October 3, 2022

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

Regarding: Notice of Exempt Modification – AT&T Site CT1083 / FA# 10035111
Address: 2108 Main Street, Glastonbury, CT 06033

Dear Ms. Bachman:

New Cingular Wireless, PCS, LLC ("AT&T") currently maintains a wireless telecommunications facility on an existing +/- 170' self-support tower at the above-referenced address, latitude 41.7062139, longitude -72.6069161. Said self-support tower is owned by the Town of Glastonbury.

AT&T desires to modify its existing telecommunications facility by swapping six (6) antennas, adding three (3) antennas, swapping three (3) remote radio units (RRUS), removing three (3) remote radio units (RRUS), and swapping one (1) surge arrestor and accompanying feedlines, as more particularly detailed and described on the enclosed Construction Drawings prepared by Hudson Design Group, last revised August 30, 2022. The centerline height of the existing antennas is and will remain at 166 feet. 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 off at various times.

Please accept this letter as notification pursuant to 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 R.C.S.A. § 16-50j-73, a copy of this letter is being sent to the following individuals: The Honorable Richard J. Johnson, Town Manager of the Town of Glastonbury, as elected official, Lincoln White, Zoning Enforcement Officer of the Town of Glastonbury, Jonathan Mullen, Town Planner of the Town of Glastonbury, and the Town of Glastonbury, as tower operator and property owner.

The planned modifications to the facility fall 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. *Please see the RF emissions calculation for AT&T's modified facility enclosed herewith.*

5. The proposed modifications will not cause an ineligible change or alteration in the physical or environmental characteristics of the site.

6. The existing structure and its foundation can support the proposed loading. *Please see the structural analysis dated September 20, 2022, and prepared by Tectonic Engineering Consultants, enclosed herewith.*

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

Sincerely,

Evan Renwick

Evan Renwick
Site Acquisition Specialist
Centerline Communications, LLC
750 West Center Street, Suite 301
West Bridgewater, MA 02379
erenwick@clinellc.com

Enclosures: Exhibit 1 – Construction Drawings
Exhibit 2 – Property Card and GIS
Exhibit 3 – Structural Analysis
Exhibit 4 – Mount Analysis
Exhibit 5 – RF Emissions Analysis Report Evaluation
Exhibit 6 – Original Tower Approval
Exhibit 7 – Notice Delivery Confirmations

Cc: The Honorable Richard J. Johnson, Town Manager, Town of Glastonbury, elected official
Lincoln White, Zoning Enforcement Officer, Town of Glastonbury
Jonathan Mullen, Town Planner, Town of Glastonbury
Town of Glastonbury, as tower operator and property owner

EXHIBIT 1

PROJECT INFORMATION

SCOPE OF WORK:

ITEMS TO BE MOUNTED ON THE EXISTING SELF SUPPORT:
- NEW AT&T ANTENNAS: QD6616-7 (TYP. OF 1 PER ALPHA & BETA SECTORS, TOTAL OF 2).
- NEW AT&T ANTENNAS: QD8616-7 (GAMMA SECTOR, TOTAL OF 1).
- NEW AT&T DUAL ANTENNAS: (AIR 6419 B77G) POS 3 (TYP. 1 PER SECTOR, TOTAL OF 3) (STACKED) (TOP).
- NEW AT&T DUAL ANTENNAS: (AIR 6449 B77D) POS 3 (TYP. 1 PER SECTOR, TOTAL OF 3) (STACKED) (BOTTOM).
- NEW AT&T RRUS: 4449 B5/B12 (700) @ POS. 4 (TYP. 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T SURGE ARRESTOR: DC9-48-60-24-8C-EV (TOTAL OF 1).
- NEW AT&T (3) Y-CABLES
- NEW AT&T (3) 6 AWG DC POWER CABLES & (1) 24 PAIRS OF FIBER RUNS.
- RELOCATED EXISTING AT&T ANTENNA: 800-10965 @ POS. 4 (TYP. OF 1 PER ALPHA & BETA SECTORS, TOTAL OF 2).
- RELOCATED EXISTING AT&T ANTENNA: 800-10966 @ POS. 4 (GAMMA SECTOR, TOTAL OF 1).
- NEW AT&T (2) 6 AWG DC POWER CABLES TO REPLACE EXISTING (2) 8 AWG DC TRUNKS

ITEMS TO BE MOUNTED IN EQUIPMENT LOCATION:
- INSTALL (1) 6648 +XCEDE CABLE.
  -FINAL=1x5216-XMU+1x6630+IDLe.
- ADD (3) NEW RECTIFIERS FOR TOTAL (10) RECTIFIERS

ITEMS TO BE REMOVED:
- DECOMMISSION EXISTING AT&T ANTENNA: OPA-65R-LCUU-H6 (TYP. OF 2 PER ALPHA & BETA SECTOR, TOTAL OF 4).
- DECOMMISSION EXISTING AT&T ANTENNA: OPA-65R-LCUU-H8 (TYP. OF 2 PER GAMMA SECTOR, TOTAL OF 2).
- DECOMMISSION EXISTING AT&T TRIPLEXERS: TPX-070821 (TYP. OF 4 PER SECTOR, TOTAL OF 12).
- DECOMMISSION EXISTING AT&T RRUS-11 B12 (TYP. OF 1 PER SECTOR, TOTAL OF 3)
- DECOMMISSION EXISTING AT&T RRUS-4478 B5 (TYP. OF 1 PER SECTOR, TOTAL OF 3)
- DECOMMISSION EXISTING AT&T (6) 1-1/4" COAX CABLES.
- DECOMMISSION EXISTING AT&T DC6 SURGE ARRESTOR (TOTAL OF 1)
- DECOMMISSION EXISTING (2) 8 AWG DC TRUNKS

ITEMS TO REMAIN:
- (3) ANTENNAS, (15) RRU'S, (2) SURGE ARRESTOR, (6) 1-1/4" COAX CABLES, (4) DC POWER & (2) FIBER.

SITE ADDRESS:	GLASTONBURY POLICE DEPARTMENT GLASTONBURY, CT 06033
LATITUDE:	41.7062139° N, 41° 42' 22.37" N
LONGITUDE:	-72.6069161° W, 72° 36' 24.89" W
TYPE OF SITE:	SELF SUPPORT TOWER / INDOOR EQUIPMENT
STRUCTURE HEIGHT:	170'-0"±
RAD CENTER:	166'-0"±
CURRENT USE:	TELECOMMUNICATIONS FACILITY
PROPOSED USE:	TELECOMMUNICATIONS FACILITY

DRAWING INDEX

ISSUED FOR PERMITTING

SITE NUMBER: CTL01083

SITE NAME: GLASTONBURY PD

FA CODE: 10035111

PACE ID: MRCTB062515, MRCTB057900, MRCTB057753, MRCTB058148, MRCTB052352, MRCTB050834, MRCTB050977, MRCTB050960

PROJECT: ANTENNA MODIFICATIONS, 5G NR ACTIVATION, 5G NR SOFTWARE RADIO, 5G NR RADIO, BBU RECONFIG., 5G NR 1SR CBAND, 4TXRX ANTENNA RETROFIT, 2022 UPGRADE

VICINITY MAP

DIRECTIONS TO SITE:
HEAD SOUTHWEST, TURN RIGHT TOWARD LEGGATT MCCALL CONN, TURN LEFT ONTO LEGGATT MCCALL CONN, CONTINUE ONTO BURR ST, TURN LEFT ONTO COCHITUATE RD, USE THE RIGHT LANE TO MERGE WITH I-90 W VIA THE RAMP TO SPRINGFIELD, MERGE WITH I-90 W, TAKE EXIT 78 TOWARD I-84, CONTINUE ONTO I-84, ENTERING CONNECTICUT, TAKE EXIT 55 ON THE LEFT FOR CT-2 E TOWARD NORWICH, CONTINUE ONTO CT-2 E, TAKE EXIT 7 ON THE LEFT FOR CT-17 S TOWARD PORTLAND, CONTINUE ONTO CT-17 S/GLASTONBURY EXPY, TAKE THE EXIT TOWARD GLASTONBURY CENTER, MERGE WITH NEW LONDON TURNPIKE, TURN LEFT ONTO DOUGLAS RD, TURN LEFT ONTO MAIN ST, TURN LEFT, TURN RIGHT, DESTINATION WILL BE ON THE RIGHT.

GENERAL NOTES

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

72 HOURS

CALL
BEFORE YOU DIG
CALL TOLL FREE 1-800-922-4455
OR CALL 811

UNDERGROUND SERVICE ALERT

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

CENTERLINE COMMUNICATIONS
750 WEST CENTER STREET, SUITE #301
WEST BRIDGEWATER, MA 02379

SITE NUMBER: CTL01083
SITE NAME: GLASTONBURY PD

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SCALE: AS SHOWN | DESIGNED BY: AT | DRAWN BY: VS

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

AT&T

TITLE SHEET
ANTENNA MODIFICATIONS, 5G NR ACTIVATION, 5G NR SOFTWARE RADIO, 5G NR RADIO, BBU RECONFIG., 5G NR 1SR CBAND, 4TXRX ANTENNA RETROFIT, 2022 UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CTL01083	T-1	B

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 – CENTERLINE
   SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
   OWNER – AT&T MOBILITY

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

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

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

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

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

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

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

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

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

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

12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.

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

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

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

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

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

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

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

20. **APPLICABLE BUILDING CODES:**
    SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.

    BUILDING CODE: IBC 2015 WITH 2018 CT STATE BUILDING CODE AMENDMENTS
    ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE (NFPA 70-2017)

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

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

    AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION, ASD, FOURTEENTH EDITION;

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

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

ABBREVIATIONS

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

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

CENTERLINE COMMUNICATIONS
750 WEST CENTER STREET, SUITE #301
WEST BRIDGEWATER, MA 02379

SITE NUMBER: CTL01083
SITE NAME: GLASTONBURY PD

GLASTONBURY POLICE DEPARTMENT
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HARTFORD COUNTY

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SCALE: AS SHOWN | DESIGNED BY: AT | DRAWN BY: VS

STATE OF CONNECTICUT · DANIEL P. HAMM · NO. 24178 · LICENSED PROFESSIONAL ENGINEER

AT&T

GENERAL NOTES
5G ANTENNA MODIFICATIONS, 5G NR ACTIVATION, 5G NR SOFTWARE RADIO, 5G NR RADIO, BBU RECONFIG, 5G NR 1SR CBAND, 4TXRX ANTENNA RETROFIT 2022 UPGRADE

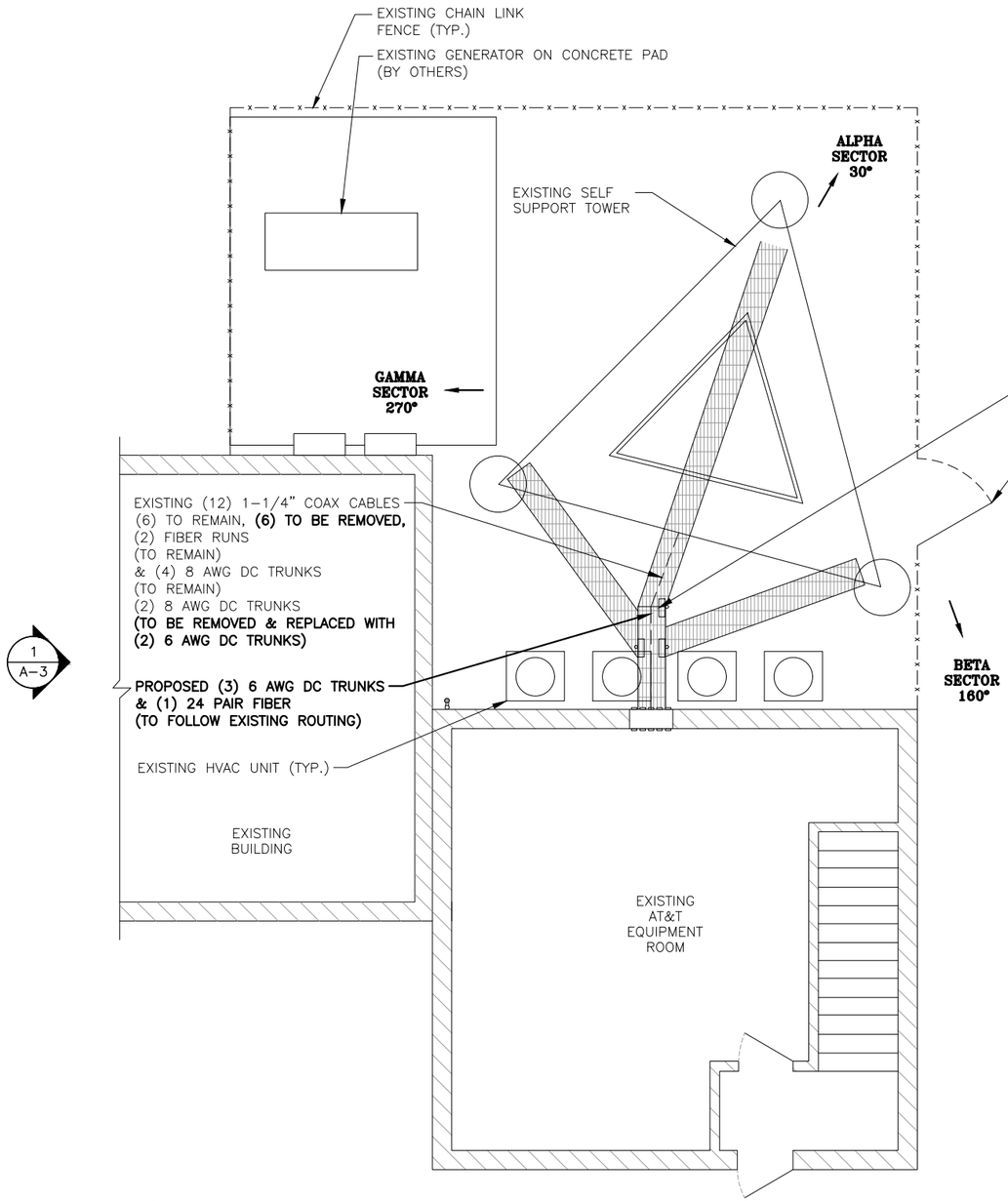
SITE NUMBER	DRAWING NUMBER	REV
CTL01083	GN-1	B

NOTE:

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

NOTE:

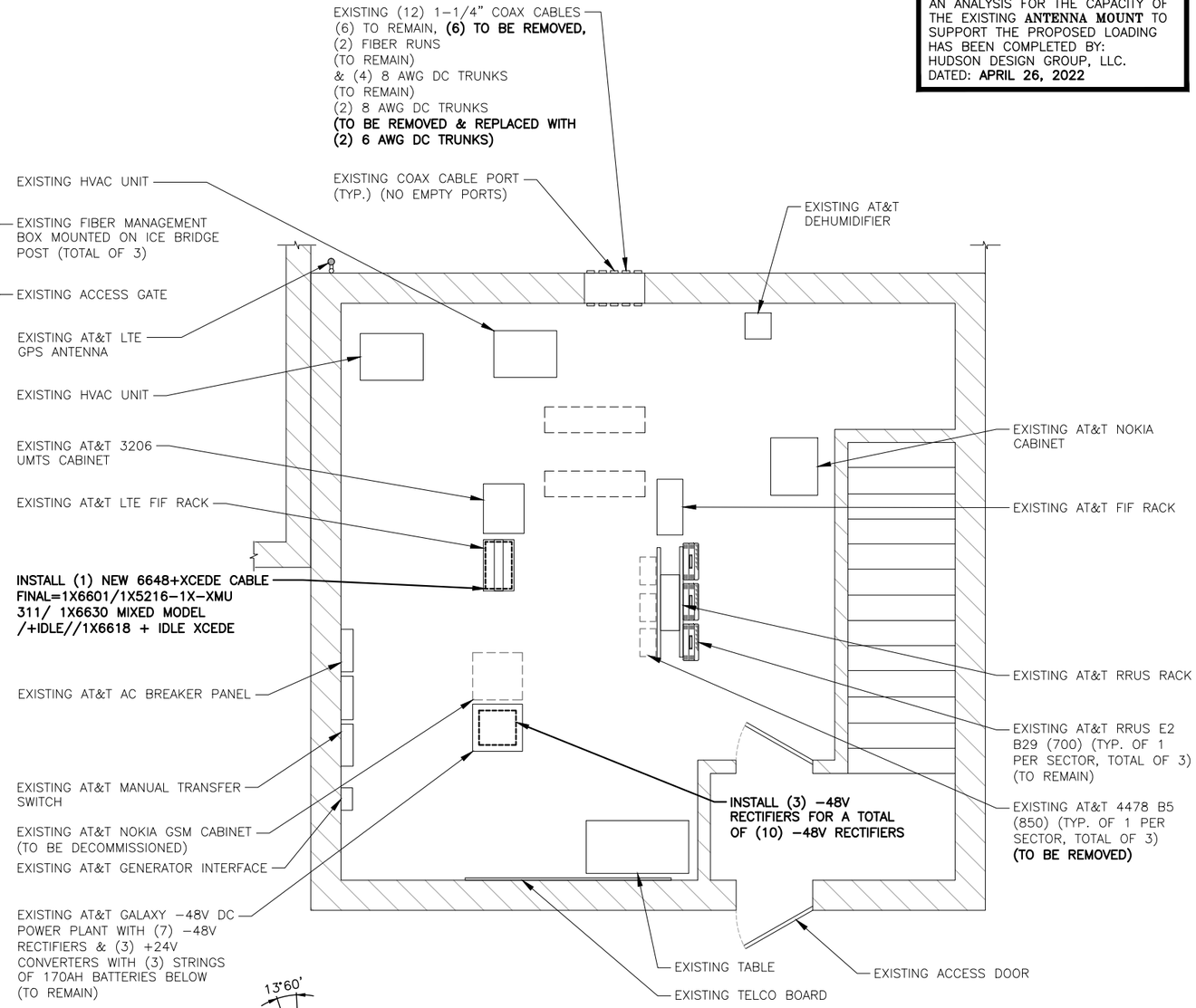
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING **ANTENNA MOUNT** TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY:
HUDSON DESIGN GROUP, LLC.
DATED: **APRIL 26, 2022**



COMPOUND PLAN

1 A-1

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



EQUIPMENT PLAN

2 A-1

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

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SCALE: AS SHOWN | DESIGNED BY: AT | DRAWN BY: VS

STATE OF CONNECTICUT
DANIEL P. HAMM
No. 21178
LICENSED PROFESSIONAL ENGINEER

AT&T

COMPOUND & EQUIPMENT PLANS
ANTENNA MODIFICATIONS, 5G NR ACTIVATION, 5G NR SOFTWARE RADIO, 5G NR RADIO, BBU RECONFIG, 5G NR 1SR CBAND, 4TXRX ANTENNA RETROFIT 2022 UPGRADE

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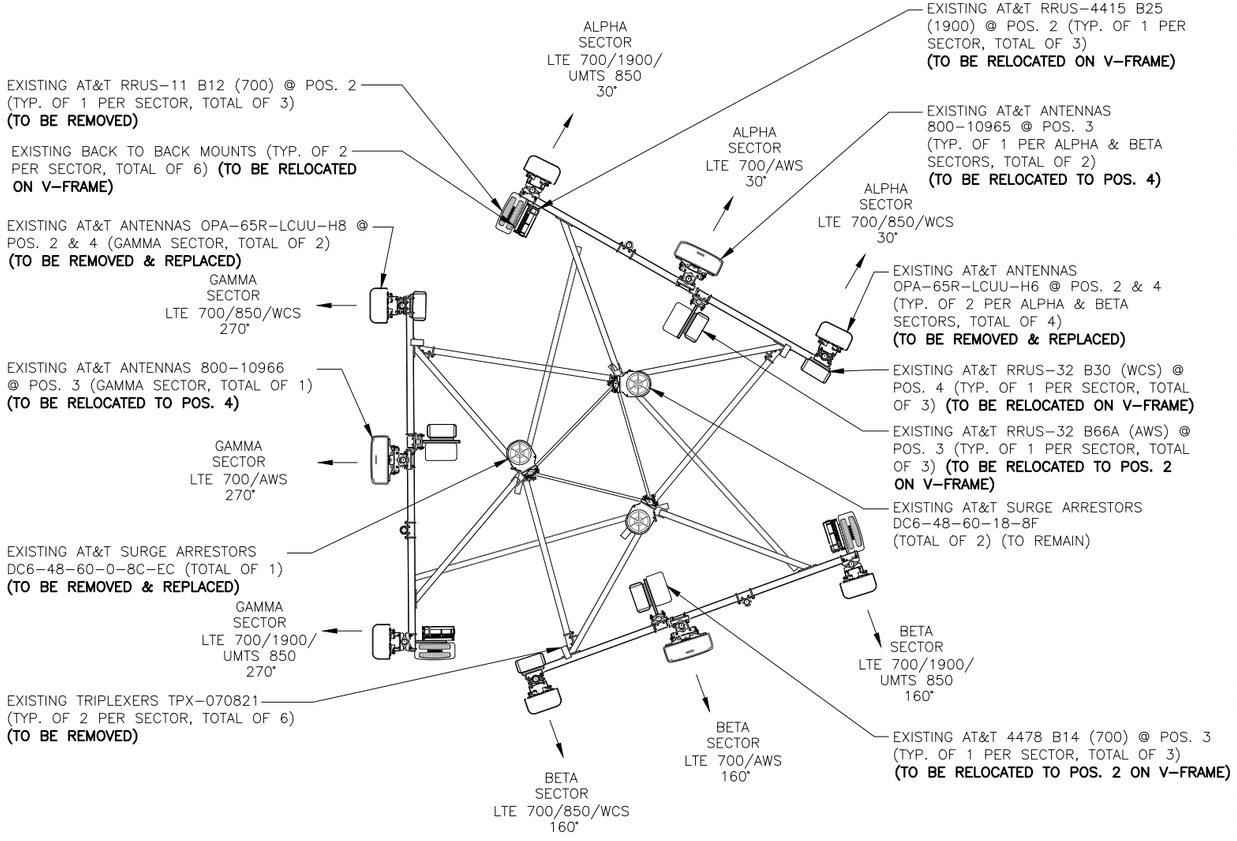
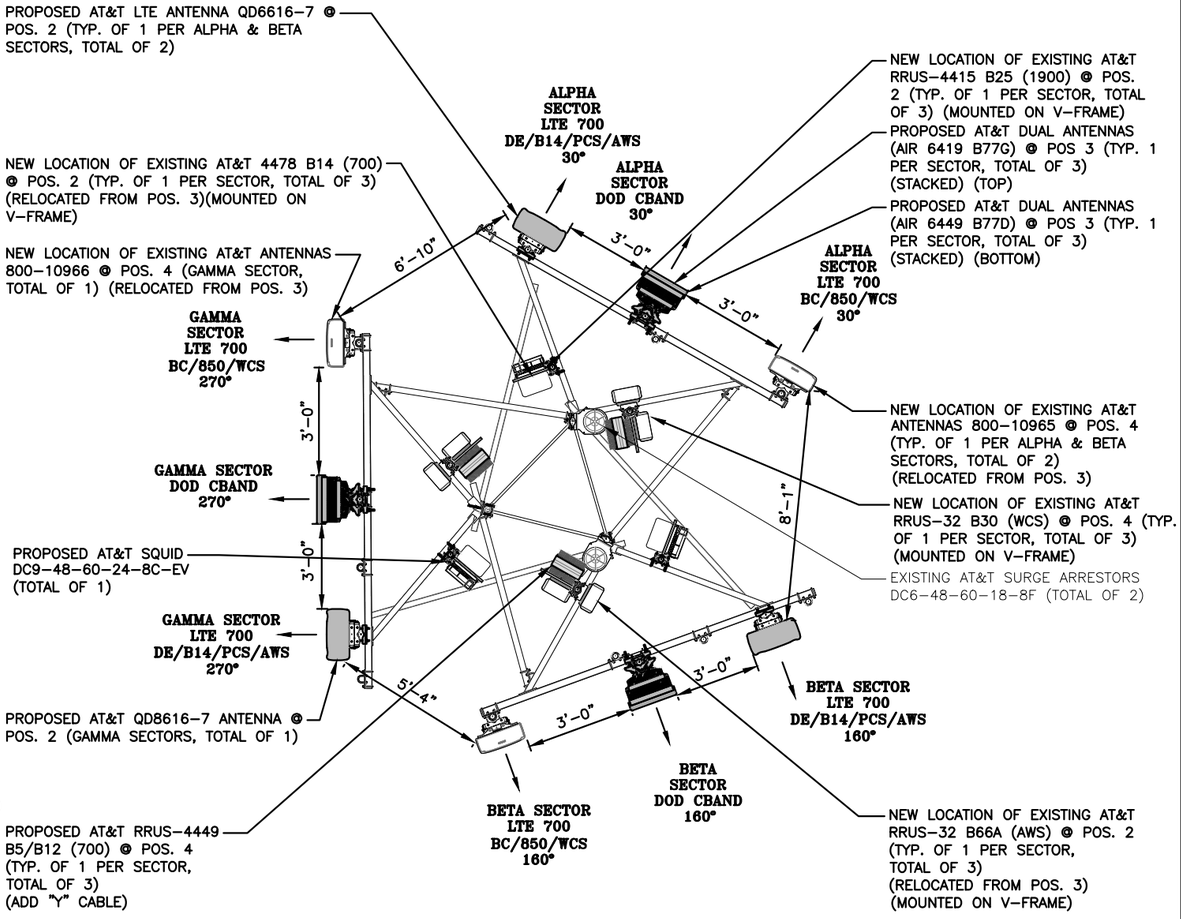
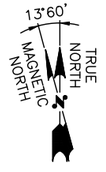
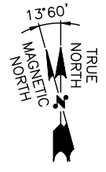






EXISTING ANTENNA PLAN (1 / A-2)
22x34 SCALE: 3/8"=1'-0"
11x17 SCALE: 3/16"=1'-0"
0 5'-4" 10'-8" 21'-4" 32'-0"



PROPOSED ANTENNA PLAN (2 / A-2)
22x34 SCALE: 3/8"=1'-0"
11x17 SCALE: 3/16"=1'-0"
0 5'-4" 10'-8" 21'-4" 32'-0"

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

CENTERLINE COMMUNICATIONS
750 WEST CENTER STREET, SUITE #301
WEST BRIDGEWATER, MA 02379

SITE NUMBER: CTL01083
SITE NAME: GLASTONBURY PD

GLASTONBURY POLICE DEPARTMENT
GLASTONBURY, CT 06033
HARTFORD COUNTY

at&t
500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

NO.	DATE	REVISIONS	BY	CHK	APP'D
B	08/30/22	ISSUED FOR PERMITTING	KW	MK	DPH
A	04/13/22	ISSUED FOR REVIEW	CB	MK	DPH

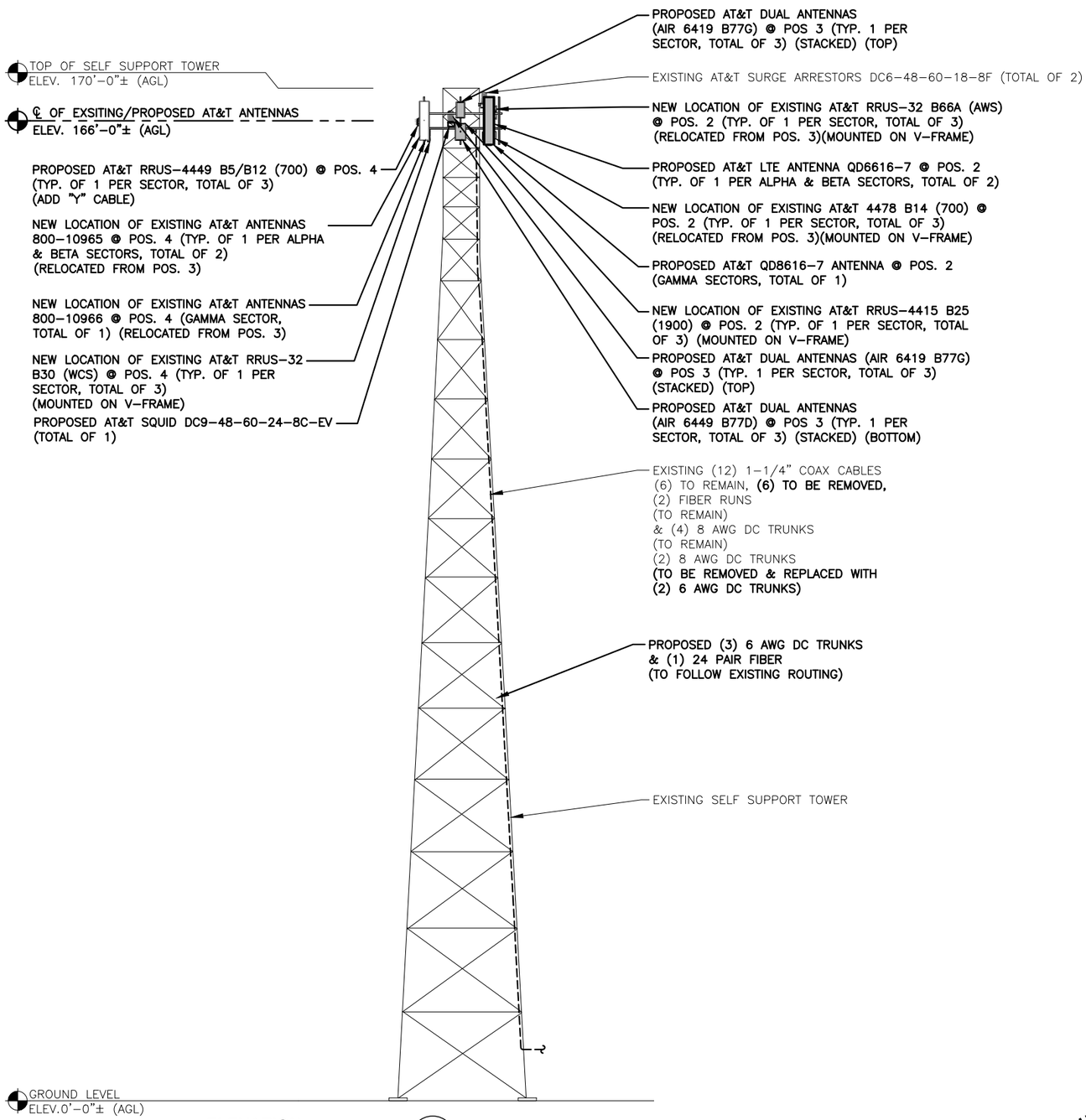
SCALE: AS SHOWN | DESIGNED BY: AT | DRAWN BY: VS

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

AT&T

EXISTING & PROPOSED ANTENNA LAYOUT PLANS
4G ANTENNA MODIFICATIONS, 5G NR ACTIVATION, 5G NR SOFTWARE RADIO, 5G NR RADIO, BBU RECONFIG., 5G NR 1SR CBAND, 4TXRX ANTENNA RETROFIT 2022 UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CTL01083	A-2	B



ELEVATION
22x34 SCALE: 3/32"=1'-0"
11x17 SCALE: 3/64"=1'-0"

1
A-3

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

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

NOTE:
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING **ANTENNA MOUNT** TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY:
HUDSON DESIGN GROUP, LLC.
DATED: **APRIL 26, 2022**

NOTE:
EXISTING GROUND EQUIPMENT NOT SHOWN FOR CLARITY.

HUDSON Design Group LLC
45 BEECHWOOD DRIVE
NORTH ANDOVER, MA 01845
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SCALE: AS SHOWN | DESIGNED BY: AT | DRAWN BY: VS

STATE OF CONNECTICUT
DANIEL P. HAMM
No. 21178
LICENSED PROFESSIONAL ENGINEER

AT&T

ELEVATION
ANTENNA MODIFICATIONS, 5G NR ACTIVATION, 5G NR SOFTWARE RADIO, 5G NR RADIO, BBU RECONFIG., 5G NR 1SR CBAND, 4TXRX ANTENNA RETROFIT 2022 UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CTL01083	A-3	B

ANTENNA SCHEDULE

SECTOR	EXISTING/ PROPOSED	BAND	ANTENNA	SIZE (INCHES) (L x W x D)	ANTENNA ℄ HEIGHT	AZIMUTH	TMA/ DIPLEXER	RRU	SIZE (INCHES) (L x W x D)	FEEDER	RAYCAP
A1	–	–	–	–	–	–	–	–	–	(E)(2) 1-1/4" COAX	(E) (1) RAYCAP DC6-48-60-18-8F
A2	**PROPOSED**	**LTE 700 DE/B14/PCS/AWS**	**QD6616-7**	**72"X22"X9.6"**	**166'-0"±**	**30°**	–	(E)(1)RRUS-4478 B14 (700) (E)(1)RRUS-4415 B25 (1900) (E)(1)RRUS-32 B66A (AWS) (E)(1)RRUS-E2 B29 (700)(SHELTER)	– – – –	**(P)(1) 6AWG DC POWER** (E)(2) DC POWER (1) FIBER	
A3	**PROPOSED**	**DOD CBAND**	**AIR6419 B77G AIR6449 B77D**	**31.1"X16.1"X7.3" 30.4"X15.9"X8.1"**	**166'-0"±**	**30°**	–	–	–	–	
A4	EXISTING	LTE 700 BC/850/WCS	800-10965	78.7"X20.0"X6.9"	166'-0"±	30°	–	**(P)(1)RRUS-4449 B5/B12 (700)** (E)(1)RRUS-32 B30 (WCS)	**17.9"x13.2"x10.4"** –	**(P)(1)(Y-CABLE)**	
B1	–	–	–	–	–	–	–	–	–	(E)(2) 1-1/4" COAX	(E) (1) RAYCAP DC6-48-60-18-8F
B2	**PROPOSED**	**LTE 700 DE/B14/PCS/AWS**	**QD6616-7**	**72"X22"X9.6"**	**166'-0"±**	**160°**	–	(E)(1)RRUS-4478 B14 (700) (E)(1)RRUS-4415 B25 (1900) (E)(1)RRUS-32 B66A (AWS) (E)(1)RRUS-E2 B29 (700)(SHELTER)	– – – –	**(P)(1) 6AWG DC POWER** (E)(2) DC POWER (1) FIBER	
B3	**PROPOSED**	**DOD CBAND**	**AIR6419 B77G AIR6449 B77D**	**31.1"X16.1"X7.3" 30.4"X15.9"X8.1"**	**166'-0"±**	**160°**	–	–	–	–	
B4	EXISTING	LTE 700 BC/850/WCS	800-10965	78.7"X20.0"X6.9"	166'-0"±	160°	–	**(P)(1)RRUS-4449 B5/B12 (700)** (E)(1)RRUS-32 B30 (WCS)	**17.9"x13.2"x10.4"** –	**(P)(1)(Y-CABLE)**	
C1	–	–	–	–	–	–	–	–	–	(E)(2) 1-1/4" COAX	(P) (1) RAYCAP DC9-48-60-24-8C-EV
C2	**PROPOSED**	**LTE 700 DE/B14/PCS/AWS**	**QD8616-7**	**96"X22"X9.6"**	**166'-0"±**	**270°**	–	(E)(1)RRUS-4478 B14 (700) (E)(1)RRUS-4415 B25 (1900) (E)(1)RRUS-32 B66A (AWS) (E)(1)RRUS-E2 B29 (700)(SHELTER)	– – – –	**(P)(3) 6AWG DC POWER & (1) 24PAIR FIBER**	
C3	**PROPOSED**	**DOD CBAND**	**AIR6419 B77G AIR6449 B77D**	**31.1"X16.1"X7.3" 30.4"X15.9"X8.1"**	**166'-0"±**	**270°**	–	–	–	–	
C4	EXISTING	LTE 700 BC/850/WCS	800-10966	96.0"X20.0"X6.9"	166'-0"±	270°	–	**(P)(1)RRUS-4449 B5/B12 (700)** (E)(1)RRUS-32 B30 (WCS)	**17.9"x13.2"x10.4"** –	**(P)(1)(Y-CABLE)**	

RRU CHART

QUANTITY	MODEL	SIZE (L x W x D)
E(3)	4478 B14 (700)	18.1"x13.4"x8.3"
E(3)	RRUS-4415 B25 (1900)	16.5"x13.4"x5.9"
E(3)	RRUS-32 B66 (AWS)	27.2"x12.1"x7.0"
E(3)(G)	RRUS-E2 B29 (700)	20.4"x18.5"x7.5"
P(3)	**4449 B5/B12 (700)**	**17.9"x13.2"x10.4"**
E(3)	RRUS-32 B30 (WCS)	27.2"x12.1"x7.0"

NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS

NOTE:

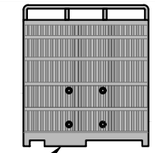
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NOTE:

AN ANALYSIS FOR THE CAPACITY OF THE EXISTING **ANTENNA MOUNT** TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY:
HUDSON DESIGN GROUP, LLC.
DATED: **APRIL 26, 2022**

NOTE:

SEE RFDS FOR RRH FREQUENCY AND MODEL NUMBER



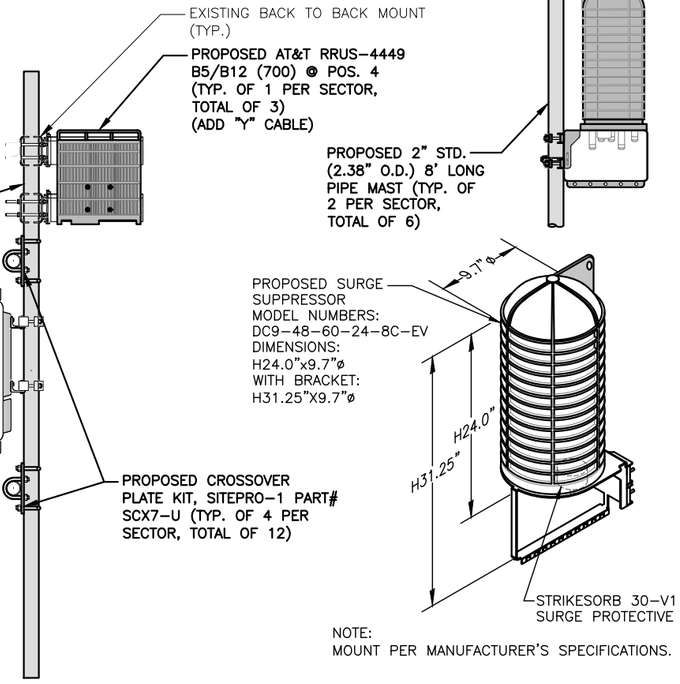
PROPOSED RRU REFER TO THE FINAL RFDS AND CHART FOR QUANTITY, MODEL AND DIMENSIONS

NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

PROPOSED RRUS DETAIL

2 / A-4

SCALE: N.T.S

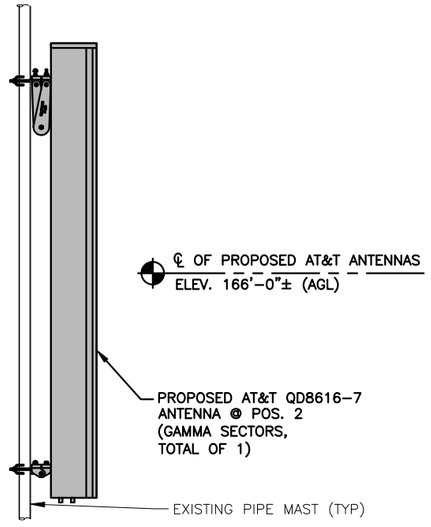


NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

FINAL ANTENNA SCHEDULE

1 / A-4

SCALE: N.T.S



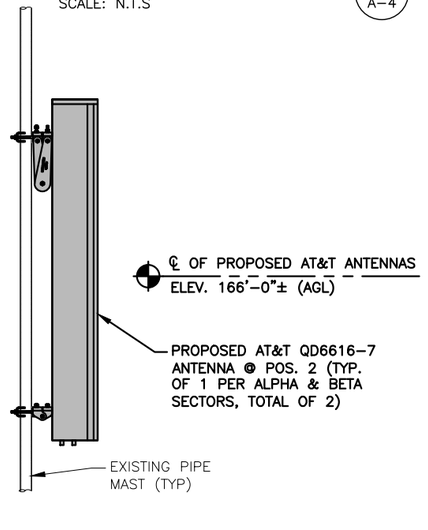
(GAMMA SECTOR)

PROPOSED ANTENNA @ POS. 2

3 / A-4

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

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



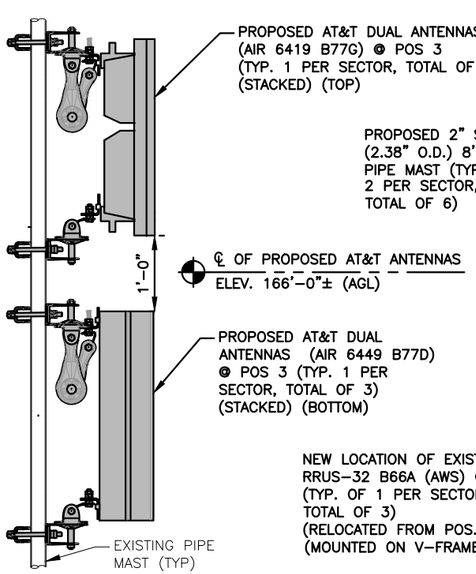
(ALPHA & BETA SECTORS)

PROPOSED ANTENNA @ POS. 2

4 / A-4

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

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



PROPOSED ANTENNA @ POS. 3

5 / A-4

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

0 0'-6" 1'-0" 2'-0" 3'-0"

NEW LOCATION OF EXISTING AT&T RRUS-32 B66A (AWS) @ POS. 2 (TYP. OF 1 PER SECTOR, TOTAL OF 3) (RELOCATED FROM POS. 3) (MOUNTED ON V-FRAME)

PROPOSED RRHS MOUNTING DETAIL

SCALE: N.T.S

PROPOSED SURGE PROTECTOR

7 / A-4

SCALE: N.T.S

HUDSON Design Group LLC
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NORTH ANDOVER, MA 01845
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CENTERLINE COMMUNICATIONS
750 WEST CENTER STREET, SUITE #301
WEST BRIDGEWATER, MA 02379

SITE NUMBER: CTL01083
SITE NAME: GLASTONBURY PD

GLASTONBURY POLICE DEPARTMENT
GLASTONBURY, CT 06033
HARTFORD COUNTY

at&t
500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

NO.	DATE	REVISIONS	BY	CHK	APP'D
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A	04/13/22	ISSUED FOR REVIEW	KW	MK	DPH

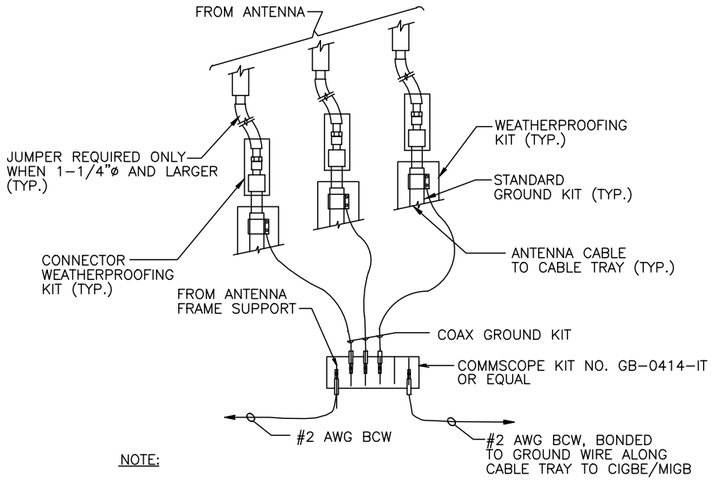
SCALE: AS SHOWN | DESIGNED BY: AT | DRAWN BY: VS

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

AT&T

DETAILS
RF ANTENNA MODIFICATIONS, 5G NR ACTIVATION, 5G NR SOFTWARE RADIO, 5G NR RADIO, BBU RECONFIG, 5G NR 1SR CBAND, 4TXRX ANTENNA RETROFIT 2022 UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CTL01083	A-4	B

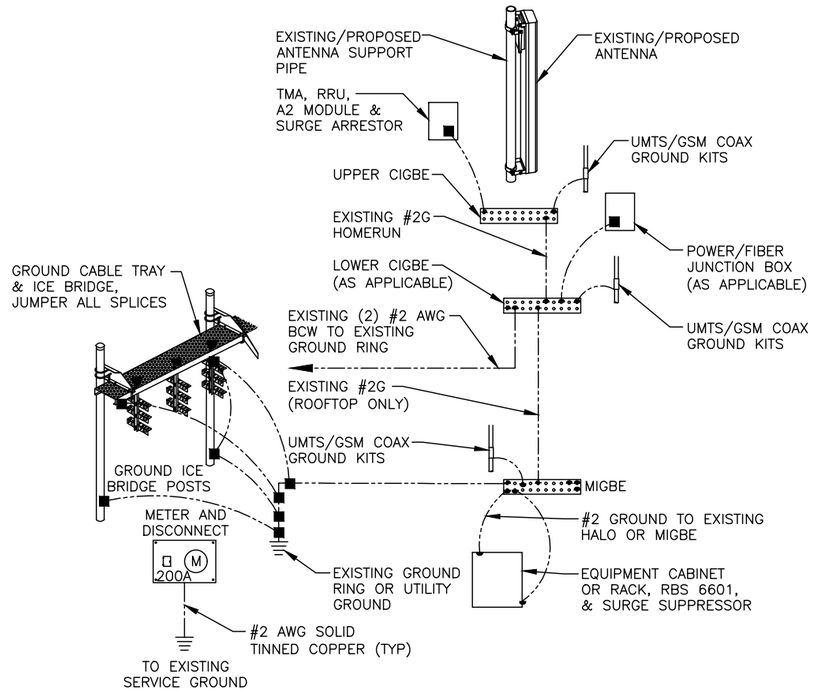


NOTE:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO CIGBE.

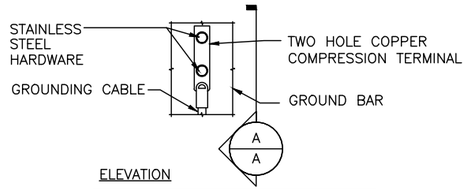
GROUND WIRE TO GROUND BAR CONNECTION DETAIL (1 / G-1)

SCALE: N.T.S



GROUNDING RISER DIAGRAM (2 / G-1)

SCALE: N.T.S



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 / G-1)

SCALE: N.T.S

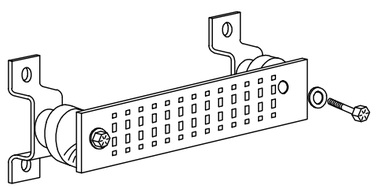
EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

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

HUDSON Design Group LLC
45 BEECHWOOD DRIVE
NORTH ANDOVER, MA 01845
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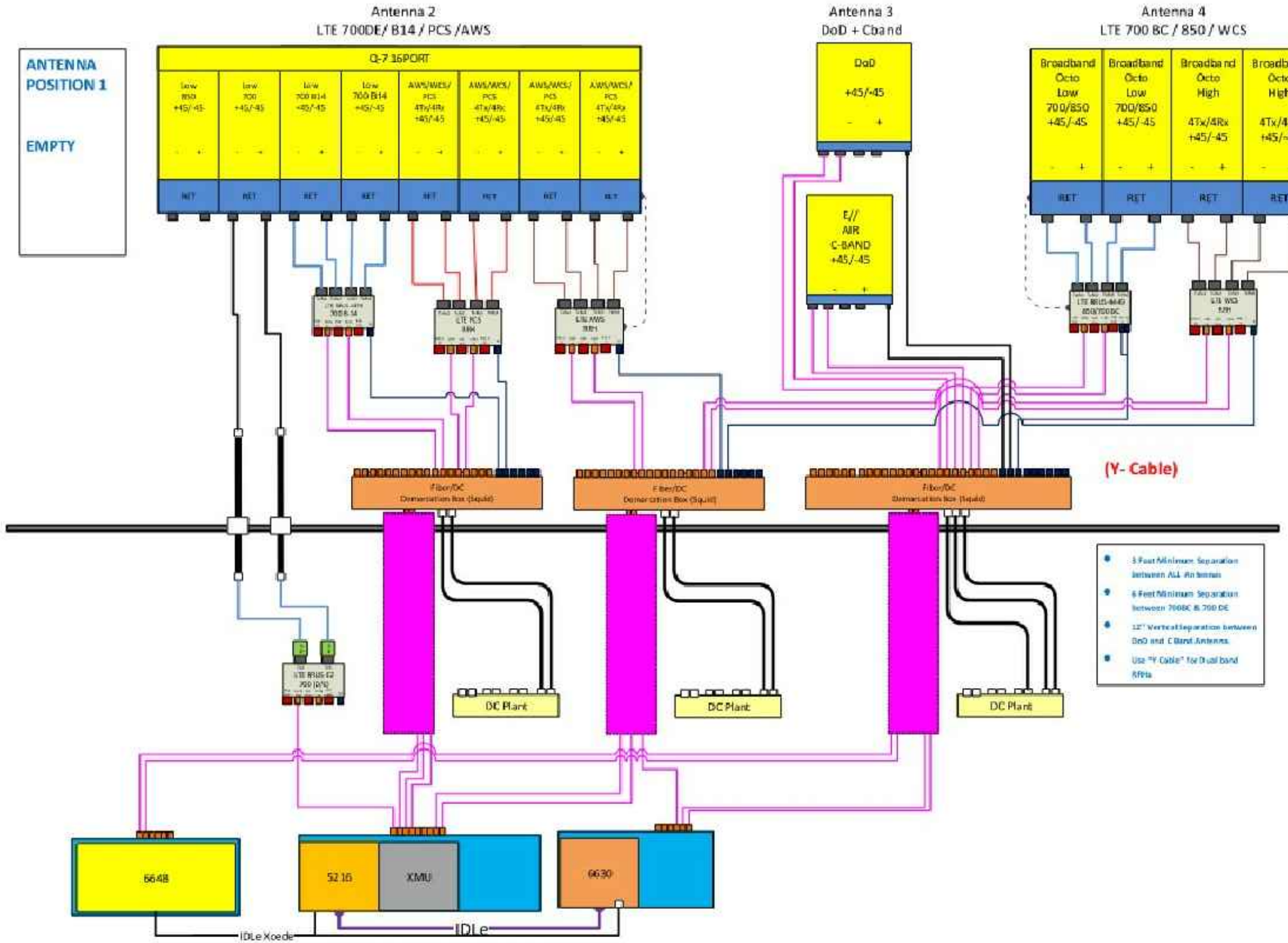
STATE OF CONNECTICUT
DANIEL P. HAMM
No. 24178
LICENSED PROFESSIONAL ENGINEER

AT&T

GROUNDING DETAILS
AT ANTENNA MODIFICATIONS, 5G NR ACTIVATION, 5G NR SOFTWARE RADIO, 5G NR RADIO, BBU RECONFIG, 5G NR 1SR CBAND, 4TXRX ANTENNA RETROFIT 2022 UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CTL01083	G-1	B



RF PLUMBING DIAGRAM (1 / RF–1)
SCALE: N.T.S

NOTE:
1. CONTRACTOR TO CONFIRM ALL PARTS.
2. INSTALL ALL EQUIPMENT TO MANUFACTURER'S RECOMMENDATIONS

NOTE:

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

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NORTH ANDOVER, MA 01845
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B	08/30/22	ISSUED FOR PERMITTING	KW	MKT	DPH
A	04/13/22	ISSUED FOR REVIEW	VS	MKT	DPH

SCALE: AS SHOWN | DESIGNED BY: AT | DRAWN BY: VS

AT&T

RF PLUMBING DIAGRAM
ANTENNA MODIFICATIONS, 5G NR ACTIVATION, 5G NR SOFTWARE RADIO, 5G NR RADIO, BBU RECONFIG., 5G NR 1SR CBAND, 4TXRX ANTENNA RETROFIT 2022 UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CTL01083	RF–1	B

EXHIBIT 2

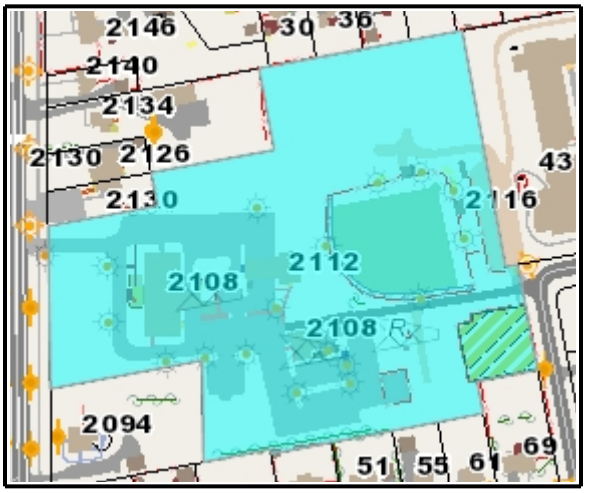
Town of Glastonbury GIS Parcel Report

Report Generated 12/14/2021 4:35:47 PM

Owner of Record

GIS ID: 41402108
Owner: GLASTONBURY TOWN OF
Co-Owner: POLICE/AMBULANCE FACILITY
Address: C/O FACILITIES DEPT
City, State ZIP: GLASTONBURY, CT 06033-6523

Account Number: 41402108
Property Address: 2108-2116 MAIN ST



Property highlighted in blue

Parcel Information

Map/Street/Lot D6 / 4140 / E0064 **Property ID:** 12840
Developer Lot ID: **Water:** Public-MDC
Parcel Acreage: 12.60 **Sewer:** Sewer Tax Rec
Zoning Code: A **Census:** 5203

Valuation Summary

Item	Appraised Value	Assessed Value
Buildings	4408130	3085690
Land	3545800	2482100
Appurtenances	0	0
Total	**7953930**	**5567790**

Owner of Record	Deed / Page	Sale Date	Sale Price
GLASTONBURY TOWN OF	0098/0515	1956-11-15	0

Building Picture Not Applicable

Building Information

Building ID 12840

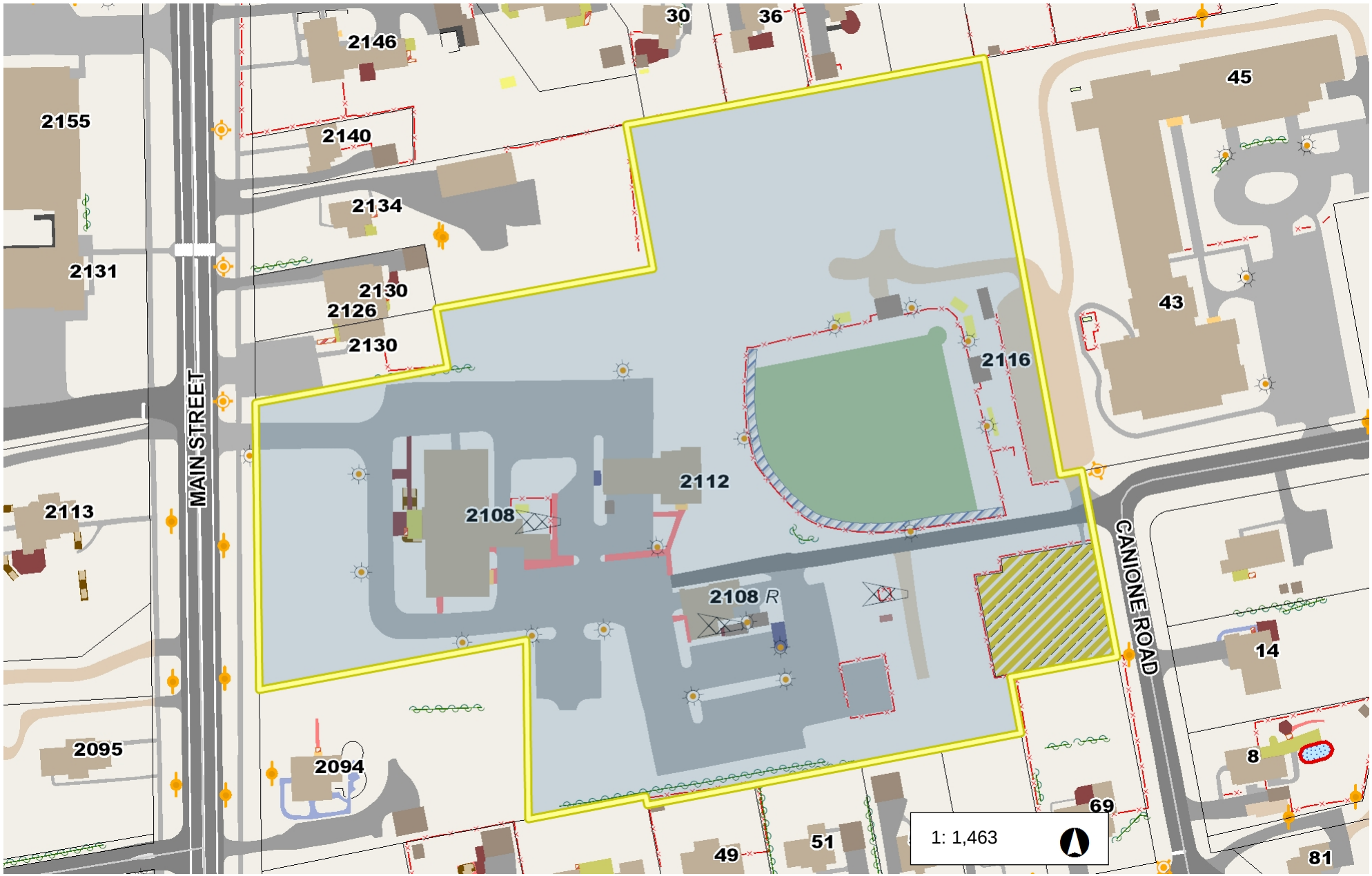
Year Constructed : 0
Building Type : Comm/Ind
Style : Town Owned
Occupany :
Stories : 1
Building Zone : A
Roof Type : Gable
Roof Material : Asphalt Shingl
Est. Gross S.F. : 0
Est. Living S.F. : 0

Number of Rooms :
Number of Bedrooms :
Number of Bathrooms :
Number of Half-Baths :
Exterior Wall : Average
Interior Wall : Drywall
Interior Floor : Carpet
Interior Floor #2 : No entry
Air Conditioning Type : None
Heat Type : None
Fuel Type : None

Subarea Type	Est. Gross S.F.	Est. Living S.F.

Outbuilding Type	Est. Gross S.F.	Comments

Town of Glastonbury GIS



244 0 122 244 Feet

NAD_1983_StatePlane_Connecticut_FIPS_0600_Feet

EXHIBIT 3

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Date: [illegible]

[illegible]

[illegible]	Town of Glastonbury
[illegible]	AT&T
[illegible]	10035111
[illegible]	Glastonbury PD
[illegible]	2108 Main Street, Glastonbury, Hartford County, CT 06033
	Latitude *41° 42' 22.37"*, Longitude *-72° 36' 24.89"*
	170 ft Self-Support Tower
[illegible]	11890.CTL01083

Tectonic Engineering Consultants, Geologists & Land Surveyors, D.P.C., Inc. is pleased to submit this **"Structural Analysis Report"** to determine the structural integrity of the above-mentioned tower.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation to be:

Structure: [illegible]
Foundation: [illegible]

This analysis has been performed in accordance with the 2018 Connecticut State Building Code based upon an ultimate 3-second gust wind speed of 125 mph converted to a nominal 3-second gust wind speed of 97 mph per Section 1609.3 and Appendix N as required for use in the TIA-222-G Standard per Exception #5 of Section 1609.1.1. Exposure Category C with a maximum topographic factor, Kzt, of 1.0 and Structure Class 3 were used in this analysis.

All modifications and equipment proposed in this report shall be installed in accordance with drawing for the determined available structural capacity to be effective.

We at Tectonic appreciate the opportunity of providing our continuing professional services to you and AT&T. If you have any questions or need further assistance on this or any other projects please give us a call.

Structural analysis prepared by: John-Fritz Julien / Ian Marinaccio

Respectfully submitted by:
Tectonic Engineering Consultants, Geologists & Land Surveyors, D.P.C., Inc.

Edward N. Iamiceli, P.E.
Managing Director - Structural

STATE OF CONNECTICUT
EDWARD N. IAMICELI
PEN.0028473
LICENSED
PROFESSIONAL ENGINEER

Project Contact Info

1279 Route 300 | Newburgh, NY 12550
845.567.6656 Tel | 845.567.8703 Fax

tectonicengineering.com
Equal Opportunity Employer

Table of Contents

□□□□□ □**ROD**□□□**O**□

The existing tower is a 170 ft Self Support tower designed by Rohn and previously modified by Tectonic in August of 2020. The existing tower is believed to be carrying emergency equipment, as such it has been evaluated using Risk Category III criteria.

□□□□ □□□□□□□□**R**□□**R**□□

□ □□□□□□**Rev**□□□□□□	TIA-222-G
□ □**r**□□□□**re**□□□□□□	III
□ **W**□□**d**□□**eed**□	97 mph
□ □□□□□**re**□□ □**e**□□**r**□□	C
□ □□□□□**r**□□□□□□□□□□**r**□	1.0
□ □**e**□□□□□□**e**□□□	1.0 in
□ **W**□□**d**□□**eed**□□ □□□□□**e**□	50 mph
□ □**erv**□**e W**□□**d**□□**eed**□	60 mph

□□□**e**□□□□□**r**□□□□**ed**□□ □**e**□□□□□**d**□□ □□**e**□□□□**r**□ □□□□□

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166.0	AT&T	3	Ericsson	AIR6449 B77D + AIR6419 B77G	3 1	1/4 Fiber	-
		2	Quintel	QD6616-7			
		1	Quintel	QD8616-7			
		3	Ericsson	RRUS 4449 B5/12			
		1	Raycap	DC9-48-60-24-8C-EV			

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173.0	Municipal	1	Misc.	10' x 1" Dia Omni	3	7/8	1
		2	Misc.	8' x 2" Dia Omni			
166.0	AT&T	3	Tower Mounts	14' Sector Mount	6 2 6	1-1/4 3/8 3/4	1
		3	Ericsson	RRUS 4415 B25			
		3	Ericsson	RRUS 32 B30			
		3	Ericsson	RRUS 32 B66			
		3	Ericsson	RRUS 4478 B14			
		2	Kathrein	80010965			
		1	Kathrein	80010966			
		2	Raycap	DC6-48-60-18			
		6	Misc.	APTDCBDFDM-DB			
		4	CCI	OPA-65R-LCUU-H6	6	1-1/4	2
		2	CCI	OPA-65R-LCUU-H8			
		6	CCI	TPX-070821			
		3	Misc.	Polyphaser 1000860			
		12	Misc.	TSXDC-4310FM			
		1	Raycap	DC6-48-60-18			
		3	Powerwave	TT19-08BP111-001			

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152.0	Municipal	1	Tower Mounts	3' Side Mount Standoff	1	7/8	1
		1	Kathrein	PR-950			
140.0		1	Misc.	5' x 1" Dia Omni	1	7/8	1
		2	Tower Mounts	3' Side Mount Standoff			
129.0		1	Misc.	10' x 1" Dia Omni	1	7/8	1
		1	Tower Mounts	3' Side Mount Standoff			
124.0		1	Misc.	12' x 3" Dia Omni	2	1/2	1
		1	Misc.	10' x 1" Dia Omni			
		2	Tower Mounts	3' Side Mount Standoff			
		1	CommScope	VHLP3-11W-SE1			
117.0		1	Andrew	Andrew 6' w/Radome	1	1-5/8	1
107.0		1	Misc.	10' Dipole	1	7/8	1
100.0		1	Misc.	20' x 2" Dia Omni	3	7/8	1
		1	Misc.	10' x 1" Dia Omni			
		1	Misc.	10' x 2" Dia Omni			
		3	Tower Mounts	3' Side Mount Standoff			
84.0		1	Misc.	10' x 2" Dia Omni	1	7/8	1
		1	Tower Mounts	3' Side Mount Standoff			
70.0		1	Misc.	12' x 3" Dia Omni	1	7/8	1
		1	Tower Mounts	3' Side Mount Standoff			
67.0		1	Misc.	12' x 3" Dia Omni	1	7/8	1
		1	Tower Mounts	3' Side Mount Standoff			
50.0		1	Misc.	20' x 3" Dia Omni	2 1	7/8 3/8	1
		1	Misc.	10' x 2" Dia Omni			
		3	Tower Mounts	3' Side Mount Standoff			
		1	Misc.	Ground Plane			
30.0		1	Misc.	20' x 2" Dia Omni	1 2	1/2 7/8	1
		1	Misc.	20' x 3" Dia Omni			
		1	Celwave	PD1150			
		3	Tower Mounts	3' Side Mount Standoff			
22.0		1	Misc.	2’ x 1” Dia Omni	1	1/2	1
		1	Misc.	3' Side Mount Standoff			

Notes:
1) Existing Equipment
2) Existing Equipment to be removed; not considered in the analysis.

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D□□□□ e□□	Re□ □r□□	D□□ed
Tower And Foundation Drawings	Rohn	08/01/97
Structural Analysis Report	Centek Engineering	01/09/17
Previous Structural Modification Analysis Report	Fullerton Engineering Consultants, Inc.	04/24/18

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Previous Structural Modification Drawings	Fullerton Engineering Consultants, Inc.	04/24/18
Structural Modification Drawings	Tectonic	08/10/20
Structural Modification Analysis Report	Tectonic	01/05/21
RFDS	AT&T Mobility	04/26/21
Construction Drawings	Hudson Design Group LLC	04/13/22
Mount Analysis Report	Hudson Design Group LLC	04/26/22

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tnxTower (version 8.1.1.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A.

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1) Tower and structures were built and maintained in accordance with the manufacturer's specifications.
2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.
3) The existing antennas and feedlines are based on the previous analysis by Fullerton Engineering and a limited visual inspection from ground performed by Tectonic on 6/12/20.
4) The tower modification previously designed by Tectonic has been installed and considered in this analysis.

This analysis is solely for the supporting tower structure, and it may be affected if any assumptions are not valid or have been made in error. Tectonic should be notified to determine the effect on the structural integrity of the tower.

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T1	170 - 166.667	Leg	ROHN 2.5 STD	2	-0.6326	67.3119	0.9	Pass
T2	166.667 - 163.333	Leg	ROHN 2.5 STD	15	-10.1580	67.3119	15.1	Pass
T3	163.333 - 160	Leg	ROHN 2.5 STD	24	-12.5200	67.3119	18.6	Pass
T4	160 - 140	Leg	ROHN 2.5 STD	31	-42.3161	63.5190	66.6	Pass
T5	140 - 120	Leg	ROHN 3 STD	67	-70.3596	82.5074	85.3	Pass
T6	120 - 100	Leg	Rohn 3.5 X-STR	94	-98.8704	125.7260	78.6	Pass
T7	100 - 80	Leg	ROHN 4 X-STR	115	-129.5390	159.9140	81.0	Pass
T8	80 - 60	Leg	ROHN 4 X-STR	136	-159.5950	187.4430	85.1	Pass
T9	60 - 40	Leg	ROHN 5 X-STR	166	-250.9660	253.0900	99.2	Pass
T10	40 - 20	Leg	ROHN 6 EHS	187	-258.4180	285.5660	90.5	Pass
T11	20 - 0	Leg	ROHN 6 EHS	208	-266.8150	285.6450	93.4	Pass
T1	170 - 166.667	Diagonal	L1 1/2x1 1/2x1/8	10	-0.6852	6.2909	10.9 21.6 (b)	Pass
T2	166.667 - 163.333	Diagonal	L1 1/2x1 1/2x1/8	21	-2.4929	6.2909	39.6 79.8 (b)	Pass

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T3	163.333 - 160	Diagonal	L2x2x1/4	30	-3.3867	19.9920	16.9 40.2 (b)	Pass
T4	160 - 140	Diagonal	L1 1/2x1 1/2x3/16	42	-3.3230	5.3520	62.1 73.0 (b)	Pass
T5	140 - 120	Diagonal	L1 3/4x1 3/4x3/16	75	-3.9184	5.0805	77.1	Pass
T6	120 - 100	Diagonal	L2 1/2x2 1/2x3/16	102	-5.4934	9.4665	58.0 88.4 (b)	Pass
T7	100 - 80	Diagonal	L2 1/2x2 1/2x3/16	123	-6.1434	7.3068	84.1 97.5 (b)	Pass
T8	80 - 60	Diagonal	L2 1/2x2 1/2x3/8	144	-7.0843	10.5105	67.4 89.1 (b)	Pass
T9	60 - 40	Diagonal	L3x3x3/8	173	-8.9508	12.6681	70.7 72.0 (b)	Pass
T10	40 - 20	Diagonal	L3x3x3/8	195	-10.2741	10.7502	95.6	Pass
T11	20 - 0	Diagonal	L3 1/2x3 1/2x3/8	216	-10.9307	14.6544	74.6 88.0 (b)	Pass
T8	80 - 60	Secondary Horizontal	L2 1/2x2 1/2x1/4	147	-2.7681	9.4126	29.4 34.8 (b)	Pass
T9	60 - 40	Secondary Horizontal	L3x3x1/4	177	-4.3527	12.9964	33.5 37.2 (b)	Pass
T10	40 - 20	Secondary Horizontal	L3x3x1/4	198	-4.4815	10.2885	43.6	Pass
T11	20 - 0	Secondary Horizontal	L3 1/2 x 3 1/2 x 1/4	219	-4.6272	13.3256	34.7 39.5 (b)	Pass
T1	170 - 166.667	Top Girt	L1 1/2x1 1/2x1/8	5	-0.4690	2.9700	15.8	Pass
T4	160 - 140	Top Girt	L1 1/2x1 1/2x3/16	36	-0.7339	4.2104	17.4	Pass
							Summary	
						Leg (T9)	99.2	Pass
						Diagonal (T7)	97.5	Pass
						Secondary Horizontal (T10)	43.6	Pass
						Top Girt (T4)	17.4	Pass
						Bolt Checks	97.5	Pass
						Rating =	99.2	Pass

1	Anchor Rods	0	74.1	Pass
1	Base Foundation (Structure)	0	24.6	Pass
1	Base Foundation (Soil Interaction)	0	82.4	Pass

Note:
1) See additional documentation in “Appendix C – Additional Calculations” for calculations supporting the % capacity consumed.

Recommendation

The tower and its foundation have sufficient capacity to carry the proposed and existing load configurations. No modifications are required at this time.

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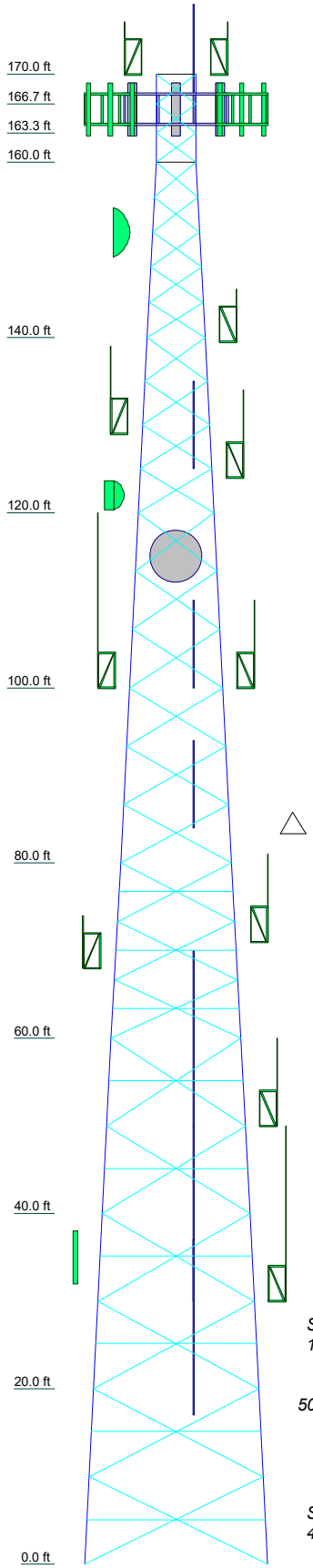
Section		T1
		T2
Legs	ROHN 6 EHS	T3
	ROHN 5 X-STR	T4
	ROHN 4 X-STR	T5
	Rohn 3.5 X-STR	T6
	ROHN 3 STD	T7
	ROHN 2.5 STD	T8
Leg Grade	A572-50	T9
Diagonals	L3 1/2x3 1/2x3/8	T10
	L3x3x3/8	T11
Diagonal Grade	A572-50	
	A36	
Top Girts	L3 1/2 x 3 1/2 x 1/4	
	L1 1/2x1 1/2x3/16	
Sec. Horizontals	L3x3x1/4	
	L2 1/2x2 1/2x1/4	
	L2 1/2x2 1/2x3/8	
	N.A.	
	L2 1/2x2 1/2x3/16	
	L1 3/4x1 3/4x3/16	
	N.A.	
	L1 1/2x1 1/2x3/16	
	N.A.	
Face Width (ft)	20.86	
	18.85	
	16.85	
	14.77	
	12.68	
	10.68	
	8.64	
	6.6	
	4.56	
# Panels @ (ft)	6 @ 10	
	9 @ 6.66667	
	4 @ 5	
	5 @ 4	
	3 @ 3.33333	
Weight (K)	20.4	0.1
	4.5	0.2
	3.8	0.8
	3.5	1.0
	3.2	1.5
	1.7	1.7
	1.5	3.2
	1.0	3.5
	0.8	3.8
	0.2	4.5
	0.1	A
	0.1	N.A.
	A	B



SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	L1 1/2x1 1/2x1/8	B	L2x2x1/4

MATERIAL STRENGTH

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

TOWER DESIGN NOTES

1. Tower is located in Hartford County, Connecticut.
2. Tower designed for Exposure C to the TIA-222-G Standard.
3. Tower designed for a 97 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 50 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Structure Class III.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 99.2%

ALL REACTIONS ARE FACTORED

MAX. CORNER REACTIONS AT BASE:
DOWN: 269 K
SHEAR: 18 K

UPLIFT: -223 K
SHEAR: 26 K

AXIAL 295 K
SHEAR 17 K *MOMENT 3080 kip-ft*
TORQUE 11 kip-ft
50 mph WIND - 1.0000 in ICE

AXIAL 40 K
SHEAR 48 K *MOMENT 4463 kip-ft*
TORQUE 32 kip-ft
REACTIONS - 97 mph WIND

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Job: ***Glastonbury PD _ Modified Tower Analysis***			
Project: ***11890.CTL01083***			
Client: AT&T Mobility	Drawn by: Ian Marinaccio	App'd:	
Code: TIA-222-G	Date: 09/20/22	Scale: NTS	
Path:		Dwg No. E-1	

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The main tower is a 3x free standing tower with an overall height of 170.00 ft above the ground line.
The base of the tower is set at an elevation of 0.00 ft above the ground line.
The face width of the tower is 4.56 ft at the top and 20.86 ft at the base.
This tower is designed using the TIA-222-G standard.
The following design criteria apply:

- Tower is located in Hartford County, Connecticut.
- Basic wind speed of 97 mph.
- Structure Class III.
- Exposure Category C.
- Topographic Category 1.
- Crest Height 0.00 ft.
- Nominal ice thickness of 1.0000 in.
- Ice thickness is considered to increase with height.
- Ice density of 56 pcf.
- A wind speed of 50 mph is used in combination with ice.
- Temperature drop of 50 °F.
- Deflections calculated using a wind speed of 60 mph.
- Pressures are calculated at each section.
- Stress ratio used in tower member design is 1.
- Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

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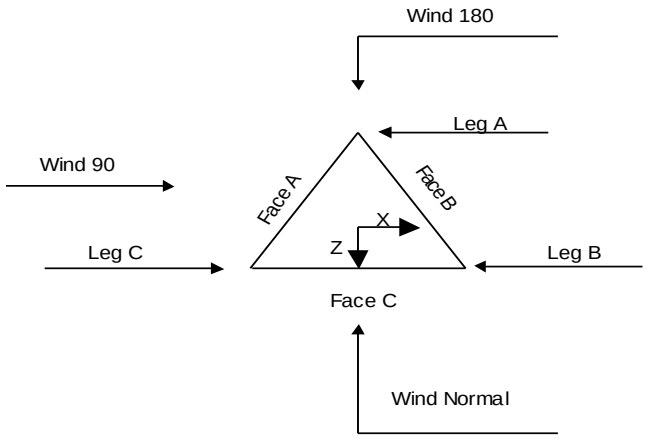
Consider Moments - Legs	Distribute Leg Loads As Uniform	Use ASCE 10 X-Brace Ly Rules
Consider Moments - Horizontals	Assume Legs Pinned	√ Calculate Redundant Bracing Forces
Consider Moments - Diagonals	√ Assume Rigid Index Plate	Ignore Redundant Members in FEA
Use Moment Magnification	√ Use Clear Spans For Wind Area	SR Leg Bolts Resist Compression
√ Use Code Stress Ratios	√ Use Clear Spans For KL/r	All Leg Panels Have Same Allowable
Use Code Safety Factors - Guys	Retension Guys To Initial Tension	Offset Girt At Foundation
Escalate Ice	√ Bypass Mast Stability Checks	√ Consider Feed Line Torque
Always Use Max Kz	√ Use Azimuth Dish Coefficients	√ Include Angle Block Shear Check
Use Special Wind Profile	√ Project Wind Area of Appurt.	Use TIA-222-G Bracing Resist. Exemption
√ Include Bolts In Member Capacity	Autocalc Torque Arm Areas	Use TIA-222-G Tension Splice Exemption
Leg Bolts Are At Top Of Section	Add IBC .6D+W Combination	Poles
√ Secondary Horizontal Braces Leg	√ Sort Capacity Reports By Component	Include Shear-Torsion Interaction
Use Diamond Inner Bracing (4 Sided)	Triangulate Diamond Inner Bracing	Always Use Sub-Critical Flow
SR Members Have Cut Ends	√ Treat Feed Line Bundles As Cylinder	Use Top Mounted Sockets
SR Members Are Concentric	Ignore KL/ry For 60 Deg. Angle Legs	Pole Without Linear Attachments
		Pole With Shroud Or No Appurtenances
		Outside and Inside Corner Radii Are Known



Triangular Tower

Tower Section Geometry

Tower Section	Tower Elevation	Assembly Database	Description	Section Width	Number of Sections	Section Length
	ft			ft		ft
T1	170.00-166.67			4.56	1	3.33
T2	166.67-163.33			4.56	1	3.33
T3	163.33-160.00			4.56	1	3.33
T4	160.00-140.00			4.56	1	20.00
T5	140.00-120.00			6.60	1	20.00
T6	120.00-100.00			8.64	1	20.00
T7	100.00-80.00			10.68	1	20.00
T8	80.00-60.00			12.68	1	20.00
T9	60.00-40.00			14.77	1	20.00
T10	40.00-20.00			16.85	1	20.00
T11	20.00-0.00			18.85	1	20.00

Tower Section Geometry *(cont'd)*

Tower Section	Tower Elevation	Diagonal Spacing	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset	Bottom Girt Offset
	ft	ft				in	in
T1	170.00-166.67	3.33	X Brace	No	No	0.0000	0.0000
T2	166.67-163.33	3.33	X Brace	No	No	0.0000	0.0000
T3	163.33-160.00	3.33	X Brace	No	No	0.0000	0.0000
T4	160.00-140.00	4.00	X Brace	No	No	0.0000	0.0000
T5	140.00-120.00	5.00	X Brace	No	No	0.0000	0.0000
T6	120.00-100.00	6.67	X Brace	No	No	0.0000	0.0000
T7	100.00-80.00	6.67	X Brace	No	No	0.0000	0.0000
T8	80.00-60.00	6.67	X Brace	No	Yes	0.0000	0.0000
T9	60.00-40.00	10.00	X Brace	No	Yes	0.0000	0.0000
T10	40.00-20.00	10.00	X Brace	No	Yes	0.0000	0.0000
T11	20.00-0.00	10.00	X Brace	No	Yes	0.0000	0.0000

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Tower Elevation ft	*Leg Type*	*Leg Size*	*Leg Grade*	*Diagonal Type*	*Diagonal Size*	*Diagonal Grade*
T1 170.00-166.67	Pipe	ROHN 2.5 STD	A572-50 (50 ksi)	Equal Angle	L1 1/2x1 1/2x1/8	A36 (36 ksi)
T2 166.67-163.33	Pipe	ROHN 2.5 STD	A572-50 (50 ksi)	Equal Angle	L1 1/2x1 1/2x1/8	A36 (36 ksi)
T3 163.33-160.00	Pipe	ROHN 2.5 STD	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T4 160.00-140.00	Pipe	ROHN 2.5 STD	A572-50 (50 ksi)	Equal Angle	L1 1/2x1 1/2x3/16	A36 (36 ksi)
T5 140.00-120.00	Pipe	ROHN 3 STD	A572-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)
T6 120.00-100.00	Pipe	Rohn 3.5 X-STR	A572-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T7 100.00-80.00	Pipe	ROHN 4 X-STR	A572-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T8 80.00-60.00	Pipe	ROHN 4 X-STR	A572-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x3/8	A36 (36 ksi)
T9 60.00-40.00	Pipe	ROHN 5 X-STR	A572-50 (50 ksi)	Equal Angle	L3x3x3/8	A572-50 (50 ksi)
T10 40.00-20.00	Pipe	ROHN 6 EHS	A572-50 (50 ksi)	Equal Angle	L3x3x3/8	A572-50 (50 ksi)
T11 20.00-0.00	Pipe	ROHN 6 EHS	A572-50 (50 ksi)	Equal Angle	L3 1/2x3 1/2x3/8	A572-50 (50 ksi)

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Tower Elevation ft	*Top Girt Type*	*Top Girt Size*	*Top Girt Grade*	*Bottom Girt Type*	*Bottom Girt Size*	*Bottom Girt Grade*
T1 170.00-166.67	Equal Angle	L1 1/2x1 1/2x1/8	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T4 160.00-140.00	Equal Angle	L1 1/2x1 1/2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)

□□□er□e□□□□e□□ e□r□□*(cont'd)*

Tower Elevation ft	*Secondary Horizontal Type*	*Secondary Horizontal Size*	*Secondary Horizontal Grade*	*Inner Bracing Type*	*Inner Bracing Size*	*Inner Bracing Grade*
T8 80.00-60.00	Equal Angle	L2 1/2x2 1/2x1/4	A572-50 (50 ksi)	Equal Angle		A36 (36 ksi)
T9 60.00-40.00	Equal Angle	L3x3x1/4	A572-50 (50 ksi)	Equal Angle		A36 (36 ksi)
T10 40.00-20.00	Equal Angle	L3x3x1/4	A572-50 (50 ksi)	Equal Angle		A36 (36 ksi)
T11 20.00-0.00	Equal Angle	L3 1/2 x 3 1/2 x 1/4	A572-50 (50 ksi)	Equal Angle		A36 (36 ksi)

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Tower Elevation	*Gusset Area (per face)*	*Gusset Thickness*	*Gusset Grade*	*Adjust. Factor A_f*	*Adjust. Factor A_r*	*Weight Mult.*	*Double Angle Stitch Bolt Spacing Diagonals*	*Double Angle Stitch Bolt Spacing Horizontals*	*Double Angle Stitch Bolt Spacing Redundants*
ft	*ft^2*	*in*					*in*	*in*	*in*
T1 170.00-166.67	0.00	0.0000	A36 (36 ksi)	1	1.03	1.05	0.0000	0.0000	0.0000
T2 166.67-163.33	0.00	0.0000	A36 (36 ksi)	1	1.03	1.05	0.0000	0.0000	0.0000
T3 163.33-160.00	0.00	0.0000	A36 (36 ksi)	1	1.03	1.05	0.0000	0.0000	0.0000
T4 160.00-140.00	0.00	0.0000	A36 (36 ksi)	1	1.03	1.05	0.0000	0.0000	0.0000
T5 140.00-120.00	0.00	0.0000	A36 (36 ksi)	1	1.03	1.05	0.0000	0.0000	0.0000
T6 120.00-100.00	0.00	0.0000	A36 (36 ksi)	1	1.03	1.05	0.0000	0.0000	0.0000
T7 100.00-80.00	0.00	0.0000	A36 (36 ksi)	1	1.03	1.05	0.0000	0.0000	0.0000
T8 80.00-60.00	0.00	0.0000	A36 (36 ksi)	1	1.03	1.05	0.0000	0.0000	0.0000
T9 60.00-40.00	0.00	0.0000	A36 (36 ksi)	1	1.03	1.05	0.0000	0.0000	0.0000
T10 40.00-20.00	0.00	0.0000	A36 (36 ksi)	1	1.03	1.05	0.0000	0.0000	0.0000
T11 20.00-0.00	0.00	0.0000	A36 (36 ksi)	1	1.03	1.05	0.0000	0.0000	0.0000

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Tower Elevation	*Calc K Single Angles*	*Calc K Solid Rounds*	*K Factors[1]* *Legs*	*X Brace Diags* *X* *Y*	*K Brace Diags* *X* *Y*	*Single Diags* *X* *Y*	*Girts* *X* *Y*	*Horiz.* *X* *Y*	*Sec. Horiz.* *X* *Y*	*Inner Brace* *X* *Y*
ft										
T1 170.00-166.67	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T2 166.67-163.33	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T3 163.33-160.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T4 160.00-140.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T5 140.00-120.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T6 120.00-100.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T7 100.00-80.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T8 80.00-60.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 0.5	1 1
T9 60.00-40.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 0.5	1 1
T10 40.00-20.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 0.5	1 1
T11 20.00-0.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 0.5	1 1

[1]Note: K factors are applied to member segment lengths. K-braces without inner supporting members will have the K factor in the out-of-plane direction applied to the overall length.

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Tower Elevation ft	*Leg*		*Diagonal*		*Top Girt*		*Bottom Girt*		*Mid Girt*		*Long Horizontal*		*Short Horizontal*	
	Net Width Deduct in	*U*	*Net Width Deduct* in	*U*	*Net Width Deduct* in	*U*	*Net Width Deduct* in	*U*	*Net Width Deduct* in	*U*	*Net Width Deduct* in	*U*	*Net Width Deduct* in	*U*
T1 170.00-166.67	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T2 166.67-163.33	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T3 163.33-160.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T4 160.00-140.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T5 140.00-120.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T6 120.00-100.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T7 100.00-80.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T8 80.00-60.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T9 60.00-40.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T10 40.00-20.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T11 20.00-0.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75

Tower Elevation ft	*Redundant Horizontal*		*Redundant Diagonal*		*Redundant Sub-Diagonal*		*Redundant Sub-Horizontal*		*Redundant Vertical*		*Redundant Hip*		*Redundant Hip Diagonal*	
	Net Width Deduct in	*U*	*Net Width Deduct* in	*U*	*Net Width Deduct* in	*U*	*Net Width Deduct* in	*U*	*Net Width Deduct* in	*U*	*Net Width Deduct* in	*U*	*Net Width Deduct* in	*U*
T1 170.00-166.67	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T2 166.67-163.33	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T3 163.33-160.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T4 160.00-140.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T5 140.00-120.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T6 120.00-100.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T7 100.00-80.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T8 80.00-60.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T9 60.00-40.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T10 40.00-20.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T11 20.00-0.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75

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Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T1 170.00-166.67	Flange	0.7500 A325N	0	0.5000 A325N	1	0.6250 A325N	1	0.0000 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T2 166.67-163.33	Flange	0.7500 A325N	0	0.5000 A325N	1	0.6250 A325N	0	0.0000 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T3 163.33-160.00	Flange	0.7500 A325N	4	0.5000 A325X	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T4 160.00-140.00	Flange	0.7500 A325N	4	0.5000 A325N	1	0.5000 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T5 140.00-120.00	Flange	0.8750 A325N	4	0.5000 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T6 120.00-100.00	Flange	0.8750 A325N	4	0.5000 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T7 100.00-80.00	Flange	0.8750 A325N	4	0.5000 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T8 80.00-60.00	Flange	1.0000 A325N	4	0.5000 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.5000 A325N	1
T9 60.00-40.00	Flange	1.0000 A325N	6	0.6250 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	1
T10 40.00-20.00	Flange	1.0000 A325N	6	0.6250 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325X	1
T11 20.00-0.00	Flange	1.0000 A325N	0	0.6250 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	1

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Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
LDF2-50(3/8")	A	No	No	Ar (CaAa)	50.00 - 20.00	0.0000	-0.46	1	1	0.5000	0.4400		0.08
LDF4-50A(1/2")	A	No	No	Ar (CaAa)	22.00 - 20.00	0.0000	-0.44	4	4	0.5000	0.6300		0.15
LDF4-50A(1/2")	A	No	No	Ar (CaAa)	30.00 - 22.00	0.0000	-0.44	3	3	0.5000	0.6300		0.15
LDF4-50A(1/2") **	A	No	No	Ar (CaAa)	124.00 - 30.00	0.0000	-0.44	2	2	0.5000	0.6300		0.15
LDF5-50A(7/8")	A	No	No	Ar (CaAa)	100.00 - 20.00	0.0000	-0.4	5	5	0.5000	1.0900		0.33
LDF5-50A(7/8")	A	No	No	Ar (CaAa)	129.00 - 100.00	0.0000	-0.4	3	3	0.5000	1.0900		0.33
LDF5-50A(7/8")	A	No	No	Ar (CaAa)	140.00 - 129.00	0.0000	-0.4	2	2	0.5000	1.0900		0.33
LDF5-50A(7/8") **	A	No	No	Ar (CaAa)	152.00 - 140.00	0.0000	-0.4	1	1	0.5000	1.0900		0.33
LDF5-50A(7/8")	C	No	No	Ar (CaAa)	30.00 - 20.00	0.0000	-0.42	12	12	0.5000	1.0900		0.33
LDF5-50A(7/8")	C	No	No	Ar (CaAa)	50.00 - 30.00	0.0000	-0.42	10	10	0.5000	1.0900		0.33
LDF5-50A(7/8")	C	No	No	Ar (CaAa)	67.00 - 50.00	0.0000	-0.42	8	8	0.5000	1.0900		0.33
LDF5-50A(7/8")	C	No	No	Ar (CaAa)	70.00 - 67.00	0.0000	-0.42	7	7	0.5000	1.0900		0.33
LDF5-50A(7/8")	C	No	No	Ar (CaAa)	84.00 - 70.00	0.0000	-0.42	6	6	0.5000	1.0900		0.33
LDF5-50A(7/8")	C	No	No	Ar (CaAa)	100.00 - 84.00	0.0000	-0.42	5	5	0.5000	1.0900		0.33
LDF5-50A(7/8")	C	No	No	Ar (CaAa)	107.00 - 100.00	0.0000	-0.42	4	4	0.5000	1.0900		0.33
LDF5-50A(7/8")	C	No	No	Ar (CaAa)	170.00 - 107.00	0.0000	-0.42	3	3	0.5000	1.0900		0.33

Description	*Face or Leg*	*Allow Shield*	*Exclude From Torque Calculation*	*Component Type*	*Placement ft*	*Face Offset in*	*Lateral Offset (Frac FW)*	*#*	*# Per Row*	*Clear Spacing in*	*Width or Diameter in*	*Perimeter in*	*Weight plf*
LDF7-50A(1-5/8) **	C	No	No	Ar (CaAa)	115.00 - 20.00	0.0000	-0.4	1	1	0.5000	1.9800		0.82
LDF6-50A(1-1/4")	B	No	No	Ar (CaAa)	166.00 - 10.00	0.0000	-0.28	6	6	0.5000	1.5500		0.66
LDF2-50(3/8)	B	No	No	Ar (CaAa)	166.00 - 10.00	0.0000	-0.36	2	2	0.5000	0.4400		0.08
CNT-300-FR-600M(1/4")	B	No	No	Ar (CaAa)	166.00 - 10.00	0.0000	-0.39	3	3	0.2500	0.2230		0.10
24 Pair Fiber	B	No	No	Ar (CaAa)	166.00 - 10.00	0.0000	-0.39	1	1	0.6100	0.6100		0.12
WR-VG86ST-BRD(3/4") **	B	No	No	Ar (CaAa)	166.00 - 10.00	0.0000	-0.38	6	6	0.5000	0.7950		0.58
Safety Line 3/8	B	No	No	Ar (CaAa)	170.00 - 0.00	0.0000	0.5	1	1	0.3750	0.3750		0.22
Step Bolts	B	No	No	Ar (CaAa)	170.00 - 0.00	0.0000	0.5	1	1	0.3750	0.3750		2.00
Step Bolts	A	No	No	Ar (CaAa)	60.00 - 10.00	0.0000	0.5	1	1	0.3750	0.3750		2.00
Step Bolts	C	No	No	Ar (CaAa)	60.00 - 10.00	0.0000	0.5	1	1	0.3750	0.3750		2.00
Feedline Ladder (Af)	A	No	No	Af (CaAa)	170.00 - 20.00	0.0000	-0.4	1	1	3.0000	2.5000		8.40
Feedline Ladder (Af)	B	No	No	Af (CaAa)	170.00 - 10.00	0.0000	-0.4	1	1	3.0000	2.5000		8.40
Feedline Ladder (Af) *	C	No	No	Af (CaAa)	170.00 - 20.00	0.0000	-0.4	1	1	3.0000	2.5000		8.40

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Description	*Face or Leg*	*Allow Shield*	*Exclude From Torque Calculation*	*Component Type*	*Placement ft*	*Total Number*	*C_AA_A ft^2/ft*	*Weight plf*
*								

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Tower Section	*Tower Elevation ft*	*Face*	*A_R ft^2*	*A_F ft^2*	*C_AA_A In Face ft^2*	*C_AA_A Out Face ft^2*	*Weight K*
T1	170.00-166.67	A	0.000	0.000	1.389	0.000	0.0280
		B	0.000	0.000	1.639	0.000	0.0354
		C	0.000	0.000	2.479	0.000	0.0313
T2	166.67-163.33	A	0.000	0.000	1.389	0.000	0.0280
		B	0.000	0.000	5.967	0.000	0.0568
		C	0.000	0.000	2.479	0.000	0.0313
T3	163.33-160.00	A	0.000	0.000	1.389	0.000	0.0280
		B	0.000	0.000	7.049	0.000	0.0622
		C	0.000	0.000	2.479	0.000	0.0313
T4	160.00-140.00	A	0.000	0.000	9.641	0.000	0.1720
		B	0.000	0.000	42.291	0.000	0.3732
		C	0.000	0.000	14.873	0.000	0.1878
T5	140.00-120.00	A	0.000	0.000	14.178	0.000	0.1854

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
		B	0.000	0.000	42.291	0.000	0.3732
		C	0.000	0.000	14.873	0.000	0.1878
T6	120.00-100.00	A	0.000	0.000	17.393	0.000	0.1938
		B	0.000	0.000	42.291	0.000	0.3732
		C	0.000	0.000	18.606	0.000	0.2024
T7	100.00-80.00	A	0.000	0.000	21.753	0.000	0.2070
		B	0.000	0.000	42.291	0.000	0.3732
		C	0.000	0.000	23.629	0.000	0.2187
T8	80.00-60.00	A	0.000	0.000	21.753	0.000	0.2070
		B	0.000	0.000	42.291	0.000	0.3732
		C	0.000	0.000	27.226	0.000	0.2296
T9	60.00-40.00	A	0.000	0.000	22.943	0.000	0.2478
		B	0.000	0.000	42.291	0.000	0.3732
		C	0.000	0.000	32.663	0.000	0.2838
T10	40.00-20.00	A	0.000	0.000	24.139	0.000	0.2504
		B	0.000	0.000	42.291	0.000	0.3732
		C	0.000	0.000	37.023	0.000	0.2970
T11	20.00-0.00	A	0.000	0.000	0.375	0.000	0.0200
		B	0.000	0.000	21.896	0.000	0.2088
		C	0.000	0.000	0.375	0.000	0.0200

Feed Line/Linear Appurtenances Section Areas With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
T1	170.00-166.67	A	2.942	0.000	0.000	3.351	0.000	0.0972
		B		0.000	0.000	7.524	0.000	0.1841
		C		0.000	0.000	8.484	0.000	0.1751
T2	166.67-163.33	A	2.937	0.000	0.000	3.347	0.000	0.0970
		B		0.000	0.000	26.853	0.000	0.5033
		C		0.000	0.000	8.473	0.000	0.1747
T3	163.33-160.00	A	2.931	0.000	0.000	3.343	0.000	0.0967
		B		0.000	0.000	31.645	0.000	0.5816
		C		0.000	0.000	8.462	0.000	0.1743
T4	160.00-140.00	A	2.909	0.000	0.000	27.749	0.000	0.7499
		B		0.000	0.000	188.921	0.000	3.4542
		C		0.000	0.000	50.532	0.000	1.0358
T5	140.00-120.00	A	2.867	0.000	0.000	53.241	0.000	1.0324
		B		0.000	0.000	187.129	0.000	3.3877
		C		0.000	0.000	50.080	0.000	1.0175
T6	120.00-100.00	A	2.820	0.000	0.000	73.807	0.000	1.2932
		B		0.000	0.000	185.070	0.000	3.3122
		C		0.000	0.000	62.167	0.000	1.2860
T7	100.00-80.00	A	2.764	0.000	0.000	79.660	0.000	1.4219
		B		0.000	0.000	182.643	0.000	3.2242
		C		0.000	0.000	71.539	0.000	1.4880
T8	80.00-60.00	A	2.695	0.000	0.000	78.441	0.000	1.3779
		B		0.000	0.000	179.672	0.000	3.1182
		C		0.000	0.000	76.529	0.000	1.5738
T9	60.00-40.00	A	2.606	0.000	0.000	93.684	0.000	1.6495
		B		0.000	0.000	175.812	0.000	2.9833
		C		0.000	0.000	94.429	0.000	1.9083
T10	40.00-20.00	A	2.476	0.000	0.000	97.351	0.000	1.6630
		B		0.000	0.000	170.200	0.000	2.7925
		C		0.000	0.000	99.667	0.000	1.9450
T11	20.00-0.00	A	2.219	0.000	0.000	4.812	0.000	0.0903
		B		0.000	0.000	89.164	0.000	1.3798
		C		0.000	0.000	4.812	0.000	0.0903

Feed Line/Linear Appurtenances Section Areas

Section	Elevation	CP_X	CP_Z	CP_X Ice	CP_Z Ice
	ft	in	in	in	in
T1	170.00-166.67	2.7295	0.2720	1.4278	0.7050
T2	166.67-163.33	3.4518	-5.9777	3.3779	-3.2929
T3	163.33-160.00	3.2208	-6.5648	3.1339	-3.9192
T4	160.00-140.00	3.6267	-7.9886	4.0425	-5.4857
T5	140.00-120.00	3.1600	-8.7821	4.5243	-7.2679
T6	120.00-100.00	3.6356	-8.0728	5.1025	-6.8410
T7	100.00-80.00	4.7861	-7.7989	6.7224	-7.0536
T8	80.00-60.00	5.4769	-7.4169	7.3952	-7.0756
T9	60.00-40.00	7.1646	-8.4212	6.5911	-8.5899
T10	40.00-20.00	8.5674	-8.5586	7.2322	-8.5319
T11	20.00-0.00	1.5563	-8.5009	6.0307	-12.2494

Feed Line Information

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T1	18	LDF5-50A(7/8")	166.67 - 170.00	0.6000	0.1789
T1	28	Safety Line 3/8	166.67 - 170.00	0.6000	0.1789
T1	29	Step Bolts	166.67 - 170.00	0.6000	0.1789
T1	32	Feedline Ladder (Af)	166.67 - 170.00	0.6000	0.1789
T1	33	Feedline Ladder (Af)	166.67 - 170.00	0.6000	0.1789
T1	34	Feedline Ladder (Af)	166.67 - 170.00	0.6000	0.1789
T2	18	LDF5-50A(7/8")	163.33 - 166.67	0.6000	0.3341
T2	22	LDF6-50A(1-1/4")	163.33 - 166.00	0.6000	0.3341
T2	23	LDF2-50(3/8)	163.33 - 166.00	0.6000	0.3341
T2	24	CNT-300-FR-600M(1/4")	163.33 - 166.00	0.6000	0.3341
T2	25	24 Pair Fiber	163.33 - 166.00	0.6000	0.3341
T2	26	WR-VG86ST-BRD(3/4")	163.33 - 166.00	0.6000	0.3341
T2	28	Safety Line 3/8	163.33 - 166.67	0.6000	0.3341
T2	29	Step Bolts	163.33 - 166.67	0.6000	0.3341
T2	32	Feedline Ladder (Af)	163.33 - 166.67	0.6000	0.3341
T2	33	Feedline Ladder (Af)	163.33 - 166.67	0.6000	0.3341
T2	34	Feedline Ladder (Af)	163.33 - 166.67	0.6000	0.3341
T3	18	LDF5-50A(7/8")	160.00 - 163.33	0.6000	0.3097
T3	22	LDF6-50A(1-1/4")	160.00 - 163.33	0.6000	0.3097
T3	23	LDF2-50(3/8)	160.00 - 163.33	0.6000	0.3097
T3	24	CNT-300-FR-600M(1/4")	160.00 - 163.33	0.6000	0.3097
T3	25	24 Pair Fiber	160.00 - 163.33	0.6000	0.3097
T3	26	WR-VG86ST-BRD(3/4")	160.00 - 163.33	0.6000	0.3097

Tower Section	*Feed Line Record No.*	*Description*	*Feed Line Segment Elev.*	*K_a No Ice*	*K_a Ice*
T3	28	Safety Line 3/8	160.00 - 163.33	0.6000	0.3097
T3	29	Step Bolts	160.00 - 163.33	0.6000	0.3097
T3	32	Feedline Ladder (Af)	160.00 - 163.33	0.6000	0.3097
T3	33	Feedline Ladder (Af)	160.00 - 163.33	0.6000	0.3097
T3	34	Feedline Ladder (Af)	160.00 - 163.33	0.6000	0.3097
T4	9	LDF5-50A(7/8")	140.00 - 152.00	0.6000	0.4158
T4	18	LDF5-50A(7/8")	140.00 - 160.00	0.6000	0.4158
T4	22	LDF6-50A(1-1/4")	140.00 - 160.00	0.6000	0.4158
T4	23	LDF2-50(3/8)	140.00 - 160.00	0.6000	0.4158
T4	24	CNT-300-FR-600M(1/4")	140.00 - 160.00	0.6000	0.4158
T4	25	24 Pair Fiber	140.00 - 160.00	0.6000	0.4158
T4	26	WR-VG86ST-BRD(3/4")	140.00 - 160.00	0.6000	0.4158
T4	28	Safety Line 3/8	140.00 - 160.00	0.6000	0.4158
T4	29	Step Bolts	140.00 - 160.00	0.6000	0.4158
T4	32	Feedline Ladder (Af)	140.00 - 160.00	0.6000	0.4158
T4	33	Feedline Ladder (Af)	140.00 - 160.00	0.6000	0.4158
T4	34	Feedline Ladder (Af)	140.00 - 160.00	0.6000	0.4158
T5	4	LDF4-50A(1/2")	120.00 - 124.00	0.6000	0.5439
T5	7	LDF5-50A(7/8")	120.00 - 129.00	0.6000	0.5439
T5	8	LDF5-50A(7/8")	129.00 - 140.00	0.6000	0.5439
T5	18	LDF5-50A(7/8")	120.00 - 140.00	0.6000	0.5439
T5	22	LDF6-50A(1-1/4")	120.00 - 140.00	0.6000	0.5439
T5	23	LDF2-50(3/8)	120.00 - 140.00	0.6000	0.5439
T5	24	CNT-300-FR-600M(1/4")	120.00 - 140.00	0.6000	0.5439
T5	25	24 Pair Fiber	120.00 - 140.00	0.6000	0.5439
T5	26	WR-VG86ST-BRD(3/4")	120.00 - 140.00	0.6000	0.5439
T5	28	Safety Line 3/8	120.00 - 140.00	0.6000	0.5439
T5	29	Step Bolts	120.00 - 140.00	0.6000	0.5439
T5	32	Feedline Ladder (Af)	120.00 - 140.00	0.6000	0.5439
T5	33	Feedline Ladder (Af)	120.00 - 140.00	0.6000	0.5439
T5	34	Feedline Ladder (Af)	120.00 - 140.00	0.6000	0.5439
T6	4	LDF4-50A(1/2")	100.00 - 120.00	0.6000	0.6000
T6	7	LDF5-50A(7/8")	100.00 - 120.00	0.6000	0.6000
T6	17	LDF5-50A(7/8")	100.00 - 107.00	0.6000	0.6000
T6	18	LDF5-50A(7/8")	107.00 -	0.6000	0.6000

Tower Section	*Feed Line Record No.*	*Description*	*Feed Line Segment Elev.*	*K_a No Ice*	*K_a Ice*
			120.00		
T6	19	LDF7-50A(1-5/8)	100.00 - 115.00	0.6000	0.6000
T6	22	LDF6-50A(1-1/4")	100.00 - 120.00	0.6000	0.6000
T6	23	LDF2-50(3/8)	100.00 - 120.00	0.6000	0.6000
T6	24	CNT-300-FR-600M(1/4")	100.00 - 120.00	0.6000	0.6000
T6	25	24 Pair Fiber	100.00 - 120.00	0.6000	0.6000
T6	26	WR-VG86ST-BRD(3/4")	100.00 - 120.00	0.6000	0.6000
T6	28	Safety Line 3/8	100.00 - 120.00	0.6000	0.6000
T6	29	Step Bolts	100.00 - 120.00	0.6000	0.6000
T6	32	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.6000
T6	33	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.6000
T6	34	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.6000
T7	4	LDF4-50A(1/2")	80.00 - 100.00	0.6000	0.6000
T7	6	LDF5-50A(7/8")	80.00 - 100.00	0.6000	0.6000
T7	15	LDF5-50A(7/8")	80.00 - 84.00	0.6000	0.6000
T7	16	LDF5-50A(7/8")	84.00 - 100.00	0.6000	0.6000
T7	19	LDF7-50A(1-5/8)	80.00 - 100.00	0.6000	0.6000
T7	22	LDF6-50A(1-1/4")	80.00 - 100.00	0.6000	0.6000
T7	23	LDF2-50(3/8)	80.00 - 100.00	0.6000	0.6000
T7	24	CNT-300-FR-600M(1/4")	80.00 - 100.00	0.6000	0.6000
T7	25	24 Pair Fiber	80.00 - 100.00	0.6000	0.6000
T7	26	WR-VG86ST-BRD(3/4")	80.00 - 100.00	0.6000	0.6000
T7	28	Safety Line 3/8	80.00 - 100.00	0.6000	0.6000
T7	29	Step Bolts	80.00 - 100.00	0.6000	0.6000
T7	32	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T7	33	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T7	34	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T8	4	LDF4-50A(1/2")	60.00 - 80.00	0.6000	0.5854
T8	6	LDF5-50A(7/8")	60.00 - 80.00	0.6000	0.5854
T8	13	LDF5-50A(7/8")	60.00 - 67.00	0.6000	0.5854
T8	14	LDF5-50A(7/8")	67.00 - 70.00	0.6000	0.5854
T8	15	LDF5-50A(7/8")	70.00 - 80.00	0.6000	0.5854
T8	19	LDF7-50A(1-5/8)	60.00 - 80.00	0.6000	0.5854
T8	22	LDF6-50A(1-1/4")	60.00 - 80.00	0.6000	0.5854
T8	23	LDF2-50(3/8)	60.00 - 80.00	0.6000	0.5854

Tower Section	*Feed Line Record No.*	*Description*	*Feed Line Segment Elev.*	*K_a No Ice*	*K_a Ice*
T8	24	CNT-300-FR-600M(1/4")	60.00 - 80.00	0.6000	0.5854
T8	25	24 Pair Fiber	60.00 - 80.00	0.6000	0.5854
T8	26	WR-VG86ST-BRD(3/4")	60.00 - 80.00	0.6000	0.5854
T8	28	Safety Line 3/8	60.00 - 80.00	0.6000	0.5854
T8	29	Step Bolts	60.00 - 80.00	0.6000	0.5854
T8	32	Feedline Ladder (Af)	60.00 - 80.00	0.6000	0.5854
T8	33	Feedline Ladder (Af)	60.00 - 80.00	0.6000	0.5854
T8	34	Feedline Ladder (Af)	60.00 - 80.00	0.6000	0.5854
T9	1	LDF2-50(3/8")	40.00 - 50.00	0.6000	0.6000
T9	4	LDF4-50A(1/2")	40.00 - 60.00	0.6000	0.6000
T9	6	LDF5-50A(7/8")	40.00 - 60.00	0.6000	0.6000
T9	12	LDF5-50A(7/8")	40.00 - 50.00	0.6000	0.6000
T9	13	LDF5-50A(7/8")	50.00 - 60.00	0.6000	0.6000
T9	19	LDF7-50A(1-5/8)	40.00 - 60.00	0.6000	0.6000
T9	22	LDF6-50A(1-1/4")	40.00 - 60.00	0.6000	0.6000
T9	23	LDF2-50(3/8)	40.00 - 60.00	0.6000	0.6000
T9	24	CNT-300-FR-600M(1/4")	40.00 - 60.00	0.6000	0.6000
T9	25	24 Pair Fiber	40.00 - 60.00	0.6000	0.6000
T9	26	WR-VG86ST-BRD(3/4")	40.00 - 60.00	0.6000	0.6000
T9	28	Safety Line 3/8	40.00 - 60.00	0.6000	0.6000
T9	29	Step Bolts	40.00 - 60.00	0.6000	0.6000
T9	30	Step Bolts	40.00 - 60.00	0.6000	0.6000
T9	31	Step Bolts	40.00 - 60.00	0.6000	0.6000
T9	32	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T9	33	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T9	34	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T10	1	LDF2-50(3/8")	20.00 - 40.00	0.6000	0.6000
T10	2	LDF4-50A(1/2")	20.00 - 22.00	0.6000	0.6000
T10	3	LDF4-50A(1/2")	22.00 - 30.00	0.6000	0.6000
T10	4	LDF4-50A(1/2")	30.00 - 40.00	0.6000	0.6000
T10	6	LDF5-50A(7/8")	20.00 - 40.00	0.6000	0.6000
T10	11	LDF5-50A(7/8")	20.00 - 30.00	0.6000	0.6000
T10	12	LDF5-50A(7/8")	30.00 - 40.00	0.6000	0.6000
T10	19	LDF7-50A(1-5/8)	20.00 - 40.00	0.6000	0.6000
T10	22	LDF6-50A(1-1/4")	20.00 -	0.6000	0.6000

Tower Section	*Feed Line Record No.*	*Description*	*Feed Line Segment Elev.*	*K_a No Ice*	*K_a Ice*
			40.00		
T10	23	LDF2-50(3/8)	20.00 - 40.00	0.6000	0.6000
T10	24	CNT-300-FR-600M(1/4")	20.00 - 40.00	0.6000	0.6000
T10	25	24 Pair Fiber	20.00 - 40.00	0.6000	0.6000
T10	26	WR-VG86ST-BRD(3/4")	20.00 - 40.00	0.6000	0.6000
T10	28	Safety Line 3/8	20.00 - 40.00	0.6000	0.6000
T10	29	Step Bolts	20.00 - 40.00	0.6000	0.6000
T10	30	Step Bolts	20.00 - 40.00	0.6000	0.6000
T10	31	Step Bolts	20.00 - 40.00	0.6000	0.6000
T10	32	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T10	33	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T10	34	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T11	22	LDF6-50A(1-1/4")	10.00 - 20.00	0.6000	0.6000
T11	23	LDF2-50(3/8)	10.00 - 20.00	0.6000	0.6000
T11	24	CNT-300-FR-600M(1/4")	10.00 - 20.00	0.6000	0.6000
T11	25	24 Pair Fiber	10.00 - 20.00	0.6000	0.6000
T11	26	WR-VG86ST-BRD(3/4")	10.00 - 20.00	0.6000	0.6000
T11	28	Safety Line 3/8	0.00 - 20.00	0.6000	0.6000
T11	29	Step Bolts	0.00 - 20.00	0.6000	0.6000
T11	30	Step Bolts	10.00 - 20.00	0.6000	0.6000
T11	31	Step Bolts	10.00 - 20.00	0.6000	0.6000
T11	33	Feedline Ladder (Af)	10.00 - 20.00	0.6000	0.6000

D□□re□e□□□er□□□d□

Description	*Face or Leg*	*Offset Type*	*Offsets: Horz Lateral Vert* *ft* *ft* *ft*	*Azimuth Adjustment* *°*	*Placement* *ft*		*C_AA_A Front* *ft^2*	*C_AA_A Side* *ft^2*	*Weight* *K*
10' x 1" Dia Omni	A	From Leg	3.00 0.00 0.00	0.0000	173.00	No Ice 1/2" Ice 1" Ice	1.00 2.02 3.05	1.00 2.02 3.05	0.0300 0.0393 0.0549
8' x 2" Dia Omni	B	From Leg	3.00 0.00 0.00	0.0000	173.00	No Ice 1/2" Ice 1" Ice	1.60 2.42 3.24	1.60 2.42 3.24	0.0200 0.0324 0.0501
8' x 2" Dia Omni	C	From Leg	3.00 0.00 0.00	0.0000	173.00	No Ice 1/2" Ice	1.60 2.42 3.24	1.60 2.42 3.24	0.0200 0.0324 0.0501

Description	*Face or Leg*	*Offset Type*	*Offsets: Horz Lateral Vert* ft ft ft	*Azimuth Adjustment* °	*Placement* ft		C_AA_A *Front* ft^2	C_AA_A *Side* ft^2	*Weight* K
						1" Ice			
**									
3' Side Mount Standoff	A	From Leg	1.50	0.0000	152.00	No Ice	1.67	4.53	0.0620
			0.00			1/2"	2.43	6.41	0.0987
			0.00			Ice	3.21	8.37	0.1479
						1" Ice			
**									
3' Side Mount Standoff	A	From Leg	1.50	0.0000	140.00	No Ice	1.67	4.53	0.0620
			0.00			1/2"	2.43	6.41	0.0987
			0.00			Ice	3.21	8.37	0.1479
						1" Ice			
5' x 1" Dia Omni	B	From Leg	3.00	0.0000	140.00	No Ice	0.50	0.50	0.0100
			0.00			1/2"	1.02	1.02	0.0147
			2.50			Ice	1.43	1.43	0.0227
						1" Ice			
3' Side Mount Standoff	B	From Leg	1.50	0.0000	140.00	No Ice	1.67	4.53	0.0620
			0.00			1/2"	2.43	6.41	0.0987
			0.00			Ice	3.21	8.37	0.1479
						1" Ice			
**									
10' x 1" Dia Omni	C	From Leg	3.00	0.0000	129.00	No Ice	1.00	1.00	0.0300
			0.00			1/2"	2.02	2.02	0.0393
			5.00			Ice	3.05	3.05	0.0549
						1" Ice			
3' Side Mount Standoff	C	From Leg	1.50	0.0000	129.00	No Ice	1.67	4.53	0.0620
			0.00			1/2"	2.43	6.41	0.0987
			0.00			Ice	3.21	8.37	0.1479
						1" Ice			
**									
12' x 3" Dia Omni	A	From Leg	3.00	0.0000	124.00	No Ice	3.60	3.60	0.0400
			0.00			1/2"	4.83	4.83	0.0661
			6.00			Ice	6.08	6.08	0.0999
						1" Ice			
3' Side Mount Standoff	A	From Leg	1.50	0.0000	124.00	No Ice	1.67	4.53	0.0620
			0.00			1/2"	2.43	6.41	0.0987
			0.00			Ice	3.21	8.37	0.1479
						1" Ice			
10' x 1" Dia Omni	B	From Leg	3.00	0.0000	124.00	No Ice	1.00	1.00	0.0300
			0.00			1/2"	2.02	2.02	0.0393
			5.00			Ice	3.05	3.05	0.0549
						1" Ice			
3' Side Mount Standoff	B	From Leg	1.50	0.0000	124.00	No Ice	1.67	4.53	0.0620
			0.00			1/2"	2.43	6.41	0.0987
			0.00			Ice	3.21	8.37	0.1479
						1" Ice			
Dish Mount	C	From Leg	1.50	0.0000	122.00	No Ice	1.67	4.53	0.0620
			0.00			1/2"	2.43	6.41	0.0987
			0.00			Ice	3.21	8.37	0.1479
						1" Ice			
Dish Tie-Back	C	From Face	0.00	0.0000	122.00	No Ice	2.88	2.88	0.0580
			0.00			1/2"	3.91	3.91	0.0790
			0.00			Ice	4.96	4.96	0.1066
						1" Ice			
**									
Dish Mount	A	From Leg	0.60	0.0000	115.00	No Ice	1.56	1.56	0.0540
			0.00			1/2"	2.08	2.08	0.0700
			2.00			Ice	2.40	2.40	0.0897
						1" Ice			
Dish Tie-Back	A	From Face	0.00	0.0000	115.00	No Ice	1.66	1.66	0.0256
			0.00			1/2"	2.39	2.39	0.0382
			0.00			Ice	2.83	2.83	0.0555
						1" Ice			
10' Dipole	A	From Leg	1.00	0.0000	107.00	No Ice	4.50	4.50	0.0240
			0.00			1/2"	6.03	6.03	0.0565
			5.00			Ice	7.58	7.58	0.0986

Description	*Face or Leg*	*Offset Type*	*Offsets: Horz Lateral Vert* *ft* *ft* *ft*	*Azimuth Adjustment* *°*	*Placement* *ft*		*C_AA_A Front* *ft^2*	*C_AA_A Side* *ft^2*	*Weight* *K*
						1" Ice			
**									
10' x 2" Dia Omni	A	From Leg	3.00	0.0000	100.00	No Ice	2.00	2.00	0.0200
			0.00			1/2"	3.02	3.02	0.0355
			5.00			Ice	4.07	4.07	0.0575
						1" Ice			
3' Side Mount Standoff	A	From Leg	1.50	0.0000	100.00	No Ice	1.67	4.53	0.0620
			0.00			1/2"	2.43	6.41	0.0987
			0.00			Ice	3.21	8.37	0.1479
						1" Ice			
10' x 1" Dia Omni	B	From Leg	3.00	0.0000	100.00	No Ice	1.00	1.00	0.0300
			0.00			1/2"	2.02	2.02	0.0393
			5.00			Ice	3.05	3.05	0.0549
						1" Ice			
3' Side Mount Standoff	B	From Leg	1.50	0.0000	100.00	No Ice	1.67	4.53	0.0620
			0.00			1/2"	2.43	6.41	0.0987
			0.00			Ice	3.21	8.37	0.1479
						1" Ice			
20' x 2" Dia Omni	C	From Leg	3.00	0.0000	100.00	No Ice	4.00	4.00	0.0200
			0.00			1/2"	6.03	6.03	0.0508
			10.00			Ice	8.07	8.07	0.0941
						1" Ice			
3' Side Mount Standoff	C	From Leg	1.50	0.0000	100.00	No Ice	1.67	4.53	0.0620
			0.00			1/2"	2.43	6.41	0.0987
			0.00			Ice	3.21	8.37	0.1479
						1" Ice			
**									
10' x 2" Dia Omni	A	From Leg	3.00	0.0000	84.00	No Ice	2.00	2.00	0.0200
			0.00			1/2"	3.02	3.02	0.0355
			5.00			Ice	4.07	4.07	0.0575
						1" Ice			
3' Side Mount Standoff	A	From Leg	1.50	0.0000	84.00	No Ice	1.67	4.53	0.0620
			0.00			1/2"	2.43	6.41	0.0987
			0.00			Ice	3.21	8.37	0.1479
						1" Ice			
**									
12' x 3" Dia Omni	B	From Leg	3.00	0.0000	70.00	No Ice	3.60	3.60	0.0400
			0.00			1/2"	4.83	4.83	0.0661
			6.00			Ice	6.08	6.08	0.0999
						1" Ice			
3' Side Mount Standoff	B	From Leg	1.50	0.0000	70.00	No Ice	1.67	4.53	0.0620
			0.00			1/2"	2.43	6.41	0.0987
			0.00			Ice	3.21	8.37	0.1479
						1" Ice			
**									
12' x 3" Dia Omni	C	From Leg	3.00	0.0000	67.00	No Ice	3.60	3.60	0.0400
			0.00			1/2"	4.83	4.83	0.0661
			4.00			Ice	6.08	6.08	0.0999
						1" Ice			
3' Side Mount Standoff	C	From Leg	1.50	0.0000	67.00	No Ice	1.67	4.53	0.0620
			0.00			1/2"	2.43	6.41	0.0987
			0.00			Ice	3.21	8.37	0.1479
						1" Ice			
**									
20' x 3" Dia Omni	A	From Leg	3.00	0.0000	50.00	No Ice	6.00	6.00	0.0500
			0.00			1/2"	8.03	8.03	0.0932
			10.00			Ice	10.08	10.08	0.1490
						1" Ice			
3' Side Mount Standoff	A	From Leg	1.50	0.0000	50.00	No Ice	1.67	4.53	0.0620
			0.00			1/2"	2.43	6.41	0.0987
			0.00			Ice	3.21	8.37	0.1479
						1" Ice			
10' x 2" Dia Omni	B	From Leg	3.00	0.0000	50.00	No Ice	2.00	2.00	0.0200
			0.00			1/2"	3.02	3.02	0.0355
			5.00			Ice	4.07	4.07	0.0575

Description	*Face or Leg*	*Offset Type*	*Offsets: Horz Lateral Vert* ft ft ft	*Azimuth Adjustment* °	*Placement* ft		C_AA_A *Front* ft^2	C_AA_A *Side* ft^2	*Weight* K
						1" Ice			
3' Side Mount Standoff	B	From Leg	1.50	0.0000	50.00	No Ice	1.67	4.53	0.0620
			0.00			1/2"	2.43	6.41	0.0987
			0.00			Ice	3.21	8.37	0.1479
						1" Ice			
Ground Plane	C	From Leg	3.00	0.0000	50.00	No Ice	3.33	3.33	0.0419
			0.00			1/2"	9.34	9.34	23.5969
			0.00			Ice	14.03	14.03	47.2499
						1" Ice			
3' Side Mount Standoff	C	From Leg	1.50	0.0000	50.00	No Ice	1.67	4.53	0.0620
			0.00			1/2"	2.43	6.41	0.0987
			0.00			Ice	3.21	8.37	0.1479
						1" Ice			
**									
20' x 3" Dia Omni	A	From Leg	3.00	0.0000	30.00	No Ice	6.00	6.00	0.0500
			0.00			1/2"	8.03	8.03	0.0932
			10.00			Ice	10.08	10.08	0.1490
						1" Ice			
3' Side Mount Standoff	A	From Leg	1.50	0.0000	30.00	No Ice	1.67	4.53	0.0620
			0.00			1/2"	2.43	6.41	0.0987
			0.00			Ice	3.21	8.37	0.1479
						1" Ice			
20' x 2" Dia Omni	B	From Leg	3.00	0.0000	30.00	No Ice	4.00	4.00	0.0200
			0.00			1/2"	6.03	6.03	0.0508
			10.00			Ice	8.07	8.07	0.0941
						1" Ice			
3' Side Mount Standoff	B	From Leg	1.50	0.0000	30.00	No Ice	1.67	4.53	0.0620
			0.00			1/2"	2.43	6.41	0.0987
			0.00			Ice	3.21	8.37	0.1479
						1" Ice			
3' Side Mount Standoff	C	From Leg	1.50	0.0000	30.00	No Ice	1.67	4.53	0.0620
			0.00			1/2"	2.43	6.41	0.0987
			0.00			Ice	3.21	8.37	0.1479
						1" Ice			
PD1150	C	From Leg	3.00	0.0000	30.00	No Ice	1.22	1.22	0.0080
			0.00			1/2"	2.43	2.43	0.0160
			5.00			Ice	3.64	3.64	0.0240
						1" Ice			
**									
2' x 1" Dia. Omni	A	From Leg	3.00	0.0000	22.00	No Ice	0.20	0.20	0.0050
			0.00			1/2"	0.32	0.32	0.0069
			5.00			Ice	0.45	0.45	0.0103
						1" Ice			
3' Side Mount Standoff	A	From Leg	1.50	0.0000	22.00	No Ice	1.67	4.53	0.0620
			0.00			1/2"	2.43	6.41	0.0987
			0.00			Ice	3.21	8.37	0.1479
						1" Ice			
**									
80010965_TIA	A	From Leg	3.00	0.0000	166.00	No Ice	13.81	5.83	0.1086
			0.00			1/2"	14.35	6.32	0.1851
			0.00			Ice	14.89	6.82	0.2687
						1" Ice			
80010965_TIA	B	From Leg	3.00	0.0000	166.00	No Ice	13.81	5.83	0.1086
			0.00			1/2"	14.35	6.32	0.1851
			0.00			Ice	14.89	6.82	0.2687
						1" Ice			
80010966_TIA	C	From Leg	3.00	0.0000	166.00	No Ice	17.36	7.50	0.1257
			0.00			1/2"	17.99	8.09	0.2179
			0.00			Ice	18.63	8.69	0.3182
						1" Ice			
RRUS 4415 B25	A	From Leg	3.00	0.0000	166.00	No Ice	1.64	0.68	0.0440
			0.00			1/2"	1.80	0.79	0.0564
			0.00			Ice	1.97	0.91	0.0712
						1" Ice			
RRUS 4415 B25	B	From Leg	3.00	0.0000	166.00	No Ice	1.64	0.68	0.0440

Description	*Face or Leg*	*Offset Type*	*Offsets: Horz Lateral Vert* *ft* *ft* *ft*	*Azimuth Adjustment* *°*	*Placement* *ft*		C_AA_A *Front* ft^2	C_AA_A *Side* ft^2	*Weight* *K*
			0.00			1/2"	1.80	0.79	0.0564
			0.00			Ice	1.97	0.91	0.0712
						1" Ice			
RRUS 4415 B25	C	From Leg	3.00	0.0000	166.00	No Ice	1.64	0.68	0.0440
			0.00			1/2"	1.80	0.79	0.0564
			0.00			Ice	1.97	0.91	0.0712
						1" Ice			
RRUS 32 B66	A	From Leg	3.00	0.0000	166.00	No Ice	2.74	1.67	0.0530
			0.00			1/2"	2.96	1.86	0.0741
			0.00			Ice	3.19	2.05	0.0984
						1" Ice			
RRUS 32 B66	B	From Leg	3.00	0.0000	166.00	No Ice	2.74	1.67	0.0530
			0.00			1/2"	2.96	1.86	0.0741
			0.00			Ice	3.19	2.05	0.0984
						1" Ice			
RRUS 32 B66	C	From Leg	3.00	0.0000	166.00	No Ice	2.74	1.67	0.0530
			0.00			1/2"	2.96	1.86	0.0741
			0.00			Ice	3.19	2.05	0.0984
						1" Ice			
RRUS 4478 B14	A	From Leg	3.00	0.0000	166.00	No Ice	1.84	1.06	0.0599
			0.00			1/2"	2.01	1.20	0.0758
			0.00			Ice	2.19	1.34	0.0943
						1" Ice			
RRUS 4478 B14	B	From Leg	3.00	0.0000	166.00	No Ice	1.84	1.06	0.0599
			0.00			1/2"	2.01	1.20	0.0758
			0.00			Ice	2.19	1.34	0.0943
						1" Ice			
RRUS 4478 B14	C	From Leg	3.00	0.0000	166.00	No Ice	1.84	1.06	0.0599
			0.00			1/2"	2.01	1.20	0.0758
			0.00			Ice	2.19	1.34	0.0943
						1" Ice			
RRUS 32 B30	A	From Leg	3.00	0.0000	166.00	No Ice	2.69	1.57	0.0600
			0.00			1/2"	2.91	1.76	0.0804
			0.00			Ice	3.14	1.95	0.1039
						1" Ice			
RRUS 32 B30	B	From Leg	3.00	0.0000	166.00	No Ice	2.69	1.57	0.0600
			0.00			1/2"	2.91	1.76	0.0804
			0.00			Ice	3.14	1.95	0.1039
						1" Ice			
RRUS 32 B30	C	From Leg	3.00	0.0000	166.00	No Ice	2.69	1.57	0.0600
			0.00			1/2"	2.91	1.76	0.0804
			0.00			Ice	3.14	1.95	0.1039
						1" Ice			
RRUS E2 B29	A	From Leg	3.00	0.0000	166.00	No Ice	3.15	1.29	0.0600
			0.00			1/2"	3.36	1.44	0.0832
			0.00			Ice	3.59	1.60	0.1096
						1" Ice			
RRUS E2 B29	B	From Leg	3.00	0.0000	166.00	No Ice	3.15	1.29	0.0600
			0.00			1/2"	3.36	1.44	0.0832
			0.00			Ice	3.59	1.60	0.1096
						1" Ice			
RRUS E2 B29	C	From Leg	3.00	0.0000	166.00	No Ice	3.15	1.29	0.0600
			0.00			1/2"	3.36	1.44	0.0832
			0.00			Ice	3.59	1.60	0.1096
						1" Ice			
14' Sector Mount	C	None		0.0000	166.00	No Ice	39.83	39.83	1.8795
						1/2"	56.05	56.05	2.6477
						Ice	71.96	71.96	3.6578
						1" Ice			
(2) APTDC-BDFDM-DBW	A	From Leg	3.00	0.0000	166.00	No Ice	0.05	0.10	0.0013
			0.00			1/2"	0.08	0.14	0.0024
			0.00			Ice	0.12	0.19	0.0042
						1" Ice			
(2) APTDC-BDFDM-DBW	B	From Leg	3.00	0.0000	166.00	No Ice	0.05	0.10	0.0013
			0.00			1/2"	0.08	0.14	0.0024

Description	*Face or Leg*	*Offset Type*	*Offsets: Horz Lateral Vert* *ft* *ft* *ft*	*Azimuth Adjustment* *°*	*Placement* *ft*		*C_AA_A Front* *ft^2*	*C_AA_A Side* *ft^2*	*Weight* *K*
			0.00			Ice	0.12	0.19	0.0042
						1" Ice			
(2) APTDC-BDFDM-DBW	C	From Leg	3.00	0.0000	166.00	No Ice	0.05	0.10	0.0013
			0.00			1/2"	0.08	0.14	0.0024
			0.00			Ice	0.12	0.19	0.0042
						1" Ice			
(2) DC6-48-60-18-8F	A	From Leg	3.00	0.0000	166.00	No Ice	0.92	0.92	0.0189
			0.00			1/2"	1.46	1.46	0.0366
			0.00			Ice	1.64	1.64	0.0568
						1" Ice			
***									
QD6616-7	A	From Leg	3.00	0.0000	166.00	No Ice	13.58	6.80	0.0591
			0.00			1/2"	14.08	7.27	0.1431
			0.00			Ice	14.60	7.72	0.2339
						1" Ice			
QD6616-7	B	From Leg	3.00	0.0000	166.00	No Ice	13.58	6.80	0.0591
			0.00			1/2"	14.08	7.27	0.1431
			0.00			Ice	14.60	7.72	0.2339
						1" Ice			
QD6616-7	C	From Leg	3.00	0.0000	166.00	No Ice	13.58	6.80	0.0591
			0.00			1/2"	14.08	7.27	0.1431
			0.00			Ice	14.60	7.72	0.2339
						1" Ice			
AIR6449 B77D + AIR6419 B77G	A	From Leg	3.00	0.0000	166.00	No Ice	8.45	4.85	0.1632
			0.00			1/2"	8.87	5.24	0.2174
			0.00			Ice	9.29	5.62	0.2774
						1" Ice			
AIR6449 B77D + AIR6419 B77G	B	From Leg	3.00	0.0000	166.00	No Ice	8.45	4.85	0.1632
			0.00			1/2"	8.87	5.24	0.2174
			0.00			Ice	9.29	5.62	0.2774
						1" Ice			
AIR6449 B77D + AIR6419 B77G	C	From Leg	3.00	0.0000	166.00	No Ice	8.45	4.85	0.1632
			0.00			1/2"	8.87	5.24	0.2174
			0.00			Ice	9.29	5.62	0.2774
						1" Ice			
DC9-48-60-24-8C-EV	A	From Leg	3.00	0.0000	166.00	No Ice	2.74	4.78	0.0266
			0.00			1/2"	2.96	5.06	0.0637
			0.00			Ice	3.20	5.35	0.1048
						1" Ice			
RRUS 4449 B5/B12	A	From Leg	3.00	0.0000	166.00	No Ice	1.97	1.41	0.0710
			0.00			1/2"	2.14	1.56	0.0895
			0.00			Ice	2.33	1.73	0.1108
						1" Ice			
RRUS 4449 B5/B12	B	From Leg	3.00	0.0000	166.00	No Ice	1.97	1.41	0.0710
			0.00			1/2"	2.14	1.56	0.0895
			0.00			Ice	2.33	1.73	0.1108
						1" Ice			
RRUS 4449 B5/B12	C	From Leg	3.00	0.0000	166.00	No Ice	1.97	1.41	0.0710
			0.00			1/2"	2.14	1.56	0.0895
			0.00			Ice	2.33	1.73	0.1108
						1" Ice			
*									

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Description	*Face or Leg*	*Dish Type*	*Offset Type*	*Offsets: Horz Lateral Vert* *ft*	*Azimuth Adjustment* °	*3 dB Beam Width* °	*Elevation* *ft*	*Outside Diameter* *ft*		*Aperture Area* ft^2	*Weight* *K*
PR-950	C	Grid	From Leg	3.00	0.0000		152.00	5.67	No Ice	25.22	0.0380
				0.00					1/2" Ice	25.97	0.1700
				0.00					1" Ice	26.71	0.3000
**											
VHLP3-11W-SEI	C	Paraboloid w/Shroud (HP)	From Leg	2.00	0.0000		122.00	3.27	No Ice	8.42	0.0370
				0.00					1/2" Ice	8.86	0.0820
				0.00					1" Ice	9.29	0.1280
**											
Andrew 6' w/Radome	A	Paraboloid w/Radome	From Leg	1.00	35.0500		115.00	6.00	No Ice	28.27	0.3800
				0.00					1/2" Ice	29.07	0.4500
				0.00					1" Ice	29.86	0.5200
**											

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Comb. No.	*Description*
1	Dead Only
2	1.2 Dead+1.6 Wind 0 deg - No Ice
3	0.9 Dead+1.6 Wind 0 deg - No Ice
4	1.2 Dead+1.6 Wind 30 deg - No Ice
5	0.9 Dead+1.6 Wind 30 deg - No Ice
6	1.2 Dead+1.6 Wind 60 deg - No Ice
7	0.9 Dead+1.6 Wind 60 deg - No Ice
8	1.2 Dead+1.6 Wind 90 deg - No Ice
9	0.9 Dead+1.6 Wind 90 deg - No Ice
10	1.2 Dead+1.6 Wind 120 deg - No Ice
11	0.9 Dead+1.6 Wind 120 deg - No Ice
12	1.2 Dead+1.6 Wind 150 deg - No Ice
13	0.9 Dead+1.6 Wind 150 deg - No Ice
14	1.2 Dead+1.6 Wind 180 deg - No Ice
15	0.9 Dead+1.6 Wind 180 deg - No Ice
16	1.2 Dead+1.6 Wind 210 deg - No Ice
17	0.9 Dead+1.6 Wind 210 deg - No Ice
18	1.2 Dead+1.6 Wind 240 deg - No Ice
19	0.9 Dead+1.6 Wind 240 deg - No Ice
20	1.2 Dead+1.6 Wind 270 deg - No Ice
21	0.9 Dead+1.6 Wind 270 deg - No Ice
22	1.2 Dead+1.6 Wind 300 deg - No Ice
23	0.9 Dead+1.6 Wind 300 deg - No Ice
24	1.2 Dead+1.6 Wind 330 deg - No Ice
25	0.9 Dead+1.6 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service

Comb. No.	*Description*
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

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Section No.	*Elevation ft*	*Component Type*	*Condition*	*Gov. Load Comb.*	*Axial K*	*Major Axis Moment kip-ft*	*Minor Axis Moment kip-ft*
T1	170 - 166.667	Leg	Max Tension	19	0.3183	0.0000	0.0000
			Max. Compression	31	-0.6326	-0.1294	-0.0825
			Max. Mx	20	0.1067	0.3695	-0.0995
			Max. My	2	0.0911	-0.0028	0.4193
			Max. Vy	20	-0.1331	0.3695	-0.0995
			Max. Vx	2	-0.1503	-0.0028	0.4193
		Diagonal	Max Tension	19	0.6741	0.0000	0.0000
			Max. Compression	6	-0.6852	0.0000	0.0000
			Max. Mx	29	-0.2726	0.0168	0.0000
			Max. My	16	-0.0204	0.0013	0.0020
			Max. Vy	29	0.0285	0.0168	0.0000
			Max. Vx	16	-0.0007	0.0012	0.0020
		Top Girt	Max Tension	6	0.4696	0.0000	0.0000
			Max. Compression	19	-0.4690	0.0000	0.0000
			Max. Mx	26	-0.0187	-0.0513	0.0000
			Max. Vy	26	0.0450	0.0000	0.0000
T2	166.667 - 163.333	Leg	Max Tension	7	2.1659	-0.3458	0.2243
			Max. Compression	27	-10.1580	-0.0017	0.0187
			Max. Mx	8	-1.9117	0.8944	-0.0117
			Max. My	2	-0.5842	0.0523	-0.8061
			Max. Vy	21	1.7581	0.2729	0.0036
			Max. Vx	2	1.7013	-0.0028	0.4193
		Diagonal	Max Tension	6	2.4947	0.0000	0.0000
			Max. Compression	19	-2.4928	0.0000	0.0000
			Max. Mx	31	0.3227	0.0169	0.0002
			Max. My	4	-2.4152	0.0007	0.0024
			Max. Vy	31	-0.0284	0.0169	0.0002
			Max. Vx	4	0.0008	-0.0000	0.0024
T3	163.333 - 160	Leg	Max Tension	7	7.0155	-0.2379	0.1646
			Max. Compression	27	-12.5200	0.0075	0.0672
			Max. Mx	9	-1.4785	-0.4596	-0.0085
			Max. My	2	2.4173	0.0523	0.3949
			Max. Vy	9	-0.2034	-0.4596	-0.0085
			Max. Vx	2	0.1746	-0.0545	0.3947
		Diagonal	Max Tension	5	3.3215	0.0000	0.0000
			Max. Compression	16	-3.3867	0.0000	0.0000
			Max. Mx	28	0.3506	0.0425	0.0007
			Max. My	9	2.9968	0.0102	0.0037
			Max. Vy	28	-0.0431	0.0425	0.0007
			Max. Vx	9	0.0013	0.0000	0.0000
T4	160 - 140	Leg	Max Tension	7	37.1967	-0.0743	0.0074
			Max. Compression	18	-42.3161	0.1082	-0.0114
			Max. Mx	6	36.5880	-0.1118	0.0124
			Max. My	8	-2.3298	-0.0132	0.1472
			Max. Vy	18	0.3077	0.0814	-0.0071
			Max. Vx	4	0.3790	0.0690	-0.0092
		Diagonal	Max Tension	5	3.4218	0.0000	0.0000
			Max. Compression	16	-3.4556	0.0000	0.0000
			Max. Mx	27	0.8434	0.0336	-0.0042
			Max. My	30	-0.7816	0.0283	0.0047
			Max. Vy	29	0.0414	0.0317	0.0044
			Max. Vx	30	-0.0024	0.0000	0.0000
		Top Girt	Max Tension	14	0.0574	0.0000	0.0000
			Max. Compression	3	-0.0479	0.0000	0.0000
			Max. Mx	26	0.0176	-0.0523	0.0000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. My	26	0.0087	0.0000	0.0015
			Max. Vy	26	0.0459	0.0000	0.0000
			Max. Vx	26	-0.0014	0.0000	0.0000
T5	140 - 120	Leg	Max Tension	7	62.5576	-0.3965	0.0891
			Max. Compression	18	-70.3596	0.4029	-0.0957
			Max. Mx	19	-69.5309	0.4042	-0.0959
			Max. My	21	-2.1363	-0.0342	-0.5038
			Max. Vy	6	0.2216	-0.3979	0.0893
			Max. Vx	13	0.2744	0.0122	-0.4142
		Diagonal	Max Tension	4	3.9318	0.0000	0.0000
			Max. Compression	16	-3.9184	0.0000	0.0000
			Max. Mx	27	1.1214	0.0599	-0.0075
			Max. My	30	-0.7938	0.0509	0.0081
			Max. Vy	29	0.0580	0.0594	0.0076
			Max. Vx	30	-0.0032	0.0000	0.0000
T6	120 - 100	Leg	Max Tension	7	88.2300	-0.1990	-0.0104
			Max. Compression	18	-98.8704	0.2738	-0.0259
			Max. Mx	19	-77.6805	0.4238	-0.1781
			Max. My	20	-3.7477	-0.0405	-0.5332
			Max. Vy	14	0.3737	-0.4220	-0.0139
			Max. Vx	20	0.5897	-0.0405	-0.5332
		Diagonal	Max Tension	16	5.4782	0.0000	0.0000
			Max. Compression	16	-5.4934	0.0000	0.0000
			Max. Mx	27	1.6324	0.1127	0.0141
			Max. My	30	1.4507	0.1092	0.0157
			Max. Vy	29	0.0861	0.1103	-0.0135
			Max. Vx	30	-0.0049	0.0000	0.0000
T7	100 - 80	Leg	Max Tension	7	115.1518	-0.3775	0.0399
			Max. Compression	18	-129.5393	0.1920	-0.0979
			Max. Mx	6	113.8761	-0.3824	0.0400
			Max. My	21	-3.1401	-0.0068	-0.6934
			Max. Vy	14	-0.2291	-0.2679	0.0111
			Max. Vx	25	0.2762	-0.0046	0.2283
		Diagonal	Max Tension	16	6.0413	0.0000	0.0000
			Max. Compression	18	-6.1434	0.0000	0.0000
			Max. Mx	29	1.2170	0.1537	0.0186
			Max. My	36	1.8217	0.1484	-0.0193
			Max. Vy	29	0.1010	0.1537	0.0186
			Max. Vx	36	0.0053	0.0000	0.0000
T8	80 - 60	Leg	Max Tension	7	140.5463	0.6538	-0.0081
			Max. Compression	18	-159.6007	1.4786	0.0036
			Max. Mx	35	-89.4478	-1.5153	0.0008
			Max. My	21	-3.8759	-0.0769	-1.0922
			Max. Vy	18	0.7781	1.4787	0.0036
			Max. Vx	21	0.4292	-0.0769	-1.0922
		Diagonal	Max Tension	17	6.6078	0.0718	-0.0005
			Max. Compression	18	-7.0843	0.0000	0.0000
			Max. Mx	27	1.3015	0.2181	-0.0241
			Max. My	35	-2.6245	0.1612	-0.0297
			Max. Vy	37	0.1272	0.1957	0.0236
			Max. Vx	35	-0.0071	0.0000	0.0000
		Secondary Horizontal	Max Tension	4	1.0275	0.0000	0.0000
			Max. Compression	17	-0.9340	0.0211	0.0093
			Max. Mx	36	0.3801	0.1666	0.0194
			Max. My	28	-0.0229	0.1482	0.0233
			Max. Vy	36	0.1135	0.1528	0.0230
			Max. Vx	28	0.0060	0.0000	0.0000
T9	60 - 40	Leg	Max Tension	7	163.7331	1.2725	0.0052
			Max. Compression	35	-250.9664	-4.4972	0.0070
			Max. Mx	35	-250.9664	-4.4972	0.0070
			Max. My	36	-32.8175	-2.2000	-1.8255
			Max. Vy	35	-9.7928	-0.6043	0.0125
			Max. Vx	21	-0.6961	-0.1090	-1.5201
		Diagonal	Max Tension	17	8.0595	0.1217	0.0044
			Max. Compression	28	-8.9508	0.0000	0.0000
			Max. Mx	35	-2.4416	0.3283	0.0347
			Max. My	36	-1.6879	0.1866	-0.0554
			Max. Vy	37	0.1615	0.3122	0.0324

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	36	-0.0102	0.0000	0.0000
		Secondary Horizontal	Max Tension	36	1.4371	0.0000	0.0000
			Max. Compression	17	-1.0739	0.0357	0.0186
			Max. Mx	29	-0.0463	0.2275	0.0383
			Max. My	36	-0.2276	0.2167	0.0451
			Max. Vy	30	-0.1411	0.2204	0.0398
			Max. Vx	36	0.0090	0.0000	0.0000
T10	40 - 20	Leg	Max Tension	7	189.9033	-2.8837	-0.0044
			Max. Compression	35	-258.4175	-4.8356	-0.0096
			Max. Mx	35	-258.4175	-4.8356	-0.0096
			Max. My	4	-11.8739	-0.2827	-2.0803
			Max. Vy	35	-1.9052	4.7378	-0.0027
			Max. Vx	21	-0.7458	-0.1764	-2.0767
		Diagonal	Max Tension	17	8.9930	0.1302	0.0088
			Max. Compression	18	-10.2741	0.0000	0.0000
			Max. Mx	35	0.7982	0.4266	0.0487
			Max. My	35	0.2508	0.4266	-0.0504
			Max. Vy	37	0.1707	0.3469	0.0399
			Max. Vx	35	0.0093	0.0000	0.0000
		Secondary Horizontal	Max Tension	36	1.9148	0.0000	0.0000
			Max. Compression	17	-1.3279	0.0473	0.0168
			Max. Mx	29	0.9610	0.2881	0.0316
			Max. My	36	-0.1106	0.2528	0.0443
			Max. Vy	30	-0.1495	0.2573	0.0397
			Max. Vx	36	0.0083	0.0000	0.0000
T11	20 - 0	Leg	Max Tension	7	215.9528	1.9595	0.0062
			Max. Compression	35	-266.8154	0.0000	0.0000
			Max. Mx	35	-262.7824	-4.8356	-0.0096
			Max. My	4	-14.6069	-0.3525	-2.9524
			Max. Vy	35	-1.8963	4.3892	-0.0021
			Max. Vx	21	0.7707	-0.2283	-2.9471
		Diagonal	Max Tension	7	9.3849	0.1854	-0.0144
			Max. Compression	18	-10.9307	0.0000	0.0000
			Max. Mx	35	-0.0693	0.5401	-0.0523
			Max. My	35	0.2168	0.4616	-0.0685
			Max. Vy	37	0.1928	0.4874	-0.0426
			Max. Vx	35	0.0110	0.0000	0.0000
		Secondary Horizontal	Max Tension	36	1.8986	0.0000	0.0000
			Max. Compression	17	-1.5086	0.0777	0.0230
			Max. Mx	28	0.6971	0.3629	0.0388
			Max. My	36	-0.4825	0.2792	0.0506
			Max. Vy	28	0.1664	0.3629	0.0388
			Max. Vx	36	0.0089	0.0000	0.0000

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Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Leg C	Max. Vert	35	268.7311	15.6874	-9.3768
	Max. H_x	18	260.1302	25.7233	-15.6438
	Max. H_z	7	-222.8279	-21.9414	13.4259
	Min. Vert	7	-222.8279	-21.9414	13.4259
	Min. H_x	7	-222.8279	-21.9414	13.4259
	Min. H_z	18	260.1302	25.7233	-15.6438
Leg B	Max. Vert	10	244.2300	-24.4688	-14.5071
	Max. H_x	23	-208.5007	20.8445	12.4039
	Max. H_z	23	-208.5007	20.8445	12.4039
	Min. Vert	23	-208.5007	20.8445	12.4039
	Min. H_x	10	244.2300	-24.4688	-14.5071
	Min. H_z	10	244.2300	-24.4688	-14.5071
Leg A	Max. Vert	2	246.0525	0.2844	28.6451

Location	*Condition*	*Gov. Load Comb.*	*Vertical K*	*Horizontal, X K*	*Horizontal, Z K*
	Max. H_x	20	11.3641	3.6269	1.0924
	Max. H_z	2	246.0525	0.2844	28.6451
	Min. Vert	15	-210.9570	-0.2376	-24.6144
	Min. H_x	9	11.9031	-3.5765	1.1135
	Min. H_z	15	-210.9570	-0.2376	-24.6144

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Load Combination	*Vertical K*	*Shear$_x$ K*	*Shear$_z$ K*	*Overturning Moment, M_x kip-ft*	*Overturning Moment, M_z kip-ft*	*Torque kip-ft*
Dead Only	33.0432	0.0000	-0.0000	-8.8269	-3.0370	0.0000
1.2 Dead+1.6 Wind 0 deg - No Ice	39.6518	0.3617	-45.3704	-4206.2350	-51.7013	10.3962
0.9 Dead+1.6 Wind 0 deg - No Ice	29.7389	0.3617	-45.3704	-4203.5870	-50.7902	10.3962
1.2 Dead+1.6 Wind 30 deg - No Ice	39.6518	22.8017	-38.8626	-3677.7098	-2169.0429	-0.5102
0.9 Dead+1.6 Wind 30 deg - No Ice	29.7389	22.8017	-38.8626	-3675.0618	-2168.1318	-0.5102
1.2 Dead+1.6 Wind 60 deg - No Ice	39.6518	38.2068	-21.9281	-2097.6766	-3646.3203	-24.1378
0.9 Dead+1.6 Wind 60 deg - No Ice	29.7389	38.2068	-21.9281	-2095.0285	-3645.4092	-24.1378
1.2 Dead+1.6 Wind 90 deg - No Ice	39.6518	44.3421	-0.2037	-38.5999	-4206.6336	-30.6033
0.9 Dead+1.6 Wind 90 deg - No Ice	29.7389	44.3421	-0.2037	-35.9519	-4205.7225	-30.6033
1.2 Dead+1.6 Wind 120 deg - No Ice	39.6518	39.1691	22.2513	2039.4821	-3641.4304	-11.6919
0.9 Dead+1.6 Wind 120 deg - No Ice	29.7389	39.1691	22.2513	2042.1302	-3640.5193	-11.6919
1.2 Dead+1.6 Wind 150 deg - No Ice	39.6518	20.4517	35.6666	3322.6664	-1910.2121	-1.8235
0.9 Dead+1.6 Wind 150 deg - No Ice	29.7389	20.4517	35.6666	3325.3145	-1909.3010	-1.8235
1.2 Dead+1.6 Wind 180 deg - No Ice	39.6518	-0.3226	42.3166	3987.4325	40.5156	-8.8770
0.9 Dead+1.6 Wind 180 deg - No Ice	29.7389	-0.3226	42.3166	3990.0806	41.4266	-8.8770
1.2 Dead+1.6 Wind 210 deg - No Ice	39.6518	-22.8914	38.9629	3666.9643	2172.7192	1.4200
0.9 Dead+1.6 Wind 210 deg - No Ice	29.7389	-22.8914	38.9629	3669.6124	2173.6303	1.4200
1.2 Dead+1.6 Wind 240 deg - No Ice	39.6518	-41.3842	23.7675	2212.3237	3873.3179	24.6986
0.9 Dead+1.6 Wind 240 deg - No Ice	29.7389	-41.3842	23.7675	2214.9718	3874.2290	24.6986
1.2 Dead+1.6 Wind 270 deg - No Ice	39.6518	-44.6010	0.3337	33.4779	4228.4989	31.7789
0.9 Dead+1.6 Wind 270 deg - No Ice	29.7389	-44.6010	0.3337	36.1259	4229.4100	31.7789
1.2 Dead+1.6 Wind 300 deg - No Ice	39.6518	-36.3968	-20.3588	-1919.2938	3448.6216	12.4509
0.9 Dead+1.6 Wind 300 deg - No Ice	29.7389	-36.3968	-20.3588	-1916.6458	3449.5327	12.4509
1.2 Dead+1.6 Wind 330 deg - No Ice	39.6518	-20.6700	-35.2477	-3293.3086	1932.1325	3.1178
0.9 Dead+1.6 Wind 330 deg - No Ice	29.7389	-20.6700	-35.2477	-3290.6606	1933.0436	3.1178
1.2 Dead+1.0 Ice+1.0 Temp	294.8082	-0.0000	0.0000	689.4714	1267.1779	-0.0000
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	294.8082	0.2912	-16.5163	-873.5673	1223.8709	4.6899
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	294.8082	8.5846	-14.4050	-680.7045	437.8592	-0.1910

Load Combination	*Vertical*	*Shear$_x$*	*Shear$_z$*	*Overturning Moment, M$_x$*	*Overturning Moment, M$_z$*	*Torque*
	K	*K*	*K*	*kip-ft*	*kip-ft*	*kip-ft*
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	294.8082	14.6631	-8.4029	-116.1031	-140.9039	-8.5805
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	294.8082	16.7164	-0.1778	662.7175	-333.2175	-10.5291
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	294.8082	14.4385	7.9672	1431.3968	-111.2692	-6.1146
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	294.8082	7.9771	13.7713	1994.0307	510.9703	-3.8425
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	294.8082	-0.0692	16.1189	2221.9292	1277.1199	-3.9524
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	294.8082	-8.4303	14.4185	2060.9588	2072.6512	0.9993
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	294.8082	-14.9375	8.5621	1502.6521	2688.2745	8.6718
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	294.8082	-16.6718	0.0541	696.8370	2859.1674	10.0602
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	294.8082	-13.9658	-7.8957	-58.5823	2600.4358	5.7478
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	294.8082	-8.0014	-13.7096	-607.8635	2026.4052	4.0531
Dead+Wind 0 deg - Service	33.0432	0.0752	-9.6053	-889.6212	-13.0300	2.1618
Dead+Wind 30 deg - Service	33.0432	4.8269	-8.2292	-778.6007	-457.4862	-0.1061
Dead+Wind 60 deg - Service	33.0432	8.0928	-4.6452	-446.9914	-767.7284	-5.0192
Dead+Wind 90 deg - Service	33.0432	9.3915	-0.0424	-14.6508	-885.3590	-6.3637
Dead+Wind 120 deg - Service	33.0432	8.2929	4.7124	421.6417	-766.7116	-2.4312
Dead+Wind 150 deg - Service	33.0432	4.3382	7.5646	691.5239	-403.6646	-0.3792
Dead+Wind 180 deg - Service	33.0432	-0.0671	8.9703	830.8745	6.1457	-1.8459
Dead+Wind 210 deg - Service	33.0432	-4.8455	8.2500	763.1177	453.6924	0.2953
Dead+Wind 240 deg - Service	33.0432	-8.7535	5.0277	457.5827	810.3723	5.1359
Dead+Wind 270 deg - Service	33.0432	-9.4453	0.0694	0.3371	885.3474	6.6082
Dead+Wind 300 deg - Service	33.0432	-7.7164	-4.3189	-409.8982	722.0603	2.5891
Dead+Wind 330 deg - Service	33.0432	-4.3836	-7.4775	-698.6678	403.6644	0.6483

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	Sum of Applied Forces			*Sum of Reactions*			
Load Comb.	*PX*	*PY*	*PZ*	*PX*	*PY*	*PZ*	*% Error*
	K	*K*	*K*	*K*	*K*	*K*	
1	0.0000	-33.0432	0.0000	0.0000	33.0432	0.0000	0.000%
2	0.3617	-39.6518	-45.3704	-0.3617	39.6518	45.3704	0.000%
3	0.3617	-29.7389	-45.3704	-0.3617	29.7389	45.3704	0.000%
4	22.8017	-39.6518	-38.8626	-22.8017	39.6518	38.8626	0.000%
5	22.8017	-29.7389	-38.8626	-22.8017	29.7389	38.8626	0.000%
6	38.2068	-39.6518	-21.9281	-38.2068	39.6518	21.9281	0.000%
7	38.2068	-29.7389	-21.9281	-38.2068	29.7389	21.9281	0.000%
8	44.3421	-39.6518	-0.2037	-44.3421	39.6518	0.2037	0.000%
9	44.3421	-29.7389	-0.2037	-44.3421	29.7389	0.2037	0.000%
10	39.1691	-39.6518	22.2513	-39.1691	39.6518	-22.2513	0.000%
11	39.1691	-29.7389	22.2513	-39.1691	29.7389	-22.2513	0.000%
12	20.4517	-39.6518	35.6666	-20.4517	39.6518	-35.6666	0.000%
13	20.4517	-29.7389	35.6666	-20.4517	29.7389	-35.6666	0.000%
14	-0.3226	-39.6518	42.3166	0.3226	39.6518	-42.3166	0.000%
15	-0.3226	-29.7389	42.3166	0.3226	29.7389	-42.3166	0.000%
16	-22.8914	-39.6518	38.9629	22.8914	39.6518	-38.9629	0.000%
17	-22.8914	-29.7389	38.9629	22.8914	29.7389	-38.9629	0.000%
18	-41.3842	-39.6518	23.7675	41.3842	39.6518	-23.7675	0.000%
19	-41.3842	-29.7389	23.7675	41.3842	29.7389	-23.7675	0.000%
20	-44.6010	-39.6518	0.3337	44.6010	39.6518	-0.3337	0.000%

Load Comb.	Sum of Applied Forces PX K	PY K	PZ K	Sum of Reactions PX K	PY K	PZ K	% Error
21	-44.6010	-29.7389	0.3337	44.6010	29.7389	-0.3337	0.000%
22	-36.3968	-39.6518	-20.3588	36.3968	39.6518	20.3588	0.000%
23	-36.3968	-29.7389	-20.3588	36.3968	29.7389	20.3588	0.000%
24	-20.6700	-39.6518	-35.2477	20.6700	39.6518	35.2477	0.000%
25	-20.6700	-29.7389	-35.2477	20.6700	29.7389	35.2477	0.000%
26	0.0000	-294.8082	0.0000	0.0000	294.8082	-0.0000	0.000%
27	0.2912	-294.8082	-16.5163	-0.2912	294.8082	16.5163	0.000%
28	8.5846	-294.8082	-14.4050	-8.5846	294.8082	14.4050	0.000%
29	14.6631	-294.8082	-8.4029	-14.6631	294.8082	8.4029	0.000%
30	16.7164	-294.8082	-0.1778	-16.7164	294.8082	0.1778	0.000%
31	14.4385	-294.8082	7.9672	-14.4385	294.8082	-7.9672	0.000%
32	7.9771	-294.8082	13.7713	-7.9771	294.8082	-13.7713	0.000%
33	-0.0692	-294.8082	16.1189	0.0692	294.8082	-16.1189	0.000%
34	-8.4303	-294.8082	14.4185	8.4303	294.8082	-14.4185	0.000%
35	-14.9375	-294.8082	8.5621	14.9375	294.8082	-8.5621	0.000%
36	-16.6718	-294.8082	0.0541	16.6718	294.8082	-0.0541	0.000%
37	-13.9657	-294.8082	-7.8957	13.9658	294.8082	7.8957	0.000%
38	-8.0014	-294.8082	-13.7096	8.0014	294.8082	13.7096	0.000%
39	0.0752	-33.0432	-9.6053	-0.0752	33.0432	9.6053	0.000%
40	4.8269	-33.0432	-8.2292	-4.8269	33.0432	8.2292	0.000%
41	8.0928	-33.0432	-4.6452	-8.0928	33.0432	4.6452	0.000%
42	9.3915	-33.0432	-0.0424	-9.3915	33.0432	0.0424	0.000%
43	8.2929	-33.0432	4.7124	-8.2929	33.0432	-4.7124	0.000%
44	4.3382	-33.0432	7.5646	-4.3382	33.0432	-7.5646	0.000%
45	-0.0671	-33.0432	8.9703	0.0671	33.0432	-8.9703	0.000%
46	-4.8455	-33.0432	8.2500	4.8455	33.0432	-8.2500	0.000%
47	-8.7535	-33.0432	5.0277	8.7535	33.0432	-5.0277	0.000%
48	-9.4453	-33.0432	0.0694	9.4453	33.0432	-0.0694	0.000%
49	-7.7164	-33.0432	-4.3189	7.7164	33.0432	4.3189	0.000%
50	-4.3836	-33.0432	-7.4775	4.3836	33.0432	7.4775	0.000%

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Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	170 - 166.667	4.467	47	0.2558	0.0299
T2	166.667 - 163.333	4.289	47	0.2559	0.0301
T3	163.333 - 160	4.106	47	0.2552	0.0293
T4	160 - 140	3.926	47	0.2527	0.0288
T5	140 - 120	2.915	47	0.2145	0.0235
T6	120 - 100	2.087	47	0.1689	0.0186
T7	100 - 80	1.427	47	0.1362	0.0132
T8	80 - 60	0.894	47	0.1058	0.0076
T9	60 - 40	0.503	47	0.0729	0.0048
T10	40 - 20	0.235	47	0.0480	0.0031
T11	20 - 0	0.067	47	0.0245	0.0014

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Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
173.00	10' x 1" Dia Omni	47	4.467	0.2558	0.0299	177522
166.00	80010965_TIA	47	4.253	0.2559	0.0300	177522
152.00	PR-950	47	3.507	0.2410	0.0271	39866
140.00	3' Side Mount Standoff	47	2.915	0.2145	0.0235	22625
129.00	10' x 1" Dia Omni	47	2.436	0.1883	0.0207	24956
124.00	12' x 3" Dia Omni	47	2.237	0.1771	0.0195	26702
122.00	VHLP3-11W-SEI	47	2.161	0.1729	0.0191	27483

Elevation	*Appurtenance*	*Gov. Load Comb.*	*Deflection*	*Tilt*	*Twist*	*Radius of Curvature*
ft			*in*	*°*	*°*	*ft*
115.00	Andrew 6' w/Radome	47	1.908	0.1596	0.0174	31005
107.00	10' Dipole	47	1.642	0.1466	0.0152	36417
100.00	10' x 2" Dia Omni	47	1.427	0.1362	0.0132	41358
84.00	10' x 2" Dia Omni	47	0.990	0.1123	0.0085	33178
70.00	12' x 3" Dia Omni	47	0.681	0.0889	0.0059	34308
67.00	12' x 3" Dia Omni	47	0.624	0.0839	0.0055	35325
50.00	20' x 3" Dia Omni	47	0.356	0.0596	0.0039	45680
30.00	20' x 3" Dia Omni	47	0.137	0.0364	0.0023	44517
22.00	2' x 1" Dia. Omni	47	0.078	0.0269	0.0016	38241

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Section No.	*Elevation*	*Horz. Deflection*	*Gov. Load Comb.*	*Tilt*	*Twist*
	ft	*in*		*°*	*°*
T1	170 - 166.667	21.559	19	1.2385	0.1440
T2	166.667 - 163.333	20.698	19	1.2391	0.1449
T3	163.333 - 160	19.810	19	1.2353	0.1409
T4	160 - 140	18.943	19	1.2231	0.1385
T5	140 - 120	14.052	19	1.0371	0.1130
T6	120 - 100	10.049	19	0.8158	0.0894
T7	100 - 80	6.862	19	0.6574	0.0636
T8	80 - 60	4.293	19	0.5101	0.0365
T9	60 - 40	2.411	19	0.3505	0.0232
T10	40 - 20	1.126	19	0.2307	0.0150
T11	20 - 0	0.318	19	0.1174	0.0069

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Elevation	*Appurtenance*	*Gov. Load Comb.*	*Deflection*	*Tilt*	*Twist*	*Radius of Curvature*
ft			*in*	*°*	*°*	*ft*
173.00	10' x 1" Dia Omni	19	21.559	1.2385	0.1440	39468
166.00	80010965_TIA	19	20.522	1.2389	0.1444	39468
152.00	PR-950	19	16.912	1.1661	0.1304	8459
140.00	3' Side Mount Standoff	19	14.052	1.0371	0.1130	4693
129.00	10' x 1" Dia Omni	19	11.734	0.9099	0.0994	5147
124.00	12' x 3" Dia Omni	19	10.776	0.8558	0.0939	5511
122.00	VHLP3-11W-SEI	19	10.408	0.8354	0.0917	5673
115.00	Andrew 6' w/Radome	19	9.186	0.7708	0.0835	6394
107.00	10' Dipole	19	7.901	0.7077	0.0733	7535
100.00	10' x 2" Dia Omni	19	6.862	0.6574	0.0636	8604
84.00	10' x 2" Dia Omni	19	4.754	0.5412	0.0411	6853
70.00	12' x 3" Dia Omni	19	3.267	0.4282	0.0284	7102
67.00	12' x 3" Dia Omni	19	2.993	0.4038	0.0266	7315
50.00	20' x 3" Dia Omni	19	1.705	0.2866	0.0190	9466
30.00	20' x 3" Dia Omni	19	0.657	0.1748	0.0109	9246
22.00	2' x 1" Dia. Omni	19	0.374	0.1290	0.0077	7952

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Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load per Bolt K	Ratio Load / Allowable	Allowable Ratio	Criteria
T1	170	Diagonal	A325N	0.5000	1	0.6741	3.1266	0.216	1	Member Block Shear
		Top Girt	A325N	0.6250	1	0.4696	3.1945	0.147	1	Member Block Shear
T2	166.667	Diagonal	A325N	0.5000	1	2.4947	3.1266	0.798	1	Member Block Shear
T3	163.333	Leg	A325N	0.7500	4	1.7539	29.8206	0.059	1	Bolt Tension
		Diagonal	A325X	0.5000	1	3.3215	8.2650	0.402	1	Member Bearing
T4	160	Leg	A325N	0.7500	4	9.2992	29.8206	0.312	1	Bolt Tension
		Diagonal	A325N	0.5000	1	3.4218	4.6898	0.730	1	Member Block Shear
		Top Girt	A325N	0.5000	1	0.7339	4.6898	0.156	1	Member Block Shear
T5	140	Leg	A325N	0.8750	4	15.6394	40.5891	0.385	1	Bolt Tension
		Diagonal	A325N	0.5000	1	3.9318	5.7094	0.689	1	Member Block Shear
T6	120	Leg	A325N	0.8750	4	22.0575	40.5891	0.543	1	Bolt Tension
		Diagonal	A325N	0.5000	1	5.4782	6.1988	0.884	1	Member Bearing
T7	100	Leg	A325N	0.8750	4	28.7879	40.5891	0.709	1	Bolt Tension
		Diagonal	A325N	0.5000	1	6.0413	6.1988	0.975	1	Member Bearing
T8	80	Leg	A325N	1.0000	4	35.1040	53.0144	0.662	1	Bolt Tension
		Diagonal	A325N	0.5000	1	7.0843	7.9522	0.891	1	Bolt Shear
		Secondary Horizontal	A325N	0.5000	1	2.7681	7.9522	0.348	1	Bolt Shear
T9	60	Leg	A325N	1.0000	6	27.2670	53.0144	0.514	1	Bolt Tension
		Diagonal	A325N	0.6250	1	8.9508	12.4252	0.720	1	Bolt Shear
		Secondary Horizontal	A325N	0.6250	1	4.3527	11.7000	0.372	1	Member Bearing
T10	40	Leg	A325N	1.0000	6	31.6271	53.0144	0.597	1	Bolt Tension
		Diagonal	A325N	0.6250	1	10.2741	12.4252	0.827	1	Bolt Shear
		Secondary Horizontal	A325X	0.6250	1	4.4815	11.7000	0.383	1	Member Bearing
T11	20	Diagonal	A325N	0.6250	1	10.9307	12.4252	0.880	1	Bolt Shear
		Secondary Horizontal	A325N	0.6250	1	4.6272	11.7000	0.395	1	Member Bearing

Compression Checks

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Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	170 - 166.667	ROHN 2.5 STD	3.33	3.33	42.2 K=1.00	1.7040	-0.6326	67.3119	0.009 [1]
T2	166.667 - 163.333	ROHN 2.5 STD	3.33	3.33	42.2 K=1.00	1.7040	-10.1580	67.3119	0.151 [1]
T3	163.333 - 160	ROHN 2.5 STD	3.33	3.33	42.2 K=1.00	1.7040	-12.5200	67.3119	0.186 [1]
T4	160 - 140	ROHN 2.5 STD	20.03	4.01	50.8 K=1.00	1.7040	-42.3161	63.5190	0.666 [1]
T5	140 - 120	ROHN 3 STD	20.03	5.01	51.7 K=1.00	2.2285	-70.3596	82.5074	0.853 [1]
T6	120 - 100	Rohn 3.5 X-STR	20.03	6.68	61.3 K=1.00	3.6784	-98.8704	125.7260	0.786 [1]
T7	100 - 80	ROHN 4 X-STR	20.03	6.68	54.3 K=1.00	4.4074	-129.5390	159.9140	0.810 [1]

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T8	80 - 60	ROHN 4 X-STR	20.04	3.42	27.8 K=1.00	4.4074	-159.5950	187.4430	0.851 [1]
T9	60 - 40	ROHN 5 X-STR	20.04	5.17	33.7 K=1.00	6.1120	-250.9660	253.0900	0.992 [1]
T10	40 - 20	ROHN 6 EHS	20.03	5.14	27.7 K=1.00	6.7133	-258.4180	285.5660	0.905 [1]
T11	20 - 0	ROHN 6 EHS	20.03	5.13	27.7 K=1.00	6.7133	-266.8150	285.6450	0.934 [1]

[1] P_u / ϕP_n controls

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Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	170 - 166.667	L1 1/2x1 1/2x1/8	5.65	2.57	108.1 K=1.04	0.3594	-0.6852	6.2909	0.109 [1]
T2	166.667 - 163.333	L1 1/2x1 1/2x1/8	5.65	2.57	108.1 K=1.04	0.3594	-2.4929	6.2909	0.396 [1]
T3	163.333 - 160	L2x2x1/4	5.65	2.57	89.2 K=1.13	0.9380	-3.3867	19.9920	0.169 [1]
T4	160 - 140	L1 1/2x1 1/2x3/16	7.54	3.65	149.2 K=1.00	0.5273	-3.3230	5.3520	0.621 [1]
T5	140 - 120	L1 3/4x1 3/4x3/16	9.76	4.76	166.2 K=1.00	0.6211	-3.9184	5.0805	0.771 [1]
T6	120 - 100	L2 1/2x2 1/2x3/16	12.30	6.05	146.7 K=1.00	0.9020	-5.4934	9.4665	0.580 [1]
T7	100 - 80	L2 1/2x2 1/2x3/16	14.03	6.89	167.0 K=1.00	0.9020	-6.1434	7.3068	0.841 [1]
T8	80 - 60	L2 1/2x2 1/2x3/8	15.89	7.83	192.8 K=1.00	1.7300	-7.0843	10.5105	0.674 [1]
T9	60 - 40	L3x3x3/8	19.15	9.49	194.0 K=1.00	2.1100	-8.9508	12.6681	0.707 [1]
T10	40 - 20	L3x3x3/8	20.90	10.30	210.6 K=1.00	2.1100	-10.2741	10.7502	0.956 [1]
T11	20 - 0	KL/R > 200 (C) - 195 L3 1/2x3 1/2x3/8	22.68	11.19	195.5 K=1.00	2.4800	-10.9307	14.6544	0.746 [1]

[1] P_u / ϕP_n controls

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Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T8	80 - 60	L2 1/2x2 1/2x1/4	14.41	6.91	169.0 K=1.00	1.1900	-2.7681	9.4126	0.294 [1]
T9	60 - 40	L3x3x1/4	16.31	7.81	158.2 K=1.00	1.4400	-4.3527	12.9964	0.335 [1]
T10	40 - 20	L3x3x1/4	18.34	8.77	177.8 K=1.00	1.4400	-4.4815	10.2885	0.436 [1]
T11	20 - 0	L3 1/2 x 3 1/2 x 1/4	20.35	9.78	169.1 K=1.00	1.6875	-4.6272	13.3256	0.347 [1]

[1] P_u / ϕP_n controls

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Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	170 - 166.667	L1 1/2x1 1/2x1/8	4.56	4.08	165.3 K=1.00	0.3594	-0.4690	2.9700	0.158 [1]
T4	160 - 140	L1 1/2x1 1/2x3/16	4.56	4.11	168.2 K=1.00	0.5273	-0.7339	4.2104	0.174 [1]

[1] P_u / ϕP_n controls

Tension Checks

[illegible] e [illegible] De [illegible] D [illegible] e [illegible]

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	170 - 166.667	ROHN 2.5 STD	3.33	3.33	42.2	1.7040	0.3183	76.6823	0.004 [1]
T2	166.667 - 163.333	ROHN 2.5 STD	3.33	3.33	42.2	1.7040	2.1659	76.6823	0.028 [1]
T3	163.333 - 160	ROHN 2.5 STD	3.33	3.33	42.2	1.7040	7.0155	76.6823	0.091 [1]
T4	160 - 140	ROHN 2.5 STD	20.03	4.01	50.8	1.7040	37.1967	76.6823	0.485 [1]
T5	140 - 120	ROHN 3 STD	20.03	5.01	51.7	2.2285	62.5576	100.2810	0.624 [1]
T6	120 - 100	Rohn 3.5 X-STR	20.03	6.68	61.3	3.6784	88.2300	165.5290	0.533 [1]
T7	100 - 80	ROHN 4 X-STR	20.03	6.68	54.3	4.4074	115.1520	198.3350	0.581 [1]
T8	80 - 60	ROHN 4 X-STR	20.04	3.26	26.5	4.4074	140.5460	198.3350	0.709 [1]
T9	60 - 40	ROHN 5 X-STR	20.04	4.85	31.6	6.1120	163.7980	275.0390	0.596 [1]
T10	40 - 20	ROHN 6 EHS	20.03	4.87	26.3	6.7133	189.9910	302.0970	0.629 [1]
T11	20 - 0	ROHN 6 EHS	20.03	4.88	26.3	6.7133	215.9530	302.0970	0.715 [1]

[1] P_u / ϕP_n controls

D [illegible] De [illegible] D [illegible] e [illegible]

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	170 - 166.667	L1 1/2x1 1/2x1/8	5.65	2.57	69.0	0.2109	0.6741	9.1758	0.073 [1]
T2	166.667 - 163.333	L1 1/2x1 1/2x1/8	5.65	2.57	69.0	0.2109	2.4947	9.1758	0.272 [1]
T3	163.333 - 160	L2x2x1/4	5.65	2.57	52.7	0.5863	3.3215	25.5046	0.130 [1]
T4	160 - 140	L1 1/2x1 1/2x3/16	6.87	3.31	89.8	0.3076	3.4218	13.3813	0.256 [1]
T5	140 - 120	L1 3/4x1 3/4x3/16	9.76	4.76	108.6	0.3779	3.9318	16.4399	0.239 [1]
T6	120 - 100	L2 1/2x2 1/2x3/16	12.30	6.05	95.0	0.5886	5.4782	25.6045	0.214 [1]
T7	100 - 80	L2 1/2x2 1/2x3/16	14.03	6.89	107.9	0.5886	6.0413	25.6045	0.236 [1]
T8	80 - 60	L2 1/2x2 1/2x3/8	15.89	7.83	126.4	1.1217	6.6078	48.7948	0.135 [1]
T9	60 - 40	L3x3x3/8	19.15	9.49	126.3	1.3716	8.0595	66.8637	0.121 [1]
T10	40 - 20	L3x3x3/8	20.90	10.30	137.0	1.3716	8.9930	66.8637	0.134 [1]
T11	20 - 0	L3 1/2x3 1/2x3/8	22.68	11.19	126.9	1.6491	9.3849	80.3918	0.117 [1]

[1] P_u / ϕP_n controls

Secondary Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T8	80 - 60	L2 1/2x2 1/2x1/4	13.72	6.57	208.2	0.7753	2.7681	37.7965	0.073 [1]
T9	60 - 40	L3x3x1/4	16.31	7.81	204.5	0.9394	4.3527	45.7945	0.095 [1]
T10	40 - 20	L3x3x1/4	17.34	8.27	216.6	0.9394	4.4815	45.7945	0.098 [1]
T11	20 - 0	L3 1/2 x 3 1/2 x 1/4	20.35	9.78	217.6	1.1250	4.6272	54.8438	0.084 [1]

[1] P_u / ϕP_n controls

Top Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	170 - 166.667	L1 1/2x1 1/2x1/8	4.56	4.08	111.5	0.1992	0.4696	8.6660	0.054 [1]
T4	160 - 140	L1 1/2x1 1/2x3/16	4.56	4.11	113.5	0.3076	0.7339	13.3813	0.055 [1]

[1] P_u / ϕP_n controls

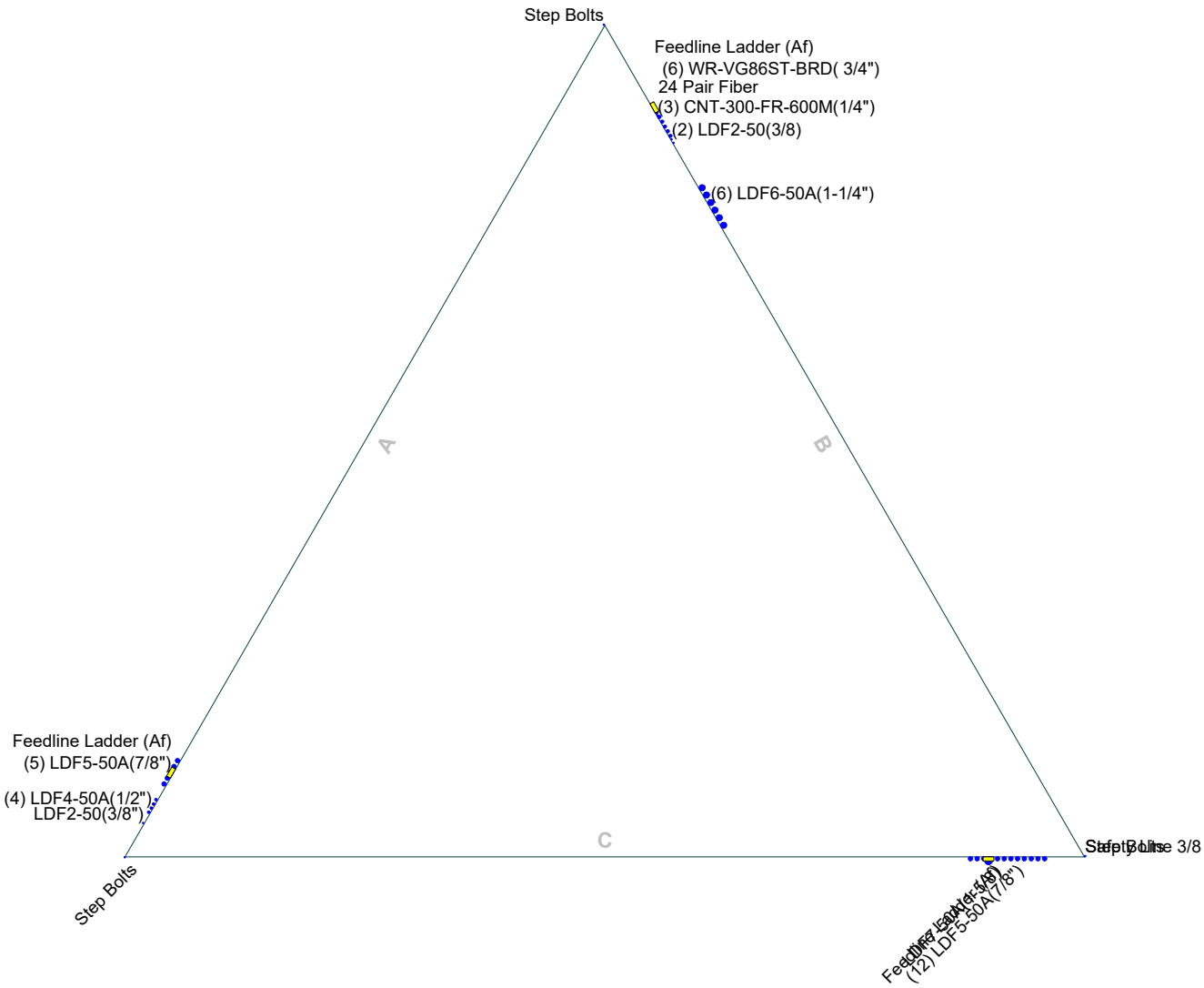
Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	$øP_{allow}$ K	% Capacity	Pass Fail
T1	170 - 166.667	Leg	ROHN 2.5 STD	2	-0.6326	67.3119	0.9	Pass
T2	166.667 - 163.333	Leg	ROHN 2.5 STD	15	-10.1580	67.3119	15.1	Pass
T3	163.333 - 160	Leg	ROHN 2.5 STD	24	-12.5200	67.3119	18.6	Pass
T4	160 - 140	Leg	ROHN 2.5 STD	31	-42.3161	63.5190	66.6	Pass
T5	140 - 120	Leg	ROHN 3 STD	67	-70.3596	82.5074	85.3	Pass
T6	120 - 100	Leg	Rohn 3.5 X-STR	94	-98.8704	125.7260	78.6	Pass
T7	100 - 80	Leg	ROHN 4 X-STR	115	-129.5390	159.9140	81.0	Pass
T8	80 - 60	Leg	ROHN 4 X-STR	136	-159.5950	187.4430	85.1	Pass
T9	60 - 40	Leg	ROHN 5 X-STR	166	-250.9660	253.0900	99.2	Pass
T10	40 - 20	Leg	ROHN 6 EHS	187	-258.4180	285.5660	90.5	Pass
T11	20 - 0	Leg	ROHN 6 EHS	208	-266.8150	285.6450	93.4	Pass
T1	170 - 166.667	Diagonal	L1 1/2x1 1/2x1/8	10	-0.6852	6.2909	10.9 21.6 (b)	Pass
T2	166.667 - 163.333	Diagonal	L1 1/2x1 1/2x1/8	21	-2.4929	6.2909	39.6 79.8 (b)	Pass
T3	163.333 - 160	Diagonal	L2x2x1/4	30	-3.3867	19.9920	16.9 40.2 (b)	Pass
T4	160 - 140	Diagonal	L1 1/2x1 1/2x3/16	42	-3.3230	5.3520	62.1 73.0 (b)	Pass
T5	140 - 120	Diagonal	L1 3/4x1 3/4x3/16	75	-3.9184	5.0805	77.1	Pass
T6	120 - 100	Diagonal	L2 1/2x2 1/2x3/16	102	-5.4934	9.4665	58.0 88.4 (b)	Pass
T7	100 - 80	Diagonal	L2 1/2x2 1/2x3/16	123	-6.1434	7.3068	84.1 97.5 (b)	Pass
T8	80 - 60	Diagonal	L2 1/2x2 1/2x3/8	144	-7.0843	10.5105	67.4 89.1 (b)	Pass
T9	60 - 40	Diagonal	L3x3x3/8	173	-8.9508	12.6681	70.7 72.0 (b)	Pass
T10	40 - 20	Diagonal	L3x3x3/8	195	-10.2741	10.7502	95.6	Pass
T11	20 - 0	Diagonal	L3 1/2x3 1/2x3/8	216	-10.9307	14.6544	74.6 88.0 (b)	Pass
T8	80 - 60	Secondary Horizontal	L2 1/2x2 1/2x1/4	147	-2.7681	9.4126	29.4 34.8 (b)	Pass
T9	60 - 40	Secondary Horizontal	L3x3x1/4	177	-4.3527	12.9964	33.5 37.2 (b)	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
T10	40 - 20	Secondary Horizontal	L3x3x1/4	198	-4.4815	10.2885	43.6	Pass
T11	20 - 0	Secondary Horizontal	L3 1/2 x 3 1/2 x 1/4	219	-4.6272	13.3256	34.7 39.5 (b)	Pass
T1	170 - 166.667	Top Girt	L1 1/2x1 1/2x1/8	5	-0.4690	2.9700	15.8	Pass
T4	160 - 140	Top Girt	L1 1/2x1 1/2x3/16	36	-0.7339	4.2104	17.4	Pass
							Summary	
						Leg (T9)	99.2	Pass
						Diagonal (T7)	97.5	Pass
						Secondary Horizontal (T10)	43.6	Pass
						Top Girt (T4)	17.4	Pass
						Bolt Checks	97.5	Pass
						R		

Feed Line Plan
20'

Round Flat App In Face App Out Face



Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Tectonic
1279 Route 300
Newburgh, NY 12550
Phone: (845) 567-6656
FAX: (845) 567-8703

Job: ***Glastonbury PD _ Modified Tower Analysis***			
Project: ***11890.CTL01083***			
Client: AT&T Mobility	Drawn by: Ian Marinaccio		App'd:
Code: TIA-222-G	Date: 09/20/22		Scale: NTS
Path:			Dwg No. E-7

Self Support Anchor Rod Capacity

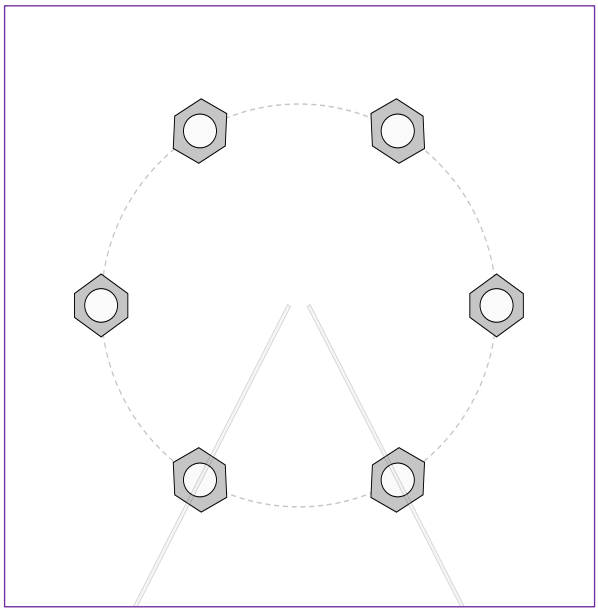
Site Info	
WO #	11890.CTL01083
Site Name	Glastonbury PD
Rev #	0

Analysis Considerations	
TIA-222 Revision	G
Grout Considered:	Yes
l_{ar} (in)	0
Eta Factor, η	0.55

Applied Loads		
	Comp.	Uplift
Axial Force (kips)	268.73	222.83
Shear Force (kips)	18.28	25.72

Considered Eccentricity	
Leg Mod Eccentricity (in)	0.000
Anchor Rod N.A Shift (in)	0.000
Total Eccentricity (in)	0.000

**Anchor Rod Eccentricity Applied*



Connection Properties

Anchor Rod Data

(6) 1" ø bolts (A354-BC N; Fy=109 ksi, Fu=125 ksi)

l_{ar} (in): 0

Analysis Results

Anchor Rod Summary *(units of kips, kip-in)*

Pu_t = 37.14	ϕPn_t = 60.6	**Stress Rating**
Vu = 4.29	ϕVn = n/a	**74.1%**
Mu = n/a	ϕMn = n/a	**Pass**

Dr□□ed□□□er□□□□□d□□□□□

WO□□□□	11890.CTL01083
□□e□□□□ e□	Glastonbury PD
Rev□	0
TIA-222 Revison:	G
Tower Type:	Self Support

□□□□ed□□□□d□	□□□ □□	□□□□□
Moment (kip-ft)	0	0
Axial Force (kips)	268.73	222.83
Shear Force (kips)	18.28	25.72

M□er□□□□r□□er□e□		
Concrete Strength, f'c:	3	ksi
Rebar Strength, Fy:	60	ksi
Tie Yield Strength, Fyt:	40	ksi

□er□De□□□□D□□□		
Depth	45	ft
Ext. Above Grade	0.5	ft
□□er□□e□□□□□□		
From 0.5' above grade to 45' below grade		
Pier Diameter	5	ft
Rebar Quantity	16	
Rebar Size	9	
Clear Cover to Ties	3	in
Tie Size	5	
Tie Spacing	12	in

Rebar & Pier Options

Embedded Pole Inputs

Belled Pier Inputs

□□□□□□□□Re□□□□		
Soil Lateral Check	*Compression*	*Uplift*
$D_{v=0}$ (ft from TOC)	22.73	22.73
Soil Safety Factor	45.17	32.10
Max Moment (kip-ft)	276.11	388.48
Rating	*2.9%*	*4.1%*
Soil Vertical Check	*Compression*	*Uplift*
Skin Friction (kips)	280.15	280.15
End Bearing (kips)	167.88	-
Weight of Concrete (kips)	100.50	75.38
Total Capacity (kips)	448.03	355.53
Axial (kips)	369.23	222.83
Rating	*82.4%*	*62.7%*
Reinforced Concrete Flexure	*Compression*	*Uplift*
Critical Depth (ft from TOC)	23.25	21.61
Critical Moment (kip-ft)	275.90	387.16
Critical Moment Capacity	2066.63	1571.87
Rating	*13.4%*	*24.6%*
Reinforced Concrete Shear	*Compression*	*Uplift*
Critical Depth (ft from TOC)	35.79	35.79
Critical Shear (kip)	24.80	34.90
Critical Shear Capacity	441.42	269.61
Rating	*5.6%*	*12.9%*

Structural Foundation Rating	□□□□□
Soil Interaction Rating	□□□□□

□□□□□r□□□e			
Groundwater Depth	4	# of Layers	2

Layer	Top (ft)	Bottom (ft)	Thickness (ft)	γ_{soil} (pcf)	$\gamma_{concrete}$ (pcf)	Cohesion (ksf)	Angle of Friction (degrees)	Calculated Ultimate Skin Friction Comp (ksf)	Calculated Ultimate Skin Friction Uplift (ksf)	Ultimate Skin Friction Comp Override (ksf)	Ultimate Skin Friction Uplift Override (ksf)	Ult. Gross Bearing Capacity (ksf)	SPT Blow Count	Soil Type
1	0	4	4	120	150			0.000	0.000					Cohesionless
2	4	45	41	57.6	87.6		30	0.000	0.000	0.58	0.58	11.4		Cohesionless

CONNECTICUT DESIGN CRITERIA - STATE

Revison:

CT is NOT a Home Rule State; Tab added only for Design Criteria

(APPENDIX N) MUNICIPALITY - SPECIFIC STRUCTURAL DESIGN PARAMETERS

				Wind Design Parameters					
Municipality	**Ground Snow Load**	**MCE Spectral Accelerations** (%g)		**Ultimate Design Wind Speeds,** V_{ult} (mph)			**Nominal Design Wind Speeds,** V_{asd} (mph)		
		S_s	S_1	Risk Cat.I	Risk Cat.II	Risk Cat III-IV	Risk Cat. I	Risk Cat. II	Risk Cat. III-IV
Andover	30	0.176	0.063	120	130	140	93	101	108
Ansonia	30	0.195	0.064	115	125	135	89	97	105
Ashford	35	0.173	0.063	120	130	140	93	101	108
Avon	35	0.181	0.064	110	120	130	85	93	101
Barkhamsted	40	0.177	0.065	110	120	125	85	93	97
Beacon Falls	30	0.192	0.064	115	125	135	89	97	105
Berlin	30	0.183	0.063	115	125	135	89	97	105
Bethany	30	0.189	0.063	115	125	135	89	97	105
Bethel	30	0.215	0.066	110	120	125	85	93	97
Bethlehem	35	0.190	0.065	110	120	125	85	93	97
Bloomfield	35	0.180	0.064	115	125	130	89	97	101
Bolton	30	0.177	0.063	115	125	135	89	97	105
Bozrah	30	0.170	0.061	120	135	145	93	105	112
Branford	30	0.180	0.061	120	130	140	93	101	108
Bridgeport	30	0.209	0.064	115	125	135	89	97	105
Bridgewater	35	0.201	0.066	110	120	125	85	93	97
Bristol	35	0.185	0.064	110	120	130	85	93	101
Brookfield	35	0.208	0.066	110	120	125	85	93	97
Brooklyn	35	0.171	0.062	120	130	140	93	101	108
Burlington	35	0.182	0.064	110	120	130	85	93	101
Canaan	40	0.173	0.065	105	115	120	81	89	93
Canterbury	35	0.171	0.061	120	130	140	93	101	108
Canton	35	0.180	0.064	110	120	130	85	93	101
Chaplin	35	0.173	0.062	120	130	140	93	101	108
Cheshire	30	0.186	0.063	115	125	135	89	97	105
Chester	30	0.172	0.060	120	130	140	93	101	108
Clinton	30	0.169	0.059	120	135	140	93	105	108
Colchester	30	0.174	0.061	120	130	140	93	101	108
Colebrook	40	0.174	0.065	105	115	125	81	89	97
Columbia	30	0.175	0.062	120	130	140	93	101	108
Cornwall	40	0.180	0.065	105	115	120	81	89	93
Coventry	30	0.176	0.063	120	130	140	93	101	108
Cromwell	30	0.181	0.063	115	125	135	89	97	105
Danbury	30	0.217	0.067	110	120	125	85	93	97
Darien	30	0.242	0.068	110	120	130	85	93	101
Deep River	30	0.170	0.060	120	130	140	93	101	108
Derby	30	0.195	0.064	115	125	135	89	97	105
Durham	30	0.179	0.062	115	130	140	89	101	108
Eastford	40	0.172	0.063	120	130	140	93	101	108
East Granby	35	0.177	0.065	110	120	130	85	93	101
East Haddam	30	0.172	0.061	120	130	140	93	101	108
East Hampton	30	0.177	0.062	120	130	140	93	101	108

East Hartford	30	0.180	0.064	115	125	135	89	97	105
East Haven	30	0.182	0.062	120	130	140	93	101	108
East Lyme	30	0.164	0.059	125	135	145	97	105	112
Easton	30	0.215	0.066	110	120	130	85	93	101
East Windsor	35	0.177	0.064	115	125	135	89	97	105
Ellington	35	0.176	0.064	115	125	135	89	97	105
Enfield	35	0.176	0.065	110	125	130	85	97	101
Essex	30	0.168	0.059	120	135	145	93	105	112
Fairfield	30	0.215	0.065	115	125	135	89	97	105
Farmington	35	0.183	0.064	115	125	135	89	97	105
Franklin	30	0.171	0.061	120	130	140	93	101	108
Glastonbury	30	0.180	0.063	115	125	135	89	97	105
Goshen	40	0.181	0.065	105	115	125	81	89	97
Granby	35	0.176	0.065	110	120	130	85	93	101
Greenwich	30	0.259	0.070	110	120	130	85	93	101
Griswold	30	0.168	0.060	125	135	145	97	105	112
Groton	30	0.160	0.058	125	135	145	97	105	112
Guilford	30	0.176	0.061	120	130	140	93	101	108
Haddam	30	0.175	0.061	120	130	140	93	101	108
Hamden	30	0.185	0.063	115	125	135	89	97	105
Hampton	35	0.172	0.062	120	130	140	93	101	108
Hartford	30	0.181	0.064	115	125	135	89	97	105
Hartland	40	0.175	0.065	110	120	125	85	93	97
Harwinton	35	0.183	0.065	110	120	130	85	93	101
Hebron	30	0.177	0.063	120	130	140	93	101	108
Kent	40	0.188	0.065	105	115	120	81	89	93
Killingly	40	0.171	0.062	120	130	140	93	101	108
Killingworth	30	0.173	0.061	120	130	140	93	101	108
Lebanon	30	0.173	0.062	120	130	140	93	101	108
Ledyard	30	0.163	0.059	125	135	145	97	105	112
Lisbon	30	0.169	0.061	125	135	145	97	105	112
Litchfield	40	0.184	0.065	110	120	125	85	93	97
Lyme	30	0.164	0.059	125	135	145	97	105	112
Madison	30	0.173	0.060	120	130	140	93	101	108
Manchester	30	0.178	0.064	115	125	135	89	97	105
Mansfield	35	0.173	0.062	120	130	140	93	101	108
Marlborough	30	0.177	0.062	120	130	140	93	101	108
Meriden	30	0.183	0.063	115	125	135	89	97	105
Middlebury	35	0.191	0.064	110	120	130	85	93	101
Middlefield	30	0.181	0.063	115	125	135	89	97	105
Middletown	30	0.180	0.063	115	130	135	89	101	105
Milford	30	0.194	0.063	115	125	135	89	97	105
Monroe	30	0.205	0.065	110	120	130	85	93	101
Montville	30	0.165	0.059	125	135	145	97	105	112
Morris	35	0.187	0.065	110	120	125	85	93	97
Naugatuck	30	0.190	0.064	110	125	135	85	97	105
New Britain	30	0.183	0.064	115	125	135	89	97	105
New Canaan	30	0.240	0.068	110	120	130	85	93	101
New Fairfield	35	0.212	0.067	105	115	125	81	89	97
New Hartford	40	0.180	0.065	110	120	130	85	93	101
New Haven	30	0.186	0.062	115	125	135	89	97	105
Newington	30	0.182	0.064	115	125	135	89	97	105
Southbury	35	0.198	0.065	110	120	130	85	93	101

Ice

Results:

Ice Thickness:	1.00 in.
Concurrent Temperature:	5 F
Gust Speed:	50 mph

Data Source: Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8

Date Accessed: Tue Jun 30 2020

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 50-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

EXHIBIT 4

April 26, 2022

Centerline Communications
750 West Center Street, Suite #301
West Bridgewater, MA 02379

RE:	Site Number:	CT1083
	FA Number:	10035111
	PACE Number:	MRCTB050960
	PT Number:	2051A0Z7GP
	Site Name:	GLASTONBURY PD
	Site Address:	Glastonbury Police Department Glastonbury, CT 06033

To Whom It May Concern:

Hudson Design Group LLC (HDG) has been authorized by Centerline Communications to perform a mount analysis on the existing AT&T antenna/RRH mounts to determine their capability of supporting the following additional loading:

- (2) 800-10965 Antennas (78.7"x20.0"x6.9"– Wt. = 109 lbs. /each)
- (1) 800-10966 Antennas (96.0"x20.0"x6.9"– Wt. = 115 lbs. /each)
- (3) 4478 B14 RRH's (18.1"x13.4"x8.3" – Wt. = 60 lbs. /each)
- (3) 4415 B30 RRH's (16.5"x13.4"x5.9" – Wt. = 46 lbs. /each)
- (3) RRUS-32 B66A RRH's (27.2"x12.1"x7.0" – Wt. = 60 lbs. /each)
- (3) RRUS-32 B30 RRH's (27.2"x12.1"x7.0" – Wt. = 60 lbs. /each)
- (2) DC6-48-60-18-8F Surge Arrestors (31.4"x10.2"Ø – Wt. = 29 lbs.) (Tower Mounted)
- **(2) QD6616-7 Antennas (72.0"x22.0"x9.6" – Wt. = 130 lbs. /each)**
- **(1) QD8616-7 Antennas (96.0"x22.0"x9.6" – Wt. = 150 lbs. /each)**
- **(3) AIR6419 Antennas (31.1"x16.1"x7.3" – Wt. = 66 lbs. /each)**
- **(3) AIR6449 Antennas (30.6"x15.9"x10.6" – Wt. = 82 lbs. /each)**
- **(3) 4449 B5/B12 RRH's (17.9"x13.2"x9.4" – Wt. = 73 lbs. /each)**
- **(1) DC9-48-60-24-8C-EV Surge Arrestor (31.4"x10.2"Ø – Wt. = 29 lbs.)**

**Proposed equipment shown in bold.*

No original structural design documents or fabrication drawings were available for the existing mounts. HDG's subconsultant, ProVertic LLC, conducted a survey climb and mapping of the existing AT&T antenna mounts on May 07, 2020. HDG conducted a ground audit of the existing AT&T antenna mounts on December 21, 2021.

Mount Analysis Methods:

- This analysis was conducted in accordance with EIA/TIA-222-H, Structural Standards for Steel Antenna Towers and Antenna Supporting Structures, the International Building Code 2015 with 2018 Connecticut State Building Code, and AT&T Mount Technical Directive – R16.

- HDG considers this mount to be asymmetrical and has applied wind loads in 30 degree increments all around the mount. Per TIA-222-H and Appendix N of the Connecticut State Building Code, 9th, the max basic wind speed for this site is equal to 135 mph with a max basic wind speed with ice of 50 mph and a max ice thickness of 1.5 in. An escalated ice thickness of 2.2 in was used for this analysis.

- HDG considers this site to be exposure category B; tower is located in an urban/suburban or wooded area with numerous closely spaced obstructions.

- HDG considers this site to be topographic category 1; tower is located on flat terrain or the bottom of a hill or ridge.

- HDG considers this site to have a spectral response acceleration parameter at short periods, S_S, of 0.180 and a spectral response acceleration parameter at a period of 1 second, S_1, of 0.063.

- The mount has been analyzed with load combinations consisting of 500 lbs live load using a service wind speed of 30 mph wind on the worst case antenna. Analysis performed on each antenna pipe to determine worst case location; worst case location was antenna position 1.

- The mount has been analyzed with load combinations consisting of a 250 lbs live load in a worst case location on the mount.

- The existing mounts are secured to the existing self supporting tower with U-bolts. HDG considers the U-bolts to be the governing connection member.

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

	Component	Controlling Load Case	Stress Ratio	Pass/Fail
Existing Mount Rating	43	LC8	48%	**PASS**

Reference Documents:

- Mount mapping report prepared by ProVertic LLC.

This determination was based on the following limitations and assumptions:

1. HDG is not responsible for any modifications completed prior to and hereafter which HDG was not directly involved.
2. All structural members and their connections are assumed to be in good condition and are free from defects with no deterioration to its member capacities.
3. All antennas, coax cables and waveguide cables are assumed to be properly installed and supported as per the manufacturer's requirements.
4. The existing mount has been adequately secured to the tower structure per the mount manufacturer's specifications.
5. All components pertaining to AT&T's mounts must be tightened and re-plumbed prior to the installation of new appurtenances.
6. HDG performed a localized analysis on the mount itself and not on the supporting tower structure.

Please feel free to contact our office should you have any questions.

Respectfully Submitted,
Hudson Design Group LLC

Michael Cabral
Vice President

Daniel P. Hamm, PE
Principal

FIELD PHOTOS:


12/21/2021 11:40


12/21/2021 11:40


12/21/2021 11:40


12/21/2021 11:38


12/21/2021 11:37


12/21/2021 11:37

HUDSON
Design Group LLC

Wind & Ice
Calculations

ANSI/TIA-222H - WIND, ICE & SEISMIC LOAD CALCULATIONS

Site Code/Name		CT1083 - GLASTONBURY PD		
State		Connecticut		
County		Hartford		*Reference*
Structure Class		IV		*Table 2-1*
Exposure Category		B		*Section 2.6.5.1.2*
Topographic Category		1 - Kzt = 1		*Section 2.6.6.2.1*
Mean Elevation of base of structure	z_s	29	ft	*ASCE7-16 Hazards*
Height Above Ground	z	166	ft	

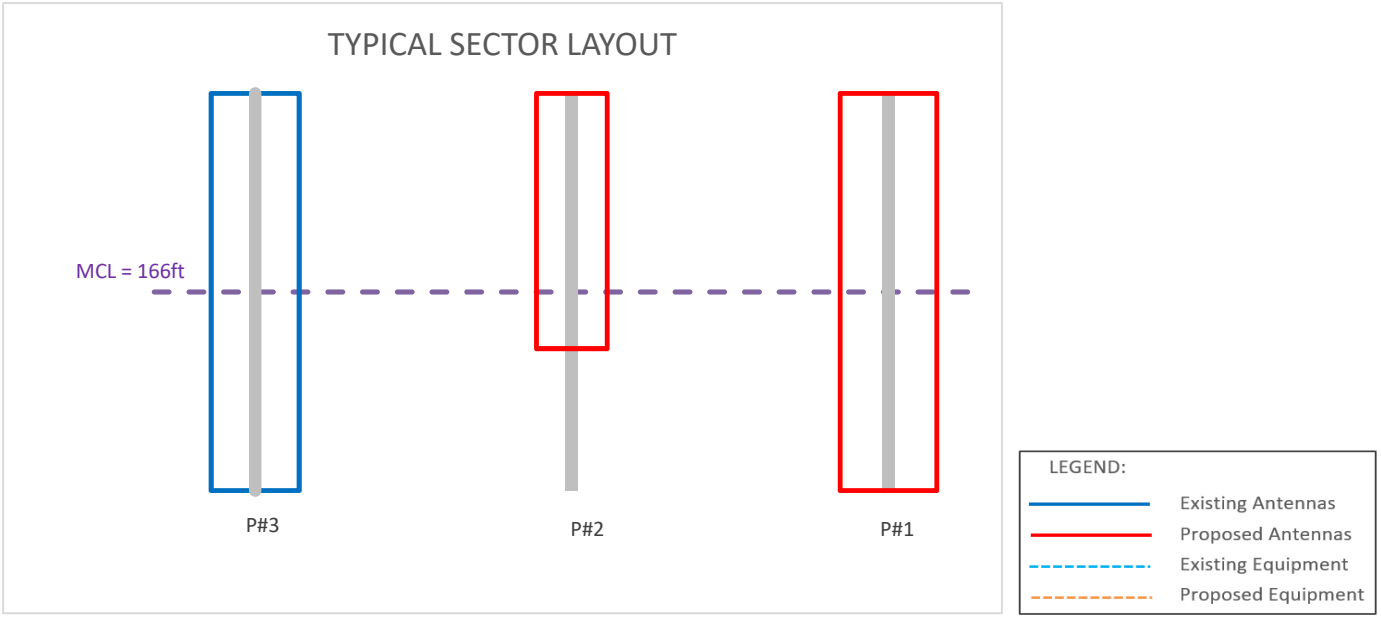
Wind Parameters				
Basic wind speed	V	135	mph	*Appendix N of Connecticut Building Code*
Wind direction probability factor	K_d	0.95		*Section 16.6*
Gust effect factor	G_h	1		*Section 16.6*
Velocity Pressure (Ka = 0.9)		45.52	psf	*Section 2.6.11.6*

Wind & Ice Parameters				
Base windspeed in conjunction with ice, V_i		50	mph	*ASCE7-16 Hazards Tool*
Base Ice thickness	t_i	1.50	in	*ASCE7-16 Hazards Tool*
Ice Velocity Pressure (Ka = 0.9)	q_{ice}	6.24	psf	*Section 2.6.11.6*
Design Ice Thickness	t_{iz}	2.20	in	*Section 2.6.10*

Seismic Parameters				
Site Soil Class		D - Default		*Table 2-10*
Seismic Design Category		B		*ASCE7-16 Hazards Tool*
Spectral Response at Short Periods	S_s	0.18		*Appendix N of Connecticut Building Code*
Spectral Response at 1sec	S_1	0.063		*Appendix N of Connecticut Building Code*
Long Period Transition Period	T_L	6		*ASCE7-16 Hazards Tool*
Seismic Importance Factor	I_s	1.5		*Table 2-3*
Response modification coefficient	R	2		*Section 16.7*
Short-Period Site Coefficient	F_a	1.6		*Table 2-11*
Design Spectral Response at Short Periods	S_{DS}	0.192		*Section 2.7.5*
Seismic Response Coefficient	C_s	0.144		*Section 2.7.7.1*

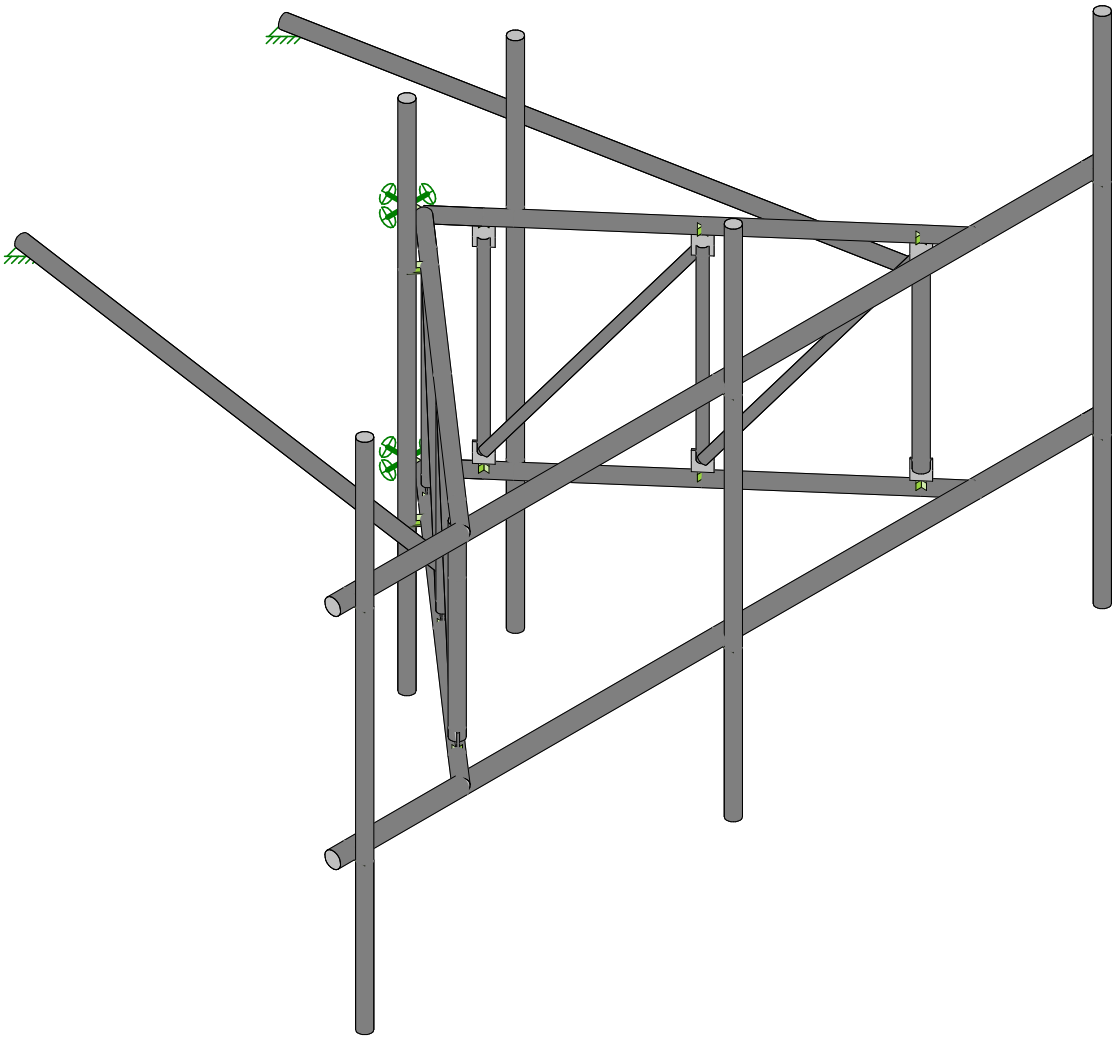
GAMMA SECTOR

Position	Appurtenance properties						Wind		Ice	Seismic
	Manufacturer	Model	L [in]	W [in]	D [in]	Weight [lbs]	0^o [lbs]	90^o [lbs]	IceWeight [lbs]	E_H [lbs]
1	Quintel	QD8616-7	96.0	22.0	9.6	150.0	856.4	437.0	577.4	21.6
2	Ericsson	AIR6449 B77D+AIR6419 B77G STACKED	61.7	16.1	10.6	148.0	395.4	278.6	308.0	21.3
3	Kathrein	800-10966	96.0	20.0	6.9	115.0	790.3	341.4	514.7	16.6
-	Ericsson	4478 B14	18.1	13.4	8.3	60.0	92.0	57.0	81.8	8.6
-	Ericsson	4415 B25	16.5	13.4	5.9	46.0	83.9	37.3	70.7	6.6
-	Raycap	DC9-48-60-24-8C-EV	31.4	10.2	10.2	29.0	124.1	124.1	125.4	4.2
-	Ericsson	RRUS-32 B66A	27.2	12.1	7.0	60.0	124.8	75.9	106.8	8.6
-	Ericsson	RRUS-32 B30	27.2	12.1	7.0	60.0	75.9	124.8	106.8	8.6
-	Ericsson	4449 B5/B12	17.9	13.2	9.4	73.0	63.8	89.6	83.0	10.5



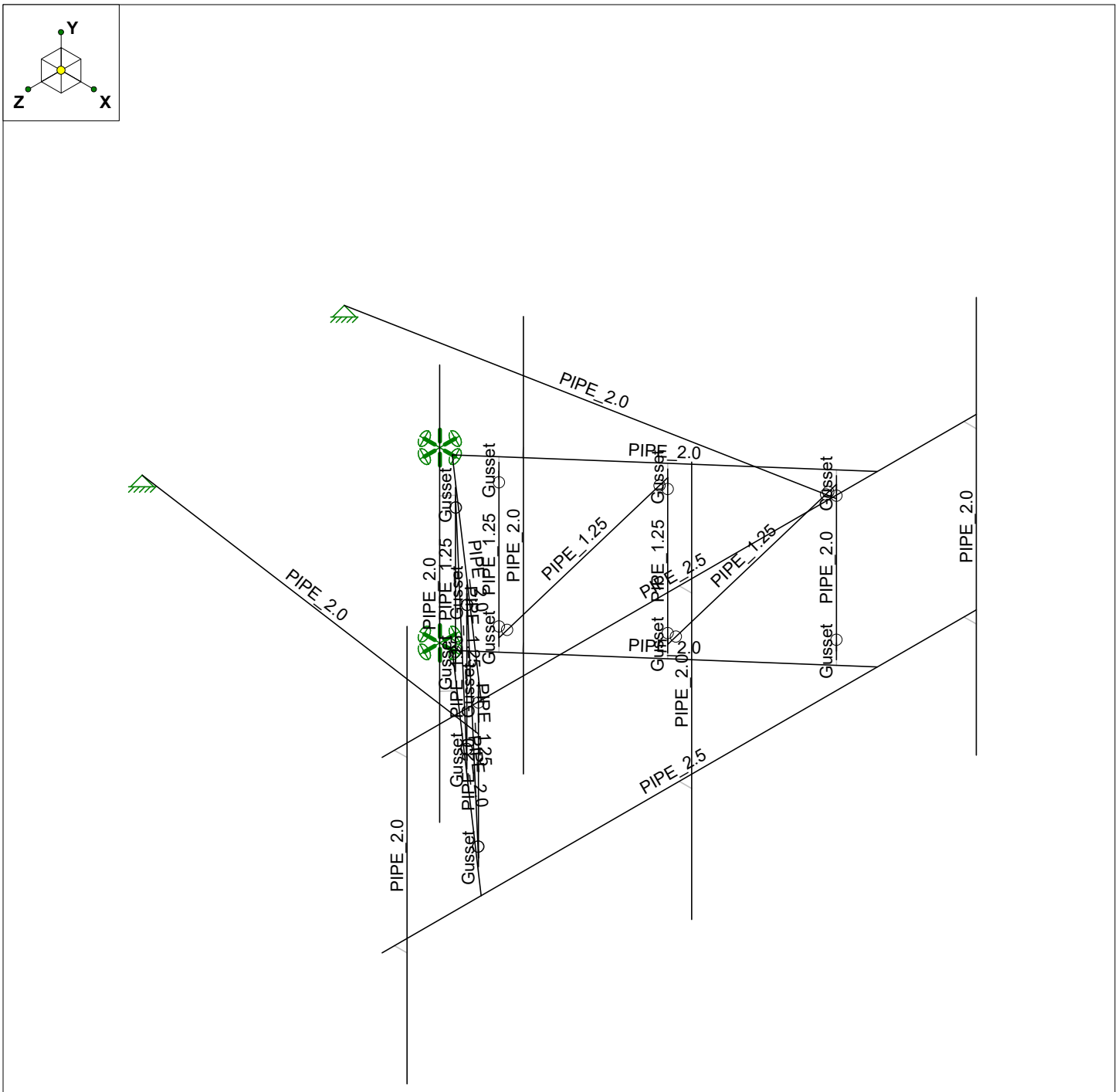
HUDSON
Design Group LLC

Mount Calculations
(Existing Conditions)



Envelope Only Solution

Hudson Design Group, LLC	GLASTONBURY PD	SK - 1
SAM		Apr 22, 2022 at 4:17 PM
CT1083		CT1083.r3d



Envelope Only Solution

Hudson Design Group, LLC	GLASTONBURY PD	SK - 2
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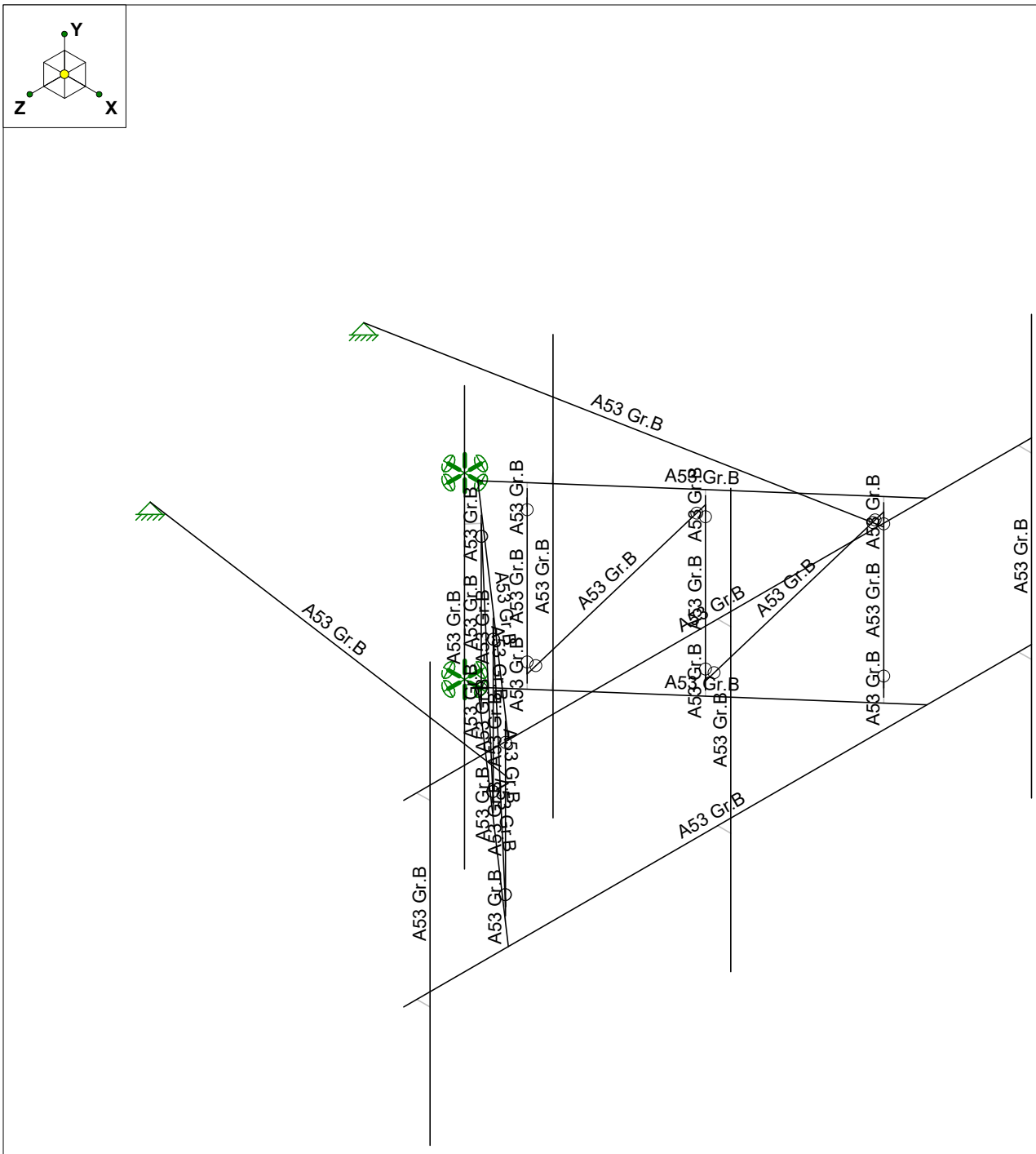
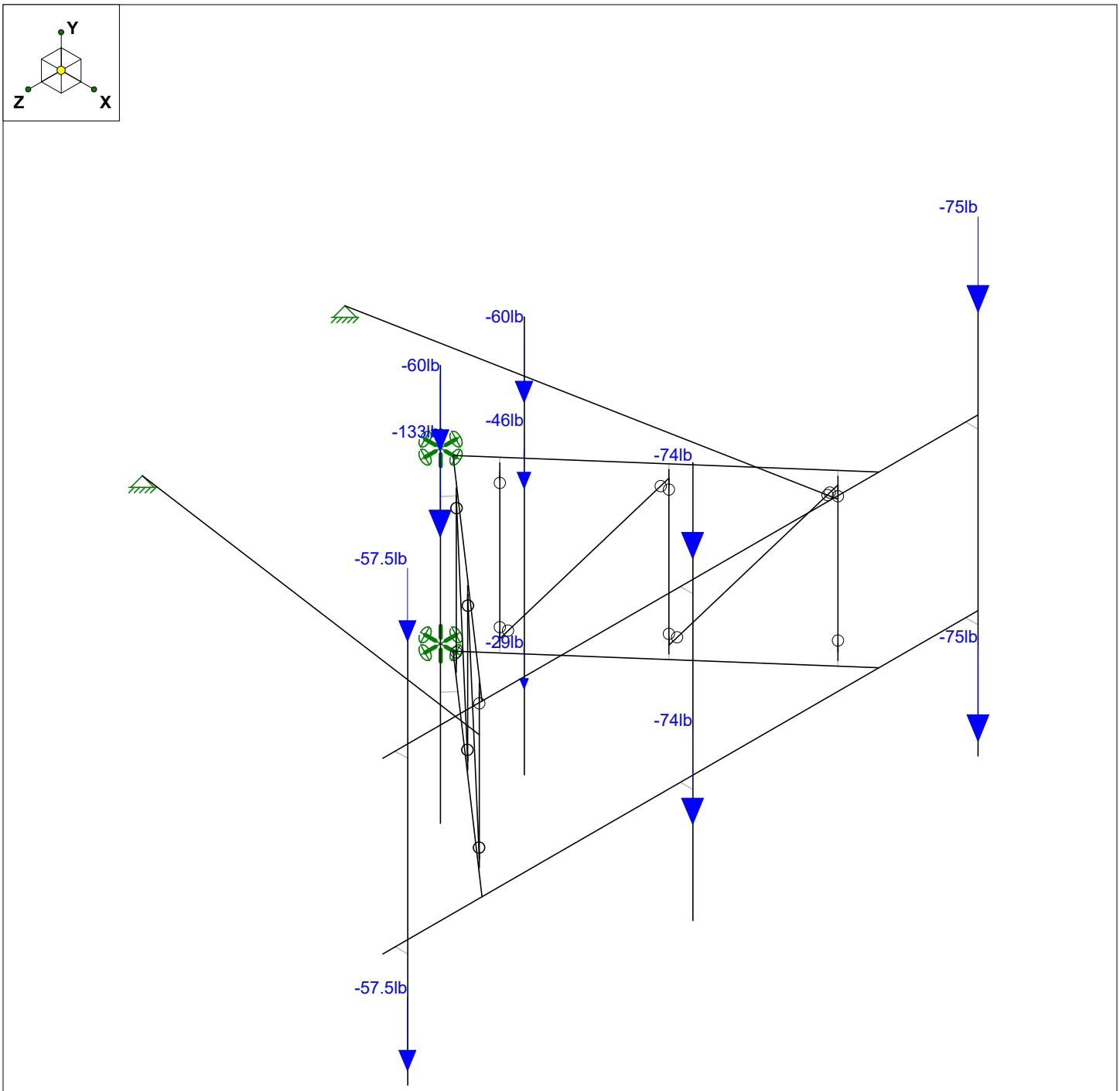


Envelope Only Solution

Hudson Design Group, LLC	GLASTONBURY PD	SK - 3
SAM		Apr 22, 2022 at 4:19 PM
CT1083		CT1083.r3d



Loads: BLC 2, We
Envelope Only Solution

Hudson Design Group, LLC	GLASTONBURY PD	SK - 4
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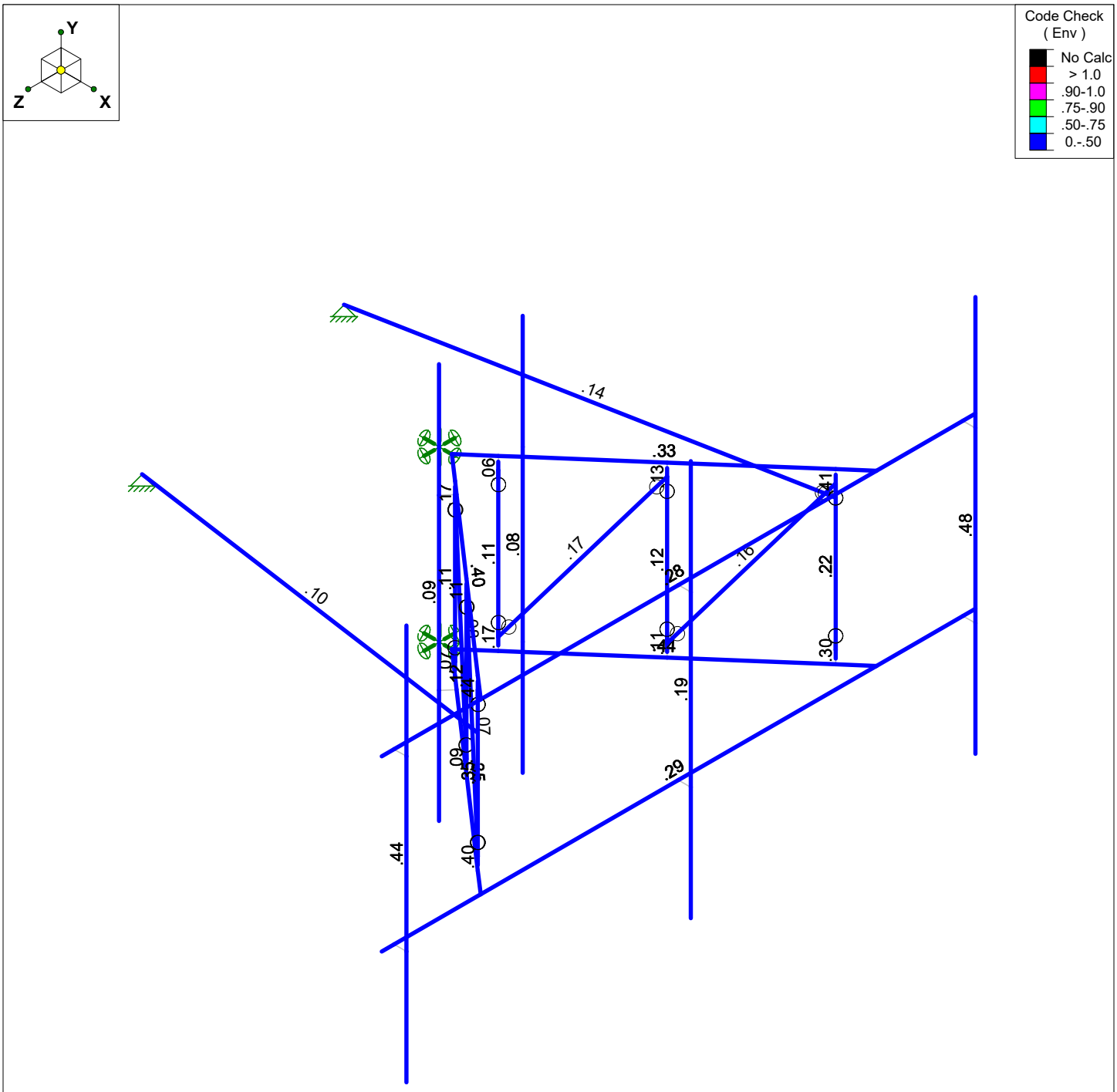
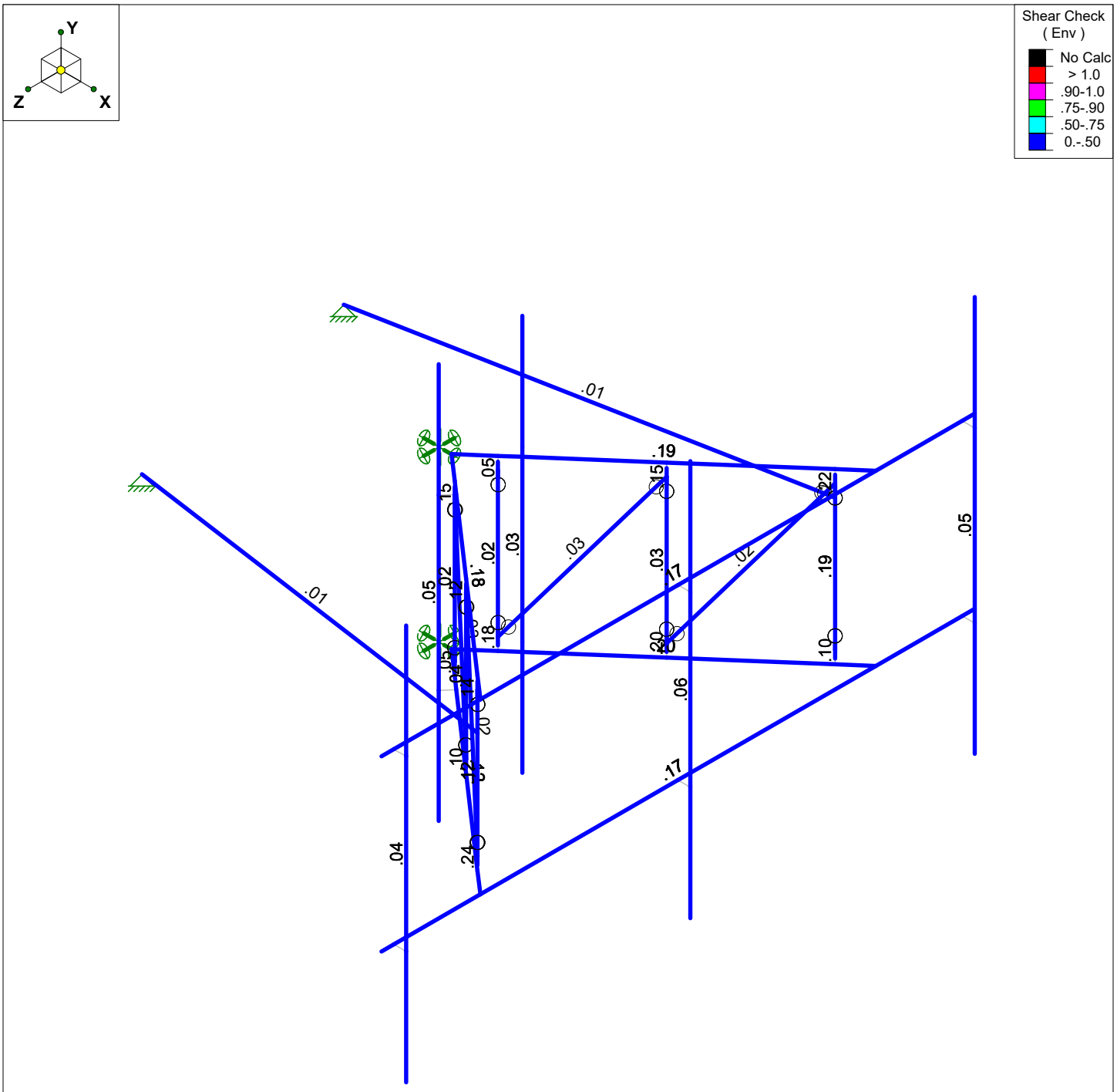
CT1083		CT1083.r3d



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

Hudson Design Group, LLC	GLASTONBURY PD	SK - 5
SAM		Apr 22, 2022 at 5:03 PM
CT1083		CT1083.r3d



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

Hudson Design Group, LLC	GLASTONBURY PD	SK - 6
SAM		Apr 22, 2022 at 5:04 PM
CT1083		CT1083.r3d

(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 (in/sec^2)	386.4
Wall Mesh Size (in)	24
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): LRFD
Adjust Stiffness?	Yes(Iterative)
RISAConnection Code	AISC 15th(360-16): LRFD
Cold Formed Steel Code	AISI S100-16: LRFD
Wood Code	None
Wood Temperature	< 100F
Concrete Code	None
Masonry Code	None
Aluminum Code	None - Building
Stainless Steel Code	None

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 7-16
Seismic Base Elevation (in)	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	1
Cd X	1
Rho Z	1
Rho X	1

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1...	Density[k/ft^3]	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	.49	50	1.4	65	1.3

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rul...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	PIPE_1.25	PIPE_1.25	None	None	A53 Gr.B	Typical	.625	.184	.184	.368
2	PIPE_2.0	PIPE_2.0	None	None	A53 Gr.B	Typical	1.02	.627	.627	1.25
3	PIPE_2.5	PIPE_2.5	None	None	A53 Gr.B	Typical	1.61	1.45	1.45	2.89
4	Gusset	PI 3"x0.375"	None	None	A53 Gr.B	Typical	1.125	.013	.844	.049
5	Pipe 2.375"x0.188"	HSS2.375x0....	None	None	A53 Gr.B	Typical	1.29	.778	.778	1.56

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	N6						
2	N1						
3	N92	Reaction	Reaction	Reaction			
4	N91	Reaction	Reaction	Reaction			
5	N93	Reaction	Reaction	Reaction	Reaction		Reaction
6	N94	Reaction	Reaction	Reaction	Reaction		Reaction

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N5	N4			PIPE_2.5	None	None	A53 Gr.B	Typical
2	M2	N3	N1			PIPE_2.0	None	None	A53 Gr.B	Typical
3	M3	N1	N2			PIPE_2.0	None	None	A53 Gr.B	Typical
4	M4	N10	N9			PIPE_2.5	None	None	A53 Gr.B	Typical
5	M5	N8	N6			PIPE_2.0	None	None	A53 Gr.B	Typical
6	M6	N6	N7			PIPE_2.0	None	None	A53 Gr.B	Typical
7	M7	N12	N23			RIGID	None	None	RIGID	Typical
8	M8	N16	N25			RIGID	None	None	RIGID	Typical
9	M9	N20	N27			RIGID	None	None	RIGID	Typical
10	M10	N22	N28			RIGID	None	None	RIGID	Typical
11	M11	N17	N26			RIGID	None	None	RIGID	Typical
12	M12	N13	N24			RIGID	None	None	RIGID	Typical
13	M13	N29	N11			RIGID	None	None	RIGID	Typical
14	M14	N31	N15			RIGID	None	None	RIGID	Typical
15	M15	N33	N19			RIGID	None	None	RIGID	Typical
16	M16	N34	N21			RIGID	None	None	RIGID	Typical
17	M17	N32	N18			RIGID	None	None	RIGID	Typical
18	M18	N30	N14			RIGID	None	None	RIGID	Typical
19	M19	N29	N35		220	Gusset	None	None	A53 Gr.B	Typical
20	M20	N31	N37		220	Gusset	None	None	A53 Gr.B	Typical
21	M21	N33	N39		220	Gusset	None	None	A53 Gr.B	Typical
22	M22	N34	N40		140	Gusset	None	None	A53 Gr.B	Typical
23	M23	N32	N38		140	Gusset	None	None	A53 Gr.B	Typical
24	M24	N30	N36		140	Gusset	None	None	A53 Gr.B	Typical
25	M25	N41	N23		220	Gusset	None	None	A53 Gr.B	Typical
26	M26	N43	N25		220	Gusset	None	None	A53 Gr.B	Typical
27	M27	N45	N27		220	Gusset	None	None	A53 Gr.B	Typical
28	M28	N46	N28		140	Gusset	None	None	A53 Gr.B	Typical
29	M29	N44	N26		140	Gusset	None	None	A53 Gr.B	Typical
30	M30	N42	N24		140	Gusset	None	None	A53 Gr.B	Typical
31	M31	N51	N57		315	PIPE_1.25	None	None	A53 Gr.B	Typical
32	M32	N49	N55		315	PIPE_1.25	None	None	A53 Gr.B	Typical
33	M33	N52	N58		45	PIPE_1.25	None	None	A53 Gr.B	Typical
34	M34	N50	N56		45	PIPE_1.25	None	None	A53 Gr.B	Typical
35	M35	N47	N53		315	PIPE_2.0	None	None	A53 Gr.B	Typical
36	M36	N48	N54		45	PIPE_2.0	None	None	A53 Gr.B	Typical
37	M37	N58	N50			PIPE_1.25	None	None	A53 Gr.B	Typical
38	M38	N56	N48			PIPE_1.25	None	None	A53 Gr.B	Typical
39	M39	N51	N55			PIPE_1.25	None	None	A53 Gr.B	Typical
40	M40	N49	N53			PIPE_1.25	None	None	A53 Gr.B	Typical
41	M41	N62	N60			RIGID	None	None	RIGID	Typical
42	M42	N61	N59			RIGID	None	None	RIGID	Typical
43	M43	N63	N64			PIPE_2.0	None	None	A53 Gr.B	Typical
44	M44	N72	N70			RIGID	None	None	RIGID	Typical
45	M45	N71	N69			RIGID	None	None	RIGID	Typical
46	M46	N73	N74			PIPE_2.0	None	None	A53 Gr.B	Typical
47	M47	N78	N76			RIGID	None	None	RIGID	Typical
48	M48	N77	N75			RIGID	None	None	RIGID	Typical
49	M49	N79	N80			PIPE_2.0	None	None	A53 Gr.B	Typical
50	M50	N65	N81			RIGID	None	None	RIGID	Typical
51	M51	N66	N82			RIGID	None	None	RIGID	Typical
52	M52	N83	N84			PIPE_2.0	None	None	A53 Gr.B	Typical
53	M53	N67	N85			RIGID	None	None	RIGID	Typical
54	M54	N68	N86			RIGID	None	None	RIGID	Typical
55	M55	N87	N88			PIPE_2.0	None	None	A53 Gr.B	Typical
56	M56	N89	N92			PIPE_2.0	None	None	A53 Gr.B	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
57	M57	N90	N91			PIPE 2.0	None	None	A53 Gr.B	Typical
58	M58	N1	N93			RIGID	None	None	RIGID	Typical
59	M59	N6	N94			RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	M1						Yes	** NA **			None
2	M2						Yes	** NA **			None
3	M3						Yes	** NA **			None
4	M4						Yes	** NA **			None
5	M5						Yes	** NA **			None
6	M6						Yes	** NA **			None
7	M7						Yes	** NA **			None
8	M8						Yes	** NA **			None
9	M9						Yes	** NA **			None
10	M10						Yes	** NA **			None
11	M11						Yes	** NA **			None
12	M12						Yes	** NA **			None
13	M13						Yes	** NA **			None
14	M14						Yes	** NA **			None
15	M15						Yes	** NA **			None
16	M16						Yes	** NA **			None
17	M17						Yes	** NA **			None
18	M18						Yes	** NA **			None
19	M19						Yes	** NA **			None
20	M20						Yes	** NA **			None
21	M21						Yes	** NA **			None
22	M22						Yes	** NA **			None
23	M23						Yes	** NA **			None
24	M24						Yes	** NA **			None
25	M25						Yes	** NA **			None
26	M26						Yes	** NA **			None
27	M27						Yes	** NA **			None
28	M28						Yes	** NA **			None
29	M29						Yes	** NA **			None
30	M30						Yes	** NA **			None
31	M31	OOOOOX	OOOOOX				Yes	** NA **			None
32	M32	OOOOOX	OOOOOX				Yes	** NA **			None
33	M33	OOOOOX	OOOOOX				Yes	** NA **			None
34	M34	OOOOOX	OOOOOX				Yes	** NA **			None
35	M35	OOOOOX	OOOOOX				Yes	** NA **			None
36	M36	OOOOOX	OOOOOX				Yes	** NA **			None
37	M37	OOOOOX	OOOOOX				Yes	** NA **			None
38	M38	OOOOOX	OOOOOX				Yes	** NA **			None
39	M39	OOOOOX	OOOOOX				Yes	** NA **			None
40	M40	OOOOOX	OOOOOX				Yes	** NA **			None
41	M41						Yes	** NA **			None
42	M42						Yes	** NA **			None
43	M43						Yes	** NA **			None
44	M44						Yes	** NA **			None
45	M45						Yes	** NA **			None
46	M46						Yes	** NA **			None
47	M47						Yes	** NA **			None
48	M48						Yes	** NA **			None
49	M49						Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
50	M50						Yes	** NA **			None
51	M51						Yes	** NA **			None
52	M52						Yes	** NA **			None
53	M53						Yes	** NA **			None
54	M54						Yes	** NA **			None
55	M55						Yes	** NA **			None
56	M56	BenPIN					Yes	** NA **			None
57	M57						Yes	** NA **			None
58	M58						Yes	** NA **			None
59	M59						Yes	** NA **			None

Hot Rolled Steel Design Parameters

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torqu...	Kyy	Kzz	Cb	Function
1	M1	PIPE_2.5	144			Lbyy						Lateral
2	M2	PIPE_2.0	73			Lbyy						Lateral
3	M3	PIPE_2.0	73			Lbyy						Lateral
4	M4	PIPE_2.5	144			Lbyy						Lateral
5	M5	PIPE_2.0	73			Lbyy						Lateral
6	M6	PIPE_2.0	73			Lbyy						Lateral
7	M19	Gusset	3.5			Lbyy						Lateral
8	M20	Gusset	3.5			Lbyy						Lateral
9	M21	Gusset	3.5			Lbyy						Lateral
10	M22	Gusset	3.5			Lbyy						Lateral
11	M23	Gusset	3.5			Lbyy						Lateral
12	M24	Gusset	3.5			Lbyy						Lateral
13	M25	Gusset	3.5			Lbyy						Lateral
14	M26	Gusset	3.5			Lbyy						Lateral
15	M27	Gusset	3.5			Lbyy						Lateral
16	M28	Gusset	3.5			Lbyy						Lateral
17	M29	Gusset	3.5			Lbyy						Lateral
18	M30	Gusset	3.5			Lbyy						Lateral
19	M31	PIPE_1.25	35			Lbyy						Lateral
20	M32	PIPE_1.25	35			Lbyy						Lateral
21	M33	PIPE_1.25	35			Lbyy						Lateral
22	M34	PIPE_1.25	35			Lbyy						Lateral
23	M35	PIPE_2.0	35			Lbyy						Lateral
24	M36	PIPE_2.0	35			Lbyy						Lateral
25	M37	PIPE_1.25	45.453			Lbyy						Lateral
26	M38	PIPE_1.25	45.453			Lbyy						Lateral
27	M39	PIPE_1.25	45.453			Lbyy						Lateral
28	M40	PIPE_1.25	45.453			Lbyy						Lateral
29	M43	PIPE_2.0	96			Lbyy						Lateral
30	M46	PIPE_2.0	96			Lbyy						Lateral
31	M49	PIPE_2.0	96			Lbyy						Lateral
32	M52	PIPE_2.0	96									Lateral
33	M55	PIPE_2.0	96									Lateral
34	M56	PIPE_2.0	102									Lateral
35	M57	PIPE_2.0	96									Lateral

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
1	Self We	DL		-1.1						
2	We	DL					12			
3	Ice We	DL					12	23		

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
4	W0	WL					12	23		
5	W30	WL					24	46		
6	W60	WL					24	46		
7	W90	WL					12	23		
8	W120	WL					24	46		
9	W150	WL					24	46		
10	W0 + Ice	WL					12	23		
11	W30 + Ice	WL					24	46		
12	W60 + Ice	WL					24	46		
13	W90 + Ice	WL					12	23		
14	W120 + Ice	WL					24	46		
15	W150 + Ice	WL					24	46		
16	500lbs LM 1	LL				1				
17	500lbs LM 2	LL				1				
18	500lbs LM 3	LL				1				
19	500lbs LM 4	LL								
20	250lbs LV 5	LL				1				
21	250lbs LV 6	LL				1				
22	E0	EL	-.14				12			
23	E90	EL			.14		12			

Load Combinations

	Description	So...	P...	S...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...
1	Dead	Yes	Y		1	1.4	2	1.4	0		0													
2	Dead + Wind 0	Yes	Y		1	1.2	2	1.2	4	1	0													
3	Dead + Wind 30	Yes	Y		1	1.2	2	1.2	5	1	0													
4	Dead + Wind 60	Yes	Y		1	1.2	2	1.2	6	1	0													
5	Dead + Wind 90	Yes	Y		1	1.2	2	1.2	7	1	0													
6	Dead + Wind 120	Yes	Y		1	1.2	2	1.2	8	1	0													
7	Dead + Wind 150	Yes	Y		1	1.2	2	1.2	9	1	0													
8	Dead + Wind 180	Yes	Y		1	1.2	2	1.2	4	-1	0													
9	Dead + Wind 210	Yes	Y		1	1.2	2	1.2	5	-1	0													
10	Dead + Wind 240	Yes	Y		1	1.2	2	1.2	6	-1	0													
11	Dead + Wind 270	Yes	Y		1	1.2	2	1.2	7	-1	0													
12	Dead + Wind 300	Yes	Y		1	1.2	2	1.2	8	-1	0													
13	Dead + Wind 330	Yes	Y		1	1.2	2	1.2	9	-1	0													
14	Dead + Ice + Wi...	Yes	Y		1	1.2	2	1.2	10	1	3	1												
15	Dead + Ice + Wi...	Yes	Y		1	1.2	2	1.2	11	1	3	1												
16	Dead + Ice + Wi...	Yes	Y		1	1.2	2	1.2	12	1	3	1												
17	Dead + Ice + Wi...	Yes	Y		1	1.2	2	1.2	13	1	3	1												
18	Dead + Ice + Wi...	Yes	Y		1	1.2	2	1.2	14	1	3	1												
19	Dead + Ice + Wi...	Yes	Y		1	1.2	2	1.2	15	1	3	1												
20	Dead + Ice + Wi...	Yes	Y		1	1.2	2	1.2	10	-1	3	1												
21	Dead + Ice + Wi...	Yes	Y		1	1.2	2	1.2	11	-1	3	1												
22	Dead + Ice + Wi...	Yes	Y		1	1.2	2	1.2	12	-1	3	1												
23	Dead + Ice + Wi...	Yes	Y		1	1.2	2	1.2	13	-1	3	1												
24	Dead + Ice + Wi...	Yes	Y		1	1.2	2	1.2	14	-1	3	1												
25	Dead + Ice + Wi...	Yes	Y		1	1.2	2	1.2	15	-1	3	1												
26	Dead + LM5001 ...	Yes	Y		1	1.2	2	1.2	16	1.5	4	.049												
27	Dead + LM5001 ...	Yes	Y		1	1.2	2	1.2	16	1.5	5	.049												
28	Dead + LM5001 ...	Yes	Y		1	1.2	2	1.2	16	1.5	6	.049												
29	Dead + LM5001 ...	Yes	Y		1	1.2	2	1.2	16	1.5	7	.049												
30	Dead + LM5001 ...	Yes	Y		1	1.2	2	1.2	16	1.5	8	.049												
31	Dead + LM5001 ...	Yes	Y		1	1.2	2	1.2	16	1.5	9	.049												
32	Dead + LM5001 ...	Yes	Y		1	1.2	2	1.2	16	1.5	4	-.049												

Load Combinations (Continued)

	Description	So...	P...	S...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...
33	Dead + LM5001 ..	Yes	Y		1	1.2	2	1.2	16	1.5	5	-.049												
34	Dead + LM5001 ..	Yes	Y		1	1.2	2	1.2	16	1.5	6	-.049												
35	Dead + LM5001 ..	Yes	Y		1	1.2	2	1.2	16	1.5	7	-.049												
36	Dead + LM5001 ..	Yes	Y		1	1.2	2	1.2	16	1.5	8	-.049												
37	Dead + LM5001 ..	Yes	Y		1	1.2	2	1.2	16	1.5	9	-.049												
38	Dead + LM5002 ..	Yes	Y		1	1.2	2	1.2	17	1.5	4	.049												
39	Dead + LM5002 ..	Yes	Y		1	1.2	2	1.2	17	1.5	5	.049												
40	Dead + LM5002 ..	Yes	Y		1	1.2	2	1.2	17	1.5	6	.049												
41	Dead + LM5002 ..	Yes	Y		1	1.2	2	1.2	17	1.5	7	.049												
42	Dead + LM5002 ..	Yes	Y		1	1.2	2	1.2	17	1.5	8	.049												
43	Dead + LM5002 ..	Yes	Y		1	1.2	2	1.2	17	1.5	9	.049												
44	Dead + LM5002 ..	Yes	Y		1	1.2	2	1.2	17	1.5	4	-.049												
45	Dead + LM5002 ..	Yes	Y		1	1.2	2	1.2	17	1.5	5	-.049												
46	Dead + LM5002 ..	Yes	Y		1	1.2	2	1.2	17	1.5	6	-.049												
47	Dead + LM5002 ..	Yes	Y		1	1.2	2	1.2	17	1.5	7	-.049												
48	Dead + LM5002 ..	Yes	Y		1	1.2	2	1.2	17	1.5	8	-.049												
49	Dead + LM5002 ..	Yes	Y		1	1.2	2	1.2	17	1.5	9	-.049												
50	Dead + LM5003 ..	Yes	Y		1	1.2	2	1.2	18	1.5	4	.049												
51	Dead + LM5003 ..	Yes	Y		1	1.2	2	1.2	18	1.5	5	.049												
52	Dead + LM5003 ..	Yes	Y		1	1.2	2	1.2	18	1.5	6	.049												
53	Dead + LM5003 ..	Yes	Y		1	1.2	2	1.2	18	1.5	7	.049												
54	Dead + LM5003 ..	Yes	Y		1	1.2	2	1.2	18	1.5	8	.049												
55	Dead + LM5003 ..	Yes	Y		1	1.2	2	1.2	18	1.5	9	.049												
56	Dead + LM5003 ..	Yes	Y		1	1.2	2	1.2	18	1.5	4	-.049												
57	Dead + LM5003 ..	Yes	Y		1	1.2	2	1.2	18	1.5	5	-.049												
58	Dead + LM5003 ..	Yes	Y		1	1.2	2	1.2	18	1.5	6	-.049												
59	Dead + LM5003 ..	Yes	Y		1	1.2	2	1.2	18	1.5	7	-.049												
60	Dead + LM5003 ..	Yes	Y		1	1.2	2	1.2	18	1.5	8	-.049												
61	Dead + LM5003 ..	Yes	Y		1	1.2	2	1.2	18	1.5	9	-.049												
62	Dead + LM5004 ..	Yes	Y		1	1.2	2	1.2	19	1.5	4	.049												
63	Dead + LM5004 ..	Yes	Y		1	1.2	2	1.2	19	1.5	5	.049												
64	Dead + LM5004 ..	Yes	Y		1	1.2	2	1.2	19	1.5	6	.049												
65	Dead + LM5004 ..	Yes	Y		1	1.2	2	1.2	19	1.5	7	.049												
66	Dead + LM5004 ..	Yes	Y		1	1.2	2	1.2	19	1.5	8	.049												
67	Dead + LM5004 ..	Yes	Y		1	1.2	2	1.2	19	1.5	9	.049												
68	Dead + LM5004 ..	Yes	Y		1	1.2	2	1.2	19	1.5	4	-.049												
69	Dead + LM5004 ..	Yes	Y		1	1.2	2	1.2	19	1.5	5	-.049												
70	Dead + LM5004 ..	Yes	Y		1	1.2	2	1.2	19	1.5	6	-.049												
71	Dead + LM5004 ..	Yes	Y		1	1.2	2	1.2	19	1.5	7	-.049												
72	Dead + LM5004 ..	Yes	Y		1	1.2	2	1.2	19	1.5	8	-.049												
73	Dead + LM5004 ..	Yes	Y		1	1.2	2	1.2	19	1.5	9	-.049												
74	Dead + LV2505	Yes	Y		1	1.2	2	1.2	20	1.5	0													
75	Dead + LV2506	Yes	Y		1	1.2	2	1.2	21	1.5	0													
76	Service 60mph ...	Yes	Y		1	1	2	1	4	.198	0													
77	(1.2 + 0.2SDS)D..	Yes	Y		1	1.238	2	1.238	22	1	23													
78	(1.2 + 0.2SDS)D..	Yes	Y		1	1.238	2	1.238	22	.866	23	.5												
79	(1.2 + 0.2SDS)D..	Yes	Y		1	1.238	2	1.238	22	.5	23	.866												
80	(1.2 + 0.2SDS)D..	Yes	Y		1	1.238	2	1.238	22		23	1												
81	(1.2 + 0.2SDS)D..	Yes	Y		1	1.238	2	1.238	22	-.5	23	.866												
82	(1.2 + 0.2SDS)D..	Yes	Y		1	1.238	2	1.238	22	-.866	23	.5												
83	(1.2 + 0.2SDS)D..	Yes	Y		1	1.238	2	1.238	22	-1	23													
84	(1.2 + 0.2SDS)D..	Yes	Y		1	1.238	2	1.238	22	-.866	23	-.5												
85	(1.2 + 0.2SDS)D..	Yes	Y		1	1.238	2	1.238	22	-.5	23	-.866												
86	(1.2 + 0.2SDS)D..	Yes	Y		1	1.238	2	1.238	22		23	-1												
87	(1.2 + 0.2SDS)D..	Yes	Y		1	1.238	2	1.238	22	.5	23	-.866												
88	(1.2 + 0.2SDS)D..	Yes	Y		1	1.238	2	1.238	22	.866	23	-.5												

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-in]	LC	MY [k-in]	LC	MZ [k-in]	LC
1	N92	max	1872.14	10	72.065	17	338.68	4	0	88	0	88	0	88
2		min	-1891.054	4	16.234	76	-337.854	10	0	1	0	1	0	1
3	N91	max	1382.637	6	53.259	17	185.877	7	0	88	0	88	0	88
4		min	-1398.06	12	11.266	37	-186.477	13	0	1	0	1	0	1
5	N93	max	4838.788	14	2571.616	19	1137.246	11	3.717	30	0	88	17.877	15
6		min	-700.706	8	623.194	76	-1244.236	5	-2.718	60	0	1	4.499	76
7	N94	max	1463.307	2	2546.724	25	1870.196	11	2.615	30	0	88	17.698	21
8		min	-4907.473	21	642.861	76	-1763.897	5	-3.742	60	0	1	4.354	76
9	Totals:	max	3722.464	2	5205.819	20	2572.405	11						
10		min	-3722.466	8	1293.996	76	-2572.407	5						

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

	Member	Shape	Code ...	Loc[in]	LC	Shear ...	Loc[in]	Dir	LC	phi*Pnc [...	phi*Pnt [lb]	phi*Mn y...	phi*Mn z...	Cb	Eqn
1	M43	PIPE_2.0	.476	27	8	.047	27		8	14916.096	32130	22.459	22.459	1....	H1-1b
2	M3	PIPE_2.0	.442	0	16	.196	0		18	20616.315	32130	22.459	22.459	3....	H1-1b
3	M46	PIPE_2.0	.440	27	8	.044	27		8	14916.096	32130	22.459	22.459	1....	H1-1b
4	M19	PI 3"x0.375"	.438	0	7	.144	0	y	11	33591.393	35437.5	3.322	26.578	1....	H1-1b
5	M24	PI 3"x0.375"	.409	0	9	.222	0	y	12	33591.393	35437.5	3.322	26.578	1....	H1-1b
6	M25	PI 3"x0.375"	.404	3.5	13	.235	1.714	y	10	33591.393	35437.5	3.322	26.578	1....	H1-1b
7	M5	PIPE_2.0	.399	73	21	.181	73		25	20616.315	32130	22.459	22.459	3....	H1-1b
8	M35	PIPE_2.0	.354	8.75	12	.116	1.823		6	29014.431	32130	22.459	22.459	1....	H1-1b
9	M2	PIPE_2.0	.351	73	24	.121	73		24	20616.315	32130	22.459	22.459	3....	H1-1b
10	M6	PIPE_2.0	.333	73	3	.193	66.156		3	20616.315	32130	22.459	22.459	3....	H1-1b
11	M30	PI 3"x0.375"	.299	3.5	3	.103	1.714	y	6	33591.393	35437.5	3.322	26.578	1....	H1-1b
12	M1	PIPE_2.5	.294	120	8	.174	120		8	15797.3	50715	43.155	43.155	1....	H1-1b
13	M4	PIPE_2.5	.282	120	2	.174	120		2	15797.3	50715	43.155	43.155	1.5	H1-1b
14	M36	PIPE_2.0	.219	3.281	6	.194	1.823		10	29014.431	32130	22.459	22.459	1....	H1-1b
15	M49	PIPE_2.0	.189	28	6	.057	28		6	14916.096	32130	22.459	22.459	1....	H1-1b
16	M28	PI 3"x0.375"	.173	3.5	18	.182	1.714	y	6	33591.393	35437.5	3.322	26.578	2....	H1-1b
17	M21	PI 3"x0.375"	.170	0	16	.146	0	y	51	33591.393	35437.5	3.322	26.578	2....	H1-1b
18	M37	PIPE_1.25	.165	0	16	.029	45.453		12	13746.789	19687.5	9.607	9.607	1....	H1-1b*
19	M38	PIPE_1.25	.156	0	17	.018	0		3	13746.789	19687.5	9.607	9.607	1....	H1-1b*
20	M56	PIPE_2.0	.143	0	10	.008	0		23	13511.278	32130	22.459	22.459	1....	H1-1b*
21	M23	PI 3"x0.375"	.128	0	12	.149	0	y	4	33591.393	35437.5	3.322	26.578	2....	H1-1b
22	M34	PIPE_1.25	.118	1.823	16	.027	1.458		12	15911.068	19687.5	9.607	9.607	2....	H1-1b
23	M32	PIPE_1.25	.116	33.177	18	.040	35		12	15911.068	19687.5	9.607	9.607	2....	H1-1b
24	M31	PIPE_1.25	.115	33.177	24	.019	33.177		60	15911.068	19687.5	9.607	9.607	1....	H1-1b
25	M20	PI 3"x0.375"	.110	0	10	.117	0	y	9	33591.393	35437.5	3.322	26.578	1....	H1-1b
26	M29	PI 3"x0.375"	.110	3.5	3	.198	1.714	y	4	33591.393	35437.5	3.322	26.578	1....	H1-1b
27	M33	PIPE_1.25	.108	1.823	19	.019	33.177		27	15911.068	19687.5	9.607	9.607	1....	H1-1b
28	M57	PIPE_2.0	.096	0	6	.009	0		23	14916.096	32130	22.459	22.459	1....	H1-1b*
29	M26	PI 3"x0.375"	.095	3.5	21	.100	1.714	y	24	33591.393	35437.5	3.322	26.578	2....	H1-1b
30	M55	PIPE_2.0	.093	68	24	.047	28		6	14916.096	32130	22.459	22.459	4....	H1-1b
31	M52	PIPE_2.0	.083	28	20	.031	28		12	14916.096	32130	22.459	22.459	3....	H1-1b
32	M39	PIPE_1.25	.078	22.253	24	.027	45.453		4	13746.789	19687.5	9.607	9.607	1....	H1-1b
33	M40	PIPE_1.25	.073	22.727	24	.018	45.453		5	13746.789	19687.5	9.607	9.607	1....	H1-1b
34	M27	PI 3"x0.375"	.066	3.5	22	.050	1.714	y	60	33591.393	35437.5	3.322	26.578	1....	H1-1b
35	M22	PI 3"x0.375"	.061	0	25	.051	0	y	30	33591.393	35437.5	3.322	26.578	1....	H1-1b

HUDSON
Design Group LLC

Connection Check

SITE DETAILS

Site Name/Code	GLASTONBURY PD
Date	4/22/2022
Engineer	SAM

CONNECTION PARAMETERS

Loadcase #		**21**	
Number of bolts		**4**	
B		**3**	*in*
D		**3**	*in*
Bolt Diameter	d	**1/2**	*in*
Tensile Area	A_b	0.20	in^2
Tensile Area	A_n	0.14	in^2
Grade		J429 Grade 2	
Bolt Ultimate Strength	F_{ub}	74	*ksi*
Connection length reduction factor	R_b	1	

Connection Sketch/Photo

FLANGE LOADS

Bending Moment	Mzz	**17.70**	*kips-in*
Bending Moment	Myy	**0.00**	*kips-in*
Torsional Moment	Mxx	**1.15**	*kips-in*
Shear Force	Vy	**2.52**	*kips*
Shear Force	Vz	**0.43**	*kips*
Axial Force	Px	**4.91**	*kips*

SOFTWARE REACTIONS TABLE

L...	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-in]	MY [k-in]	MZ [k-in]
21	N94	-4907.473	2522.263	432.448	-1.147	0	17.698
21	N91	-200.886	52.998	-25.888	0	0	0
21	N92	312.554	71.722	-58.94	0	0	0
21	N93	4107.556	2558.836	49.728	1.169	0	17.81
21	Totals:	-688.25	5205.819	397.347			

BOLT CHECK

Bolt Tension Capacity

$\phi R_{nt} = 0.75 * F_{ub} * A_n$

ϕR_{nt} = **7.9** *kips*

Bolt Shear Capacity

$\phi R_{nv} = 0.75 * 0.45 * Fub * Ab * Rb$

ϕR_{nv} = **5.4** *kips*

Maximum Bolt Tension

$T_{ub} = F_{Mxx} + F_{Mzz} + T_y/4$

T_{ub} = **4.18** *kips*

Maximum Bolt Shear

$V_{ub} = \text{sqrt}((V_x/4)^2 + (V_y/4)^2) + F_{Myy}$

V_{ub} = **0.78** *kips*

Tension Ratio: **53.0 %** PASS

Shear Ratio: **14.3 %** PASS

$(T_{ub} / \phi R_{nt})^2 + (V_{ub} / \phi R_{nv})^2 < 1.0$ **OK** Ratio **30.2%** PASS

EXHIBIT 5

Radio Frequency Exposure Analysis Report

August 23, 2022

Centerline on behalf of AT&T

AT&T Site Name: GLASTONBURY PD
Site Number: CTL01083
FA#: 10035111
USID: 59372

Site Address: Glastonbury Police Department, Glastonbury, CT 06033

Michael Fischer, P.E.
Registered Professional Engineer (Electrical)
Connecticut License Number 33928
Expires January 31, 2023

Signed 23 August 2022

Site Compliance Summary

AT&T Compliance Status:	Compliant
Cumulative Calculated Power Density (Ground Level):	1.49757 µW/cm^2
Cumulative General Population % MPE (Ground Level):	0.15446%

August 23, 2022

Centerline
Attn: Jennifer Iliades, Project Manager
750 W Center St, Suite 301
West Bridgewater, MA 02379

RF Exposure Analysis for Site: **GLASTONBURY PD**

Centerline Communications, LLC ("Centerline") was contracted to analyze the proposed AT&T facility at **Glastonbury Police Department, Glastonbury, CT 06033** for the purpose of determining whether the predictive exposure from the proposed facility is within specified federal limits.

All information used in this report was analyzed as a percentage of the Maximum Permissible Exposure (% MPE) limits as detailed in 47 CFR § 1.1310 as well as Federal Communications Commission (FCC) OET Bulletin 65 Edition 97-01. The FCC MPE limits are typically expressed in units of milliwatts per square centimeter (mW/cm^2) or microwatts per square centimeter ($\mu W/cm^2$). The exposure limits vary depending upon the frequencies being utilized. The General Population/Uncontrolled MPE limit (in mW/cm^2) for frequencies between 300 and 1500 is defined as frequency (in MHz) divided by 1500 ($f_{MHz}/1500$). Frequencies between 1500 and 100,000 MHz have a General Population/Uncontrolled MPE limit of 1 mW/cm^2 (1000 $\mu W/cm^2$). The calculated power density at each sample point divided by the limit at each calculated frequency provides a result in % MPE. Summing the calculated % MPE from all contributors provides a cumulative % MPE at a particular sample point. Wireless carriers use different frequency bands with varying MPE limits; therefore, it is useful to report results in terms of % MPE as opposed to power density.

All results were compared to the FCC radio frequency exposure rules as detailed in 47 CFR § 1.1307(b) to determine compliance with the MPE limits for General Population/Uncontrolled environments as defined below.

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

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/ controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits, as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means. Additional details can be found in FCC OET 65.

Calculation Methodology

Centerline Communications, LLC has performed theoretical modeling of the site using a software tool, RoofMaster®, which incorporates calculation methodologies detailed in FCC OET 65. RoofMaster® uses a cylindrical model for conservative power density predictions within the near field of the antenna where the antenna pattern has not truly formed yet. Within this area power density values tend to decrease based upon an inverse distance function. At the point where it is appropriate for modeling to change from near-field calculations to far-field calculations, the power decreases inversely with the square of the distance. The modeling is based on worst-case assumptions in terms of transmitter power and duty cycle. No losses were included in the power calculations unless they were specifically provided for the project.

In OET 65, a far field model is presented to calculate the spatial peak power density. The RoofMaster® implementation of this model incorporates antenna manufacturer's horizontal and vertical pattern data to determine the power density in all directions. This model yields the power density at a single point in space. In order to determine the spatial power density for comparison to the FCC limits, the average of several points calculated within the human profile (0-6') must be conducted. RoofMaster® calculates seven power density values between 0-6' above the specified study plane and performs a linear spatial average.

Data & Results

The following table details the antennas and operating parameters for the AT&T antenna system as well as any other antenna systems at the site. This is based on antenna information provided by the client and data compiled from other sources where necessary. The data below was input into Roofmaster® to perform the theoretical exposure calculations at ground level.

The theoretical calculations performed in Roofmaster® determine the cumulative exposure at all sample points at ground level (0-6' spatial average). The results from highest cumulative sample point at ground level surrounding the site are displayed in the table below. The contribution from directional antennas to the maximum cumulative totals varies greatly depending on location; therefore, the contribution from one antenna sector at the highest calculated exposure point may be greater or less than other sectors since sectorized directional antennas are pointed in different directions and there is not much overlapping exposure.

The contribution to the cumulative power density and % MPE for each antenna/frequency band is listed in the table. The cumulative power density and cumulative % MPE are displayed at the bottom of the table.

Maximum Calculated Cumulative Power Density @ Ground Level
(Location: approximately 5' southwest of site)

Antenna ID	Make / Model	Frequency Band (MHz)	Antenna Gain (dBd)	Antenna Centerline (ft)	Channel Count	TX Power/ Channel (watts)	ERP (watts)	Calculated Power Density ($\mu W/cm^2$)	General Population MPE Limit ($\mu W/cm^2$)	General Population % MPE
AT&T A 1	QUINTEL QD6616-7 V1	700	11.51	166.00	4.00	30.00	1699.81	0.00009	466.67	0.00002
AT&T A 1	QUINTEL QD6616-7 V1	700	11.75	166.00	2.00	18.75	561.42	0.00002	466.67	0.00000
AT&T A 1	QUINTEL QD6616-7 V1	1900	15.11	166.00	4.00	30.00	3888.22	0.00001	1000.00	0.00000
AT&T A 1	QUINTEL QD6616-7 V1	2100	15.33	166.00	4.00	30.00	4093.28	0.00002	1000.00	0.00000
AT&T A 2	AIR6419	3450	22.85	167.50	1.00	54.20	10447.19	0.00027	1000.00	0.00003
AT&T A 2	AIR6419	3450	22.85	167.50	1.00	54.20	10447.19	0.00027	1000.00	0.00003
AT&T A 3	AIR6449	3700	23.55	164.50	1.00	108.40	24548.74	0.00053	1000.00	0.00005
AT&T A 4	KATHREIN 80010965	700	11.85	166.00	4.00	30.00	1837.30	0.00014	466.67	0.00003
AT&T A 4	KATHREIN 80010965	850	13.25	166.00	4.00	30.00	2536.19	0.00000	566.67	0.00000
AT&T A 4	KATHREIN 80010965 2	2300	15.85	166.00	4.00	18.75	2884.44	0.00000	1000.00	0.00000
AT&T B 5	QUINTEL QD6616-7 V1	700	11.97	166.00	4.00	30.00	1889.26	0.00671	466.67	0.00144
AT&T B 5	QUINTEL QD6616-7 V1	700	11.97	166.00	2.00	18.75	590.39	0.00210	466.67	0.00045
AT&T B 5	QUINTEL QD6616-7 V1	1900	15.18	166.00	4.00	30.00	3951.86	0.00970	1000.00	0.00097
AT&T B 5	QUINTEL QD6616-7 V1	2100	15.33	166.00	4.00	30.00	4093.28	0.01102	1000.00	0.00110
AT&T B 6	AIR6419	3450	22.85	167.50	1.00	54.20	10447.19	0.25162	1000.00	0.02516
AT&T B 6	AIR6419	3450	22.85	167.50	1.00	54.20	10447.19	0.25162	1000.00	0.02516
AT&T B 7	AIR6449	3700	23.55	164.50	1.00	108.40	24548.74	0.23582	1000.00	0.02358
AT&T B 8	KATHREIN 80010965	700	12.15	166.00	4.00	30.00	1968.71	0.00805	466.67	0.00173
AT&T B 8	KATHREIN 80010965	850	13.45	166.00	4.00	30.00	2655.71	0.00745	566.67	0.00132
AT&T B 8	KATHREIN 80010965	2300	15.75	166.00	4.00	18.75	2818.78	0.00271	1000.00	0.00027
AT&T C 9	QUINTEL QD6616-7 V1	700	11.99	166.00	4.00	30.00	1899.16	0.00663	466.67	0.00142
AT&T C 9	QUINTEL QD6616-7 V1	700	11.99	166.00	2.00	18.75	593.49	0.00207	466.67	0.00044
AT&T C 9	QUINTEL QD6616-7 V1	1900	14.97	166.00	4.00	30.00	3766.53	0.00301	1000.00	0.00030
AT&T C 9	QUINTEL QD6616-7 V1	2100	15.62	166.00	4.00	30.00	4376.85	0.00255	1000.00	0.00026
AT&T C 10	AIR6419	3450	22.85	167.50	1.00	54.20	10447.19	0.25047	1000.00	0.02505
AT&T C 10	AIR6419	3450	22.85	167.50	1.00	54.20	10447.19	0.25047	1000.00	0.02505
AT&T C 11	AIR6449	3700	23.55	164.50	1.00	108.40	24548.74	0.17765	1000.00	0.01777
AT&T C 12	KATHREIN 80010965	700	11.95	166.00	4.00	30.00	1880.10	0.00594	466.67	0.00127
AT&T C 12	KATHREIN 80010965	850	13.45	166.00	4.00	30.00	2655.71	0.00663	566.67	0.00117
AT&T C 12	KATHREIN 80010965	2300	15.65	166.00	4.00	18.75	2754.62	0.00403	1000.00	0.00040
							Cumulative Power Density:	**1.49757 $\mu W/cm^2$**	**Cumulative % MPE:**	**0.15446%**

Summary

The theoretical calculations performed for this analysis yielded cumulative power density totals in all areas at ground level that are within the allowable federal limits for public exposure to RF energy. Therefore, the site is **compliant** with FCC rules and regulations.

Matt Schulzinger
RF EME Technical Writer
Centerline Communications, LLC

EXHIBIT 6

Town of Glastonbury

2155 MAIN STREET • GLASTONBURY, CONNECTICUT 06033 • (203) 659-2711

TOWN PLAN AND
ZONING COMMISSION

SECTION 12 SPECIAL PERMIT WITH DESIGN REVIEW

APPLICANT: TOWN OF GLASTONBURY
POLICE DEPARTMENT
2108 MAIN STREET
GLASTONBURY, CT 06033

OWNER: TOWN OF GLASTONBURY
2155 MAIN STREET
GLASTONBURY, CT 06033

FOR: INSTALLATION OF A NEW RADIO ANTENNA

MOVED, that the Town Plan and Zoning Commission approve the application of the Town of Glastonbury Police Department for a Section 12 Special Permit with Design Review for installation of a new 170' free-standing radio antenna - removal of old - 2108 Main Street, Reserved Land Zone.

APPROVED: TOWN PLAN AND ZONING COMMISSION
JANUARY 3, 1989

B. W. ERK, III, CHAIRMAN

bsw

EXHIBIT 7

Proof of Delivery

Dear Customer,

This notice serves as proof of delivery for the shipment listed below.

Tracking Number
1Z9Y45030326912239

Weight
1.00 LBS

Service

UPS Ground

Shipped / Billed On
09/09/2022

Delivered On

10/05/2022 11:49 A.M.

Delivered To
2155 MAIN ST
GLASTONBURY, CT, 06033, US

Received By

GOODWIN

Left At
Front Desk

Reference Number(s)
CT1083-CSC_TOWN MANAGER

Thank you for giving us this opportunity to serve you. Details are only available for shipments delivered within the last 120 days. Please print for your records if you require this information after 120 days.

Sincerely,

UPS

Tracking results provided by UPS: 10/06/2022 10:05 P.M. EST

Proof of Delivery

Dear Customer,

This notice serves as proof of delivery for the shipment listed below.

Tracking Number
1Z9Y45030334286624

Weight
1.00 LBS

Service

UPS Ground

Shipped / Billed On
09/09/2022

Delivered On

10/05/2022 11:52 A.M.

Delivered To
2155 MAIN ST
GLASTONBURY, CT, 06033, US

Received By

KRAMER

Left At
Front Desk

Reference Number(s)
CT1083-CSC_TOWN PLANNER

Thank you for giving us this opportunity to serve you. Details are only available for shipments delivered within the last 120 days. Please print for your records if you require this information after 120 days.

Sincerely,

UPS

Tracking results provided by UPS: 10/06/2022 10:07 P.M. EST

Proof of Delivery

Dear Customer,

This notice serves as proof of delivery for the shipment listed below.

Tracking Number

1Z9Y45030332830842

Weight

1.00 LBS

Service

UPS Ground

Shipped / Billed On

09/09/2022

Delivered On

10/05/2022 11:51 A.M.

Delivered To

2155 MAIN ST
GLASTONBURY, CT, 06033, US

Received By

LUKE

Left At

Front Desk

Reference Number(s)

CT1083-CSC_ZEO

Thank you for giving us this opportunity to serve you. Details are only available for shipments delivered within the last 120 days. Please print for your records if you require this information after 120 days.

Sincerely,

UPS

Tracking results provided by UPS: 10/06/2022 10:09 P.M. EST