

ATC SITE NAME: UNITY VILLAGE MO 2
ATC SITE NUMBER: 306035
AT&T PACE NUMBER: MRKSL045230, MRKSL045284
MRKSL045778, MRKSL045231, MRKSL045484
AT&T SITE ID: KS4022
AT&T FA CODE: 10000434
AT&T SITE NAME: UNITY VILLAGE
SITE ADDRESS: 2150 NORTHWEST LOWENSTEIN DRIVE
LEES SUMMIT, MO 64081




REV.	DESCRIPTION	BY	DATE
A	PRELIM	RC	05/25/21
0	FINAL CD	RC	06/24/21

SEAL:



DATE DRAWN:	05/25/21
ATC JOB NO:	13619563
CUSTOMER ID:	KS4022
CUSTOMER NAME:	UNITY VILLAGE

COMPLIANCE CODE	PROJECT SUMMARY	PROJECT DESCRIPTION	SHEET INDEX				
<p>ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.</p> <p>1. INTERNATIONAL BUILDING CODE (IBC)</p> <p>2. NATIONAL ELECTRIC CODE (NEC)</p> <p>3. LOCAL BUILDING CODE</p> <p>4. CITY/COUNTY ORDINANCES</p>	<p><u>SITE ADDRESS:</u></p> <p>2150 NORTHWEST LOWENSTEIN DRIVE</p> <p>LEES SUMMIT, MO 64081</p> <p>COUNTY: JACKSON</p> <p><u>GEOGRAPHIC COORDINATES:</u></p> <p>LATITUDE: 38.9336100</p> <p>LONGITUDE: -94.4169400</p> <p>GROUND ELEVATION: 983' AMSL</p>	THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:	SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
		TOWER WORK: REMOVE (3) ANTENNAS AND (6) RRHS	G-001	COVER SHEET	0	06/24/2021	RC
		INSTALL (3) ANTENNAS AND (3) RRHS	G-002	GENERAL NOTES	0	06/24/2021	RC
		EXISTING (9) ANTENNAS, (3) TMAS, (12) RRHS, (3) SQUID, (6) #8 AWG DC CABLES, (2) 18 PAIR FIBER TRUNK, (1) 3/8" RET CONTROL CABLE, AND (12) 1-5/8" COAX CABLES TO REMAIN	C-001	OVERALL SITE PLAN	0	06/24/2021	RC
		<u>GROUND WORK:</u> EXISTING (1) EXISTING FSM4 ASIA C1 AND 5G NR ASIK C2 TO REMAIN	C-101	DETAILED SITE PLAN	0	06/24/2021	RC
		INSTALL (1) AMIA, (4) ABIA, (2) ASIA, (1) ABIL, (1) ASIK AND (1) POWER CONVERTER	C-102	SHELTER LAYOUT	0	06/24/2021	RC
		PROJECT NOTES	C-201	TOWER ELEVATION	0	06/24/2021	RC
			C-401	RF SCHEDULE AND ANTENNA INSTALLATION	0	06/24/2021	RC
			C-501	CONSTRUCTION DETAILS	0	06/24/2021	RC
			E-501	GROUNDING DETAILS	0	06/24/2021	RC
R-601	SUPPLEMENTAL						
<p>PROJECT TEAM</p> <p><u>TOWER OWNER:</u> AMERICAN TOWER 10 PRESIDENTIAL WAY WOBBURN, MA 01801</p> <p><u>APPLICANT:</u> AT&T MOBILITY</p> <p><u>ARCHITECT (COORDINATING PROFESSIONAL):</u> PETER LICHOMSKI, AIA 49030 PONTIAC TRAIL, SUITE 400, WIXOM, MI 48393 PH: (248) 705-9212</p> <p><u>PROPERTY OWNER:</u> AMERICAN TOWER CORPORATION 116 HUNTINGTON AVENUE, 11TH FLOOR BOSTON, MA 02116</p>	1. THE FACILITY IS UNMANNED. 2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE. 3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE. 4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED. 5. HANDICAP ACCESS IS NOT REQUIRED.	R-602	SUPPLEMENTAL				
	PROJECT LOCATION DIRECTIONS	R-603	SUPPLEMENTAL				
		R-604	SUPPLEMENTAL				
		R-605	SUPPLEMENTAL				
		R-606	SUPPLEMENTAL				
		R-607	SUPPLEMENTAL				
	 Know what's below. Call before you dig.						

GENERAL CONSTRUCTION NOTES:

1. OWNER FURNISHED MATERIALS, AT&T MOBILITY "THE COMPANY" WILL PROVIDE AND THE CONTRACTOR WILL INSTALL
- A. BTS EQUIPMENT FRAME (PLATFORM) AND ICEBRIDGE SHELTER (GROUND BUILD/CO-LOCATE ONLY)

B. AC/TELCO INTERFACE BOX (PPC)

C. ICE BRIDGE (CABLE TRAY WITH COVER) (GROUND BUILD/CO-LOCATE ONLY, GC TO FURNISH AND INSTALL FOR ROOFTOP INSTALLATION)

D. TOWERS, MONOPOLES

E. TOWER LIGHTING

F. GENERATORS & LIQUID PROPANE TANK

G. ANTENNA STANDARD BRACKETS, FRAMES AND PIPES FOR MOUNTING

H. ANTENNAS (INSTALLED BY OTHERS)

I. TRANSMISSION LINE

J. TRANSMISSION LINE JUMPERS

K. TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS

L. TRANSMISSION LINE GROUND KITS

M. HANGERS

N. HOISTING GRIPS

O. BTS EQUIPMENT
2. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES, COPPER-CLAD OR XIT CHEMICAL GROUND ROD(S), BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, TEMPORARY ELECTRICAL POWER, CONDUIT, LANDSCAPING COMPOUND STONE, CRANES, CORE DRILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR AUGER MOUNTS, MISCELLANEOUS FASTENERS, CABLE TRAYS, NON-STANDARD ANTENNA FRAMES AND ALL OTHER MATERIAL AND LABOR REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND SPECIFICATIONS. IT IS THE POSITION OF AT&T MOBILITY TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP AND PAYMENT OF REQUIRED PERMITS.
3. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS.
4. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
6. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
7. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
8. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
9. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
11. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
12. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE AT&T MOBILITY REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE AT&T MOBILITY REP PRIOR TO PROCEEDING.
13. EACH CONTRACTOR SHALL COOPERATE WITH THE AT&T MOBILITY REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
14. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE AT&T MOBILITY CONSTRUCTION MANAGER.
15. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
16. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE AT&T MOBILITY REP AND ENGINEER OF RECORD IMMEDIATELY.
17. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
18. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
19. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH AMERICAN TOWER CORPORATION (ATC) AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
20. CONTRACTOR SHALL FURNISH AT&T MOBILITY AND AMERICAN TOWER CORPORATION (ATC) WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
21. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH AT&T MOBILITY REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL

ALL ITEMS PROVIDED.

22. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH AT&T MOBILITY REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY AT&T MOBILITY MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH AT&T MOBILITY SPECIFICATIONS AND REQUIREMENTS.
24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO AT&T MOBILITY FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO AT&T MOBILITY SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
26. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
27. CONTRACTOR SHALL NOTIFY AT&T MOBILITY REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
28. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
29. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
30. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE AT&T MOBILITY REP. ANY WORK FOUND BY THE AT&T MOBILITY REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
31. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.
32. AT&T MOBILITY FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE AT&T MOBILITY WAREHOUSE, NO LATER THAN 48HR AFTER BEING NOTIFIED INSURED, STORED, UNCRATE, PROTECTED AND INSTALLED BY THE CONTRACTOR WITH ALL APPURTENANCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AFTER PICKING IT UP.
33. AT&T MOBILITY OR HIS ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OWN OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO AT&T MOBILITY OR THEIR ARCHITECT/ENGINEER.

SPECIAL CONSTRUCTION

ANTENNA INSTALLATION NOTES:

1. WORK INCLUDED:
- A. ANTENNA AND COAXIAL CABLES ARE FURNISHED BY AT&T MOBILITY UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OD COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL AND

B. INSTALL ANTENNA AS INDICATE ON DRAWINGS AND AT&T MOBILITY SPECIFICATIONS.

C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS

D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE.

E. CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF SWEEP TESTS USING ANRITZU-PACKARD 8713B RF SCALAR NETWORK ANALYZER. SUBMIT FREQUENCY DOMAIN REFLECTOMETER(FDR) TESTS RESULTS TO THE PROJECT MANAGER. SWEEP TESTS SHALL BE AS PER ATTACHED RFS "MINIMUM FIELD TESTING RECOMMENDED FOR ANTENNA AND HELIAX COAXIAL CABLE SYSTEMS" DATED 10/5/93. TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING SERVICE AND BE BOUND AND SUBMITTED WITHIN ONE WEEK OF WORK COMPLETION.

F. INSTALL COAXIAL CABLES AND TERMINATING BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTIONS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.

G. ANTENNA AND COAXIAL CABLE GROUNDING:
2. ALL EXTERIOR #6 GREED GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPlice WEATHERPROOFING KIT #221213 OR

EQUAL.

3. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS)

ALL DISCREPANCIES FROM WHAT IS SHOWN ON THESE CONSTRUCTION DRAWINGS SHALL BE COMMUNICATED TO ATC ENGINEERING IMMEDIATELY FOR CORRECTION OR RE-DESIGN. FAILURE TO COMMUNICATE DIRECTLY WITH ATC ENGINEERING OR ANY CHANGES FROM THE DESIGN CONDUCTED WITHOUT PRIOR APPROVAL FROM ATC ENGINEERING SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.



49030 Pontiac Trail, Suite 400
Wixom, Michigan 48393
PHONE: (248) 705-9212

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ATC SITE NUMBER:
306035
ATC SITE NAME:
**UNITY VILLAGE
MO 2**
SITE ADDRESS:
2150 NORTHWEST LOWENSTEIN DRIVE
LEES SUMMIT, MO 64081

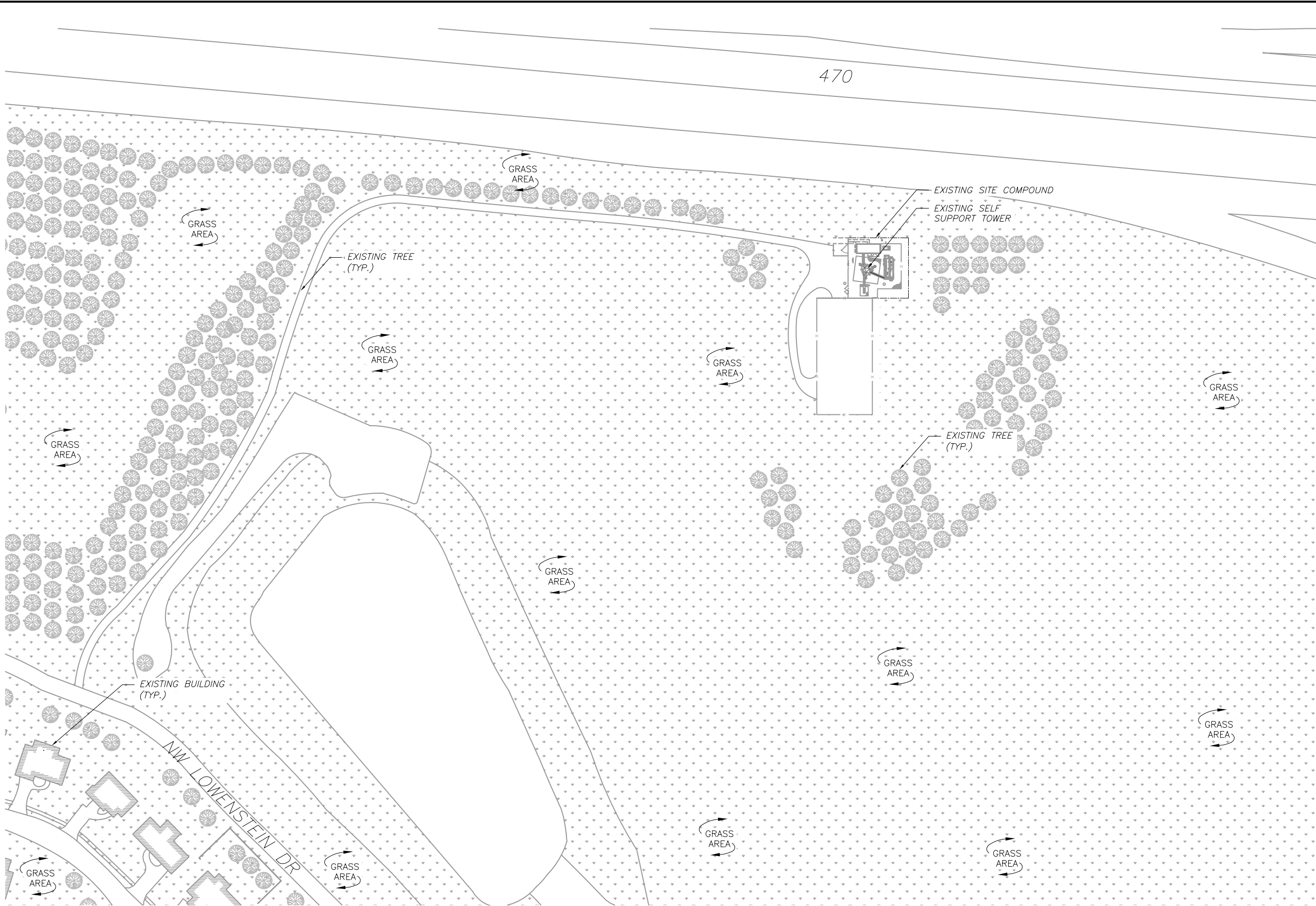
SEAL:



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GENERAL NOTES

SHEET NUMBER: G-002	REVISION: 0
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1 OVERALL SITE PLAN

0 120' 240'

SCALE: 1"=120' (11X17)
1"=60' (22X34)



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OVERALL SITE PLAN

SHEET NUMBER:	REVISION:
C-001	0

SITE PLAN NOTES:

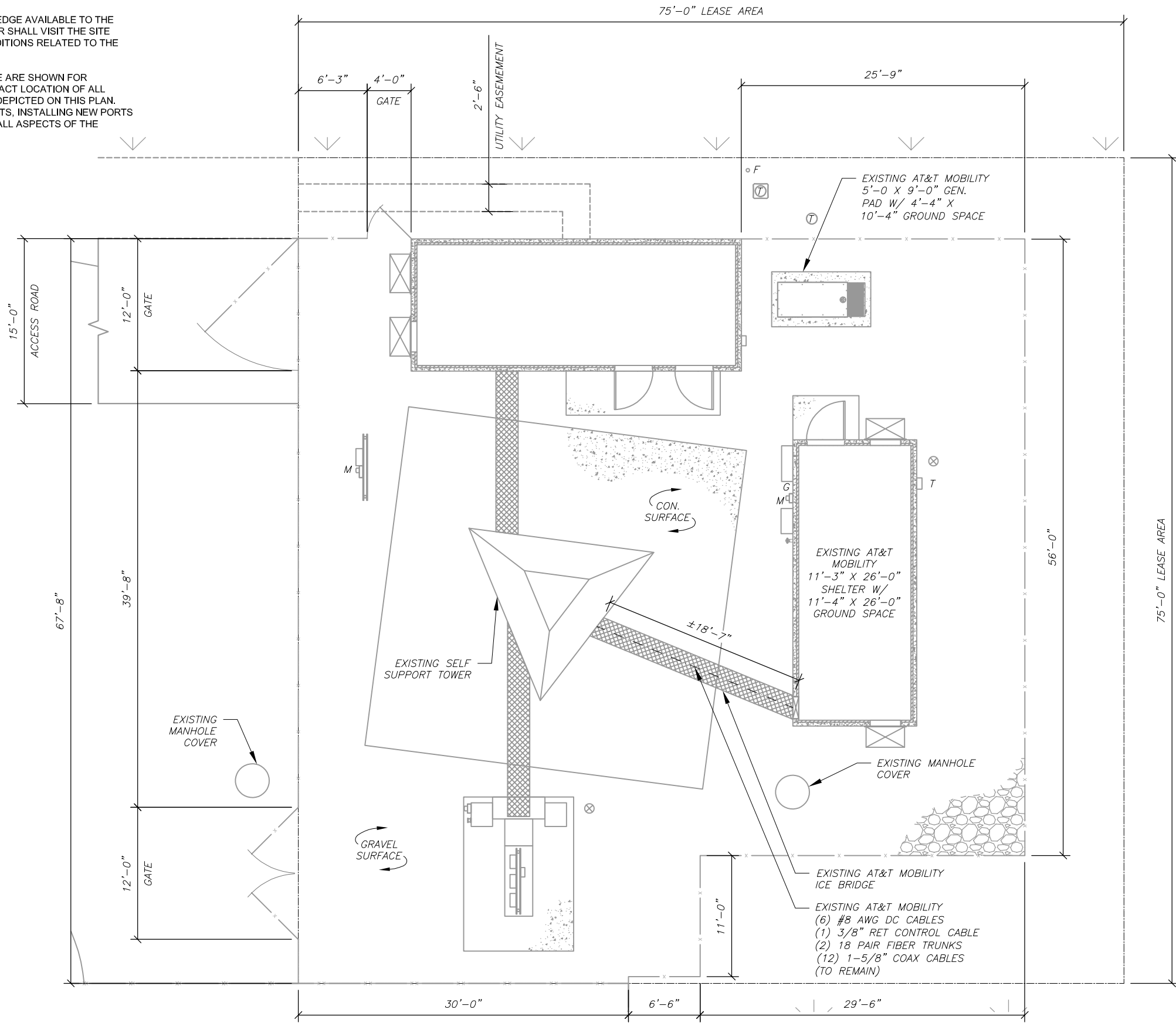
- THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
- ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.

LEGEND

⊗	GROUNDING TEST WELL
ATS	AUTOMATIC TRANSFER SWITCH
B	BOLLARD
CSC	CELL SITE CABINET
D	DISCONNECT
E	ELECTRICAL
F	FIBER
GEN	GENERATOR
G	GENERATOR RECEPTACAL
HH, V	HAND HOLE, VAULT
IB	ICE BRIDGE
K	KENTROX BOX
LC	LIGHTING CONTROL
M	METER
PB	PULL BOX
PP	POWER POLE
T	TELCO
TRN	TRANSFORMER
— x —	CHAINLINK FENCE

PROPOSED CABLE LENGTH:

- ESTIMATED LENGTH OF PROPOSED CABLE IS **243'**. ESTIMATED LENGTH OF CABLE WAS PROVIDED BY CUSTOMER OR CALCULATED BY ADDING THE RAD CENTER AND THE DISTANCE FROM THE SHELTER ENTRY PLATE TO THE TOWER (ALONG THE ICE BRIDGE) AND A SAFETY FACTOR MEASUREMENT OF 15% (OF THE TWO PREVIOUS VALUES), CDS DEFER TO GREATEST CABLE LENGTH.
- ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. WHERE POSSIBLE UTILIZE EXISTING CABLE SUPPORT STRUCTURES AS PROVIDED FOR CARRIER TO ADEQUATELY SECURE CABLES, USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER. OTHERWISE, ATTACH CABLES TO HORIZONTAL OR DIAGONAL TOWER MEMBERS USING PROPOSED STAINLESS STEEL ADAPTERS (DO NOT ATTACH TO TOWER LEG).



1 DETAILED SITE PLAN



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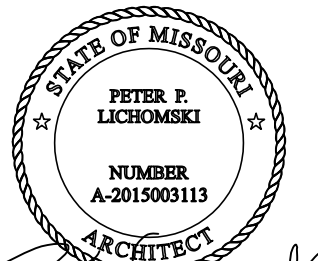
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MO 2

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SEAL:



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DETAILED SITE PLAN

SHEET NUMBER:

C-101

REVISION:

0



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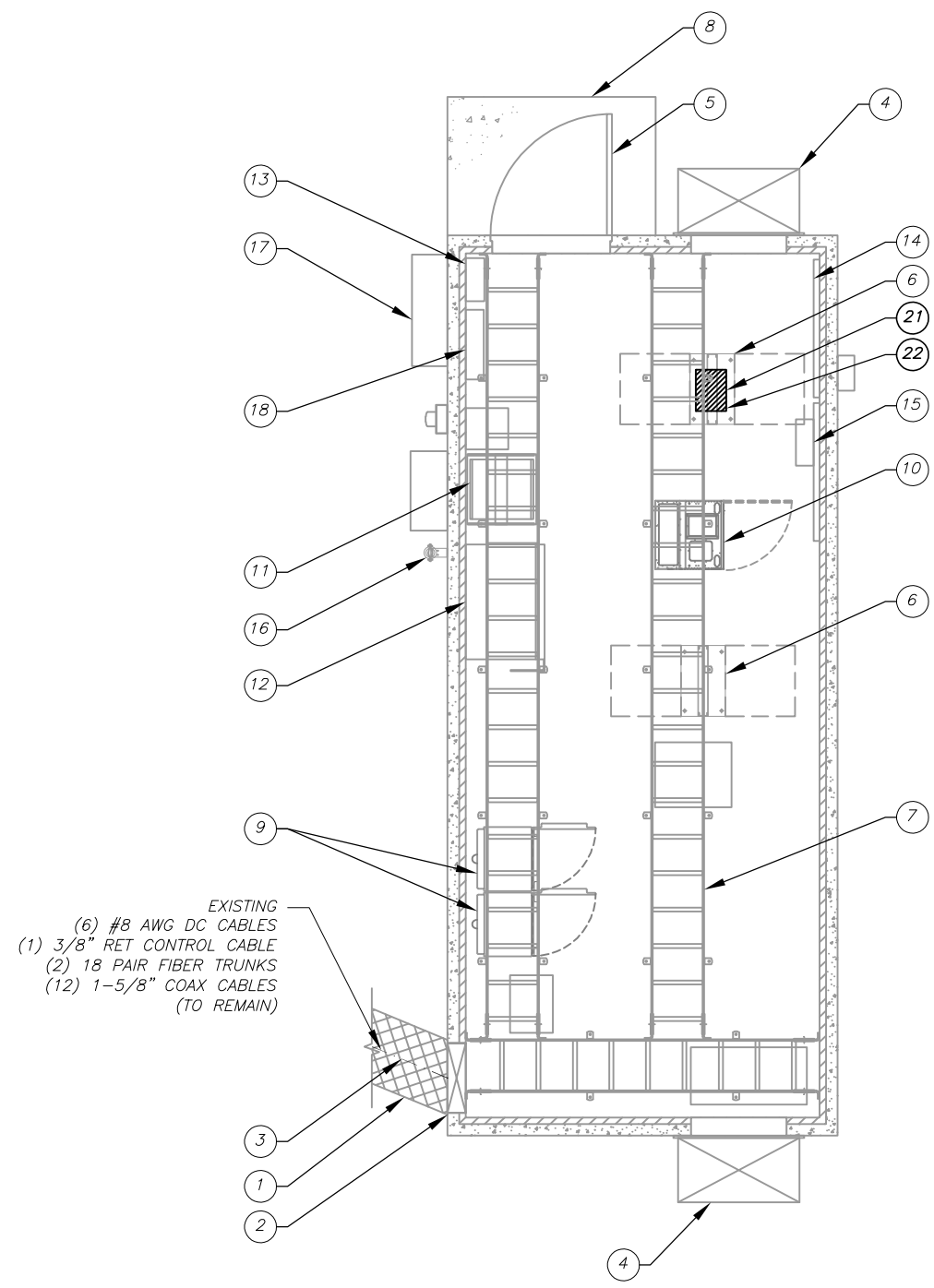


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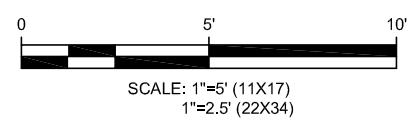
SHELTER LAYOUT	
SHEET NUMBER: C-102	REVISION: 0

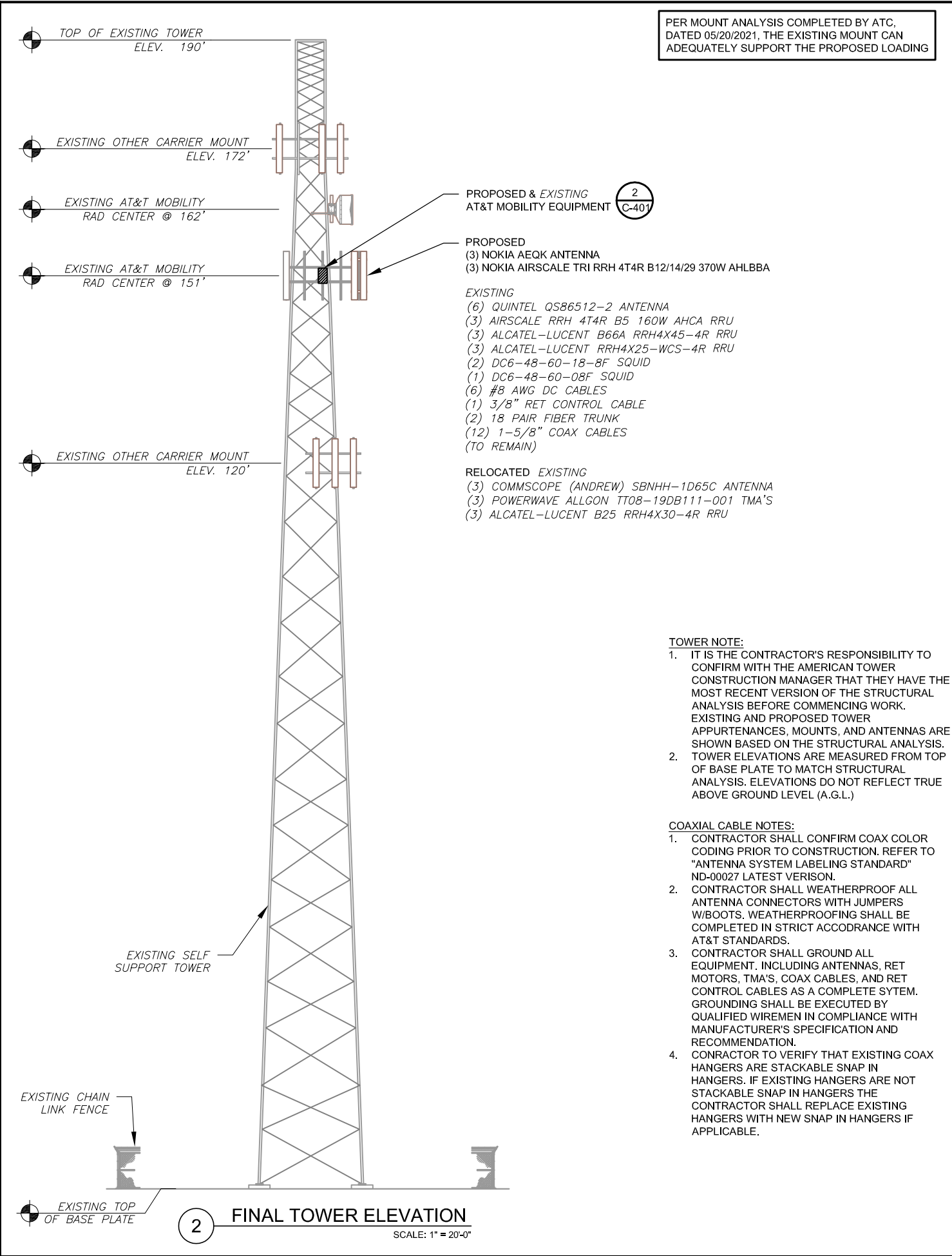
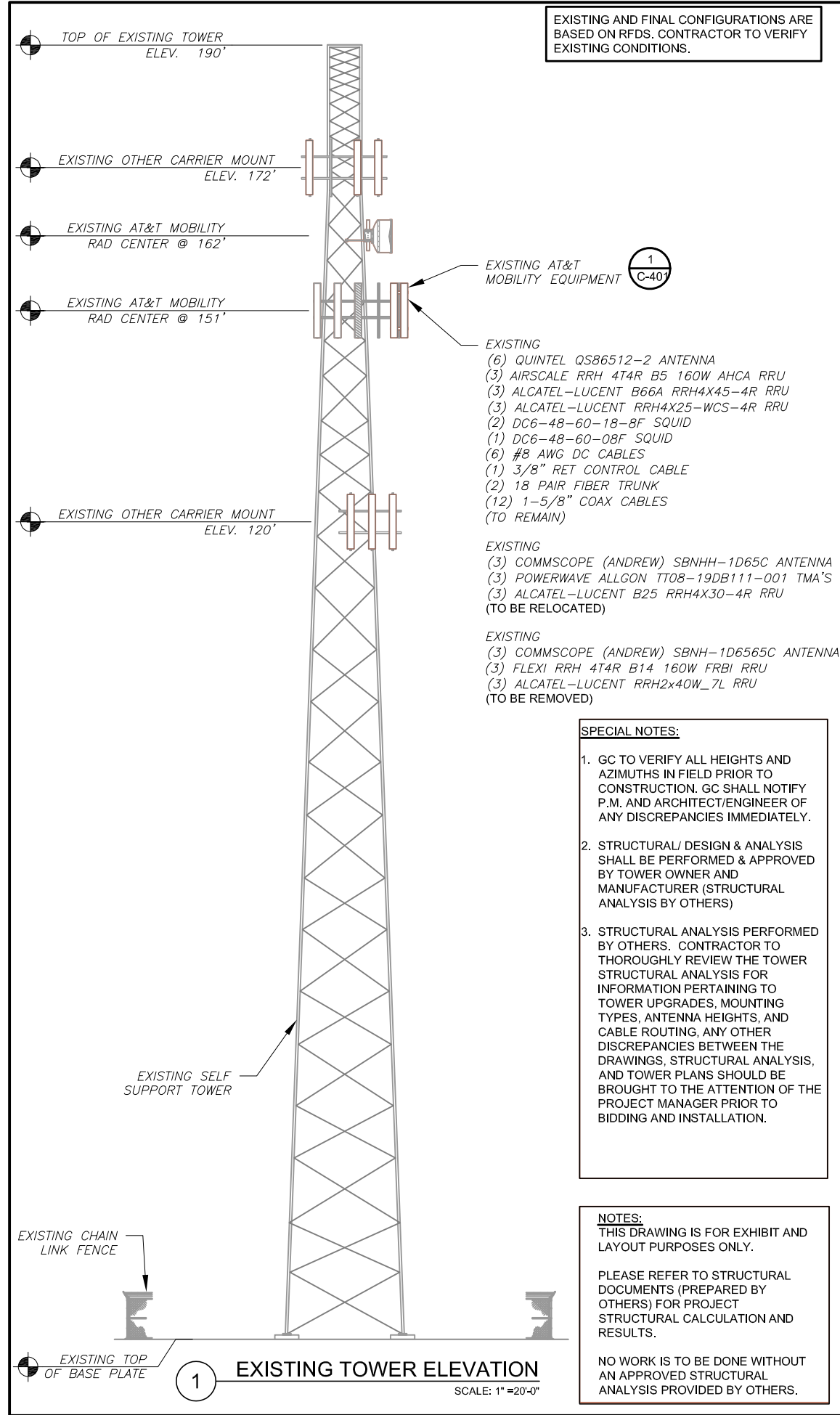
EXISTING EQUIPMENT

- 1 EXISTING ICE BRIDGE
- 2 EXISTING COAX PORT
- 3 EXISTING COAX TRUNK CABLE
- 4 EXISTING HVAC
- 5 EXISTING DOOR
- 6 EXISTING FIF RACK
- 7 EXISTING ELEVATED CABLE TRAY (TYP.)
- 8 EXISTING STOOP
- 9 EXISTING GSM CABINET
- 10 EXISTING UMTS CABINET
- 11 EXISTING DC POWER PLANT
- 12 EXISTING BATTERIES
- 13 EXISTING AC PANEL
- 14 EXISTING TELCO BOARD
- 15 EXISTING FIBER BOX
- 16 EXISTING GPS ANTENNA
- 17 EXISTING DISCONNECT SWITCH
- 18 EXISTING MANUAL TRANSFER SWITCH
- 19 EXISTING METER
- 20 EXISTING FSM4 ASIA C1 AND 5G NR ASIK C2
- 21 (1) AMIA, (4) ABIA, (2) ASIA, (1) ABIL AND (1) ASIK
- 22 NEW POWER CONVERTER



1 DETAILED EQUIPMENT LAYOUT





AMERICAN TOWER®

LAB

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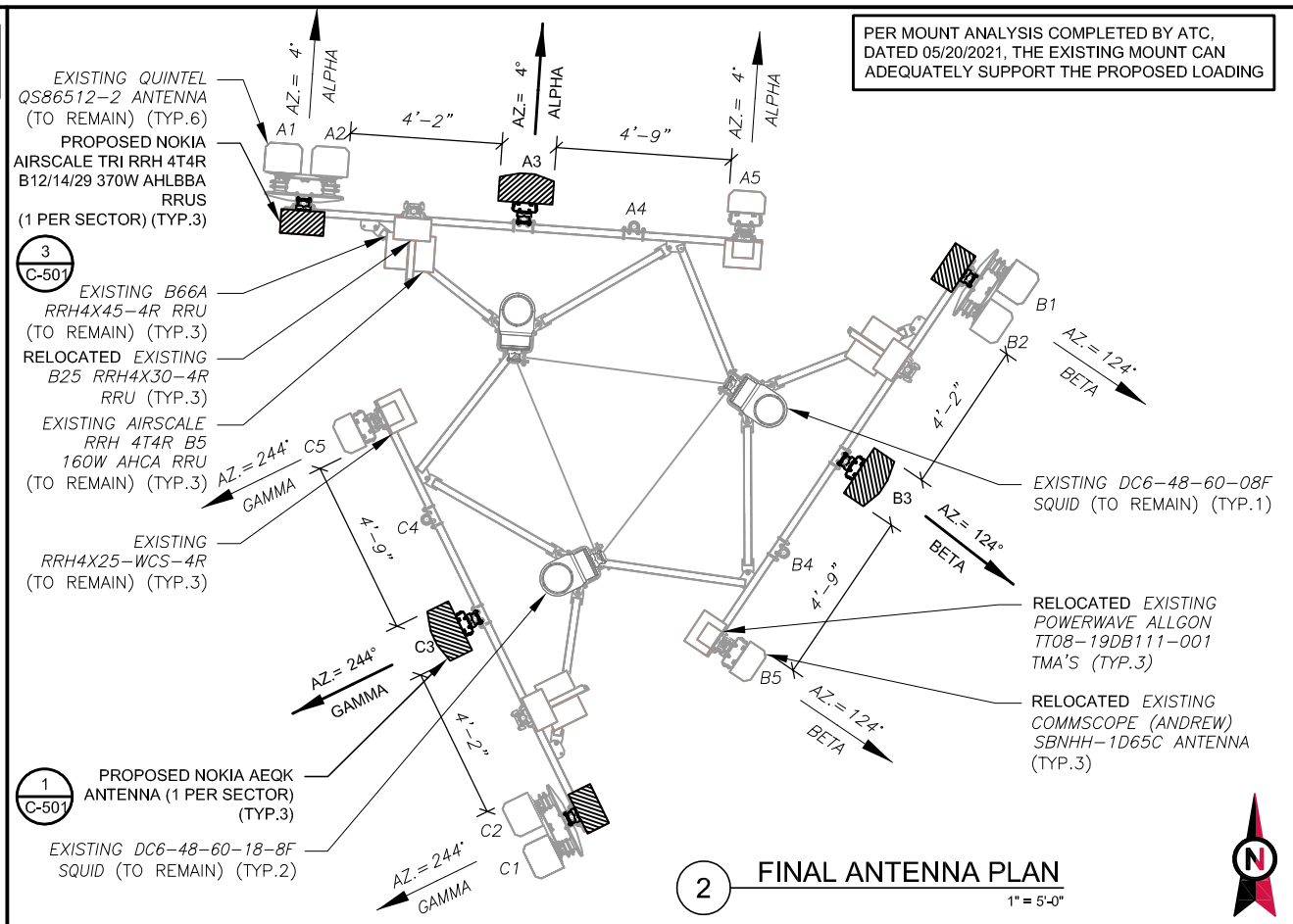
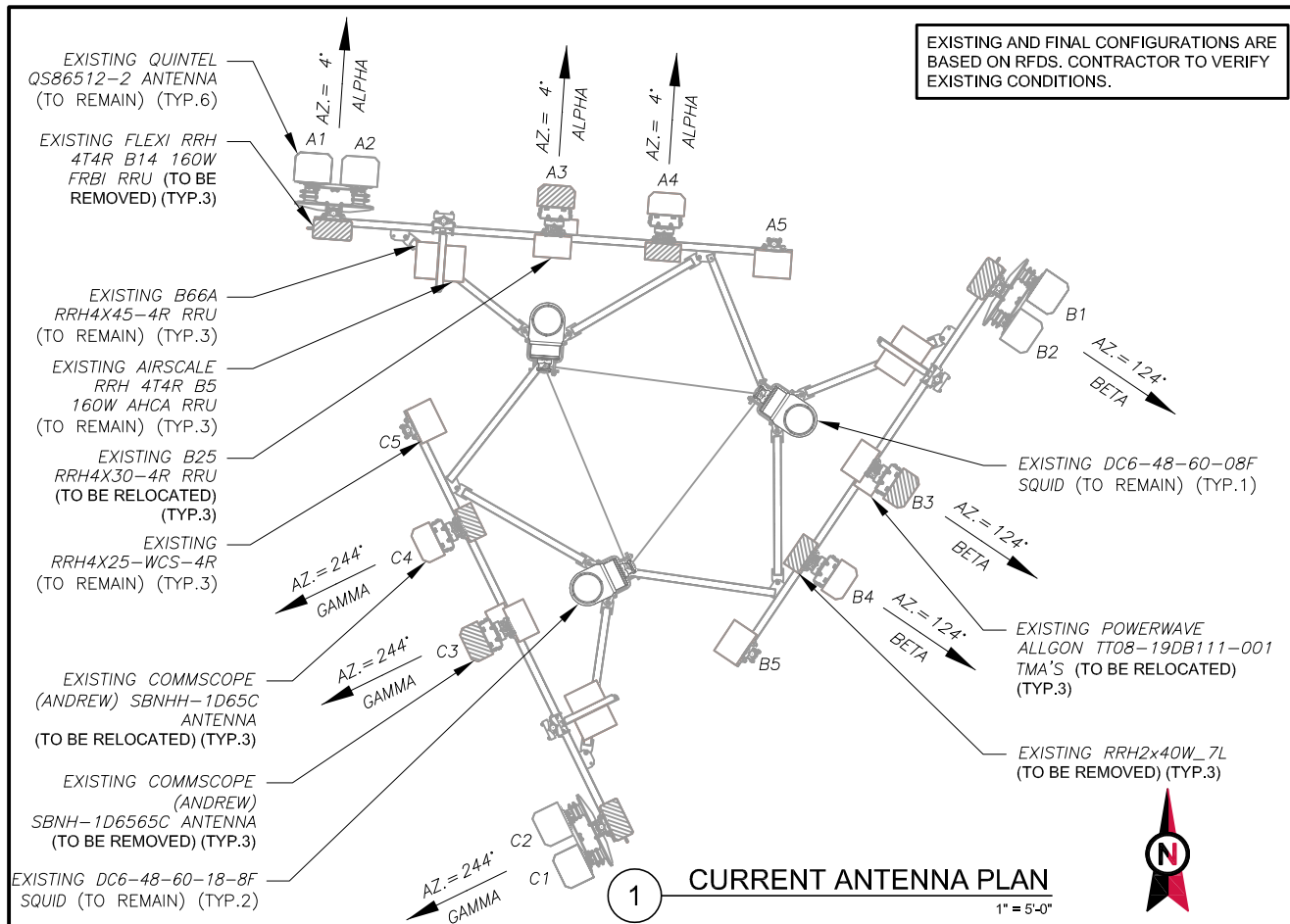
STATE OF MISSOURI
PETER P. LICHOMSKI
NUMBER A-2015003113
ARCHITECT

AT&T

DATE DRAWN:	05/25/21
ATC JOB NO:	13619563
CUSTOMER ID:	KS4022
CUSTOMER NAME:	UNITY VILLAGE

TOWER ELEVATION

SHEET NUMBER: C-201	REVISION: 0
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CURRENT ANTENNA SCHEDULE							
LOCATION			ANTENNA SUMMARY			NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT
ALPHA	151'	4°	A1	QUINTEL QS86512-2	LTE 700/LTE 850/5G 850/LTE AWS	RMN	FLEXI RRH 4T4R B14 160W FRBI
			A2	QUINTEL QS86512-2	LTE PCS	RMN	AIRSCALE RRH 4T4R B5 160W AHCA
			A3	COMMSCOPE (ANDREW) SBNH-1D6565C	UMTS 850	RMV	B66A RRH4X45-4R
			A4	COMMSCOPE (ANDREW) SBNHH-1D65C	LTE 700/LTE WCS	REL	TT08-19DB111-001_1900 TMA
			A5	-	-	-	B25 RRH4X30-4R
BETA	151'	124°	B1	QUINTEL QS86512-2	LTE 700/LTE 850/5G 850/LTE AWS	RMN	RRH2X40W_7L
			B2	QUINTEL QS86512-2	LTE PCS	RMN	RRH4X25-WCS-4R
			B3	COMMSCOPE (ANDREW) SBNH-1D6565C	UMTS 850	RMV	-
			B4	COMMSCOPE (ANDREW) SBNHH-1D65C	LTE 700/LTE WCS	REL	-
			B5	-	-	-	-
GAMMA	151'	244°	C1	QUINTEL QS86512-2	LTE 700/LTE 850/5G 850/LTE AWS	RMN	FLEXI RRH 4T4R B14 160W FRBI
			C2	QUINTEL QS86512-2	LTE PCS	RMN	AIRSCALE RRH 4T4R B5 160W AHCA
			C3	COMMSCOPE (ANDREW) SBNH-1D6565C	UMTS 850	RMV	B66A RRH4X45-4R
			C4	COMMSCOPE (ANDREW) SBNHH-1D65C	LTE 700/LTE WCS	REL	TT08-19DB111-001_1900 TMA
			C5	-	-	-	B25 RRH4X30-4R

EXISTING FIBER DISTRIBUTION/SQUID		EXISTING CABLING SUMMARY			
MODEL NUMBER	STATUS	COAX	DC	FIBER	STATUS
(2) DC6-48-60-18-8F	RMN	(12) 1-5/8"	(6) #8 AWG DC CABLES	(1) 3/8" RET CONTROL CABLE,	RMN
DC6-48-60-08F	RMN	-	-	(2) 18 PAIR FIBER TRUNKS	RMN

- NOTES**
- BASED ON APPROVED ATC APPLICATION 306035, DATED N/A. CONFIRM WITH AT&T MOBILITY REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS FOR NSN CONFIGURATION (CONFIG). GC TO CAP ALL UNUSED PORTS.
 - ATC HAS NOT YET VERIFIED ANY EXISTING ANTENNA CONFIG OR MOUNT CONFIG. CONTRACTOR TO VERIFY MOUNT CONFIG HAS SUFFICIENT SPACE FOR PROPOSED LESSEE EQUIPMENT (EQUIP) (I.E. CLEARANCES, MOUNT PIPE, SUFFICIENT LENGTH, ETC.)
 - ALL PROPOSED EQUIP INCLUDING ANTENNAS, COAX, ETC. SHALL BE MOUNTED IN ACCORDANCE WITH THE TOWER STRUCTURAL ANALYSIS ON FILE WITH ATC'S CM.
 - CONFIRM SPACING OF PROPOSED EQUIP DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.
 - POSITIONS START WITH FIRST PIPE ON THE LEFT SIDE (AS VIEWED FROM BEHIND THE MOUNT).

STATUS ABBREVIATIONS

RMV: TO BE REMOVED
RMN: TO REMAIN
REL: TO BE RELOCATED
DSC: TO BE DISCONNECTED & REMAIN
ADD: TO BE ADDED

CABLE LENGTHS FOR JUMPERS
FIBER DISTRIBUTION/SQUID TO RRU: 15'
RRU TO ANTENNA: 10'

3 EQUIPMENT SCHEDULES

FINAL ANTENNA SCHEDULE							
LOCATION			ANTENNA SUMMARY			NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT
ALPHA	151'	4°	A1	QUINTEL QS86512-2	LTE 700/LTE 850/5G 850/LTE AWS	RMN	AIRSCALE TRI RRH 4T4R B12/14/29 370W AHLBBA
			A2	QUINTEL QS86512-2	UMTS PCS	RMN	AIRSCALE RRH 4T4R B5 160W AHCA
			A3	NOKIA AEQK	5G CBAND	ADD	B66A RRH4X45-4R
			A4	-	-	-	B25 RRH4X30-4R
			A5	COMMSCOPE (ANDREW) SBNHH-1D65C	UMTS 850/ LTE WCS	REL	TT08-19DB111-001_1900 TMA
BETA	151'	124°	B1	QUINTEL QS86512-2	LTE 700/LTE 850/5G 850/LTE AWS	RMN	RRH4X25-WCS-4R
			B2	QUINTEL QS86512-2	UMTS PCS	RMN	AIRSCALE TRI RRH 4T4R B12/14/29 370W AHLBBA
			B3	NOKIA AEQK	5G CBAND	ADD	AIRSCALE RRH 4T4R B5 160W AHCA
			B4	-	-	-	B66A RRH4X45-4R
			B5	COMMSCOPE (ANDREW) SBNHH-1D65C	UMTS 850/ LTE WCS	REL	B25 RRH4X30-4R
GAMMA	151'	244°	C1	QUINTEL QS86512-2	LTE 700/LTE 850/5G 850/LTE AWS	RMN	TT08-19DB111-001_1900 TMA
			C2	QUINTEL QS86512-2	UMTS PCS	RMN	RRH4X25-WCS-4R
			C3	NOKIA AEQK	5G CBAND	ADD	AIRSCALE TRI RRH 4T4R B12/14/29 370W AHLBBA
			C4	-	-	-	AIRSCALE RRH 4T4R B5 160W AHCA
			C5	COMMSCOPE (ANDREW) SBNHH-1D65C	UMTS 850/ LTE WCS	REL	B66A RRH4X45-4R

FINAL FIBER DISTRIBUTION/SQUID		FINAL CABLING SUMMARY			
MODEL NUMBER	STATUS	COAX	DC	FIBER	STATUS
(2) DC6-48-60-18-8F	RMN	(12) 1-5/8"	(6) #8 AWG DC CABLES	(1) 3/8" RET CONTROL CABLE,	RMN
DC6-48-60-08F	RMN	-	-	(2) 18 PAIR FIBER TRUNKS	RMN

49030 Pontiac Trail, Suite 400
Wixom, Michigan 48393
PHONE: (248) 705-9212

REV.	DESCRIPTION	BY	DATE
A	PRELIM	RC	05/25/21
B	FINAL CD	RC	06/24/21
C			
D			

ATC SITE NUMBER:
306035

ATC SITE NAME:
UNITY VILLAGE MO 2

SITE ADDRESS:
2150 NORTHWEST LOWENSTEIN DRIVE
LEES SUMMIT, MO 64081

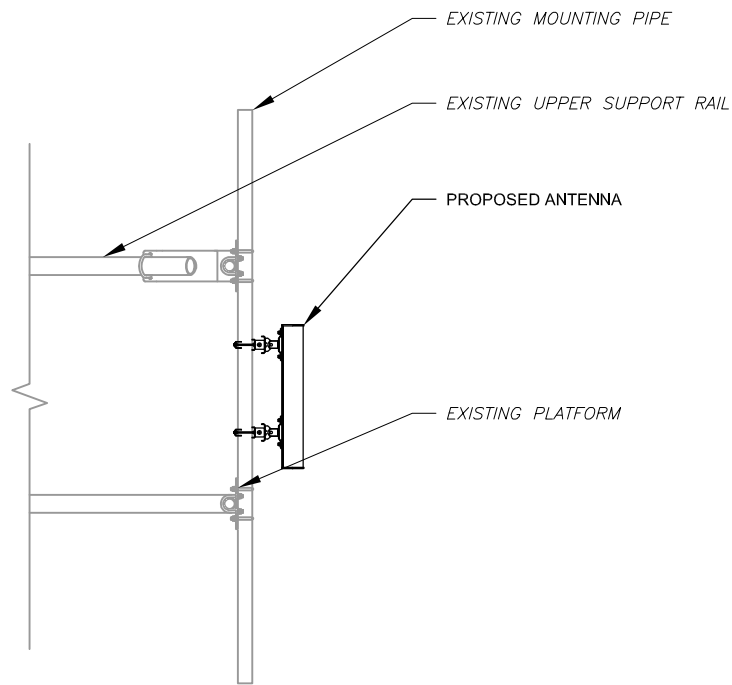
SEAL:

PETER P. LICHOMSKI
NUMBER A-2015003113
ARCHITECT

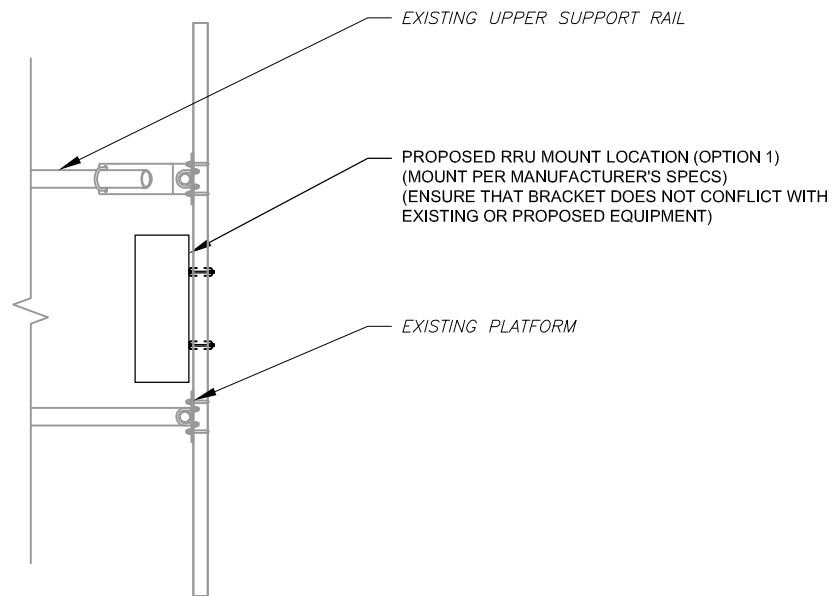
DATE DRAWN: 05/25/21
ATC JOB NO: 13619563
CUSTOMER ID: KS4022
CUSTOMER NAME: UNITY VILLAGE

RF SCHEDULE AND ANTENNA INSTALLATION

SHEET NUMBER: **C-401**
REVISION: **0**



1 TYPICAL ANTENNA DETAIL
-FOR REFERENCE ONLY
SCALE: N.T.S.



2 TYPICAL RRU DETAIL
-FOR REFERENCE ONLY
SCALE: N.T.S.



LAB

49030 Pontiac Trail, Suite 400
Wixom, Michigan 48393
PHONE: (248) 705-9212

REV.	DESCRIPTION	BY	DATE
A	PRELIM	RC	05/25/21
0	FINAL CD	RC	06/24/21

ATC SITE NUMBER:
306035

ATC SITE NAME:
**UNITY VILLAGE
MO 2**

SITE ADDRESS:
2150 NORTHWEST LOWENSTEIN DRIVE
LEES SUMMIT, MO 64081

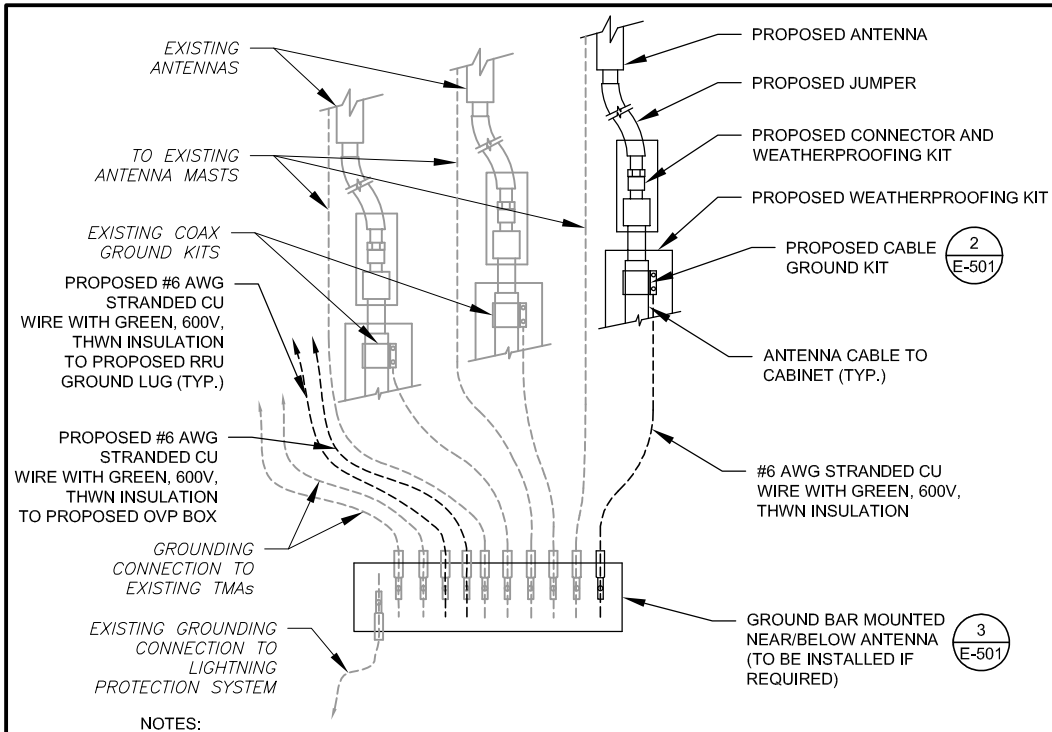
SEAL:



DATE DRAWN:	05/25/21
ATC JOB NO:	13619563
CUSTOMER ID:	KS4022
CUSTOMER NAME:	UNITY VILLAGE

CONSTRUCTION DETAILS

SHEET NUMBER:	REVISION:
C-501	0

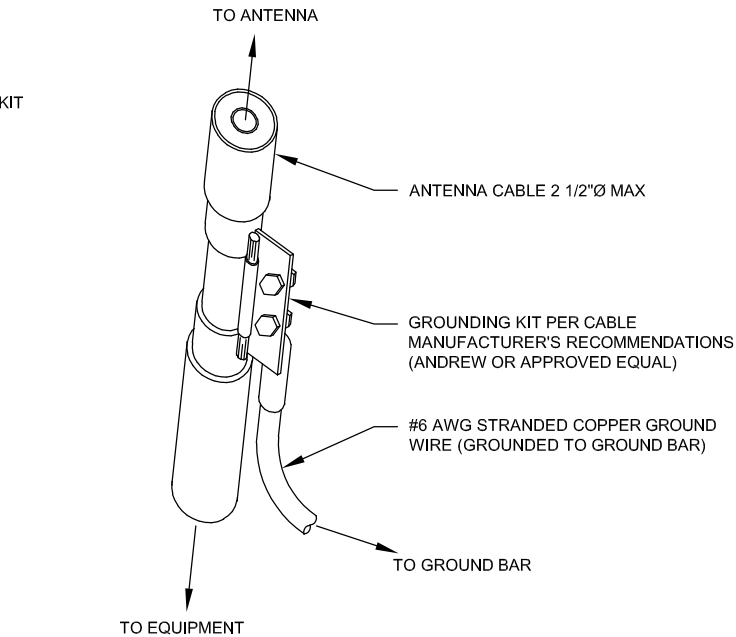


NOTES:

- THIS DETAIL IS INTENDED TO SHOW THE GENERAL GROUNDING REQUIREMENTS. SLIGHT ADJUSTMENTS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NEEDED AND INFORM THE CONSTRUCTION MANAGER OF ANY CONFLICTS.
- SITE GROUNDING SHALL COMPLY WITH AT&T MOBILITY GROUNDING STANDARDS, LATEST EDITION, AND COMPLY WITH AT&T MOBILITY GROUNDING CHECKLIST, LATEST VERSION. WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT THEY SHALL GOVERN.

1 TYPICAL ANTENNA GROUNDING DIAGRAM

SCALE: N.T.S.

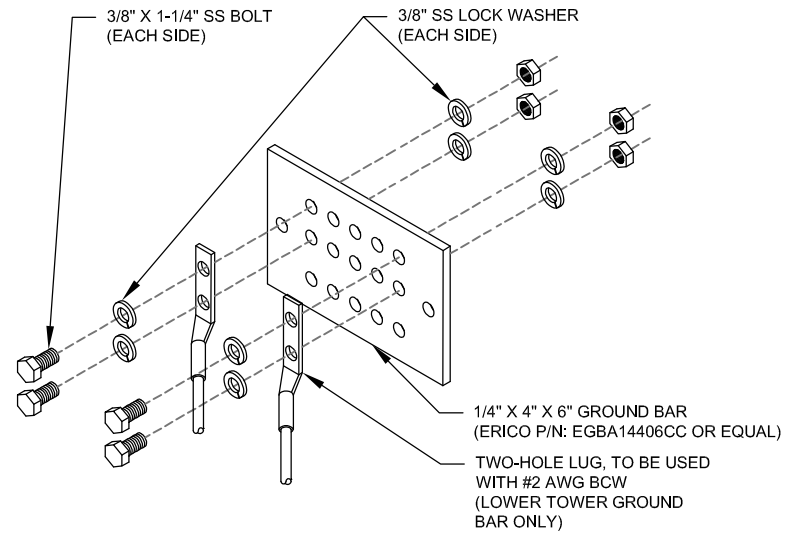


GROUND KIT NOTES:

- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
- CONTRACTOR SHALL PROVIDE WEATHERPROOFING KIT (ANDREW PART NUMBER 221213) AND INSTALL/TAPE PER MANUFACTURER'S SPECIFICATIONS.

2 TYP. CABLE GROUND KIT CONNECTION DETAIL

SCALE: N.T.S.

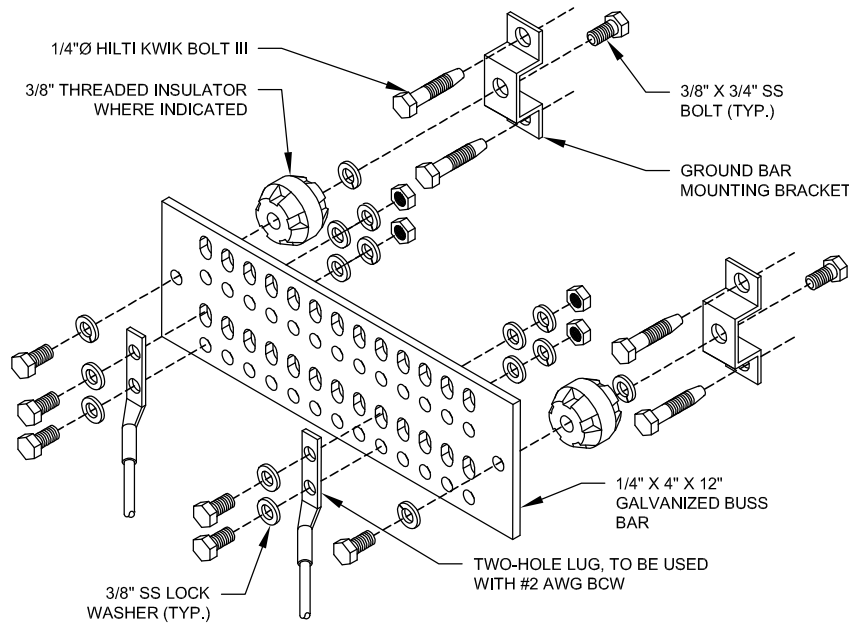


GROUND BAR NOTES:

- GROUND BAR KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
- GROUND BAR TO BE BONDED DIRECTLY TO TOWER.

3 TYP. TOWER GROUND BAR DETAIL

SCALE: N.T.S.

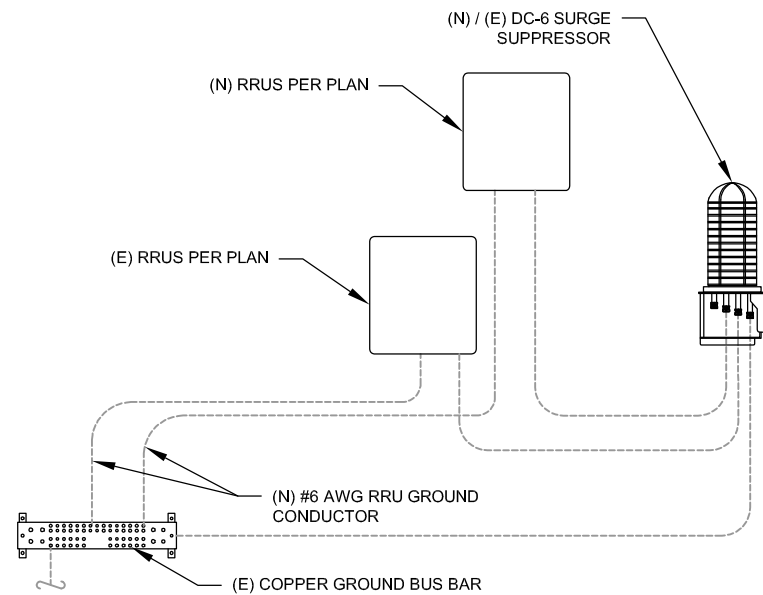


GROUND BAR NOTES

- GROUND KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
- GROUND BAR SHALL BE BOLTED TO STRUCTURAL MEMBER OR ANCHORED TO CONCRETE SLAB W/ HILTI KWIK BOLT III.

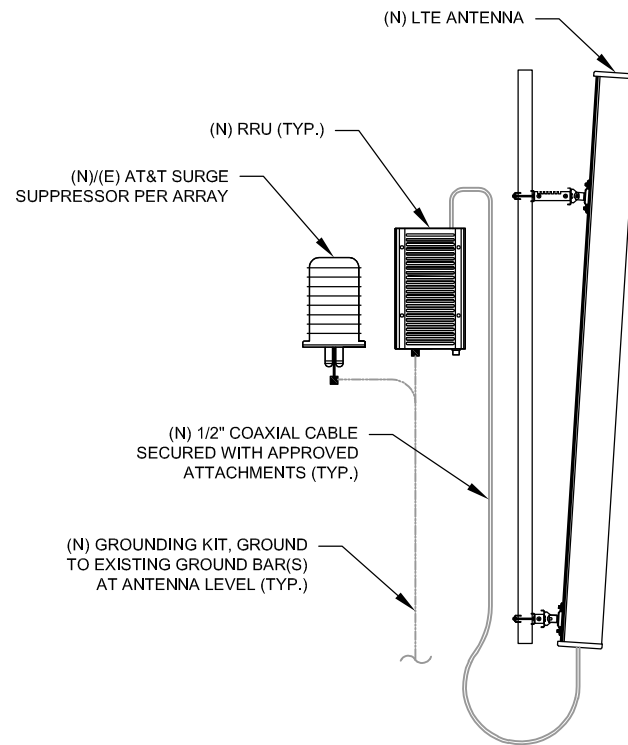
4 TYP. MAIN GROUND BAR DETAIL

SCALE: N.T.S.



5 TYP. RRU GROUNDING

SCALE: N.T.S.



6 TYP. ANTENNA/RRU GROUNDING

SCALE: N.T.S.



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REV.	DESCRIPTION	BY	DATE
A	PRELIM	RC	05/25/21
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C			
D			

ATC SITE NUMBER:

306035

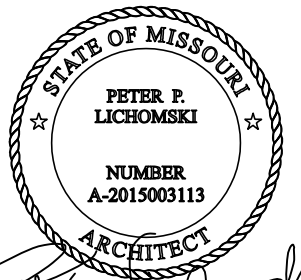
ATC SITE NAME:

UNITY VILLAGE
MO 2

SITE ADDRESS:

2150 NORTHWEST LOWENSTEIN DRIVE
LEES SUMMIT, MO 64081

SEAL:



DATE DRAWN:	05/25/21
ATC JOB NO:	13619563
CUSTOMER ID:	KS4022
CUSTOMER NAME:	UNITY VILLAGE

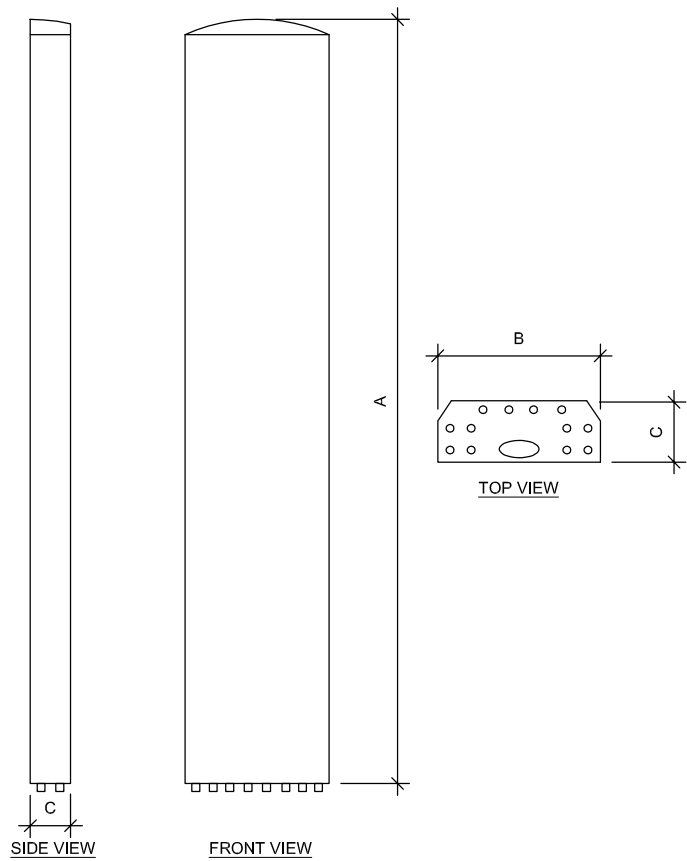
GROUNDING
DETAILS

SHEET NUMBER:

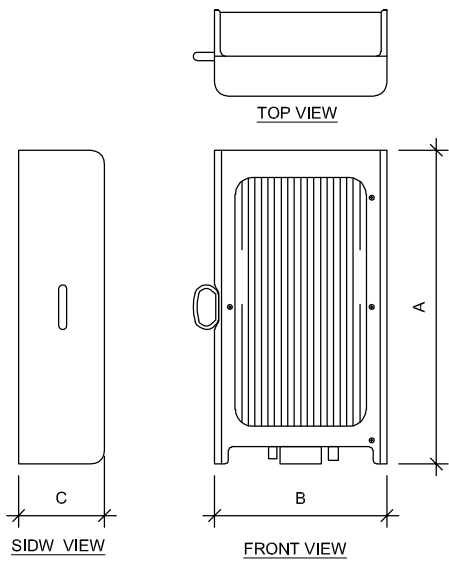
E-501

REVISION:

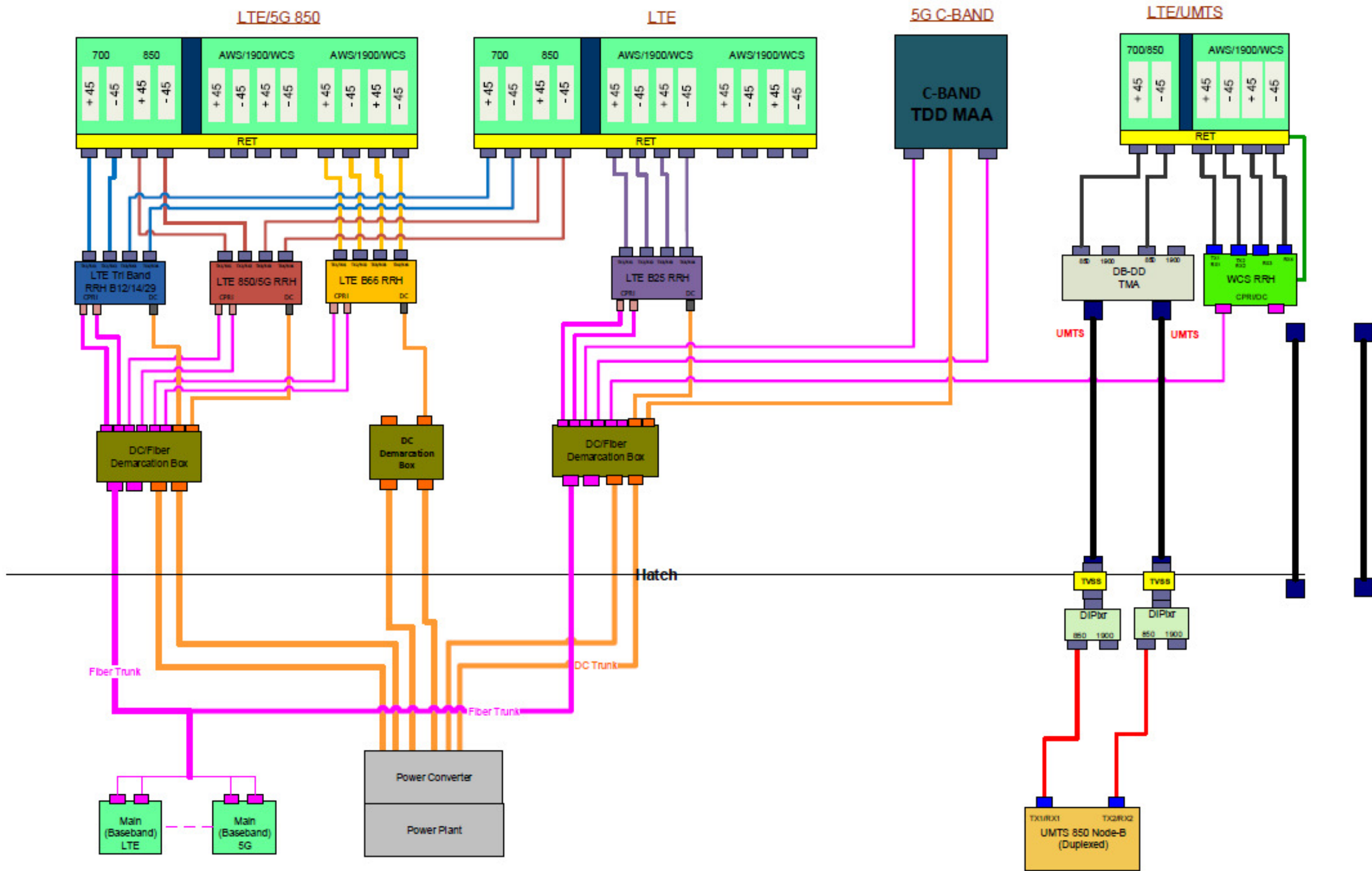
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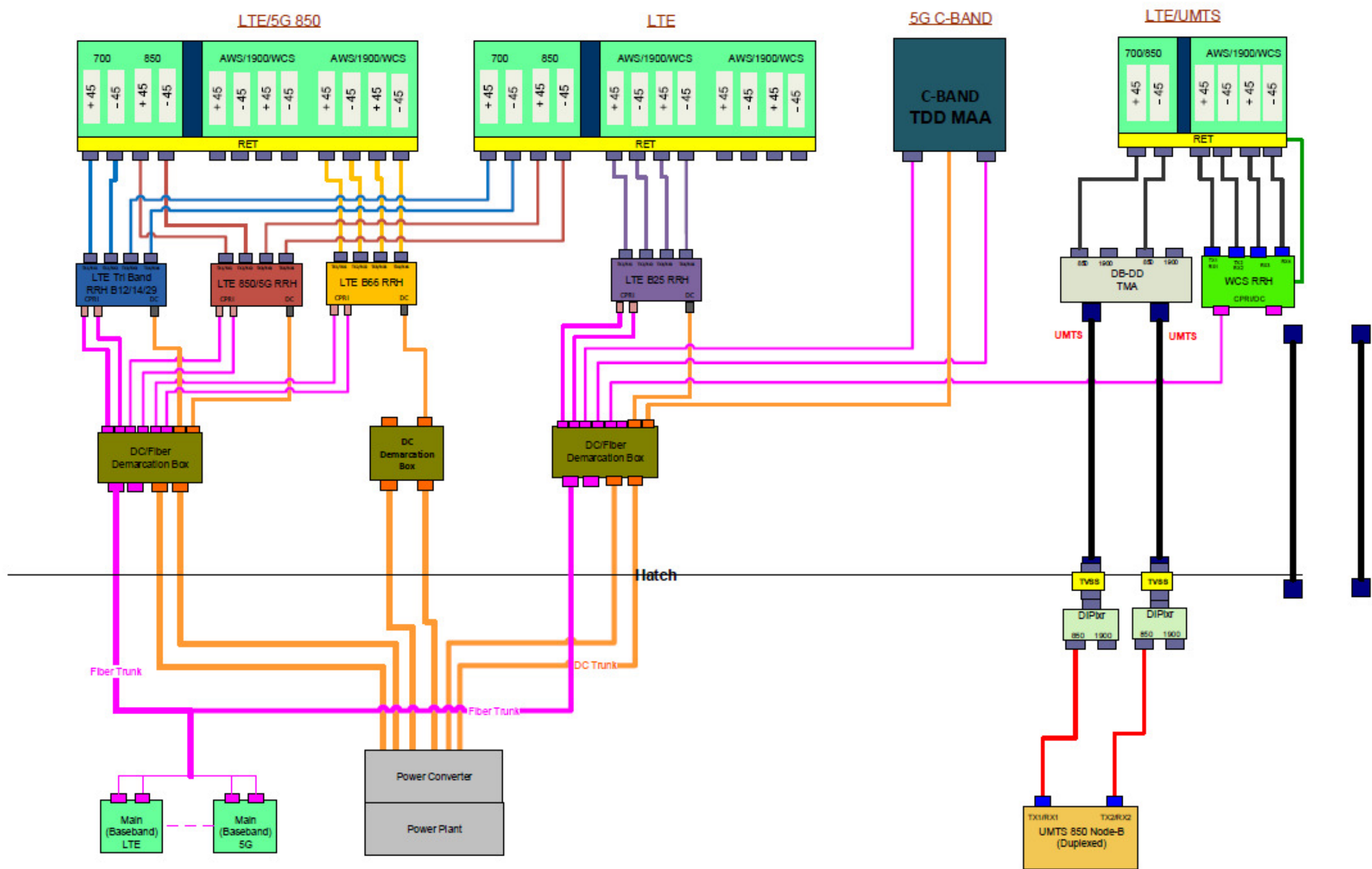


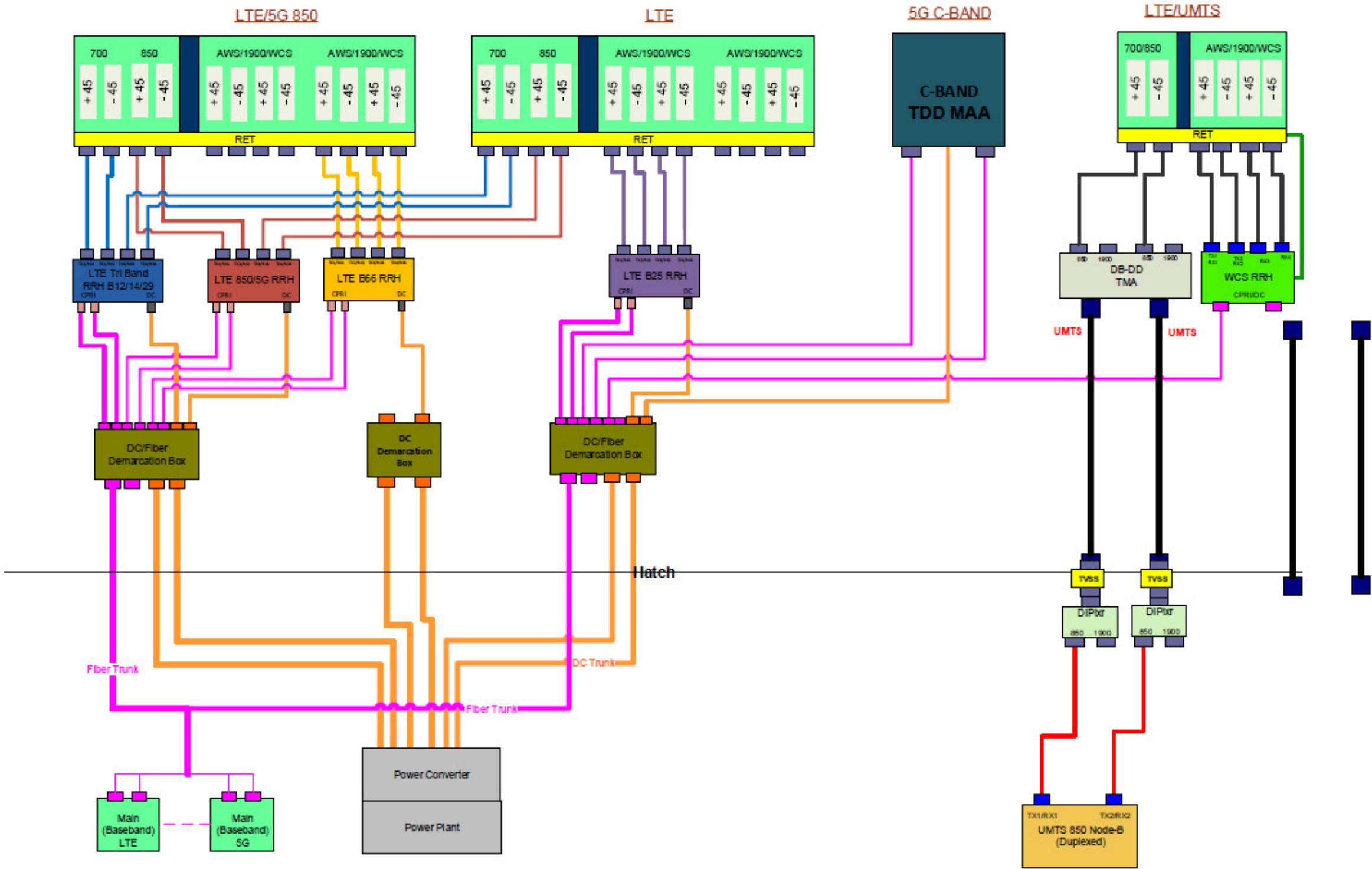
ANTENNA SPECIFICATIONS				
ANTENNA MODEL	A	B	C	WEIGHT (LBS)
AEQK	29.5"	17.2"	9.5"	99.2



RRU SPECIFICATIONS				
RRU MODEL	A	B	C	WEIGHT (LBS)
NOKIA AIRSCALE TRI RRH 4T4R B12/14/29 370 W AHLBBA	24.0"	14.1"	7.8"	94.8









Eng. Number 13619563_C8_01
May 20, 2021
Page 1

Mount Analysis Report

ATC Site Name : Unity Village MO 2, MO
ATC Site Number : 306035
Engineering Number : 13619563_C8_01
Mount Elevation : 150 ft
Carrier : AT&T Mobility
Carrier Site Name : UNITY VILLAGE
Carrier Site Number : KS4022
Site Location : 2150 NW LOWENSTEIN
Lees Summit, MO 64081-1905
38.93361269 , -94.41749129
County : Jackson
Date : May 20, 2021
Max Usage : 46%
Result : Pass

Prepared By:
Alan Samboy
Structural Engineer

Alan Samboy

Reviewed By:



COA: 2006031326

Introduction

The purpose of this report is to summarize results of the mount analysis performed for AT&T Mobility at 150 ft.

Supporting Documents

Specifications Sheet	Sabre C10857007C, dated February 29, 2016
Radio Frequency Data Sheet	RFDS ID #10000434, dated April 28, 2021
Reference Photos	Site photos from 2019

Analysis

This mount was analyzed using American Tower Corporation's Mount Analysis Program and RISA-3D.

Basic Wind Speed:	109 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	40 mph (3-Second Gust) w/ 1 1/2" radial ice concurrent
Codes:	ANSI/TIA-222-H
Exposure Category:	C
Risk Category:	II
Topographic Factor Procedure:	Method 2
Feature:	Flat
Crest Height (H):	0 ft
Crest Length (L):	0 ft
Spectral Response:	Ss = 0.099, S1 = 0.068
Site Class:	D - Stiff Soil
Live Loads:	Lm = 500 lbs, Lv = 250 lbs

Conclusion

Based on the analysis results, the antenna mount meets the requirements per the applicable codes listed above. The mount can support the equipment as described in this report.

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

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. PLEASE REFERENCE THE MOUNT ANALYSIS REPORT FOR COMPLETE MOUNT ANALYSIS CALCULATIONS AND DETAILS. SUPPLEMENTAL PAGES INCLUDED IN THE CONSTRUCTION DRAWINGS ARE FOR REFERENCE ONLY. GENERAL CONTRACTOR IS TO VERIFY THEY HAVE THE MOST RECENT MOUNT ANALYSIS PRIOR TO CONTRUCTION.

SUPPLEMENTAL

SHEET NUMBER:
R-605

REVISION:
0



Application Loading

Mount Centerline (ft)	Equipment Centerline (ft)	Qty	Equipment Manufacturer & Model
162.0	162.0	1	Andrew Microwaves UHX6-105
150.0	151.0	3	Nokia AEQK AirScale MAA 64T64R 192AE n77 200W
		6	Quintel QS86512-2
		3	Commscope SBNHH-1D65C
		3	Powerwave Allgon TT08-19DB111-001
		1	Raycap DC6-48-60-18-8F
		1	Raycap DC6-48-60-0-8F
		1	Raycap DC6-48-60-18-8F ("Squid")
		3	Nokia AHBBA
		3	Alcatel-Lucent RRH4X25-WCS
		3	Nokia AirScale RRH 4T4R B5 160W AHCA
		3	Alcatel-Lucent B66A RRH4x45-4R w/ Solar Shield
		3	Alcatel-Lucent B25 RRH4x30

Structure Usages

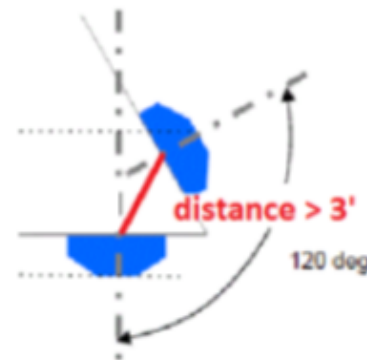
Structural Component	Controlling Usage	Pass/Fail
Horizontals	45%	Pass
Verticals	20%	Pass
Diagonals	17%	Pass
Tie-Backs	4%	Pass
Mount Pipes	46%	Pass

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SUPPLEMENTAL

RF REQUIREMENTS FOR 700 B14 FIRSTNET, 700 B12, 700D B29 ANTENNA SEPARATION

- ❑ Horizontal separation (side to side of antenna): $\geq 3'$
- ❑ Vertical separation (between the tips of the antennas): $> 3'$
- ❑ Inter-sector separation: $> 3'$ between the center of the antenna backplanes.



- ❑ Please note additional horizontal separation may be required if B14 antennas azimuth are different from others or antennas are severely angled with respect to the mount.
- ❑ Typical 3' horizontal separation can tolerate skew angle up to 6° .



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SUPPLEMENTAL

SHEET NUMBER:

R-607

REVISION:

0