



768 Southleaf Dr.
Virginia Beach, VA 23462
aconwell@clinellc.com
215.588.7035

March 8, 2023

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

Re: Notice of Exempt Modifications – AT&T Site CT2440
AT&T Telecommunications Facility @ 15 Orchard Park Rd Madison, CT 06443

Dear Ms. Bachman,

New Cingular Wireless, PCS, LLC (“AT&T”) currently maintains a wireless telecommunications facility on an existing +/- 100’ monopole tower at the above referenced address, latitude 41.283019, longitude -72.623067. Said monopole tower is owned and managed by American Tower Company.

AT&T desires to modify its existing telecommunications facility by replacing twelve (12) antennas, replacing nine (9) RRUs, removing six (6) TMAs, and replacing (6) cables as more particularly detailed and described on the enclosed Construction Drawings prepared by TEP Northeast, last revised on January 9, 2023. The centerline height of the existing antennas is and will remain at 90 feet.

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: Peggy Lyons, Selectwoman for the Town of Madison: Erin Mannix Town Planner for the Town of Madison: Heather Benson of American Tower Company as tower owner and Florida Tower Partners as 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 Commissions 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 February 21, 2023 and prepared by Power Of Design (POD) 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).

Best Regards,

Allison Conwell

Site Acquisition Consultant – Agent for AT&T

Centerline Communications LLC

750 West Center St. Ste 301

West Bridgewater, MA 02379

215-588-7035

aconwell@clinellc.com

Enclosures: Exhibit 1 – Construction Drawings
 Exhibit 2 – Property Card and GIS
 Exhibit 3 – Mount Anaylsis
 Exhibit 4 – Structural Analysis
 Exhibit 5 – RF Emissions Analysis Report Evaluation
 Exhibit 6 – Available Town of Madison Original Tower Approval Records
 Exhibit 7 – Notice Deliver Confirmations

Cc: Peggy Lyons, as elected official, Town of Madison
 Erin Mannix, Town Planner for the Town of Madison
 American Tower Company, as tower owner
 Florida Tower Partners as property owner

EXHIBIT 1

PROJECT INFORMATION

SCOPE OF WORK: ITEMS TO BE MOUNTED ON THE EXISTING MONOPOLE:

- NEW AT&T ANTENNAS: TPA65R-BU8DA-K (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T ANTENNAS: AIR6419 B77G (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T ANTENNAS: AIR6449 B77D (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T ANTENNAS: DMP65R-BU8DA (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T RRUS: 8843 B2/B66A (PCS/AWS) (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T RRUS: 4449 B5/B12 (700/850) (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T RRUS: 4478 B14 (700) (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T (6) Y-CABLES.
- NEW AT&T HEAVY DUTY V-FRAME SECTOR MOUNT (SITE PRO 1 P/N: VFA14-H10-2120) (TOTAL OF 1)

ITEMS TO BE MOUNTED IN EQUIPMENT LOCATION:

- INSTALL (1) NEW 6630 +IDLE.
- INSTALL (1) NEW 6648 +XCEDE CABLE.
- INSTALL (4) NEW RECTIFIERS.

FINAL=6630+XMU, 6630+IDLe, 6648+Xcede.

ITEMS TO BE REMOVED:

- EXISTING AT&T ANTENNA: HPA-65R-BUU-H8 (TYP. OF 4 PER SECTOR, TOTAL OF 12).
- EXISTING AT&T RRUS: RRUS 11 B5 (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- EXISTING AT&T RRUS: RRUS 12 B2 & RRUS-A2 B25 (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- EXISTING AT&T RRUS: RRUS 11 B12 (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- EXISTING AT&T (6) 7/8" COAX CABLES, (3) RET CABLES & CONDUIT, & (1) EMPTY CONDUIT.

ITEMS TO REMAIN:

- (4) SURGE ARRESTOR, (8) DC POWER & (2) FIBER.

SITE ADDRESS:

15 ORCHARD PARK ROAD
MADISON, CT 06443

LATITUDE:

41.283083° N, 41° 16' 59.1" N

LONGITUDE:

-72.623083° W, 72° 37' 23.1" W

TYPE OF SITE:

MONOPOLE / INDOOR EQUIPMENT

STRUCTURE HEIGHT:

100'-0"±

RAD CENTER:

87'-0"±

CURRENT USE:

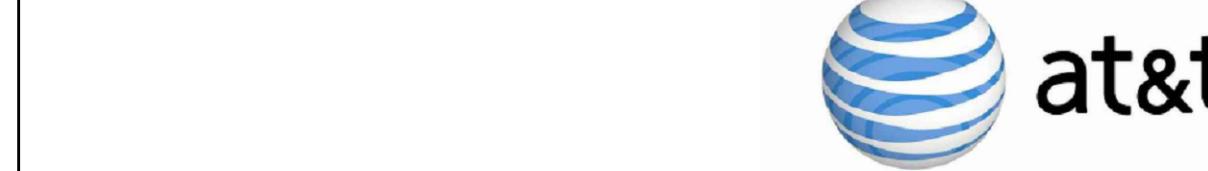
TELECOMMUNICATIONS FACILITY

PROPOSED USE:

TELECOMMUNICATIONS FACILITY

DRAWING INDEX

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



SITE NUMBER: CTL02440

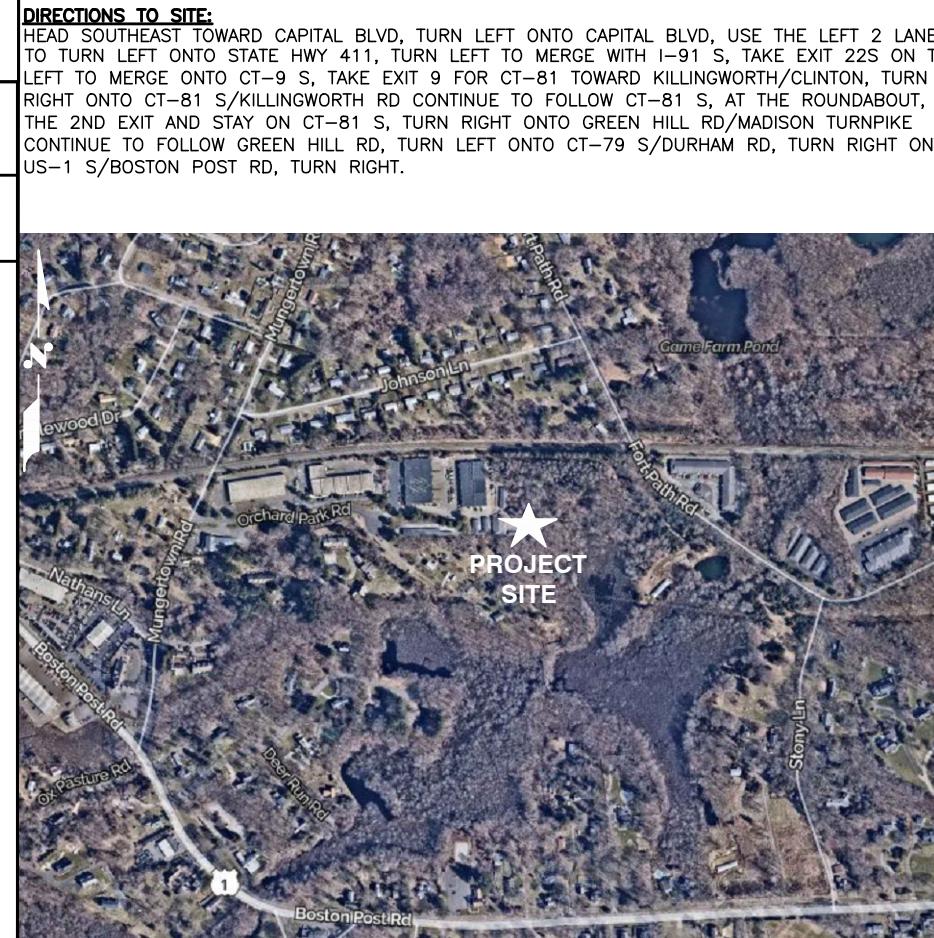
SITE NAME: MADISON LONG SHORE LANE

FA CODE: 12906937

PACE ID: MRCTB054294, MRCTB054427, MRCTB054417, MRCTB056773, MRCTB056786, MRCTB055575, MRCTB054387, MRCTB0562131

PROJECT: 5G NR 1DR-1, 5G NR 1SR CBAND, LTE 3C, LTE 4C, 2022 UPGRADE

VICINITY MAP



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

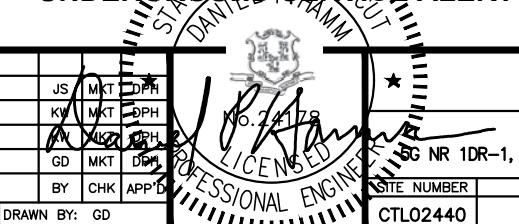
**CALL
BEFORE YOU DIG**



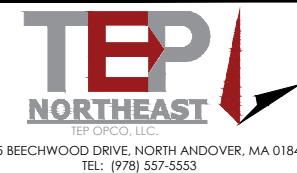
CALL TOLL FREE 1-800-922-4455

OR CALL 811

UNDERGROUND SERVICE ALERT



AT&T



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

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

SITE NUMBER: CTL02440
SITE NAME: MADISON LONG SHORE LANE

15 ORCHARD PARK ROAD
MADISON, CT 06443
NEW HAVEN COUNTY



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

1	01/09/23	ISSUED FOR CONSTRUCTION	JS	MKT	DPM
C	12/06/22	ISSUED FOR PERMITTING	KW	MKT	DPM
B	08/31/22	ISSUED FOR PERMITTING	AN	MKT	DPM
A	02/28/22	ISSUED FOR REVIEW	GD	MKT	DPM
NO.	DATE	REVISIONS	BY	CHK	APP'D
			SCALE: AS SHOWN	DESIGNED BY: AT	DRAWN BY: CD

PROFESSIONAL ENGINEER	AT&T
LICENSED	TITLE SHEET
NO. 74172	5G NR 1DR-1, 5G NR 1SR CBAND, LTE 3C, LTE 4C,
TEP	SITE NUMBER DRAWING NUMBER REV
45 BEECHWOOD DRIVE, NORTH ANDOVER, MA 01845	CTL02440 T-1 1

GROUNDING NOTES

- 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.
- 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.
- 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.
- 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.
- 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.
- EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
- APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
- ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO GROUND BAR.
- ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
- MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
- 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.
- 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

- FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:

CONTRACTOR – CENTERLINE
SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
OWNER – AT&T MOBILITY
- 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.
- 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.
- DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- "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.
- THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- 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.
- 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.
- THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAVED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
- 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.
- SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
- ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.

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

APPLICABLE BUILDING CODES:

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

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

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

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

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

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

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

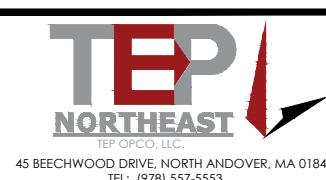
ABBREVIATIONS

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



AT&T

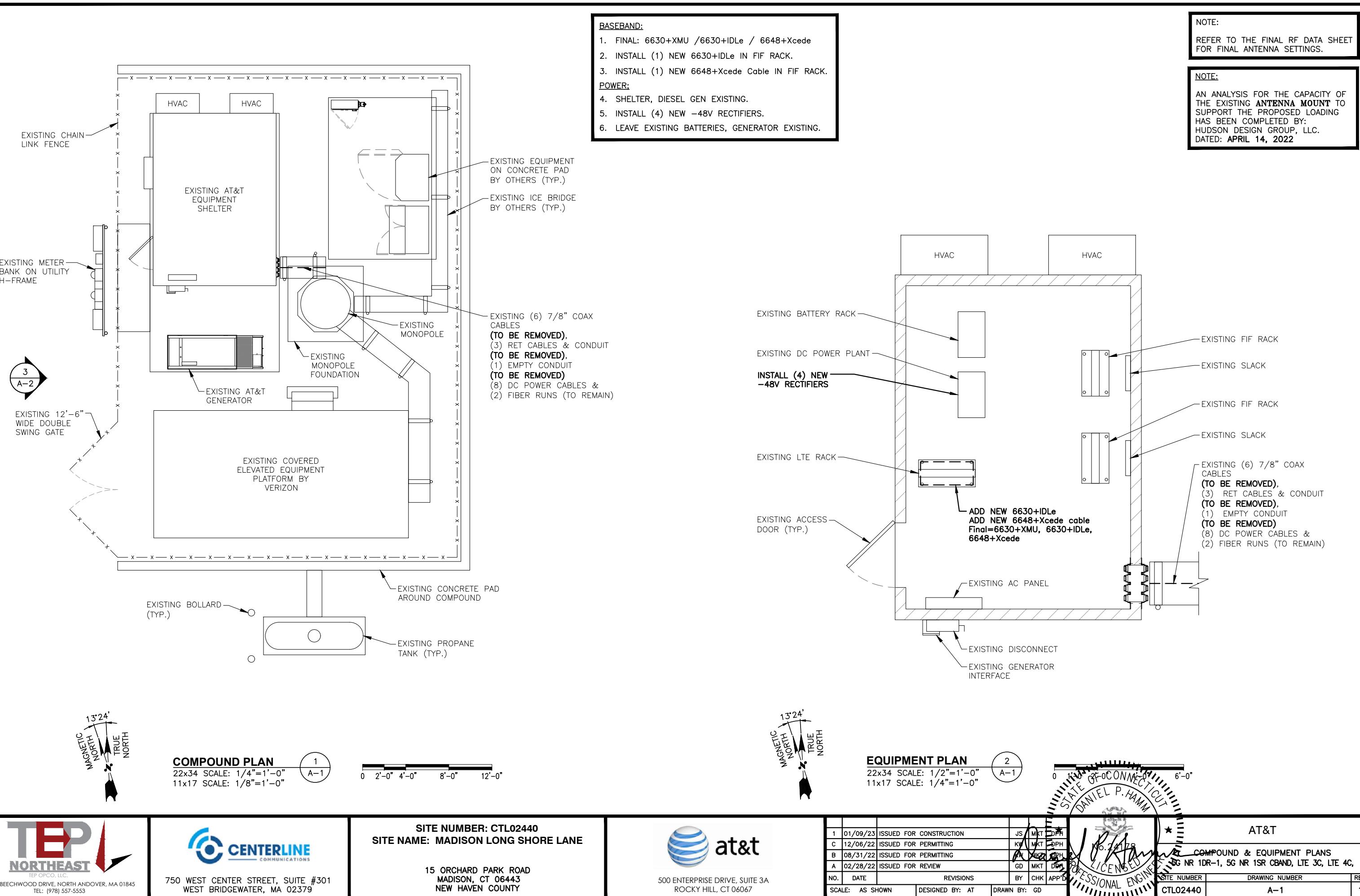
GENERAL NOTES
5G NR 1DR-1, 5G NR 1SR CBAND, LTE 3C, LTE 4C,
SITE NUMBER DRAWING NUMBER REV
CTL02440 GN-1 1

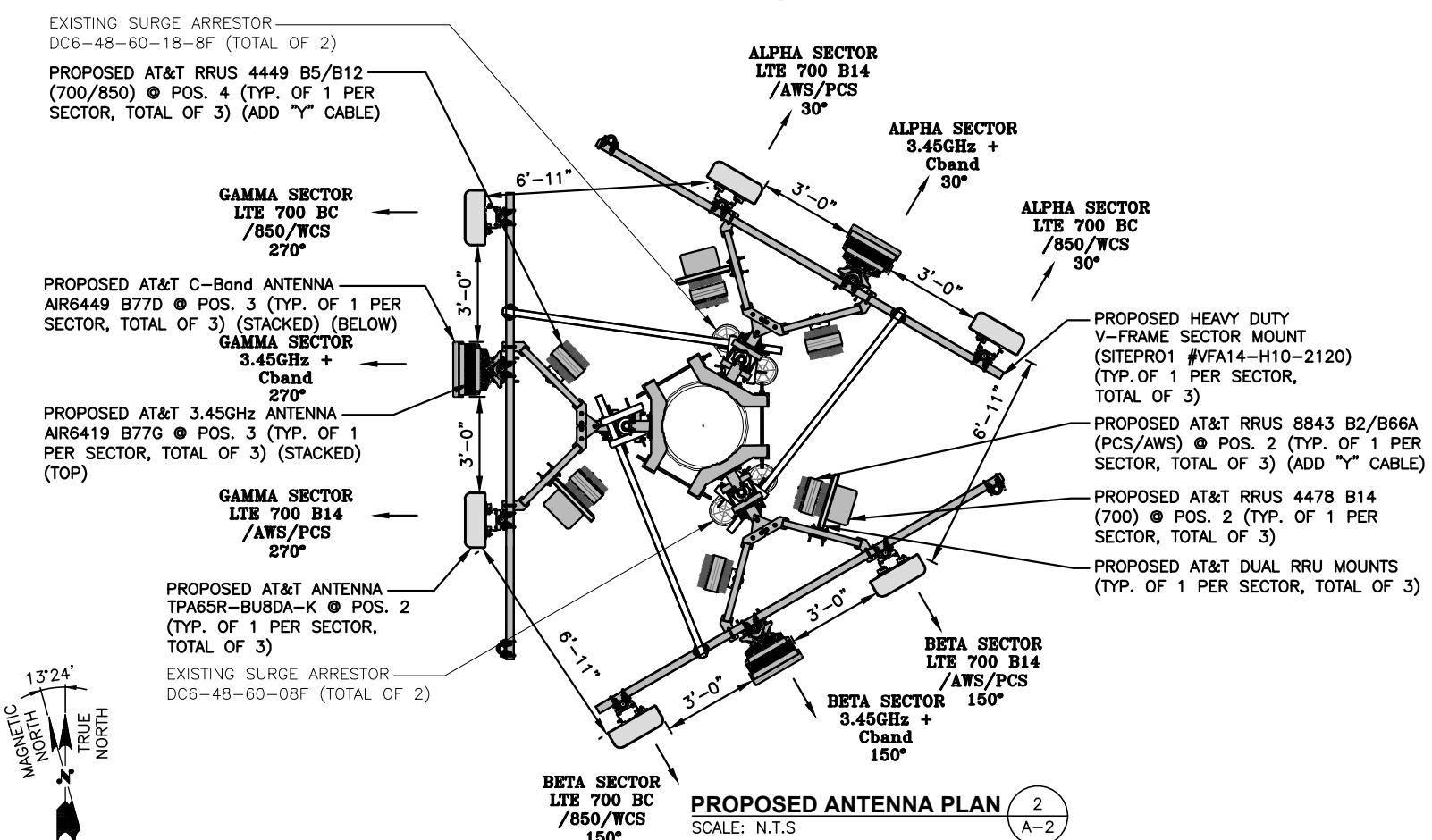
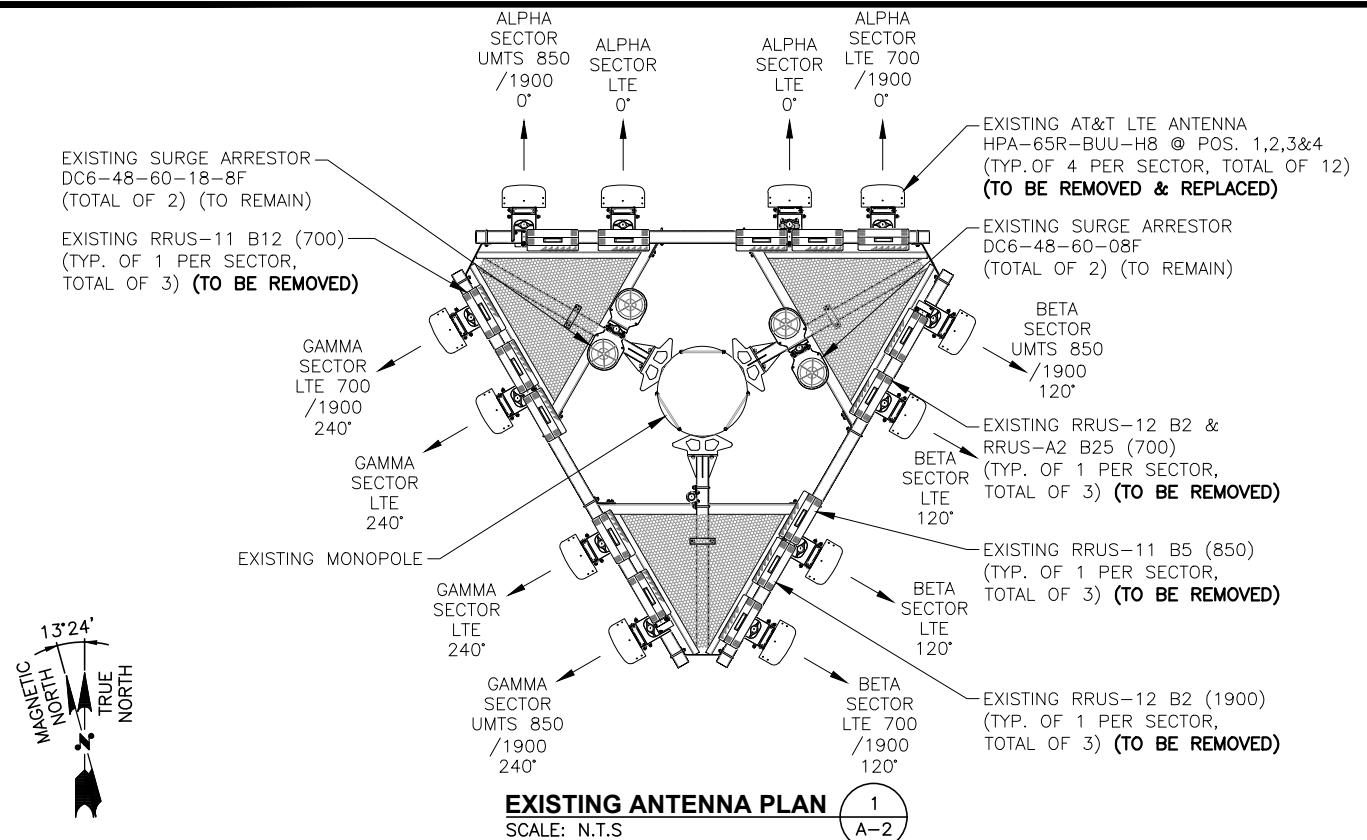


SITE NUMBER: CTL02440
SITE NAME: MADISON LONG SHORE LANE
15 ORCHARD PARK ROAD
MADISON, CT 06443
NEW HAVEN COUNTY



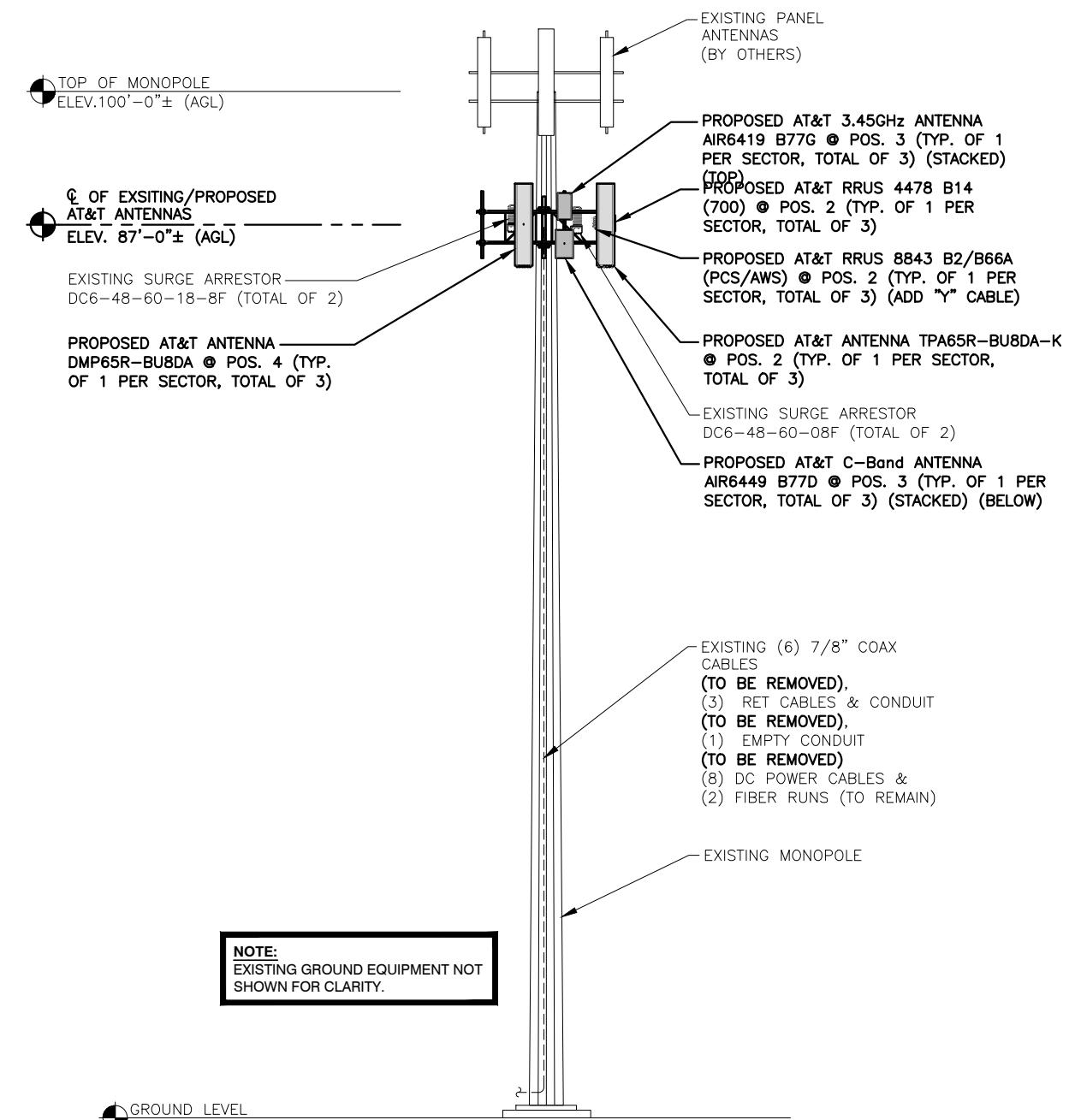
1	01/09/23	ISSUED FOR CONSTRUCTION	JS	MKT	DPM
C	12/06/22	ISSUED FOR PERMITTING	KW	MKT	DPM
B	08/31/22	ISSUED FOR PERMITTING	AN	MKT	DPM
A	02/28/22	ISSUED FOR REVIEW	GD	MKT	DPM
	NO. DATE	REVISIONS	BY	CHK	APP'D
		SCALE: AS SHOWN	DESIGNED BY:	DRAWN BY:	CD





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 14, 2022

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



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



AT&t

ANTENNA LAYOUT PLANS & ELEVATION
5G NR 1DR-1, 5G NR 1SR CBAND, LTE 3C, LTE 4C,
SITE NUMBER CTL02440 DRAWING NUMBER A-2 REV 1

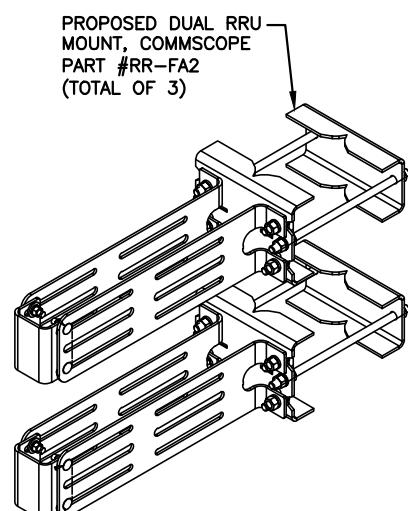
ANTENNA SCHEDULE

SECTOR	EXISTING/ PROPOSED	BAND	ANTENNA	SIZE (INCHES) (L x W x D)	ANTENNA E. HEIGHT	AZIMUTH	TMA/ DIPLEXER	RRU	SIZE (INCHES) (L x W x D)	FEEDER	RAYCAP
A1	-	-	-	-	-	-	-	-	-	-	
A2	PROPOSED	LTE 700 B14 /AWS/PCS	TPA65R-BU8DA-K	96"X21"X7.8"	87'-0"±	30°	-	(P)(1)RRUS-4478 B14 (700) (P)(1)RRUS-4449 B5/B12 (850/700)	18.1"x13.4"x8.3" 17.9"x13.2"x10.4"	(E)(4) DC POWER (1) FIBER (P)(1)(Y-CABLE)	(E) (1) RAYCAP DC6-48-60-18-8F (E) (1) RAYCAP DC6-48-60-08F
A3	PROPOSED	3.45GHz C-BAND	AIR6419 B77G AIR6449 B77D	31.1"X16.1"X7.3" 30.4"X15.9"X8.1"	87'-0"±	30°	-	-	-	-	
A4	PROPOSED	LTE 700 BC /850/WCS	DMP65R-BU8DA	96"X20.7"X7.7"	87'-0"±	30°	-	(P)(1)RRUS-8843 B2/B66A (PCS/AWS)	17.9"x13.2"x10.4"	(P)(1)(Y-CABLE)	(E) (1) RAYCAP DC6-48-60-18-8F (E) (1) RAYCAP DC6-48-60-08F
B1	-	-	-	-	-	-	-	-	-	-	
B2	PROPOSED	LTE 700 B14 /AWS/PCS	TPA65R-BU8DA-K	96"X21"X7.8"	87'-0"±	150°	-	(P)(1)RRUS-4478 B14 (700) (P)(1)RRUS-4449 B5/B12 (850/700)	18.1"x13.4"x8.3" 17.9"x13.2"x10.4"	(E)(4) DC POWER (1) FIBER (P)(1)(Y-CABLE)	(E) (1) RAYCAP DC6-48-60-18-8F (E) (1) RAYCAP DC6-48-60-08F
B3	PROPOSED	3.45GHz C-BAND	AIR6419 B77G AIR6449 B77D	31.1"X16.1"X7.3" 30.4"X15.9"X8.1"	87'-0"±	150°	-	-	-	-	
B4	PROPOSED	LTE 700 BC /850/WCS	DMP65R-BU8DA	96"X20.7"X7.7"	87'-0"±	150°	-	(P)(1)RRUS-8843 B2/B66A (PCS/AWS)	17.9"x13.2"x10.4"	(P)(1)(Y-CABLE)	(E) (1) RAYCAP DC6-48-60-18-8F (E) (1) RAYCAP DC6-48-60-08F
C1	-	-	-	-	-	-	-	-	-	-	
C2	PROPOSED	LTE 700 B14 /AWS/PCS	TPA65R-BU8DA-K	96"X21"X7.8"	87'-0"±	270°	-	(P)(1)RRUS-4478 B14 (700) (P)(1)RRUS-4449 B5/B12 (850/700)	18.1"x13.4"x8.3" 17.9"x13.2"x10.4"	(P)(1)(Y-CABLE)	
C3	PROPOSED	3.45GHz C-BAND	AIR6419 B77G AIR6449 B77D	31.1"X16.1"X7.3" 30.4"X15.9"X8.1"	87'-0"±	270°	-	-	-	-	
C4	PROPOSED	LTE 700 BC /850/WCS	DMP65R-BU8DA	96"X20.7"X7.7"	87'-0"±	270°	-	(P)(1)RRUS-8843 B2/B66A (PCS/AWS)	17.9"x13.2"x10.4"	(P)(1)(Y-CABLE)	

FINAL ANTENNA SCHEDULE

SCALE: N.T.S

1
A-3



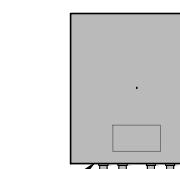
PROPOSED BACK TO BACK
MOUNT COMMSCOPE (RR-FA2)

SCALE: N.T.S

3
A-3

RRU CHART		
QUANTITY	MODEL	SIZE (L x W x D)
(3)(P)	4478 B14 (700)	18.1"x13.4"x8.3"
(3)(P)	8843 B2/B66A (PCS/AWS)	14.9"x13.2"x10.9"
(3)(P)	4449 (850/700)	17.9"x13.2"x10.4"
NOTE: MOUNT PER MANUFACTURER'S SPECIFICATIONS		

NOTE:
SEE RFDS FOR RRH
FREQUENCY AND
MODEL NUMBER



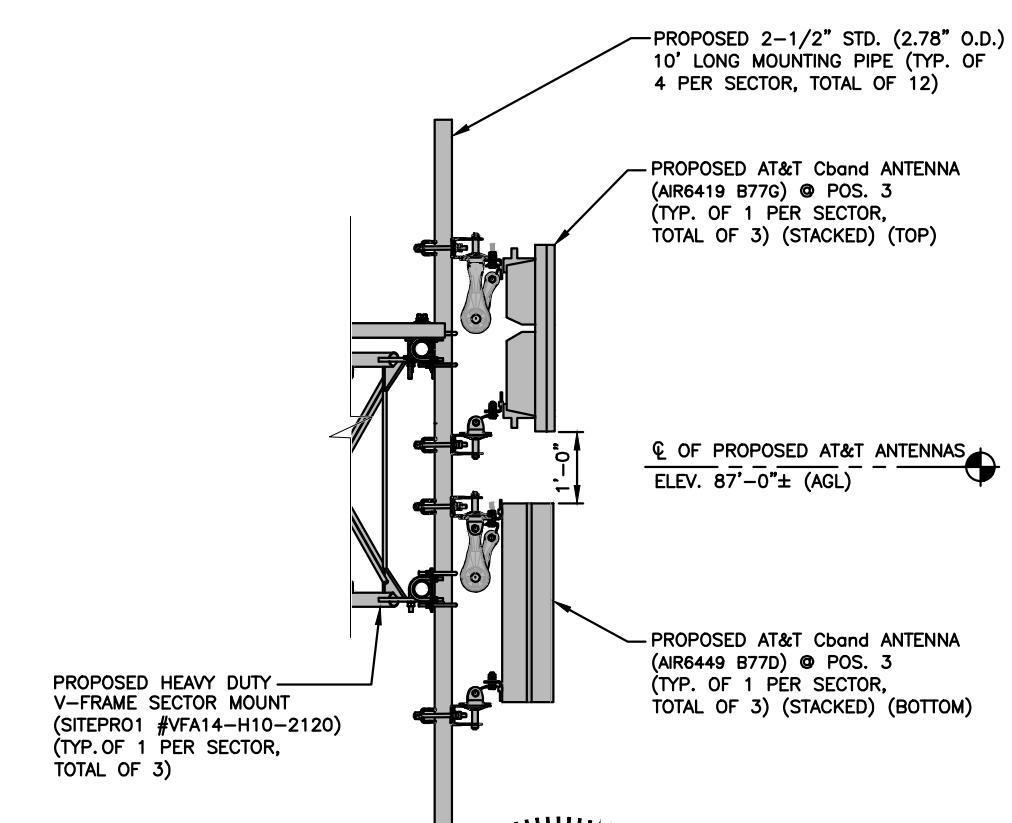
PROPOSED RRU REFER TO THE
FINAL RFDS AND CHART FOR
QUANTITY, MODEL AND DIMENSIONS

NOTE:
MOUNT PER MANUFACTURER'S
SPECIFICATIONS.

PROPOSED RRUS DETAIL

SCALE: N.T.S

3
A-3



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

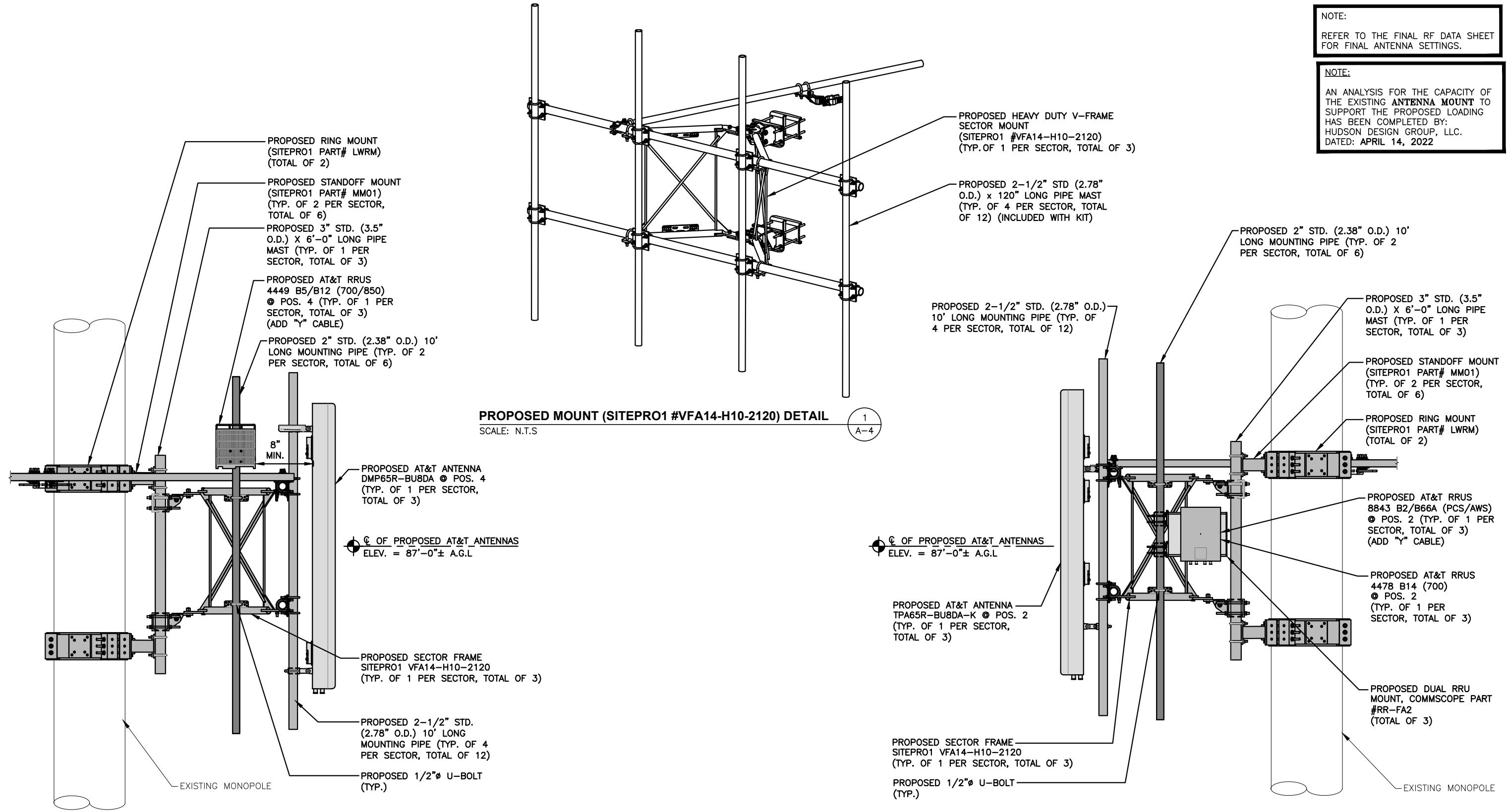
4P H H H H
STAKED CONNECT
DANTE A-3
1'-4" 2'-8" 4'-0"

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 14, 2022

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 14, 2022



PROPOSED ANTENNA @ POS. 4

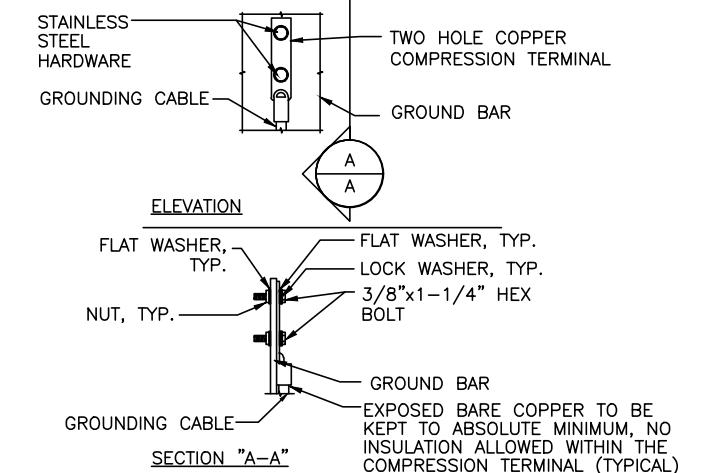
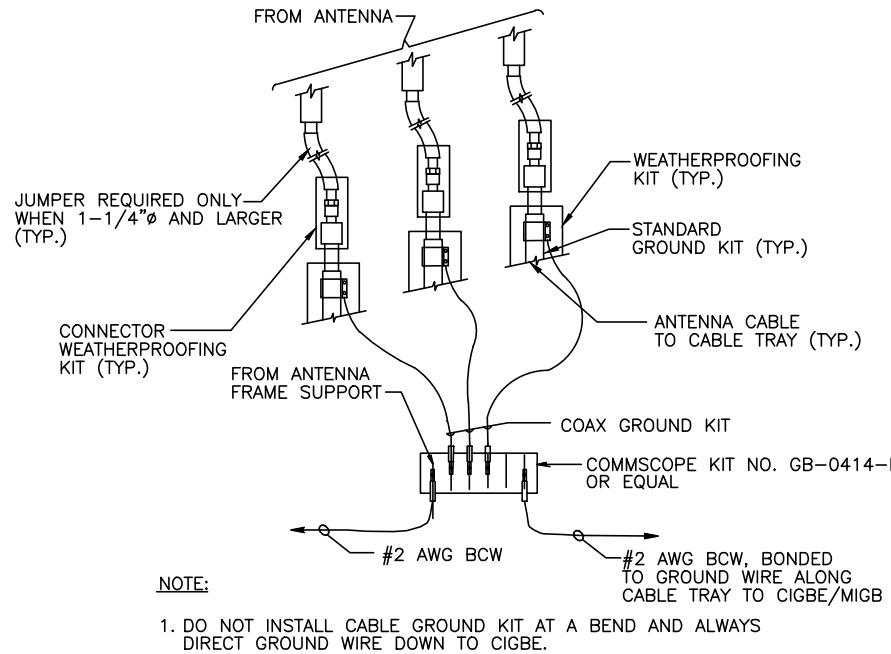
22x34 SCALE: 3/4"=1'-0"
11x17 SCALE: 3/8"=1'-0"

2
A-4

PROPOSED ANTENNA @ POS. 2

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

3
A-4

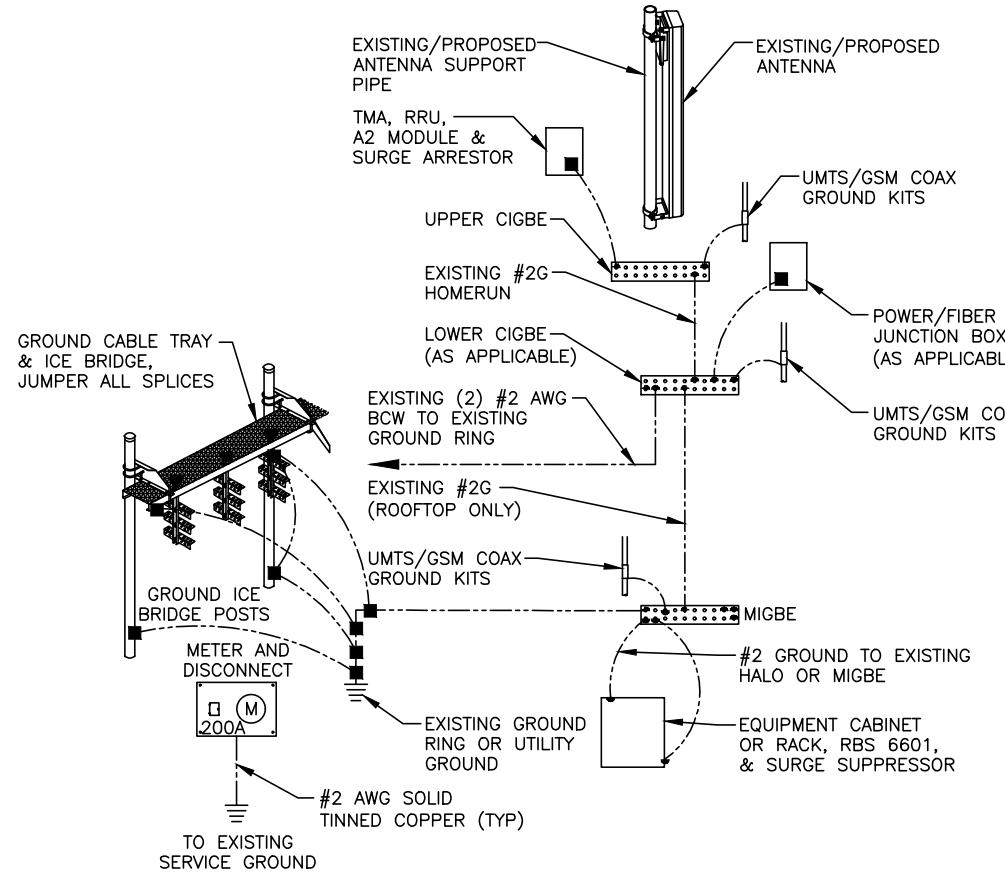


NOTES:
 1. "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED.
 2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATION.
 3. CADWELD DOWNLEADS FROM UPPER EGB, LOWER EGB, AND MGB

GROUND WIRE TO GROUND BAR CONNECTION DETAIL

SCALE: N.T.S

1
G-1



GROUNDING RISER DIAGRAM

SCALE: N.T.S

2
G-1

TYPICAL GROUND BAR CONNECTION DETAIL

SCALE: N.T.S

3
G-1

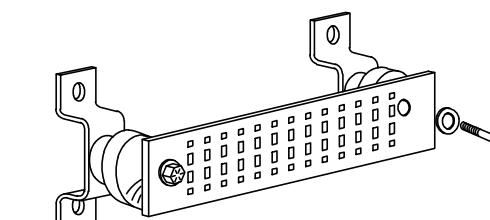
EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

SECTION "P" – SURGE PRODUCERS

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

SECTION "A" – SURGE ABSORBERS

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



GROUND BAR - DETAIL (AS REQUIRED)

SCALE: N.T.S

STATE OF CONNECTICUT	
DANIEL P. HAMM	
LICENCED PROFESSIONAL ENGINEER	
AT&T	
GROUNDING DETAILS	
5G NR 1DR-1, 5G NR 1SR CBAND, LTE 3C, LTE 4C,	
NO.:	DRAWING NUMBER
CTL02440	G-1
REV:	1

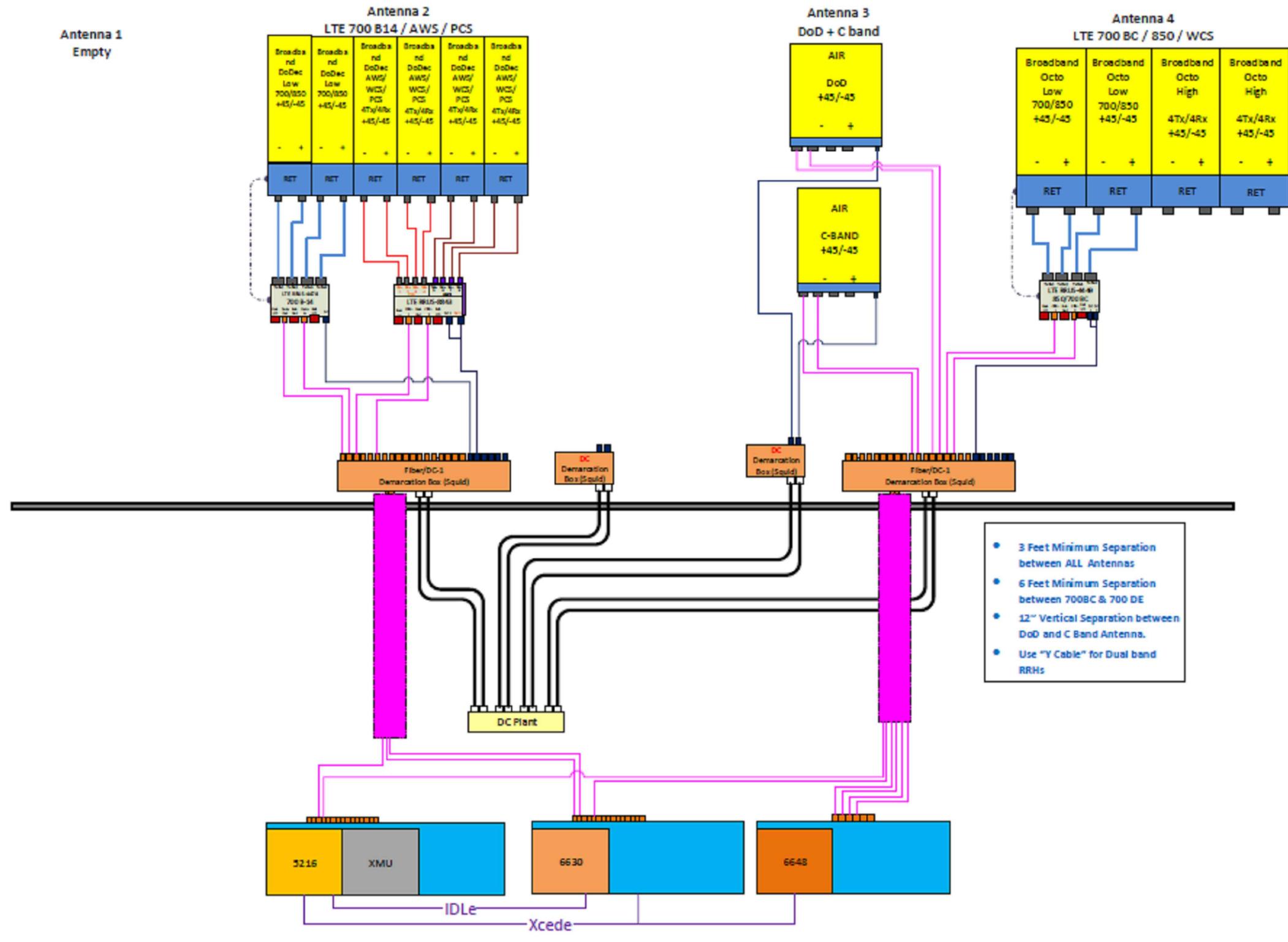
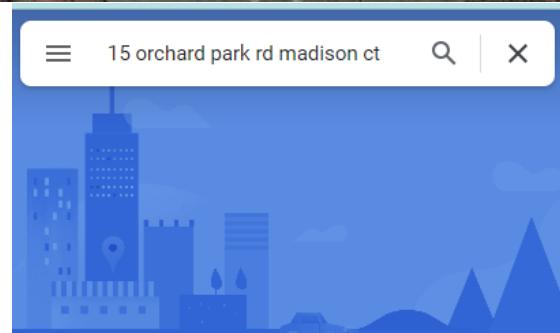
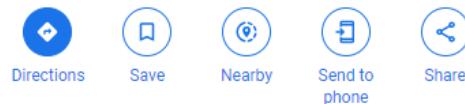


EXHIBIT 2



15 Orchard Park Rd
Building



 15 Orchard Park Rd, Madison, CT 06443

15 ORCHARD PARK RD

Location 15 ORCHARD PARK RD

MBLU 36/ 3/ CELL/ /

Unique ID# 3630001

Owner FLORIDA TOWER PARTNERS

Assessment \$355,700

Appraisal \$508,300

PID 104169

Building Count 1

Dev. Map

Current Value

Appraisal					
Valuation Year	Building	Extra Features	Outbuildings	Land	Total
2021	\$0	\$0	\$508,300	\$0	\$508,300
Assessment					
Valuation Year	Building	Extra Features	Outbuildings	Land	Total
2021	\$0	\$0	\$355,700	\$0	\$355,700

Owner of Record

Owner FLORIDA TOWER PARTNERS

Sale Price \$0

Co-Owner

Book & Page 0000/0000

Care Of

Sale Date 01/01/1900

Ownership History

Ownership History				
Owner	Sale Price	Book & Page	Sale Date	
FLORIDA TOWER PARTNERS	\$0	0000/0000		01/01/1900

Building Information

Building 1 : Section 1

Year Built:

Living Area: 0

Building Attributes	
Field	Description
Style:	Outbuildings
Model	
Grade:	
Stories:	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure:	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Total Bthrms:	
Total Half Baths:	
Total Xtra Fixtrs:	
Total Rooms:	
Bath Style:	
Kitchen Style:	
Num Kitchens	
Cndtn	
Fireplace(s)	
Xtra FPL Open	
Num Park	
Fireplaces	
Fndtn Cndtn	
Basement	

Building Photo



([https://images.vgsi.com/photos/MadisonCTPhotos///0026/IMG_0569\[1\].2f](https://images.vgsi.com/photos/MadisonCTPhotos///0026/IMG_0569[1].2f))

Building Sub-Areas (sq ft)

No Data for Building Sub-Areas

Extra Features

Extra Features

No Data for Extra Features

Land

Land Use

Land Line Valuation

Use Code 4310

Size (Acres) 0

Description TEL REL TW

lblIndfront

Zone

Outbuildings

Outbuildings

Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
CEL	Cell Tower			2.00 UNITS	\$327,200	1
FN4	Fence 8'			150.00 L.F.	\$1,200	1
SHD7	Cell Shed			150.00 S.F.	\$15,000	1
LNT	Lean To			288.00 S.F.	\$1,300	1
CEL	Cell Tower			1.00 UNITS	\$163,600	1

EXHIBIT 3

April 14, 2022
March 7, 2023 (Rev. 1)



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

RE: Site Number: CT2440
 FA Number: 12906937
 PACE Number: MRCTB056773
 PT Number: 2051A1463Y
 Site Name: MADISON LONG SHORE LANE
 Site Address: 15 Orchard Park Road
 Madison, CT 06443

To Whom It May Concern:

TEP Northeast (TEP NE) has been authorized by Centerline Communications to perform a mount analysis on the proposed AT&T antenna/RRH mounts to determine their capability of supporting the following additional loading:

- (2) DC6-48-60-18-8F Surge Arrestors (24.0"x9.7" Ø – Wt. = 33 lbs. /each) (Tower mounted)
- (2) DC6-48-60-0-8F Surge Arrestors (24.0"x9.7" Ø – Wt. = 33 lbs. /each) (Tower mounted)
- **(3) TPA65R-BU8DA-K Antennas (96.0"x20.7"x7.7" – Wt. = 87 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) DMP65R-BU8DA Antennas (96.0"x20.7"x7.7" – Wt. = 119 lbs. /each)**
- **(3) 4478 B14 RRH's (18.1"x13.4"x8.3" – Wt. = 60 lbs. /each) (Standoff)**
- **(3) 8843 B2/B66A RRH's (14.9"x13.2"x10.9" – Wt. = 72 lbs. /each) (Standoff)**
- **(3) 4449 B5/B12 RRH's (17.9"x13.2"x9.4" – Wt. = 73 lbs. /each) (Standoff)**

**Proposed equipment shown in bold.*

Mount fabrication drawings prepared by SitePro1 P/N VFA14-H10-2120, dated December 7, 2020, P/N MM01, dated May 10, 2010 and P/N LWRM, dated August 24, 2012, were used to perform this analysis.

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 2021 with 2022 Connecticut State Building Code, and AT&T Mount Technical Directive – R22.
- TEP NE 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 P of the Connecticut State Building Code, the max basic wind speed for this site is equal to 125 mph with a max basic wind speed with ice of 50 mph and a max ice thickness of 1.0 in. An escalated ice thickness of 1.11 in was used for this analysis.
- TEP NE considers this site to be exposure category C; tower is located near large, flat, open, terrain/grasslands.
- TEP NE considers this site to be topographic category 1; tower is located on flat terrain or the bottom of a hill or ridge.
- TEP NE considers this site to have a spectral response acceleration parameter at short periods, S_8 , of 0.204 and a spectral response acceleration parameter at a period of 1 second, S_1 , of 0.054.
- The mounts have 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 4.
- The mounts have been analyzed with load combinations consisting of a 250 lbs live load in a worst case location on the mount.
- The proposed mounts are to be secured to the existing self supporting tower with threaded rods and steel plates tightened around the tower leg. TEP NE considers the threaded rods as the governing connection members.

Based on our evaluation, we have determined that the (3) Proposed SitePro1 P/N VFA14-H10-2120 mounts, (6) Proposed SitePro1 P/N MM01 standoffs, and (2) Proposed SitePro1 P/N LWRM collar mounts **ARE CAPABLE** of supporting the proposed installation.

	Component	Controlling Load Case	Stress Ratio	Pass/Fail
Existing Mount Rating	2	LC12	67%	PASS

Reference Documents:

- Mount fabrication drawings prepared by SitePro1 P/N VFA14-H10-2120, dated December 7, 2020.

This determination was based on the following limitations and assumptions:

1. TEP NE is not responsible for any modifications completed prior to and hereafter which TEP NE 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 proposed mounts are to be 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. TEP NE performed a localized analysis on the mounts itself and not on the supporting tower structure.

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

Respectfully Submitted,
TEP Northeast



Michael Cabral
Director



Daniel P. Hamm, PE
Vice President

EXHIBIT 4



This report was prepared for American Tower Corporation by



Structural Analysis Report

Structure : 98 ft Monopole
ATC Asset Name : MADISON CT
ATC Asset Number : 283421
Engineering Number : OAA784044_C3_03
Proposed Carrier : AT&T MOBILITY
Carrier Site Name : Madison Long Shore Lane
Carrier Site Number : CT2440
Site Location : 15 Orchard Park Road
Madison, CT 06443-2268
41.2831, -72.6231
County : New Haven
Date : February 21, 2023
Max Usage : 51%
Analysis Result : Pass

Prepared By:

Nathanael Willard
POD

A handwritten signature of Nathanael Willard.

Reviewed By:



Table of Contents

Introduction.....	3
Supporting Documents.....	3
Analysis.....	3
Conclusion	3
Existing/Reserved Loading.....	4
Proposed Carrier Final Loading.....	4
Structure Usages.....	5
Foundation Reactions & Usages	5
Antenna Deflection and Sway	5
Standard Conditions	6
Calculations.....	Attached

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 98 ft Monopole tower to reflect the change in loading by AT&T MOBILITY.

Supporting Documents

Tower Drawing:	Sabre Drawing #30257-MM, dated July 7, 2010
Foundation Drawing:	KJT Job #30257, dated March 21, 2011
Geotechnical Report:	RCI Project #J2095225, dated December 21, 2009
Modification:	CLS Engineering PLLC Project #41124-12927138-01-MA-R1, dated July 9, 2019

Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	123 mph (3-second gust)
Basic Wind Speed w/ Ice:	50 mph (3-second gust) w/ 1.00" radial ice concurrent
Code(s):	ANSI/TIA-222-H / 2021 IBC / 2022 Connecticut State Building Code
Exposure Category:	D
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Spectral Response:	$S_s = 0.20$, $S_1 = 0.05$
Site Class:	D - Stiff Soil - Default

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please contact POD Group via email at bsmith@podgrp.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

Existing/Reserved Loading

Elev.*	Qty	Equipment	Lines	Carrier
97.0'	3	Ericsson AIR 21, 1.3 M, B2A B4P	(6) 1 5/8" Coax (4) 1 5/8" (1.63"-41.3mm) Fiber	T-MOBILE
	3	Ericsson AIR 21, 1.3M, B4A B2P		
	3	Ericsson KRY 112 144/1		
	3	Ericsson Radio 4449 B12,B71		
	3	T-Arm		
95.0'	3	RFS APXVAARR24_43-U-NA20		
77.5'	3	Samsung MT6407-77A		
77.0'	1	Platform w/ Handrails		
76.0'	1	Raycap RCMDC-6627-PF-48	(1) 1 5/8" Hybriflex	VERIZON WIRELESS
	3	Samsung B2/B66A RRH-BR049		
	3	Samsung B5/B13 RRH-BR04C		
	3	Samsung RT4401-48A		
	6	JMA Wireless MX06FRO660-03		
74.0'	3	Samsung Outdoor CBRS 20W RRH –Clip-on Antenna		

Proposed Carrier Final Loading

Elev.*	Qty	Equipment	Lines	Carrier
89.0'	1	Low Profile Platform		
86.4'	-	-		
85.0'	2	Raycap DC6-48-60-0-8F	(5) 2" conduit (2) 0.40" (10.3mm) Fiber (8) 0.78" (19.7mm) 8 AWG 6 (3) 2" conduit (3) 3/8" (0.38"- 9.5mm) RET Control Cable	AT&T MOBILITY
	2	Raycap DC6-48-60-18-8F		
	3	CCI DMP65R-BU8D		
	3	CCI TPA65R-BU8D		
	3	Ericsson AIR 6419 B77G		
	3	Ericsson AIR 6449 B77D/ C-Band		
	3	Ericsson RRUS 4449 B5, B12		
	3	Ericsson RRUS 4478 B14		
	3	Ericsson RRUS 8843 B2, B66A		

Install proposed lines inside the pole shaft.

Structure Usages

Structural Component	Usage	Pass/Fail
Anchor Rods	39%	Pass
Base Plate	13%	Pass
Shaft	38%	Pass

Foundation Reactions & Usages

Reaction Component	Analysis Reactions	Usage
Moment (k-ft)	1,927.71	51%
Axial (k)	25.15	13%
Shear (k)	34.59	6%

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

Antenna Deflection and Sway

Elev.	Antenna	Carrier	Deflection	Sway [Rotation]
85.0'	Raycap DC6-48-60-18-8F	AT&T MOBILITY	0.306'	0.370°
	Raycap DC6-48-60-0-8F			
	Ericsson RRUS 8843 B2, B66A			
	Ericsson RRUS 4449 B5, B12			
	CCI TPA65R-BU8D			
	Ericsson AIR 6419 B77G			
	Ericsson AIR 6449 B77D/ C-Band			
	CCI DMP65R-BU8D			
	Ericsson RRUS 4478 B14			

**Deflection and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-H*

Standard Conditions

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

- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of POD Group

It is the responsibility of the client to ensure that the information provided to POD Group and used in the performance of our engineering services is correct and complete.

POD Group assumes that all structures were constructed in accordance with the drawings and specifications.

All connections are to be verified for condition and tightness by the installation contractor preceding any changes to the appurtenance mounting system and/or equipment attached to it.

Unless explicitly agreed by both the client and POD Group, all services will be performed in accordance with the current revision of ANSI/TIA-222.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. POD Group is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

EXHIBIT 5



Radio Frequency Exposure Analysis Report

December 29, 2022

Centerline on behalf of AT&T

AT&T Site Name: Madison Long Shore Lane

AT&T Site Number: CTL02440

FA#: 12906937

USID: 150548

Site Address: 15 Orchard Park Road, Madison, CT 06443



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

Signed 29 December 2022

Site Compliance Summary

AT&T Compliance Status:	Compliant
Cumulative Calculated Power Density (Ground Level):	3.29716 $\mu\text{W}/\text{cm}^2$
Cumulative General Population % MPE (Ground Level):	0.38797%



December 29, 2022

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

RF Exposure Analysis for Site: Madison Long Shore Lane

Centerline Communications, LLC ("Centerline") was contracted to analyze the proposed AT&T facility at **15 Orchard Park Road, Madison, CT 06443** 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 ($\mu\text{W}/\text{cm}^2$). 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 ($f_{\text{MHz}}/1500$). Frequencies between 1500 and 100,000 MHz have a General Population/Uncontrolled MPE limit of 1 mW/cm^2 (1000 $\mu\text{W}/\text{cm}^2$). 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 250' E 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 (μ W/cm ²)	General Population MPE Limit (μ W/cm ²)	General Population % MPE
AT&T A 1	CCI TPA65R-BU8D	700	13.05	87.00	4.00	30.00	2422.04	0.00042	466.67	0.00009
AT&T A 1	CCI TPA65R-BU8D	1900	15.15	87.00	2.00	30.00	1964.04	0.00005	1000.00	0.00001
AT&T A 1	CCI TPA65R-BU8D	1900	15.15	87.00	2.00	30.00	1964.04	0.00005	1000.00	0.00001
AT&T A 1	CCI TPA65R-BU8D	2100	15.65	87.00	2.00	30.00	2203.69	0.00000	1000.00	0.00000
AT&T A 1	CCI TPA65R-BU8D	2100	15.65	87.00	2.00	30.00	2203.69	0.00000	1000.00	0.00000
AT&T A 2	ERICSSON AIR6419	3450	23.55	88.50	1.00	54.22	12278.90	0.00355	1000.00	0.00036
AT&T A 3	ERICSSON AIR6449	3700	23.55	85.50	1.00	86.75	19645.79	0.00263	1000.00	0.00026
AT&T A 4	CCI DMP65R-BU8D	700	12.25	87.00	2.00	30.00	1007.28	0.00009	466.67	0.00002
AT&T A 4	CCI DMP65R-BU8D	850	12.55	87.00	2.00	30.00	1079.32	0.00000	566.67	0.00000
AT&T B 5	CCI TPA65R-BU8D	700	13.05	87.00	4.00	30.00	2422.04	0.09279	466.67	0.01988
AT&T B 5	CCI TPA65R-BU8D	1900	15.15	87.00	2.00	30.00	1964.04	0.05132	1000.00	0.00513
AT&T B 5	CCI TPA65R-BU8D	1900	15.15	87.00	2.00	30.00	1964.04	0.05132	1000.00	0.00513
AT&T B 5	CCI TPA65R-BU8D	2100	15.65	87.00	2.00	30.00	2203.69	0.05291	1000.00	0.00529
AT&T B 5	CCI TPA65R-BU8D	2100	15.65	87.00	2.00	30.00	2203.69	0.05291	1000.00	0.00529
AT&T B 6	ERICSSON AIR6419	3450	23.55	88.50	1.00	54.22	12278.90	0.95202	1000.00	0.09520
AT&T B 7	ERICSSON AIR6449	3700	23.55	85.50	1.00	86.75	19645.79	1.18611	1000.00	0.11861
AT&T B 8	CCI DMP65R-BU8D	700	12.25	87.00	2.00	30.00	1007.28	0.06224	466.67	0.01334
AT&T B 8	CCI DMP65R-BU8D	850	12.55	87.00	2.00	30.00	1079.32	0.05769	566.67	0.01018
AT&T C 9	CCI TPA65R-BU8D	700	13.05	87.00	4.00	30.00	2422.04	0.00006	466.67	0.00001
AT&T C 9	CCI TPA65R-BU8D	1900	15.15	87.00	2.00	30.00	1964.04	0.00000	1000.00	0.00000
AT&T C 9	CCI TPA65R-BU8D	1900	15.15	87.00	2.00	30.00	1964.04	0.00000	1000.00	0.00000
AT&T C 9	CCI TPA65R-BU8D	2100	15.65	87.00	2.00	30.00	2203.69	0.00002	1000.00	0.00000
AT&T C 9	CCI TPA65R-BU8D	2100	15.65	87.00	2.00	30.00	2203.69	0.00002	1000.00	0.00000
AT&T C 10	ERICSSON AIR6419	3450	23.55	88.50	1.00	54.22	12278.90	0.00540	1000.00	0.00054
AT&T C 11	ERICSSON AIR6449	3700	23.55	85.50	1.00	86.75	19645.79	0.01969	1000.00	0.00197
AT&T C 12	CCI DMP65R-BU8D	700	12.25	87.00	2.00	30.00	1007.28	0.00001	466.67	0.00000
AT&T C 12	CCI DMP65R-BU8D	850	12.55	87.00	2.00	30.00	1079.32	0.00000	566.67	0.00000
Verizon A 13	GENERIC PANEL 6FT	700	12.33	100.00	4.00	40.00	2736.02	0.00009	466.67	0.00002
Verizon A 13	GENERIC PANEL 6FT	850	12.62	100.00	4.00	40.00	2924.96	0.00019	566.67	0.00003
Verizon A 14	GENERIC PANEL 6FT	1900	15.84	100.00	4.00	40.00	6139.32	0.00021	1000.00	0.00002
Verizon A 15	GENERIC PANEL 6FT	2100	16.39	100.00	4.00	40.00	6968.19	0.00022	1000.00	0.00002
Verizon B 16	GENERIC PANEL 6FT	700	12.33	100.00	4.00	40.00	2736.02	0.18629	466.67	0.03992
Verizon B 16	GENERIC PANEL 6FT	850	12.62	100.00	4.00	40.00	2924.96	0.19194	566.67	0.03387
Verizon B 17	GENERIC PANEL 6FT	1900	15.84	100.00	4.00	40.00	6139.32	0.17557	1000.00	0.01756



Antenna ID	Make / Model	Frequency Band (MHz)	Antenna Gain (dBd)	Antenna Centerline (ft)	Channel Count	TX Power/Channel (watts)	ERP (watts)	Calculated Power Density ($\mu\text{W}/\text{cm}^2$)	General Population MPE Limit ($\mu\text{W}/\text{cm}^2$)	General Population % MPE
Verizon B 18	GENERIC PANEL 6FT	2100	16.39	100.00	4.00	40.00	6968.19	0.15054	1000.00	0.01505
Verizon C 19	GENERIC PANEL 6FT	700	12.33	100.00	4.00	40.00	2736.02	0.00071	466.67	0.00015
Verizon C 19	GENERIC PANEL 6FT	850	12.62	100.00	4.00	40.00	2924.96	0.00002	566.67	0.00000
Verizon C 20	GENERIC PANEL 6FT	1900	15.84	100.00	4.00	40.00	6139.32	0.00005	1000.00	0.00001
Verizon C 21	GENERIC PANEL 6FT	2100	16.39	100.00	4.00	40.00	6968.19	0.00003	1000.00	0.00000
							Cumulative Power Density:	3.29716 $\mu\text{W}/\text{cm}^2$	Cumulative % MPE:	0.38797%



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.

Michelle Stone
RF EME Technical Writer II
Centerline Communications, LLC

EXHIBIT 6



State of Connecticut
TOWN OF MADISON

8 Campus Drive, Madison, CT 06443 Phone: (203) 245-5618



Permit No. **B-13-726**

PERMIT TO BUILD

Fee Paid: **\$600.00**

Construction Cost: **\$50,000.00**

Date Issued: **11/24/2013**

This certifies that **Eastern Communications Inc.**

has permission to erect, alter, or demolish a building on: **15 ORCHARD PARK RD**

No. of Units: **0**

as follows: **colocation of telecommunications antenna on an existing tower and within an existing fenced compound**

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

NOTE: The recipient of this permit accepts this permit on the condition that, as owner or as agent of the owner, he/she agrees to comply with all State of Connecticut Building Codes & Statutes regarding the use, occupancy & type of building to be constructed, added to, demolished, or altered. The recipient also agrees that this building is to be located the proper distance from all street lines, side yard lines & required distances from all other zones & is located in a zone in which the building & its use is allowed. In addition, if a permit for work described in this application is issued I certify that the Code Official or the Code Official's representative shall have the authority to enter areas covered by such permit at any hour to enforce provisions of the codes applicable to such permit. Additional conditions listed below:

Plan Review Comments:

Restrictions:

15 ORCHARD PARK RD LLC	7 ORCHARD PARK RD	MADISON	CT	06443	(203) 245-9599
Owner Name	Address	City	State	Zip	Phone

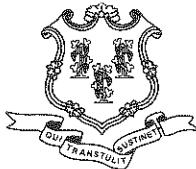
11/24/2013

Building Inspector

Date

To occupy Street or Sidewalk apply at Town of Madison

**This Card Must Be Displayed in a Conspicuous Place on the Premises
and Not Torn Down or Removed**



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

CSC Approval CT2440SA

November 15, 2013

Adam Braillard
Smartlink, LLC
33 Boston Post Road West
Marlborough, MA 01752

RE: **TS-AT&T-076-131023** – New Cingular Wireless PCS, LLC request for an order to approve the shared use of an existing telecommunications facility located at 15 Orchard Park Road, Madison, Connecticut.

Dear Mr. Braillard:

At a public meeting held November 14, 2013, the Connecticut Siting Council (Council) ruled that the shared use of this existing tower site is technically, legally, environmentally, and economically feasible and meets public safety concerns, and therefore, in compliance with General Statutes § 16-50aa, the Council has ordered the shared use of this facility to avoid the unnecessary proliferation of tower structures with the following conditions:

- Any deviation from the proposed installation as specified in the original tower share request and supporting materials with the Council shall render this decision invalid;
- Any material changes to the proposed installation as specified in the original tower share request and supporting materials filed with the Council shall require an explicit request for modification to the Council pursuant to Connecticut General Statutes § 16-50aa, including all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65;
- Not less than 45 days after completion of the proposed installation, the Council shall be notified in writing that the installation has been completed;
- The validity of this action shall expire one year from the date of this letter; and
- The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration.

This decision is under the exclusive jurisdiction of the Council. This facility has been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

This decision applies only to this request for tower sharing and is not applicable to any other request or construction. Please be advised that the validity of this action shall expire one year from the date of this letter.

The proposed shared use is to be implemented as specified in your letter dated October 23, 2013, including the placement of all necessary equipment and shelters within the tower compound.



Thank you for your attention and cooperation.

Very truly yours,

A handwritten signature in cursive ink that reads "Robert Stein". To the right of the signature, the letters "HAB" are written in a smaller, more formal font.

Robert Stein
Chairman

RS/CDM/cm

c: The Honorable Fillmore McPherson, First Selectman, Town of Madison
Christine Poutot, Chm., Planning & Zoning Administrator, Town of Madison
Florida Tower Partners

EXHIBIT 7

UPS CampusShip: View/Print Label

- 1. Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.
- 2. Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. GETTING YOUR SHIPMENT TO UPS**Customers with a Daily Pickup**

Your driver will pickup your shipment(s) as usual.

Customers without a Daily Pickup

Take your package to any location of The UPS Store®, UPS Access Point™ location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.

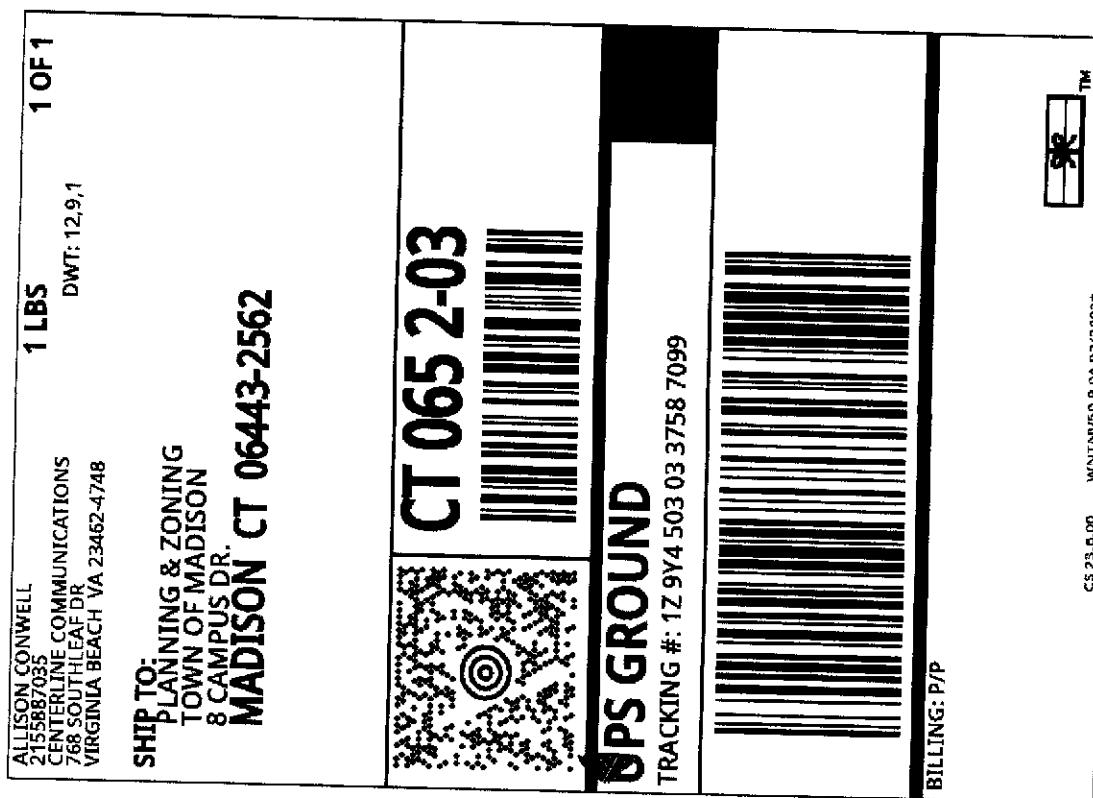
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VIRGINIA BEACH, VA 23462

UPS Access Point™
THE UPS STORE
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VIRGINIA BEACH, VA 23456

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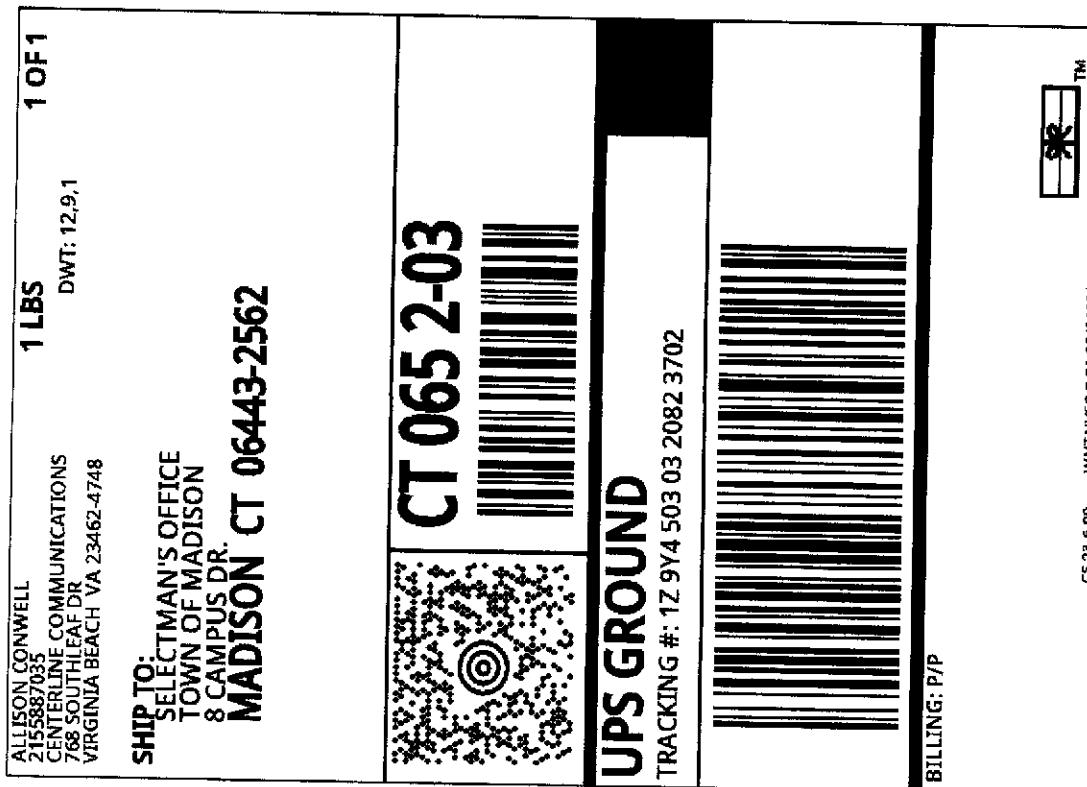
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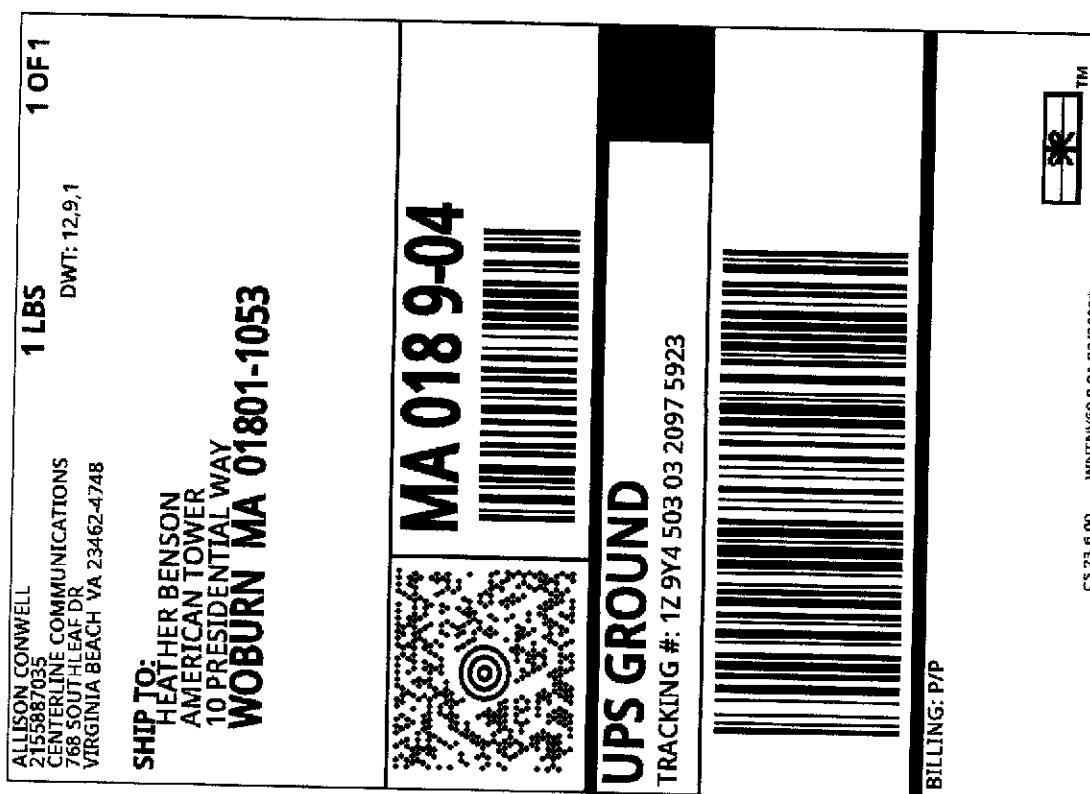
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