



QC Development

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Storrs, CT 06268

860-670-9068

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August 30, 2016

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

**Notice of Exempt Modification – New Cingular Wireless PCS, LLC (AT&T)
8 Old Route 79, Madison, CT 06443 – AT&T SITE # CT2178
N 41-17-07.94
W 72-36-04.85**

Dear Ms. Bachman:

AT&T currently maintains nine (9) antennas at the 132-foot level of the existing 148-foot Monopole at 8 Old Route 79, Madison, CT. The tower and property are owned by American Tower. AT&T now intends to remove three (3) Powerwave and one (1) Kathrein antenna and install three (3) KMW and one (1) CCI antenna, leaving a total of nine (9) antennas. AT&T also intends to remove three (3) existing Ericsson RRUS-11 radio heads and install three (3) Ericsson RRUS-12 A2 radio heads, also at the 132-foot level.

This facility was approved by the Town of Madison Planning and Zoning Commission on February 16, 1995. There were no conditions that could feasibly be violated by this modification, including total facility height or mounting restrictions. This modification therefore complies with the aforementioned approval.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies § 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 Tom Banisch, First Selectman of the Town of Madison, as well as the property and tower 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).

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modifications will not require the 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 replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading.

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).

Please feel free to call me at (860) 670-9068 with any questions regarding this matter. Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, consisting of several loops and a long horizontal stroke extending to the right.

Mark Roberts
QC Development
Consultant for AT&T

Attachments

cc: Mr. Tom Banisch - as elected official (via e-mail)
American Tower - as property and tower owner (via e-mail)

Power Density

Existing Loading on Tower

Carrier	# of Channels	ERP/Ch (W)	Antenna Centerline Height (ft)	Power Density (mW/cm ²)	Freq. Band (MHz ^{**})	Limit S (mW/cm ²)	%MPE
Other Carriers*							10.93%
AT&T GSM	1	296	97	0.0129	880	0.5867	0.22%
AT&T GSM	1	427	97	0.0185	1900	1.0000	0.28%
AT&T UMTS	2	500	97	0.0434	880	0.5867	0.74%
AT&T UMTS	2	500	97	0.0434	1900	1.0000	0.43%
AT&T LTE	1	500	97	0.0217	700	0.4667	0.47%
AT&T LTE	1	500	97	0.0217	1900	1.0000	0.22%
AT&T LTE	1	500	97	0.0217	2300	1.0000	0.22%
Site Total							13.41%

*Per CSC Records (available upon request, includes calculation formulas)

** If a range of frequencies are used, such as 880-894, enter the lowest value, i.e. 880

Proposed Loading on Tower

Carrier	# of Channels	ERP/Ch (W)	Antenna Centerline Height (ft)	Power Density (mW/cm ²)	Freq. Band (MHz ^{**})	Limit S (mW/cm ²)	%MPE
Other Carriers*							10.93%
AT&T GSM	1	296	97	0.0129	880	0.5867	0.22%
AT&T UMTS	2	500	97	0.0434	880	0.5867	0.74%
AT&T UMTS	2	500	97	0.0434	1900	1.0000	0.43%
AT&T LTE	1	500	97	0.0217	700	0.4667	0.47%
AT&T LTE	1	500	97	0.0217	1900	1.0000	0.22%
AT&T LTE	1	500	97	0.0217	2300	1.0000	0.22%
Site Total							13.13%

*Per CSC Records (available upon request, includes calculation formulas)

** If a range of frequencies are used, such as 880-894, enter the lowest value, i.e. 880

Note: Proposed Loading may also include corrections to certain Existing Loading values

PROJECT INFORMATION

SCOPE OF WORK: TELECOMMUNICATIONS FACILITY UPGRADE (LTE 2C 2017 UPGRADE);

SITE ADDRESS: OLD ROUTE 79
MADISON, CT 06443

LATITUDE: 41.285548° N 41° 17' 7.97" N

LONGITUDE: 72.601360° W 72° 36' 4.89" W

TYPE OF SITE: MONOPOLE / INDOOR EQUIPMENT

TOWER HEIGHT: 148' ±

RAD CENTER: 132' ±

JURISDICTION: NATIONAL, STATE & LOCAL CODES OR ORDINANCES

CURRENT USE: TELECOMMUNICATIONS FACILITY

PROPOSED USE: TELECOMMUNICATIONS FACILITY



SITE NUMBER: CT2178

SITE NAME: MADISON PD

PROJECT: LTE 2C 2017 UPGRADE

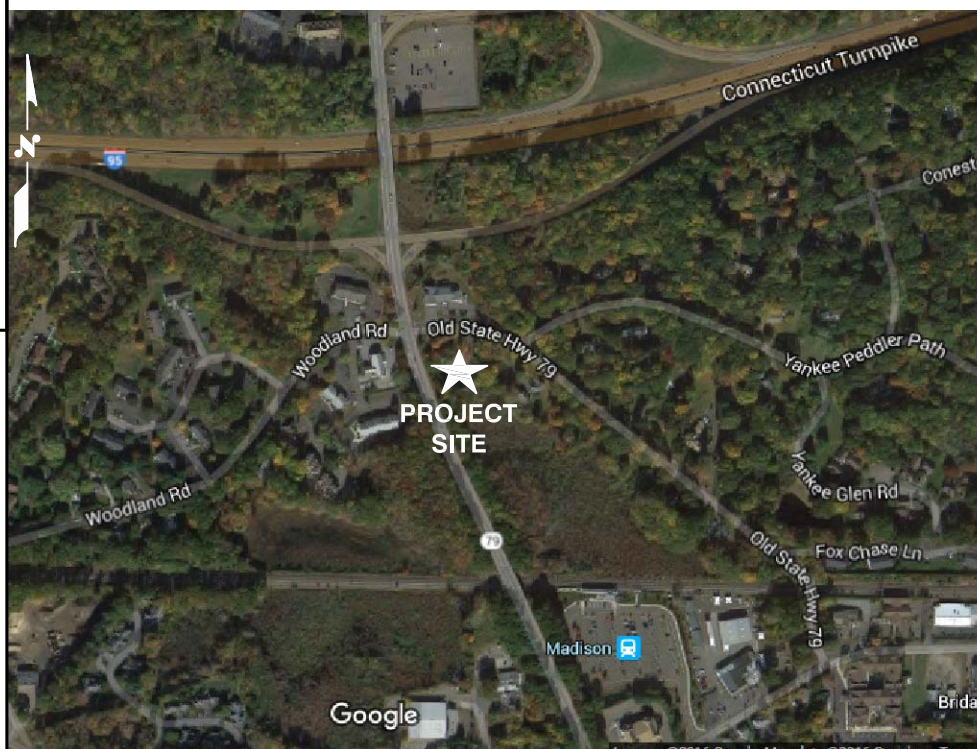
DRAWING INDEX

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

VICINITY MAP

DIRECTIONS TO SITE:

FROM ROCKY HILL, CT: HEAD EAST ON ENTERPRISE DR TOWARD CAPITOL BLVD – GO 0.4 MI. TURN LEFT AT CAPITOL BLVD – GO 0.3 MI. TURN LEFT AT WEST ST – GO 0.3 MI. TURN LEFT TO MERGE ONTO I-91 S TOWARD NEW HAVEN – GO 1.4 MI. TAKE EXIT 22S ON THE LEFT TO MERGE ONTO CT-9 S TOWARD MIDDLETOWN/OLD SAYBROOK – GO 29.3 MI. TAKE THE EXIT ONTO GOVERNOR JOHN DAVIS LODGE TURNPIKE/I-95 S/US-1 S TOWARD NEW HAVEN/N.Y. CITY. CONTINUE TO FOLLOW GOVERNOR JOHN DAVIS LODGE TURNPIKE/I-95 S – GO 13.1 MI. TAKE EXIT 61 FOR CT-79 TOWARD MADISON/ N MADISON – GO 0.3 MI. TURN LEFT ST CT-79/DURHAM RD – GO 0.2 MI. ARRIVE AT LOCATION.



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.

ATC SITE NUMBER: 302540
ATC SITE NAME: MADISON

72 HOURS

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

UNDERGROUND SERVICE ALERT

1600 OSGOOD STREET
BUILDING 20 NORTH, SUITE 3090
N. ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 336-5586

27 NORTHWESTERN DR.
SALEM, NH 03079

SITE NUMBER: CT2178
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OLD ROUTE 79
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NEW HAVEN COUNTY

500 ENTERPRISE DRIVE, SUITE 3A
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NO.	DATE	REVISIONS	BY	CHK	APP'D
1	07/27/16	ISSUED FOR CONSTRUCTION	RB	AT	DPH
A	06/07/16	ISSUED FOR REVIEW	EB	AT	DPH

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

AT&T
TITLE SHEET
(LTE 2C)

SITE NUMBER	DRAWING NUMBER	REV
2178.00	T-1	1

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) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
4. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
5. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS 2 AWG STRANDED COPPER FOR OUTDOOR BTS.
6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
7. APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO GROUND BAR.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
11. METAL CONDUIT SHALL BE MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH 6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
12. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE OF 1/2 IN. OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BARE TINNED COPPER GROUND WIRE, PER NEC 250.50

GENERAL NOTES

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
 CONTRACTOR – SAI
 SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
 OWNER – AT&T MOBILITY
2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
4. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6. "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.
7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE CONTRACTOR.
9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.
10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
13. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.

14. ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL BE AIR-ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.
15. ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (Fy = 36 ksi) UNLESS OTHERWISE NOTED. PIPES SHALL BE ASTM A53 TYPE E (Fy = 36 ksi). ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCHUP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.
16. CONSTRUCTION SHALL COMPLY WITH SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF AT&T SITES."
17. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
18. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
19. SINCE THE CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE ADVISED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.
20. APPLICABLE BUILDING CODES:
 SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.
 BUILDING CODE: 2003 IBC WITH 2005 CT SUPPLEMENT, + 2009 & 2013 CT AMENDMENTS
 ELECTRICAL CODE: REFER TO ELECTRICAL DRAWINGS
 LIGHTENING CODE: REFER TO ELECTRICAL DRAWINGS

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

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

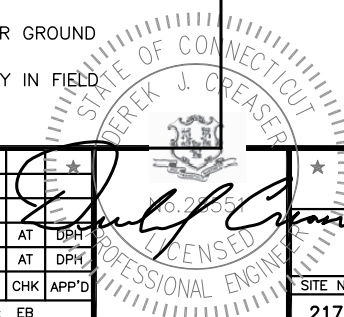
AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION, ASD, FOURTEENTH EDITION;

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

EQUIPMENT AND ANTENNA SUPPORTING STRUCTURES; REFER TO ELECTRICAL DRAWINGS FOR SPECIFIC ELECTRICAL STANDARDS.

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

ABBREVIATIONS					
AGL	ABOVE GRADE LEVEL	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 (ANTENNA)	VIF	VERIFY IN FIELD
EGR	EQUIPMENT GROUND RING	REF	REFERENCE		



Hudson Design Group LLC
 1600 OSGOOD STREET
 BUILDING 20 NORTH, SUITE 3090
 N. ANDOVER, MA 01845
 TEL: (978) 557-5553
 FAX: (978) 336-5586

SAI
 27 NORTHWESTERN DR.
 SALEM, NH 03079

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AT&T
GENERAL NOTES
(LTE 2C)

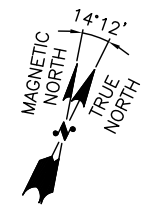
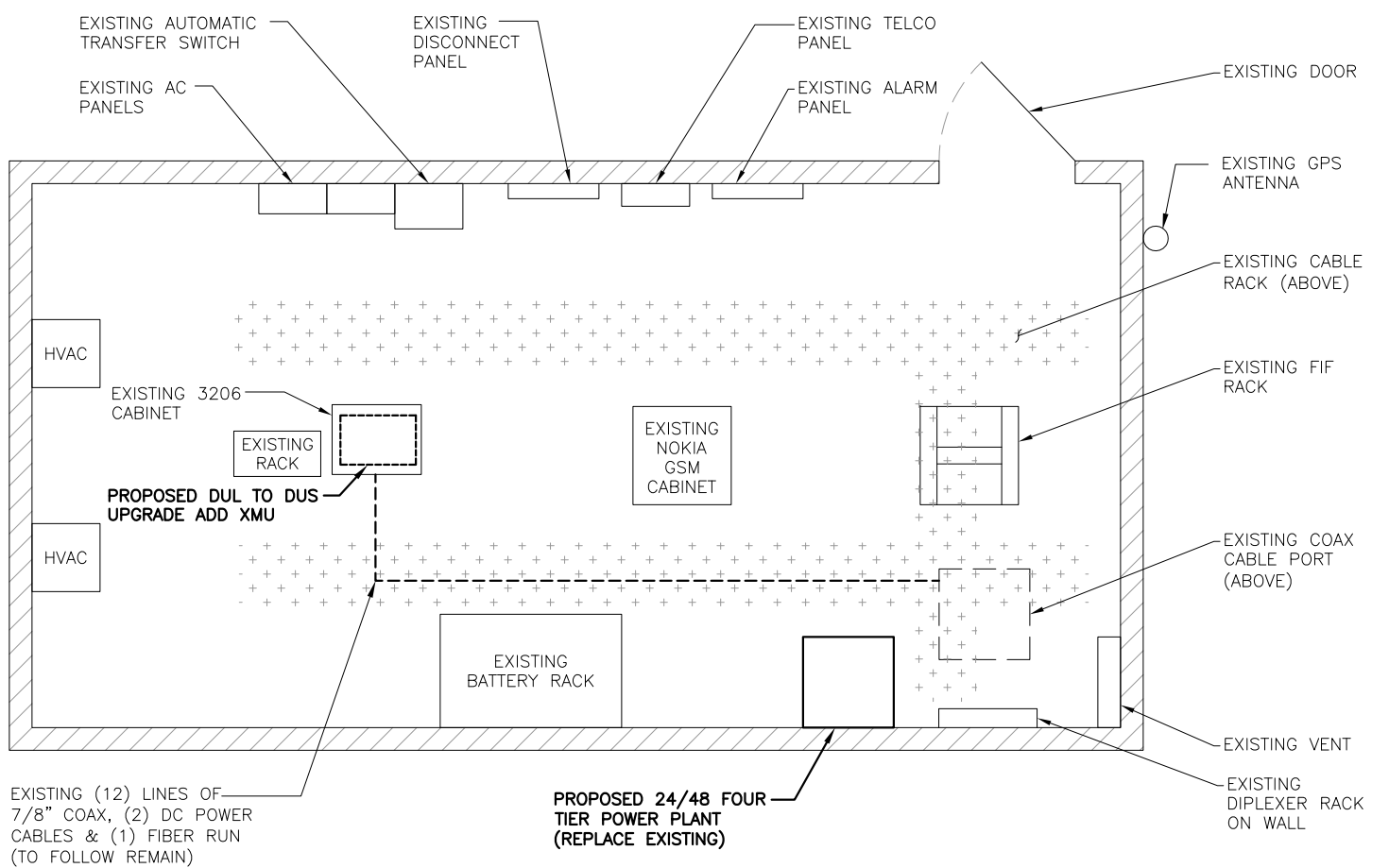
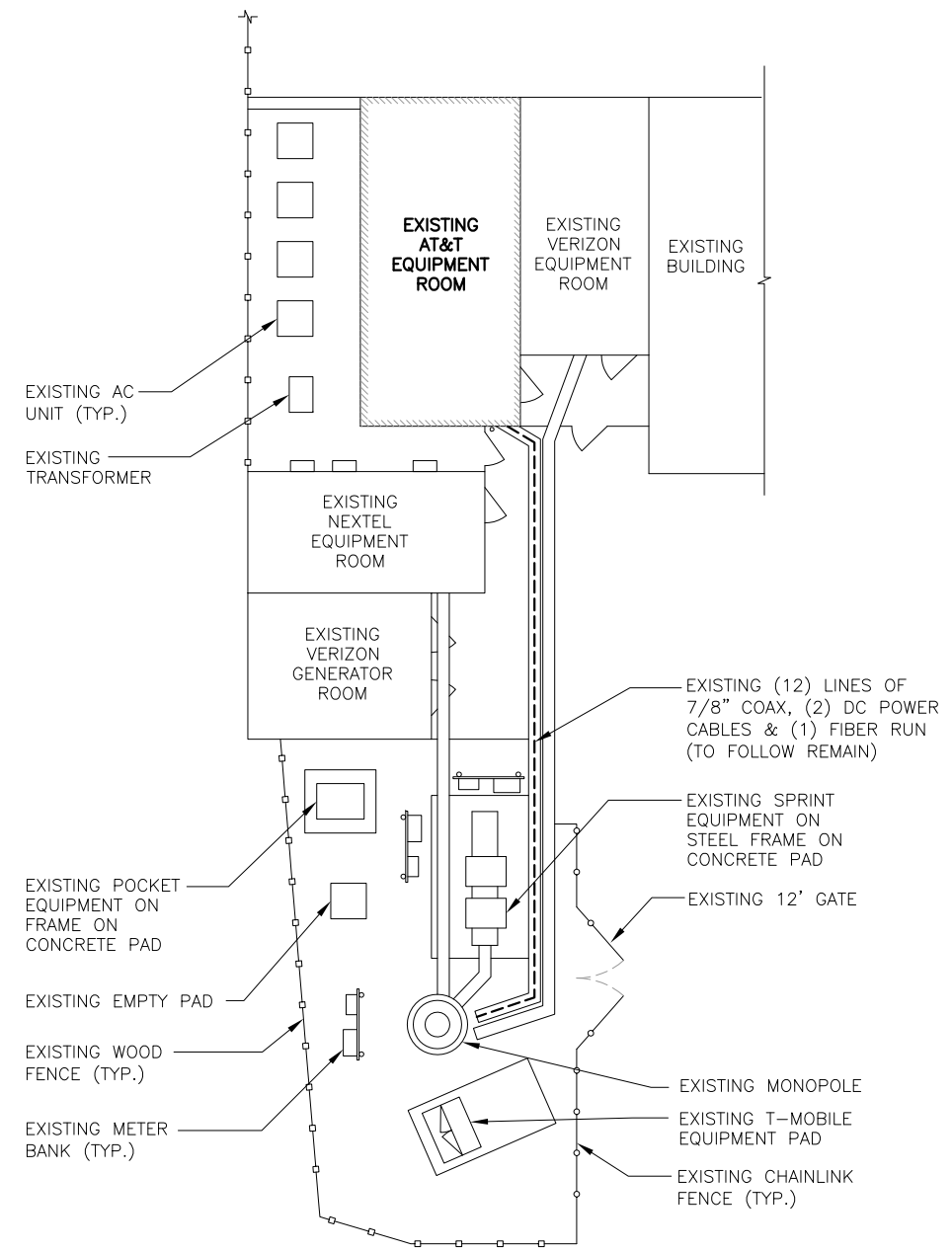
SITE NUMBER	DRAWING NUMBER	REV
2178.00	GN-1	1

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: JULY 12, 2016

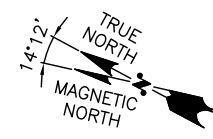
NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA CONFIGURATION.

NOTE:
ALL ANTENNAS AND LINES TO BE INSTALLED IN ACCORDANCE WITH STRUCTURAL ANALYSIS PROVIDED BY AMERICAN TOWER AND FINAL AT&T RF DATA SHEET.

NOTE:
1. PROPOSED DC POWER PLANT TO BE FED BY (11) 30A BREAKERS (ONE PER RECTIFIER) WIRED WITH A MINIMUM OF #10 AWG CONDUCTORS.
2. CONTRACTOR TO VERIFY IF THE BATTERY DISCONNECT NEEDS TO BE REPLACED. RUN (2) #4/0 & (1) #4/0 G FROM THE DISCONNECT TO THE NEW POWER PLANT IF NECESSARY.



COMPOUND PLAN 1
22x34 SCALE: 1/8"=1'-0"
11x17 SCALE: 1/16"=1'-0"
A-1



EQUIPMENT ROOM PLAN 2
22x34 SCALE: 1/2"=1'-0"
11x17 SCALE: 1/4"=1'-0"
A-1

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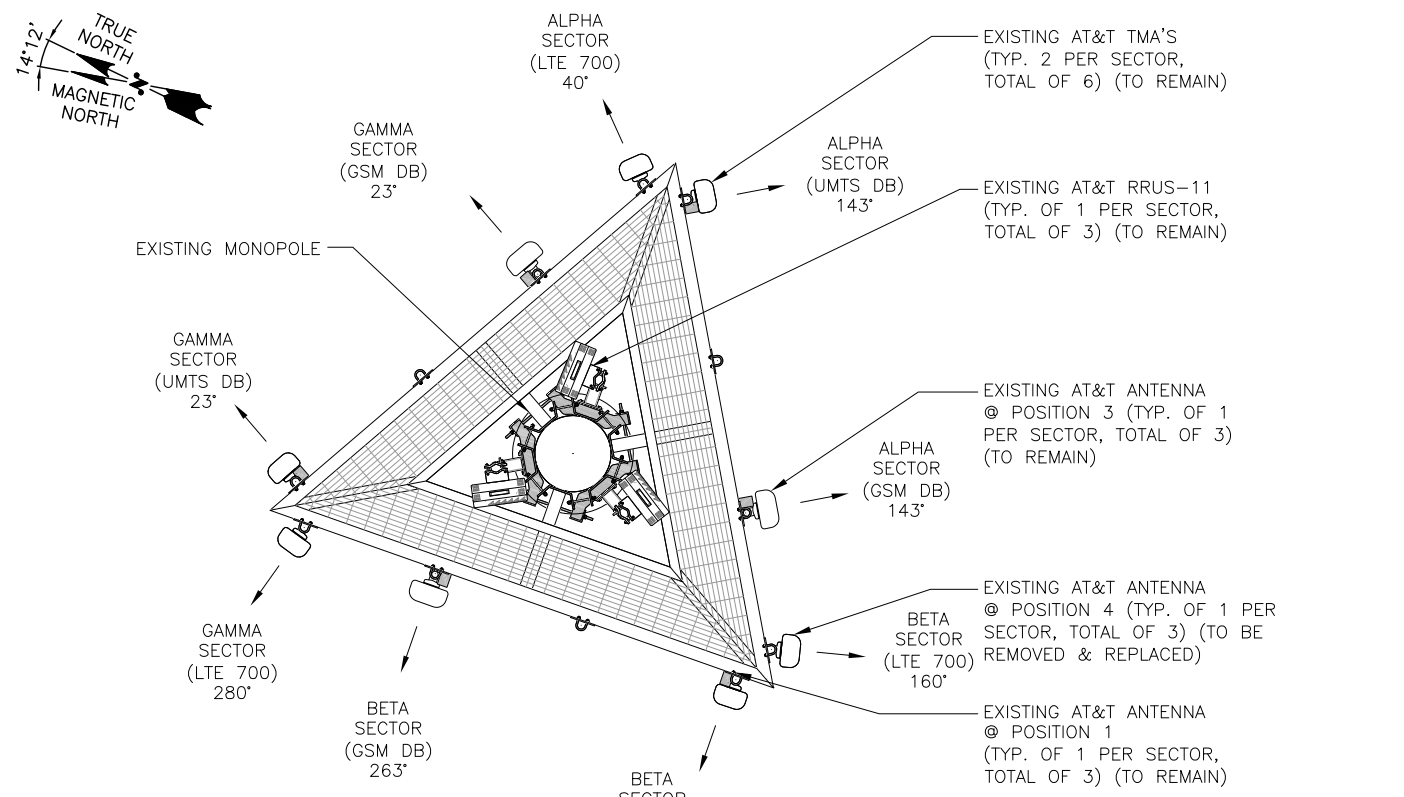
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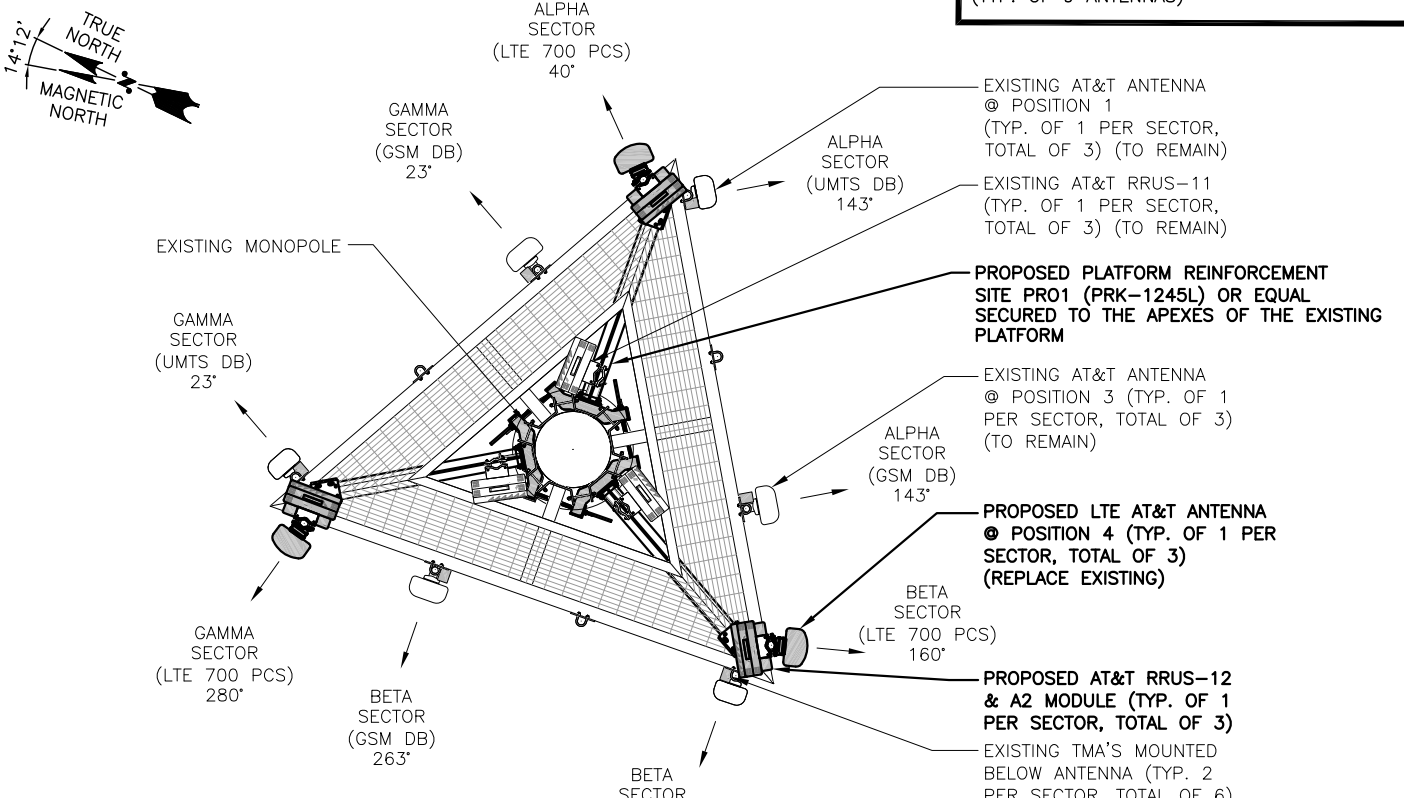
AT&T
COMPOUND & EQUIPMENT PLANS
(LTE 2C)

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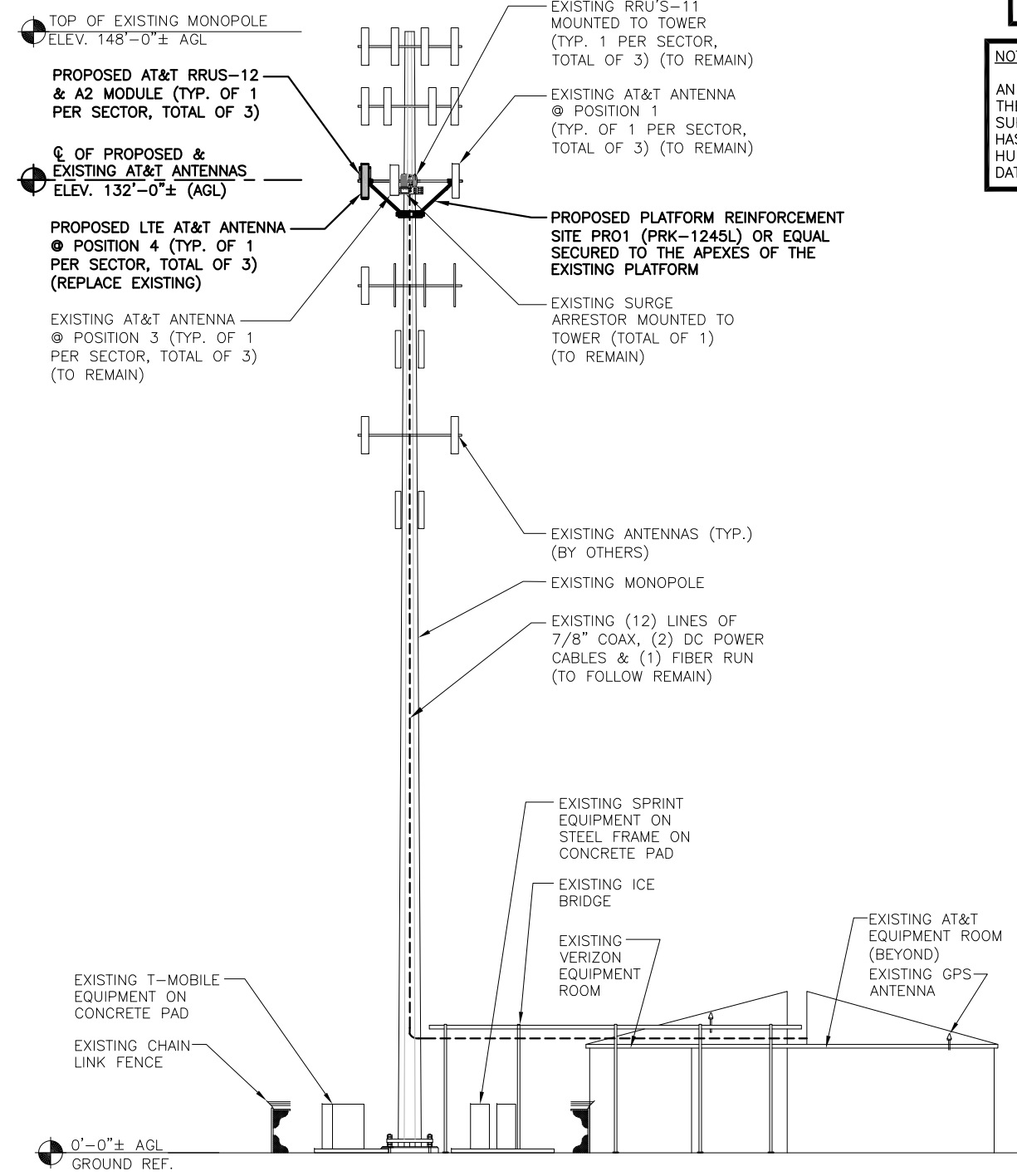


EXISTING ANTENNA LAYOUT 1
SCALE: N.T.S

NOTE:
VERTICALLY CENTER THE NEW AND EXISTING ANTENNAS ON THE EXISTING PLATFORM (TYP. OF 9 ANTENNAS)



PROPOSED ANTENNA LAYOUT 2
SCALE: N.T.S



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

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

NOTE:
ALL ANTENNAS AND LINES TO BE INSTALLED IN ACCORDANCE WITH STRUCTURAL ANALYSIS PROVIDED BY AMERICAN TOWER AND FINAL AT&T RF DATA SHEET.

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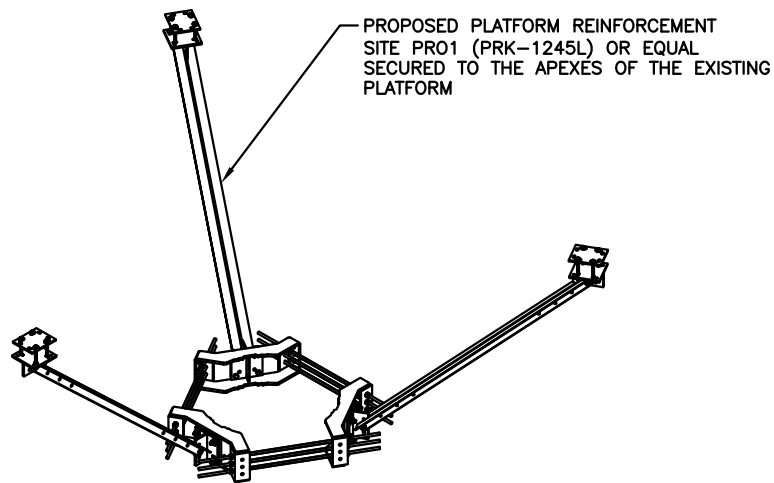
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A	06/07/16	ISSUED FOR REVIEW	EB	AT	DPH

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

AT&T
ANTENNA LAYOUTS & ELEVATION
(LTE 2C)

SITE NUMBER	DRAWING NUMBER	REV
2178.00	A-2	1



EXISTING ANTENNA SCHEDULE			
SECTOR	MAKE	MODEL#	SIZE (INCHES)
ALPHA:	KMW	AM-X-CD-14-65-00T-RET	48.0X11.8X5.9
	POWERWAVE	7770	55.0X11.0X5.0
	POWERWAVE	7770	55.0X11.0X5.0
BETA:	KMW	AM-X-CD-14-65-00T-RET	48.0X11.8X5.9
	POWERWAVE	7770	55.0X11.0X5.0
	POWERWAVE	7770	55.0X11.0X5.0
GAMMA:	KMW	AM-X-CD-14-65-00T-RET	48.0X11.8X5.9
	POWERWAVE	7770	55.0X11.0X5.0
	POWERWAVE	7770	55.0X11.0X5.0

PROPOSED ANTENNA SCHEDULE			
SECTOR	MAKE	MODEL#	SIZE (INCHES)
ALPHA:	KMW	AM-X-CD-14-65-00T-RET	48.0X11.8X5.9
	POWERWAVE	7770	55.0X11.0X5.0
	ANDREW	SBNHH-1D65A	55X11.9X7.1
BETA:	KMW	AM-X-CD-14-65-00T-RET	48.0X11.8X5.9
	POWERWAVE	7770	55.0X11.0X5.0
	ANDREW	SBNHH-1D65A	55X11.9X7.1
GAMMA:	KMW	AM-X-CD-14-65-00T-RET	48.0X11.8X5.9
	POWERWAVE	7770	55.0X11.0X5.0
	ANDREW	SBNHH-1D65A	55X11.9X7.1

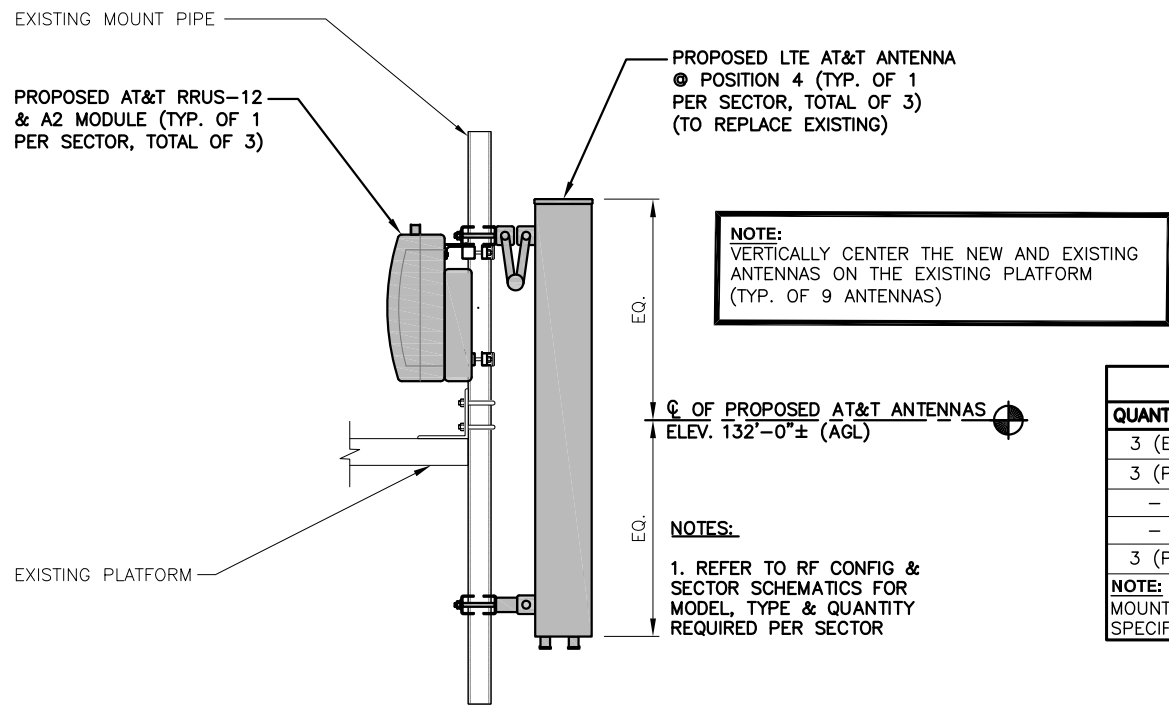
NOTE:
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING ANTENNA MOUNT TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY: HUDSON DESIGN GROUP, LLC. DATED: JULY 12, 2016

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

NOTE:
ALL ANTENNAS AND LINES TO BE INSTALLED IN ACCORDANCE WITH STRUCTURAL ANALYSIS PROVIDED BY AMERICAN TOWER AND FINAL AT&T RF DATA SHEET.

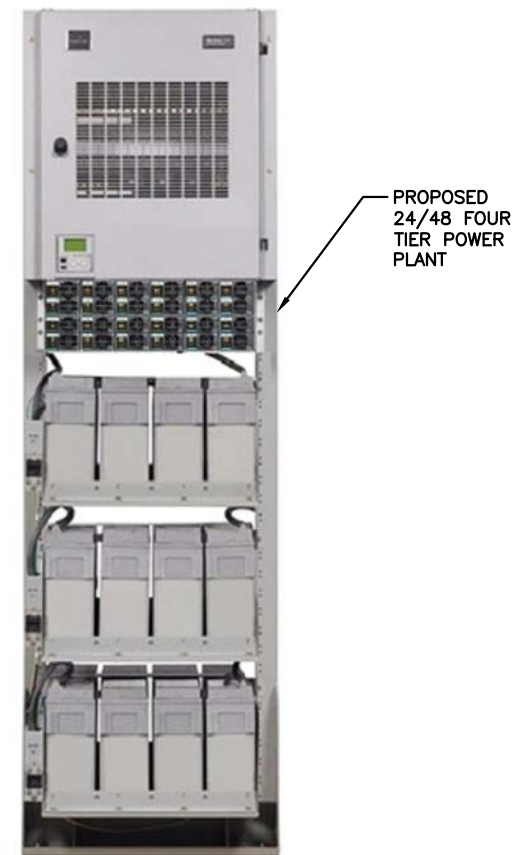
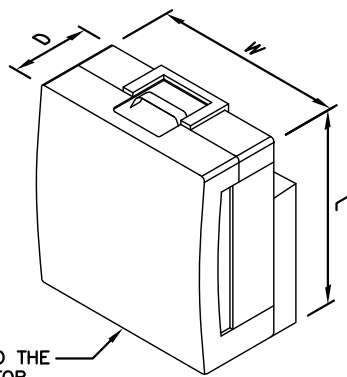
NOTE:
1. PROPOSED DC POWER PLANT TO BE FED BY (11) 30A BREAKERS (ONE PER RECTIFIER) WIRED WITH A MINIMUM OF #10 AWG CONDUCTORS.
2. CONTRACTOR TO VERIFY IF THE BATTERY DISCONNECT NEEDS TO BE REPLACED. RUN (2) #4/0 & (1) #4/0 G FROM THE DISCONNECT TO THE NEW POWER PLANT IF NECESSARY.

PROPOSED PLATFORM REINFORCEMENT 1
SCALE: N.T.S. A-3



RRU CHART				
QUANTITY	MODEL	L	W	D
3 (E)	RRUS-11	19.7"	17.0"	7.2"
3 (P)	RRUS-12	20.4"	18.5"	7.5"
-	RRUS-32	27.2"	12.1"	7.0"
-	RRUS-E2	20.4"	18.5"	7.5"
3 (P)	LTE-A2	16.4"	15.2"	3.4"

NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS



PROPOSED ANTENNA & RRU MOUNTING DETAIL 2
SCALE: N.T.S. A-3

RRU DETAIL 3
SCALE: N.T.S. A-3

EMERSON 48V DC POWER PLANT 4
SCALE: N.T.S. A-3

Hudson Design Group LLC
1600 OSGOOD STREET
BUILDING 20 NORTH, SUITE 3090
N. ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 336-5586

SAI
27 NORTHWESTERN DR.
SALEM, NH 03079

SITE NUMBER: CT2178
SITE NAME: MADISON PD
ATC SITE NUMBER: 302540
OLD ROUTE 79
MADISON, CT 06443
NEW HAVEN COUNTY

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

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	07/27/16	ISSUED FOR CONSTRUCTION	RB	AT	DPH
A	06/07/16	ISSUED FOR REVIEW	EB	AT	DPH

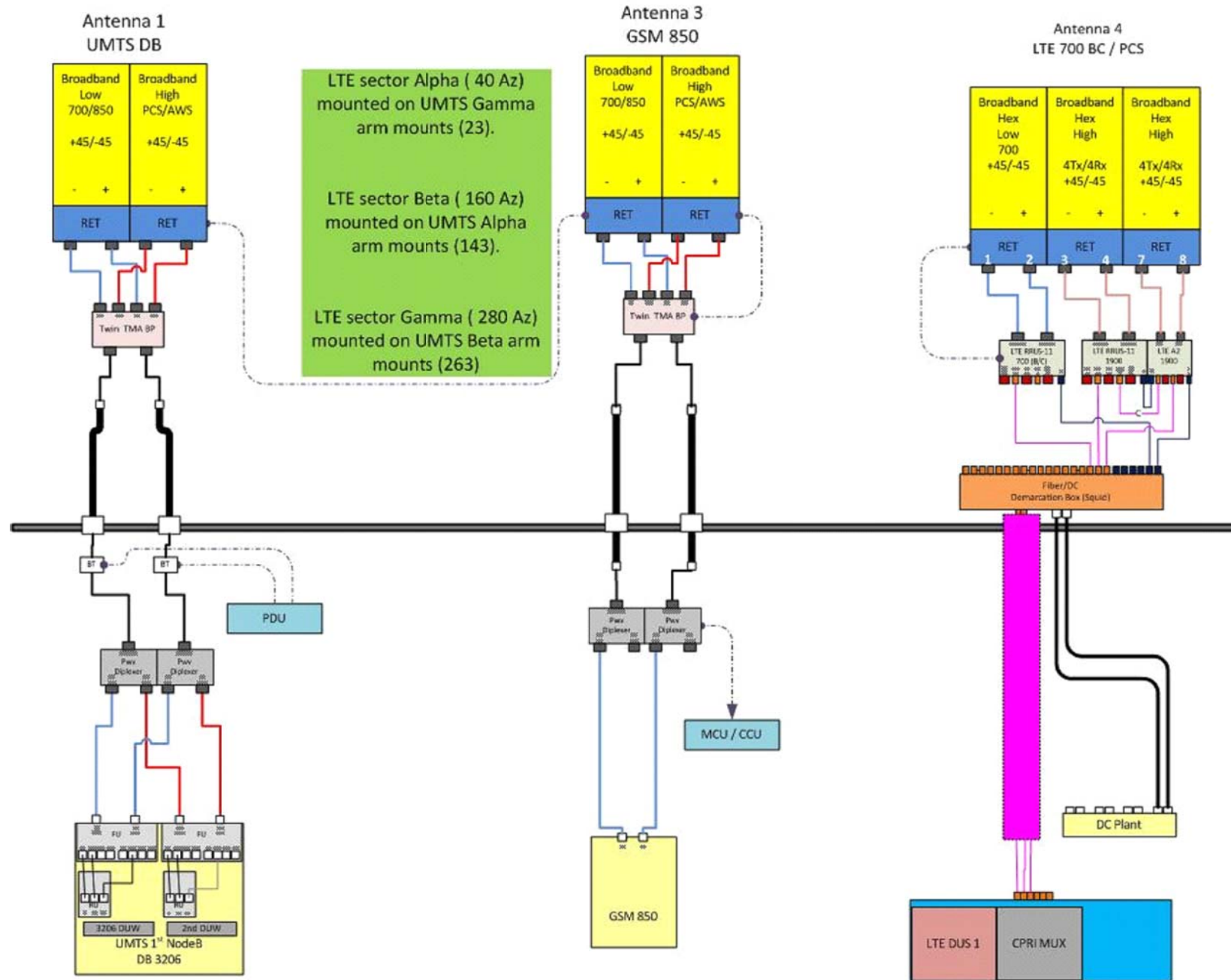
SCALE: AS SHOWN DESIGNED BY: AT DRAWN BY: EB

EMERSON 48V DC POWER PLANT 4
SCALE: N.T.S. A-3

STATE OF CONNECTICUT
BEREK J. CREASER
LICENSED PROFESSIONAL ENGINEER

AT&T
DETAILS
(LTE 2C)

SITE NUMBER	DRAWING NUMBER	REV
2178.00	A-3	1



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

- NOTE:**
REFER TO SHEET 2/A-2 FOR ANTENNA PLACEMENT TO MEET AZ.
- 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.

Hudson Design Group LLC
1600 OSGOOD STREET
BUILDING 20 NORTH, SUITE 3090
N. ANDOVER, MA 01845
TEL: (978) 557-5553
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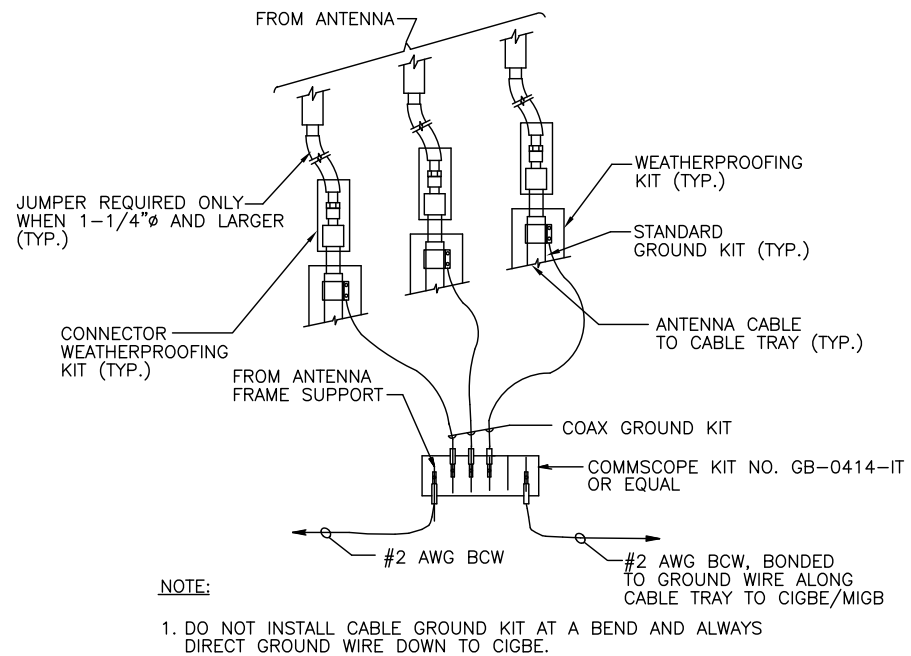
NO.	DATE	REVISIONS	BY	CHK	APP'D
1	07/27/16	ISSUED FOR CONSTRUCTION	RB	AT	DPH
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SCALE: AS SHOWN DESIGNED BY: AT DRAWN BY: EB

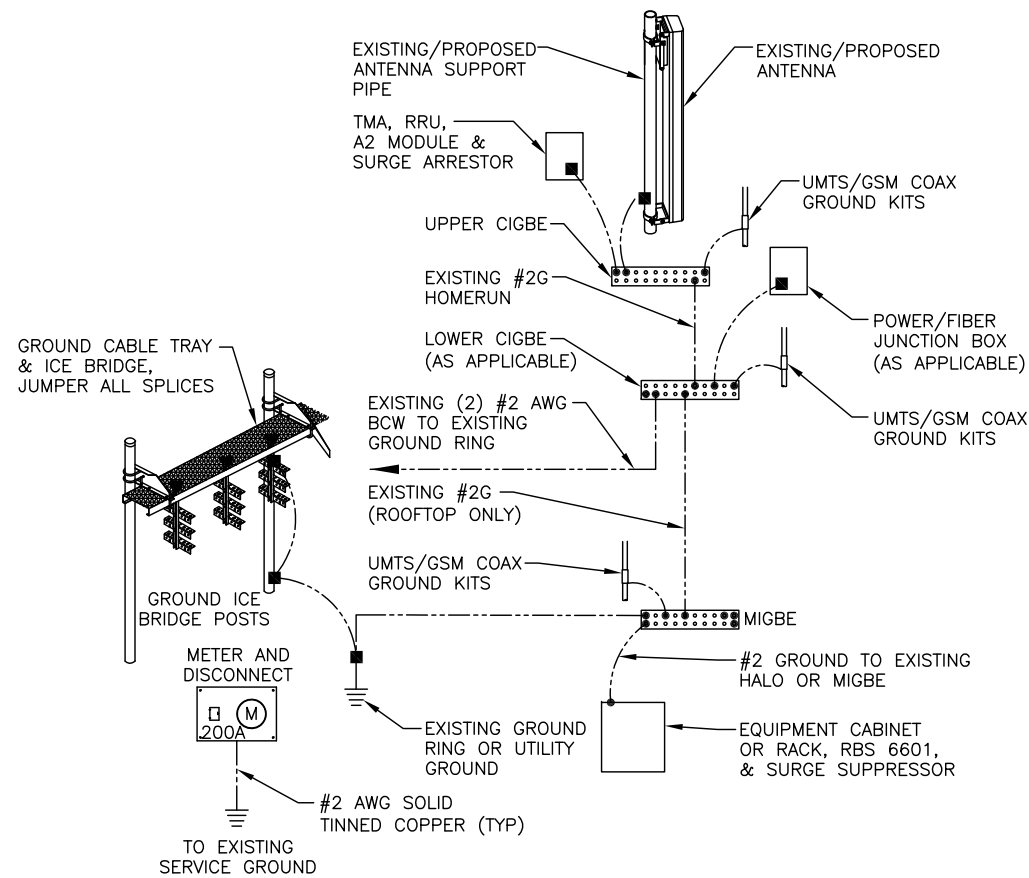


AT&T
RF PLUMBING DIAGRAM
(LTE 2C)

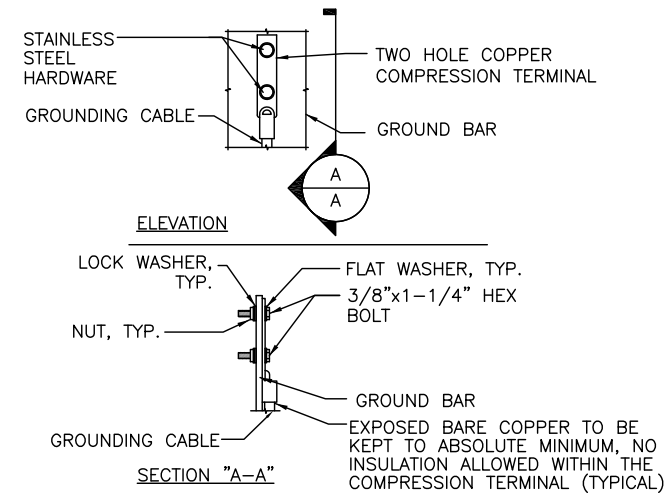
SITE NUMBER	DRAWING NUMBER	REV
2178.00	RF-1	1



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



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



TYPICAL GROUND BAR CONNECTION DETAIL 3
SCALE: N.T.S. G-1

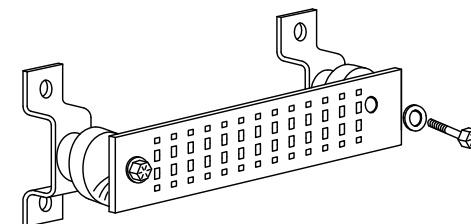
EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

SECTION "P" - SURGE PRODUCERS

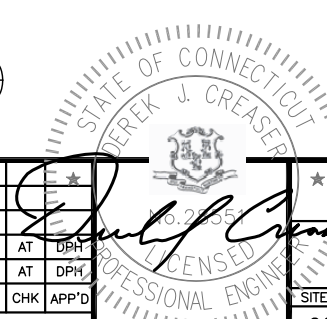
- CABLE ENTRY PORTS (HATCH PLATES) (#2)
- GENERATOR FRAMEWORK (IF AVAILABLE) (#2)
- TELCO GROUND BAR
- COMMERCIAL POWER COMMON NEUTRAL/GROUND BOND (#2)
- +24V POWER SUPPLY RETURN BAR (#2)
- 48V POWER SUPPLY RETURN BAR (#2)
- RECTIFIER FRAMES.

SECTION "A" - SURGE ABSORBERS

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



GROUND BAR - DETAIL 4
SCALE: N.T.S. G-1



				AT&T		
				GROUNDING DETAILS (LTE 2C)		
NO.	DATE	REVISIONS	BY	CHK	APP'D	REV
1	07/27/16	ISSUED FOR CONSTRUCTION	RB	AT	DPH	
A	06/07/16	ISSUED FOR REVIEW	EB	AT	DPH	
SCALE: AS SHOWN		DESIGNED BY: AT	DRAWN BY: EB		SITE NUMBER: 2178.00	
					DRAWING NUMBER: G-1	1



AMERICAN TOWER®
CORPORATION

Structural Evaluation	
ATC Site Number & Name	302540, Madison CT 6, CT
Carrier Site Number & Name	CT2178/FA#10035220, Madison PD
Site Location	8 Old 79 Madison, CT 06443-2685, New Haven County 41.28553333 N / -72.60134167 W
Tower Description	148 ft Monopole
Basic Wind Speed	85 mph (Fastest Mile)
Basic Wind Speed w/ Ice	75 mph (Fastest Mile) w/ ½" ice
Code	TIA/EIA-222-F / 2003 IBC, Sec. 1609.1.1, Exception (5) & Sec. 3108.4 / 2005 CT Supplement & 2009 CT Amendment State Building Code

Existing and Reserved Equipment

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
148.0	157.0	1	18' Dipole	Low Profile Platform	(5) 7/8" Coax	Other
	153.0	1	8' Omni			
	152.0	1	6' Dipole			
	147.0	12	48" x 12" Panel		(12) 1 1/4" Coax	
139.0	139.0	6	RFS FD9R6004/1C-3L	Low Profile Platform	(12) 1 5/8" Coax (1) 1 5/8" (1.63") Fiber	Verizon
		3	Alcatel-Lucent RRH2X60-AWS			
		6	Commscope HBX-6516DS-VTM			
		1	RFS DB-T1-6Z-8AB-0Z			
		2	Commscope LNX-8513DS-VTM			
		4	Commscope LNX-6514DS-A1M			
132.0	132.0	6	Powerwave LGP13519	Low Profile Platform	(12) 1 5/8" Coax	AT&T Mobility
		1	Raycap DC6-48-60-18-8F			
		3	Ericsson RRUS 11 (Band 12) (55 lb)			
		2	KMW AM-X-CD-14-65-00T-RET			
		3	Powerwave 7770.00			
115.0	115.0	4	Ericsson KRY 112 144/1	Low Profile Platform	(16) 1 5/8" Coax (1) 1 1/4" Hybriflex	T-Mobile
		4	Ericsson AIR 21, 1.3 M, B2A B4P			
		4	Ericsson AIR 21, 1.3M, B4A B2P			
107.0	107.0	3	36" x 10" Panel	Flush	-	Other
97.0	97.0	3	Alcatel-Lucent 800MHz 2X50W RRH w/ Filter	Low Profile Platform	(4) 1 1/4" Hybriflex	Sprint Nextel
		3	Alcatel-Lucent 1900MHz 4X45 RRH			
		3	Alcatel-Lucent TD-RRH8x20-25 w/ Solar Shield			
		3	RFS APXV9TM14-ALU-I20			
		3	RFS APXVSP18-C-A20			
84.0	84.0	3	RFS APXV18-206517S-C	Collar	-	Metro PCS
75.0	75.0	1	GPS	Flush	(1) 1/2" Coax	Sprint Nextel

Equipment to be Removed

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
132.0	132.0	3	Powerwave 7770.00	-	-	AT&T Mobility
		1	Kathrein 800 10736			
		6	ADC DD700			
		3	Ericsson RRUS 11 (Band 12) (55 lb)			

Proposed Equipment

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
132.0	132.0	6	Powerwave TT19-08BP111-001	Low Profile Platform	(2) 0.78" 8 AWG 6 (1) 0.39" Fiber Trunk	AT&T Mobility
		3	Ericsson RRUS A2 B2			
		3	Ericsson RRUS-12 B2			
		1	KMW AM-X-CD-14-65-00T-RET			
		3	Commscope SBNHH-1D65A			

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

Install proposed coax inside of the pole shaft.

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



TOWN OF MADISON
CONNECTICUT

LAND USE OFFICE

8 CAMPUS DRIVE
MADISON, CONNECTICUT 06447-2682
(203) 245-5632
FAX (203) 245-5613

MADISON PLANNING AND ZONING COMMISSION

CERTIFICATION OF SPECIAL EXCEPTION PERMIT OR
MODIFICATION OF SPECIAL EXCEPTION PERMIT

APPL. NO.: 94-42D (A)

DATE OF APPROVAL: February 16, 1995

This certifies that on the above date a SPECIAL EXCEPTION PERMIT was granted by the Madison Planning and Zoning Commission to:

OWNERS OF RECORD: Town of Madison


under the provisions of Sec. 3.4(b) of the Zoning Regulations of the Town of Madison on property located at:

STREET ADDRESS OR LOCATION: 8 OLD RTE. 79

TO ALLOW: Removal of existing 100 ft. lattice tower, replacement with a 150 ft. lattice tower and construction of a 10 ft. x 20 ft. x 10 ft. high equipment shelter for a public utility building, with a waiver of Secs. 29.2 d.s. and t of the Zoning Regulations. This approval is with the condition that the tower be constructed on the same location as the old tower and that additional screening be provided.

In accordance with Section 4.6 of said Regulations, this approval and permit are conditioned upon completion of all proposed improvements in accordance with approved plans within two years from date of approval, and shall become null and void in the event of failure to complete such improvements within said two year period or any extension thereof granted by the Commission.

Appl.: SMART SMR OF NEW YORK, INC.
1 North Broadway, 2nd Floor
White Plains, NY 10601



Chairman, Planning and Zoning Commission

Received for Record _____, 19____

at _____ h _____ m

Signature of Town Clerk

Copy filed 2/14/95

FRM.SEPERMIT 6/91

Google Maps 8 Old Post Rd



Map data ©2016 Google 100 ft

8 OLD ROUTE 79

Location 8 OLD ROUTE 79

Mblu 48/ 53/ CELL/ /

Acct# 48530001

Owner AMERICAN TOWER
SEPCTRASITE
COMMUNICATION

Assessment \$734,300

Appraisal \$1,049,000

PID 104171

Building Count 1

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2015	\$1,049,000	\$0	\$1,049,000
Assessment			
Valuation Year	Improvements	Land	Total
2015	\$734,300	\$0	\$734,300

Owner of Record

Owner AMERICAN TOWER SEPCTRASITE COMMUNICATION **Sale Price** \$0
Co-Owner C/O PROPERTY TAX DEPT **Certificate**
Book & Page 0/ 0
Sale Date 01/01/1900

Ownership History

Ownership History				
Owner	Sale Price	Certificate	Book & Page	Sale Date
AMERICAN TOWER SEPCTRASITE COMMUNICATION	\$0		0/ 0	01/01/1900

Building Information

Building 1 : Section 1

Year Built:

Living Area: 0

Building Photo

Building Attributes	
Field	Description
Style	Outbuildings
Model	
Stories:	
Heat Fuel	
Heat Type:	

AC Type:	
Total Bedrooms:	
Total Bthrms:	
Total Half Baths:	
Total Xtra Fixtrs:	
Total Rooms:	
Fireplace(s)	
Xtra FPL Open	

 Building Photo

(<http://images.vgsi.com/photos/MadisonCTPhotos//\01\01\39\82.jpg>)

Building Layout

 Building Layout

Building Sub-Areas (sq ft)	Legend
No Data for Building Sub-Areas	

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code 4310
Description TEL REL TW
Zone

Land Line Valuation

Size (Acres) 0
Depth

Outbuildings

Outbuildings						Legend
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
CEL	Cell Tower			6 UNITS	\$981,600	1
SHD7	Cell Shed			144 S.F.	\$14,400	1
SHD7	Cell Shed			240 S.F.	\$24,000	1
SHD7	Cell Shed			280 S.F.	\$28,000	1
FN3	Fence 6'			160 L.F.	\$1,000	1

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2015	\$1,049,000	\$0	\$1,049,000

Assessment			
Valuation Year	Improvements	Land	Total
2015	\$734,300	\$0	\$734,300

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