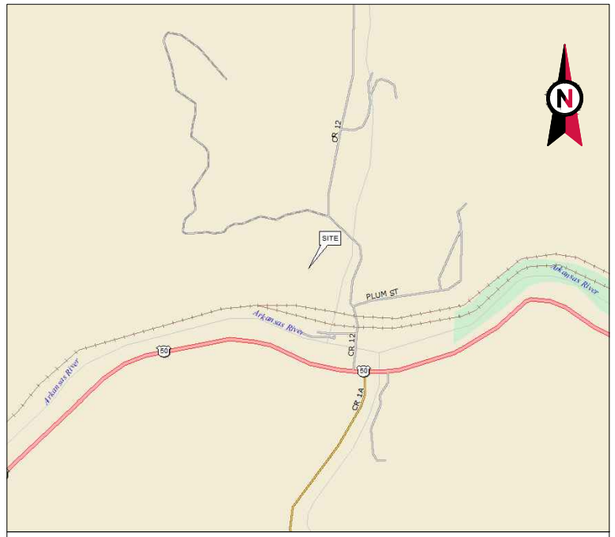

VICINITY MAP

AMERICAN TOWER®

ATC SITE NAME: COTOPAXI II
ATC SITE NUMBER: 370593
AT&T MOBILITY SITE NAME: COTOPAXI
AT&T MOBILITY SITE ID: SICO001561
AT&T MOBILITY FA LOCATION CODE: 10547898
AT&T MOBILITY USID: 132303
SITE ADDRESS: 345 FREMONT COUNTY RD 012
COTOPAXI, CO 81223

LOCATION MAP

AT&T MOBILITY ANTENNA AMENDMENT PLAN

AT&T MOBILITY IWM NUMBER(S): **WSUTH0060835**, WSUTH0060807, WSUTH0060527, WSUTH0060674, WSUTH0060541, WSUTH0060560.

COMPLIANCE CODE

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.

1. 2018 INTERNATIONAL BUILDING CODE (IBC)
2. 2018 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
3. LOCAL BUILDING CODE
4. CITY/COUNTY ORDINANCES

UTILITY COMPANIES

POWER COMPANY: SANGRE DE CRISTO ELECTRIC ASSOC
PHONE: (719) 395-2412

TELEPHONE COMPANY: CENTURYLINK
PHONE: (800) 244-1111

811 Know what's below. Call before you dig.

PROJECT SUMMARY

SITE ADDRESS:

345 FREMONT COUNTY RD 012

COTOPAXI, CO 81223

COUNTY: FREMONT

GEOGRAPHIC COORDINATES:

LATITUDE: 38.37418

LONGITUDE: -105.69099

GROUND ELEVATION: 6,423' AMSL

ZONING INFORMATION:

JURISDICTION: FREMONT COUNTY

PARCEL ID: R033491

PROJECT TEAM

TOWER OWNER:

AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

APPLICANT:

AT&T MOBILITY

ENGINEER:

TEP
326 TRYON RD
RALEIGH, NC 27603

PROPERTY OWNER:

COTOPAXI CONSOLIDATED SCHOOLS
P O BOX 10
COTOPAXI, CO 81223-0010

PROJECT LOCATION DIRECTIONS

FROM COTOPAXI TAKE CR 12 TO THE NORTH, GO PAST THE RAILROAD TRACKS AND THE SCHOOLS. ONCE PAST THE SCHOOL ON THE LEFT THERE IS A GRAVEL ROAD TOWARDS THE CEMETARY, TAKE THAT TO THE SITE IN THE BACK OF THE SCHOOL.

PROJECT DESCRIPTION

THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:

TOWER WORK:
REMOVE (6) ANTENNA(S), (6) RRU(s), (3) TMA(s), (1) SQUID(S), (1) 0.39" (10mm) FIBER TRUNK(S), AND (6) 7/8" COAX CABLE(S).

INSTALL (6) ANTENNA(S), (9) RRU(s), (3) BACK-TO-BACK PIPE MOUNT KIT(S), (6) MOUNTING PIPE(S), (3) BACK TO BACK RRU BRACKET(S), (1) SQUID(S), (1) HOISTING ANCHOR(S), (2) CABLE HOISTING GRIP(S),(1) 0.41" (10.3mm) FIBER TRUNK(S), (1) 0.96" (24.3mm) 6 AWG 6 DC POWER TRUNK(S), AND (1) 2" CARFLEX NON-METALLIC CONDUIT(S).

EXISTING (2) 0.88" (22.4mm) 8 AWG 6 DC POWER TRUNK(S) AND (2) 2" CARFLEX NON-METALLIC CONDUIT(S) TO REMAIN.

GROUND WORK:
REMOVE (1) ALPHA STD 1430A +24VDC PLANT(S), (1) BATTERY RACK(S), (6) 24-48/2KW CONVERTER(S), (9) 24-3.6KW RECTIFIER(S), (3) 15A LTE 700 DC BREAKER(S), (3) 20A LTE 2100 DC BREAKER(S), (1) 20A LTE BBU DC BREAKER(S), AND (1) 5A SMMI DC BREAKER(S).

INSTALL (1) VERTIV NETSURE 7100 -48VDC/-58VDC POWER PLANT(S), (1) VERTIV CONVERTER FOR LEGACY +24VDC LOAD(S), (8) HE 2KW -48VDC RECTIFIER(S), (4) GS PORTALAC PYL12V185FT BATTERY(IES), (2) 6651 BBU(s), (1) 6672 BBU(s), (1) 6601 SITE CONTROLLER(S), (1) FIBER SLACK BOX(ES), (3) 35A 4494 B14/B29 DC BREAKER(S), (3) 50A 4890 B25/B66 DC BREAKER(S), (3) 50A 4490 B5/B12A DC BREAKER(S), (2) 15A 6651 BBU DC BREAKER(S), (1) 15A 6672 BBU DC BREAKER(S), AND (1) 25A 6601 SITE CONTROLLER DC BREAKER(S).

PROJECT NOTES

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.
6. THE PROJECT DEPICTED IN THESE PLANS QUALIFIES AS AN ELIGIBLE FACILITIES REQUEST ENTITLED TO EXPEDITED REVIEW UNDER 47 U.S.C. § 1455(A) AS A MODIFICATION OF AN EXISTING WIRELESS TOWER THAT INVOLVES THE COLLOCATION, REMOVAL, AND/OR REPLACEMENT OF TRANSMISSION EQUIPMENT THAT IS NOT A SUBSTANTIAL CHANGE UNDER CFR § 1.61000 (B)(7).

SHEET INDEX

SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
G-001	TITLE SHEET	0	06/26/25	RMJ
G-002	GENERAL NOTES	0	06/26/25	RMJ
C-001	OVERALL SITE PLAN	0	06/26/25	RMJ
C-101	DETAILED SITE PLAN	0	06/26/25	RMJ
C-102	DETAILED EQUIPMENT LAYOUT	0	06/26/25	RMJ
C-201	TOWER ELEVATION	0	06/26/25	RMJ
C-401	ANTENNA INSTALLATION	0	06/26/25	RMJ
C-402	ANTENNA SCHEDULE	0	06/26/25	RMJ
C-501	CONSTRUCTION DETAILS	0	06/26/25	RMJ
E-101	ELECTRICAL PANELS	0	06/26/25	RMJ
E-102	ONE-LINE DIAGRAM	0	06/26/25	RMJ
E-103	GROUNDING PLANS	0	06/26/25	RMJ
E-501	GROUNDING DETAILS	0	06/26/25	RMJ
R-601 - R-610	SUPPLEMENTAL			

AMERICAN TOWER®

PLANS PREPARED BY:

TEP

326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net

REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	APM	05/29/25
0	100% CONSTRUCTION	RMJ	06/26/25

ATC SITE NUMBER: 370593

ATC SITE NAME: COTOPAXI II

AT&T MOBILITY SITE NUMBER:
SICO001561

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COTOPAXI

SITE ADDRESS:
345 FREMONT COUNTY RD 012
COTOPAXI, CO 81223

TEP OPCO, LLC

COLORADO LICENSED
NICHOLAS M. CONSTANTINE
45607
PROFESSIONAL ENGINEER
6/26/25

SEAL: 06/26/25

AT&T

DATE DRAWN:	06/26/25
ATC JOB NO:	15312118
CUSTOMER NAME:	COTOPAXI
CUSTOMER ID:	SICO001561

TITLE SHEET

SHEET NUMBER:	REVISION:
G-001	0

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. WHEN THE PROJECT SCOPE REQUIRES THE USE OF THE SAFETY CLIMB, THE GENERAL CONTRACTOR SHALL ENSURE THE SAFETY CLIMB IS FREE OF OBSTRUCTIONS, NOT RUBBING ON OR TRAPPED BY ANY INSTALLED CUSTOMER EQUIPMENT, IS VISUALLY TAUT, MEETS MANUFACTURER INSTALLATION SPECIFICATIONS, AND IS FIRMLY SECURED AT ALL CABLE GUIDE LOCATIONS UPON PROJECT COMPLETION.
29. COMPLETION OF PROJECT SHALL NOT OBSTRUCT, TRAP, LOOSEN, OR OTHERWISE CAUSE FAILURE TO MEET MANUFACTURER INSTALLATION REQUIREMENTS FOR THE SAFETY CLIMB.
30. 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.
31. 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.
32. 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.
33. 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.
34. 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.
35. 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 OF COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL.
   - B. INSTALL ANTENNAS AS INDICATED 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 GREEN 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.

AMERICAN TOWER®

PLANS PREPARED BY:

TEP

326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net

REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	APM	05/29/25
0	100% CONSTRUCTION	RMJ	06/26/25

ATC SITE NUMBER: 370593

ATC SITE NAME: COTOPAXI II

AT&T MOBILITY SITE NUMBER:

SICO001561

AT&T MOBILITY SITE NAME:

COTOPAXI

SITE ADDRESS:
345 FREMONT COUNTY RD 012
COTOPAXI, CO 81223

TEP OPCO, LLC

SEAL: 06/26/25

AT&T

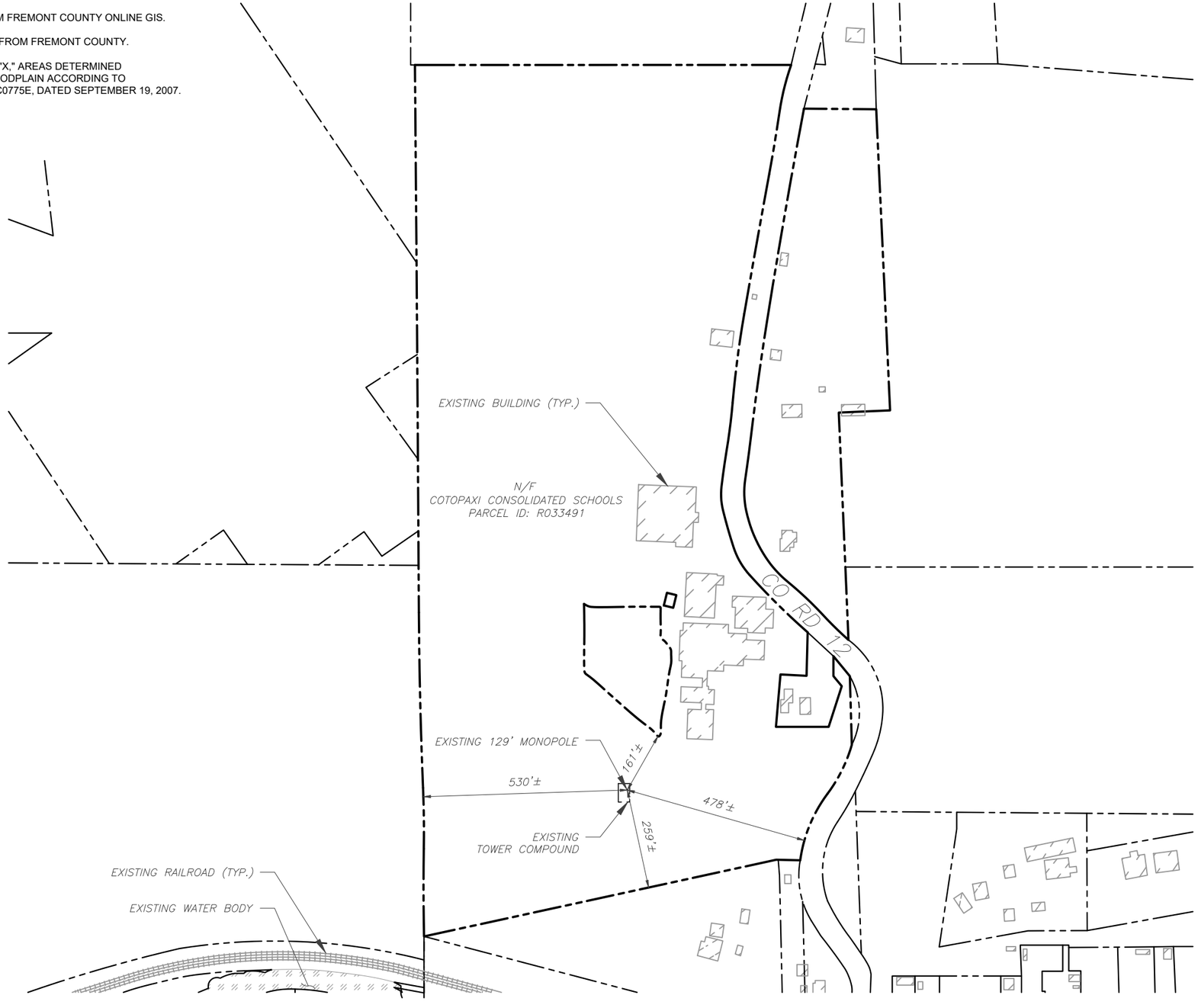
DATE DRAWN:	06/26/25
ATC JOB NO:	15312118
CUSTOMER NAME:	COTOPAXI
CUSTOMER ID:	SICO001561

GENERAL NOTES

SHEET NUMBER:	REVISION:
G-002	0

NOTES:

1. BOUNDARY LINES OBTAINED FROM FREMONT COUNTY ONLINE GIS.
2. ZONING INFORMATION OBTAINED FROM FREMONT COUNTY.
3. THE TOWER IS LOCATED IN ZONE "X," AREAS DETERMINED IN THE 0.2% ANNUAL CHANCE FLOODPLAIN ACCORDING TO FEMA COMMUNITY PANEL #08043C0775E, DATED SEPTEMBER 19, 2007.



LEGEND

- EXISTING PROPERTY LINE
- EXISTING ADJACENT PROPERTY LINE
- EXISTING LEASE AREA

1 OVERALL SITE PLAN
SCALE: 1" = 300'

0 300' 600'

SCALE: 1"=300' (11X17)
1"=150' (22X34)

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TEP OPCO, LLC

COLORADO LICENSED
NICHOLAS M. CONSTANTINE
45607
PROFESSIONAL ENGINEER

SEAL: 06/26/25

AT&T

DATE DRAWN:	06/26/25
ATC JOB NO:	15312118
CUSTOMER NAME:	COTOPAXI
CUSTOMER ID:	SICO001561

OVERALL SITE PLAN

SHEET NUMBER:	REVISION:
C-001	0

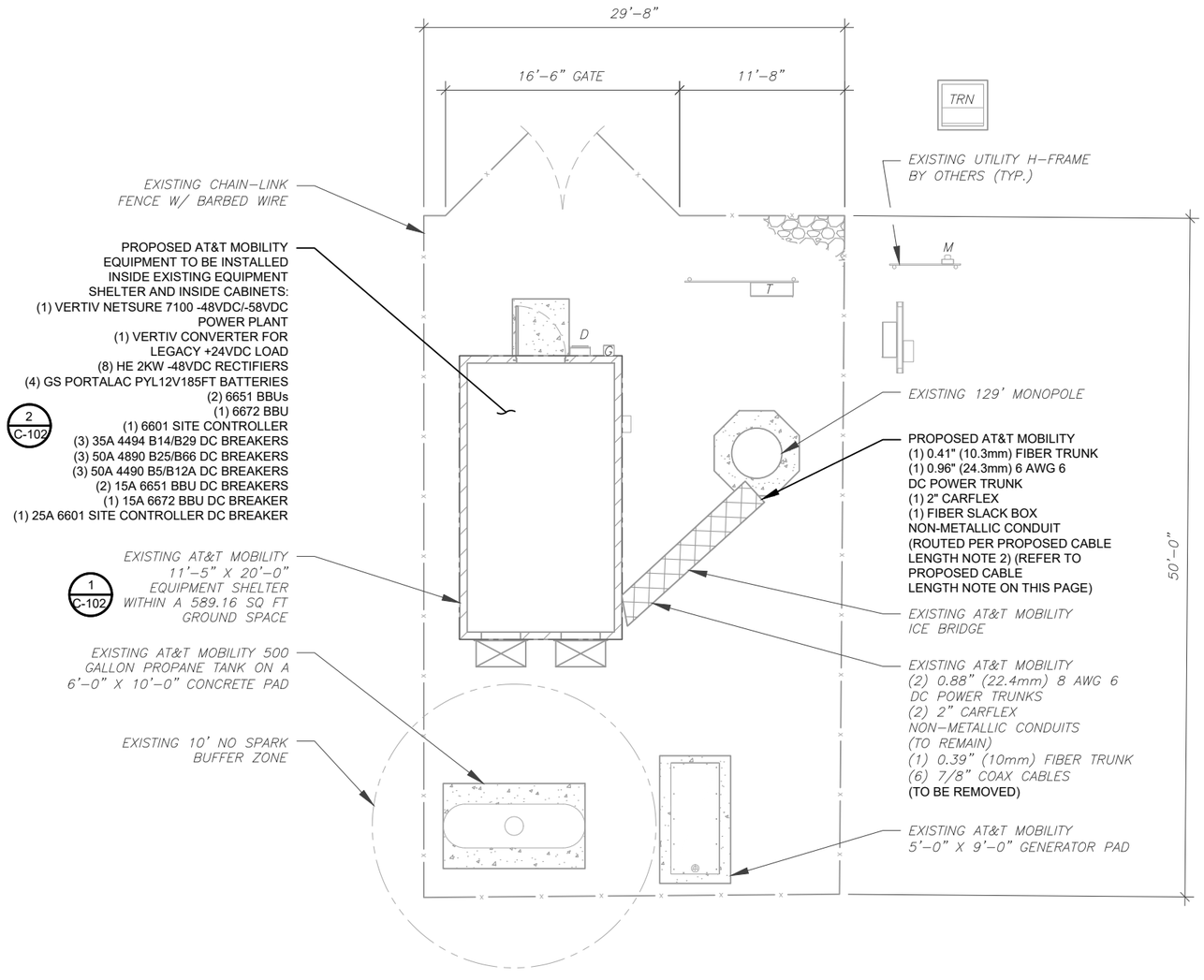
SITE PLAN NOTES:

1. 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.

2. 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 RECEPTACLE
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



1 DETAILED SITE PLAN
SCALE: 1" = 10'

0 10' 20'

SCALE: 1"=10' (11X17)
1"=5' (22X34)

PROPOSED CABLE NOTES:

1. ESTIMATED LENGTH OF PROPOSED CABLE IS **160'**. 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.
2. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. IF ADEQUATE SPACE EXISTS, ROUTE CABLES THROUGH ENTRY PORT HOLE, UP INSIDE OF MONOPOLE, AND THROUGH EXIT PORT HOLE. IF ROUTING OUTSIDE THE MONOPOLE, ATTACH CABLES USING STAND-OFF ADAPTERS MOUNTED TO TOWER USING STAINLESS STEEL BANDING. ADEQUATELY SECURE CABLES USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER.

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ATC SITE NUMBER: 370593

ATC SITE NAME: COTOPAXI II

AT&T MOBILITY SITE NUMBER:

SICO001561

AT&T MOBILITY SITE NAME:

COTOPAXI

SITE ADDRESS:
345 FREMONT COUNTY RD 012
COTOPAXI, CO 81223

TEP OPCO, LLC

COLORADO LICENSED
NICHOLAS M. CONSTANTINE
45607
PROFESSIONAL ENGINEER

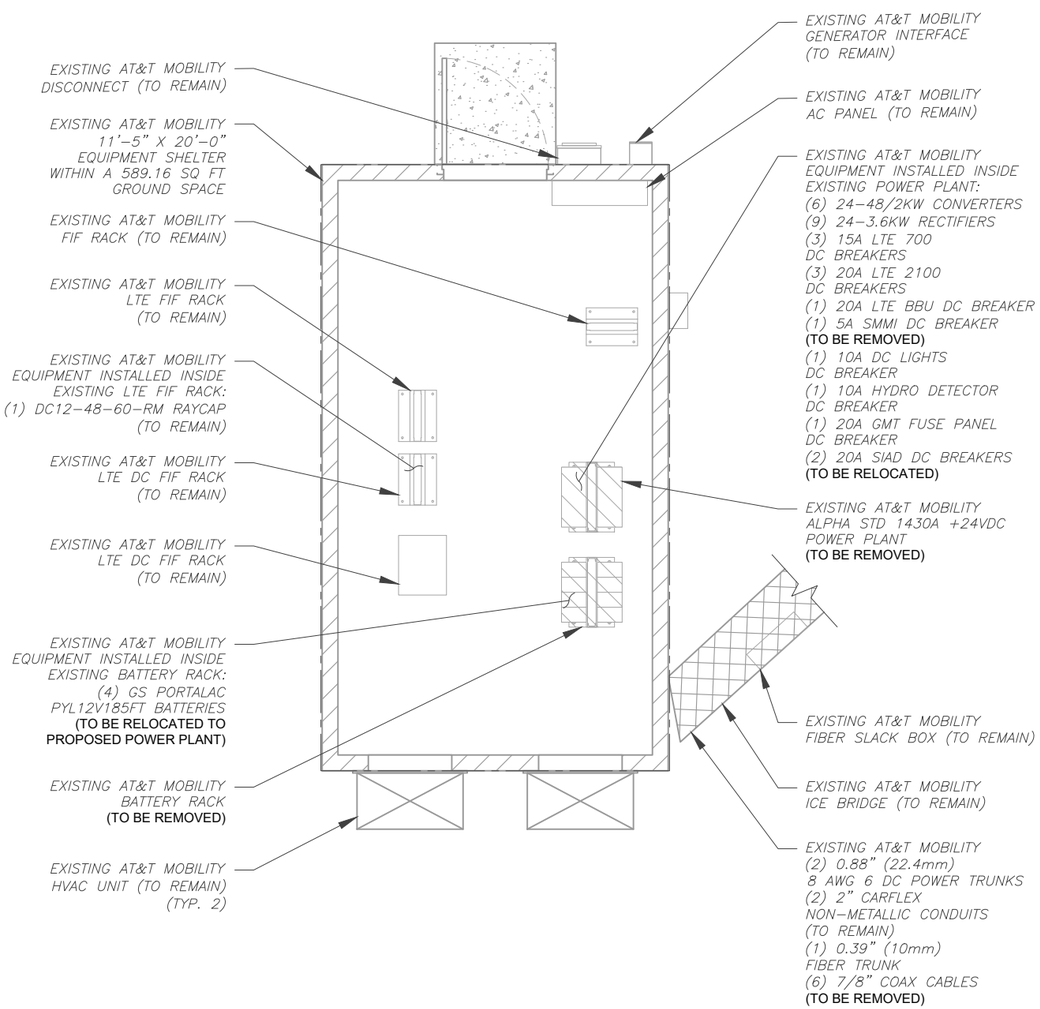
SEAL: 06/26/25

AT&T

DATE DRAWN:	06/26/25
ATC JOB NO:	15312118
CUSTOMER NAME:	COTOPAXI
CUSTOMER ID:	SICO001561

DETAILED SITE PLAN

SHEET NUMBER:	REVISION:
C-101	0

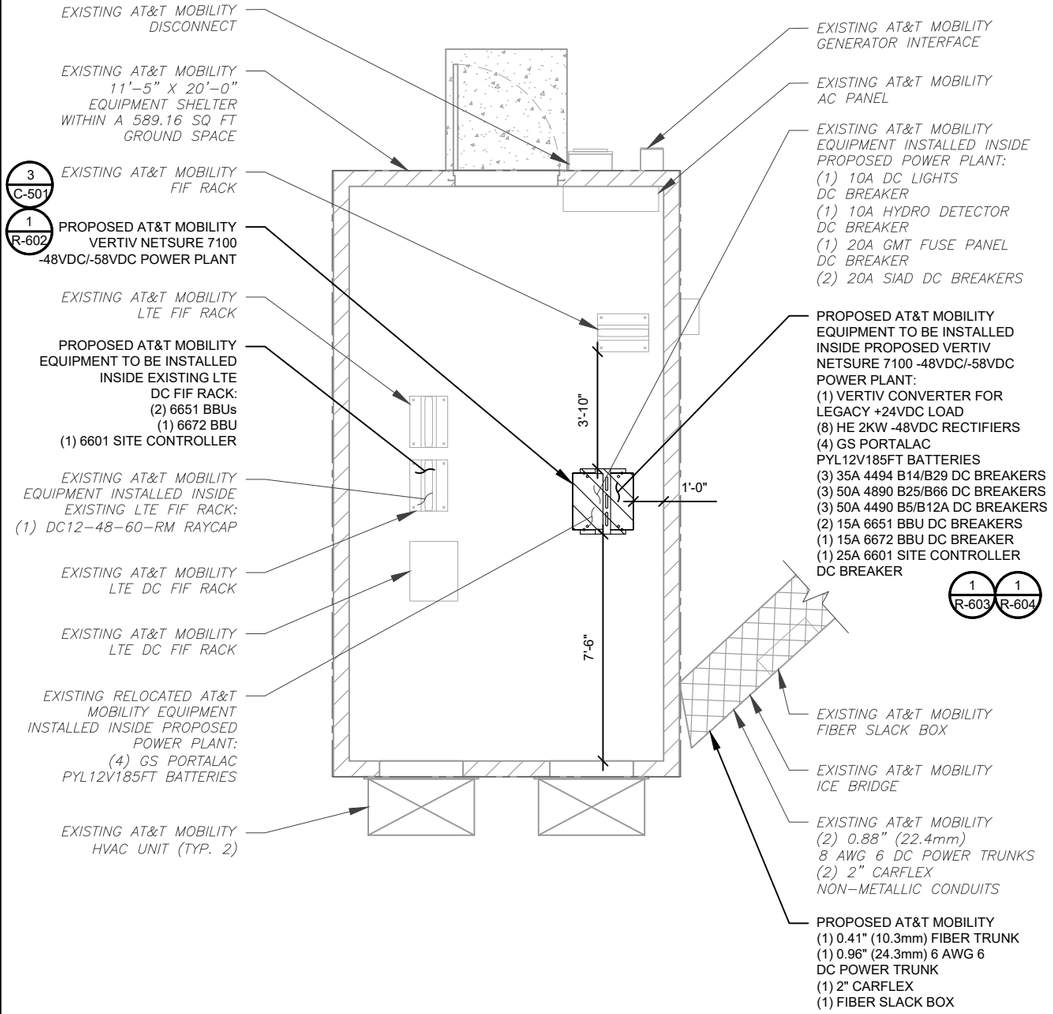


1 EXISTING EQUIPMENT SHELTER LAYOUT

SCALE: 1" = 5'

0 5' 10'

SCALE: 1"=5' (11X17)
1"=2.5' (22X34)



2 PROPOSED EQUIPMENT SHELTER LAYOUT

SCALE: 1" = 5'

0 5' 10'

SCALE: 1"=5' (11X17)
1"=2.5' (22X34)

AMERICAN TOWER®

PLANS PREPARED BY:

TEP

326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net

REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	APM	05/29/25
0	100% CONSTRUCTION	RMJ	06/26/25

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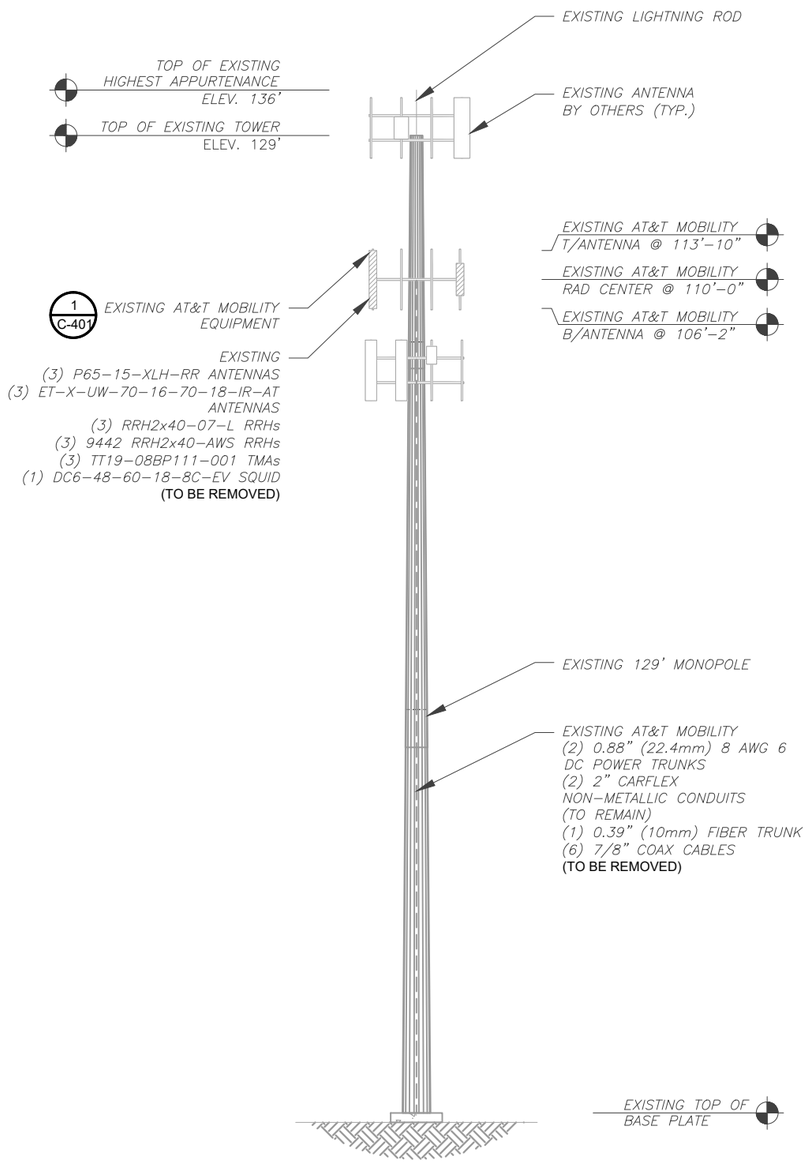
DATE DRAWN:	06/26/25
ATC JOB NO:	15312118
CUSTOMER NAME:	COTOPAXI
CUSTOMER ID:	SICO001561

DETAILED EQUIPMENT LAYOUT

SHEET NUMBER:	REVISION:
C-102	0



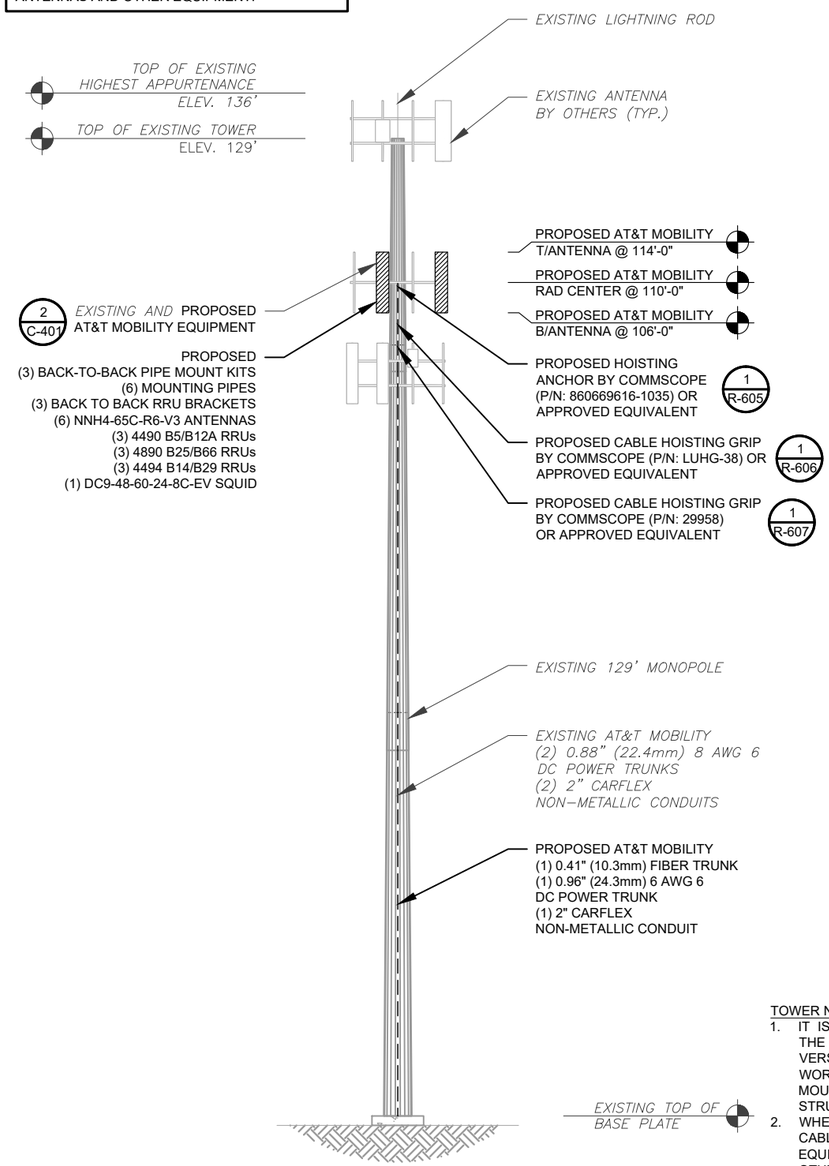
1 EXISTING TOWER ELEVATION

SCALE: 1" = 20'

0 20' 40'

SCALE: 1"=20' (11X17)
1"=10' (22X34)

PER MOUNT ANALYSIS COMPLETED BY POWER OF DESIGN, DATED MAY 19, 2025, THE EXISTING MOUNT MUST BE MODIFIED TO ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION PROPOSED IN THE MOUNT ANALYSIS, INCLUDED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT.



2 PROPOSED TOWER ELEVATION

SCALE: 1" = 20'

0 20' 40'

SCALE: 1"=20' (11X17)
1"=10' (22X34)

DETAILED SOW:
TOPSIDE
-REMOVE (3) P65-15-XLH-RR ANTENNAS
-REMOVE (3) ET-X-UW-70-16-70-18-IR-AT ANTENNAS
-REMOVE (3) RRH2x40-07-L RRHs
-REMOVE (3) 9442 RRH2x40-AWS RRHs
-REMOVE (3) TT19-08BP111-001 TMAs TMAs
-REMOVE (1) DC6-48-60-18-8C-EV SQUID
-REMOVE (1) 0.39" (10mm) FIBER TRUNK
-REMOVE (6) 7/8" COAX CABLES
-INSTALL (6) NNH4-65C-R6-V3 ANTENNAS
-INSTALL (3) 4490 B5/B12A RRUs
-INSTALL (3) 4890 B25/B66A RRUs
-INSTALL (3) 4494 B14/B29 RRUs
-INSTALL (3) BACK-TO-BACK PIPE MOUNT KITS
-INSTALL (6) MOUNTING PIPES
-INSTALL (3) BACK TO BACK RRU BRACKETS
-INSTALL (1) DC9-48-60-24-8C-EV SQUID
-INSTALL (1) 0.41" (10.3mm) FIBER TRUNK
-INSTALL (1) 0.96" (23.4mm) 6 AWG 6 DC POWER TRUNK
-INSTALL (1) 2" CARFLEX NON-METALLIC CONDUIT
-RETAIN (2) 0.74" (18.7mm) 8 AWG 7 DC POWER TRUNKS
-RETAIN (2) 0.88" (22.4mm) 8 AWG 6 DC POWER TRUNKS
-RETAIN (3) (2) 2" CARFLEX NON-METALLIC CONDUITS
TEST NEW LINES PER MARKET SPEC
LABEL NEW CABLES PER MARKET SPEC
GROUND NEW EQUIPMENT PER MARKET SPEC
BOTTOMSIDE
-REMOVE (1) ALPHA STD 1430A +24VDC PLANT
-REMOVE (1) BATTERY RACK
-REMOVE (6) 24-48/2KW CONVERTERS
-REMOVE (9) 24-3.6KW RECTIFIERS
-REMOVE (3) 15A LTE 700 DC BREAKERS
-REMOVE (3) 20A LTE 2100 DC BREAKERS
-REMOVE (1) 20A LTE BBU DC BREAKER
-REMOVE (1) 5A SMMI DC BREAKER
-RELOCATE (4) GS PORTALAC PYL12V185FT BATTERIES
-RELOCATE (1) 10A DC LIGHTS DC BREAKER
-RELOCATE (1) 10A HYDRO DETECTOR DC BREAKER
-RELOCATE (1) 20A GMT FUSE PANEL DC BREAKER
-RELOCATE (2) 20A SIAD DC BREAKERS
-INSTALL (1) VERTIV NETSURE 7100 -48VDC/-58VDC POWER PLANT
-INSTALL (1) VERTIV CONVERTER FOR LEGACY +24VDC LOAD
-INSTALL (8) HE 2KW -48VDC RECTIFIERS
-INSTALL (4) GS PORTALAC PYL12V185FT BATTERIES
-INSTALL (2) 6651 BBUs
-INSTALL (1) 6672 BBU
-INSTALL (1) 6601 SITE CONTROLLER
-INSTALL (1) FIBER SLACK BOX
-INSTALL (3) 35A 4494 B14/B29 DC BREAKERS
-INSTALL (3) 50A 4890 B25/B66 DC BREAKERS
-INSTALL (3) 50A 4490 B5/B12A DC BREAKERS
-INSTALL (2) 15A 6651 BBU DC BREAKERS
-INSTALL (1) 15A 6672 BBU DC BREAKER
-INSTALL (1) 25A 6601 SITE CONTROLLER DC BREAKER
CONTROLLER DC BREAKER TEST NEW LINES PER MARKET SPEC LABEL NEW CABLES PER MARKET SPEC
GROUND NEW EQUIPMENT PER MARKET SPEC

TOWER NOTES:
1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE PROJECT MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
2. WHERE APPLICABLE, ALL NEW ANTENNAS, EQUIPMENT, MOUNTS, CABLING, ETC. SHALL BE PAINTED/SOCKED TO MATCH EXISTING EQUIPMENT IN ACCORDANCE WITH FAA, JURISDICTION, AND/OR OTHER LOCAL REQUIREMENTS.
3. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. IF ADEQUATE SPACE EXISTS, ROUTE CABLES THROUGH ENTRY PORT HOLE, UP INSIDE OF MONOPOLE, AND THROUGH EXIT PORT HOLE. IF ROUTING OUTSIDE THE MONOPOLE, ATTACH CABLES USING STAND-OFF ADAPTERS MOUNTED TO TOWER USING STAINLESS STEEL BANDING. ADEQUATELY SECURE CABLES USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER.
4. TOWER ELEVATION DEPICTION MAY NOT REFLECT ALL EQUIPMENT INCLUDED IN STRUCTURAL ANALYSIS. REFER TO STRUCTURAL ANALYSIS FOR FULL TOWER LOADING.

AMERICAN TOWER®

PLANS PREPARED BY:

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REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	APM	05/29/25
0	100% CONSTRUCTION	RMJ	06/26/25

ATC SITE NUMBER: 370593

ATC SITE NAME: COTOPAXI II

AT&T MOBILITY SITE NUMBER:

SICO001561

AT&T MOBILITY SITE NAME:

COTOPAXI

SITE ADDRESS:
345 FREMONT COUNTY RD 012
COTOPAXI, CO 81223

TEP OPCO, LLC

SEAL: 06/26/25

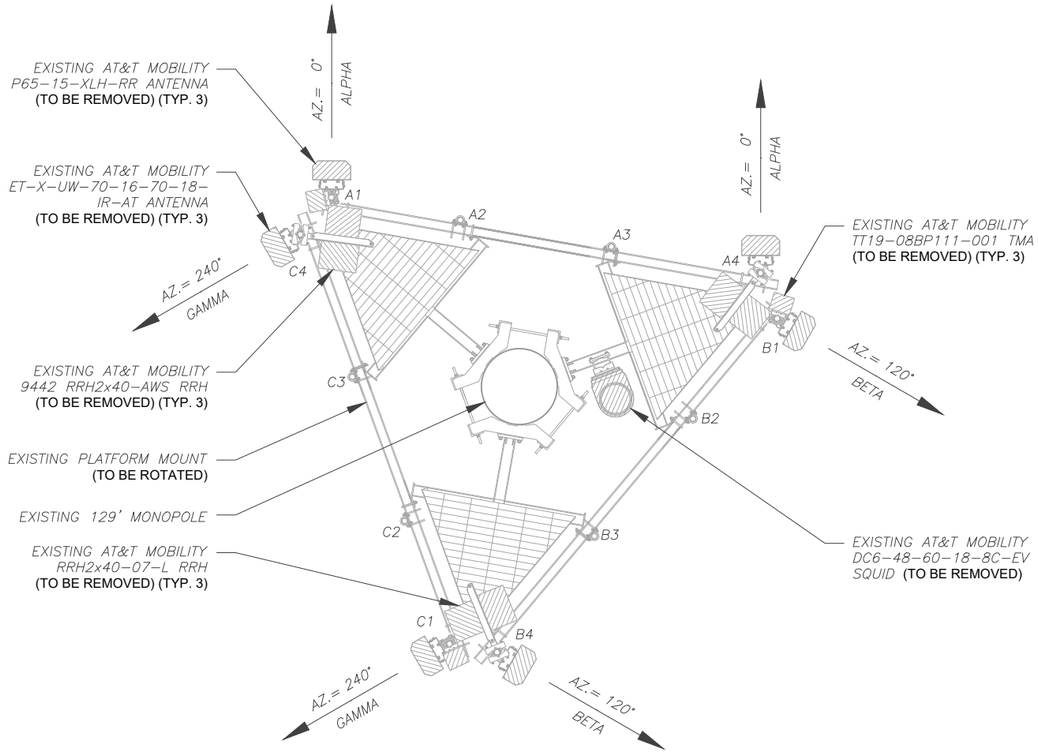
AT&T

DATE DRAWN:	06/26/25
ATC JOB NO:	15312118
CUSTOMER NAME:	COTOPAXI
CUSTOMER ID:	SICO001561

TOWER ELEVATION

SHEET NUMBER:	REVISION:
C-201	0

EXISTING CONFIGURATIONS ARE BASED ON RFDS.
CONTRACTOR TO VERIFY EXISTING CONDITIONS.



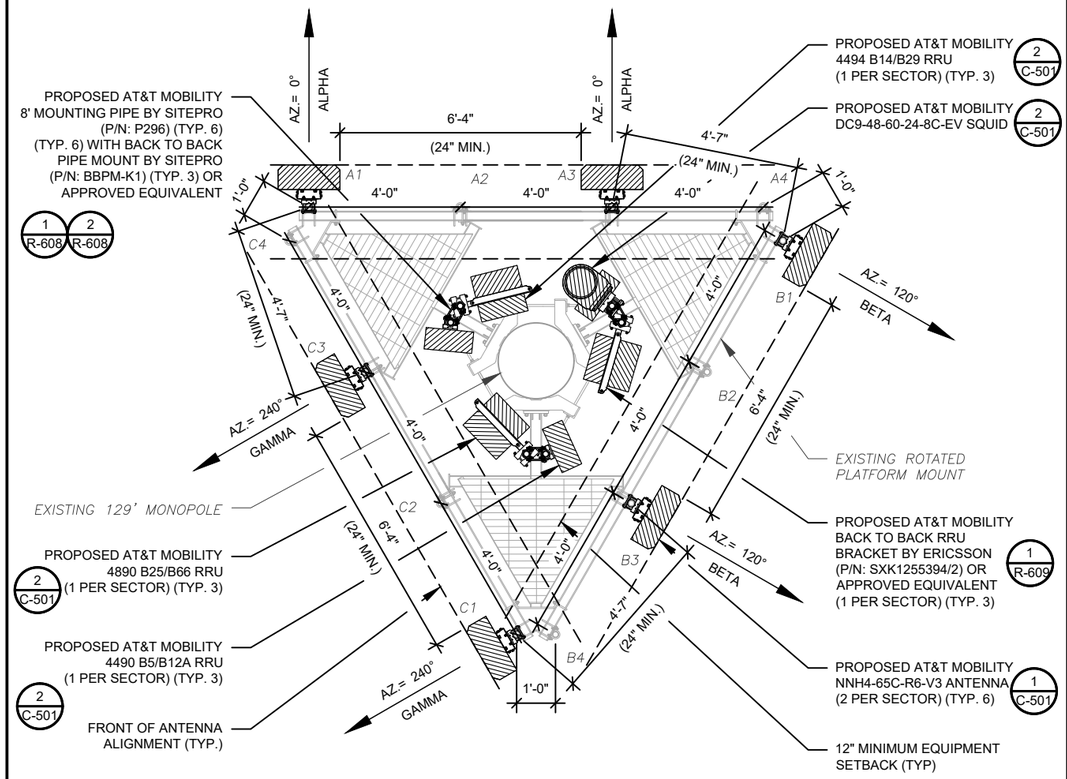
1 EXISTING ANTENNA PLAN
SCALE: 1" = 5'

0 5' 10'

SCALE: 1"=5' (11X17)
1"=2.5' (22X34)

PER MOUNT ANALYSIS COMPLETED BY POWER OF DESIGN, DATED MAY 19, 2025, THE EXISTING MOUNT MUST BE MODIFIED TO ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION PROPOSED IN THE MOUNT ANALYSIS, INCLUDED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT.

NOTE:
ROTATE MOUNT COUNTER CLOCKWISE TO 19° TO OBTAIN AZIMUTH 0° / 120° / 240°



PROPOSED RRUs MUST BE INSTALLED A MINIMUM OF 12" AWAY FROM HORIZONTAL MOUNTING PIPE

2 FINAL ANTENNA PLAN
SCALE: 1" = 5'

0 5' 10'

SCALE: 1"=5' (11X17)
1"=2.5' (22X34)

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45607
PROFESSIONAL ENGINEER

SEAL: 06/26/25

AT&T

DATE DRAWN:	06/26/25
ATC JOB NO:	15312118
CUSTOMER NAME:	COTOPAXI
CUSTOMER ID:	SICO001561

ANTENNA INSTALLTION

SHEET NUMBER:	REVISION:
C-401	0

EXISTING ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY					NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH. D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	110'	0°	A1	P65-15-XLH-RR	–	–	RMV	(1) TT19-08BP111-001	RMV
			A2	–	–	–	–	–	–
			A3	–	–	–	–	–	–
			A4	ET-X-UW-70-16-70-18-IR-AT	–	–	RMV	(1) 9442 RRH2X40-AWS (1) RRH2X40-07-L	RMV RMV
BETA	110'	120°	B1	P65-15-XLH-RR	–	–	RMV	(1) TT19-08BP111-001	RMV
			B2	–	–	–	–	–	–
			B3	–	–	–	–	–	–
			B4	ET-X-UW-70-16-70-18-IR-AT	–	–	RMV	(1) 9442 RRH2X40-AWS (1) RRH2X40-07-L	RMV RMV
GAMMA	110'	240°	C1	P65-15-XLH-RR	–	–	RMV	(1) TT19-08BP111-001	RMV
			C2	–	–	–	–	–	–
			C3	–	–	–	–	–	–
			C4	ET-X-UW-70-16-70-18-IR-AT	–	–	RMV	(1) 9442 RRH2X40-AWS (1) RRH2X40-07-L	RMV RMV

NOTES

1. GC TO VERIFY THE FINAL RFDS MATCHES THE FINAL CONSTRUCTION DRAWINGS. GC TO NOTIFY ATC PM OF ANY DISCREPANCY PRIOR TO INSTALLING THE EQUIPMENT.
2. GC TO CAP ALL UNUSED PORTS.
3. CONFIRM SPACING OF PROPOSED EQUIP DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.
4. THE ANTENNA ORIENTATION PLAN IS A SCHEMATIC. ATC DID NOT CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO, ANTENNA AZIMUTHS, MOUNT CONFIGURATIONS AND TOWER ORIENTATION. SCALES SHOWN ARE FOR REFERENCE ONLY AND EXISTING DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO INSTALLATION AND NOTIFY ATC OF ANY DISCREPANCIES.
5. CONTRACTOR TO ENSURE PROPER SEPARATION IN ACCORDANCE WITH AT&T'S FIRSTNET REQUIREMENTS.

STATUS ABBREVIATIONS

RMV: TO BE REMOVED
RMN: TO REMAIN
REL: TO BE RELOCATED
ADD: TO BE ADDED

CABLE LENGTHS FOR JUMPERS

JUNCTION BOX TO RRU: 15'
RRU TO ANTENNA: 10'

FINAL ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY					NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH. D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	110'	0°	A1	NNH4-65C-R6-V3	-	-	ADD	(1) 4490 B5/B12A	ADD
			A2	-	-	-	-	-	-
			A3	NNH4-65C-R6-V3	-	-	ADD	(1) 4890 B25/B66 (1) 4494 B14/B29	ADD ADD
			A4	-	-	-	-	-	-
BETA	110'	120°	B1	NNH4-65C-R6-V3	-	-	ADD	(1) 4490 B5/B12A	ADD
			B2	-	-	-	-	-	-
			B3	NNH4-65C-R6-V3	-	-	ADD	(1) 4890 B25/B66 (1) 4494 B14/B29	ADD ADD
			B4	-	-	-	-	-	-
GAMMA	110'	240°	C1	NNH4-65C-R6-V3	-	-	ADD	(1) 4490 B5/B12A	ADD
			C2	-	-	-	-	-	-
			C3	NNH4-65C-R6-V3	-	-	ADD	(1) 4890 B25/B66 (1) 4494 B14/B29	ADD ADD
			C3	-	-	-	-	-	-

EXISTING FIBER DISTRIBUTION/SQUID		EXISTING CABLING SUMMARY			
MODEL NUMBER	STATUS	COAX/CONDUIT	DC/CONTROL/RET	FIBER	STATUS
(1) DC6-48-60-18-8C-EV	RMV	*(2) 2" CONDUIT*	*(2) 0.88" (22.4mm) 8 AWG 6*	–	*RMN*
–	–	(6) 7/8"	–	(1) 0.39" (10mm)	RMV

FINAL FIBER DISTRIBUTION/SQUID		FINAL CABLING SUMMARY			
MODEL NUMBER	STATUS	COAX/RET	DC/CONTROL	FIBER	STATUS
-	-	*(2) 2" CONDUIT*	*(2) 0.88" (22.4mm) 8 AWG 6*	-	*RMN*
(1) DC9-48-60-24-8C-EV	ADD	(1) 2" CONDUIT	(1) 0.96" (24.3mm)	(1) 0.41" (10.3mm)	ADD

1 EQUIPMENT SCHEDULES

AMERICAN TOWER®

PLANS PREPARED BY:

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TEP OPCO, LLC

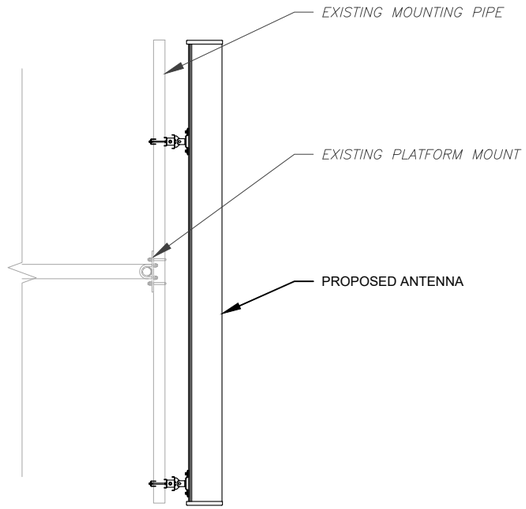
SEAL: 06/26/25

AT&T

DATE DRAWN:	06/26/25
ATC JOB NO:	15312118
CUSTOMER NAME:	COTOPAXI
CUSTOMER ID:	SICO001561

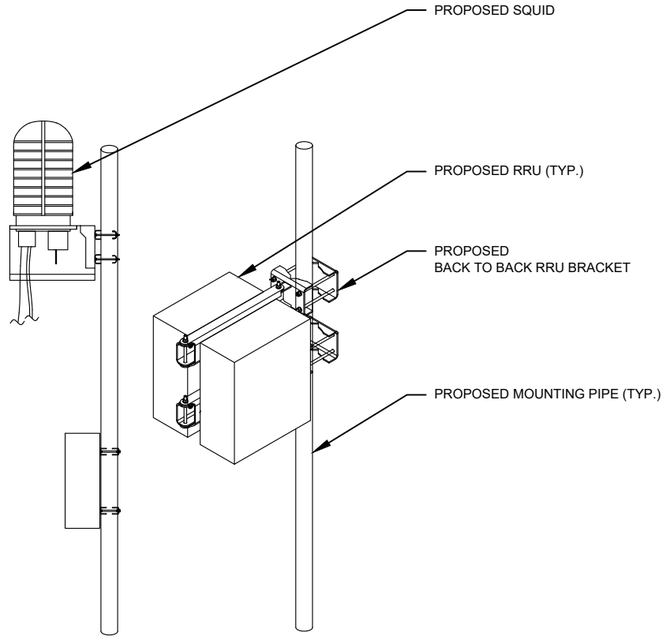
ANTENNA SCHEDULE

SHEET NUMBER:	REVISION:
C-402	0



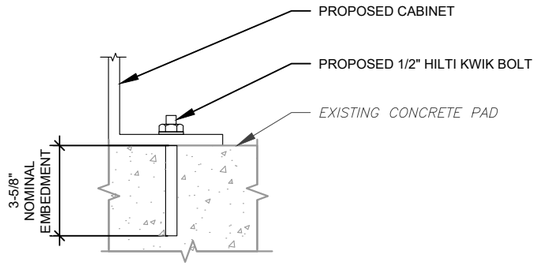
1 PROPOSED ANTENNA MOUNTING DETAIL

SCALE: N.T.S.



2 PROPOSED SQUID & RRU MOUNTING DETAIL

SCALE: N.T.S.



NOTE:

INSTALL HILTI KWIK BOLT ANCHORS STRICTLY PER INSTALLATION INSTRUCTIONS INCLUDED WITH PRODUCT OR FOUND ONLINE AT WWW.US.HILTI.COM. PROPER INSTALLATION IS CRITICAL FOR FULL PERFORMANCE.

3 CABINET ATTACHMENT DETAIL

SCALE: N.T.S.

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CUSTOMER NAME:	COTOPAXI
CUSTOMER ID:	SICO001561

CONSTRUCTION DETAILS

SHEET NUMBER:	REVISION:
C-501	0

AC POWER PANEL A (EXISTING)											
120/240 VOLTS, 1-PHASE, 3-WIRE, 225A											
MAIN BREAKER RATING (A):					200		SYSTEM VOLTAGE (V):			240	
DESCRIPTION	VA	c/nc	BKR	POSN	L1	L2	POSN	BKR	c/nc	VA	DESCRIPTION
RECTIFIER 1	140	c	40/2	1	3390		2	60/2	c	3250	HVAC #1
	140	c		3		3390	4		c	3250	
RECTIFIER 2	140	c	40/2	5	3390		6	60/2	c	3250	HVAC #2
	140	c		7		3390	8		c	3250	
RECTIFIER 3	140	c	40/2	9	140		10	15/2	c	0	POWER FAIL RELAY
	140	c		11		140	12		c	0	
RECTIFIER 4	140	c	40/2	13	860		14	20/1	nc	720	DUPLEX / QUAD RECEPT COORD REEL RECEPT
	140	c		15		1040	16	20/1	nc	900	INTERIOR / EMERGENCY LIGHTS
RECTIFIER 5	140	c	40/2	17	440		18	20/1	nc	300	EXTERIOR LIGHT
	140	c		19		140	20	40/2	nc	0	SPARE / OFF
RECTIFIER 6	140	c	40/2	21	140		22		nc	0	
	140	c		23		140	24	40/2	nc	0	SPARE / OFF
RECTIFIER 7	140	c	40/2	25	140		26		nc	0	
	140	c		27		140	28	40/2	nc	0	SPARE / OFF
RECTIFIER 8	140	c	40/2	29	140		30		nc	0	
	140	c		31		140	32	40/2	nc	0	SPARE / OFF
RECTIFIER 9	140	c	40/2	33	140		34		nc	0	
	140	c		35		140	36	40/2	nc	0	SPARE / OFF
GENERATOR	1650	nc	20/1	37	1650		38		nc	0	
BLANK				39		0	40	40/2	nc	0	SPARE / OFF
GFCI RECEPTACLE	180	nc	20/1	41	180		42		nc	0	
PHASE TOTALS (VA):					10610	8660					
PHASE TOTALS (A):					88	72					
CURRENT PER PHASE W/ 125% Continuous Loads (A):					105	88	Amperes/phase cannot exceed main breaker rating				
PANEL TOTAL (VA):					19270		Legend: c = continuous, nc = non-continuous				
PANEL TOTAL W/ 125% Continuous Loads (VA):					23150						

1 EXISTING AC PANEL
SCALE: N.T.S.

AC POWER PANEL A (PROPOSED)											
120/240 VOLTS, 1-PHASE, 3-WIRE, 225A											
MAIN BREAKER RATING (A):					200		SYSTEM VOLTAGE (V):			240	
DESCRIPTION	VA	c/nc	BKR	POSN	L1	L2	POSN	BKR	c/nc	VA	DESCRIPTION
VERTIV RECTIFIER 1&2	1360	c	40/2	1	4610		2	60/2	c	3250	HVAC #1
	1360	c		3		4610	4		c	3250	
VERTIV RECTIFIER 3&4	1360	c	40/2	5	4610		6	60/2	c	3250	HVAC #2
	1360	c		7		4610	8		c	3250	
VERTIV RECTIFIER 5&6	1360	c	40/2	9	1360		10	15/2	c	0	POWER FAIL RELAY
	1360	c		11		1360	12		c	0	
VERTIV RECTIFIER 7&8	1360	c	40/2	13	2080		14	20/1	nc	720	DUPLEX / QUAD RECEPT COORD REEL RECEPT
	1360	c		15		2260	16	20/1	nc	900	INTERIOR / EMERGENCY LIGHTS
SPARE / OFF	0	nc	40/2	17	300		18	20/1	nc	300	EXTERIOR LIGHT
	0	nc		19		0	20	40/2	nc	0	SPARE / OFF
SPARE / OFF	0	nc	40/2	21	0		22		nc	0	
	0	nc		23		0	24	40/2	nc	0	SPARE / OFF
SPARE / OFF	0	nc	40/2	25	0		26		nc	0	
	0	nc		27		0	28	40/2	nc	0	SPARE / OFF
SPARE / OFF	0	nc	40/2	29	0		30		nc	0	
	0	nc		31		0	32	40/2	nc	0	SPARE / OFF
SPARE / OFF	0	nc	40/2	33	0		34		nc	0	
	0	nc		35		0	36	40/2	nc	0	SPARE / OFF
GENERATOR	1650	nc	20/1	37	1650		38		nc	0	
BLANK				39		0	40	40/2	nc	0	SPARE / OFF
GFCI RECEPTACLE	180	nc	20/1	41	180		42		nc	0	
PHASE TOTALS (VA):					14790	12840					
PHASE TOTALS (A):					123	107					
CURRENT PER PHASE W/ 125% Continuous Loads (A):					148	132	Amperes/phase cannot exceed main breaker rating				
PANEL TOTAL (VA):					27630		Legend: c = continuous, nc = non-continuous				
PANEL TOTAL W/ 125% Continuous Loads (VA):					33600						

2 PROPOSED AC PANEL
SCALE: N.T.S.

AMERICAN TOWER®

PLANS PREPARED BY:

TEP

326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net

REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	APM	05/29/25
0	100% CONSTRUCTION	RMJ	06/26/25

ATC SITE NUMBER: 370593

ATC SITE NAME: COTOPAXI II

AT&T MOBILITY SITE NUMBER:

SICO001561

AT&T MOBILITY SITE NAME:

COTOPAXI

SITE ADDRESS:
345 FREMONT COUNTY RD 012
COTOPAXI, CO 81223

TEP OPCO, LLC

COLORADO LICENSED
NICHOLAS M. CONSTANTINE
45607
PROFESSIONAL ENGINEER

SEAL: 06/26/25

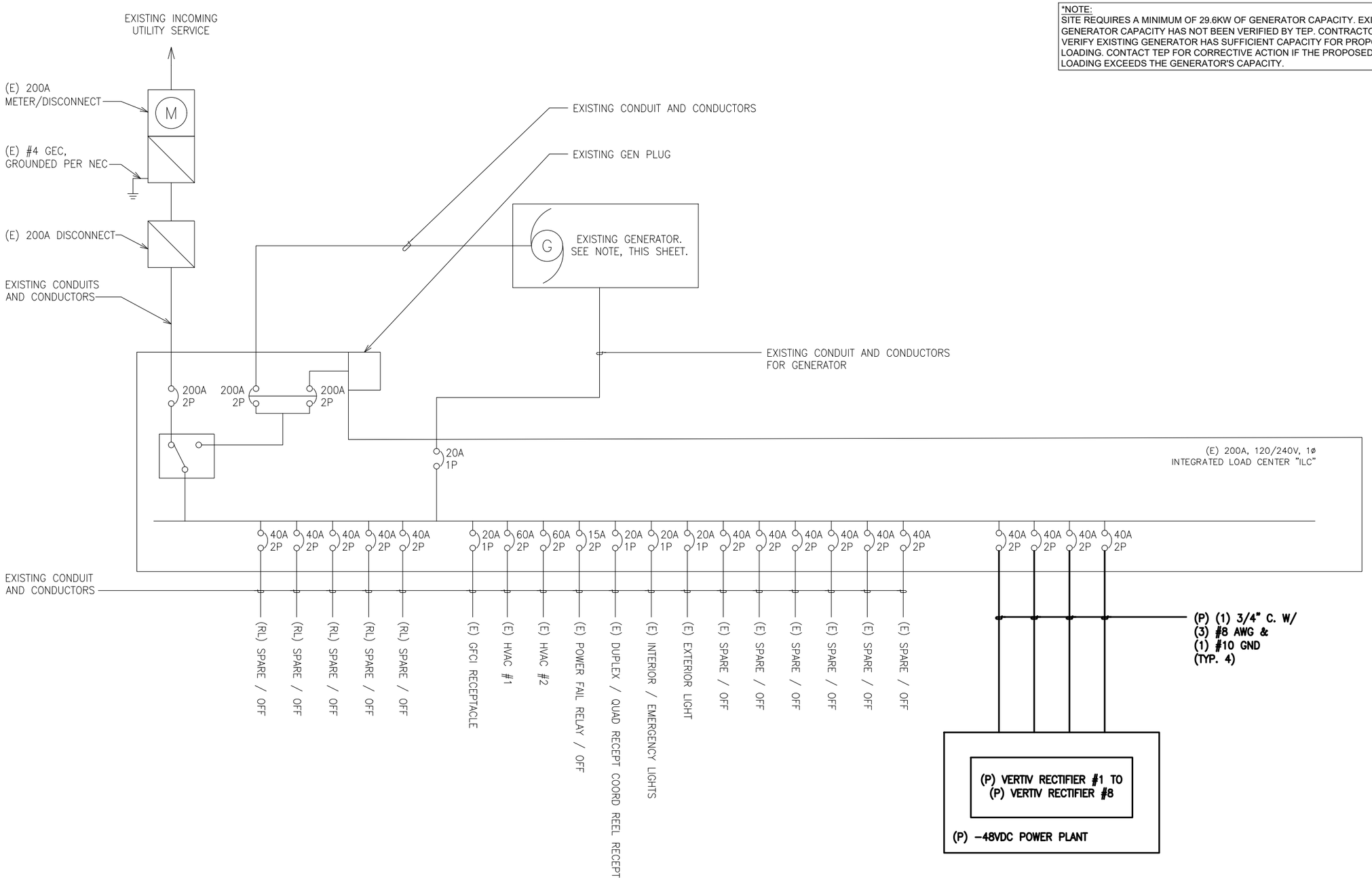
AT&T

DATE DRAWN:	06/26/25
ATC JOB NO:	15312118
CUSTOMER NAME:	COTOPAXI
CUSTOMER ID:	SICO001561

ELECTRICAL PANELS

SHEET NUMBER:	REVISION:
E-101	0

*NOTE:
SITE REQUIRES A MINIMUM OF 29.6KW OF GENERATOR CAPACITY. EXISTING GENERATOR CAPACITY HAS NOT BEEN VERIFIED BY TEP. CONTRACTOR TO VERIFY EXISTING GENERATOR HAS SUFFICIENT CAPACITY FOR PROPOSED LOADING. CONTACT TEP FOR CORRECTIVE ACTION IF THE PROPOSED LOADING EXCEEDS THE GENERATOR'S CAPACITY.



LEGEND:
(E) – EXISTING
(P) – PROPOSED
(F) – FUTURE
(RL) – RELABELED

1 ONE-LINE DIAGRAM
SCALE: N.T.S.

AMERICAN TOWER®

PLANS PREPARED BY:

TEP

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RALEIGH, NC 27603-3530
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0	100% CONSTRUCTION	RMJ	06/26/25

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45607
PROFESSIONAL ENGINEER

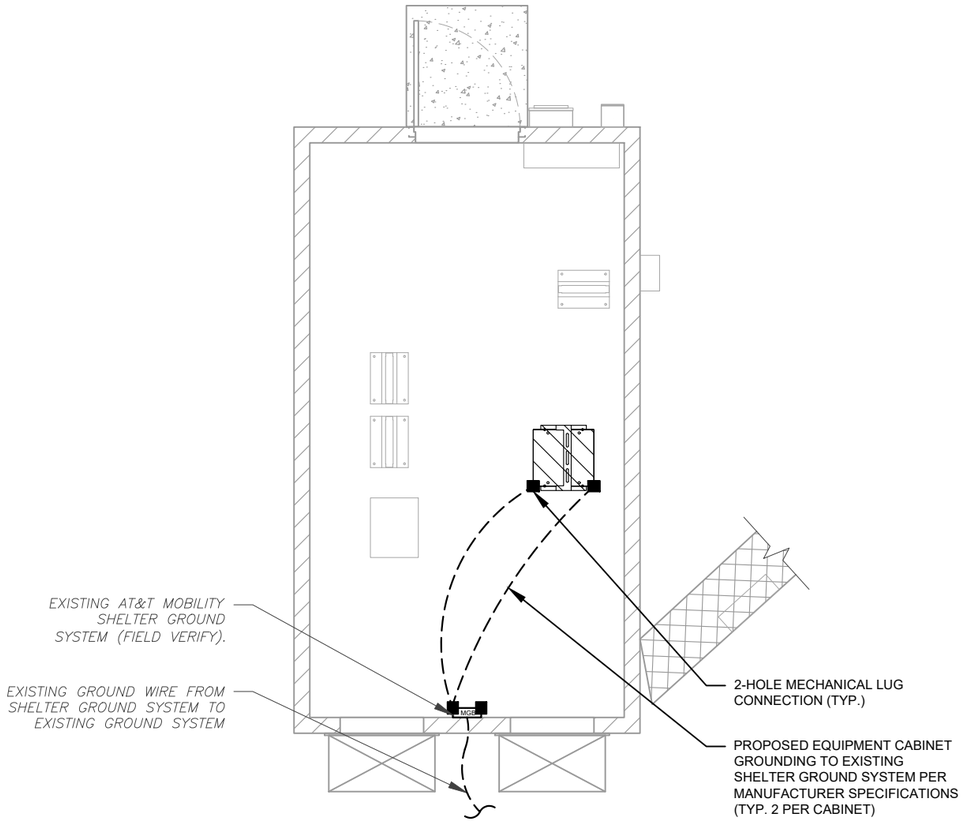
SEAL: 06/26/25

AT&T

DATE DRAWN:	06/26/25
ATC JOB NO:	15312118
CUSTOMER NAME:	COTOPAXI
CUSTOMER ID:	SICO001561

ONE-LINE DIAGRAM

SHEET NUMBER:	REVISION:
E-102	0

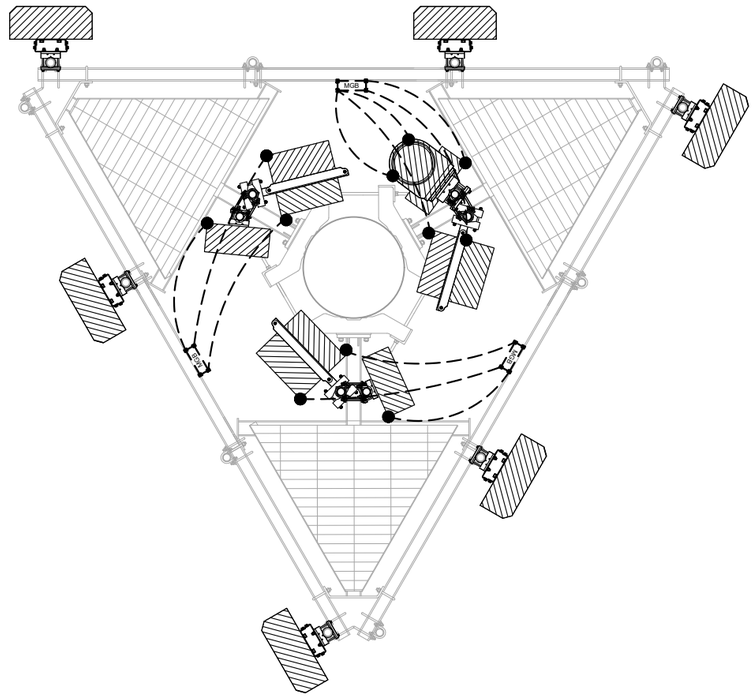


LEGEND

- EXOTHERMIC CONNECTION
- MECHANICAL CONNECTION
- ANTENNA GROUND BAR
- MGB MASTER GROUND BAR

1 EQUIPMENT GROUNDING PLAN

SCALE: N.T.S.



LEGEND

- EXOTHERMIC CONNECTION
- MECHANICAL CONNECTION
- ANTENNA GROUND BAR
- MGB MASTER GROUND BAR

2 ANTENNA GROUNDING PLAN

SCALE: N.T.S.

AMERICAN TOWER®

PLANS PREPARED BY:

TEP

326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
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REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	APM	05/29/25
0	100% CONSTRUCTION	RMJ	06/26/25

ATC SITE NUMBER: 370593

ATC SITE NAME: COTOPAXI II

AT&T MOBILITY SITE NUMBER:

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345 FREMONT COUNTY RD 012
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COLORADO LICENSED
NICHOLAS M. CONSTANTINE
45607
PROFESSIONAL ENGINEER

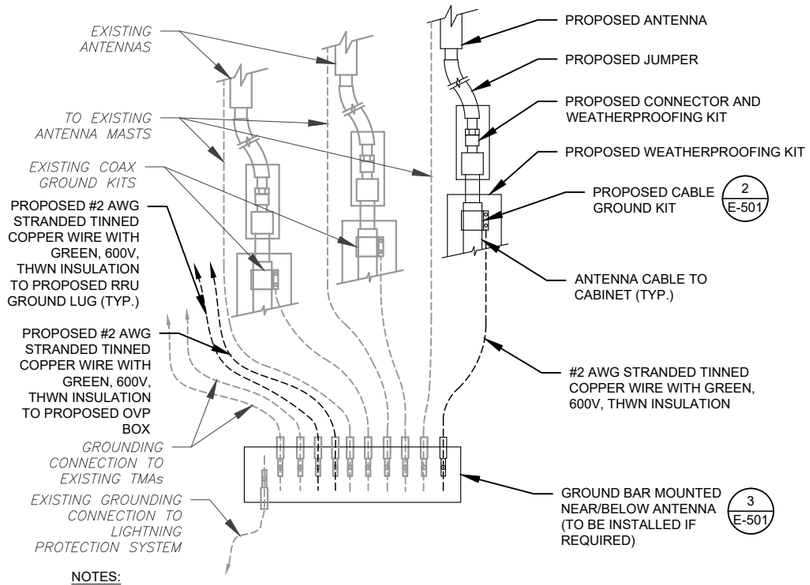
SEAL: 06/26/25

AT&T

DATE DRAWN:	06/26/25
ATC JOB NO:	15312118
CUSTOMER NAME:	COTOPAXI
CUSTOMER ID:	SICO001561

GROUNDING PLANS

SHEET NUMBER:	REVISION:
E-103	0

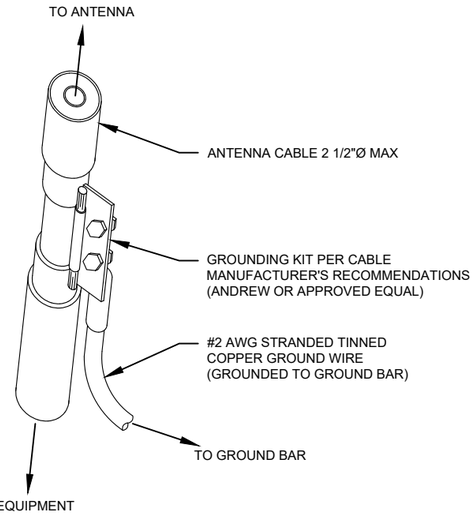


NOTES:

1. 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.
2. 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.

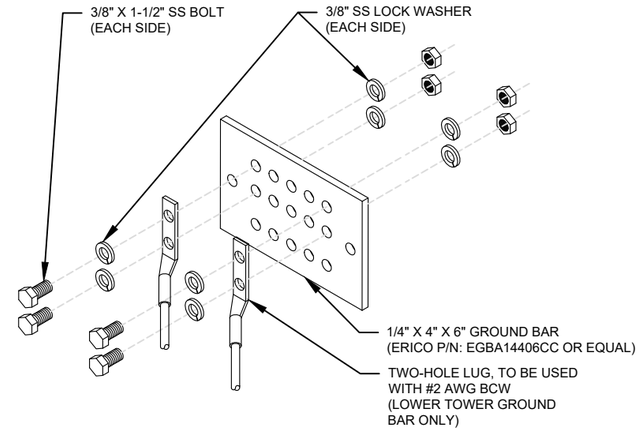


GROUND KIT NOTES:

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

2 CABLE GROUND KIT CONNECTION DETAIL

SCALE: N.T.S.

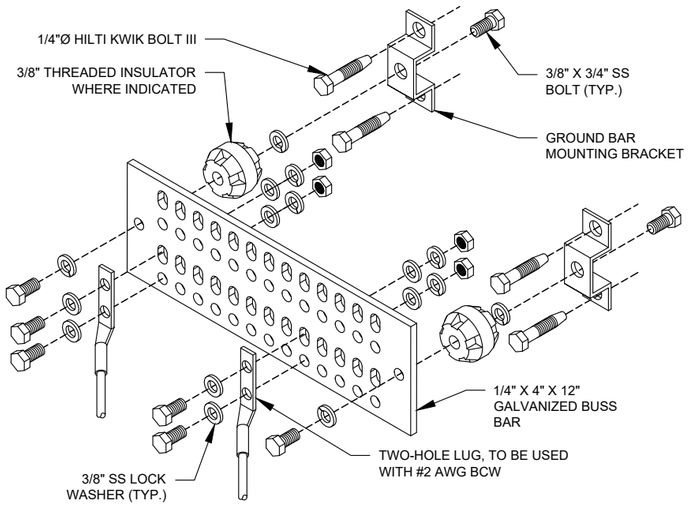


GROUND BAR NOTES:

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

3 TOWER GROUND BAR DETAIL

SCALE: N.T.S.

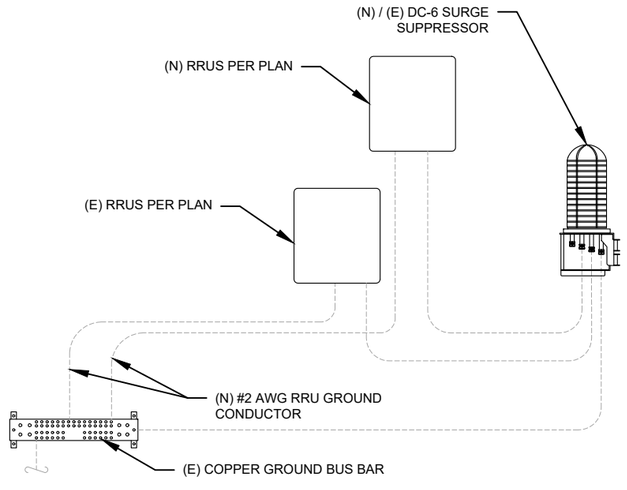


GROUND BAR NOTES

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

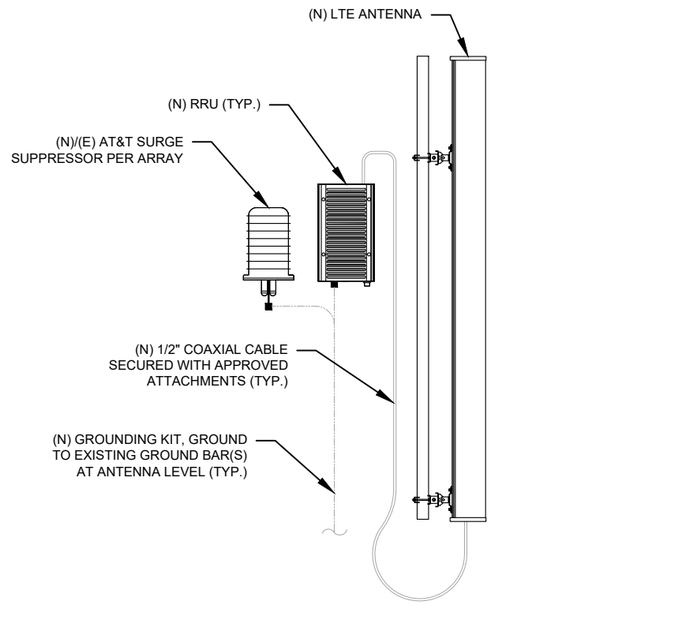
4 MAIN GROUND BAR DETAIL

SCALE: N.T.S.



5 RRU GROUNDING

SCALE: N.T.S.



6 ANTENNA/RRU GROUNDING

SCALE: N.T.S.

AMERICAN TOWER®

PLANS PREPARED BY:

TEP

326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net

REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	APM	05/29/25
0	100% CONSTRUCTION	RMJ	06/26/25

ATC SITE NUMBER: 370593

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SITE ADDRESS:
345 FREMONT COUNTY RD 012
COTOPAXI, CO 81223

TEP OPCO, LLC

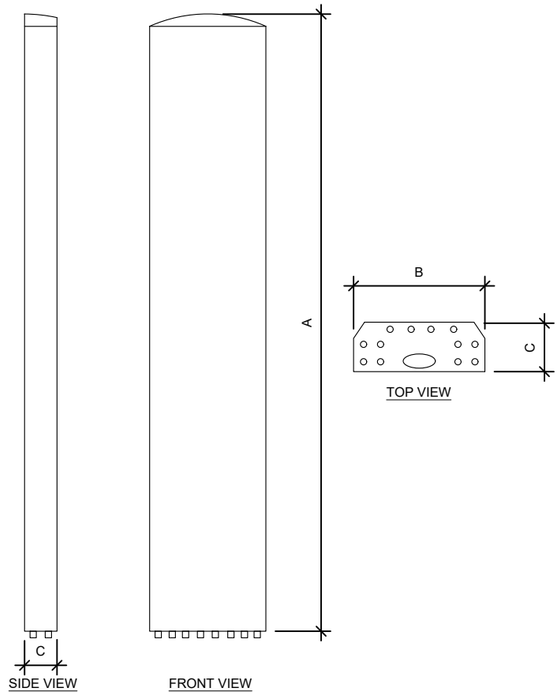
SEAL: 06/26/25

AT&T

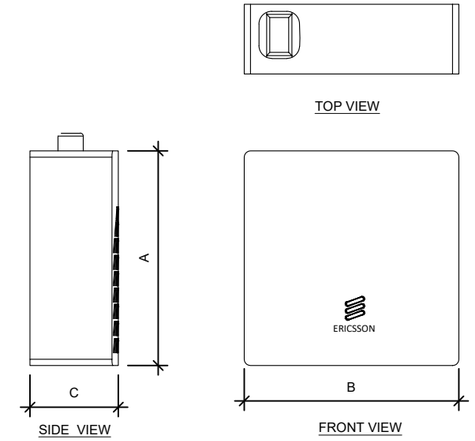
DATE DRAWN:	06/26/25
ATC JOB NO:	15312118
CUSTOMER NAME:	COTOPAXI
CUSTOMER ID:	SICO001561

GROUNDING DETAILS

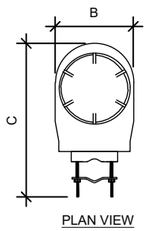
SHEET NUMBER:	REVISION:
E-501	0

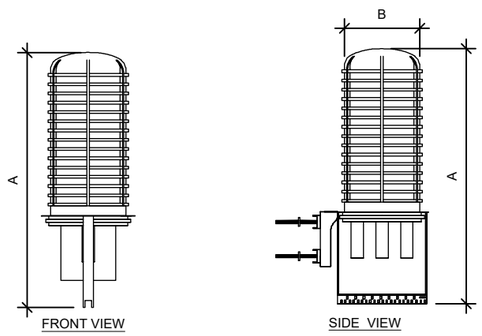


ANTENNA SPECIFICATIONS				
ANTENNA MODEL	A	B	C	WEIGHT (LBS)
NNH4-65C-R6-V3	96.0"	19.6"	7.8"	102.5



RRU SPECIFICATIONS				
RRU MODEL	A	B	C	WEIGHT (LBS)
4490 B5/B12A	17.5"	15.1"	6.8"	68.3
4890 B25/B66	17.5"	15.1"	6.9"	68.3
4494 B14/B29	17.5"	15.1"	5.6"	57.3





RAYCAP SPECIFICATIONS				
RAYCAP MODEL	A	B	C	WEIGHT (LBS)
DC9-48-60-24-8C-EV	25.9"	12.4"	9.7"	18.5

- EQUIPMENT SPECIFICATIONS

SCALE: N.T.S.

SUPPLEMENTAL

SHEET NUMBER: R-601

REVISION: -

NETSURE™ 7100 SERIES

Stand Alone DC Power System

VERTIV.

KEY FEATURES

- Developed for ease of use, enabling safe and quick power and load adjustments on live systems
- System features world leading power density rectifiers, enabling up to 63 kW applications with plenty of distribution space, all in a single footprint
- Individual current measurement feature displays current reading for each fuse/circuit breaker
- Remote IO terminals are easily and safely accessible for adding new alarm signals
- Cabinet efficiency >99,7% from rectifier output to distribution output enabling maximum system efficiency >96,2% from grid to load
- Remote battery management and load control functions minimize the dependency of reactive site call-outs

Highly scalable DC Power system with system range from 3,5 kW to 63 kW in a single cabinet that utilize minimal space. The NetSure 7100 series delivers affordable high power density with outstanding efficiency and system reliability.

Improving reliability

Where constant migration and change is the norm

The NetSure 7100 Series of -48V DC power systems delivers outstanding reliability within a modular, scalable stand-alone cabinet. Power can be scaled in 3,5 kW increments up to 63 kW, alternative up to 21 kW with room for battery back up in the same cabinet. Distribution units can be added, swapped or removed on live sites, making system expansions a standard procedure. Power supply extensions can be made safe-and-easy, without compromising reliability.

Minimizing energy loss

Save operating costs and non-renewable resources

The NetSure 7100 Series minimizes power conversion energy losses, reducing heat dissipation and lowering energy consumption — both on the power supply and the cooling system. Cabinet infrastructure efficiency is greater than 99,7% from rectifier output to breaker output with maximum system efficiency just over 96,2% from grid to load.

Securing availability

Instead of deploying costly excess capacity up-front

With intelligent load management there is no need to install excess capacity up-front to cover for load build-ups and potential overloads. Each load can be monitored and measured down to the distribution, fuse or circuit breaker level. Our NetSure controller displays actual load current utilization in relation to fuse/circuit breaker threshold levels. Site power and load can be added incrementally, at an optimal investment pace, without compromising system reliability and power availability.

Application

The stand-alone NetSure 7100 Series is the ideal solution for small telecom central office and data center sites requiring reliability and power availability in a small footprint. This single cabinet with embedded battery backup is well suited for replacing less power efficient solutions and wherever frequent load changes require continuous monitoring of individual loads.

Technical Specifications

AC INPUT	
Range	Single phase: 85 VAC to 300 VAC (Nominal: 200 VAC to 240 VAC)
Line Frequency	50 or 60 Hz (45 Hz to 65 Hz)
Connections	Terminal or distribution for up to 18 circuit breakers
Surge Protection	Optional
DC OUTPUT	
Adjustable Range	-42 VDC to -58 VDC (Nominal: -48 VDC)
Power, Maximum	63 kW (18 x 3,5 kW rectifier modules)
Efficiency, Peak	96,3% eSure™ R48-3500e3 rectifier
DC SYSTEM UNITS	
Distribution Units	Available for circuit breakers, cartridge fuses, NH00 fuses, NH2 fuses
Circuit Breakers	From 2 A up to 200 A
Fuses	NH00 (up to 400 A) and NH2 (up to 400 A)
Intelligent Load Management	Optional equipment for all distribution units
Battery Connections	4 x (300 A or 400 A) circuit breakers or fuses
Battery Shelves	Optional, up to 4 x 8 U
PHYSICAL CHARACTERISTICS	
Mounting	Top cabling
Dimensions (H x W x D)	2020 mm x 600 mm x 600 mm (per cabinet)
Weight	170 kg per cabinet (fully equipped)
Access and Security	Front access, IP20, door with lock as option
ENVIRONMENTAL	
Temperature Range, Operating	-5 °C to +60 °C (full power up to +40 °C)
Relative Humidity, Operating	<90%
Altitude	2000 m
Audible Noise	59dB for R48-3500e3
Ventilation	Forced ventilated (rectifier fans)
SAFETY AND STANDARDS COMPLIANCE	
Electrical	CE EN60950-1
EMC	EN 300 386-2, Class B
Environmental	REACH, RoHS 6

Ordering Information

MODEL NUMBER	PART NUMBER	DESCRIPTION
—	BMK220A11	Stand Alone NetSure 7100 DC power system, 42 kW
—	BMK220A12	Stand Alone NetSure 7100 DC power system, 63 kW
1R483500E3	BML440068/1	3,5 kW eSure rectifier, high efficiency
MB30D	BMP903100/2	NetSure control unit (2 x 2 U front)

OVERVIEW

NetSure 7100 Stand Alone Cabinet

1. Screen Door
2. Battery Connection Unit
3. NetSure Control Unit
4. Load Distribution Unit
5. AC Distribution Unit
6. eSure Rectifiers
7. Battery Shelves

VertivCo.com | **Emerson Network Power Limited,** George Curl Way, Southampton, SO18 2RY, VAT Number: GB188146827

EN328DRD-NS7100S / August 2018

1 PROPOSED -48VDC NETSURE 7100 POWER PLANT DETAIL

SCALE : N.T.S.

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT.

SUPPLEMENTAL

SHEET NUMBER: R-602

REVISION: -

eSure™ Rectifier

R48-2000e3

VERTIV.

Benefits

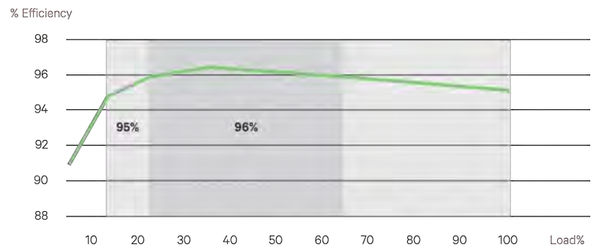
- Optimize the amount of energy delivered and reduce power consumption with over 96% efficiency.
- Increase space for revenue generating equipment with modules that pack more power in a small space with high power density.
- Facilitate easy maintenance, expansion and system changes with hot swappable capabilities.
- Enjoy increased reliability and active load sharing with Digital Signal Processing (DSP) which translates into fewer components and optimized operation.
- Appreciate the flexibility to utilize in a variety of applications with a wide input voltage range of 85 VAC to 300 VAC and full power output at temperatures from -40°C to +65°C.

In addition to reducing power consumption and lowering operating cost, eSure™ high-efficiency rectifiers offer superior performance and uncompromised reliability.

Description

The 2000 watt high-efficiency eSure rectifier (model R48-2000e3) converts standard AC supply voltages into stable nominal -48 VDC voltage that is adjustable to application needs. This constant power rectifier designed with the latest patented switch-mode technology, uses DSP (Digital Signal Processing) for efficient operation.

The R48-2000e3 can be connected in parallel with other rectifiers and converters to support a variety of telecom applications. Unified remote management and control of the power system is enabled when combined with a Vertiv™ controller.



R48-2000e3 Efficiency Curve at 250 VAC Nominal

eSure™ Rectifier

VERTIV.

Technical Specifications

AC Input	R48-2000E3
Voltage	85 VAC to 300 VAC (see figure 1), 187 VAC to 264 VAC (nominal)
Frequency	45 Hz to 65 Hz
Maximum Current	12 A
Power Factor	>0.99 from 50 to 100% load
Protection	High and low voltage protection, surge and lightning protection Adapts to poor quality grid (voltage dip, weak mains) Disconnection at 415 VAC Mains fuses in both lines

DC Output	
Voltage	-42 VDC to -58 VDC
Maximum Power	2000 W
Maximum Current	42 A @ -48 VDC, limit set point 0 to 42 A (see figure 2)
Peak Efficiency	96.2%
Protection	Fuse for reverse connection and back feeding protection High voltage shutdown High temperature protection

Control and Monitoring	
Converter Alarm and Signaling	Alarm and status reported via CAN bus to system controller
Visual Indications	Green LED: Normal Operation Yellow LED: Alarm Red LED: Failure

Environmental	
Operating	-40°C to 80°C / -40°F to +176°F (see figure 3 for derating)
Temperature Derating	Full output power up to +65°C at input voltage range 200 to 250 VAC (see figure 3)
Storage	-40°C to +70°C / -40°F to +158°F
Relative Humidity	0 to 95%
Altitude	Full output power up to +65°C at input voltage range @200~ 250 VAC

Standards Compliance	
Safety	60950-1 (EN, IEC and UL)
EMC	EN55022, CISPR22, ETSI EN300 286: 2005, FCC CFR 47 Part 15, Telcordia GR-1089-CORE issue 6 (Class B conducted and radiated)
Environment	REACH, RoHS, WEEE

Mechanics	
Dimensions (H x W x D)	41 x 84.5 x 252.5 (mm) / 1.61 x 3.33 x 9.94 (inches)
Weight	1.13 kg / 2.49 lbs

Ordering Information

Model Number	Description
1R482000E3	eSure™ rectifier, -48 VDC, 2000 W

Figures

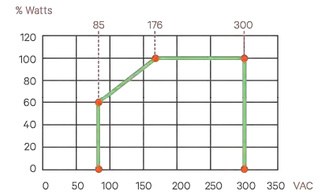


***Figure 1:** Output Power vs. Input Voltage and Vo > 48 V at Tamb <55°C*

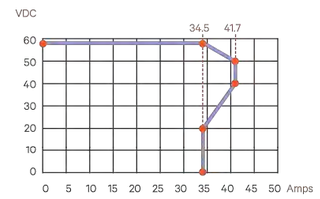


***Figure 2:** Output Voltage vs. Output Current at Maximum Output Power 2000 W*

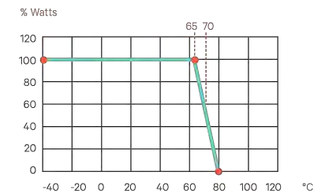


***Figure 3:** Output Power vs. Temperature at Uin > 200VAC*

Vertiv.com | **Vertiv Headquarters,** 1050 Dearborn Drive, Columbus, OH, 43085, USA

R48-2000E3 (R06/20)

1 PROPOSED -48V RECTIFIER DETAIL

SCALE : N.T.S.

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT.

SUPPLEMENTAL

SHEET NUMBER: R-603

REVISION: -

PYL12V185FT

12V 185Ah-8Hr

Proven in the real world, the PYL Series of telecom batteries provides security and long life in extreme climates where other VRLA batteries just don't survive. The PYL technology utilizes proprietary lead alloys and active material additives. The PYL Series is the most cost effective battery solution over the total life cycle and for initial installation in your network.

- Primary lead for Long Life
- UL94 V-0 flame retardant case
- High temperature, long life design
- AGM and spill-proof construction
- Harnesses/connecting bars available
- No maintenance required
- 10+ years design life
- GR-4228 compliant
- UL recognized
- ABS plastic case for durability

SPECIFICATIONS

* Maximum Charge Current is 25% of the 8 Hr. Rate

Nominal Voltage (V)	Rated Capacity Rate In Ah * 8 Hr	Ambient Temperature Charge / Discharge	Ambient Temperature Storage	Outer Dimensions L mm	L in.	W mm	W in.	H mm	H in.	TH mm	TH in.	Weight kg	Weight lbs.	Terminal
12	185 Ah	-15 to 50°C (5 to 122°F)	-15 to 45°C (5 to 113°F)	556	21.9	125	4.9	317	12.5	317	12.5	60.7	133.8	Front-M8 Bolt

Amperes to Final voltage: 1.75V per cell @ 25°C (77°F)

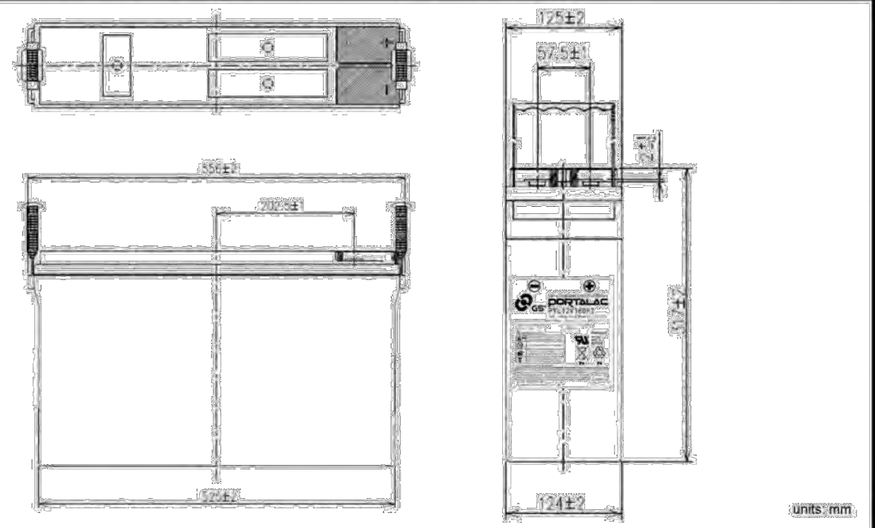
DISCHARGE TIME (Hr)										
2	3	4	5	6	7	8	9	10	12	20
71.2	52.0	41.3	34.4	30.0	26.0	23.1	21.0	19.3	17.7	10.2

Watts to Final voltage: 1.75V per cell @ 25°C (77°F)

DISCHARGE TIME (Hr)										
2	3	4	5	6	7	8	9	10	12	20
829	609	487	407	351	315	275	250	232	215	123

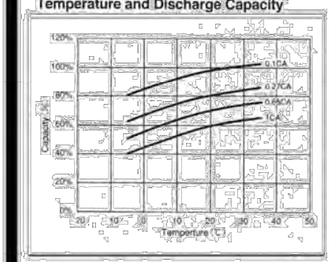
PYL12V185FT 12V 185Ah-8Hr

Rev. 10-22-2012

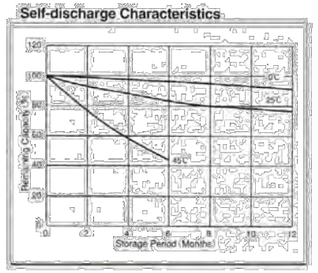


- Float Charge Voltage: 13.65V +/- 0.15V
- Temperature Compensation: The recommended compensation factor is -3mV/°C/cell. The standard center point for temperature compensation is 25°C.
- Internal Resistance: Approximately 3.5 mΩ measured with 1kHz AC bridge
- Terminal Torque: 90 in.lbs. (13mm, top); 43.5 in.lbs. (10mm, front)

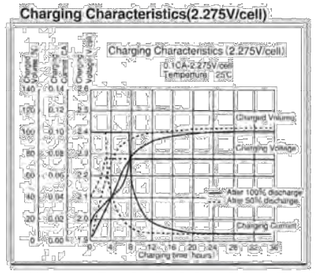
Temperature and Discharge Capacity



Self-discharge Characteristics



Charging Characteristics(2.275V/cell)



GS Battery (U.S.A.), Inc.
1150 Northmeadow Parkway, Suite 110
Roswell, GA 30076
800-472-2879

www.gsbattery.com

International Certification
(1) ISO 9001, TS16949
(2) UL approval, Code : MH12970

1 PROPOSED GS PORTALAC PYL12V185FT BATTERY DETAIL

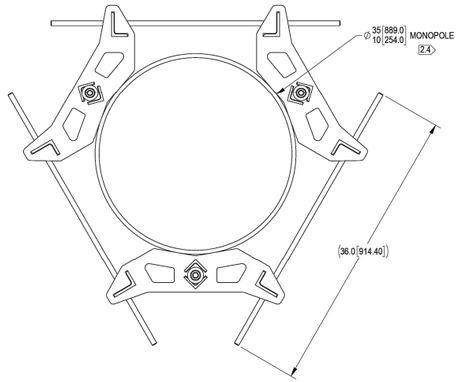
SCALE : N.T.S.

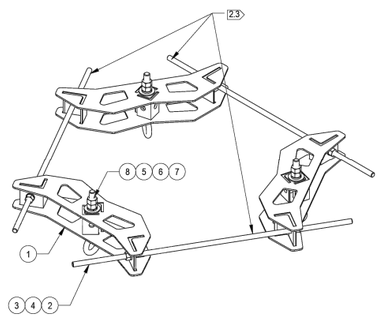
NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT.

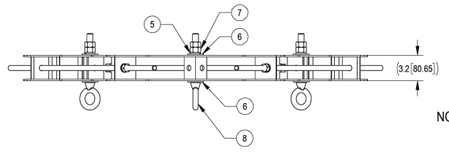
SUPPLEMENTAL

SHEET NUMBER: R-604

REVISION: -







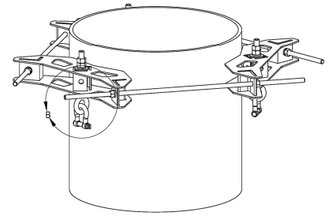
NOTE: -MAXIMUM LOAD PER EYEBOLT = 1000 LBS
-MAXIMUM LOAD PER MOUNT = 3000 LBS
-REVIEWED FOR USE WITH A MINIMUM POLE DIAMETER OF 10" WITH WALL THICKNESS OF 3/16" AND A YIELD STRENGTH OF 36 KSI. FOR USE ON THINNER MATERIAL REQUIRES ADDITIONAL ENGINEERING REVIEW

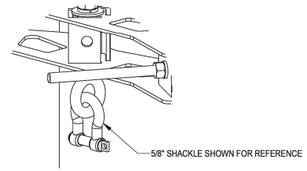
COMPONENT PART NUMBERS PROVIDED FOR ASSEMBLY PURPOSES;
INDIVIDUAL COMPONENTS MAY BE SHIPPED AS PARTS WITHIN AN INCLUDED KIT.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	WEIGHT	NOTE NO.
1	MTC8606-02-00	HG ANCHOR, MONOPOLE MOUNT WELDMENT	3	12.45 LBS	
2	MT-382-36	5/8" X 36" GALV THREADED ROD	3	3.11 LBS	
3	GN-05	5/8" GALV HEX NUT	6	0.08 LBS	
4	GWL-05	5/8" GALV LOCK WASHER	6	0.03 LBS	
5	GWL-06	3/4" GALV LOCK WASHER	3	0.04 LBS	
6	GWF-06	3/4" GALV FLAT WASHER	6	0.10 LBS	
7	GN-06	3/4" GALV HEX NUT	3	0.15 LBS	
8	9674-4	BOLT,EYE,3/4X6,STL,GALV	3	0.20 LBS	

COMMSCOPE, INC. OF NORTH CAROLINA		
TITLE: GRIP ANCHOR,MONOPOLE,10"-35"		
SIZE: C	SCALE: 1:10	DOCUMENT NO.: 860669616-1035
	DRAWING: VERSION 00, STATUS RE, REVISION A	SHEET: 2 OF 3

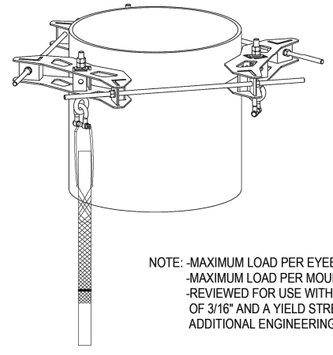
OPTIONAL ACCESSORIES
(PURCHASED SEPARATELY)

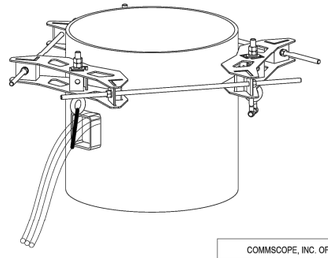




DETAIL B
SCALE 1 : 3

SCHEMATIC DIAGRAM OF CABLE FIXING METHOD





NOTE: -MAXIMUM LOAD PER EYEBOLT = 1000 LBS
-MAXIMUM LOAD PER MOUNT = 3000 LBS
-REVIEWED FOR USE WITH A MINIMUM POLE DIAMETER OF 10" WITH WALL THICKNESS OF 3/16" AND A YIELD STRENGTH OF 36 KSI. FOR USE ON THINNER MATERIAL REQUIRES ADDITIONAL ENGINEERING REVIEW

COMMSCOPE, INC. OF NORTH CAROLINA		
TITLE: GRIP ANCHOR,MONOPOLE,10"-35"		
SIZE: C	SCALE: 1:10	DOCUMENT NO.: 860669616-1035
	DRAWING: VERSION 00, STATUS RE, REVISION A	SHEET: 3 OF 3

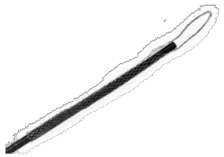
1 PROPOSED COMMSCOPE HOISTING ANCHOR DETAIL
SCALE : N.T.S.

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT.

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-605	-

LUHG-38



Lace-up Hoisting Grip for HELIAX® 0.40-0.56 in (10.2-14.2 mm) cable including all RFFT discrete trunk series cables

Product Classification

Product Type	Hoisting grip
Product Brand	HELIAX®
Ordering Note	CommScope® standard product (Global)

General Specifications

Attachment Spacing Intervals	60.96 m | 200 ft
Hoisting Grip Type	Lace-up hoisting grip
Installation Tool	Required, not included
Support Clamp	Not included
Tool Type	Hoisting grip

Dimensions

Grip Length, minimum	152.4 mm | 6 in
Leader Length, minimum	165.1 mm | 6.5 in
Compatible Diameter, maximum	14.2 mm | 0.559 in
Compatible Diameter, minimum	10.2 mm | 0.402 in
Nominal Size	3/8 in

Electrical Specifications

Return Loss Effect, maximum	0.1 dB
DTF Effect, maximum	0.1 dB

Material Specifications

Material Type	Stainless steel

Mechanical Specifications

Pull Load Capacity	90.718 kg | 200 lb

LUHG-38

Packaging and Weights

Height, packed	55.88 mm | 2.2 in
Width, packed	266.7 mm | 10.5 in
Length, packed	266.7 mm | 10.5 in
Packaging quantity	1
Weight, gross	0.04 kg | 0.088 lb

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

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1 PROPOSED COMMSCOPE CABLE HOISTING GRIP DETAIL

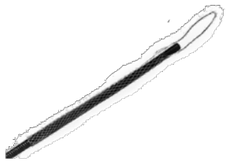
SCALE : N.T.S.

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT.

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-606	-

29958



Lace-up Hoisting Grip for HELIAX® 0.75-0.99 in (19-25.1 mm) cables and elliptical waveguide 85, 90, 127A, 132-144, PWRT-606-S

Product Classification

Product Type	Hoisting grip
Product Brand	HELIAX®
Ordering Note	CommScope® non-standard product

General Specifications

Attachment Spacing Intervals	60.96 m | 200 ft
Hoisting Grip Type	Lace-up hoisting grip
Support Clamp	Not included
Tool Type	Hoisting grip

Dimensions

Grip Length, minimum	508 mm | 20 in
Leader Length, minimum	152.4 mm | 6 in
Compatible Diameter, maximum	25.1 mm | 0.988 in
Compatible Diameter, minimum	19 mm | 0.748 in
Nominal Size	5/8 in

Electrical Specifications

Return Loss Effect, maximum	0.1 dB
DTF Effect, maximum	0.1 dB

Material Specifications

Material Type	Stainless steel

Mechanical Specifications

Pull Load Capacity	226.796 kg | 500 lb

29958

Packaging and Weights

Height, packed	55.88 mm | 2.2 in
Width, packed	236.22 mm | 9.3 in
Length, packed	236.22 mm | 9.3 in
Packaging quantity	1
Weight, gross	0.3 kg | 0.661 lb

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

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1 PROPOSED COMMSCOPE CABLE HOISTING GRIP DETAIL

SCALE : N.T.S.

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT.

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-607	-

Pxxx: Bulk Pipe

SITE PRO 1
A valmont COMPANY

Part #	Length	OD x Length (in)
Schedule 40		
P260	5'-0"	2-3/8" x 60"
P263	5'-3"	2-3/8" x 63"
P272	6'-0"	2-3/8" x 72"
P284	7'-0"	2-3/8" x 84"
P296	8'-0"	2-3/8" x 96"
P2108	9'-0"	2-3/8" x 108"
P2120	10'-0"	2-3/8" x 120"
P2126	10'-6"	2-3/8" x 126"
P2150	12'-6"	2-3/8" x 150"
P2174	14'-6"	2-3/8" x 174"
P2252	21'-0"	2-3/8" x 252"
P3072	6'-0"	2-7/8" x 72"
P3084	7'-0"	2-7/8" x 84"
P3096	8'-0"	2-7/8" x 96"
P30108	9'-0"	2-7/8" x 108"
P30120	10'-0"	2-7/8" x 120"
P30126	10'-6"	2-7/8" x 126"
P30150	12'-6"	2-7/8" x 150"
P30174	14'-6"	2-7/8" x 174"
P30252	21'-0"	2-7/8" x 252"
P360	5'-0"	3-1/2" x 60"
P372	6'-0"	3-1/2" x 72"
P384	7'-0"	3-1/2" x 84"
P396	8'-0"	3-1/2" x 96"
P3150	12'-6"	3-1/2" x 150"
P3160	13'-4"	3-1/2" x 160"
P3174	14'-6"	3-1/2" x 174"
P3216	18'-0"	3-1/2" x 216"
P3252	21'-0"	3-1/2" x 252"
P472	6'-0"	4-1/2" x 72"
P4126	10'-6"	4-1/2" x 126"
P4252	21'-0"	4-1/2" x 252"

Features:
- Factory cut end, hot-dip galvanized pipe

Construction:
- ASTM A53 Grade B
- Schedule 40 or Schedule 80

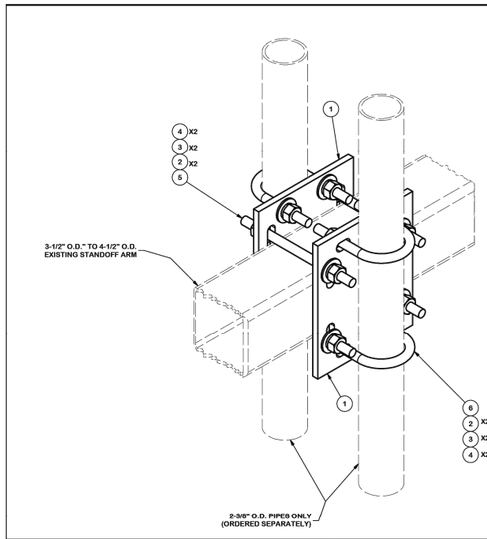
Design Criteria:
- ASTM A53 Grade B (Yield Fy = 35 ksi [240 MPa]/ Tensile Fu = 60 ksi [415 MPa])
- Hot dip galvanized in accordance with ASTM A123 requirements

Part #	Length	OD x Length (in)
Schedule 80		
P2252-80	21'	2-1/2" x 252"
P30126-80	10'-6"	2-7/8" x 126"
P30252-80	21'	2-7/8" x 252"
P3252-80	21'	3-1/2" x 252"

created on: 03/09/2023

SitePro1.com 888-438-7761

1 PROPOSE MOUNTING PIPE DETAIL
SCALE: N.T.S.



PARTS LIST

ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	2	SCX4	CROSSOVER PLATE	8 1/2 in	6.02	12.04
2	16	G12FW	1/2" HDG USS FLATWASHER		0.03	0.55
3	16	G12LW	1/2" HDG LOCKWASHER		0.01	0.22
4	16	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	1.15
5	4	G12R-8	1/2" x 8" THREADED ROD (HDG.)		0.35	1.41
6	4	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.63	2.50
					TOTAL WT. #	17.87

TOLERANCE NOTES
TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
SAWED, SHEARED AND GAS CUT EDGES *(± 0.030")*
DRILLED AND GAS CUT HOLES *(± 0.030")* - NO CONING OF HOLES
LASER CUT EDGES AND HOLES *(± 0.010")* - NO CONING OF HOLES
BENDS ARE ± 1/2 DEGREE
ALL OTHER MACHINING *(± 0.030")*
ALL OTHER ASSEMBLY *(± 0.060")*

PROPRIETARY NOTE:
THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.

DESCRIPTION: BACK TO BACK PIPE MOUNT

SITE PRO 1 — A valmont COMPANY
Engineering Support Team: 1-888-753-7446
Locations: New York, NY; Atlanta, GA; Los Angeles, CA; Plymouth, IN; Salem, OR; Dallas, TX

CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.	PAGE
	CEK 1/17/2013		BBPM-K1	1 OF 1
CLASS / SUB: 81 / 03	DRAWING USAGE: CUSTOMER	CHECKED BY: BMC 1/18/2013	DWG. NO.: BBPM-K1	

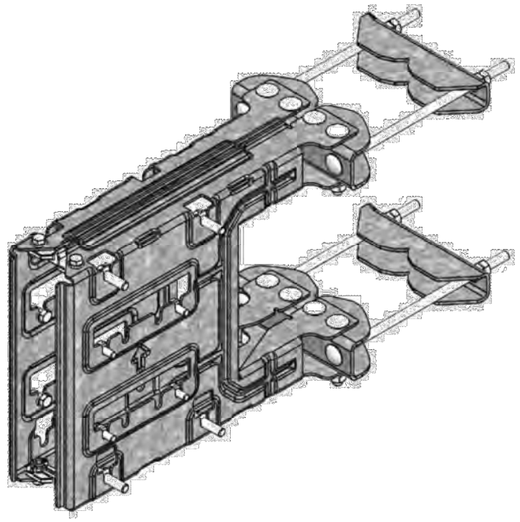
2 PROPOSED BACK TO BACK PIPE MOUNT DETAIL
SCALE: N.T.S.

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT.

SUPPLEMENTAL

SHEET NUMBER: R-608

REVISION: -



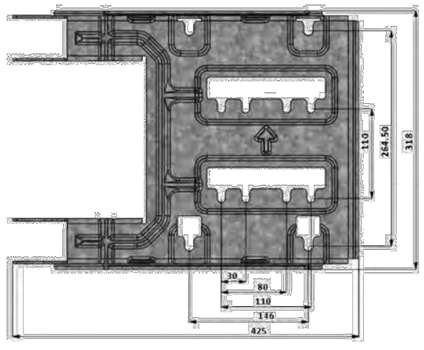
SXK 125 5394/2

Universal B2B Bracket CC110

Universal B2B Bracket CC110 is designed for installation of back to back ERS on any supporting structure i.e. pole, mast, tower leg etc. It is Low PIM bracket. When installed properly, it meets the requirements of installation in High Risk PIM Zones. Static and dynamic testing was conducted as per IEC 61000-4-3: 2020 PRV and ITU-R SM-329.

Robustness

The Universal B2B Bracket CC110 kit supports for installation of back to back ERS weight upto 50 kg on each side simultaneously. It supports the ERS mounting on pole, mast, tower leg or square tube. Easy installation due to use of carriage bolts for mounting on the supporting structure and key holes for ERS in the bracket. Bush separators has been provided to avoid any contact of arms with each other.



Quality

All components of the assembly are made of galvanized High Tensile Steel, which supports corrosion resistance.

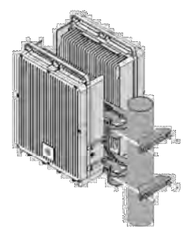
ericsson.com

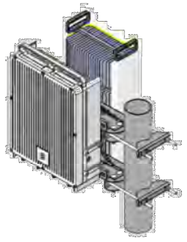
Technical specification

Functional Description

SXK 125 5394/2

Universal B2B Bracket CC110 kit supports installation of ERS back to back with Centre to Centre distance of 30mm x 110mm, 80mm x 110mm and 110mm x 110mm. It also supports two RRUs (back to back) with Centre to Centre distance of 146mm x 264.5 mm (old generation ERS). ERS or RRU are mounted back to back in portrait position on any supporting structure with ERS or RRU weight up to 50kg on each side.





Product	Universal B2B Bracket CC110		
Product number	SXK 125 5394/2		
Mounting range	Profile	Minimum	Maximum
	Circular tube	Ø25 mm (1 inch)	Ø120 mm (4.7 inch)
	60⁰ Angle	35 mm Opening (1.4 inch)	115 mm Opening (4.5 inch)
	90⁰ Angle	35 x 35 mm (1.4 X 1.4 inch)	112 x 112 mm (4.4 X 4.4 inch)
	Square tube	35 x 35 mm (1.4 X 1.4 inch)	80 x 80 mm (3.1 X 3.1 inch)
Mechanical specification	Brackets	High Tensile Steel, Galvanized	
	Fasteners	Grade 8.8 Galvanized & A4	
	Bush Separators	Composite material(PBT+PET)-GF30	
Recommended tools	M8 ISO, 13mm torque wrench (10-22 Nm)		
	M10 ISO, 16mm & 17mm torque wrench (15-25 Nm)		
Performance	Maximum wind speed	67 m/s (240 km/h, 149 mph)	
	Survival wind speed	90 m/s (324 Km/h, 201 mph)	
	Maximum equipment weight	2 x 50 Kg (2 x 110.2 lbs)	

Packaging dimension	Length	Width	Height	Package Weight	Product Weight
Universal B2B Bracket CC110 (SXK 125 5394/2)	480 mm (18.9 in)	360 mm (14.2 in)	80 mm (3.2 in)	10.4 Kg (22.9 lbs)	10.0 Kg (22.0 lbs)

ericsson.com

287 01- SXK 125 5394/2, Rev. A

1 PROPOSED BACK TO BACK RRU BRACKET DETAIL
SCALE: N.T.S.

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT.

SUPPLEMENTAL

SHEET NUMBER: R-609

REVISION: -

AMERICAN TOWER®
CORPORATION

This report was prepared for American Tower Corporation by

POD
POWERLOT DESIGN

Antenna Mount Analysis Report

Mount Type	:	**12.5 ft Platform**
ATC Asset Name	:	**Cotopaxi II**
ATC Asset Number	:	**370593**
Engineering Number	:	**15312118_C8_01**
Mount Elevation	:	**109.5 ft**
Carrier	:	**AT&T Mobility**
Carrier Site Name	:	**COTOPAXI**
Carrier Site Number	:	**WSUTH0060835**
Site Location	:	**345 Fremont County Road 012** **Cotopaxi, CO 81223-0010** **38.374178, -105.690958**
County	:	**Fremont**
Date	:	**May 19, 2025**
Max Usage	:	**60 %**
Result	:	**Contingent Pass**

Prepared By:

Jason Cheronis

Jason G. Cheronis
Vice President of Structural Engineering

COLORADO LICENSED
JASON GEORGE CHERONIS
PE.0052823
PROFESSIONAL ENGINEER

Jason G Cheronis
Digitally signed by Jason G Cheronis
Date: 2025.05.20 09:07:38 -04'00'

Introduction

The purpose of this report is to summarize results of the antenna mount analysis performed for AT&T Mobility at 109.5 ft.

Supporting Documents

Spec. Sheet	Spec Sheet for SitePro1 Part #: RMQP-NP
Structural Analysis	ATC Engineering #: OAA787850_C3_06, dated: September 19, 2024
RFDS	RFDS dated April 28, 2025, FA #: 10547898
Photos	Site photos from 2020

Analysis

This antenna mount was analyzed using RISA-3D v21 analysis software

Basic Wind Speed:	105 mph, Vult (3-Second Gust)
Basic Wind Speed w/ Ice:	55 mph (3-Second Gust) w/ 0.18" Radial Ice (Escalating)
Codes:	TIA-222-I
Structure Class:	II
Exposure Category:	C
Topographic Factor Procedure:	Method 1
Topographic Feature:	Flat
Crest Height:	0 ft
Crest Length:	0 ft
Spectral Response:	S_{MS} = 0.37, S_{M1} = 0.18
Site Class:	D (assumed)
Live Loads:	Lm = 500 lbs*, Lv = 250 lbs*

***Live load(s) reduction confirmed to either not control or not be applicable.**

Conclusion

Based on the analysis results, the antenna mount meets the requirements per the applicable codes listed above provided the modifications listed below are completed:

- Mount pipes to be connected at 0'-3", 4'-3", 8'-3" and 12'-3" respectively from right outside edge when looking at the mount from front and mounted with a 110'-0" centerline using the existing crossover kits.
- Install 8'-0" P2 STD mount pipe (SitePro1 P296, 2 per sector, total of 6, CONMAT #: ANT. 55983) connected 1'-0" from the collar along the standoff and mounted with a 110'-0" centerline using SitePro1 BBPM-K1 crossover kits (1 per sector, total of 3, CONMAT #: ANT. 58963).

No structural failures were addressed with the noted contingencies. Contingencies address Carrier's antenna spacing requirements.

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

- MOUNT ANALYSIS

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 CONSTRUCTION.

SUPPLEMENTAL

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