



Please include:

- -property tax schedule number
- -legal description
- -lot/parcel size

AMERICAN TOWER®

ATC SITE NAME: MORLEY 1 ATC SITE NUMBER: 383495

AT&T PACE NUMBERS: MRUTH051679 (LTE 3C), MRUTH051687 (5G NR 1SR), MRUTH051705 (LTE 5C), MRUTH051691 (LTE 4C), MRUTH051695 (4TX4RX

SOFTWARE RETROFIT) AT&T SITE ID: COU6029 AT&T FA CODE: 10093580

AT&T SITE NAME: MOUNT PITTSBURG

SITE ADDRESS: 15743 PHANTOM CANYON VIEW

COLORADO SPRINGS, CO 80903



LOCATION MAP

AT&T MOBILITY ANTENNA AMENDMENT PLAN

COMPLIANCE CODE	PROJECT SUMMARY		PROJECT DESCRIPTION	SHEET INDEX				
ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE	15743 PHANTOM CANYON VIEW		THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:	SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS			TOWER WORK: REMOVE (2) ANTENNA(S) AND (2) RRH(s).	G-001	TITLE SHEET	0	08/10/22	SSP
TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO		PRINGS, CO 80903	INSTALL (6) CROSSOVER PLATE KIT(S), (6) MOUNT PIPE(S),	G-002	GENERAL NOTES	0	08/10/22	SSP
THESE CODES. 1. 2018 INTERNATIONAL BUILDING CODE (IBC)		7: EL PASO	(4) ANTENNA(S), (6) RRH(s), (1) SQUID(S), (1) 0.39" FIBER TRUNK(S),	C-001	OVERALL SITE PLAN	0	08/10/22	SSP
2. 2017 NATIONAL ELECTRIC CODE (NEC)	GEOGRAPHIC	COORDINATES:	AND (2) 0.96" 6 AWG 6 DC TRUNK(S). EXISTING (2) ANTENNA(S), (2) RRH(s), (2) TMA(s), (1) SQUID(S), (8) 7/8"	C-101	DETAILED SITE PLAN	0	08/10/22	SSP
B. LOCAL BUILDING CODE	LATITUE	DE: 38.6126	COAX CABLE(S), (2) 0.78" 8 AWG 6 DC TRUNK(S), AND (1) 0.39" FIBER					
I. CITY/COUNTY ORDINANCES		DE: -104.9348	TRUNK(S) TO REMAIN	C-102	DETAILED EQUIPMENT LAYOUT	0	08/10/22	SSP
	GROUND ELEVA	ATION: 7924' AMSL	GROUND WORK: REMOVE (1) POWER PLANT(S) AND (20) GNB MARATHON M12V155FT	C-201	TOWER ELEVATION	0	08/10/22	SSP
	ZONING IN	FORMATION:	BATTERIES.	C-401	ANTENNA INSTALLATION	0	08/10/22	SSP
		EL PASO COUNTY	INSTALL (1) VERTIV NETSURE 512 -48VDC POWER PLANT(S), (7) EA. HE 2KW -48VDC RECTIFIER(S), (12) ENERSYS POWERSAFE SBS-190F	C-402	ANTENNA SCHEDULE	0	08/10/22	SSP
	PARCEL ID: 7600000276 PROJECT TEAM		BATTERIES, (2) 20A B25 RRH4X30-4R BREAKER(S), (2) 25A AHCA BREAKER(S), (2) 50A AHFIB BREAKER(S), AND (2) 50A AHLBBA BREAKER(S).	C-501	CONSTRUCTION DETAILS	0	08/10/22	SSP
				E-101	ELECTRICAL DETAILS	0	08/10/22	SSP
	TOWER OWNER: AMERICAN TOWER	APPLICANT: AT&T MOBILITY		E-102	ELECTRICAL DETAILS	0	08/10/22	SSP
				E-103	ELECTRICAL DETAILS	0	08/10/22	SSP
	10 PRESIDENTIAL WAY WOBURN, MA 01801	7670 S CHESTER ST CENTENNIAL, CO 80112		E-501	GROUNDING DETAILS	0	08/10/22	SSP
UTILITY COMPANIES	ENGINEER: PROPERTY OWNER:		R-601	SUPPLEMENTAL				
POWER COMPANY: BLACK HILLSCORPORATION	TOWER ENGINEERING	Z INVESTMENTS LLC	PROJECT NOTES	R-602	SUPPLEMENTAL			
PHONE: (888) 890-5554 TELEPHONE COMPANY: CENTURYLINK	PROFESSIONALS 326 TRYON ROAD	PO BOX 50005 COLORADO SPRINGS CO.	THE FACILITY IS UNMANNED. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A	R-603	SUPPLEMENTAL			
PHONE: (806) 616-3301	RALEIGH, NC 27603-3530	80949-0005	A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND.	R-604	SUPPLEMENTAL			
OCC	PROJECT LOCA	ATION DIRECTIONS	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.	R-605	SUPPLEMENTAL			
811			IS REQUIRED.	R-606	SUPPLEMENTAL			
	DRIVEWAYS AND BLIND	LL TIMES AS THERE ARE HIDDEN CURVES ALONG THE ROAD	HANDICAP ACCESS IS NOT REQUIRED. THE PROJECT DEPICTED IN THESE PLANS QUALIFIES AS AN EXCEPTION OF THE PROJECT OF THE	R-607	SUPPLEMENTAL			
	TURN RIGHT ONTO TURKEY CANON RANCH ROAD FROM HWY 119		REVIEW UNDER 47 U.S.C. § 1455(A) AS A MODIFICATION OF AN	R-608	SUPPLEMENTAL			
Know what's below.		ATE, PUNCH IN COMBO PROVIDED TONTO PHANTOM CANYON VW	COLLOCATION, REMOVAL, AND/OR REPLACEMENT OF					
Call before you dig.	.5 MILES TO TOWERS AT THE TOP.		TRANSMISSION EQUIPMENT THAT IS NOT A SUBSTANTIAL CHANGE UNDER CFR § 1.61000 (B)(7).					



ATC SITE NUMBER: 383495

ATC SITE NAME: MORLEY 1

AT&T MOBILITY SITE NUMBER:

COU6029

AT&T MOBILITY SITE NAME:

MOUNT PITTSBURG

SITE ADDRESS: 15743 PHANTOM CANYON VIEW COLORADO SPRINGS, CO 80903





DATE DRAWN:	08/10/22		
ATC JOB NO:	14093825		
CUSTOMER NAME:	MOUNT PITTSBURG		
CUSTOMER ID:	COU6029		

TITLE SHEET

G-001

GENERAL CONSTRUCTION NOTES:

- 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 FREMITS.
- ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANS/IEIA/TIA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS.
- CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
- 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
- DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
- THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR ROL TS. FTC.
- 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
- 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
- WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE AT&T MOBILITY REP AND ENGINEER OF RECORD
- 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
- 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
- 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 NOTO 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 MAUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOR OLWIBER SHALL BE PROVIDED BY THESE MANUFACTURER'S AS PECIFIED.
- 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 ABCHITECT/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 WARDE 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 OTHERWINS STATED.
- G. ANTENNA AND COAXIAL CABLE GROUNDING:
- ALL EXTERIOR #6 GREEN GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPLICE WEATHERPROOFING KIT #221213 OR FOLIAL
- 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.





326 TRYON ROAD RALEIGH, NC 27603-3530

OFFICE: (919) 661-6351 www.tepgroup.net

REV. DESCRIPTION BY DATE

A PRELIMINARY SVJ 05/27/22

100% CONSTRUCTION SSP 08/10/22

ATC SITE NUMBER: 383495

ATC SITE NAME: MORI FY 1

AT&T MOBILITY SITE NUMBER: COU6029

AT&T MOBILITY SITE NAME:

MOUNT PITTSBURG

SITE ADDRESS: 15743 PHANTOM CANYON VIEW COLORADO SPRINGS. CO 80903

SEAL



SAT&T

DATE DRAWN: 08/10/22
ATC JOB NO: 14093825
CUSTOMER NAME: MOUNT PITTSBURG
CUSTOMER ID: COU6029

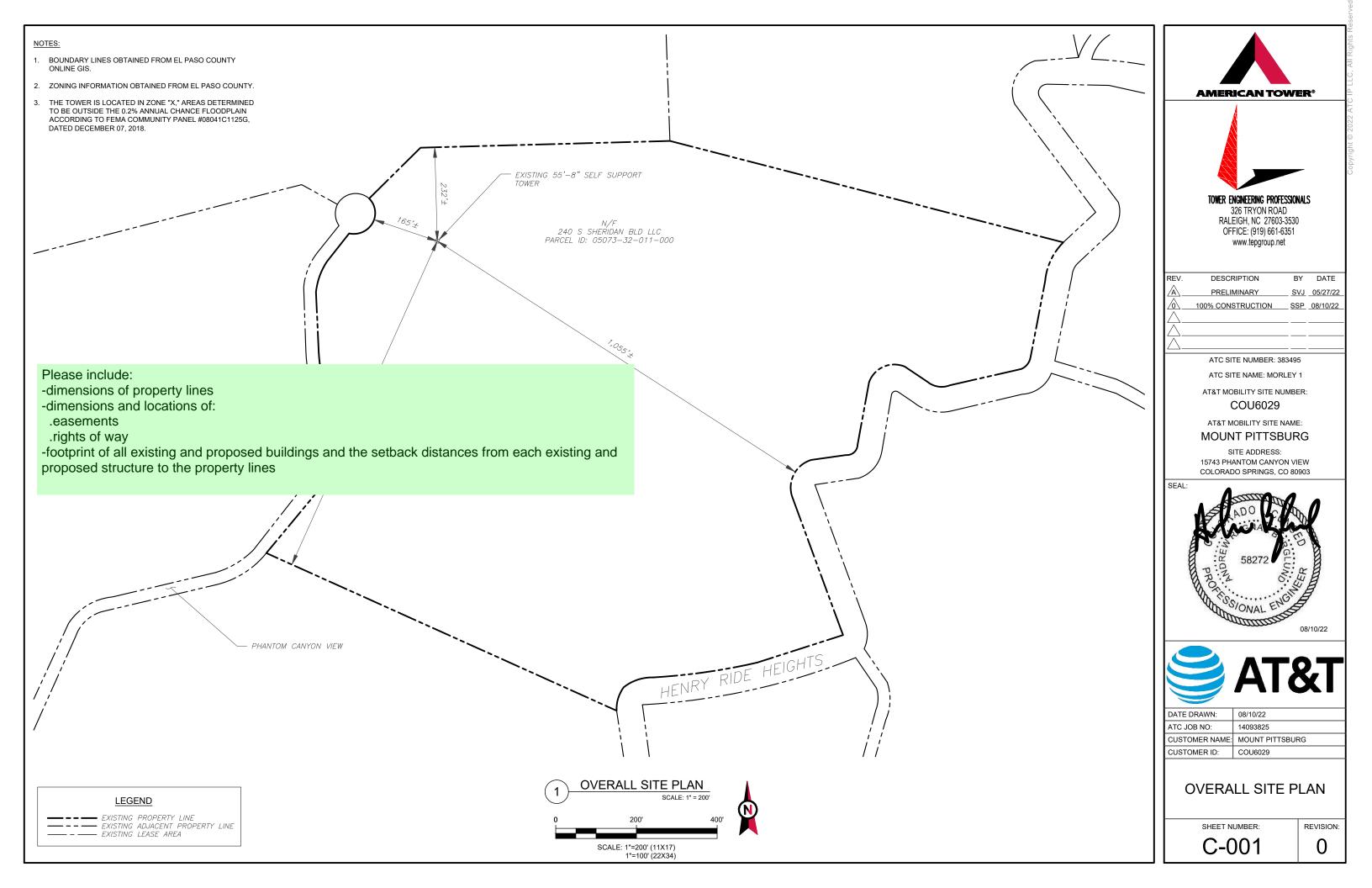
GENERAL NOTES

SHEET NUMBER:

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G-002

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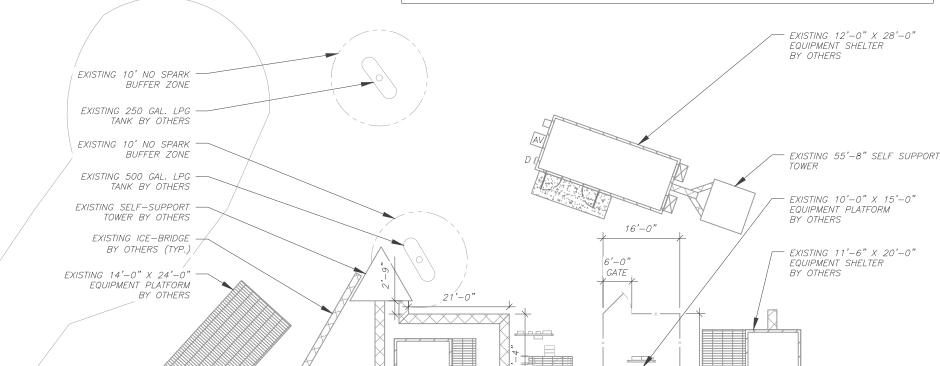
SITE PLAN NOTES:

- 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.
- 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.
- 3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE AT&T MOBILITY REPRESENTATIVE AND LOCAL UTILITY COMPANY FOR THE INSTALLATION OF CONDUITS, CONDUCTORS, BREAKERS, DISCONNECTS, OR ANY OTHER EQUIPMENT REQUIRED FOR ELECTRICAL SERVICE. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE STATE AND NATIONAL CODES, ORDINANCES AND REGULATIONS APPLICABLE TO THIS PROJECT.

LEGEND

GROUNDING TEST WELL ATS AUTOMATIC TRANSFER SWITCH **BOLLARD** CSC **CELL SITE CABINET** D DISCONNECT ELECTRICAL **FIBER** GEN GENERATOR GENERATOR RECEPTACAL HH. V HAND HOLE, VAULT ΙB ICE BRIDGE KENTROX BOX LC LIGHTING CONTROL M METER РΒ PULL BOX PΡ POWER POLE TELCO TRN TRANSFORMER

CHAINLINK FENCE



PROPOSED AT&T MOBILITY

EXISTING AT&T MOBILITY 12'-0" X 14'-0" EQUIPMENT PLATFORM WITHIN 168 SQ FT

EXISTING AT&T MOBILITY

(8) 7/8" COAX CABLES (2) 0.78" 8 AWG 6 DC TRUNKS

(1) 0.39" FIBER TRUNKS

PROPOSED AT&T MOBILITY

(ROUTED PER PROPOSED

CABLE LENGTH NOTE 2)

(1) 0.39" FIBER TRUNK

(2) 0.96" 6 AWG 6 DC TRUNKS

(REFER TO PROPOSED CABLE

LENGTH NOTE ON THIS PAGE)

AND INSIDE CABINET:

(1) POWER PLANT

GROUND SPACE

(TO REMAIN)

(7) RECTIFIERS (12) BATTERIES (8) DC BREAKERS

EQUIPMENT TO BE INSTALLED ON

EXISTING EQUIPMENT PLATFORM

C-102

PROPOSED CABLE LENGTH:

- ESTIMATED LENGTH OF PROPOSED CABLE IS 140:
 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. 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).



EXISTING 12'-0" X 26'-0"

EQUIPMENT SHELTER

BY OTHERS



NOTES:

- . REPLACE EXISTING OUTDOOR POWER PLANT WITH NEW VERTIV NETSURE -48VDC POWER SYSTEM; INSTALL (1) NEW VERTIV NETSURE 512 -48VDC POWER PLANT OUTFITTED WITH (7) EA. HE 2KW -48 VDC RECTIFIERS.
- (2) 20A BREAKER FOR B25 RRH4X30-4R
- . (2) 25A BREAKER FOR AHCA
- 4. (2) 50A BREAKER FOR AHFIB
- 5. (2) 50A BREAKER FOR AHLBBA
- 6. REMOVE (20) GNB MARATHON M12V155FT BATTERIES, INSTALL (12) NEW ENERSYS POWERSAFE SBS-190F BATTERIES UNDERNEATH NEW POWER PLANT I.E. (3) STRINGS CONFIGURED @ -48VDC NOMINAL TO ACHIEVE 5.1 HRS OF BATTERY RESERVE

RALEIGH, NC 27603-3530

OFFICE: (919) 661-6351

www.tepgroup.net

REV. DESCRIPTION BY DATE

A PRELIMINARY SVJ 05/27/22

0 100% CONSTRUCTION SSP 08/10/22

AMERICAN TOWER®

TOWER ENGINEERING PROFESSIONALS

326 TRYON ROAD

ATC SITE NUMBER: 383495

ATC SITE NAME: MORLEY 1

AT&T MOBILITY SITE NUMBER: COU6029

AT&T MOBILITY SITE NAME:

MOUNT PITTSBURG

SITE ADDRESS: 15743 PHANTOM CANYON VIEW COLORADO SPRINGS. CO 80903

SEA



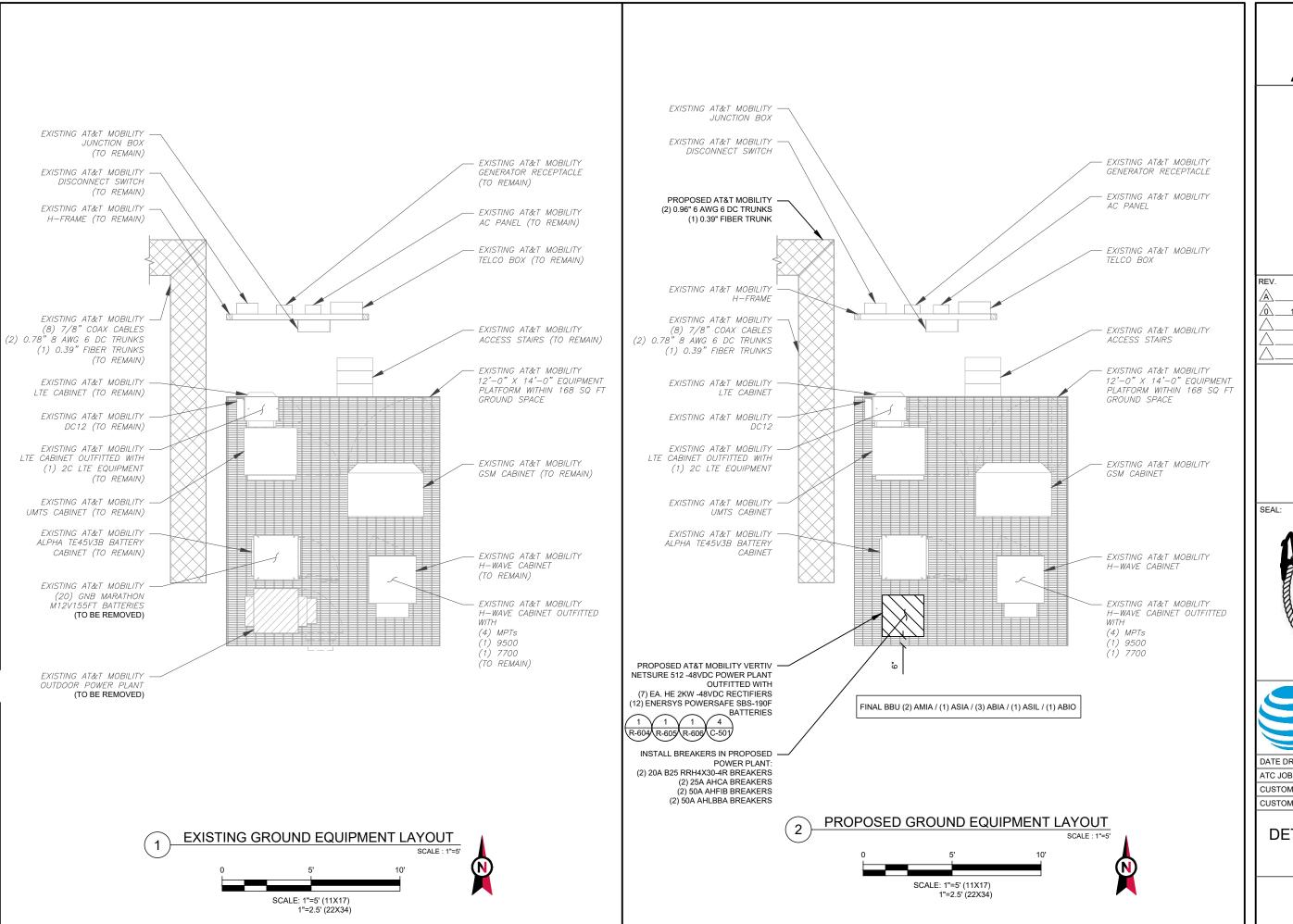


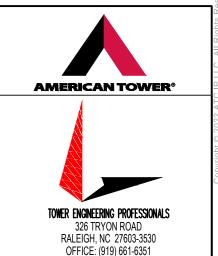
	DATE DRAWN:	08/10/22			
	ATC JOB NO:	14093825			
	CUSTOMER NAME:	MOUNT PITTSBURG			
	CUSTOMER ID:	COU6029			

DETAILED SITE PLAN

SHEET NUMBER:

C-101





www.tepgroup.net

ATC SITE NUMBER: 383495

ATC SITE NAME: MORLEY 1

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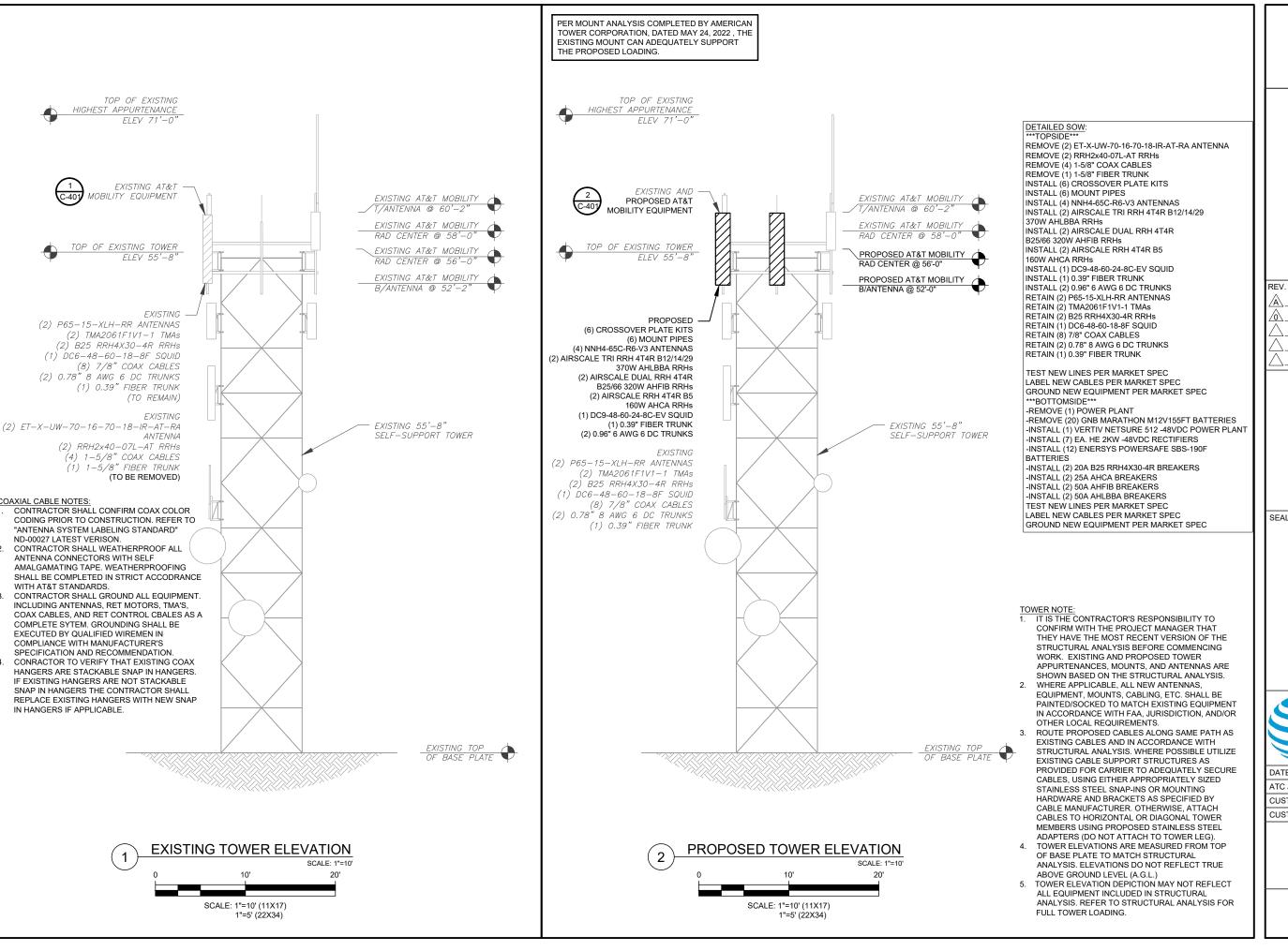


DATE DRAWN:	08/10/22			
ATC JOB NO:	14093825			
CUSTOMER NAME:	MOUNT PITTSBURG			
CUSTOMER ID:	COU6029			

DETAILED EQUIPMENT LAYOUT

SHEET NUMBER:

C-102





TOWER ENGINEERING PROFESSIONALS

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

REV.	DESCRIPTION	BY	DATE
<u> </u>	PRELIMINARY	SVJ	05/27/22
\wedge_{-}	100% CONSTRUCTION	SSP	08/10/22
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$\overline{\square}$			
\square _			

ATC SITE NUMBER: 383495

ATC SITE NAME: MORLEY 1

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MOUNT PITTSBURG

SITE ADDRESS: 15743 PHANTOM CANYON VIEW COLORADO SPRINGS, CO 80903





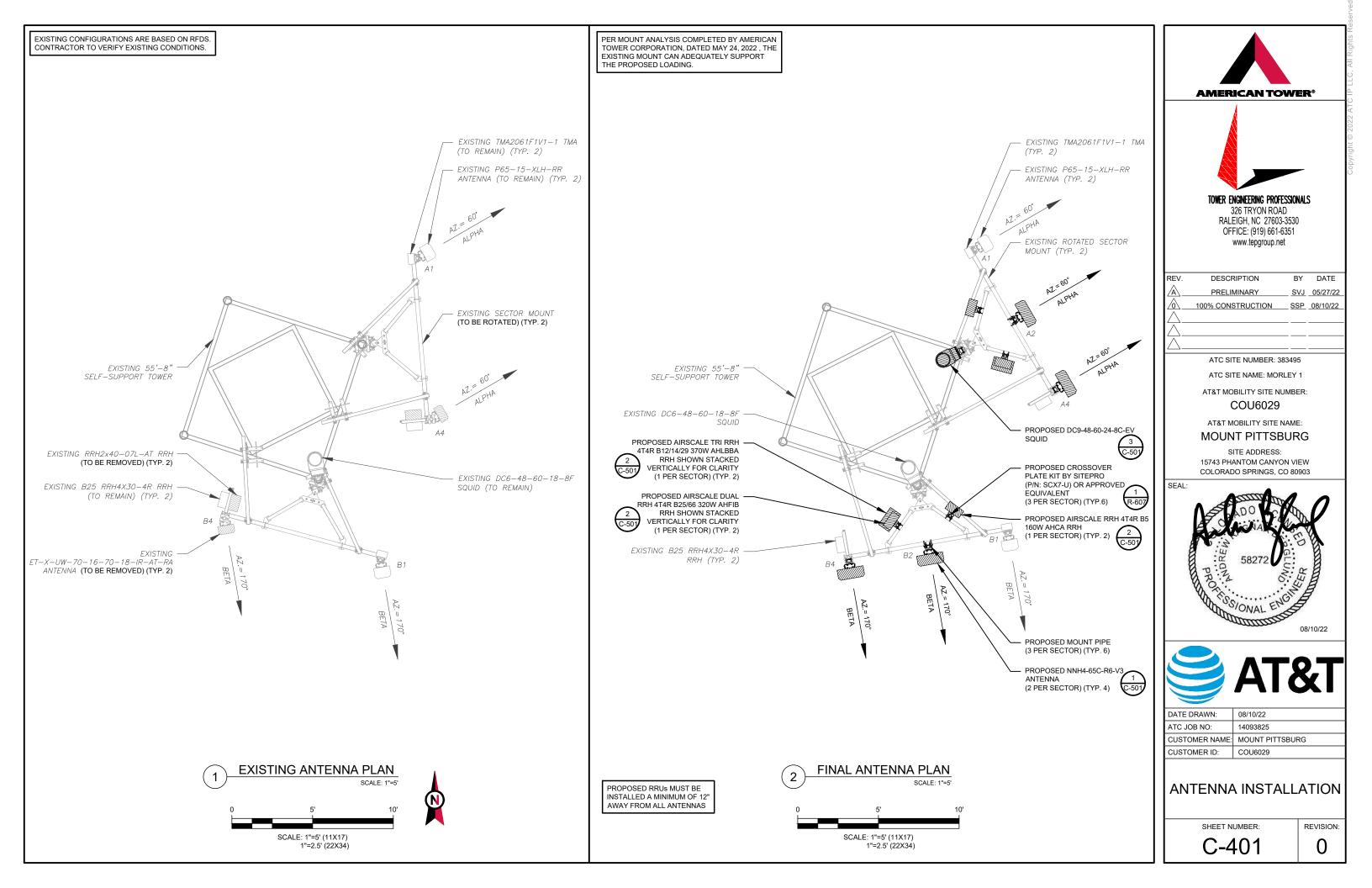
DATE DRAWN:	08/10/22
ATC JOB NO:	14093825
CUSTOMER NAME:	MOUNT PITTSBURG
CUSTOMER ID:	COU6029

TOWER ELEVATION

SHEET NUMBER

REVISION

C-201



EXISTING ANTENNA SCHEDULE						NOTES						FINAL ANTENNA SCHEDULE												
L	OCATION			ANTENNA	SUMMARY		NON ANTENNA SUMMA	ARY	1. CONFIRM WITH AT&T MOBILITY	CONFIRM WITH AT&T MOBILITY LOCATION		LOCATION ANTENNA SUMMARY				NON ANTENNA SUMMA	ιRY							
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS	REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS FOR NSN	SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS						
	58'		A1	P65-15-XLH-RR	UMTS 1900	RMN	(1) TMA206 1F1V1-1	RMN	CONFIGURATION (CONFIG). GC TO		58'		A1	P65-15-XLH-RR	UMTS 1900	RMN	(1) TMA206 1F1V1-1	RMN						
ALPHA	56'	60°	A4	ET-X-UW-70-16-70-18-IR-AT- RA	LTE 700/LTE 1900	RMV	(1) RRH2X40-07L-AT (1) B25 RRH4X30-4R	RMV RMN	CAP ALL UNUSED PORTS. CONFIRM SPACING OF PROPOSED EQUIP DOES NOT CAUSE TOWER				A2	NNH4-65C-R6-V3	5G 850	ADD	(1) AIRSCALE RRH 4T4R B5 160W AHCA	ADD						
	58'		B1	P65-15-XLH-RR	UMTS 1900	RMN	(1) TMA206 1F1V1-1	RMN	CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.	ALPHA 56'						60°					(1) AIRSCALE TRI RRH 4T4R B12/14/29 370W AHLBBA	ADD		
BETA	56'	170°	B4	ET-X-UW-70-16-70-18-IR-AT- RA	LTE 700/LTE 1900	RMV	(1) RRH2X40-07L-AT (1) B25 RRH4X30-4R	RMV RMN	3. THE ANTENNA ORIENTATION PLAN IS A SCHEMATIC. ATC DID NOT				A4	NNH4-65C-R6-V3	LTE 700/LTE 1900/LTE AWS	ADD	(1) AIRSCALE DUAL RRH 4T4R B25/66 320W AHFIB	ADD						
						'			CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT								(1) B25 RRH4X30-4R	RMN						
									LIMITED TO, ANTENNA AZIMUTHS,		58'		B1	P65-15-XLH-RR	UMTS 1900	RMN	(1) TMA206 1F1V1-1	RMN						
									MOUNT CONFIGURATIONS AND TOWER ORIENTATION. SCALES	TOWER ORIENTATION. SCALES		TOWER ORIENTATION. SCALES	TOWER ORIENTATION. SCALES		TOWER ORIENTATION. SCALES				B2	NNH4-65C-R6-V3	5G 850	ADD	(1) AIRSCALE RRH 4T4R B5 160W AHCA	ADD
									ONLY AND EXISTING DIMENSIONS ARE APPROXIMATE. THE	BETA	56'	170°					(1) AIRSCALE TRI RRH 4T4R B12/14/29 370W AHLBBA	ADD						
									CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO				B4	NNH4-65C-R6-V3	LTE 700/LTE 1900/LTE AWS	ADD	(1) AIRSCALE DUAL RRH 4T4R B25/66 320W AHFIB	ADD						
									INSTALLATION AND NOTIFY ATC								(1) B25 RRH4X30-4R	RMN						
									OF ANY DISCREPANCIES. 4. CONTRACTOR TO ENSURE PROPER SEPARATION IN ACCORDANCE WITH AT&T'S															

FIRSTNET REQUIREMENTS (SEE

SHEET R-607)

EXISTING FIBER DISTRIBUTION	EXISTING CABLING SUMMARY					
MODEL NUMBER	STATUS	COAX	DC	FIBER	STATUS	
(1) DC6-48-60-18-8F	RMN	-	(2) 0.78" 8 AWG 6	(1) 0.39"	RMN	
-	-	(8) 7/8"	_	_	_	
_	ı	(4) 1-5/8"	_	(1) 1-5/8"	RMV	

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'

\	EQUIPMENT SCHEDULES	
Г		

FINAL FIBER DISTRIBUTION/	SQUID	FINAL CABLING SUMMARY					
MODEL NUMBER	STATUS	COAX	DC	FIBER	STATUS		
(1) DC6-48-60-18-8F	RMN	_	(2) 0.78" 8 AWG 6	(1) 0.39"	RMN		
_	-	(8) 7/8"	_		ı		
(1) DC9-48-60-24-8C-EV	ADD	-	(2) 0.96" 6 AWG 6	(1) 0.39"	ADD		





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www.tepgroup.net

REV.	DESCRIPTION	BY	DATE
\mathbb{A}_{-}	PRELIMINARY	SVJ	05/27/22
<u> </u>	100% CONSTRUCTION	_SSP_	08/10/22
\triangle_{-}			
$\overline{\wedge}$			
$\overline{\wedge}$			

ATC SITE NUMBER: 383495

ATC SITE NAME: MORLEY 1

AT&T MOBILITY SITE NUMBER: COU6029

AT&T MOBILITY SITE NAME:

MOUNT PITTSBURG

SITE ADDRESS: 15743 PHANTOM CANYON VIEW COLORADO SPRINGS, CO 80903

SEAL:





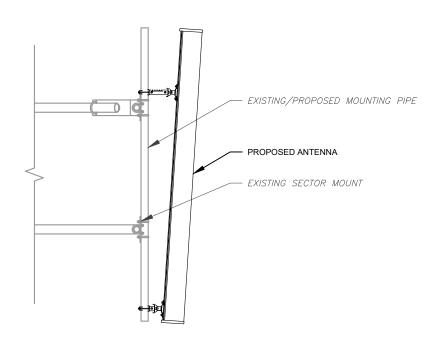
ı				
I	DATE DRAWN:	08/10/22		
I	ATC JOB NO:	14093825		
I	CUSTOMER NAME:	MOUNT PITTSBURG		
ı	CUSTOMER ID:	COU6029		
ı				

RF SCHEDULE

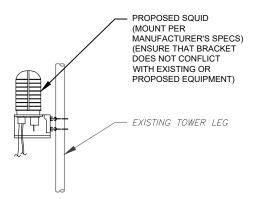
SHEET NUMBER:

C-402

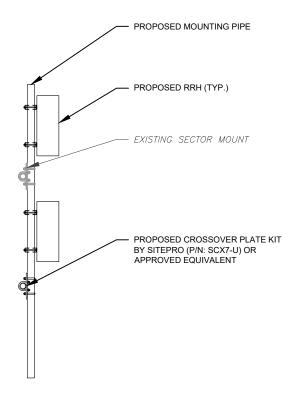
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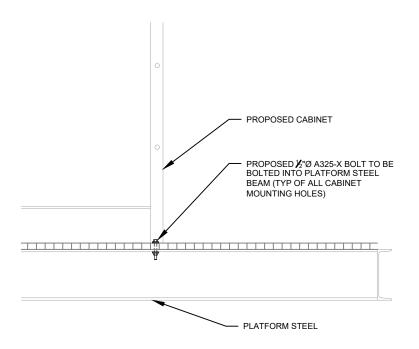
PROPOSED ANTENNA MOUNTING DETAIL



PROPOSED SQUID MOUNTING DETAIL
SCALE: N.T.S.



PROPOSED RRU MOUNTING DETAIL
SCALE: N.T.S.



4 CABINET ATTACHMENT DETAIL
SCALE: NOT TO SCALE



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REV. DESCRIPTION BY DATE

A PRELIMINARY SVJ 05/27/22

0 100% CONSTRUCTION SSP 08/10/22

ATC SITE NUMBER: 383495

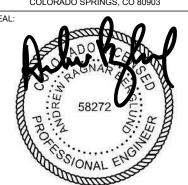
ATC SITE NAME: MORLEY 1

AT&T MOBILITY SITE NUMBER: COU6029

AT&T MOBILITY SITE NAME:

MOUNT PITTSBURG

SITE ADDRESS: 15743 PHANTOM CANYON VIEW COLORADO SPRINGS, CO 80903





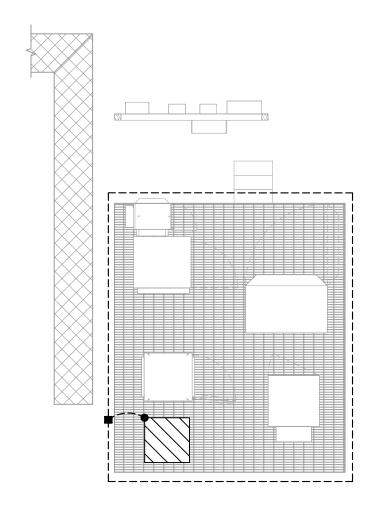
DATE DRAWN:	08/10/22
ATC JOB NO:	14093825
CUSTOMER NAME:	MOUNT PITTSBURG
CUSTOMER ID:	COU6029

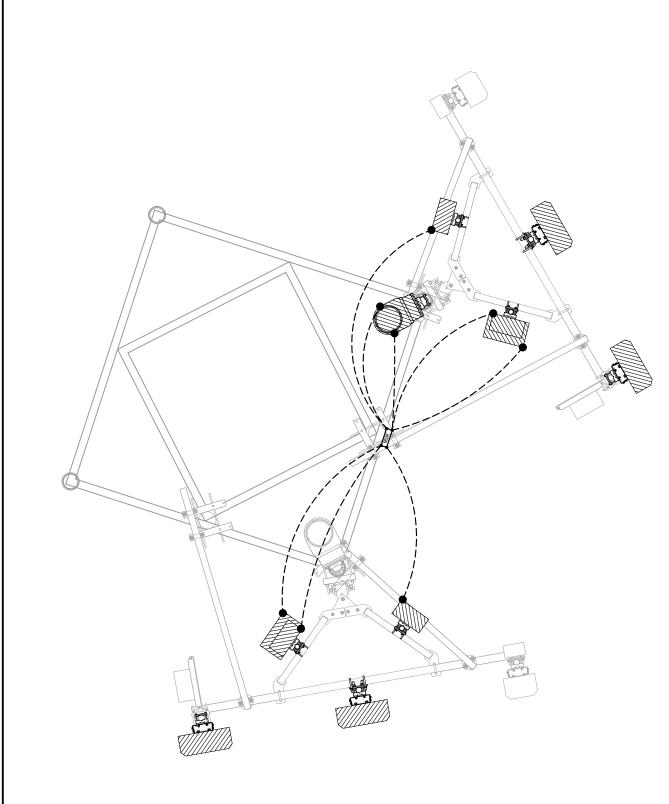
CONSTRUCTION DETAILS

SHEET NUMBER:

C-501

0





LEGEND EXOTHERMIC CONNECTION MECHANICAL CONNECTION ANTENNA GROUND BAR MASTER GROUND BAR

EQUIPMENT GROUNDING PLAN

LEGEND EXOTHERMIC CONNECTION MECHANICAL CONNECTION ANTENNA GROUND BAR MASTER GROUND BAR

ANTENNA GROUNDING PLAN





TOWER ENGINEERING PROFESSIONALS

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REV.	DESCRIPTION	BY	DATE
A_	PRELIMINARY	SVJ	05/27/22
<u></u>	100% CONSTRUCTION	SSP_	08/10/22
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$\overline{\wedge}$			

ATC SITE NUMBER: 383495

ATC SITE NAME: MORLEY 1

AT&T MOBILITY SITE NUMBER: COU6029

AT&T MOBILITY SITE NAME:

MOUNT PITTSBURG

SITE ADDRESS: 15743 PHANTOM CANYON VIEW COLORADO SPRINGS, CO 20005





	DATE DRAWN:	08/10/22
П	ATC JOB NO:	14093825
П	CUSTOMER NAME:	MOUNT PITTSBURG
П	CUSTOMER ID:	COU6029

ELECTRICAL DETAILS

SHEET NUMBER:

REVISION: E-101

0

*NOTE:
(7) PROPOSED RECTIFIER(S) TO BE CONNECTED TO EXISTING (7) PROPOSED RECIPIER(S) TO BE CONNECTED TO EXISTING RECTIFIER BREAKERS FOR A TOTAL OF (7) RECIFIER FEEDS. CONTRACTOR TO VERIFY EXISTING RECTIFIER BREAKER CONFIGURATION ALLOWS FOR MULTIPLE RECTIFIER CONNECTIONS AND TO NOTIFY TEP FOR CORRECTIVE ACTION IF THERE ARE ANY DISCREPANCIES.

EXISTING 200A M.C.B, 240/120 VAC, 10, 3W PANEL SCHEDULE												
LOAD SERVED	VOLT AI (WA		TRIP			CKT #	TRIP	VOLT AMPERES (WATTS)		LOAD SERVED		
		LZ		- "				"		L1	L2	
EMERSSON CAB / OFF	0	0	50/2	3		В		2	60/2	0	0	TVSS
850 GSM / OFF	0		50/2	5		Α		6	20/1	180		GFI REC
000 00141 / 011		0	00/2	7		В		8	20/1		1920	LTS
TECLO REG	1920		20/1	9		Α		10	20/1	0		E-911 / OFF
UNKNOWN		1920	20/1	11	1 \cap	В		12	20/1		0	E-911 / OFF
UMTS GFCI & HEATER		1180	20/1	''	$\overline{\mathbf{A}}$			12	20/1			E-911 / OFF
ALPHA PDF RECT 1	600		20/2	13	\mathbb{T}	Α		14	20/1	180		ALPHA GFCI
ALFHA FDF RECT T	600		20/2		$\vdash \land$	$\stackrel{\wedge}{\longrightarrow}$	╀┸	14	30/2	600		ALPHA PDF RECT 2
UNKNOWN		1920	20/1	15		В	$\downarrow \wedge$	16	30/2		600	ALITIA I DI INLOI 2
SAID M/W CAB HVAC		1600	20/2		业	В	╀┸	10	30/2		600	ALPHA PDF RECT 3
SAID W/ W CAB HVAC	1600		20/2	17		Α	$\downarrow \wedge$	18	30/2	600		ALFIIA FDI INLOT 5
ALPHA PDF RECT 4	600		20/2				$+ \cap$	10	30/1	600		ALPHA PDF RECT 5
ALITIA I DI NECI 4		600	20/2	19		В	$\downarrow \wedge$	20	20/1		600	ALITIA I DI INECI 3
BLANK		-	_	13		Ь		20	-		-	BLANK
VOLT AMPS	5320	7220								2160	3720	VOLT AMPS
	L	1 VOLT A	MPERES	74	-80		109	940	L2 VOLT AMPERES			
				1	094	0		MAX VOLT AMPERES				
						91.2			MAX AMPS			
				114 MA			MAX AMPS x 125%					
			<u> </u>									

PROP	OSED	200A	M.C.B,	240	/120	VA	C, 1	ø, 3W	PANEL	SCHE	EDULE	
LOAD SERVED	VOLT A	MPERES TTS)	TRIP	CKT PHASE CKT		TRIP	VOLT AMPERES (WATTS)		LOAD SERVED			
	L1	L2		#			#		L1	L2		
EMERSSON CAB / OFF	0		50/2	1	A	\perp	2	60/2	0		TVSS	
EMERSSON CAB / OFF		0	30/2	3	В	\bot	4	00/2		0	1755	
850 GSM / OFF	0		50/2	5	A	\perp	6	20/1	180		GFI REC	
830 G3M / OTT		0	30/2	7	В	$\perp \wedge$	8	20/1		1920	LTS	
TECLO REG	1920		20/1	9	A	$\downarrow \land$	10	20/1	0		E-911 / OFF	
UNKNOWN		1920	20/1		 ∏В		10	20 /1			E-911 / OFF	
UMTS GFCI & HEATER		1180	20/1	11		12	20/1		0	E-911 / OFF		
DECTIFIED 4 & 0	1200		30/2	13 A	$+ \cap$	14	20/1	180		ALPHA GFCI		
RECTIFIER 1 & 2	1200		30/2			$+ \cap$	14	70 /2	1200		DEOTHER 7 A. 4	
UNKNOWN		1920	20/1			В	16	30/2		1200	RECTIFIER 3 & 4	
CAID MAN CAR LINAC		1600	00 (0		HT B		16	70 /0		1200	DECTIFIED 5 . 6	
SAID M/W CAB HVAC	1600		20/2		+4-		30/2	1200		RECTIFIER 5 & 6		
SPARE / OFF	0		20/1	17	A	$+ \cap$	18	70 /0	600		DESTRUCT 7 A S	
SPARE / OFF		0	20/1	10		╁┴		30/2		600	RECTIFIER 7 & 8	
BLANK		-	_	19	B		20	-		-	BLANK	
VOLT AMPS	5920	6620		•	-				3360	4920	VOLT AMPS	
	L	1 VOLT A	MPERES	92	80	11	540	L2 VOL	T AMPER	ES		
				115	40		MAX VO	LT AMPER	RES			
					96.	2		MAX AM	PS			
				120.3 MAX AMPS x 125%								



TOWER ENGINEERING PROFESSIONALS

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REV.	DESCRIPTION	BY	DATE
\triangle_{-}	PRELIMINARY	SVJ	05/27/22
\wedge _	100% CONSTRUCTION	SSP	08/10/22
$\overline{\wedge}$			
$\overline{\wedge}$			

ATC SITE NUMBER: 383495

ATC SITE NAME: MORLEY 1

AT&T MOBILITY SITE NUMBER: COU6029

AT&T MOBILITY SITE NAME:

MOUNT PITTSBURG

SITE ADDRESS: 15743 PHANTOM CANYON VIEW COLORADO SPRINGS, CO 80903





П		
П	DATE DRAWN:	08/10/22
П	ATC JOB NO:	14093825
	CUSTOMER NAME:	MOUNT PITTSBURG
П	CUSTOMER ID:	COU6029

ELECTRICAL DETAILS

SHEET NUMBER:

REVISION: 0

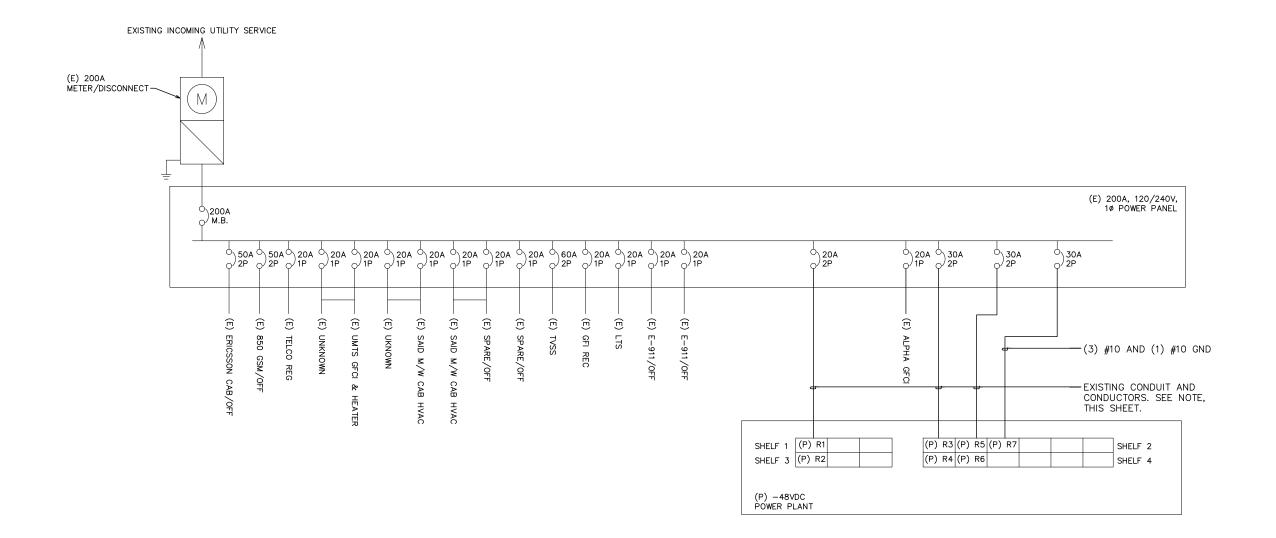
E-102

EXISTING AC PANEL

PROPOSED AC PANEL



*NOTE:
(7) PROPOSED RECTIFIER(S) TO BE CONNECTED TO EXISTING RECTIFIER BREAKERS FOR A TOTAL OF (7) RECTIFIER FEEDS.
CONTRACTOR TO VERIFY EXISTING RECTIFIER BREAKER CONFIGURATION ALLOWS FOR MULTIPLE RECTIFIER
CONNECTIONS AND TO NOTIFY TEP FOR CORRECTIVE ACTION



LEGEND:

(E) - EXISTING

(N) - NEW







TOWER ENGINEERING PROFESSIONALS

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REV.	DESCRIPTION	BY	DATE
A_	PRELIMINARY	SVJ	05/27/22
<u> </u>	100% CONSTRUCTION	SSP_	08/10/22
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\wedge			

ATC SITE NUMBER: 383495

ATC SITE NAME: MORLEY 1

AT&T MOBILITY SITE NUMBER:

COU6029

AT&T MOBILITY SITE NAME:

MOUNT PITTSBURG

SITE ADDRESS: 15743 PHANTOM CANYON VIEW COLORADO SPRINGS, CO 80903



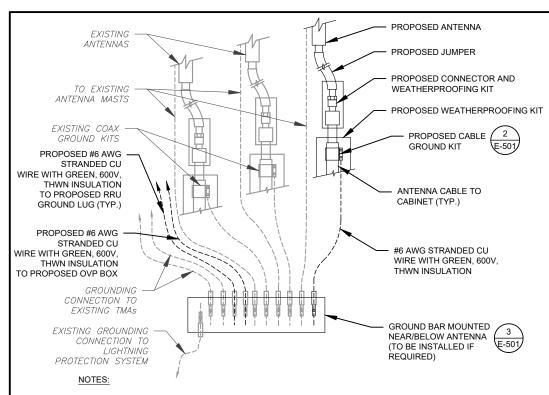


	DATE DRAWN:	08/10/22
	ATC JOB NO:	14093825
	CUSTOMER NAME:	MOUNT PITTSBURG
	CUSTOMER ID:	COU6029

ELECTRICAL DETAILS

SHEET NUMBER: E-103 REVISION:

0



 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

TYPICAL ANTENNA GROUNDING DIAGRAM

3/8" X 3/4" SS

GROUND BAR MOUNTING BRACKET

BOLT (TYP.)

1/4" X 4" X 12"

TWO-HOLE LUG, TO BE USED WITH #2 AWG BCW

GALVANIZED BUSS



GROUND KIT NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT

TO ANTENNA

 \bigcirc

TO EQUIPMENT

GROUND WIRE DOWN TO GROUND BAR.

ANTENNA CABLE 2 1/2"Ø MAX

GROUNDING KIT PER CABLE

TO GROUND BAR

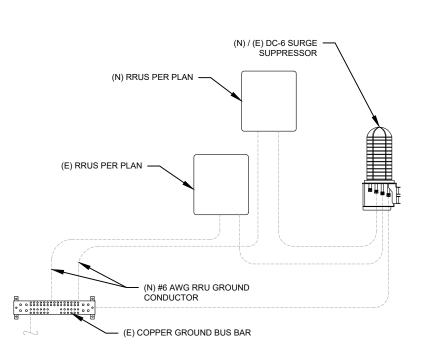
(ANDREW OR APPROVED EQUAL)

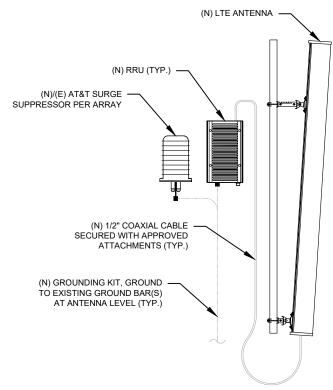
MANUFACTURER'S RECOMMENDATIONS

#6 AWG STRANDED COPPER GROUND

WIRE (GROUNDED TO GROUND BAR)







GROUND BAR NOTES

3/8" SS LOCK WASHER (TYP.)

1/4"Ø HILTI KWIK BOLT III

WHERE INDICATED

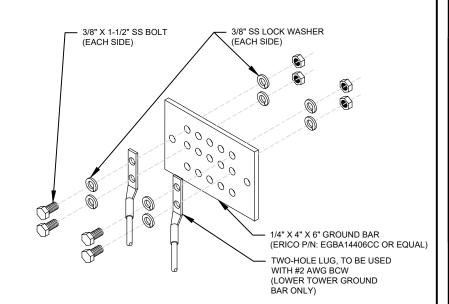
3/8" THREADED INSULATOR

GROUND KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).

MAIN GROUND BAR DETAIL

2. GROUND BAR SHALL BE BOLTED TO STRUCTURAL MEMBER OR ANCHORED TO CONCRETE SLAB W/ HILTI KWIK BOLT III.

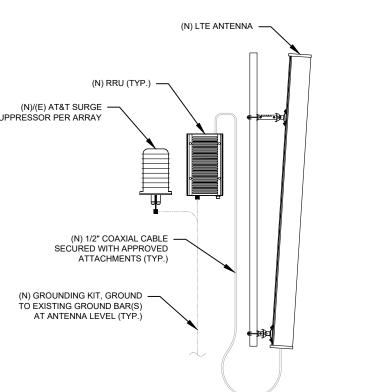
RRU GROUNDING



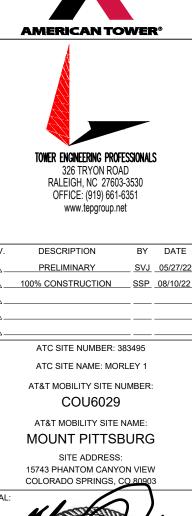
GROUND BAR NOTES:

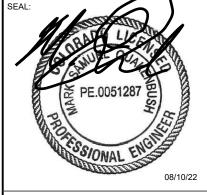
- GROUND BAR KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
- 2. GROUND BAR TO BE BONDED DIRECTLY TO TOWER.





ANTENNA/RRU GROUNDING





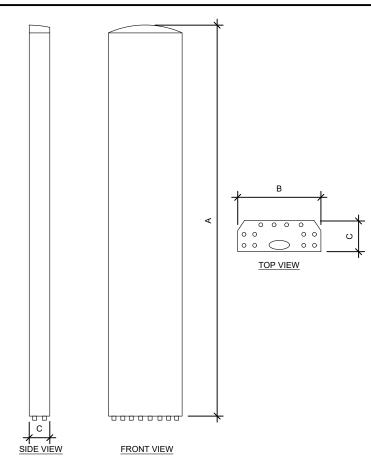


DATE DRAWN:	08/10/22
ATC JOB NO:	14093825
CUSTOMER NAME:	MOUNT PITTSBURG
CUSTOMER ID:	COU6029

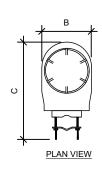
GROUNDING DETAILS

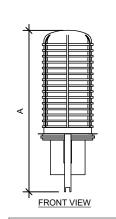
SHEET NUMBER:

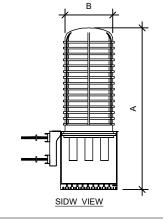
E-501



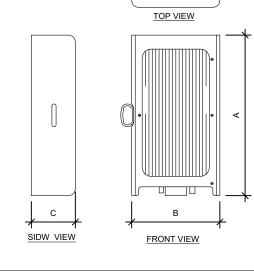
ANTENNA SPECIFICATIONS							
ANTENNA MODEL	А	В	С	WEIGHT (LBS)			
NHH4-65C-R6-V3	96.0"	19.6"	7.8"	102.5			







RAYCAP SPECIFICATIONS								
RAYCAP MODEL	А	В	С	WEIGHT (LBS)				
DC9-48-60-24-8C-EV	31.4"	18.3"	10.2"	16.0				



RRU SPECIFICATIONS						
RRU MODEL	А	В	С	WEIGHT (LBS)		
AIRSCALE RRH 4T4R B5 160W AHCA	13.3"	11.6"	6.5"	35.3		
AIRSCALE TRI RRH 4T4R B12/14/29 370W AHLBBA	24"	14.1"	7.8"	94.8		
AIRSCALE DUAL RRH 4T4R B25/66 320W AHFIB	28.7"	15.4"	9.4"	88.2		

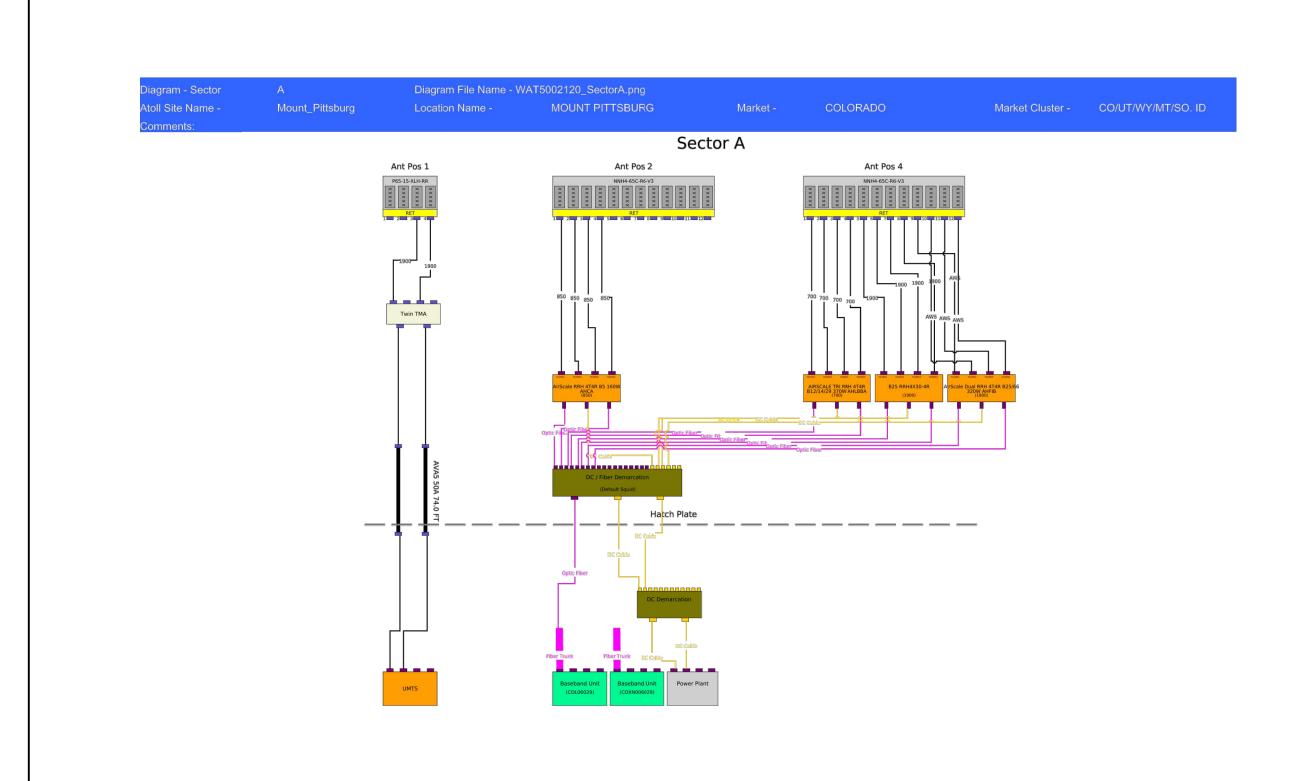
SUPPLEMENTAL

SHEET NUMBER:

REVISION:

EQUIPMENT SPECIFICATIONS SCALE: N.T.S.

R-601



NOTE: THIS SHEET WAS CREATED BY OTHERS
AND PROVIDED AT THE REQUEST OF THE
CUSTOMER WITHOUT EDIT. GENERAL
CONTRACTOR IS TO CHECK WITH THE AT&T
MOBILITY CM TO ENSURE THIS IS THE MOST
RECENT VERSION OF THE RFDS.

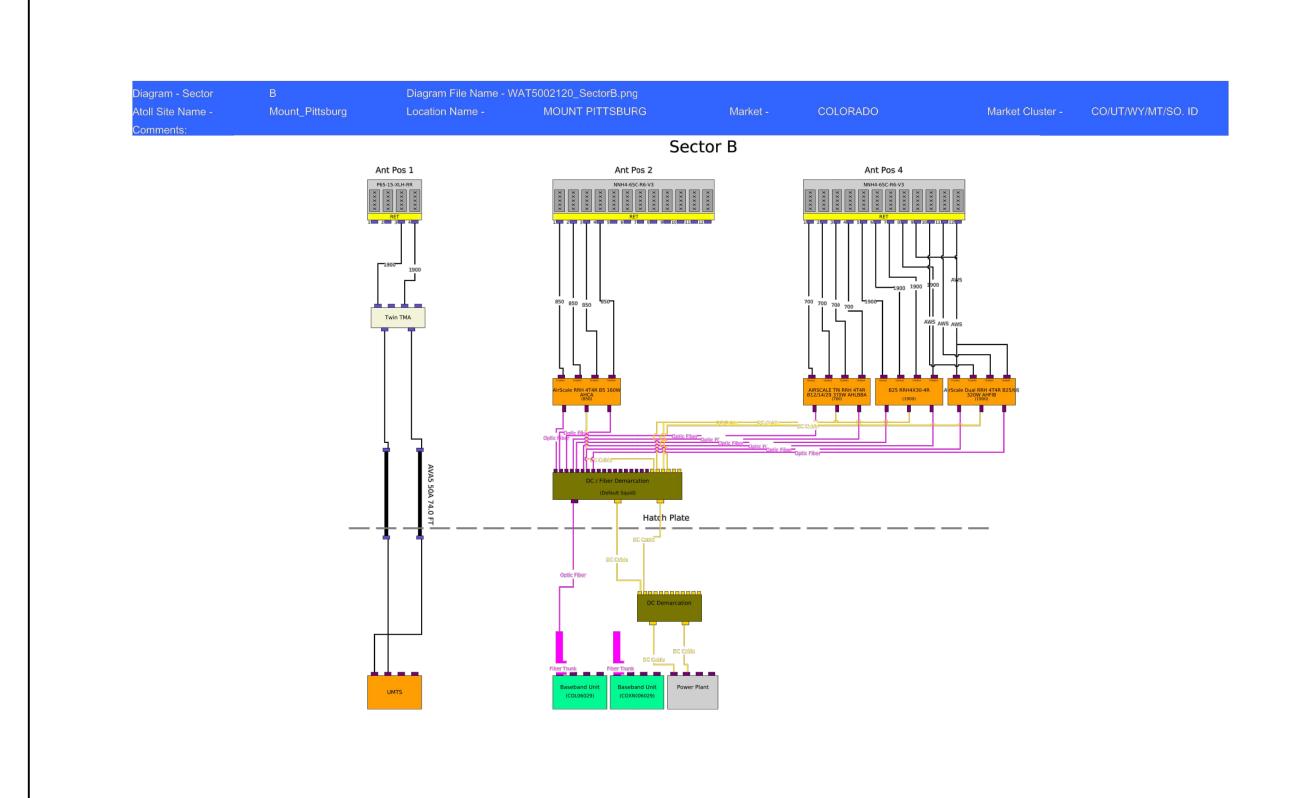
SUPPLEMENTAL

SHEET NUMBER:

BER: REVISION:

R-602

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NOTE: THIS SHEET WAS CREATED BY OTHERS
AND PROVIDED AT THE REQUEST OF THE
CUSTOMER WITHOUT EDIT. GENERAL
CONTRACTOR IS TO CHECK WITH THE AT&T
MOBILITY CM TO ENSURE THIS IS THE MOST
RECENT VERSION OF THE RFDS.

SUPPLEMENTAL

SHEET NUMBER:

REVISION:

R-603

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DC POWER SYSTEMS OUTDOOR ENCLOSURES & SERVICES

VERTIV™ XTE 601P ENCLOSURE, NETSURE 512 POWER SYSTEM

Description

This outdoor power solution includes a NetSure™ 512 DC Power System and an environmentally controlled Vertiv XTE 601P enclosure that offers separate individuallycooled chambers for power equipment and batteries. Temperature is monitored with an Environmental Control Unit (ECU) that adjusts thermal settings to maintain ideal conditions within each chamber, while simultaneously decreasing system power consumption and noise. All DC power-feed cables to customer equipment are surge protected at the distribution bus. The battery chamber houses 3 shelves of front-post VRLA batteries and SAFT batteries up to 180 Ah in size.

NetSure 512 DC Power System

- eSure[™] rectifiers provide high energy efficiency
- Great output power at high temperatures
- Advanced remote monitoring with

Vertiv™ XTE Enclosure

- Separate temperature-controlled zones for power and batteries
- Door-mounted cooling system & rear cable-entry compartment

Technical Specifications

DC POWER SYSTEM FEATURES		
Nominal System Voltage	-48 VDC or +24 VDC	
Control	NCU controller	
RATED OUTPUT CAPACITY - MAXIM	UM CONFIGURATION	
System	525 amps at -48 VDC plus redundancy 400 amps at +24 VDC plus redundancy	
Distribution Panel	Top: Wired for (16) +24 V and (13) -48 V bullet positions Bottom: (30) -48 V bullet positions	
ENVIRONMENTAL		
Operating Temperature	-40 °F to 115 °F (-40 °C to 46 °C) continuous operation	
Humidity	0 to 95%, non-condensing	
THERMAL SOLUTIONS		
Power Chamber	2500 watt door-mounted heat exchanger, 2 RU available space for surge protection	
Battery Chamber	Fan cooled, fresh air ventilation; holds up to (3) battery strings	
EQUIPMENT		
Ground Bar	10 positions	
Terminal Block	12-position Phoenix alarm block, 32-position Phoenix alarm bunching block	
SAFETY		
DC Power System	UL 1801 Listed (US & Canada), NEBS Level 3	
Enclosure	GR-487, UL 60950, and Seismic Zone 4 compliant	



Ordering Process

Follow the steps below for each DC power system required.

- 1. Order -48VDC 2000 watt rectifiers, quantity as required, NEQ.15930 (1R482000E3).
- 2. Order -48VDC to +24VDC 1500 watt converters, quantity as required, NEQ.15929 (1C48241500).
- 3. Order load circuit breakers and GMT fuse module NEQ.15981 (549017) as required per Bullet Nose Type Circuit Breakers on page 17 and GMT Fuse Modules on page 18.

If required, for each single pole load circuit breaker ordered, order single pole 90 degree lug adapter kit

If required, for each two-pole load circuit breaker ordered, order two-pole 90 degree lug adapter kit NEQ.15982 (545404).

NEQ.15152 (545405).

If required, for each three-pole load circuit breaker ordered, order three-pole 90 degree lug adapter kit NEQ.15983 (545571).

4. Order additional temperature probes as desired. The base power plant includes (4) temperature probes.

If more than (4) temperature probes are desired, order NEQ.15984 (547490) SMTEMP Module. Each module can accommodate (8) temperature probes. A maximum of (8) SMTEMP modules can be accommodated per system.

Order temperature probes, quantity as required.

Choose:

NEQ.15985 (552992), 10.3 meter length NEQ.15986 (556155), 3.3 meter length

Example: If (20) total temperature probes are desired, order (2) SMTEMP modules and (16) temperature probes.

Order temperature probe extensions if initial length is not adequate, 10 meter length. Quantity as required, NEQ.15987 (04119122).

5. If DC generator disconnect breaker is required, order DC generator input connection kit, NEQ.20070 (564898) and 400 A bullet breaker NEQ.20063 (150860).

Vertiv[™] XTE 601P Ordering Information

AT&T NUMBER	VERTIV™ NUMBER	DESCRIPTION
Outdoor DC Powe	er System	
NEQ.19918*	F2016064	Vertiv XTE 601P, 512, 752 lbs.
Equipped with:	F1011032	Enclosure (72"H x 32"W x 39"D)
	582137000ZZ007	NetSure 512, -48 VDC/+24 VDC, (43) -48 V load breaker positions, (16) +24 V load breaker positions, LVBD capability
	58213700027	(1) Two row distribution cabinet
	58213700030	(4) Rectifier shelves 3 right positions can be used for -48V to +24V converters
	582137000AC	(1) (30) position -48 VDC distribution panel
	582137000DJ	(1) (13) -48 V & (16) +24 V position dist. panel
	1M830DNA559478	(1) NCU controller
	552992	(2) Temperature probes
	556155	(2) Temperature probes
	541308	(2) Alarm cables
	58213700070	(1) Extended interface board
	549017	(1) GMT fuse option board
		2500 watt door-mounted heat exchanger
		12-pair Phoenix alarm block
		32-pair Phoenix alarm bunching block
		Strikesorb DC surge protection
		(3) 100 amp DC battery disconnects
		Battery heater pads included
		Duplex AC convenience outlet
		10-position ground bar

AT&T NUMBER	VERTIV NUMBER	DESCRIPTION
NEQ.15998	F1010598	4" mounting plinth
NEQ.15930	1R482000E3	Rectifier, NetSure 512, -48 VDC, 40 A/2000 W
NEQ.15929	1C48241500	(1) Converter, high efficiency, -48 VDC to +24 VDC, 62.5 A/1500 W, 4.4 lbs.*
NEQ.15984	547490	SM-TEMP, 8-input temperature module
NEQ.15985	552992	Temperature probe, 10.3 meters
NEQ.15986	556155	Temperature probe, 3.3 meters
NEQ.15987	04119122	Temp probe extension, 10 meters
NEQ.15988	552822	Temp probe sensor, 0.3 meter
NEQ.19291	1M830DNA560273	NCU controller field retrofit
NEQ.15992	MA4C5U31	IB2, Customer Interface Board
NEQ.15993	548120	EIB, Extended Interface Board
NEQ.20070	564898	DC generator disconnect breaker kit NOTE: 400 A bullet breaker is sold separately.
NEQ.20063	150860	400 A bullet breaker, 4-pole
NEQ.TBD	564354	Distribution position conversion kit for top row. All -48VDC positions.
NEQ.TBD	564997	DC generator wrap around Kit
		Bullet nose type circuit breakers - page 17
NEQ.12090	N/A	155 Ah GNB battery (not supplied by Vertiv; sourced through EPL)
NEQ.14983	N/A	48 V SAFT battery string, 80-94743-01, 38 X TelX 180 NiCd (not supplied by Vertiv; sourced through EPL)

Vertiv | DC Power Systems, Outdoor Enclosures & Services | AT&T Ordering Guide (RI06/19)

SUPPLEMENTAL

SHEET NUMBER:

R-604

Vertiv | DC Power Systems, Outdoor Enclosures & Services | AT&T Ordering Guide (RI06/19)

Benefits

R48-2000e3

- 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.

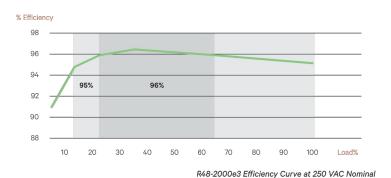
In addition to reducing power consumption and lowering operating cost, $eSure^{TM}$ high-efficiency rectifiers offer superior performance and uncompromised reliability.

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.

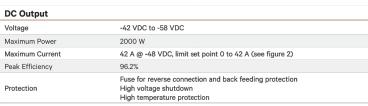




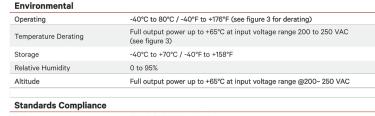
Technical Specifications

eSure[™] Rectifier

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



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



otaniaaras compilarice	
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

Figures

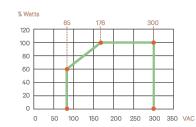


Figure 1: Output Power vs. Input Voltage and Vo > 48 V at Tamb <55°C

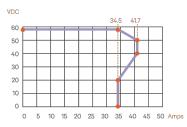


Figure 2: Output Voltage vs. Output Current at Maximum Output Power 2000 W

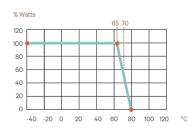


Figure 3: Output Power vs.

Ordering Information

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

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

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SUPPLEMENTAL

SHEET NUMBER:

R-605



Click to Wewsproduct wesspace



The PowerSafe® SBS® Front Terminal battery further extends the technical leadership of PowerSafe SBS battery product line: not only do PowerSafe SBS Front Terminal monoblocs retain the benefits typically associated with Thin Plate Pure Lead (TPPL) Technology such as long life, high energy density, superior shelf life, etc., they also deliver exceptional cyclic performance in both float and fast charge applications, even in the hottest and harshest operating environments.

Where conventional Valve Regulated Lead Acid (VRLA)/Absorbed Glass Mat (AGM) batteries struggle to cope with harsh conditions and frequent power outages, cutting edge (TPPL) technology makes PowerSafe 12V batteries the perfect solution for the challenging operating conditions of today's telecommunication networks.

PowerSafe SBS batteries are designed to high quality standards and a unique manufacturing methods means superior energy and power, high performance and proven reliability, there is no substitute to PowerSafe SBS Front Terminal batteries.

- Capacity range 31-190Ah
- 12V monobloc configurations

- SR4228 compliant
- Proven long service life

Publication No: US-SBSF-RS-004 - January 2014

- Robust positive plates are designed to prolong service life and enhance corrosion resistance
- Separators are low resistance microporous (AGM). The electrolyte is absorbed within the AGM, preventing acid spills in case of accidental damage
- Container and cover in flame retardant UL94-V0 material, highly resistant to shock and vibration
- Terminals are stainless steel front access with top access copper alloy insert. Top and front access terminations provide maximum conductivity
- · Self-regulating one way pressure relief valves prevents ingress of atmospheric oxygen

Installation and Operation

Space efficient footprint

77°F (25°C)

- VRLA design, reduces maintenance requirements Lifting handles for easy handling
- Greater than 10 year life expectancy in float service at
- · Increased active material surface area yields great cycling capability
- Operating temperature: -40°F (-40°C) to 122°F (50°C) Recommended temperature: 68°F (20°C) to 86°F (30°C)

- Meets criteria for "non-spillable" batteries
- Complies with Telcordia® SR-4228, Network Equipment Building System (NEBS™) Criteria Levels
- The management systems governing the manufacture of this product are ISO 9001:2008 and ISO 14001:2004

General Specifications

	Nominal Ca	pacity (Ah)		Nominal Dimensions					Weight - Volumes	
Cell Type	10 hr rate to 1.80Vpc @20°C	8 hr rate to 1.75Vpc @77°F	Le	ngth mm	Wi in	idth mm	He in	ight mm	Unpa lbs	cked kg
SBS B8F	31	31	11.9	303	3.8	97	6.3	159	22.7	10.3
SBS B10F	38	38	11.9	303	3.8	97	7.2	184	28.2	12.8
SBS B14F	62	62	11.9	303	3.8	97	10.4	264	42.0	19.1
SBS C11F	92	91	16.4	417	4.1	105	10.1	256	61.6	28.0
\$B\$ 100F	100	100	15.6	395	4.3	108	11.3	287	71.9	32.6
SBS 112F	112	112	22.1	561	4.9	125	9.0	228	90.4	41.1
SBS 145F	145	145	17.9	455	6.8	173	9.4	238	105.0	47.7
SBS 165F	165	165	17.9	455	6.8	173	10.8	273	117.4	53.3
SBS 170F	170	170	22.1	561	4.9	125	11.1	283	115.7	52.5
SBS 190F	190	190	22.1	561	4.9	125	12.4	316	132.3	60.0



SBS B8F-B14F







SBS 145F - 190F



- Multiple string configurations available
- Two year shelf life

- High energy density and cycling capability



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Battery Services for Backup Power

- Battery Installation
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RESERVE **POWER**

PROPOSED BATTERY DETAIL

SUPPLEMENTAL

SHEET NUMBER:

R-606

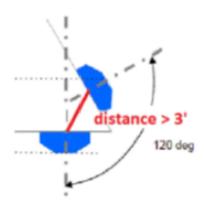
REVISION:

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

- ☐ Horizontal separation (side to side of antenna): >= 3'
- \Box 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°.



SUPPLEMENTAL

SHEET NUMBE



Mount Analysis Report

ATC Site Name : Morley 1, CO

ATC Site Number : 383495

Engineering Number : 14093825_C8_02

Mount Elevation : 55 ft

Carrier : AT&T Mobility

Carrier Site Name : MOUNT PITTSBURG

: COU6029 **Carrier Site Number**

Site Location : 15743 Phantom Canyon View

> Colorado Springs, CO 80903 38.61255556, -104.9348333

> > Reviewed By:

County : El Paso

Date : May 24, 2022

: 81% Max Usage

Result : Contingent Pass

Prepared By:

Molly Li

Structural Engineer



Authorized by "EOR" 24 May 2022 03:53:35 COSIGN



ATC Tower Services, LLC - 3500 Regency Parkway, Suite 100 - Cary, NC 27518 - 919.468.0112 Office - 919.466.5414 Fax - www.americantower.com



Eng. Number 14093825_C8_02 May 24, 2022 Page 1

Introduction

The purpose of this report is to summarize results of the mount analysis performed for AT&T Mobility at 55 ft.

Supporting Documents

Specifications Sheet	Site Pro 1 VFA10-HD, dated June 29, 2018
Previous Analysis	Infinigy Project #510-000 for Site #COL06029, dated March 9, 2017
Radio Frequency Data Sheet	RFDS ID #10093580, dated April 26, 2022
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:	130 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 0.25" radial ice concurrent
Codes:	ANSI/TIA-222-H
Exposure Category:	С
Risk Category:	II
Topographic Factor Procedure:	Method 2
Feature:	Flat
Crest Height (H):	0 ft
Crest Length (L):	0 ft
Spectral Response:	Ss = 0.185, S1 = 0.059
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 provided the modifications listed below are completed:

- Install P2 (2.375" x 126") antenna mounting pipe (Mount Pipe B) at the center of the mount face with Site Pro 1 SCX7-U (or approved equivalent) crossover plate kits.
- Install (2) P2 (2.375" x 60") antenna mounting pipes (Mount Pipe D, E) on the mount support arms with Site Pro 1 SCX7-U (or approved equivalent) crossover plate kits.

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.

ATC Tower Services, LLC - 3500 Regency Parkway, Suite 100 - Cary, NC 27518 - 919.468.0112 Office - 919.466.5414 Fax - www.americantower.com

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.

SHEET NUMBER: R-608

SUPPLEMENTAL

REVISION:

MOUNT ANALYSIS