

VICINITY MAP



AMERICAN TOWER®

ATC SITE NAME: DUNN NC 3
ATC SITE NUMBER: 306567
AT&T MOBILITY SITE ID: SINC007003
AT&T MOBILITY FA LOCATION CODE: 10040311
AT&T MOBILITY SITE NAME: 368-415
AT&T MOBILITY USID: 85342
SITE ADDRESS: 2420 JONESBORO RD
DUNN, NC 28334-8845

AT&T MOBILITY
ANTENNA AMENDMENT PLAN


AT&T MOBILITY IWM JOB NUMBER(S): **WSVWN0055012**, WSVWN0056513,
WSVWN0057376, WSVWN0055619, WSVWN0055935, WSVWN0056055, WSVWN0056521.
AT&T MOBILITY PACE JOB NUMBER(S): **MRVWN043393**, MRVWN042850, MRVWN043051,
MRVWN042985, MRVWN042686, MRVWN042701, MRVWN043194.



LOCATION MAP



Electrical only

COMPLIANCE CODE	PROJECT SUMMARY		PROJECT DESCRIPTION	SHEET INDEX				
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 NORTH CAROLINA BUILDING CODE (NCBC) 2. 2020 NATIONAL ELECTRIC CODE (NEC) WITH NC AMENDMENTS 3. LOCAL BUILDING CODE 4. CITY/COUNTY ORDINANCES	<u>SITE ADDRESS:</u> 2420 JONESBORO RD DUNN, NC 28334-8845 COUNTY: HARNETT <u>GEOGRAPHIC COORDINATES:</u> LATITUDE: 35.33136 LONGITUDE: -78.55248 GROUND ELEVATION: 247' AMSL <u>ZONING INFORMATION:</u> JURISDICTION: HARNETT COUNTY PARCEL ID: 1537-35-4883.000		THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW: <u>TOWER WORK:</u> REMOVE (6) ANTENNA(S), (3) RRU(s), (6) TMA(s), (1) 2 1/4" COAX CABLE(S), AND (1) 3/8" (0.38"- 9.5mm) RET CONTROL CABLE(S). INSTALL (1) CABLE HOISTING ANCHOR(S), (2) CABLE HOISTING GRIP(S), (9) ANTENNA(S), (3) RRU(s), (1) 0.96" (24.3mm) 6 AWG 6 DC POWER TRUNK(S), (1) 0.41" (10.3mm) FIBER TRUNK(S), AND MOUNT MODIFICATION(S). EXISTING (9) RRU(S), (3) SQUID(S), (2) 0.39" (10mm) FIBER TRUNK(S), (3) 0.76" (19.2mm) 8 AWG 6 POWER TRUNK(S), (2) 1.13" (28.7mm) 4 AWG 6 POWER TRUNK(S), AND (11) 2 1/4" COAX CABLE(S) TO REMAIN. <u>GROUND WORK:</u> REMOVE (1) ALPHA TE45V2 OUTDOOR POWER PLANT(S) AND (1) DC12-RM(s). INSTALL (1) VERTIV 512 POWER PLANT(S), (1) -58V CONVERSION KIT(S), (6) VERTIV -58V CONVERTER(S), (10) VERTIV -48V RECTIFIER(S), (4) POWERSAFE SBS 170F BATTERY(IES), (1) +27V BULLET CONVERTER(S), (1) 6672 BBU(s), (1) DC12-48-60-0-25E(S), (6) 50A DC BREAKER(S), (6) 30A DC BREAKER(S), AND (6) 25A DC BREAKER(S)	SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
	PROJECT TEAM			G-001	TITLE SHEET	1	04/24/25	SRZ
				G-002	GENERAL NOTES	1	04/24/25	SRZ
UTILITY COMPANIES	<u>TOWER OWNER:</u> AMERICAN TOWER 10 PRESIDENTIAL WAY WOBURN, MA 01801 <u>ENGINEER:</u> TEP ENGINEERING, PLLC 326 TRYON RD RALEIGH, NC 27603 <u>APPLICANT:</u> AT&T MOBILITY <u>PROPERTY OWNER:</u> AMERICAN TOWER ASSER SUB LLC PO BOX 723597 ATLANTA, GA 31139			G-003 - G-007	APPENDIX B	1	04/24/25	SRZ
				C-001	OVERALL SITE PLAN	1	04/24/25	SRZ
POWER COMPANY: DUKE ENERGY PROGRESS PHONE: (800) 777-9898 TELEPHONE COMPANY: CENTURYLINK PHONE: (800) 244-1111	PROJECT LOCATION DIRECTIONS EXIT 77 EAST OFF I-95. FOLLOW SR 1709 TO TOWER. AT CORNER OF 1709 AND 1808.			C-101	DETAILED SITE PLAN	1	04/24/25	SRZ
				C-102	DETAILED EQUIPMENT LAYOUT	1	04/24/25	SRZ
				C-201	TOWER ELEVATION	1	04/24/25	SRZ
				C-401	ANTENNA INSTALLATION	1	04/24/25	SRZ
				C-402	ANTENNA SCHEDULE	1	04/24/25	SRZ
			C-501	CONSTRUCTION DETAILS	1	04/24/25	SRZ	
			E-101	ELECTRICAL DETAILS	1	04/24/25	SRZ	
			E-102	ELECTRICAL DETAILS	1	04/24/25	SRZ	
			E-103	ELECTRICAL DETAILS	1	04/24/25	SRZ	
			E-104	GROUNDING PLAN	1	04/24/25	SRZ	
 Know what's below. Call before you dig.			E-501	GROUNDING DETAILS	1	04/24/25	SRZ	
			R-601 - R-612	SUPPLEMENTAL				
				MOUNT REINFORCEMENT DRAWINGS				

PLANS PREPARED BY:

326 TRYON ROAD
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B	100% CONSTRUCTION	OSV	04/18/25
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TEP Engineering, PLLC

SEAL: 04/24/25

DATE DRAWN:	04/24/25
ATC JOB NO:	14883118
CUSTOMER NAME:	368-415
CUSTOMER ID:	SINC007003

TITLE SHEET

SHEET NUMBER: G-001	REVISION: 1
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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.



PLANS PREPARED BY:



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A	PRELIMINARY	OSV	04/11/25
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1	100% CONSTRUCTION	SRZ	04/24/25

ATC SITE NUMBER: 306567

ATC SITE NAME: DUNN NC 3

AT&T MOBILITY SITE NUMBER:

SINC007003

AT&T MOBILITY SITE NAME:

368-415

SITE ADDRESS:
2420 JONESBORO RD
DUNN, NC 28334-8845



SEAL: 04/24/25



DATE DRAWN:	04/24/25
ATC JOB NO:	14883118
CUSTOMER NAME:	368-415
CUSTOMER ID:	SINC007003

GENERAL NOTES

SHEET NUMBER:

G-002

REVISION:

1

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)
(Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: DUNN NC 3
Address: 2420 JONESBORO RD, DUME, NC Zip Code 28334-8845
Owner/Authorized Agent: AARON DIAL Phone # (919) 466 - 5383 E-Mail AaronDial@AmericanTower.com
Owned By: City/County Private State
Code Enforcement Jurisdiction: City County HARNETT State

CONTACT:
Table with 6 columns: DESIGNER, FIRM, NAME, LICENSE #, TELEPHONE #, E-MAIL. Rows include Architectural, Civil, Electrical, Fire Alarm, Plumbing, Mechanical, Sprinkler-Standpipe, Structural, Retaining Walls >5' High, and Other.

2018 NC BUILDING CODE: New Building Addition Renovation
1st Time Interior Completion
Shell/Core - Contact the local inspection jurisdiction for possible additional procedures and requirements
Phased Construction - Shell/Core- Contact the local inspection jurisdiction for possible additional procedures and requirements

2018 NC EXISTING BUILDING CODE: EXISTING: Prescriptive Repair Chapter 14
Alteration: Level I Level II Level III
Historic Property Change of Use
CONSTRUCTED: (date) CURRENT OCCUPANCY(S) (Ch. 3):
RENOVATED: (date) PROPOSED OCCUPANCY(S) (Ch. 3):

OCCUPANCY CATEGORY (Table 1604.5): Current: I II III IV
Proposed: I II III IV

BASIC BUILDING DATA
Construction Type: I-A II-A III-A IV V-A
(check all that apply) I-B II-B III-B V-B
Sprinklers: No Partial Yes NFPA 13 NFPA 13R NFPA 13D
Standpipes: No Yes Class I II III Wet Dry
Fire District: No Yes Flood Hazard Area: No Yes
Special Inspections Required: No Yes (Contact the local inspection jurisdiction for additional procedures and requirements.)

Gross Building Area Table
Table with 4 columns: FLOOR, EXISTING (SQ FT), NEW (SQ FT), SUB-TOTAL. Rows include 3rd Floor, 2nd Floor, Mezzanine, 1st Floor, Basement, and TOTAL.

ALLOWABLE AREA
Primary Occupancy Classification(s): Select one Select one Select one Select one Select one Select one
Assembly A-1 A-2 A-3 A-4 A-5
Business
Educational
Factory F-1 Moderate F-2 Low
Hazardous H-1 Detonate H-2 Deflagrate H-3 Combust H-4 Health H-5 HPM
Institutional I-1 Condition 1 2
I-2 Condition 1 2
I-3 Condition 1 2 3 4 5
I-4
Mercantile
Residential R-1 R-2 R-3 R-4
Storage S-1 Moderate S-2 Low High-piled
Parking Garage Open Enclosed Repair Garage
Utility and Miscellaneous

Accessory Occupancy Classification(s): N/A
Incidental Uses (Table 509): N/A
Special Uses (Chapter 4 – List Code Sections): N/A
Special Provisions: (Chapter 5 – List Code Sections): N/A
Mixed Occupancy: No Yes Separation: Hr. Exception:
Non-Separated Use (508.3) - The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building.
Separated Use (508.4) - See below for area calculation. If the area of the occupancy shall be such that the sum of the actual floor area of each use divided by the allowable floor area shall not exceed 1.

Actual Area of Occupancy A + Occupancy B ≤ 1
Allowable Area of Occupancy A + Occupancy B = ≤ 1.00

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TEP Engineering, PLLC P-1403
NORTH CAROLINA PROFESSIONAL SEAL
048226
SCOTT C. BRANTLEY ENGINEER
SEAL: 04/24/25
AT&T
DATE DRAWN: 04/24/25
ATC JOB NO: 14883118
CUSTOMER NAME: 368-415
CUSTOMER ID: SINC007003
APPENDIX B
SHEET NUMBER: G-003
REVISION: 1

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 507.2.1 AREA FOR FRONTAGE INCREASE ^{1,5}	(C) AREA FOR FRONTAGE INCREASE ^{1,5}	(D) ALLOWABLE AREA PER STORY OR UNLIMITED ^{2,3}

- ¹ Frontage area increases from Section 507.2.1 as follows:
- a. Perimeter which fronts a public way having 20 feet minimum width = _____ (F)
 - b. Total Building Perimeter = _____ (P)
 - c. Ratio (F/P) = _____ (F/P)
 - d. W = Minimum width of public way = _____ (W)
 - e. Percent of frontage increase $I_f = 100[F/P - 0.25] \times W/30 =$ _____ (%)

² Unlimited area applicable under conditions of Section 507.

³ Maximum Building Area = total number of stories in the building x D (maximum3 stories) (506.2).

⁴ The maximum area of open parking garages must comply with Table 406.5.4. The maximum area of air traffic control towers must comply with Table 412.3.1.

⁵ Frontage increase is based on the unsprinklered area value in Table 507.2.1.

ALLOWED BUILDING HEIGHT		SHOWN ON PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3)			
Building Height in Stories (Table 504.4)			

¹ Provide code reference if the "Shown on Plans" question is answered "Yes" on Table 504.3 or 504.4.

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING		DETAIL # AND DETAIL #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
		REQ'D	PROVIDED (W/ REF.)				
Structural Frame, including columns, girders, trusses							
Bearing Walls							
Exterior							
North							
East							
West							
South							
Interior							
Nonbearing Walls and Partitions							
Exterior walls							
North							
East							
West							
South							
Interior walls and partitions							
Floor Construction							
Including supporting beams and joists							
Floor Ceiling Assembly							
Columns Supporting Floors							
Roof Construction, including supporting beams and joists							
Roof Ceiling Assembly							
Columns Supporting Roof							
Shaft Enclosures - Exit							
Shaft Enclosures - Other							
Corridor Separation							
Occupancy/Fire Barrier Separation							
Party/Fire Wall Separation							
Smoke Barrier Separation							
Smoke Partition							
Tenant/Dwelling Unit/ Sleeping Unit Separation							
Incidental Use Separation							

* Indicate section number permitting reduction



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A	PRELIMINARY	OSV	04/11/25
B	100% CONSTRUCTION	OSV	04/18/25
C	100% CONSTRUCTION	SRZ	04/24/25
D			
E			

ATC SITE NUMBER: 306567

ATC SITE NAME: DUNN NC 3

AT&T MOBILITY SITE NUMBER:

SINC007003

AT&T MOBILITY SITE NAME:

368-415

SITE ADDRESS:
2420 JONESBORO RD
DUNN, NC 28334-8845

TEP Engineering, PLLC

P-1403



SEAL:

04/24/25



DATE DRAWN:	04/24/25
ATC JOB NO:	14883118
CUSTOMER NAME:	368-415
CUSTOMER ID:	SINC007003

APPENDIX B

SHEET NUMBER:

G-004

REVISION:

1

PERCENTAGE OF WALL OPENING CALCULATIONS			
FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	FIRE AREA	ACTUAL SHOWN ON PLANS (%)

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting:

☐ No ☐ Yes

Exit Signs:

☐ No ☐ Yes

Fire Alarm:

☐ No ☐ Yes

Smoke Detection Systems:

☐ No ☐ Yes ☐ Partial _____

Panic Hardware:

☐ No ☐ Yes

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: _____

☐ Fire and/or smoke rated wall locations (Chapter 7)

☐ Assumed and real property line locations (if not on the site plan)

☐ Exterior wall opening area with respect to distance to assumed property lines (705.8)

☐ Occupancy Use for each area as it relates to occupant load capacity (Table 1004.1.2)

☐ Occupant loads for each area

☐ Exit access travel distances (1017)

☐ Common path of travel distances (Tables 1006.2.1 and 1006.2.2)

☐ Dead end lengths (1020.4)

☐ Clear exit widths for each exit door

☐ Maximum calculated occupant load capacity for each exit door can accommodate based on egress width (1005.3)

☐ Actual occupant load for each exit door

☐ A separate schematic plan indicating vertical floor/ceiling and/or roof structure is provided for purposes of occupancy separation

☐ Location of doors with panic hardware (1010.1.9.10)

☐ Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)

☐ Location of doors with electromagnetic egress locks (1010.1.9.9)

☐ Location of doors equipped with hold-open devices

☐ Location of emergency escape windows (1030)

☐ The square footage of each fire area (202)

☐ The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)

☐ Note any code exceptions or table notes that may have been utilized regarding the items above

ACCESSIBLE DWELLING UNITS (SECTION 1106)							
TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED


NOT A PERMITS SECTION 1106

ACCESSIBLE PARKING (SECTION 1106)						
LOT OR PARKING AREA	TOTAL # OF PARKING SPACES REQUIRED	PROVIDED	# OF ACCESSIBLE SPACES PROVIDED			TOTAL # ACCESSIBLE PROVIDED
			REGULAR WITH 5' ACCESS AISLE	VAN SPACES WITH		
				132" ACCESS AISLE	8' ACCESS AISLE	
TOTAL						

PLUMBING FIXTURE REQUIREMENTS (TABLE 1106.2)									
USE		WATERCLOSETS			URINALS	SHOWERS		DRINKING FOUNTAINS	
		MALE	FEMALE	UNISEX				REGULAR	ACCESSIBLE
SPACE	EXIST'G								
	NEW								
	REQ'D								


SPECIAL APPROVALS

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below)



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ATC SITE NUMBER: 306567


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AT&T MOBILITY SITE NUMBER:
SINC007003

AT&T MOBILITY SITE NAME:
368-415


SITE ADDRESS:
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DUNN, NC 28334-8845

TEP Engineering, PLLC



P-1403

SEAL: 04/24/25



DATE DRAWN:	04/24/25
ATC JOB NO:	14883118
CUSTOMER NAME:	368-415
CUSTOMER ID:	SINC007003

APPENDIX B

SHEET NUMBER: G-005	REVISION: 1
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2018 NC Administrative Code and Policies

2018 NC Administrative Code and Policies

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2018 APPENDIX B

BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

MECHANICAL DESIGN

(PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone

winter dry bulb:

summer dry bulb:

Interior design conditions

winter dry bulb:

summer dry bulb:

relative humidity:

Building heating load:

Building cooling load:

Mechanical Spacing Conditioning System

Unitary

description of unit:

heating efficiency:

cooling efficiency:

size category of unit:

Boiler

Size category. If oversized, state reason.:

Chiller

Size category. If oversized, state reason.:

List equipment efficiencies:

2018 APPENDIX B

BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

ELECTRICAL DESIGN

(PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance: Energy Code ☐ Performance ☐ Prescriptive

ASHRAE 90.1 ☐ Performance ☐ Prescriptive

Lighting schedule (each fixture type)

lamp type required in fixture

number of lamps in fixture

ballast type used in the fixture

number of ballasts in fixture

total wattage per fixture

total interior wattage allowed (whole building or space by space)

total exterior wattage allowed

Additional Efficiency Package Options

(When using the 2018 NCECC; not required for ASHRAE 90.1)

- ☐ C406.2 More Efficient HVAC Equipment Performance
- ☐ C406.3 Reduced Lighting Power Density
- ☐ C406.4 Enhanced Digital Lighting Controls
- ☐ C406.5 On-Site Renewable Energy
- ☐ C406.6 Dedicated Outdoor Air System
- ☐ C406.7 Reduced Energy Use in Service Water Heating

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AT&T MOBILITY SITE NUMBER:
SINC007003
AT&T MOBILITY SITE NAME:
368-415
SITE ADDRESS:
2420 JONESBORO RD
DUNN, NC 28334-8845

TEP Engineering, PLLC

P-1403

NORTH CAROLINA

PROFESSIONAL

SEAL

048226

SCOTT C. BRANTLEY

SEAL:

04/24/25

AT&T

DATE DRAWN:	04/24/25
ATC JOB NO:	14883118
CUSTOMER NAME:	368-415
CUSTOMER ID:	SINC007003

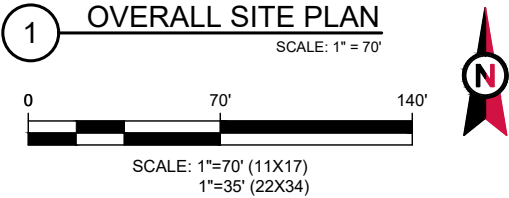
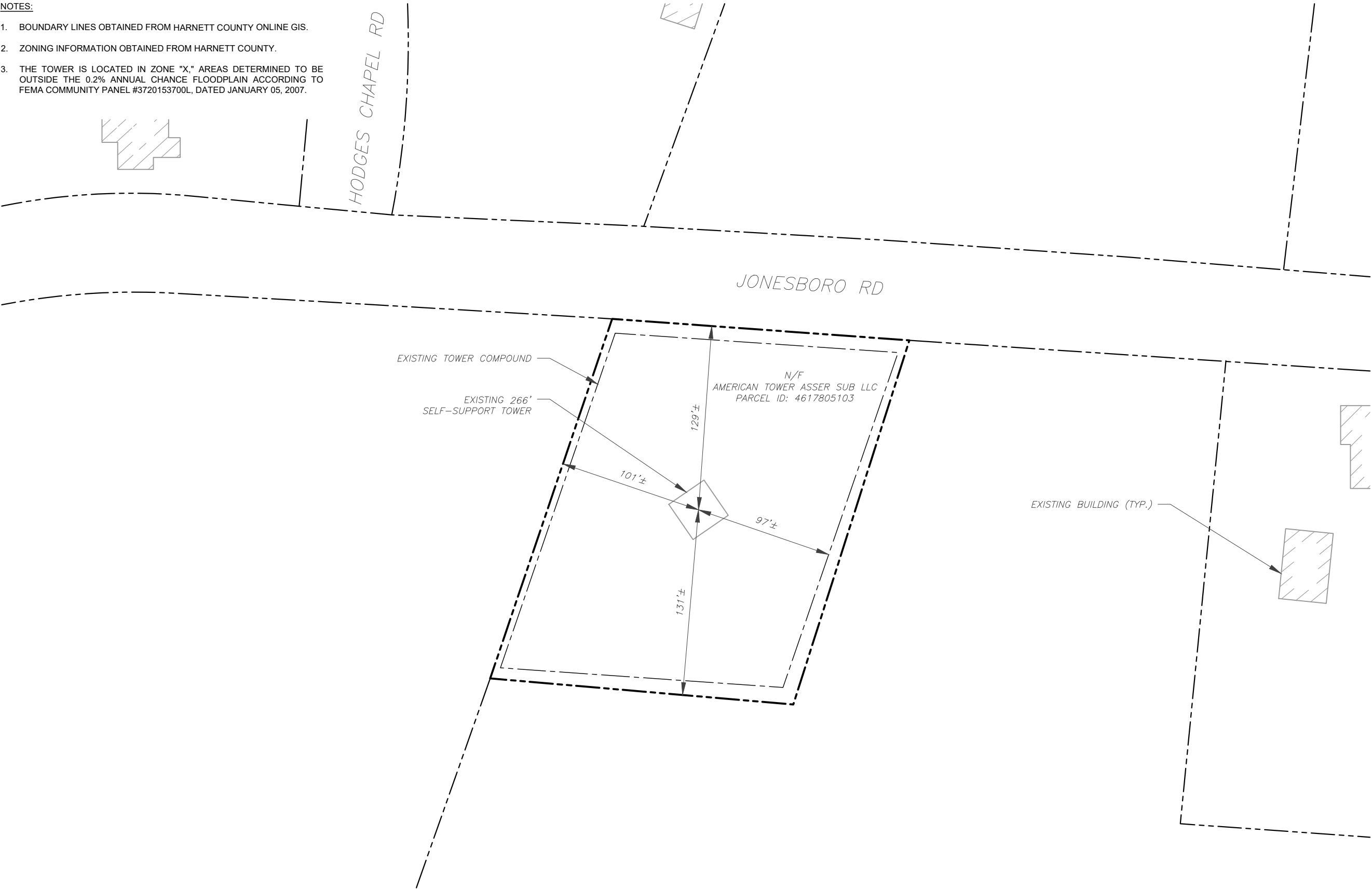
APPENDIX B

SHEET NUMBER: G-007	REVISION: 1
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NOTES:

1. BOUNDARY LINES OBTAINED FROM HARNETT COUNTY ONLINE GIS.
2. ZONING INFORMATION OBTAINED FROM HARNETT COUNTY.
3. THE TOWER IS LOCATED IN ZONE "X," AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN ACCORDING TO FEMA COMMUNITY PANEL #3720153700L, DATED JANUARY 05, 2007.



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SEAL: 04/24/25



DATE DRAWN:	04/24/25
ATC JOB NO:	14883118
CUSTOMER NAME:	368-415
CUSTOMER ID:	SINC007003

OVERALL SITE PLAN

SHEET NUMBER:

C-001

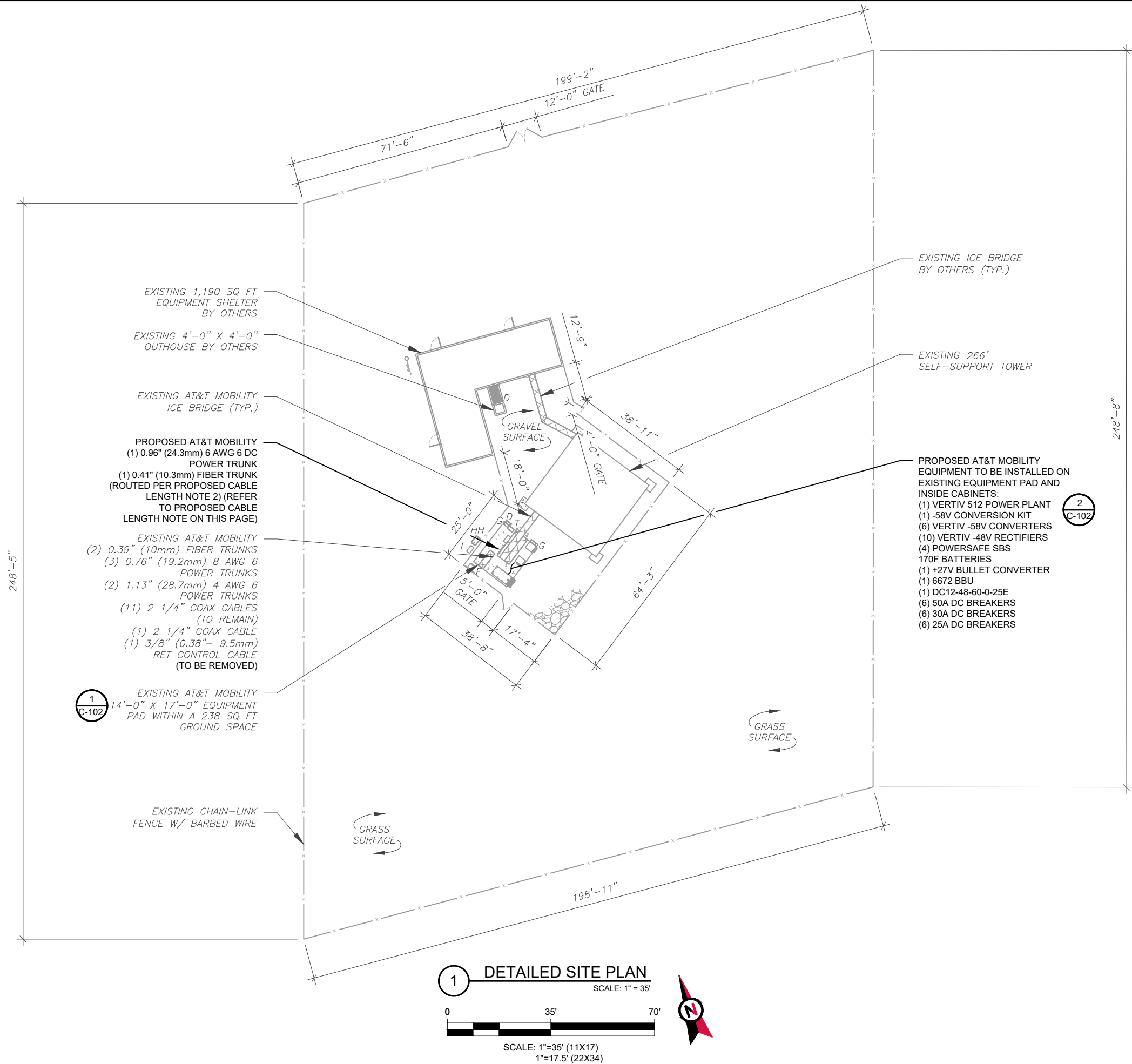
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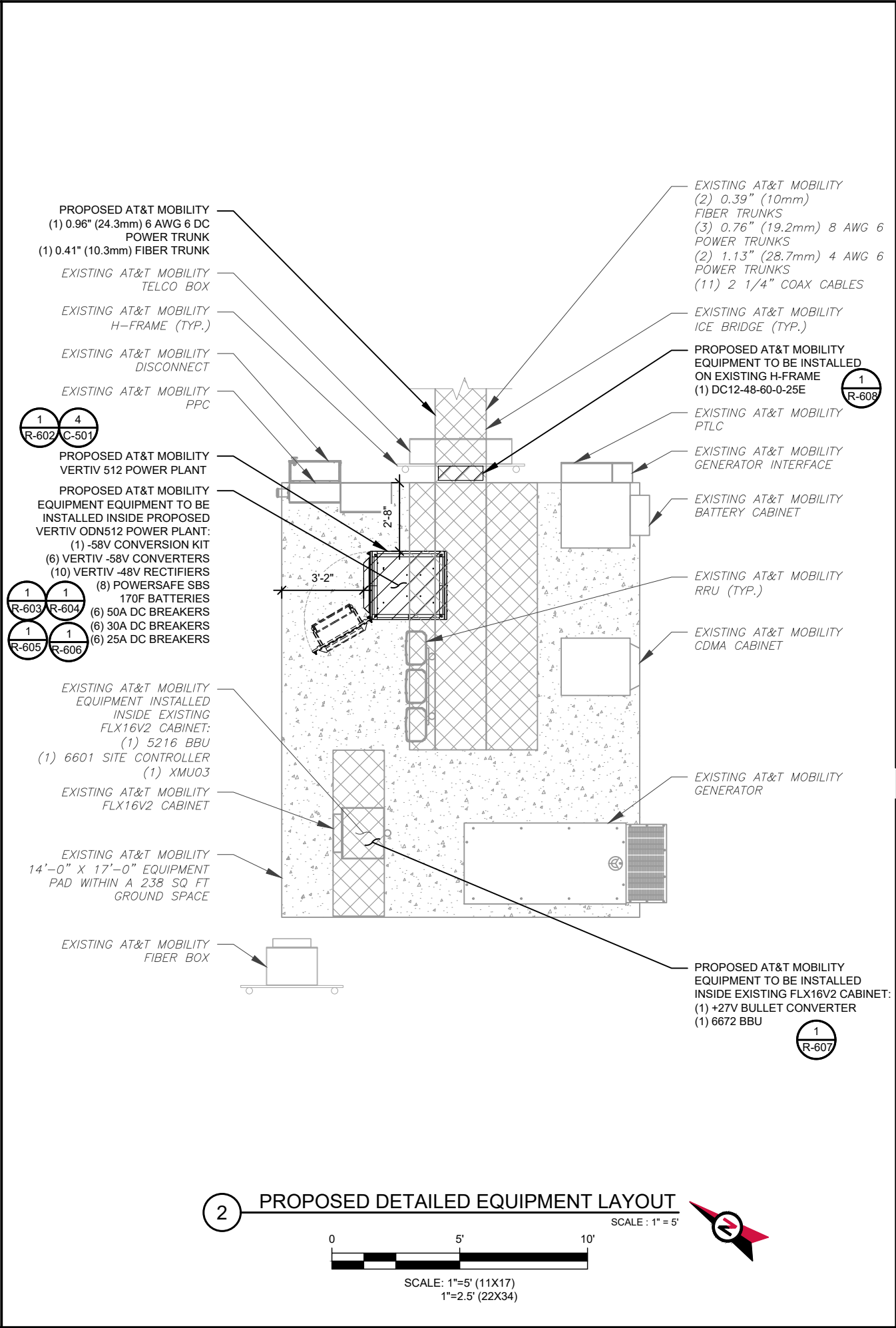
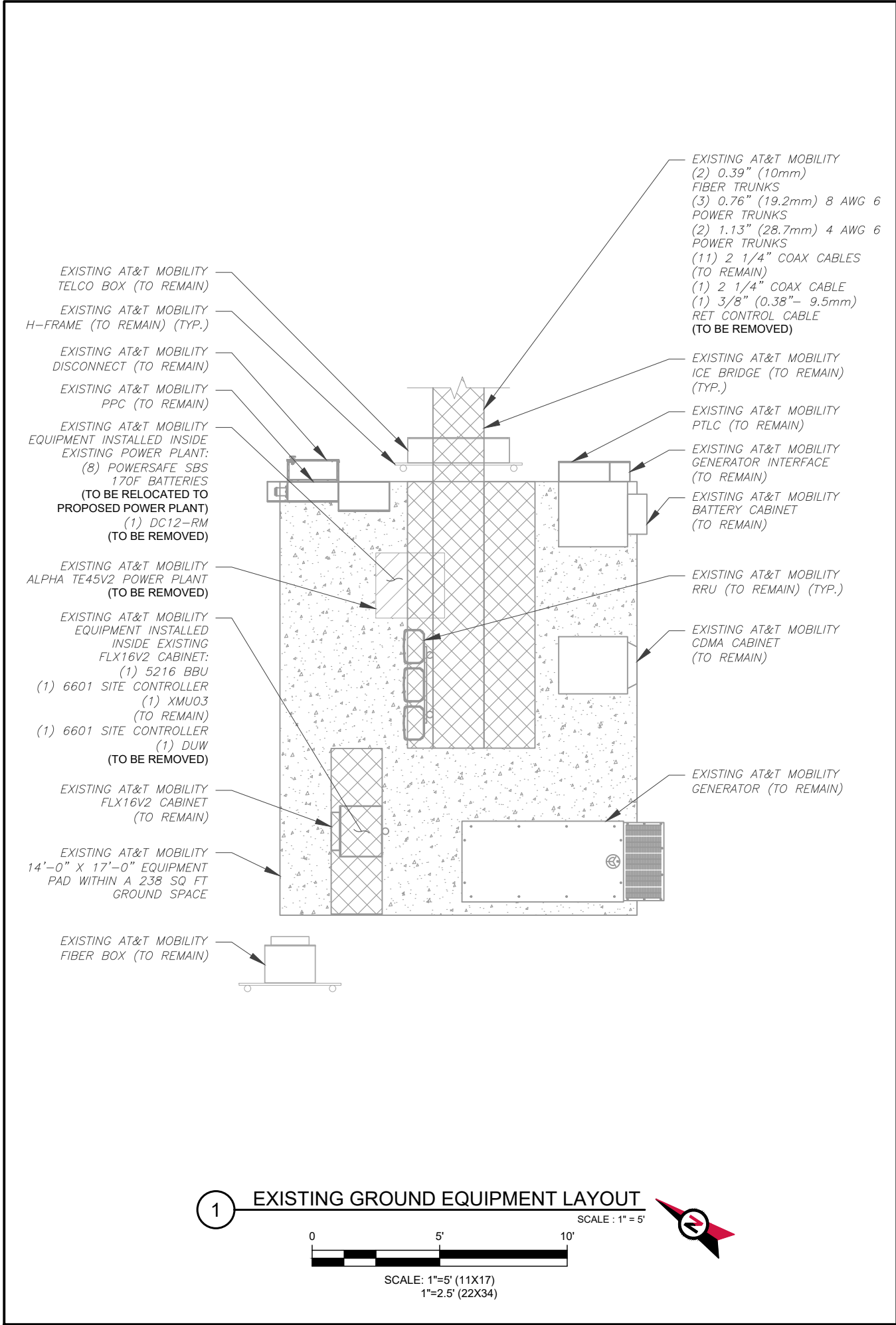
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1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
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.

⊗	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. ESTIMATED LENGTH OF PROPOSED CABLE IS **305'**. 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).





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ATC SITE NAME: DUNN NC 3
AT&T MOBILITY SITE NUMBER: SINC007003
AT&T MOBILITY SITE NAME: 368-415
SITE ADDRESS: 2420 JONESBORO RD DUNN, NC 28334-8845

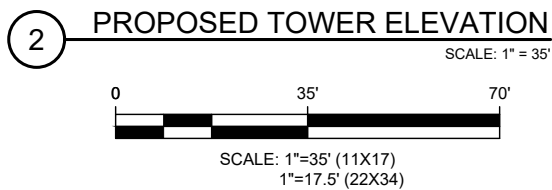
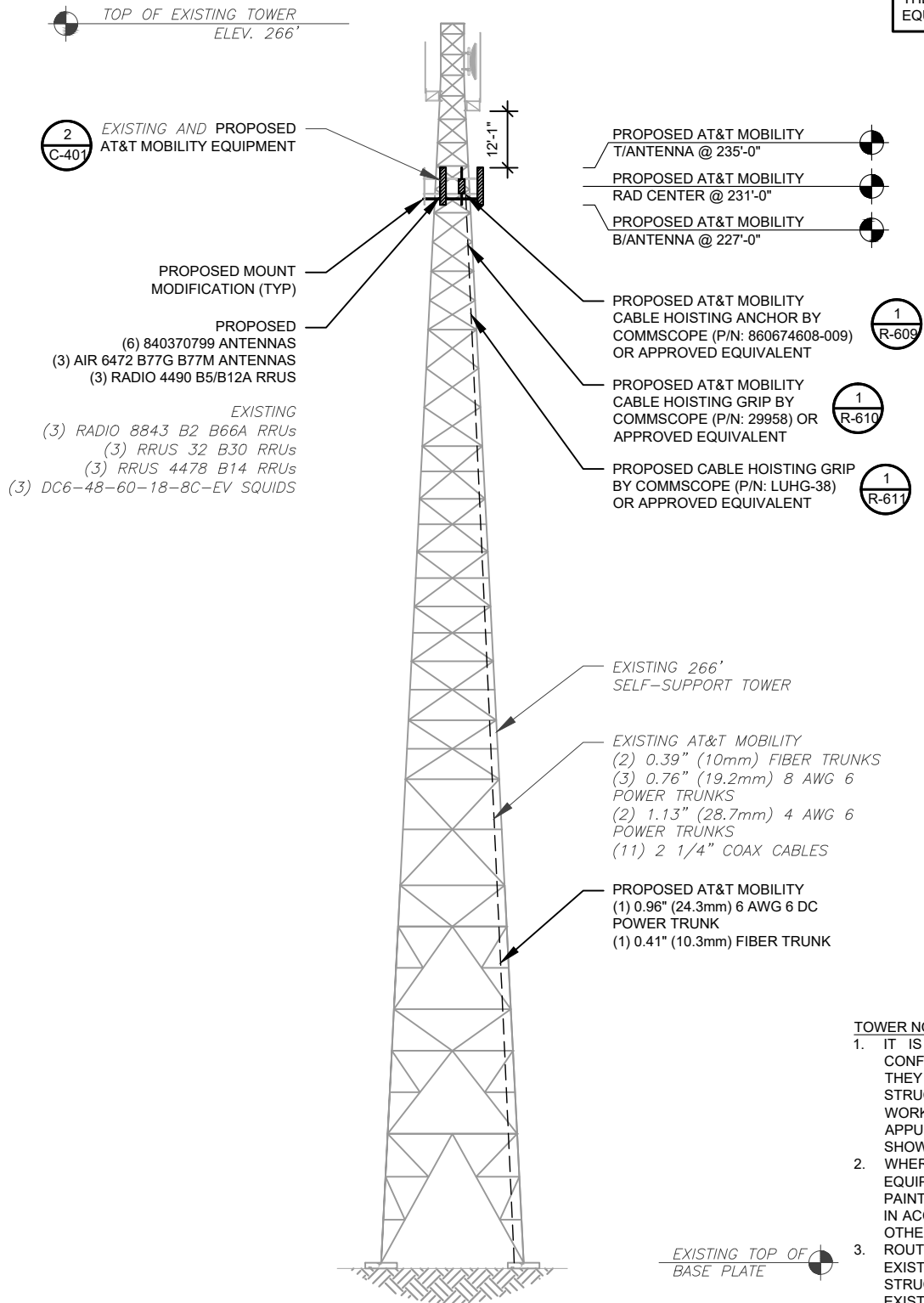
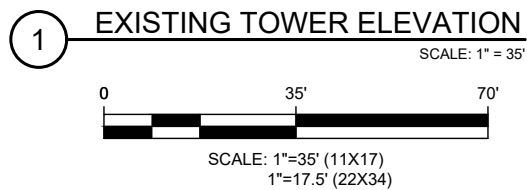
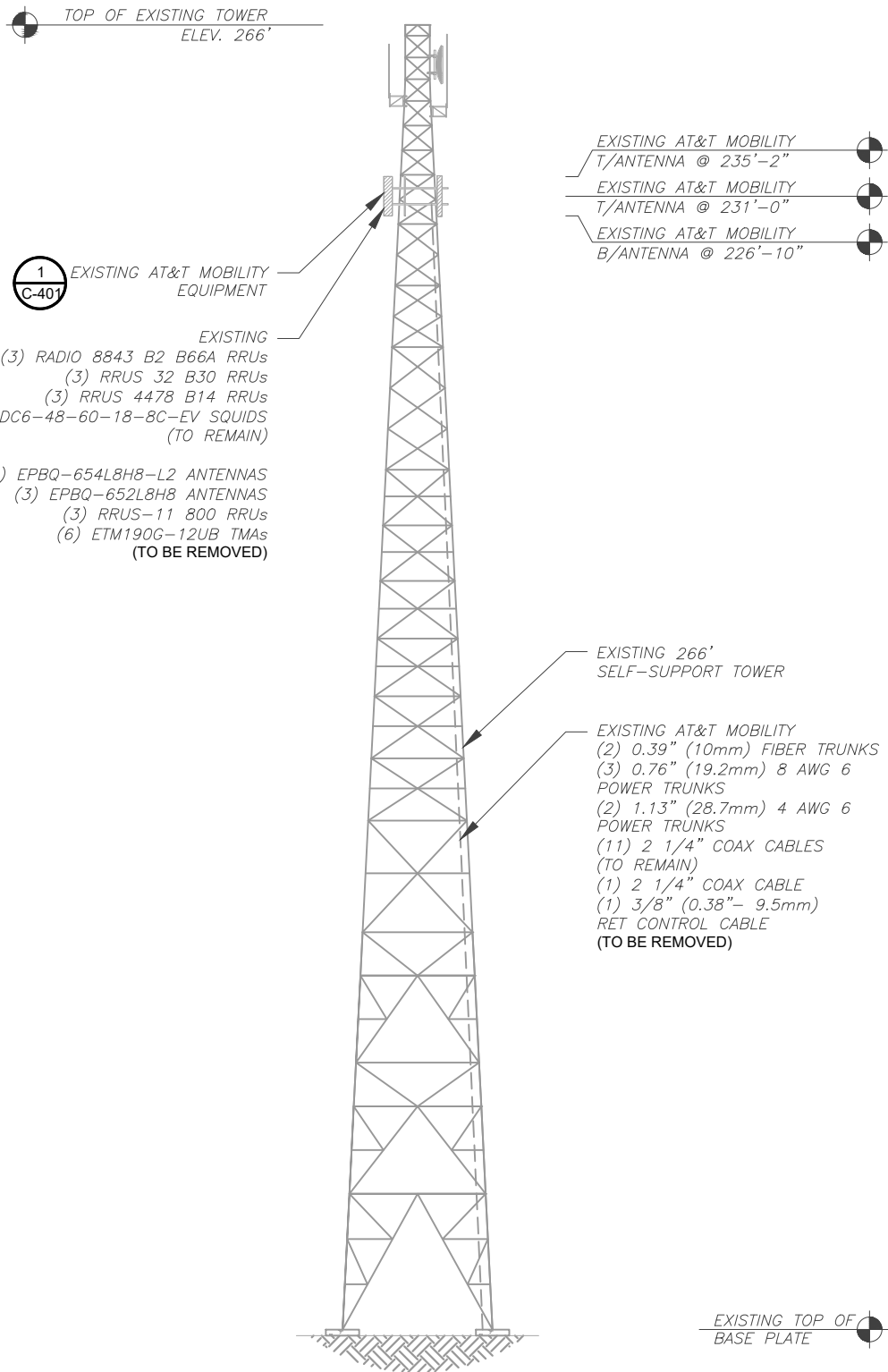
TEP Engineering, PLLC P-1403

SEAL: 04/24/25

DATE DRAWN:	04/24/25
ATC JOB NO:	14883118
CUSTOMER NAME:	368-415
CUSTOMER ID:	SINC007003

DETAILED EQUIPMENT LAYOUT

SHEET NUMBER: C-102	REVISION: 1
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PER MOUNT ANALYSIS COMPLETED BY AMERICAN TOWER CORPORATION, DATED MARCH 26, 2025, THE EXISTING MOUNT MUST BE MODIFIED TO ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION DETAILED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT.

1
R-609

1
R-610


1
R-611

- TOWER NOTE:
- 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.
 - 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.
 - 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).
 - TOWER ELEVATION DEPICTION MAY NOT REFLECT ALL EQUIPMENT INCLUDED IN STRUCTURAL ANALYSIS. REFER TO STRUCTURAL ANALYSIS FOR FULL TOWER LOADING.



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DUNN, NC 28334-8845

TEP Engineering, PLLC

P-1463



SEAL: 04/24/25



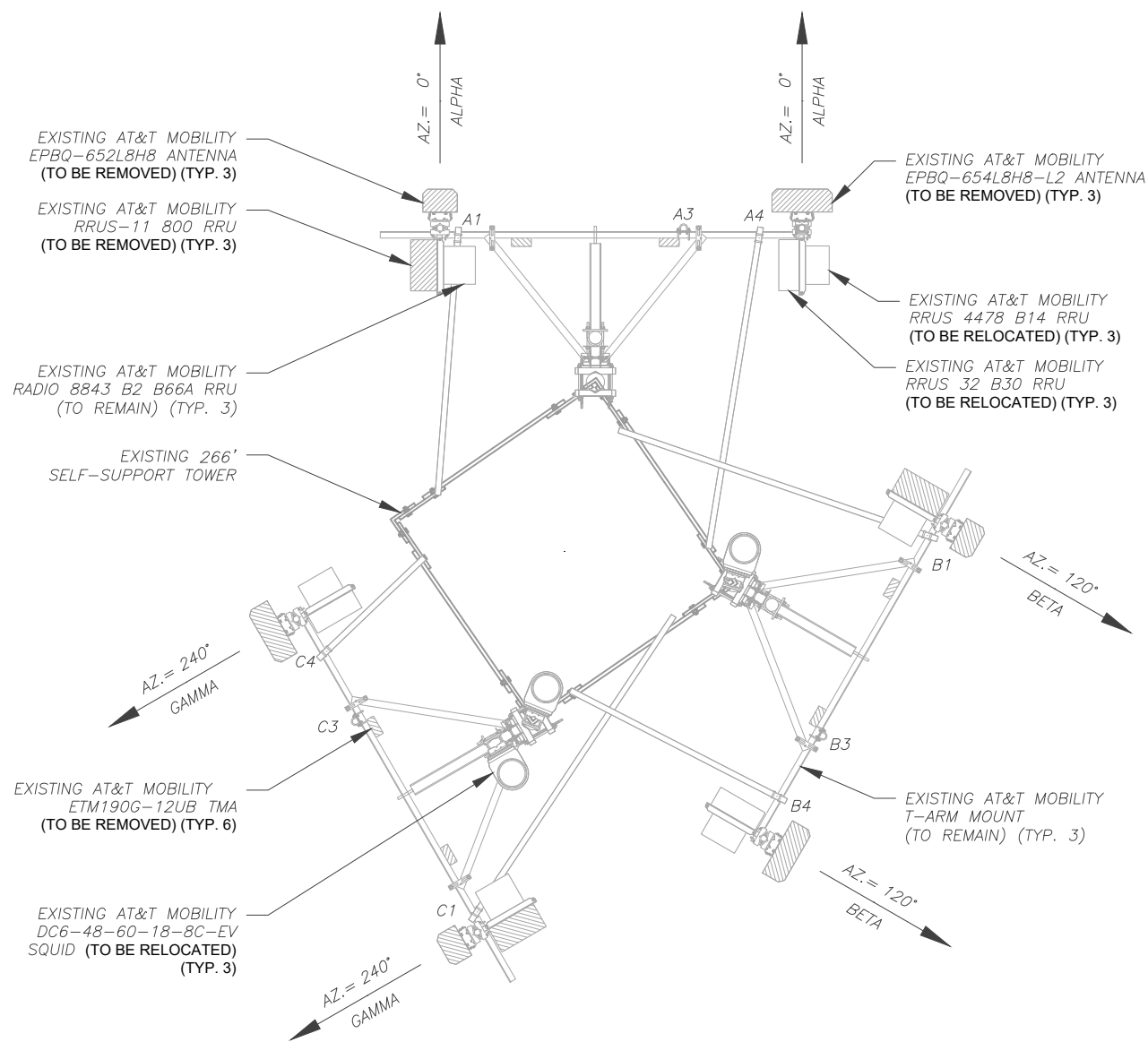
DATE DRAWN: 04/24/25
ATC JOB NO: 14883118
CUSTOMER NAME: 368-415
CUSTOMER ID: SINC007003

TOWER ELEVATION

SHEET NUMBER: C-201	REVISION: 1
-------------------------------	-----------------------

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



1 **EXISTING ANTENNA PLAN**

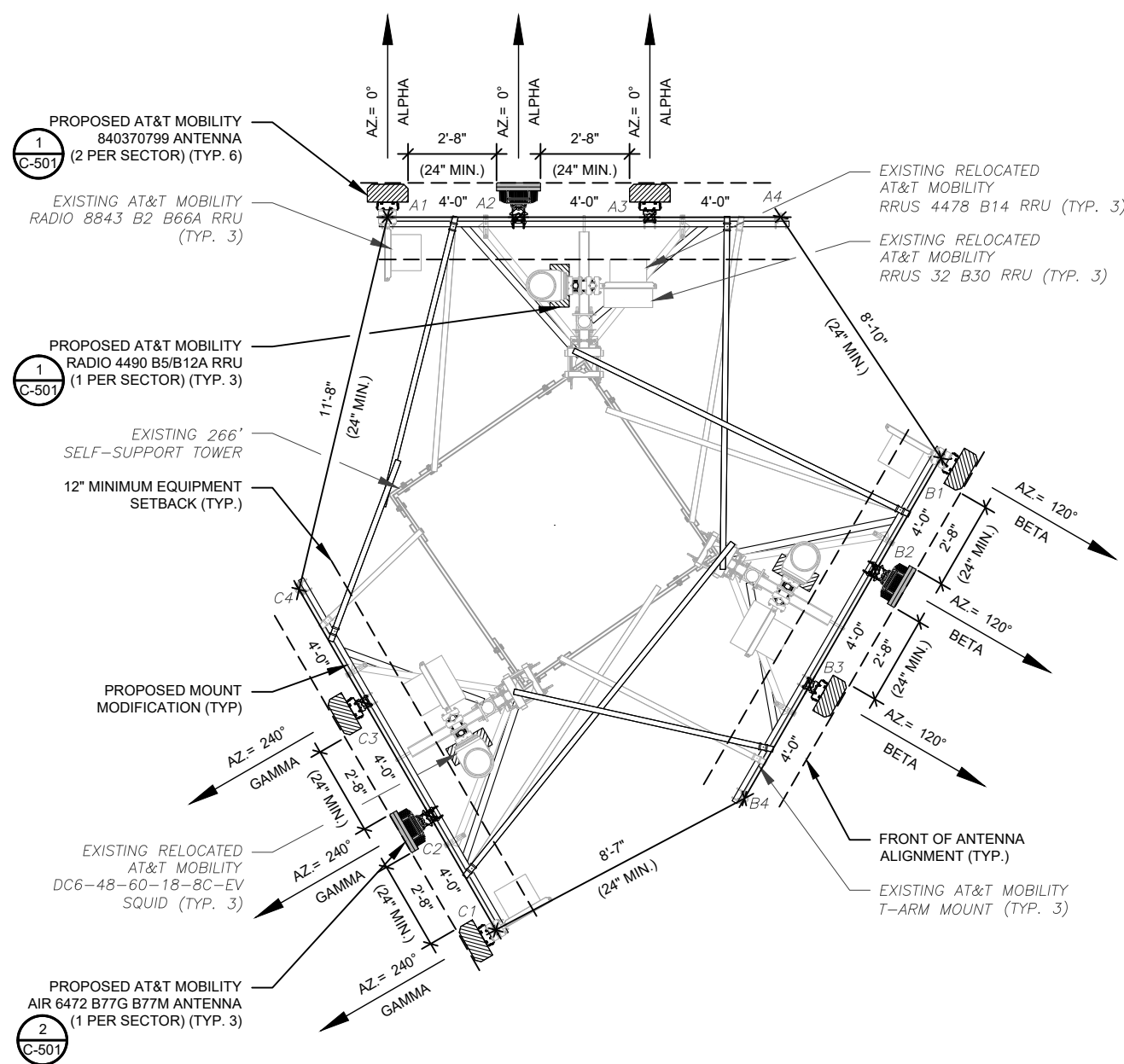
SCALE: 1" = 5'

0 5' 10'

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



PER MOUNT ANALYSIS COMPLETED BY AMERICAN TOWER CORPORATION, DATED MARCH 26, 2025, THE EXISTING MOUNT MUST BE MODIFIED TO ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION DETAILED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT.



2 FINAL ANTENNA PLAN
SCALE: 1" = 5'

0 5' 10'

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



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



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<u> </u>			
<u> </u>			

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TEP Engineering, PLLC

-1400



SEAL:

04/24/25



DATE DRAWN:	04/24/25
ATC JOB NO:	14883118
CUSTOMER NAME:	368-415
CUSTOMER ID:	SINC007003

ANTENNA INSTALLATION

SHEET NUMBER:

C-401

REVISION:

1

EXISTING ANTENNA SCHEDULE								
LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	231'	0°	A1	EPBQ-652L8H8	—	RMV	(1) RRUS-11 800 (1) RADIO 8843 B2 B66A	RMV RMN
			A2	—	—	—	—	
			A3	—	—	—	(2) ETM190G-12UB	RMV
			A4	EPBQ-654L8H8-L2	—	RMV	(1) RRUS 32 B30 (1) RRUS 4478 B14	REL REL
BETA	231'	120°	B1	EPBQ-652L8H8	—	RMV	(1) RRUS-11 800 (1) RADIO 8843 B2 B66A	RMV RMN
			B2	—	—	—	—	
			B3	—	—	—	(2) ETM190G-12UB	RMV
			B4	EPBQ-654L8H8-L2	—	RMV	(1) RRUS 32 B30 (1) RRUS 4478 B14	REL REL
GAMMA	231'	240°	C1	EPBQ-652L8H8	—	RMV	(1) RRUS-11 800 (1) RADIO 8843 B2 B66A	RMV RMN
			C2	—	—	—	—	—
			C3	—	—	—	(2) ETM190G-12UB	RMV
			C4	EPBQ-654L8H8-L2	—	RMV	(1) RRUS 32 B30 (1) RRUS 4478 B14	REL REL

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	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	231°	0°	A1	840370799	LTE 700/LTE AWS/LTE 1900	ADD	(1) RADIO 8843 B2 B66A (1) RADIO 4490 B5/B12A	RMN ADD
			A2	AIR6472 B77G B77M	5G CBAND/5G DOD	ADD	-	-
			A3	840370799	LTE 700 (FNET)/LTE WCS	ADD	(1) RRUS 32 B30 (1) RRUS 4478 B14	RMN RMN
			A4	-	-	-	-	-
BETA	231°	120°	B1	840370799	LTE 700/LTE AWS/LTE 1900	ADD	(1) RADIO 8843 B2 B66A (1) RADIO 4490 B5/B12A	RMN ADD
			B2	AIR6472 B77G B77M	5G CBAND/5G DOD	ADD	-	-
			B3	840370799	LTE 700 (FNET)/LTE WCS	ADD	(1) RRUS 32 B30 (1) RRUS 4478 B14	RMN RMN
			B4	-	-	-	-	-
GAMMA	231°	240°	C1	840370799	LTE 700/LTE AWS/LTE 1900	ADD	(1) RADIO 8843 B2 B66A (1) RADIO 4490 B5/B12A	RMN ADD
			C2	AIR6472 B77G B77M	5G CBAND/5G DOD	ADD	-	-
			C3	840370799	LTE 700 (FNET)/LTE WCS	ADD	(1) RRUS 32 B30 (1) RRUS 4478 B14	RMN RMN
			C4	-	-	-	-	-

EXISTING FIBER DISTRIBUTION/SQUID		EXISTING CABLING SUMMARY			
MODEL NUMBER	STATUS	COAX	DC / RET	FIBER	STATUS
(3) DC6-48-60-18-8C-EV	REL	(11) 2-1/4"	(3) 0.76" (19.2mm) 8 AWG 6	(2) 0.39" (10mm)	RMN
—	—	—	(2) 1.13" (28.7mm) 4 AWG 6	—	RMN
—	—	(1) 2-1/4"	(1) 3/8" (0.38"- 9.5mm) RET	—	RMV

FINAL FIBER DISTRIBUTION/SQUID		FINAL CABLING SUMMARY			
MODEL NUMBER	STATUS	COAX	DC	FIBER	STATUS
(3) DC6-48-60-18-8C-EV	RMN	(11) 2-1/4"	(3) 0.76" (19.2mm) 8 AWG 6	(2) 0.39" (10mm)	RMN
-	-	-	(2) 1.13" (28.7mm) 4 AWG 6	-	RMN
-	-	-	(1) 0.96" (24.3mm) 6 AWG 6	(1) 0.41" (10.3mm)	ADD



PLANS PREPARED BY:



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REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	OSV	04/11/25
0	100% CONSTRUCTION	OSV	04/18/25
1	100% CONSTRUCTION	SRZ	04/24/25

ATC SITE NUMBER: 306567

ATC SITE NAME: DUNN NC 3

AT&T MOBILITY SITE NUMBER:

SINC007003

AT&T MOBILITY SITE NAME:

368-415

SITE ADDRESS:
2420 JONESBORO RD
DUNN, NC 28334-8845



SEAL: 04/24/25



DATE DRAWN:	04/24/25
ATC JOB NO:	14883118
CUSTOMER NAME:	368-415
CUSTOMER ID:	SINC007003

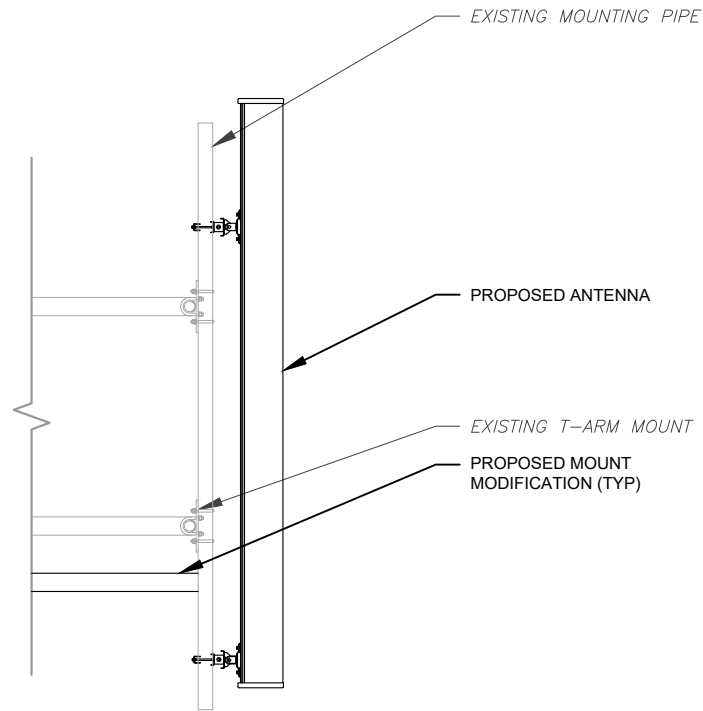
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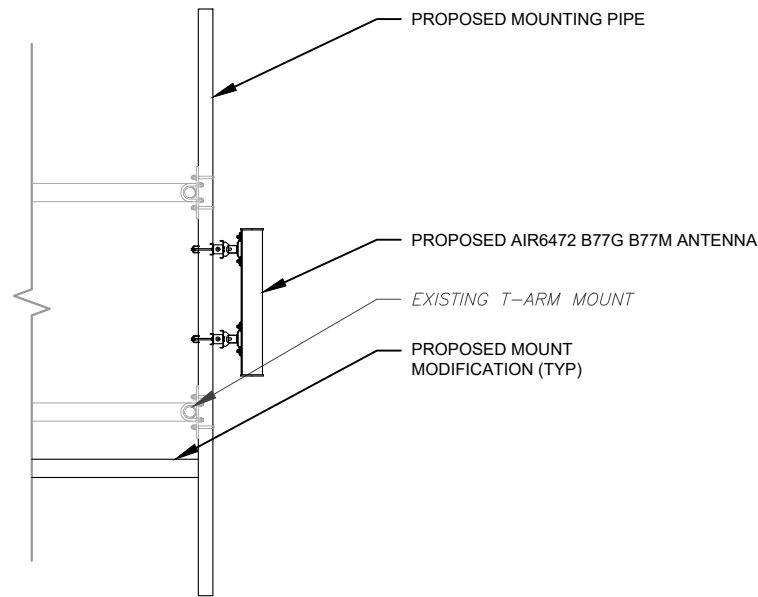
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REVISION:

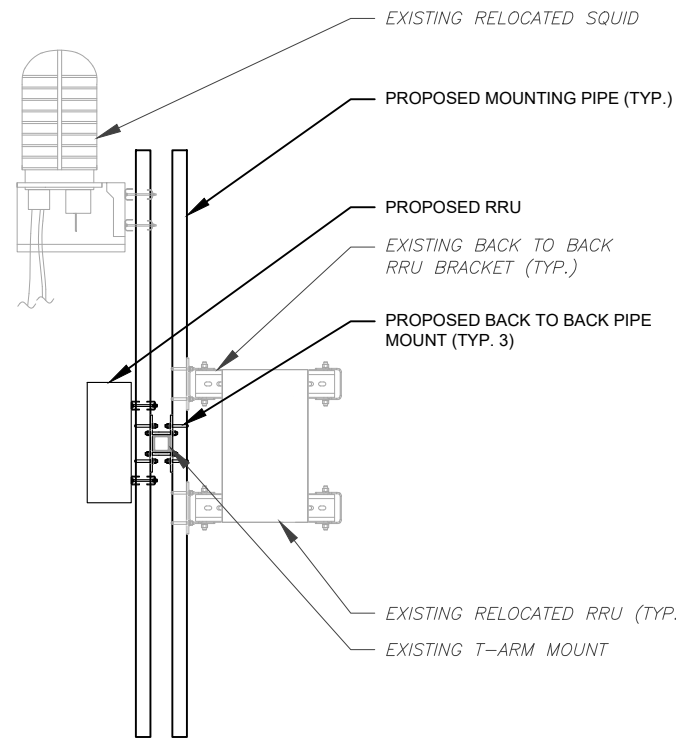
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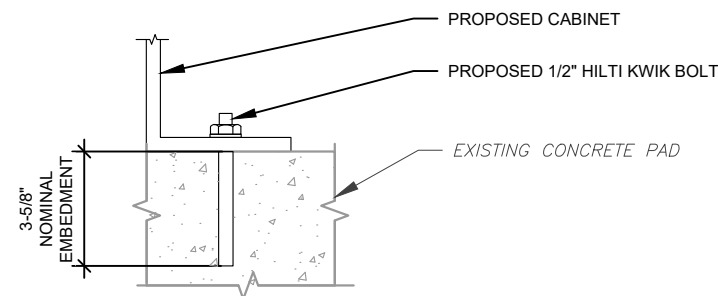
1 PROPOSED ANTENNA MOUNTING DETAIL
SCALE: N.T.S.



2 PROPOSED 5G ANTENNA MOUNTING DETAIL
SCALE: N.T.S.




3 PROPOSED RRU AND RELOCATED SQUID 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.

4 PROPOSED CABINET ATTACHMENT DETAIL
SCALE: N.T.S.



PLANS PREPARED BY:




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REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	OSV	04/11/25
B	100% CONSTRUCTION	OSV	04/18/25
1	100% CONSTRUCTION	SRZ	04/24/25


ATC SITE NUMBER: 306567
ATC SITE NAME: DUNN NC 3
AT&T MOBILITY SITE NUMBER:
SINC007003
AT&T MOBILITY SITE NAME:
368-415
SITE ADDRESS:
2420 JONESBORO RD
DUNN, NC 28334-8845

TEP Engineering, PLLC



P-1403

SEAL: 04/24/25



DATE DRAWN:	04/24/25
ATC JOB NO:	14883118
CUSTOMER NAME:	368-415
CUSTOMER ID:	SINC007003

CONSTRUCTION
DETAILS

SHEET NUMBER: C-501	REVISION: 1
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AC POWER PANEL A (EXISTING)
120/240 VOLTS, 1-PHASE, 3-WIRE, 200A

MAIN BREAKER RATING (A) : 200 SYSTEM VOLTAGE (V) : 240											
DESCRIPTION	VA	c/nc	BKR	POSN	L1	L2	POSN	BKR	c/nc	VA	DESCRIPTION
PCU #1 / OFF	0	nc	40/2	1	720		2	15/2	c	720	PRI HETA
	0	nc		3		720	4		c	720	
PCU #2 / OFF	0	nc	40/2	5	720		6	15/2	c	720	GRW1 HETA
	0	nc		7		720	8		c	720	
PCU #3 / OFF	0	nc	40/2	9	720		10	15/2	c	720	GRW2 HETA
	0	nc		11		720	12		c	720	
PCU #4 / OFF	0	nc	40/2	13	1950		14	20/2	c	1950	A/C
	0	nc		15		1950	16		c	1950	
PCU #5 / OFF	0	nc	40/2	17	180		18	20/1	nc	180	RECEPTS , GFCI, TELCO
	0	nc		19		180	20		15/1	nc	
PCU #6 / OFF	0	nc	40/2	21	8820		22	125/2	c	8820	TE45 SUB PANEL
	0	nc		23		8640	24		c	8640	
BLANK		c		25	0		26		c		BLANK
BLANK		c		27		0	28		c		BLANK
BLANK		c		29	0		30		c		BLANK
PHASE TOTALS (VA):					13110	12930					
PHASE TOTALS (A):					109	108					
CURRENT PER PHASE W/ 125% Continuous Loads(A):					136	134	Amperes/phase cannot exceed main breaker rating				
PANEL TOTAL (VA):					26040		Legend: c = continuous, nc = non-continuous				
PANEL TOTAL W/ 125% Continuous Loads (VA):					32460						

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

AC POWER PANEL SUB PANEL (EXISTING)
120/240 VOLTS, 1-PHASE, 3-WIRE, 125A


MAIN BREAKER RATING (A) : 125 SYSTEM VOLTAGE (V) : 240											
DESCRIPTION	VA	c/nc	BKR	POSN	L1	L2	POSN	BKR	c/nc	VA	DESCRIPTION
MDL 1	2880	c	30/1	1	5760		2	30/2	c	2880	MDL 5
MDL 2	2880	c	30/1	3		5760	4		c	2880	
MDL 3	2880	c	30/1	5	3060		6	15/1	nc	180	HTR MAT GFCI
MDL 4	2880	c	30/1	7		2880	8		c		BLANK
PHASE TOTALS (VA):					8820	8640					
PHASE TOTALS (A):					74	72					
CURRENT PER PHASE W/ 125% Continuous Loads(A):					92	90	Amperes/phase cannot exceed main breaker rating				
PANEL TOTAL (VA):					17460		Legend: c = continuous, nc = non-continuous				
PANEL TOTAL W/ 125% Continuous Loads (VA):					21780						


2 EXISTING SUB AC PANEL
SCALE: N.T.S.

AC POWER PANEL B (EXISTING)
120/240 VOLTS, 1-PHASE, 3-WIRE, 200A

MAIN BREAKER RATING (A) : 200 SYSTEM VOLTAGE (V) : 240											
DESCRIPTION	VA	c/nc	BKR	POSN	L1	L2	POSN	BKR	c/nc	VA	DESCRIPTION
BLANK		c		1	100		17	60/2	c	100	SURGE SUPPRESSOR
BLANK		c		2		100	18		c	100	
BATT/GFI	180	nc	20/1	3	180		19	50/2	nc	0	BTS / OFF
BLOCK HEATER	180	c	20/1	4		180	20		nc	0	
UNKNOWN / OFF	0	nc	50/2	5	3840		21	160/4	c	3840	ERICSSON CABINET
	0	nc		6		3840	22		c	3840	
UNKNOWN / OFF	0	nc	10/1	7	3840		23		c	3840	
UNKNOWN / OFF	0	nc	15/1	8		3840	24		c	3840	
BLANK		c		9	0		25	15/1	nc	0	UNKNOWN / OFF
BLANK		c		10		0	26		c		BLANK
BLANK		c		11	0		27		c		BLANK
BLANK		c		12		0	28		c		BLANK
BLANK		c		13	0		29		c		BLANK
BLANK		c		14		1440	30	15/1	c	1440	TELCO FAN
BLANK		c		15	180		31	20/1	nc	180	TELCO GFI
BLANK		c		16		180	32	20/1	nc	180	PTS GFI
PHASE TOTALS (VA):					8140	9580					
PHASE TOTALS (A):					68	80					
CURRENT PER PHASE W/ 125% Continuous Loads(A):					84	99	Amperes/phase cannot exceed main breaker rating				
PANEL TOTAL (VA):					17720		Legend: c = continuous, nc = non-continuous				
PANEL TOTAL W/ 125% Continuous Loads (VA):					22015						

3 EXISTING AC PANEL - B
SCALE: N.T.S.



PLANS PREPARED BY:



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REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	OSV	04/11/25
B	100% CONSTRUCTION	OSV	04/18/25
1	100% CONSTRUCTION	SRZ	04/24/25

ATC SITE NUMBER: 306567
ATC SITE NAME: DUNN NC 3
AT&T MOBILITY SITE NUMBER:
SINC007003
AT&T MOBILITY SITE NAME:
368-415
SITE ADDRESS:
2420 JONESBORO RD
DUNN, NC 28334-8845


SEAL: 04/24/25


DATE DRAWN: 04/24/25
ATC JOB NO: 14883118
CUSTOMER NAME: 368-415
CUSTOMER ID: SINC007003

ELECTRICAL DETAILS

SHEET NUMBER: E-101	REVISION: 1
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AC POWER PANEL A (PROPOSED)
120/240 VOLTS, 1-PHASE, 3-WIRE, 200A

MAIN BREAKER RATING (A) :				200		SYSTEM VOLTAGE (V) :				240	
DESCRIPTION	VA	c/nc	BKR	POSN	L1	L2	POSN	BKR	c/nc	VA	DESCRIPTION
PCU #1 / OFF	0	nc	40/2	1	720		2	15/2	c	720	PRI HETA
	0	nc		3		720	4		c	720	
PCU #2 / OFF	0	nc	40/2	5	720		6	15/2	c	720	GRW1 HETA
	0	nc		7		720	8		c	720	
PCU #3 / OFF	0	nc	40/2	9	720		10	15/2	c	720	GRW2 HETA
	0	nc		11		720	12		c	720	
PCU #4 / OFF	0	nc	40/2	13	1950		14	20/2	c	1950	A/C
	0	nc		15		1950	16		c	1950	
PCU #5 / OFF	0	nc	40/2	17	180		18	20/1	nc	180	RECEPTS , GFCI, TELCO AUX GFCI
	0	nc		19		180	20		15/1	nc	
PCU #6 / OFF	0	nc	40/2	21	0		22	125/2	nc	0	TE45 SUB PANEL / OFF
	0	nc		23		0	24		nc	0	
BLANK		c		25	0		26		c		BLANK
BLANK				27		0	28		c		BLANK
BLANK		c		29	0		30		c		BLANK
PHASE TOTALS (VA):				4290		4290					
PHASE TOTALS (A):				36		36					
CURRENT PER PHASE W/ 125% Continuous Loads(A):				44		44		Amperes/phase cannot exceed main breaker rating			
PANEL TOTAL (VA):				8580				Legend: c = continuous, nc = non-continuous			
PANEL TOTAL W/ 125% Continuous Loads (VA):				10635							

1 PROPOSED AC PANEL - A
SCALE: N.T.S.

AC POWER PANEL SUB PANEL A (PROPOSED)
120/240 VOLTS, 1-PHASE, 3-WIRE, 125A

MAIN BREAKER RATING (A) :				125		SYSTEM VOLTAGE (V) :				240	
DESCRIPTION	VA	c/nc	BKR	POSN	L1	L2	POSN	BKR	c/nc	VA	DESCRIPTION
MDL 1 / OFF	0	c	30/1	1	0		2	30/2	c	0	MDL 5 / OFF
MDL 2 / OFF	0	c	30/1	3		0	4		c	0	
MDL 3 / OFF	0	c	30/1	5	0		6	15/1	nc	0	HTR MAT GFCI / OFF
MDL 4 / OFF	0	c	30/1	7		0	8		c		BLANK
PHASE TOTALS (VA):					0		0				
PHASE TOTALS (A):					0		0				
CURRENT PER PHASE W/ 125% Continuous Loads(A):					0		0		Amperes/phase cannot exceed main breaker rating		
PANEL TOTAL (VA):					0				Legend: c = continuous, nc = non-continuous		
PANEL TOTAL W/ 125% Continuous Loads (VA):					0						

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

AC POWER PANEL B (PROPOSED)
120/240 VOLTS, 1-PHASE, 3-WIRE, 200A

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	1245	c	30/2	1	1345		17	60/2	c	100	SURGE SUPPRESSOR
	1245	c		2		1345	18		c	100	
BATT/GFI	180	nc	20/1	3	180		19	50/2	nc	0	BTS / OFF
BLOCK HEATER	180	c	20/1	4		180	20		nc	0	
UNKNOWN / OFF	0	nc	50/2	5	3840		21	160/4	c	3840	ERICCSON CABINET
	0	nc		6		3840	22		c	3840	
UNKNOWN / OFF	0	nc	10/1	7	3840		23		c	3840	
UNKNOWN / OFF	0	nc	15/1	8		3840	24		c	3840	
VERTIV RECTIFIER 3 & 4	1245	c	30/2	9	1245		25	15/1	nc	0	UNKNOWN / OFF
	1245	c		10		1245	26		c		BLANK
VERTIV RECTIFIER 5 & 6	1245	c	30/2	11	1245		27		c		BLANK
	1245	c		12		1245	28		c		BLANK
VERTIV RECTIFIER 7 & 8	1245	c	30/2	13	1245		29		c		BLANK
	1245	c		14		2685	30	15/1	c	1440	TELCO FAN
VERTIV RECTIFIER 9 & 10	1245	c	30/2	15	1425		31	20/1	nc	180	TELCO GFI
	1245	c		16		1425	32	20/1	nc	180	PTS GFI
PHASE TOTALS (VA):				14365		15805					
PHASE TOTALS (A):				120		132					
CURRENT PER PHASE W/ 125% Continuous Loads(A):				149		164		Amperes/phase cannot exceed main breaker rating			
PANEL TOTAL (VA):				30170				Legend: c = continuous, nc = non-continuous			
PANEL TOTAL W/ 125% Continuous Loads (VA):				37578							

3 PROPOSED AC PANEL - B
SCALE: N.T.S.



AMERICAN TOWER®

PLANS PREPARED BY:



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C	100% CONSTRUCTION	SRZ	04/24/25

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AT&T MOBILITY SITE NUMBER:
SINC007003
AT&T MOBILITY SITE NAME:
368-415
SITE ADDRESS:
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DUNN, NC 28334-8845



SEAL: 04/24/25

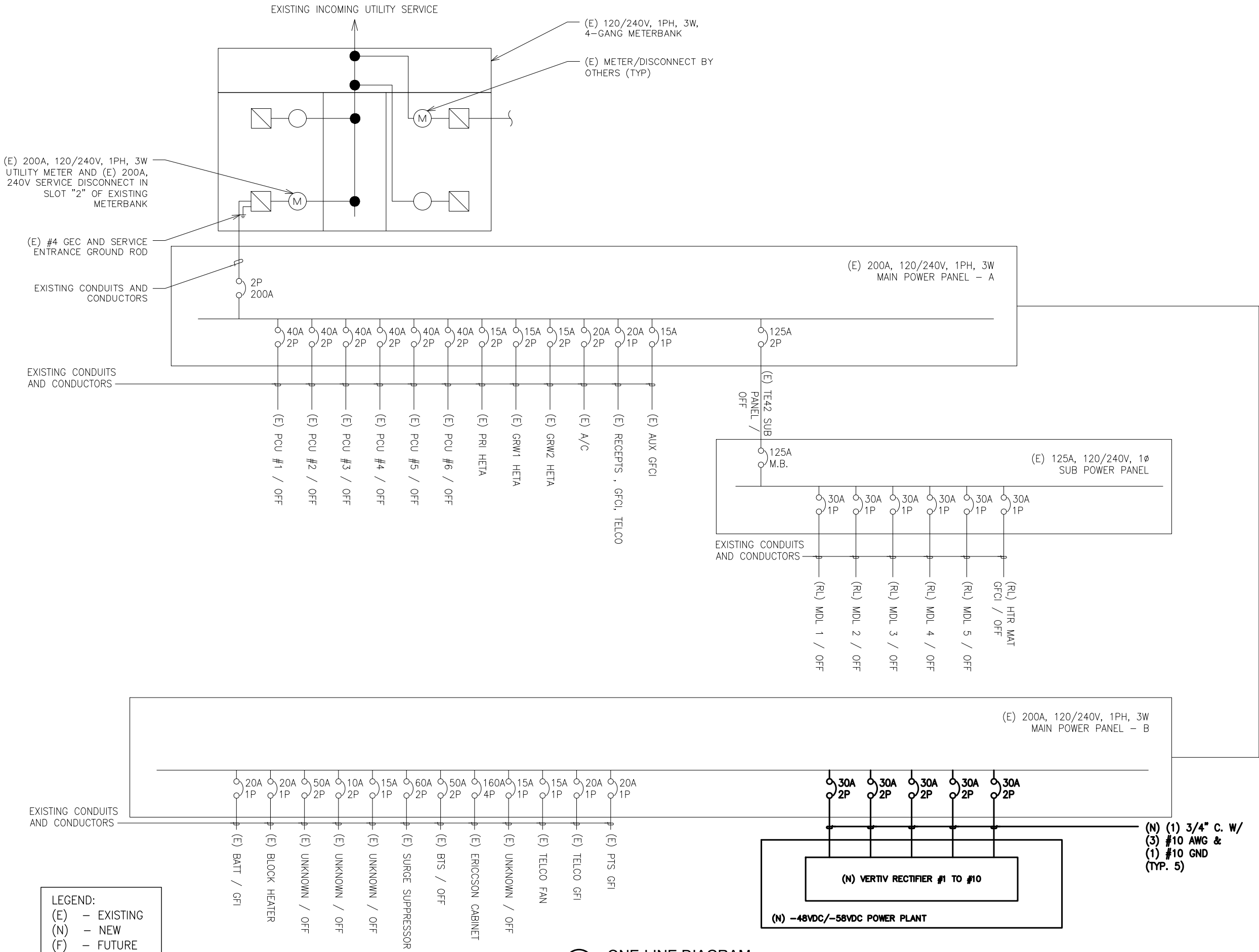


DATE DRAWN:	04/24/25
ATC JOB NO:	14883118
CUSTOMER NAME:	368-415
CUSTOMER ID:	SINC007003

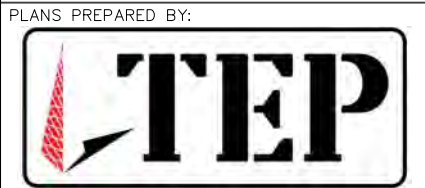
ELECTRICAL DETAILS

SHEET NUMBER: E-102	REVISION: 1
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1 ONE-LINE DIAGRAM
SCALE: N.T.S.



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1	100% CONSTRUCTION	SRZ	04/24/25

ATC SITE NUMBER: 306567

ATC SITE NAME: DUNN NC 3

AT&T MOBILITY SITE NUMBER:

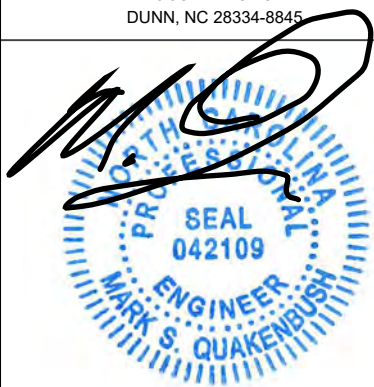
SINC007003

AT&T MOBILITY SITE NAME:

368-415

SITE ADDRESS:

2420 JONESBORO RD
DUNN, NC 28334-8845



SEAL: 04/24/25



DATE DRAWN:	04/24/25
ATC JOB NO:	14883118
CUSTOMER NAME:	368-415
CUSTOMER ID:	SINC007003

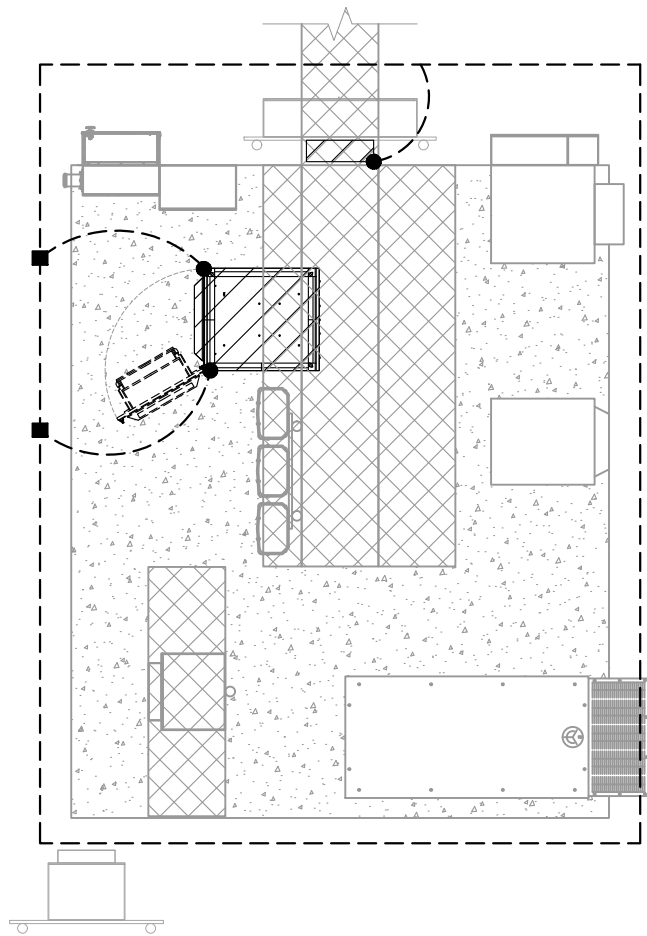
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SHEET NUMBER:

E-103

REVISION:

1

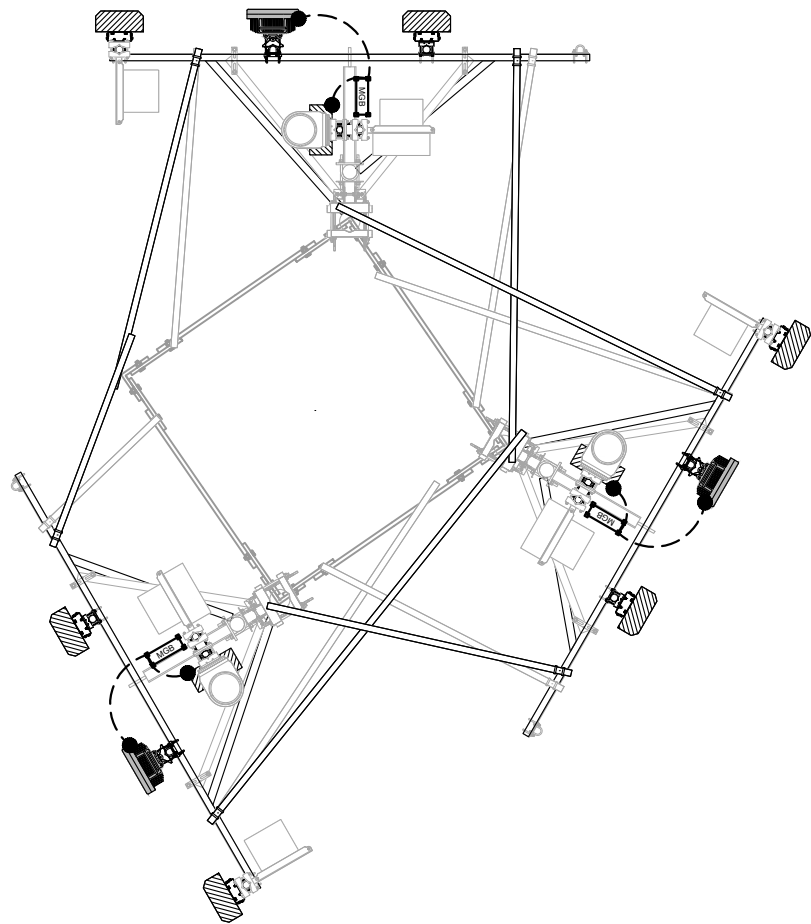


LEGEND	
	EXOTHERMIC CONNECTION
	MECHANICAL CONNECTION
	ANTENNA GROUND BAR
	MASTER GROUND BAR

1

EQUIPMENT GROUNDING PLAN

SCALE: N.T.S.



LEGEND	
	EXOTHERMIC CONNECTION
	MECHANICAL CONNECTION
	ANTENNA GROUND BAR
	MASTER GROUND BAR

2

ANTENNA GROUNDING PLAN

SCALE: N.T.S.



PLANS PREPARED BY:



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

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REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	OSV	04/11/25
B	100% CONSTRUCTION	OSV	04/18/25
1	100% CONSTRUCTION	SRZ	04/24/25

ATC SITE NUMBER: 306567

ATC SITE NAME: DUNN NC 3

AT&T MOBILITY SITE NUMBER:

SINC007003

AT&T MOBILITY SITE NAME:

368-415

SITE ADDRESS:

2420 JONESBORO RD
DUNN, NC 28334-8845



SEAL:

04/24/25



DATE DRAWN:	04/24/25
ATC JOB NO:	14883118
CUSTOMER NAME:	368-415
CUSTOMER ID:	SINC007003

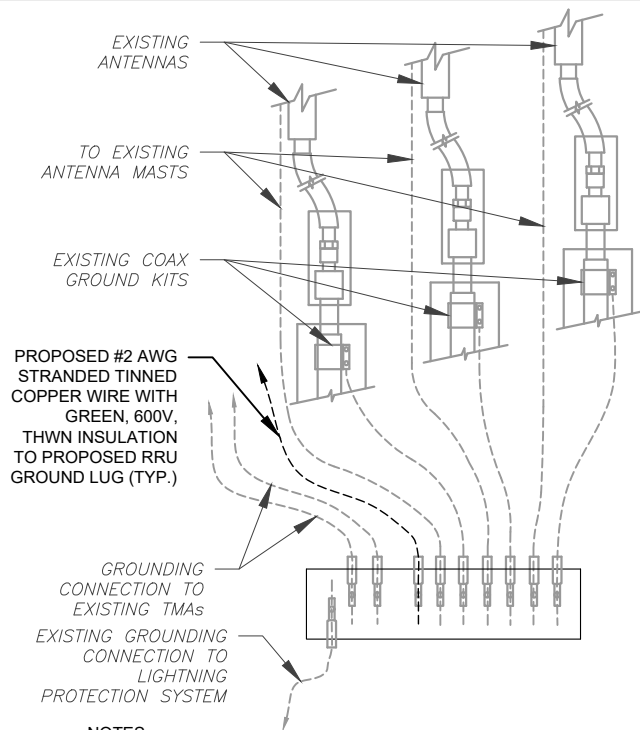
GROUNDING PLAN

SHEET NUMBER:

E-104

REVISION:

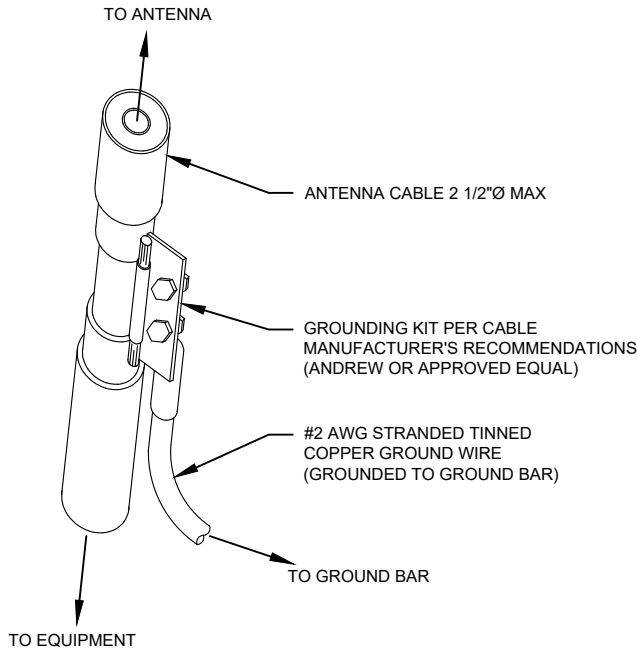
1



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.

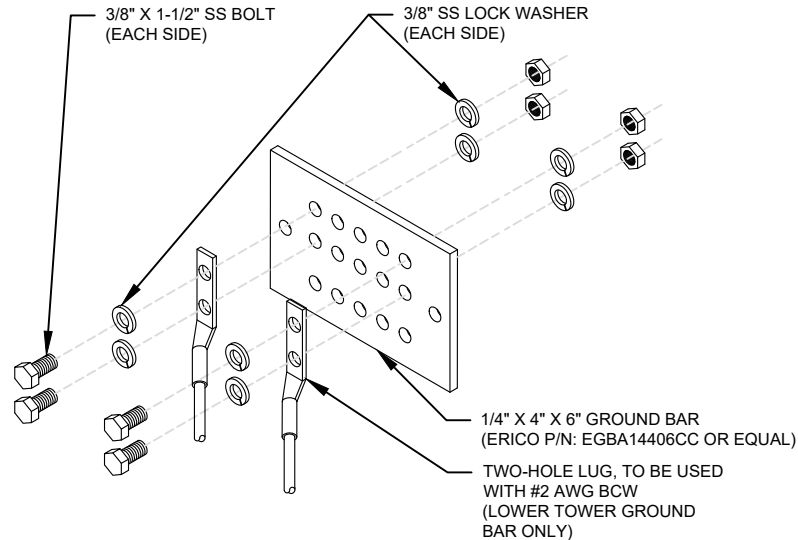
1 TYPICAL ANTENNA GROUNDING DIAGRAM
SCALE: N.T.S.



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.

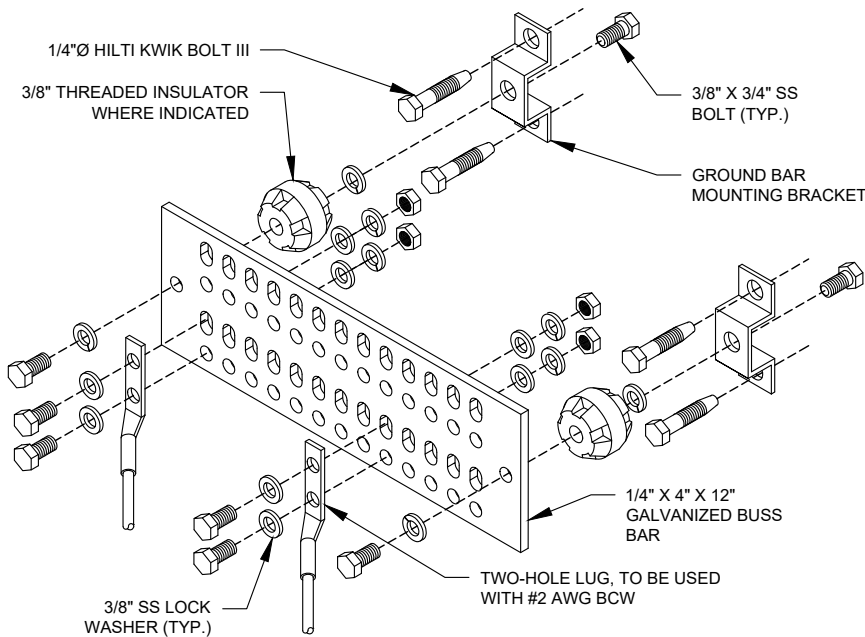
2 CABLE GROUND KIT CONNECTION DETAIL
SCALE: N.T.S.



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.

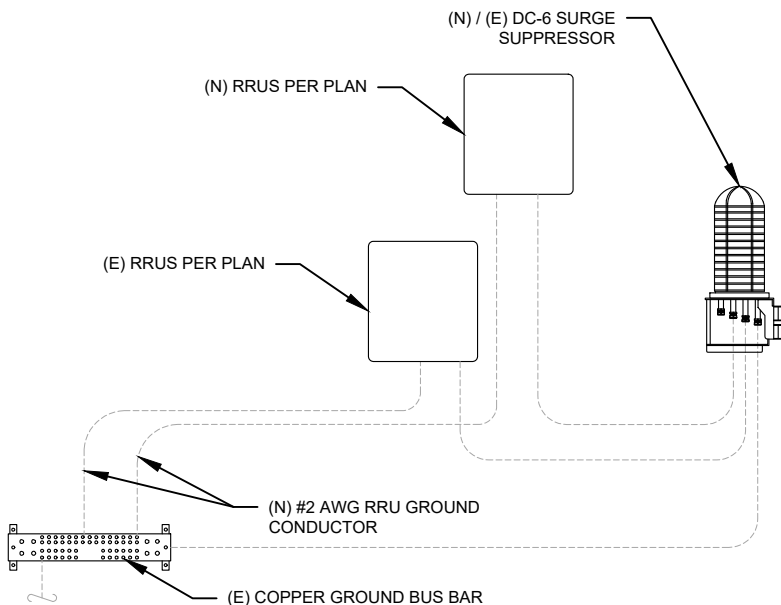
3 TOWER GROUND BAR DETAIL
SCALE: N.T.S.



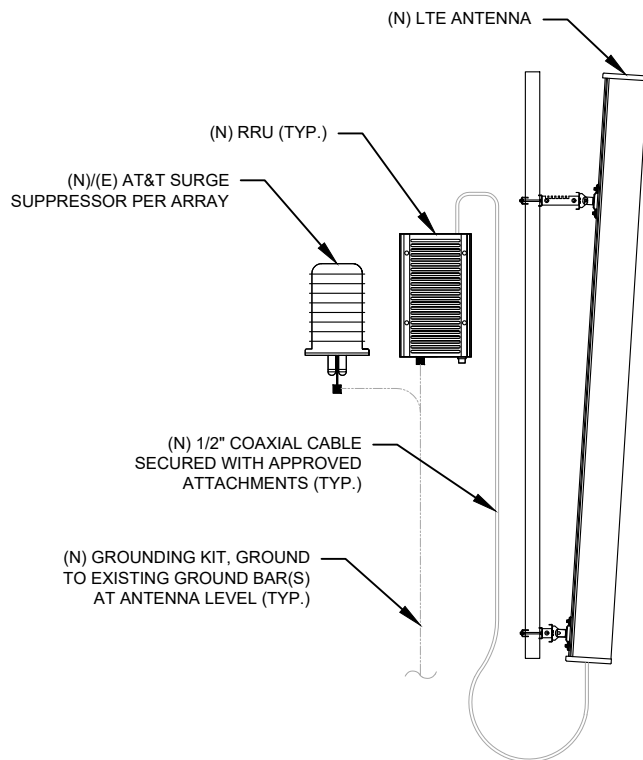
GROUND BAR NOTES

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.



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REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	OSV	04/11/25
B	100% CONSTRUCTION	OSV	04/18/25
C	100% CONSTRUCTION	SRZ	04/24/25
D			
E			

ATC SITE NUMBER: 306567
ATC SITE NAME: DUNN NC 3
AT&T MOBILITY SITE NUMBER:
SINC007003
AT&T MOBILITY SITE NAME:
368-415
SITE ADDRESS:
2420 JONESBORO RD
DUNN, NC 28334-8845



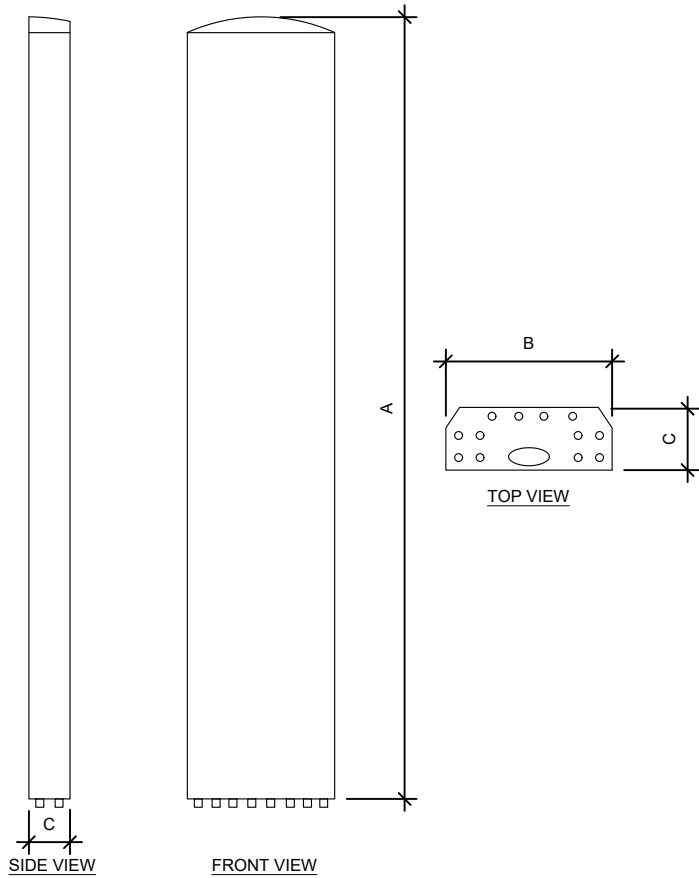
SEAL: 04/24/25



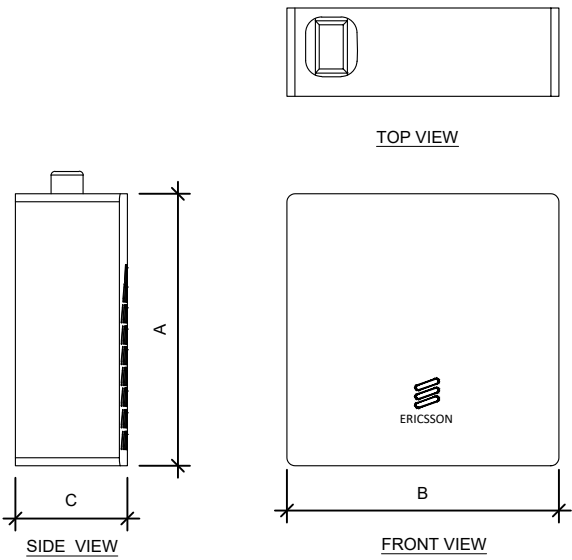
DATE DRAWN:	04/24/25
ATC JOB NO:	14883118
CUSTOMER NAME:	368-415
CUSTOMER ID:	SINC007003

GROUNDING DETAILS

SHEET NUMBER: E-501	REVISION: 1
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ANTENNA SPECIFICATIONS				
ANTENNA MODEL	A	B	C	WEIGHT (LBS)
840370799	96.0"	14.9"	6.5"	105.8
AIR 6472 B77G B77M	36.3"	15.8"	7.4"	67.2



RRU SPECIFICATIONS				
RRU MODEL	A	B	C	WEIGHT (LBS)
4490 B5/B12A	20.6"	15.6"	7.0"	65.0

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 individually-cooled 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 NCU controller

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 – MAXIMUM 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 NEQ.15152 (545405).

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

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) SMTMP Module. Each module can accommodate (8) temperature probes. A maximum of (8) SMTMP 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) SMTMP 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 Power 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
Accessories		
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		
Batteries		
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)

* 1200 watts at 65°C

eSure™ Rectifier

R48-2000e3



eSure™ Rectifier



Benefits

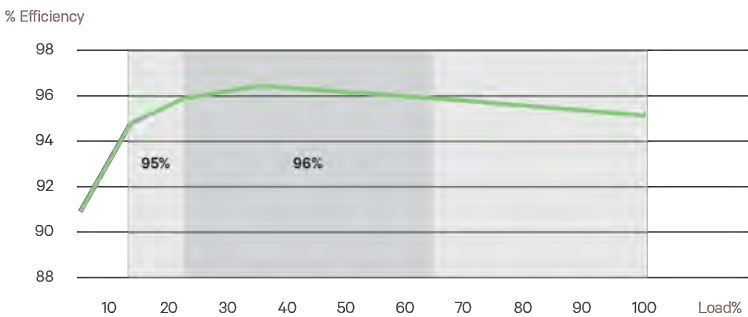
- Optimize the amount of energy delivered and reduce power consumption with over 96% efficiency.
- Increase space for revenue generating equipment with modules that pack more power in a small space with high power density.
- Facilitate easy maintenance, expansion and system changes with hot swappable 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

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

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R48-2000E3 (R06/20)

Figures

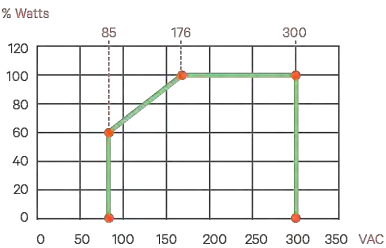


Figure 1: Output Power vs. Input Voltage and Vo > 48 V at Tamb <55°C

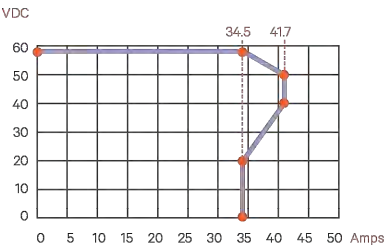


Figure 2: Output Voltage vs. Output Current at Maximum Output Power 2000 W

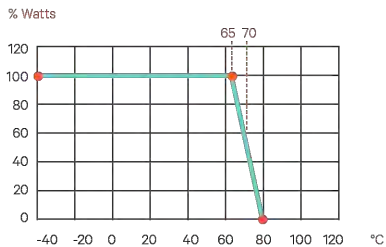


Figure 3: Output Power vs. Temperature at Uin > 200VAC

SUPPLEMENTAL

SHEET NUMBER:

R-603

REVISION:

-

Vertiv™ eSure™ Converter
C48/58 -2000P3



Vertiv™ eSure™ Converter



Key Benefits

Converter, 48 to 58 VDC,
2000 W Peak / 1600 W Average

- Reduce power consumption and lower operating costs with 95% peak efficiency.
- Easily add capacity with hot pluggable interchangeable components.
- Ensure high availability with wide input voltage range from 41 VDC to 58 VDC.
- Power your 5G sites in the harsh environments with operation from -40°C to +65°C.
- Enjoy peace of mind with high quality UL recognized design.

Easily support higher power 5G remote radios on cell towers with modular 2000 watt eSure™ power extend converters.

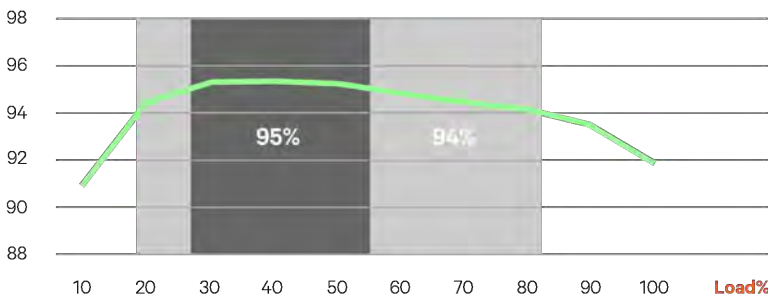
Description

The Vertiv™ eSure™ C48/58-2000P3 high-efficiency converter is designed to operate from a nominal -48 VDC source to provide nominal -58 VDC load power, which is adjustable to application needs up to 2000 watts peak, 1600 watts average. This constant power converter designed with the latest patented switchmode technology, uses digital signal processing (DSP) for efficient operation.

The eSure C48/58-2000P3 DC to DC converter is ideal for feeding high power remote radio heads (RRHs). 58 VDC is regulated over a wide input range to minimize voltage drop in the cable feeding the RRH and sustain operation to end of battery discharge. When redundancy is critical or loads are high, multiple eSure C48/58-2000P3 converters can be connected in parallel to support a variety of telecom applications. Unified remote management and control of the power system is enabled when combined with a Vertiv™ NetSure™ controller.



% Efficiency



C48/58-2000P3 Efficiency Curve at 53.5 VDC Nominal Input

Technical Specifications

DC Input	C48/58-2000P3
Voltage	41 VDC to 58.5 VDC, 48 VDC (nominal)
Maximum Current	53 A

DC Output	
Voltage	56 VDC to 58 VDC
Maximum Power	2000 W peak, 1600 W average at 40°C, 1280 W average at 65°C
Maximum Current	35.7 A at 2000 W peak (see figure 1), 28.6 A at 1600 W average, 22.9 A at 1280 W average, all at 56 VDC
Peak Efficiency	>95%
Noise	< 250mV pk-pk; < 20mV rms; <38 dBmC

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

Environmental	
Operating Temperature	-40°C to +80°C / -40°F to +176°F (see figure 2)
Storage Temperature	-40°C to +85°C / -40°F to +185°F
Relative Humidity	0 to 90%
Altitude	2000 m / 6560 ft at full power

Standards Compliance	
Safety	UL62368-1, EN62368-1, IEC62368-1
EMC	FCC CFR 47 Part 15 Class A conducted and Class B radiated
Environment	REACH, RoHS

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

Part Number	Description
1C48582000P3	eSure™ converter, -48 to -58 VDC, 2000 W peak / 1600 W average

Figures

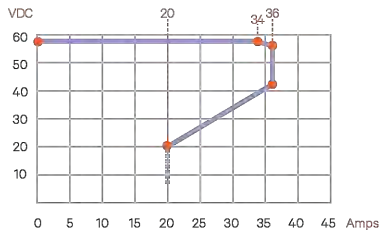


Figure 1: Output Voltage vs. Output Current at Maximum peak Power 2000 W

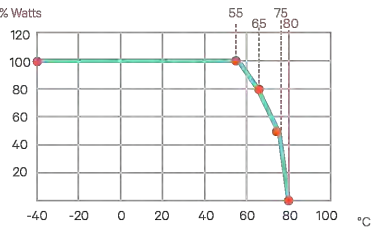


Figure 2: Output Power vs. Temperature at -41VDC > Vin > -58VDC

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C48/58-2000P3 (02/2024)

Vertiv™ NetSure™ Converter System

-48V DC to -58V DC



Vertiv™ NetSure™ Converter System



Benefits

Modular design

Provides for system redundancy and easy expansion of operating capacity in small increments

Expandable

Optional converter shelves and distribution panel allow for system growth as site needs dictate

Hot insertion capability

Allows for system expansion without disruption

Surge Protection

Built-in surge protection protects equipment from damages

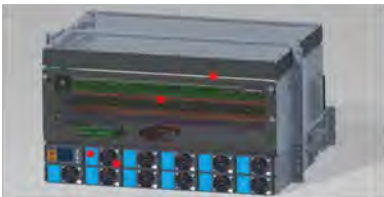
Load Shedding

Optional load disconnect contactor allows for shedding non-critical loads

Standard Features

- Safety compliance - NEBS, UL
- Nine (9) Form-C alarm outputs
- Current limiting
- Over-voltage protection
- Over-temperature protection
- Load sharing for parallel operation
- Easily accessible input and output connections for simplified installation
- Emergency Power Off

The Vertiv™ NetSure™ Converter System is ideal for powering remote radios over long cable lengths.



Description

The Vertiv™ NetSure™ Converter System provides up to 600 amps at -58 volts DC via high frequency switch mode converters, each rated at 2000 watts peak, 1600 watts average. The modular design allows the converter's capacity to expand as your system expands. The base system can accept eleven individual, plug-in converter modules that can be easily installed live without system interruption. Up to two six-expansion converter shelves can be added for increased capacity. The distribution panel is available with four large GJ/218 type circuit breaker positions or twenty-six bullet type device positions. The large positions accommodate up to a 250 amp breaker per position and up to an 800 amp breaker in four positions. The bullet type panel accommodates devices from 1 amp to 300 amps. A second 26-position bullet type panel can be added for expansion. The NetSure NCU controller provides system management, monitoring and alarming.

Application

The Vertiv™ NetSure™ Converter System is compact and easy to expand, making it ideal for radio base station sites requiring -58 VDC output.

Ordering Information

Part Number	Model Number	Description
58464100001	DCS48/58-600	Converter System, (26) Bullet Positions, without Contactor
58464100002	DCS48/58-600	Converter System, (26) Bullet Positions, with Contactor
58464100003	DCS48/58-600	Converter System, (4) GJ/218 CB Positions, without Contactor
58464100004	DCS48/58-600	Converter System, (4) GJ/218 CB Positions, with Contactor
58464100010	DCS48/58-600	Expansion Converter Shelf, six positions
584641000AL	DCS48/58-600	Expansion Distribution Panel, (26) Bullet Positions, without Contactor
584641000CL	DCS48/58-600	Expansion Distribution Panel, (26) Bullet Positions, with Contactor
1M830BNA10044525	M830B	NCU Controller, 10044525 Configuration
1C48582000P3	C48/58-2000P3	eSure DC/DC converter, -48VDC to -58VDC, 2000 watts Peak

Technical Specifications

Input

Voltage	-48.0 volts DC nominal, with range of -41.0 to -58.5 volts DC
Current	41.9 amps maximum (at full load for one module, -41VDC input)
Circuit Protection	Fuse is located in the negative input lead of each converter module
Filtering	Noise reflected back to the battery is less than 38dBmC and is within the parameters set forth in Telcordia technical reference TR-TSY-000009, using test measurements in PUB43802, pages 5 and 6
Efficiency	95.6% peak

Output

Voltage	-56.0 VDC to -58.0 VDC adjustment range
Current	26-position Bullet Panel = 400 amps 4-position GJ/218 Breaker Panel = 600 amps
Regulation	Steady state output voltage remains within ±1% of the pre-adjusted voltage for any load current from no load to full load and over the specified input voltage range
Dynamic Response	For a step load change of 25%, the maximum voltage transient will not exceed 5% of the initial steady state voltage
Filtering	Wide band noise does not exceed 250 mV peak to peak over the frequency range of 1 Hz to 100 MHz. Wide band noise does not exceed 20 mV rms over the frequency range of 25 Hz to 20 kHz.

Protection

Overvoltage	Two independent over-voltage shutdown circuits are included in each converter module. 1) Settable via NCU controller from -56V to -59V. 2) Backup (hardware employed) at -59.5VDC When the output current of a DC-DC converter module increases to a value set via the NCU
Overcurrent	controller between 10% to 100% of rated full load, the output voltage of the module will automatically decrease to limit current to this value. The output will recover to within specified limits when the overload condition is removed.
Over Temperature	Each DC-DC converter module will automatically shut down if the internal temperature of the module exceeds a predetermined value. Operation will automatically resume after the over-temperature condition is removed.

Environmental

Operating Temperature	-40°C to +65°C (-40°F to +149°F)
Storage Temperature	-40°C to +85°C (-40°F to +185°F)
Humidity	0% to 95% relative humidity, non-condensing
Altitude	Maximum operating ambient temperature should be derated linearly (3°C per 1000 ft.) at elevation above 6562000 ft.
Audible Noise	The audible noise at 1 meter shall not exceed 560dB-A per ANSI S1.4.
EMI/RFI Suppression	This unit conforms to the requirements of FCC Part 15, Subpart B, Class B; EN55022, Class B for radiated and GR-1089 CORE for conducted noise.



C48/58-2000P3 Converter Module

Vertiv.com | Vertiv Headquarters, 505 N Cleveland Ave, Westerville, OH 43082, USA

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DC-00144 (02/24)

2



Battery Range Summary

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.

Features and Benefits

- Capacity range 31-190Ah
- 12V monobloc configurations
- Multiple string configurations available
- Two year shelf life
- SR4228 compliant
- Proven long service life
- High energy density and cycling capability

Construction

- 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

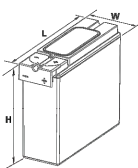
- Space efficient footprint
- VRLA design, reduces maintenance requirements
- Lifting handles for easy handling
- Greater than 10 year life expectancy in float service at 77°F (25°C)
- Increased active material surface area yields great cycling capability
- Operating temperature: -40°F (-40°C) to 122°F (50°C)
Recommended temperature: 68°F (20°C) to 86°F (30°C)

Standards

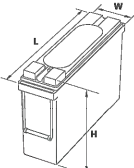
- Meets criteria for "non-spillable" batteries
- Complies with Telcordia® SR-4228, Network Equipment Building System (NEBS™) Criteria Levels
- The management systems governing the manufacture of this product are ISO 9001:2008 and ISO 14001:2004 certified

General Specifications

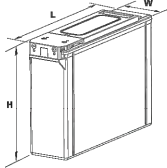
Cell Type	Nominal Capacity (Ah)		Nominal Dimensions						Weight - Volumes	
	10 hr rate to 1.80Vpc @20°C	8 hr rate to 1.75Vpc @77°F	Length		Width		Height		Unpacked	
			In	mm	In	mm	In	mm	lbs	kg
SBS B8F	31	31	11.9	303	3.8	97	6.3	159	22.7	10.3
SBS B10F	38	38	11.9	303	3.8	97	7.2	184	28.2	12.8
SBS B14F	62	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
SBS 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



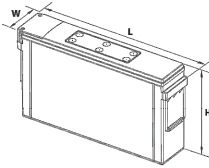
SBS B8F-B14F



SBS C11F



SBS 100F-112F



SBS 145F - 190F



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



connect@alpinepowersystems.com
877-993-8855

Battery Services for Backup Power

- Battery Installation
- Capacity and Acceptance
- Preventative Maintenance

backup power | telecom | motive power
www.alpinepowersystems.com

1 PROPOSED 170AH BATTERY DETAIL
SCALE : N.T.S.

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SUPPLEMENTAL

SHEET NUMBER:

R-606

REVISION:

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+27 VDC Vertiv™ eSure™
Bullet Converter
C48/27-375B

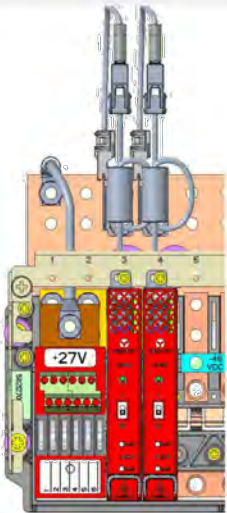


+27 VDC Vertiv™ eSure™ Bullet Converter



Benefits

- Instantly supply power to remaining +24 VDC eSure loads by plugging this device directly into the existing distribution panel
- Leverage room for revenue generating equipment since additional rack space is not used
- Avoid adding a separate bulk or multi-output converter shelf
- Achieve conversion efficiency greater than 95%
- Use the existing load cables
- Ideal for upgrading legacy DC power plants



Vertiv™ eSure™ C48/27-375B Bullet Converter with
+27 VDC Bullet Nose 6-Position GMT Fuse Board Kit

Ideal for networks transitioning from LTE or earlier architectures to 5G.

Description

The +27 VDC Vertiv™ eSure™ C48/27-375B Bullet Converter is a 375W, +27VDC output converter with bullet terminals designed to provide +27 VDC power output to remaining +24 VDC Vertiv™ eSure™ loads after converting the primary -48 VDC/+24 VDC power system to a -48 VDC Vertiv™ eSure™/-58 VDC Vertiv™ eSure™ power system. It also functions as an overcurrent protection device for the circuit.

The compact design of the device fits in the palm of your hand and plugs directly into a DC distribution panel in the same position as a bullet circuit breaker. If needed, up to three units can operate in parallel to meet up to 750W of power demand.

The Vertiv™ eSure™ C48/24-375B is equipped with an enable/disable switch, a bi-color LED indicator and an alarm contact. Test points are provided to monitor the output current and an integrated branch circuit rated protection device is included.

The optional, +27 VDC 6-position GMT Fuse Board can be paralleled with the +27 VDC eSure™ Bullet Converter to provide up to (6) GMT load fuse positions. The Fuse board is located in the same panel as the converter and does not require extra space in the rack.

The +27 VDC eSure Bullet Converter maintains +24 V loads, e.g. NID operation through end of battery discharge. It is ideal for upgrading legacy DC power plants to support the increasing power requirements of 5G applications.



Vertiv™ eSure™ C48/27-375B Bullet Converter

Technical Specifications

DC Input	C48/27-375B	10062803 (6) Position GMT Fuse Board Kit
Voltage	-42 VDC to -58 VDC, 48 VDC (nominal)	+27 VDC (nominal)
Maximum Current	10 A	27.8 A

DC Output	
Voltage	+27 VDC
Maximum Power	375 W
Maximum Current	13.9 A @ +27 VDC
Peak Efficiency	95.8%

Control and Monitoring	
Visual Indications (on front)	A single bi-color LED indicates the operating status of the unit: •Green = Proper operation •Red = Alarm
Alarm Contact (on back)	Compatible with Vertiv bullet distribution panel
Test Points (on front)	Enables output current measurement of the unit

Environmental	
Operating Temperature	-40°C to +75°C / -40°F to +167°F
Storage Temperature	-40°C to +70°C / -40°F to +158°F
Relative Humidity	0 to 90% non-condensing
Altitude	-200 to 10,000 feet

Standards Compliance	
Safety	UL 62368 Recognized Designed to meet GR3108 Class 2, NEBS Level III
EMC	FCC CFR 47 Part 15 (Class B radiated); Telcordia GR-1089-CORE Issue 8

Mechanics	
Dimensions (H x W x D)	107.2 x 18.5 x 109.7 mm / 4.22 x 0.73 x 4.32 inches
Weight	0.45 kg / 1.0 lbs

Ordering Information

Part Number	Description
60147273	Vertiv™ eSure™ C48/27-375B Bullet Converter
10062803	+27 VDC Bullet Nose 6-Position GMT Fuse Board Kit

Note: A mounting kit is required for installing 60147273 and 10062803 based on the host power system. Please contact Vertiv for information.

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C48-27-375B (R05/2024)

DATA SHEET

DC Surge Protection Solutions
DC12-48-60-0-25E
Overvoltage Protection & Power Management Junction Box

The DC12-48-60-0-25E is designed to be the most robust and capable surge protector available for distributed antenna systems. The flexible design allows for indoor or outdoor mounting at the base station or centrally located at the top of the tower or rooftop for remote radio (RRH) protection. This model employs patented Strikesorb® 30-V1-HV modules capable of providing 60kA (8/20µs) of surge capacity for up to 12 -48VDC circuits.

powered by
Strikesorb®



DC12-48-60-0-25E
ships with Conduit Fittings installed

Features

- Provides protection for twelve individual radio protection circuits at the base of sites
- Surge protection of 60kA 8/20µs
- Maximum impulse current 5kA 10/350 µs
- UL 1449 3rd Edition Type 4 protection device
- IEC 61643-1 Class I protection for DC applications
- NEMA 4 rated enclosure
- Form C relay contacts included
- Simplifies inter-connectivity and cable management for DC conductors

Benefits

- Strikesorb modules are fully Recognized to UL 1449 3rd Edition and IEC 61643-1 Safety Standards, meeting all intermediate and high current fault requirements to facilitate use in original equipment manufacturers (OEM) applications.
- Offers unique maintenance-free protection against direct lightning currents.
- Utilizes a NEMA 4/12 dust-tight rated enclosure, allowing for indoor or outdoor installation on a roof or tower top.



Cable Gland kit included

Strikesorb is a registered trademark of Raycap
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G02-00-267 130322

Raycap

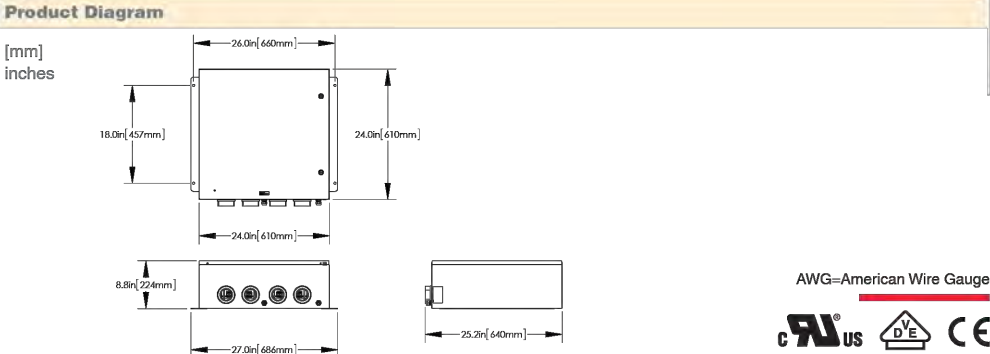
www.raycapsurgeprotection.com

SPECIFICATIONS

DC Surge Protection Solutions
DC12-48-60-0-25E
Overvoltage Protection & Power Management Junction Box

powered by
Strikesorb®

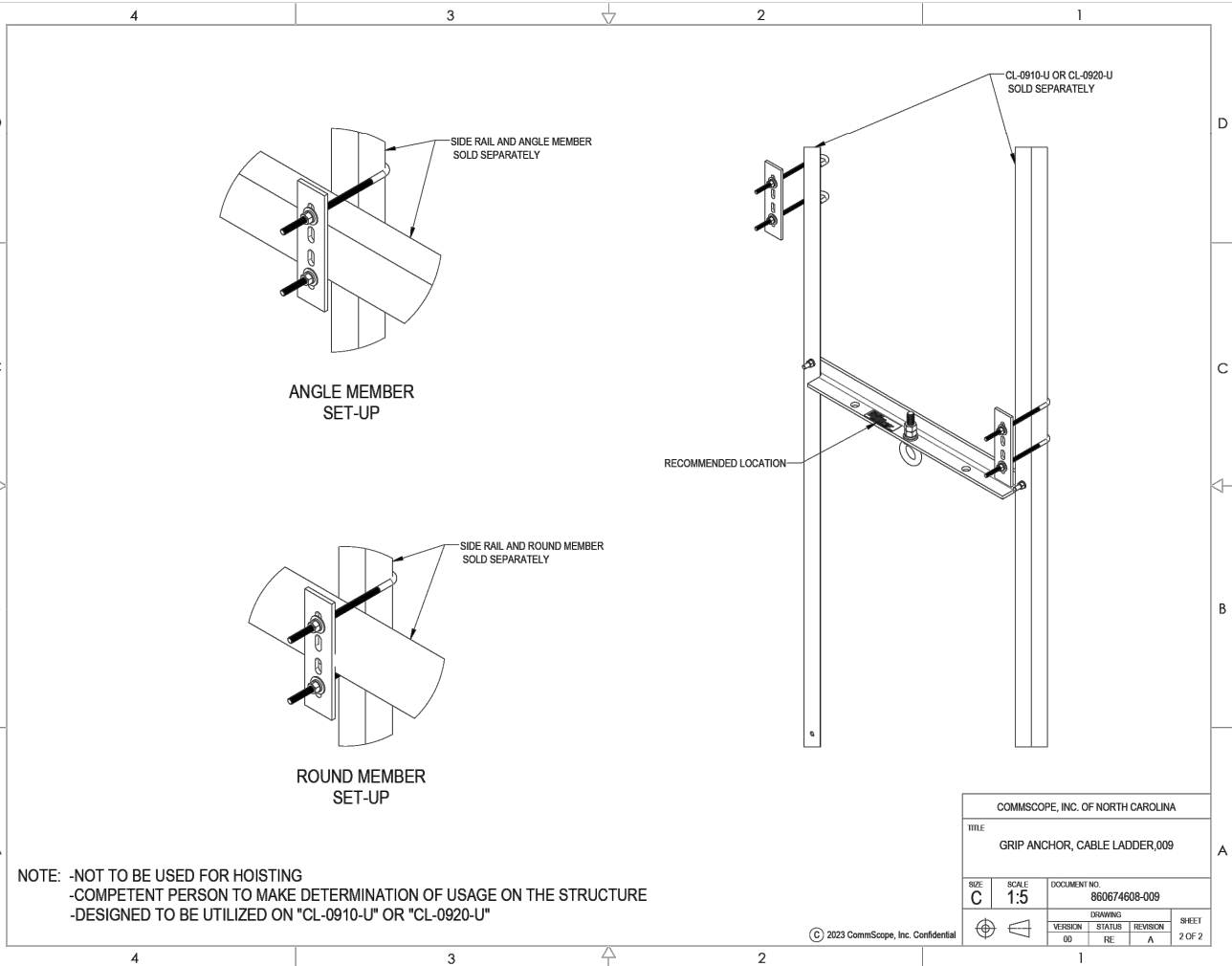
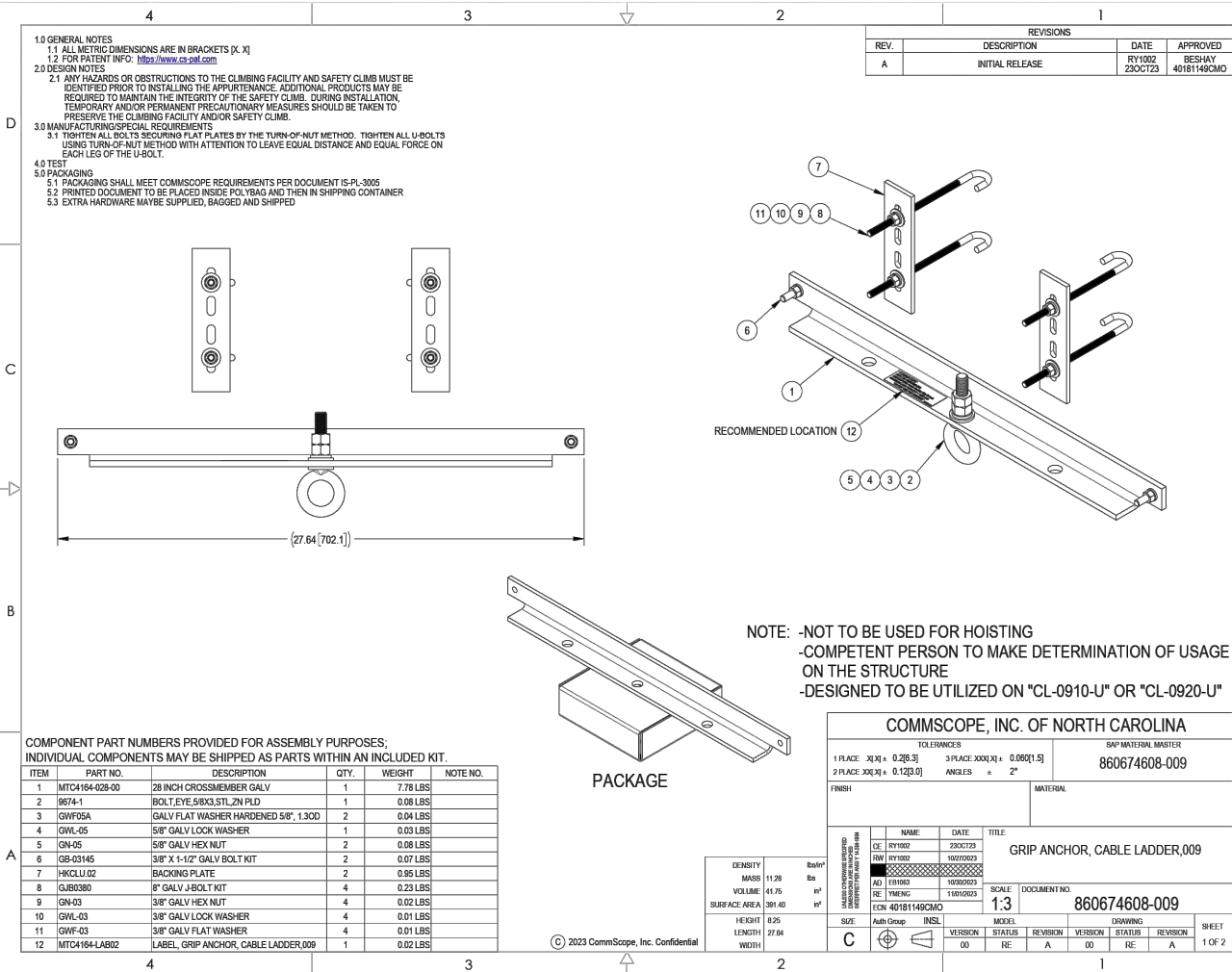
Electrical		
Model Number	DC12-48-60-0-25E	
CEQ / ANT Number	CEQ. 12659	
Surge Protective Device (SPD) Type to UL	Type 4	
Surge Protective Device (SPD) Class to IEC	Class I	
Nominal Operating DC Voltage [U _n]	48V	
Maximum Impulse (Lightning) Current [I _{imp}]	5kA 10/350 μs	
Maximum Continuous Operating DC Voltage [U _c]	75VDC	
Nominal Discharge Current [I _n]	20kA 8/20 μs	
Maximum Discharge Current [I _{max}]	60kA 8/20 μs	
Voltage Protection Rating (VPR)	400V	
Voltage Protection Level [U _p]	410V	
Suppression Technology	MOV	
Protection Modes:	Normal Mode	-48V to Return
	Common Mode	Return to Ground
Mechanical		
Connection Terminal (Suppression) Method	Compression Lug	
Connection Terminal (Suppression) Hardwired	Copper	#14 to #2 AWG [2.5 to 35 mm²]
	Aluminum	#12 to #2 AWG [4 to 35 mm²]
Form C Contact Connection (Terminal Block) Hardwired	#22 to #12 AWG [0.34 to 4 mm²]	
Operating Temperature (°C)	-40° C to +80° C	
Storage Temperature (°C)	-70° C to +80° C	
Enclosure Type (Outdoor)	NEMA 4 Rated	
Enclosure Dimension (L x W x H)	24" x 24" x 8" [609.6 x 609.6 x 203.2 mm]	
Weight	56.3 lbs [25.54 kg]	
Additional Features		
Conduit Fittings	4- 2" Conduit Fittings	
Cable Glands (kit included)	4- M63 Cable Glands	
Standards Compliance & Certifications		
Standards	UL 1449 3 rd Edition: 2009, IEC 61643-1 2 nd Edition: 2005, IEC 61643-12 2 nd Edition: 2008, IEEE C62.41.2: 2002, EN 61643-11: 2002 (including A11: 2007), NEMA LS 1	
Certifications	UL, VDE, CE	
Associations	ANSI, EN, IEC, IEEE, NEC, NEMA	



Raycap

www.raycapsurgeprotection.com

G02-00-267 130322



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

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SUPPLEMENTAL

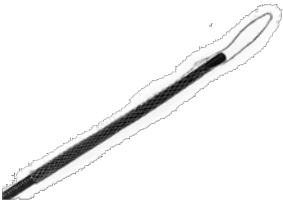
SHEET NUMBER:

R-609

REVISION:

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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



Page 1 of 2

Page 2 of 2

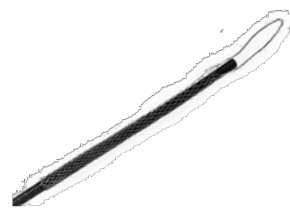
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LUHG-38



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





Post Modification Mount Analysis Report

Mount Type : 12 ft T-Frame
ATC Asset Name : Dunn NC 3
ATC Asset Number : 306567
Engineering Number : 14883118_C9_04
Mount Elevation : 231 ft
Proposed Carrier : AT&T Mobility
Carrier Site Name : 368-415
Carrier Site Number : WSVWN0055012
Site Location : 2420 Jonesboro Road
Dunn, NC 28334-8845
35.3314, -78.5525
County : Harnett
Date : March 26, 2025
Max Usage : 89%
Analysis Result : Contingent Pass

Prepared By:
Max Carter
Structural Engineer II





Digitally Signed: 2025-04-03

COA: P-1177



Introduction

The purpose of this report is to summarize results of the mount analysis performed for AT&T Mobility at 231 ft.

Supporting Documents

Specifications Sheet:	Pirot 151371, dated January 22, 2022
Mount Modification:	CLS Project #Engineering, dated December 8, 2016
Radio Frequency Data Sheet:	RFDS ID #10040311, dated October 11, 2024
Reference Photos:	Site photos from 2021

Analysis

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

Basic Wind Speed:	120 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	37 mph (3-Second Gust) w/ 0.60" radial ice concurrent
Codes:	ANSI/TIA-222-I
Exposure Category:	C
Risk Category:	II
Topographic Factor Procedure:	Method 1
Feature:	Flat
Crest Height (H):	0 ft
Crest Length (L):	0 ft
Spectral Response:	Sds = 0.16, Sd1 = 0.1
Site Class:	D - Stiff Soil
Live Loads:	Lm = 500 lbs, Lv = 250 lbs

*Live Load(s) reduction is confirmed to either not govern 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:

- Install modification per ATC Drawing #14883118_C9_04

If you have any questions or require additional information, please reach out to your American Tower contact. If you do not have an American Tower contact and have an Engineering question, please contact MountAnalysis@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

SUPPLEMENTAL

SHEET NUMBER:
R-612

REVISION:
-

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