	1	-1.298e-05	4	-1.178e-04	4
53	N27	max	0	8	0	8	0	4	9.284e-06	4	1.134e-05	8	7.418e-05	3
54	min	1	0	1	-.002	3	0	7	4.256e-06	7	-7.13e-07	3	1.02e-06	8
55	N28	max	0	7	-.001	8	0	8	2.158e-06	8	1.281e-05	4	1.218e-04	4
56	min	4	0	4	-.002	3	0	3	-4.16e-06	3	1.176e-06	7	6.085e-05	7
57	N29	max	0	3	0	8	.001	4	1.07e-05	4	1.152e-06	3	2.191e-06	8
58	min	8	0	8	-.005	1	0	1	3.701e-06	7	-2.526e-05	8	-5.883e-05	3
59	N30	max	0	3	-.003	7	.001	4	1.309e-06	8	-9.798e-07	7	-4.914e-05	2
60	min	1	0	1	-.008	4	0	7	-4.488e-06	1	-2.692e-05	4	-7.35e-05	4
61	N31	max	0	7	0	8	.001	4	1.006e-05	4	2.543e-05	8	4.093e-05	2
62	min	1	0	1	-.006	3	0	7	3.951e-06	7	-5.702e-07	1	2.034e-07	8
63	N32	max	0	7	-.004	7	.001	4	1.692e-06	8	2.663e-05	4	7.75e-05	4
64	min	4	0	4	-.008	4	0	1	-4.166e-06	3	2.177e-07	7	9.99e-06	7
65	N33	max	0	2	0	7	0	4	6.618e-06	4	-4.984e-06	7	-2.99e-05	7
66	min	8	0	8	-.002	4	0	7	3.019e-07	7	-1.701e-05	4	-6.808e-05	4
67	N34	max	0	4	0	7	0	4	9.105e-06	4	7.911e-06	2	-2.775e-05	7
68	min	7	0	7	-.001	1	0	7	2.081e-06	7	-4.765e-07	8	-6.014e-05	1
69	N35	max	0	8	0	8	0	4	7.506e-06	4	1.701e-05	4	7.615e-05	3
70	min	3	0	3	-.002	3	0	7	1.122e-06	7	9.158e-06	7	4.503e-05	8
71	N36	max	0	7	0	8	0	4	8.216e-06	4	4.795e-07	8	7.255e-05	3
72	min	4	0	4	-.001	3	0	7	1.261e-06	7	-9.994e-06	3	3.419e-05	8
73	N37	max	.002	7	.003	7	.002	4	8.811e-05	7	6.569e-07	2	-1.915e-06	2
74	min	4	0	4	-.01	4	0	7	-2.725e-05	1	-1.89e-05	7	-4.798e-04	3
75	N38	max	.002	7	.003	7	.002	4	1.149e-04	4	1.897e-05	7	2.224e-05	8
76	min	1	0	1	-.008	1	0	1	-7.179e-05	7	-3.011e-06	4	-4.798e-04	3
77	N39	max	.002	7	-.006	8	.002	4	4.407e-05	8	2.067e-06	8	2.929e-05	4
78	min	1	0	1	-.016	3	0	1	-1.317e-04	3	-1.996e-05	3	-4.744e-04	7
79	N40	max	.002	7	-.003	8	.002	4	1.589e-04	3	1.985e-05	3	5.896e-06	2
80	min	4	0	4	-.015	3	0	7	5.445e-05	1	5.572e-07	1	-4.744e-04	7
81	N41	max	0	7	0	7	0	4	6.618e-06	4	-4.984e-06	7	-2.99e-05	7
82	min	4	0	4	-.002	4	0	7	3.019e-07	7	-1.701e-05	4	-6.808e-05	4
83	N42	max	0	8	0	7	0	8	9.105e-06	4	7.911e-06	2	-2.775e-05	7
84	min	1	0	1	-.001	1	0	3	2.081e-06	7	-4.765e-07	8	-6.014e-05	1
85	N43	max	0	4	0	8	0	8	7.506e-06	4	1.701e-05	4	7.615e-05	3
86	min	7	0	7	-.002	3	0	3	1.122e-06	7	9.158e-06	7	4.503e-05	8
87	N44	max	0	3	0	8	0	8	8.216e-06	4	4.795e-07	8	7.255e-05	3
88	min	8	0	8	-.001	3	0	1	1.261e-06	7	-9.994e-06	3	3.419e-05	8

Envelope AISC 15th(360-16): ASD Steel Code Checks

Memb...	Shape	Code Check	L...	LC	Sh...L...	Dir	...Pnc/o...	Pnt/o...	Mnyy/om [k-ft]	Mn...	Cb	Eqn
1	M1	W16X89	.023	4...	4	.010	4...	y	4 380.5...	564.79	86.407	314...2...H1...
2	M2	W16X89	.022	4...	4	.010	6	y	4 380.5...	564.79	86.407	314...2...H1...



Company : Centek Engineers
 Designer : TJJ
 Job Number : 22113.00
 Model Name : CT2074 - Flagpole Dunnage

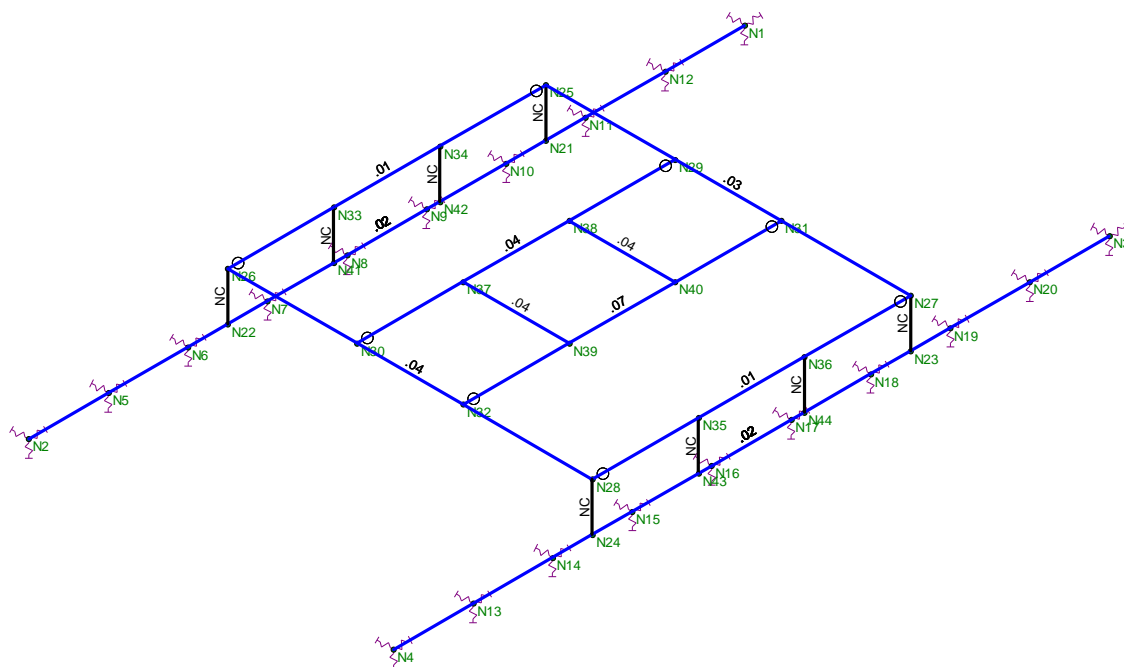
Apr 6, 2023
 11:18 AM
 Checked By: _____

Envelope AISC 15th(360-16): ASD Steel Code Checks (Continued)

Memb...	Shape	Code Check	L...	LC	Sh...L...	Dir	...Pnc/o...Pnt/o...	Mnyy/om [k-ft]	Mn...	Cb	Eqn
3	M7	W12X53	.037	4...	4	.0359...	y 4 303.13336.287	52.275	139...	1...	H1..
4	M8	W12X53	.028	5...	3	.0279...	y 3 303.13336.287	52.275	139...	1...	H1..
5	M9	W12X53	.008	2...	4	.0062...	y 4 310.7...336.287	52.275	139...	2...	H1..
6	M10	W12X53	.007	2...	4	.0042...	y 4 310.7...336.287	52.275	139...	2...	H1..
7	M11	W12X53	.045	4	7	.0335...	y 7 310.7...336.287	52.275	139...	1...	H1..
8	M12	W12X53	.071	4	3	.050 0	y 3 310.7...336.287	52.275	139...	1...	H1..
9	M13	W12X53	.042	2...	3	.0352...	y 4 333.3...336.287	52.275	139...	1...	H1..
10	M14	W12X53	.042	2...	3	.0271...	y 8 333.3...336.287	52.275	139...	1...	H1..



Code Check (Env)	
Black	No Calc
Red	> 1.0
Magenta	.90-1.0
Green	.75-.90
Cyan	.50-.75
Blue	0-.50



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

Centek Engineers	CT2074 - Flagpole Dunnage Unity Check	Apr 6, 2023 at 11:19 AM
TJL		Dunnage Frame.r3d
22113.00		

Equipment & Flagpole Platform Reactions	
Total Load =	280 lbf
Roof Level Considered Loads	
Dead Load=	25 psf
Snow Load=	30 psf
Floor Level Considered Loads	
Dead Load=	40 psf
Live Load=	100 psf

Tributary Width 16.5 ft

Loads Carried by CMU Bearing Wall

Floor/Roof Level	Load (plf)	Size	Capacity (plf)	Total Load (lbs)	% Usage	Results
Roof	908	8" CMU	9290*	1,188	13%	Wall. Okay
3rd	2,310	8" CMU	9290*	3,498	38%	Wall. Okay
2nd	2,310	8" CMU	9290*	5,808	63%	Wall. Okay

Wall Capacity based on 8" unreinforced CMU loadbearing wall. F'm = 1500 psi . Wall Height = 10-ft



Town of Hamden, CT

Property Listing Report

Map Block Lot

2830-012-00-0000

Building # 1

PID 100470

Account

100470

Property Information

Property Location	2798 WHITNEY AVE
Owner	WHITNEY MANOR REALTY LLC
Co-Owner	na
Mailing Address	400 RELLA BLVD STE 200 MONTEBELLO NY 10901
Land Use	3040 SNF/ALF/ILF M94
Land Class	C
Zoning Code	R4T3
Census Tract	

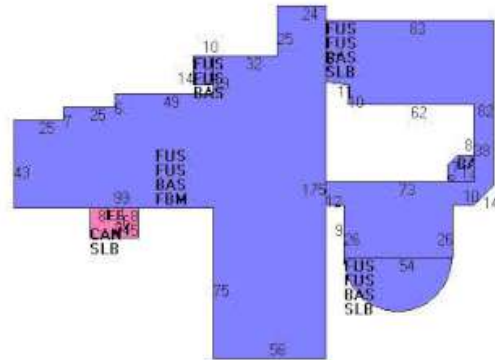
Photo



2830-012-00-0000 10/25/2015

Neighborhood	110
Acreage	2.86
Utilities	All Public
Lot Setting/Desc	Urban Level
Book / Page	4520/0259
Additional Info	

Sketch



Primary Construction Details

Year Built	1979
Building Desc.	SNF/ALF/ILF M94
Building Style	Nursing (SNF)
Building Grade	C +
Stories	3
Occupancy	150.00
Exterior Walls	Stucco on Wood
Exterior Walls 2	Brick Veneer
Roof Style	Flat
Roof Cover	T&G/Rubber
Interior Walls	Drywall
Interior Walls 2	NA
Interior Floors 1	Vinyl/Asphalt
Interior Floors 2	Carpet

Heating Fuel	Gas
Heating Type	Hot Water
AC Type	Heat Pump
Bedrooms	0
Full Bathrooms	0
Half Bathrooms	0
Extra Fixtures	0
Total Rooms	0
Bath Style	NA
Kitchen Style	NA
Fin Bsmt Area	
Fin Bsmt Quality	
Bsmt Gar	0
Fireplaces	0

(*Industrial / Commercial Details)

Building Use	Comm/Ind
Building Condition	G
Sprinkler %	NA
Heat / AC	HEAT/AC PKGS
Frame Type	STEEL
Baths / Plumbing	AVERAGE
Ceiling / Wall	SUS-CEIL & WL
Rooms / Prtns	AVERAGE
Wall Height	
First Floor Use	NA
Foundation	NA



Town of Hamden, CT

Property Listing Report

Map Block Lot

2830-012-00-0000

Building # 1

PID 100470

Account

100470

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

Item	Appraised	Assessed	Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
Buildings		1126790	First Floor	21612	21612
Extras	270400	189280	Canopy	312	0
Improvements			Basement, Finished	14069	0
Outbuildings	259100	181370	Porch, Enclosed	48	0
Land	2106000	1474200	Upper Story, Finished	42909	42909
Total	4245200	2971640	Slab	7558	0

Outbuilding and Extra Features

Type	Description
PAVING-ASPHALT	5000 S.F.
LIGHTS-IN W/PL	7 UNITS
PASS ELEV	4 STOPS
PASS ELEV	4 STOPS
PASS ELEV	3 STOPS
CELL SITE	1 UNITS
SPRINKLERS-WET	78947 S.F.
W/FOUR LIGHTS	1 UNITS

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
First Floor	21612	21612
Canopy	312	0
Basement, Finished	14069	0
Porch, Enclosed	48	0
Upper Story, Finished	42909	42909
Slab	7558	0
Total Area	86508	64521

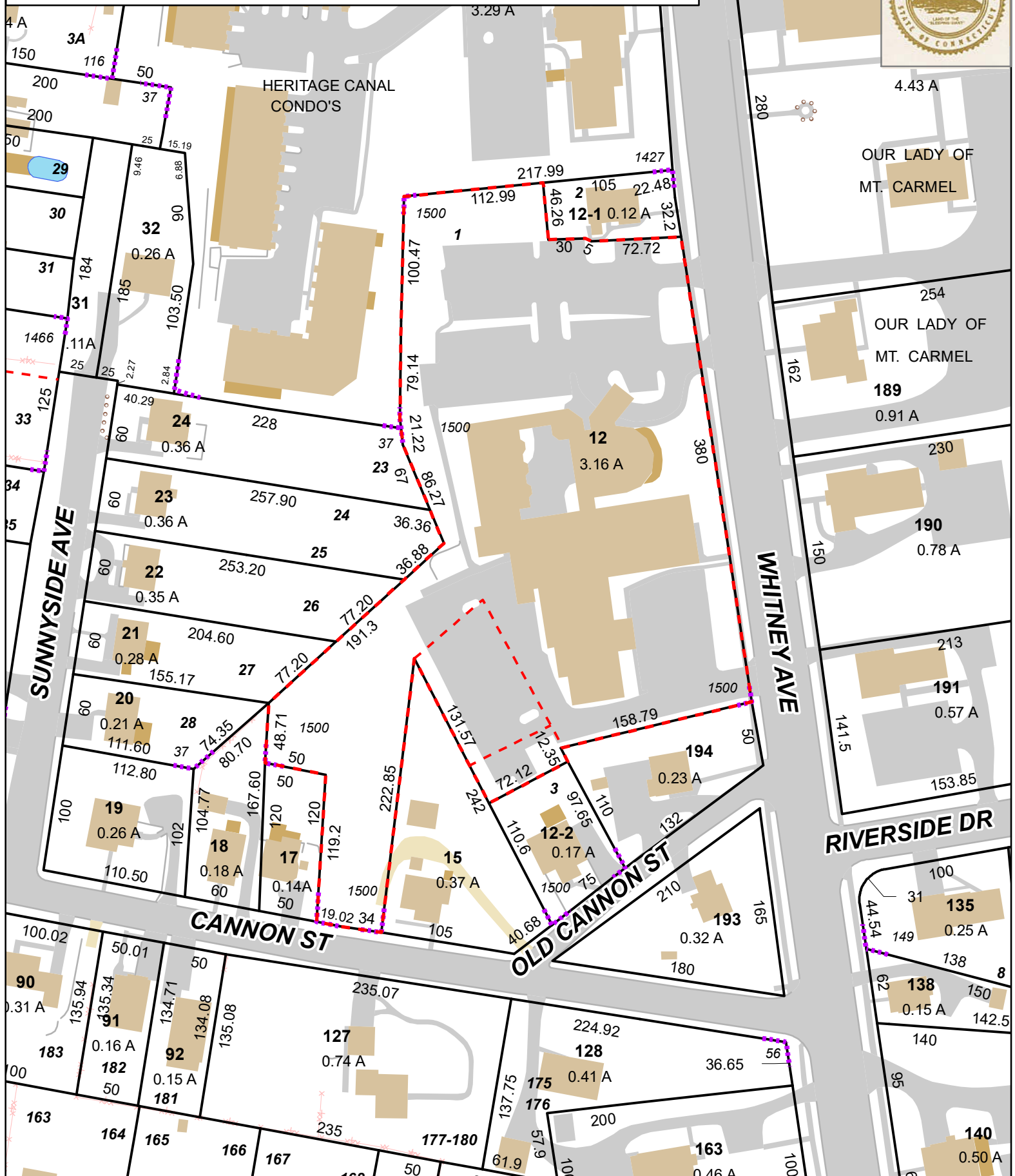
Sales History

Owner of Record	Book/ Page	Sale Date	Sale Price
WHITNEY MANOR REALTY LLC	4520/0259	2018-06-12	0
WHITNEY MANOR REALTY LLC	4210/0305	2015-03-27	7500000
AMKRAUT-VUOLO REALTY ASSOCIATES LLC	2030/0031	2001-03-07	0
AMKRAUT VUOLO ASSOCIATES	1784/0107	1998-10-14	1
AMKRAUT LAWRENCE & VUOLO	0663/0845	1981-01-09	0

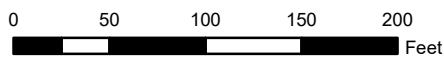
Town of Hamden, Connecticut - Assessment Parcel Map

Parcel: 2830-012-00-0000

Address: 2798 WHITNEY AVE



Approximate Scale: 1 inch = 100 feet



Map Produced: February 2023

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

TOWN OF HAMDEN
PLANNING AND ZONING COMMISSION

SITE PLAN NO. 06-1399

The Zoning Section, Hamden Planning and Zoning Commission hereby gives notice of a Site Plan Approval in accordance with the Hamden Zoning Regulations to permit the following use:

Stealth Personal Wireless Facility

At the following location: 2798 Whitney Avenue

Property owned by: Amkraut-Vuolo Realty Associates
Applicant: Cingular Wireless PCS, LLC


This Site Plan was granted at it's meeting of April 25, 2006, the permit is approved with the following conditions:

1. The Class D/Abutters Map be properly certified, as well as signed and sealed by a licensed land surveyor.
2. The flagpole have a flag, be lit at night and that a lighting plan be submitted for the approval of the Town Planner.

Dated this 9th day of May, 2006.

Planning and Zoning Commission
Town of Hamden

By:


Town Planner

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Expected Delivery by

MONDAY

22

April
2024 ⓘ

by

9:00pm ⓘ

Feedback

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MONDAY

22

 April 2024 ⓘ

by

9:00pm

 ⓘ

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[Add to Informed Delivery](#)

(<https://informedelivery.usps.com/>)

Expected Delivery by

MONDAY

22

April
2024 ⓘ

by

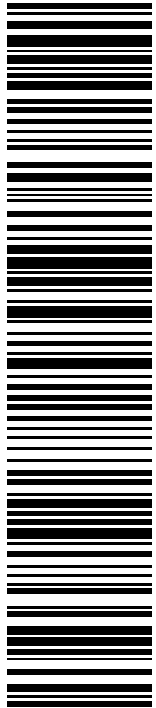
9:00pm ⓘ

Feedback

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TOWN OF HAMDEN
HON. LAUREN GARRETT MAYOR EUGENE LIVSH
2750 DIXWELL AVE
HAMDEN CT 06518-3320

SAI GROUP
 HOLLIS M REDDING
 12 INDUSTRIAL WAY
 SALEM NH 03079-2837

P

PRIORITY MAIL®

04/22/2024

RDC 02
C052

04/20/2024

Mailed from 03079 406934476171105


usps.com 9405 8301 0935 5089 0765 43 0085 0001 0000 65 18


US POSTAGE \$8.50

Insured

Click-N-Ship®

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Cut on dotted line.

Instructions

1. Please use a laser or laser-quality printer.
2. Adhere shipping label to package with tape or glue - DO NOT TAPE OVER BARCODE. Be sure all edges are secure. Self-adhesive label is recommended.
3. Place label so that it does not wrap around the edge of the package.
4. Each shipping label number is unique and can be used only once - DO NOT PHOTOCOPIY.
5. Please use this shipping label on the "ship date" selected when you requested the label.
6. If a mailing receipt is required, present the article and Online e-Label Record at a Post Office for postmark.

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Print Date: 2024-04-19	PRIORITY MAIL®	\$8.50
Ship Date: 2024-04-20	Extra Services:	\$0.00
	Fees:	\$0.00
	Total:	\$8.50

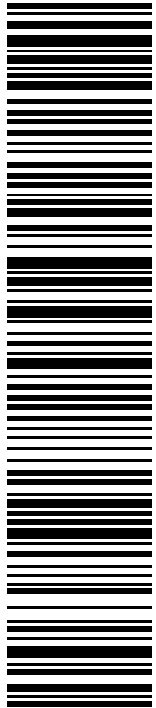
From: SAI GROUP
 HOLLIS M REDDING
 12 INDUSTRIAL WAY
 SALEM NH 03079-2837

To: TOWN OF HAMDEN
 HON. LAUREN GARRETT MAYOR EUGENE LIVSH
 2750 DIXWELL AVE
 HAMDEN CT 06518-3320

* Commercial Pricing PRIORITY MAIL® rates apply. There is no fee for USPS Tracking® service on PRIORITY MAIL® service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.




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WHITNEY MANOR REALTY LLC
STE 200
400 RELLA BLVD
MONTEBELLO NY 10901-4239

P

PRIORITY MAIL®

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RDC 02
C023


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Mailed from 03079 675297318437748



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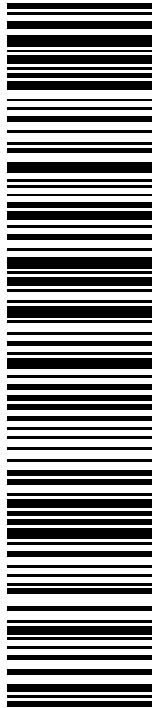
From: SAI GROUP
HOLLIS M REDDING
12 INDUSTRIAL WAY
SALEM NH 03079-2837

To: WHITNEY MANOR REALTY LLC
STE 200
400 RELLA BLVD
MONTEBELLO NY 10901-4239

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SAI GROUP
 HOLLIS M REDDING
 12 INDUSTRIAL WAY
 SALEM NH 03079-2837

04/22/2024
RDC 02
C036

SBA COMMUNICATIONS CORP
 8051 CONGRESS AVE
 BOCA RATON FL 33487-1307



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2. Adhere shipping label to package with tape or glue - DO NOT TAPE OVER BARCODE. Be sure all edges are secure. Self-adhesive label is recommended.
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9405 8301 0935 5089 0765 50

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Ship Date: 2024-04-20	Extra Services:	\$0.00
	Fees:	\$0.00
	Total:	\$8.50

From: SAI GROUP
 HOLLIS M REDDING
 12 INDUSTRIAL WAY
 SALEM NH 03079-2837

To:

SBA COMMUNICATIONS CORP
 8051 CONGRESS AVE
 BOCA RATON FL 33487-1307

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