

SITE NAME: LILLINGTON  
 SITE NUMBER: NC14882-A-01



SITE NAME: SOUTH LILLINGTON  
 SITE NUMBER: 5RA0183A  
 DESCRIPTION: 67E5D998E ODE+6160 ANCHOR 187' & 176' RAD CENTER



SBA COMMUNICATIONS CORP.  
 5900 BROKEN SOUND PKWY NW  
 BOCA RATON, FL 33487



P. MARSHALL & ASSOCIATES

LOCATION:  
 162 MATTIE RIDGELL LN  
 LILLINGTON, NC 27546  
 SBA:  
 LILLINGTON  
 NC14882-A-01  
 T-MOBILE:  
 SOUTH LILLINGTON  
 5RA0183A  
 SITE TYPE:  
 190' FLAG POLE  
 T-MOBILE ANCHOR

REV	DATE	DESCRIPTION
0	7/17/22	FOR CONSTRUCTION
1	11/30/22	FOR CONSTRUCTION
2	12/8/22	JX REV. 2
3	12/12/22	FULL CANISTER EXPANSION

SITE COORDINATES  
 LAT: 35.379786  
 LONG: -78.820025

DRAWN: RSW  
 CHECKED: PWM  
 JOB#: 22SBATNCM-0042

**PROJECT DIRECTORY**

APPLICANT: AARON MEYERS  
 AMEYERS@SBASITE.COM  
 704.527.0003 x 2101  
 SBA COMMUNICATIONS CORPORATION  
 9125-A SOUTHERN PINE BOULEVARD  
 CHARLOTTE, NC 28276

ENGINEERING: P. MARSHALL & ASSOCIATES  
 3545 WHITEHALL PARK DRIVE SUITE 450  
 CHARLOTTE, NORTH CAROLINA 28273  
 TREVOR MCALLISTER  
 (E) tmcallister@pmass.com  
 (P) 478-542-3291

**PROJECT SUMMARY**

**SCOPE OF WORK**  
 PROPOSED WORK WILL CONSIST OF PREPARATION AND INSTALLATION OF CELLULAR COMMUNICATION CARRIER EQUIPMENT, WHERE ALL WORK SHALL BE CONTAINED WITHIN COMPOUND & SHALL NOT ADVERSELY IMPACT THE SURROUNDING ADJACENT PARCELS. NO GRADING IS REQUIRED. NO NEW BUILDING BEING CONSTRUCTED, AND NO ELECTRICAL WORK BEING DONE. ALL PROPOSED CONSTRUCTION WILL BE CONTAINED WITHIN THE LIMITS OF THE EXISTING FENCED TELECOM COMPOUND OR WITHIN PROPOSED UTILITY EASEMENT. WORK WILL INCLUDE, BUT NOT LIMITED TO; ANTENNA SWAP & INSTALL, MOUNT WORK, COAX REMOVAL/INSTALLATION.

**CODES**  
 ALL CONSTRUCTION SPECIFIED ON DOCUMENTS SUBMITTED FOR BUILDING PERMIT SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING & ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES :

- 2018 NORTH CAROLINA BUILDING CODE (2015 IBC)
- 2018 NORTH CAROLINA FIRE CODE
- 2018 NORTH CAROLINA PLUMBING CODE
- 2018 NORTH CAROLINA MECHANICAL CODE
- 2018 NORTH CAROLINA ENERGY CONSERVATION CODE
- 2020 NORTH CAROLINA ELECTRICAL CODE - NFPA 70

ANSI/ TIA

- TIA-222-G, TIA-598-C, TIA-6087-B, TIA-569-B, TIA-568-C
- TIA-1019-A

**SITE DESIGN SUMMARY:**

- WIND LOAD DESIGN: 117\_\_mph
- EXPOSURE CATEGORY: C\_\_
- OCCUPANCY: U\_\_
- CONSTRUCTION TYPE: II-B\_\_

- FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAP ACCESS IS NOT REQUIRED.
- FACILITY HAS NO SANITARY OR POTABLE WATER
- THERE IS "NO EMERGENCY RESPONSE EQUIPMENT ON THE TOWER AND EXISTING &/OR PROPOSED EQUIPMENT WILL NOT INTERFERE WITH COUNTY EMERGENCY COMMUNICATIONS AND THAT, IF SUCH, INTERFERENCE IS FOUND TO EXIST, THEN APPLICANT WILL TAKE WHATEVER STEPS NECESSARY TO CORRECT INTERFERENCE."

**SITE SUMMARY**

SITE ADDRESS: 162 MATTIE RIDGELL LN  
 LILLINGTON, NC 27546

SBA NUMBER: NC14882-A-01  
 SBA NAME: LILLINGTON

TOWER: FLAG POLE  
 COMPANY: SBA  
 CARRIER: SPRINT/T-MOBILE  
 TENANT ID/NAME: 5RA0183A

JURISDICTION: HARNETT COUNTY  
 PARCEL #: 7362203  
 ZONING: RA-20R

ACREAGE: 72.62 ACRES  
 (E) IMPERVIOUS: 5475± SQFT.  
 (P) IMPERVIOUS: 0 SQFT.  
 COMPOUND SIZE: 5475± SQFT.

UTILITIES:  
 POWER COMPANY: DUKE ENERGY  
 TELCO COMPANY: TWC

FEMA PANEL:  
 THIS SITE IS NOT IN ANY SPECIAL FLOOD HAZARD AREAS OR FUTURE CONDITIONS FLOOD HAZARD AREAS, AS SHOWN PER FIRM PANEL: 3720054800J. DATED: 10/03/06.

SITE LATITUDE(NAD83): 35.379786 (35° 22' 47.2" N)  
 SITE LONGITUDE(NAD83): -78.820025 (-78° 49' 12.1")

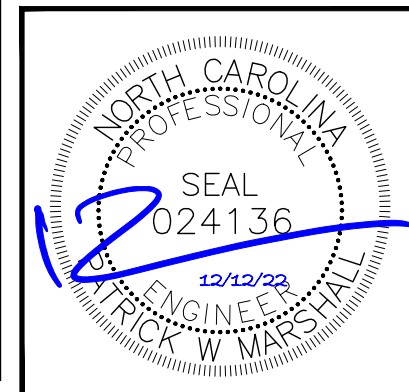
GND ELEVATION (NAVD88): 208'  
 TOWER HEIGHT (AGL.) 190'

**SHEET INDEX**

T-1	TITLE SHEET
T-1A	APPENDIX B
T-1B	APPENDIX B
T-1C	APPENDIX B
C-1	SITE PLAN
C-2	EQUIPMENT PLAN
C-3	TOWER ELEVATION
C-4	ANTENNA ORIENTATION & CABLE SCHEDULE
C-5	PLUMBING DIAGRAM
C-6	EQUIPMENT SPECS
C-7	ANTENNA SPECS
E-1	ELECTRICAL NOTES
E-2	PANEL SCHEDULE & ONE-LINE DIAGRAM
G-1	GROUNDING DETAILS

**CALL BEFORE YOU DIG**

CALL NORTH CAROLINA ONE CALL  
 (800) 632-4949  
 CALL 3 WORKING DAYS BEFORE YOU DIG!



**TITLE SHEET & PROJECT INFORMATION**

**T-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: SOUTH LILLINGTON -5RA0183A  
 Address: 162 MATTIE RIDGELL LN LILLINGTON, NC 27546 Zip Code \_\_\_\_\_  
 Owner/Authorized Agent: AARON MEYERS Phone # ( 704 ) 527 - 0003 x2101 E-Mail AMEYERS@sbasite.com  
 Owned By:  City/County  Private  State  
 Code Enforcement Jurisdiction:  City \_\_\_\_\_  County HARNETT COUNTY  State

**CONTACT:**

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural				( )	
Civil	<u>P. MARSHALL &amp; ASSOCIATES</u>	<u>PATRICK MARSHALL</u>	<u>024136</u>	<u>(678) 280-2325</u>	
Electrical				( )	
Fire Alarm				( )	
Plumbing				( )	
Mechanical				( )	
Sprinkler-Standpipe				( )	
Structural				( )	
Retaining Walls >5' High				( )	
Other				( )	

(\*Other\* should include firms and individuals such as truss, precast, pre-engineered, interior designers, etc.)

**2018 NC BUILDING CODE:**  New Building  Shell/Core  1<sup>st</sup> Time Interior Completions  
 Addition  Phased Construction – Shell Core

**2018 NC EXISTING BUILDING CODE:**  Prescriptive  Alteration Level I  Historic Property  
 (check all that apply)  Repair  Alteration Level II  Change of Use  
 Chapter 14  Alteration Level III

**CONSTRUCTED:** (date) \_\_\_\_\_ **CURRENT OCCUPANCY(S)** (Ch. 3): \_\_\_\_\_  
**RENOVATED:** (date) \_\_\_\_\_ **PROPOSED OCCUPANCY(S)** (Ch. 3): \_\_\_\_\_

**OCCUPANCY CATEGORY** (Table 1604.5): **Current:** UTILITY & MISC. **Proposed:** UTILITY & MISC.

**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  NFPA 13  NFPA 13R  NFPA 13D

**Standpipes:**  No Class  I  II  III  Wet  Dry

**Primary Fire District:**  No  Yes **Flood Hazard Area:**  No  Yes

**Special Inspections Required:**  No  Yes

**GROSS BUILDING AREA TABLE**

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
3 <sup>rd</sup> Floor			
2 <sup>nd</sup> Floor			
Mezzanine			
1 <sup>st</sup> Floor			
Basement			
TOTAL			

**ALLOWABLE AREA**

**Primary Occupancy Classification(s):**

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  I-2  I-3  I-4  
 I-1 Condition  1  2  
 I-2 Condition  1  2  
 I-3 Condition  1  2  3  4  5  
 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):** \_\_\_\_\_

**Incidental Uses** (Table 509): \_\_\_\_\_

This separation is not exempt as a Non-Separate<sup>d</sup> \_\_\_\_\_ s).

**Special Uses** (Chapter 4 – List Code Sections): \_\_\_\_\_

**Special Provisions:** (Chapter 5 – List Code \_\_\_\_\_

**Mixed Occupancy:** Select one Ser \_\_\_\_\_

Select one

$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} \leq 1$

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 <sup>4</sup> AREA	(C) AREA FOR FRONTAGE INCREASE <sup>1,5</sup>	(D) ALLOWABLE AREA PER STORY OR UNLIMITED <sup>2,3</sup>

<sup>1</sup> Frontage area increases from Section 506.2 are computed thus:

- Perimeter which fronts a public way or open space having 20 feet minimum width = \_\_\_\_\_ (F)
- Total Building Perimeter = \_\_\_\_\_ (P)
- Ratio (F/P) = \_\_\_\_\_ (F/P)
- W = Minimum width of public way = \_\_\_\_\_ (W)

<sup>2</sup> Unlimited area applicable under conditions of Section 507.

<sup>3</sup> Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (506.2).

<sup>4</sup> 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.

<sup>5</sup> Frontage increase is based on the unsprinklered area value in Table 506.2.

**N/A NOT A BUILDING**



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SBA: **LILLINGTON**  
**NC14882-A-01**

T-MOBILE: **SOUTH LILLINGTON**

**5RA0183A**

SITE TYPE: **190' FLAG POLE**  
**T-MOBILE ANCHOR**

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1	11/30/22	FOR CONSTRUCTION

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 LAT: 35.379786  
 LONG: -78.820025

**DRAWN:** RSW  
**CHECKED:** PWM  
**JOB#:** 22SBATNCM-0042

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

\*Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.

FIRE PROTECTION REQUIREMENTS							
BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING		DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
		REQ'D	PROVIDED (W/ REDUCTION) *				
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

ACCESSIBLE DWELLING UNITS (SECTION 1107)							
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

ACCESSIBLE PARKING (SECTION 1106)					
LOT OR PARKING AREA	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES		TOTAL # ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED	REGULAR W/ 5' ACCESS	5' ACCESS	
TOTAL					

REQUIREMENTS (SECTION 1102.1)										
USE	SPACE	EXIST'G	NEW	REQ'D	LAVATORIES			SHOWERS	DRINKING FOUNTAINS	
					MALE	FEMALE	UNISEX	/TUBS	REGULAR	ACCESSIBLE

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

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

**LIFE SAFETY SYSTEM REQUIREMENTS**

Emergency Lighting:  Yes  No  
 Exit Signs:  Yes  No  
 Fire Alarm:  Yes  No  
 Smoke Detection Systems:  Yes  No  
 Carbon Monoxide Detection:  Yes  No

**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)  
 Exterior wall opening area with respect to  
 Occupancy Use for each area as it relates to  
 Occupant loads for each area  
 Exit access travel distance  
 Common path of travel  
 Dead end lengths  
 Clear exit widths for  
 Maximum calculated occupant load  
 Actual occupant load for each area  
 A separate schematic plan if a fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation  
 Location of doors with panic hardware (1010.1.10)  
 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

**ENERGY SUMMARY**

**ENERGY REQUIREMENTS:**  
The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

Existing building envelope complies with code: Select one

Exempt Building: Select one Provide code or statutory reference: \_\_\_\_\_

Climate Zone: Select one

Method of Compliance: Select one  
(If "Other" specify source here) \_\_\_\_\_

**THERMAL ENVELOPE (Prescriptive method only)**

**Roof/ceiling Assembly (each assembly)**  
 Description of assembly: \_\_\_\_\_  
 U-Value of total assembly: \_\_\_\_\_  
 R-Value of insulation: \_\_\_\_\_  
 Skylights in each assembly: \_\_\_\_\_  
 U-Value of skylight: \_\_\_\_\_  
 total square footage of skylights in each assembly: \_\_\_\_\_

**Exterior Walls (each assembly)**  
 Description of assembly: \_\_\_\_\_  
 U-Value of total assembly: \_\_\_\_\_  
 R-Value of insulation: \_\_\_\_\_  
 Openings (windows, doors, etc.): \_\_\_\_\_  
 U-Value of opening: \_\_\_\_\_

**Walls below grade**  
 Description of assembly: \_\_\_\_\_  
 U-Value of total assembly: \_\_\_\_\_  
 R-Value of insulation: \_\_\_\_\_

**Floors over unconditioned space (each assembly)**  
 Description of assembly: \_\_\_\_\_  
 U-Value of total assembly: \_\_\_\_\_  
 R-Value of insulation: \_\_\_\_\_

**Floors slab on grade**  
 Description of assembly: \_\_\_\_\_  
 U-Value of total assembly: \_\_\_\_\_  
 R-Value of insulation: \_\_\_\_\_  
 Horizontal/vertical requirement: \_\_\_\_\_  
 slab heated: \_\_\_\_\_



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**APPENDIX B**



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**APPENDIX B**

**2018 APPENDIX B  
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS  
STRUCTURAL DESIGN**

(PROVIDE ON SHEET 1 OR 2 OF THE STRUCTURAL SHEETS)

**DESIGN LOADS:**

**Importance Factors:** Wind (I<sub>w</sub>) \_\_\_\_\_  
Snow (I<sub>s</sub>) \_\_\_\_\_  
Seismic (I<sub>e</sub>) \_\_\_\_\_

**Live Loads:** Roof \_\_\_\_\_ psf  
Mezzanine \_\_\_\_\_ psf  
Floor \_\_\_\_\_

**Ground Snow Load:** \_\_\_\_\_ psf

**Wind Load:** Basic Wind \_\_\_\_\_ (-7)  
Exposure \_\_\_\_\_

**SEISMIC DESIGN CATEGORY**

Provide the following Seismic

**Occupancy Category:**  I  II  III  IV

**Spectral Response Analysis**

**Site Classification (ASCE 7-16):**  A  B  C  D  E  F

**Data Source:**  Field Test  Presumptive  Historical Data

**Basic structural system (check one)**

- Bearing Wall  Dual w/Special Moment Frame
- Building Frame  Dual w/Intermediate R/C or Special Steel
- Moment Frame  Inverted Pendulum

**Analysis Procedure:**  Simplified  Equivalent Lateral Force  Dynamic

**Architectural, Mechanical, Components anchored?**  Yes  No

**LATERAL DESIGN CONTROL:** Earthquake  Wind

**SOIL BEARING CAPACITIES:**

Field Test (provide copy of test report) \_\_\_\_\_ psf  
Presumptive Bearing capacity \_\_\_\_\_ psf  
Pile size, type, and capacity \_\_\_\_\_

N/A NOT A BUILDING

**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 Conditions:**

**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:** \_\_\_\_\_

N/A NOT A BUILDING

**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:** Select one

**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 \_\_\_\_\_ (per building or space by space)  
total exterior wattage \_\_\_\_\_

**Additional Prescriptive Compliance:**

- 506.2.1 More Efficient Mechanical Equipment
- 506.2.2 Reduced Lighting Power Density
- 506.2.3 Energy Recovery Ventilation Systems
- 506.2.4 Higher Efficiency Service Water Heating
- 506.2.5 On-Site Supply of Renewable Energy
- 506.2.6 Automatic Daylighting Control Systems

N/A NOT A BUILDING



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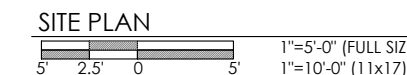
**SITE PLAN**

**C-1**

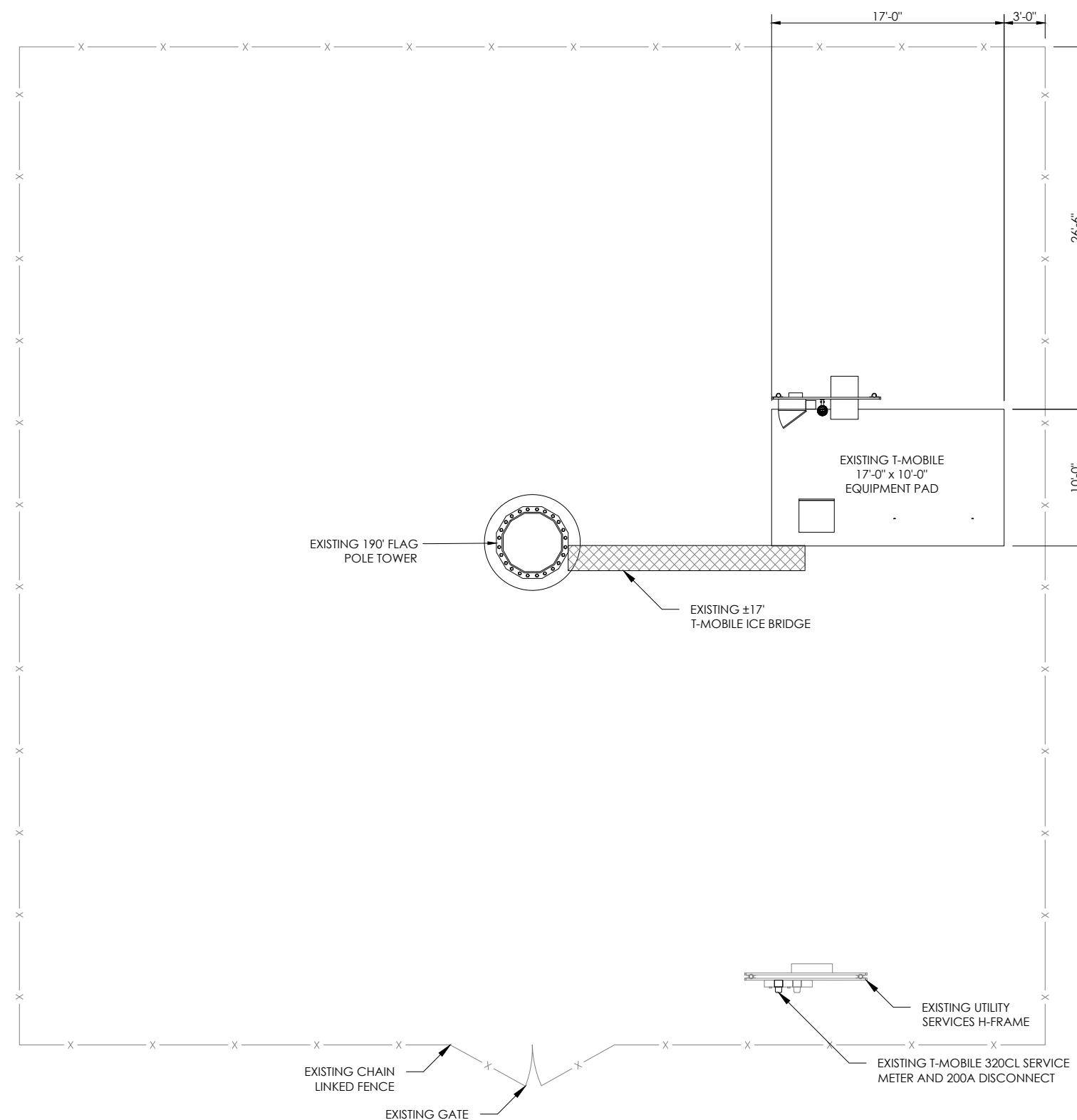
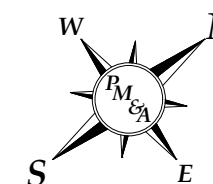
**GENERAL NOTES**

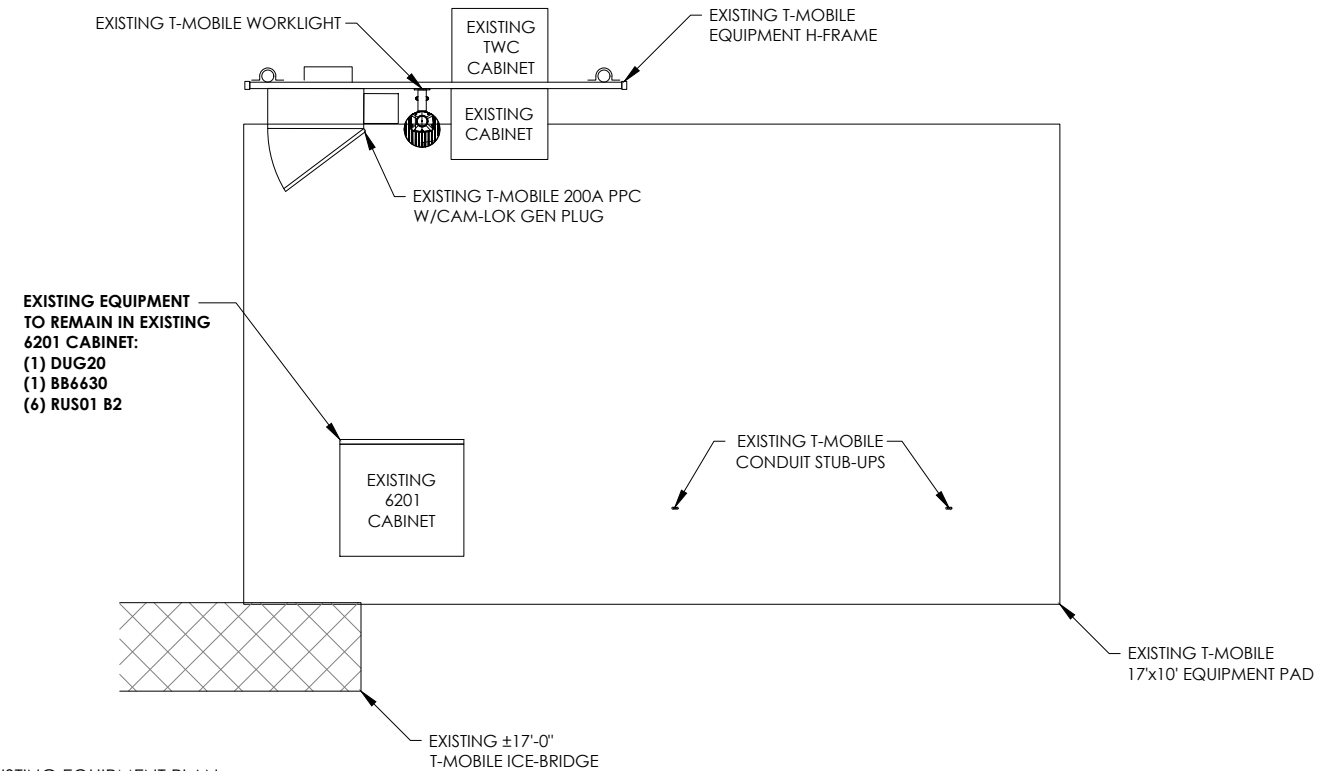
1. ALL MATERIAL AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY. FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ANY SUBSTITUTIONS MUST BE PROPERLY APPROVED AND AUTHORIZED IN WRITING BY THE OWNER AND ENGINEER PRIOR TO INSTALLATION. CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND OF QUALITY OF MATERIAL AND EQUIPMENT BEING SUBSTITUTED.
2. ACCESS TO PROPOSED WORK SITE MAY BE RESTRICTED. THE CONTRACTOR SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULE AND MATERIALS ACCESS WITH THE LEASING AGENT FOR APPROVAL.
3. CONTRACTOR SHALL HAVE PRESENT ON SITE CURRENT CARRIER SUPPLIED INFORMATION PRIOR TO COMMENCE OF WORK; IE. RFDS, DESIGN DOCUMENTS SPECIFIC TO SITE AND CONFIGURATION. NOTIFY CONSTRUCTION MANAGER OF ANY DISCREPANCY PRIOR TO ARRIVAL AT SITE.
4. ALL HARDWARE ASSEMBLY MANUFACTURER'S INSTRUCTION SHALL BE FOLLOWED EXACTLY AND SHALL SUPERSEDE ANY CONFLICTING NOTES ENCLOSED HEREIN.
5. ALL DAMAGE TO EXISTING UNDERGROUND, OVERHEAD OBSTACLES AND/OR EXISTING EQUIPMENT, PAD OR SHELTERS SHALL BE REPLACED BACK TO FULL ORIGINAL OR BETTER CONDITION & SHALL MATCH EXISTING CONDITIONS BY REPAIRS AT GENERAL CONTRACTOR EXPENSE.
6. THE EXISTING TREES AND VEGETATION ARE SUFFICIENT TO PROVIDE THE REQUIRED SCREENING PER LOCAL ORDINANCE. IF THE VEGETATION IS REMOVED OR DAMAGED, NEW LANDSCAPING/ SCREENING WILL BE INSTALLED TO MEET LOCAL ORDINANCE REQUIREMENTS.

**GRAPHIC SCALE**

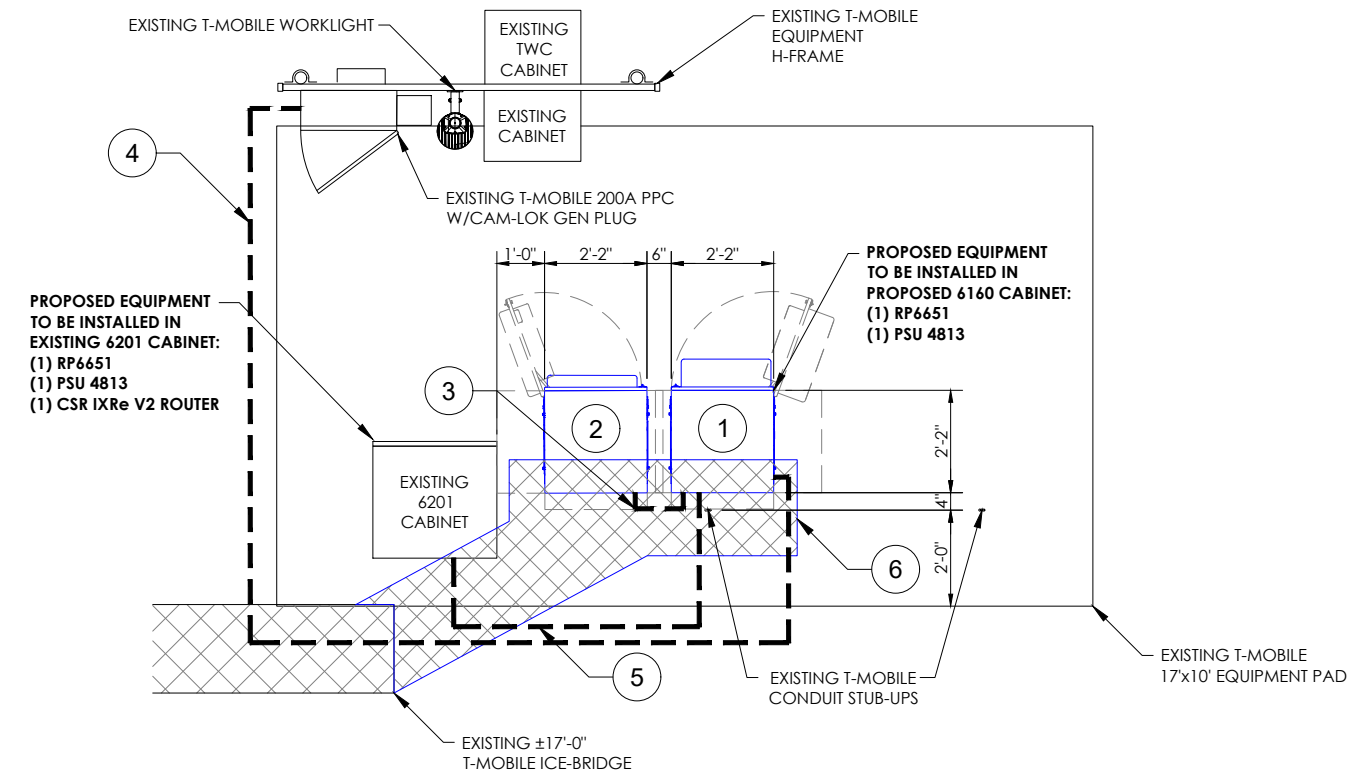


**NORTH ARROW**





**1** EXISTING EQUIPMENT PLAN  
SCALE: SEE GRAPHIC SCALE



**2** PROPOSED EQUIPMENT PLAN  
SCALE: SEE GRAPHIC SCALE

**KEYED NOTES**

1. PROPOSED ENCLOSURE 6160 CABINET ATTACHED TO PLATFORM AT EACH CORNER PER MANUFACTURER'S SPECIFICATIONS . GROUND CABINET WITH MECHANICAL 2-LUG CONNECTION & #2 TINNED SOLID COPPER IN 3/4" NON METALLIC FLEX. CONDUIT TO EXISTING EQ. GROUND (TYP)
2. PROPOSED ENCLOSURE B160 BATTERY CABINET ATTACHED TO PLATFORM AT EACH CORNER PER MANUFACTURER'S SPECIFICATIONS. GROUND CABINET WITH MECHANICAL 2-LUG CONNECTION & #2 TINNED SOLID COPPER IN 3/4" NON METALLIC FLEX. CONDUIT TO EXISTING EQ. GROUND. (TYP)
3. PROPOSED (2) 2" CONDUIT WITH PULLSTRINGS FROM PROPOSED ENCLOSURE 6160 CABINET TO PROPOSED ENCLOSURE B160 BATTERY CABINET.
4. PROPOSED (2) 2" CONDUIT FROM EXISTING PPC TO PROPOSED ENCLOSURE 6160 CABINET.
5. PROPOSED (1) 2" CONDUIT FROM PROPOSED 6160 CABINET TO EXISTING 6201 EQUIPMENT CABINET
6. PROPOSED ±10' ICEBRIDGE EXTENSION FOR HCS CABLE MANAGEMENT

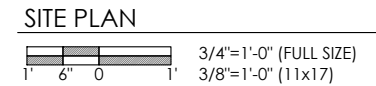
**EQUIPMENT NOTE**

THE CABINETS ARE CONSTRUCTED OF NONCOMBUSTIBLE MATERIALS TO MEET THE REQUIREMENTS OF THE CURRENT NFPA 37 EDITION 2018. CABINET CONSTRUCTION THAT PASSED A SIMULATED BRUSH FIRE TEST TO DEMONSTRATE COMPLIANCE TO TELCORDIA GR-487-CORE SECTION 3.39 FIRE RESISTANCE REQUIREMENT R3-265. REFER TO THE NATIONAL TECHNICAL SYSTEMS (NTS) REPORT NO. PR067628-GR487.

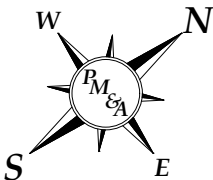
**CONDUIT NOTE**

UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC CONDUIT (MEET NEMA TC2 - 1990). EXPOSED CONDUIT SHALL BE RIGID GALVANIZED STEEL CONDUIT BEFORE RISING ABOVE GRADE. PLUG AND CAP EACH END OF SPARE AND EMPTY CONDUITS AND PROVIDE TWO SEPARATE PULL STRINGS - 200 LB. TEST POLYETHYLENE CORD. ALL CONDUIT BENDS SHALL BE A MINIMUM OF 24" RADIUS. RGS CONDUITS, WHEN SPECIFIED, SHALL MEET UL-6 FOR GALVANIZED STEEL. ALL FITTINGS SHALL BE SUITABLE FOR USE WITH THREADED RIGID CONDUIT. LIQUIDTIGHT FLEX METAL CONDUIT (LFMC) IS ACCEPTABLE ABOVE GRADE, AS REQUIRED AND NECESSARY.

**GRAPHIC SCALE**



**NORTH ARROW**



SBA COMMUNICATIONS CORP.  
5900 BROKEN SOUND PKWY NW  
BOCA RATON, FL 33487



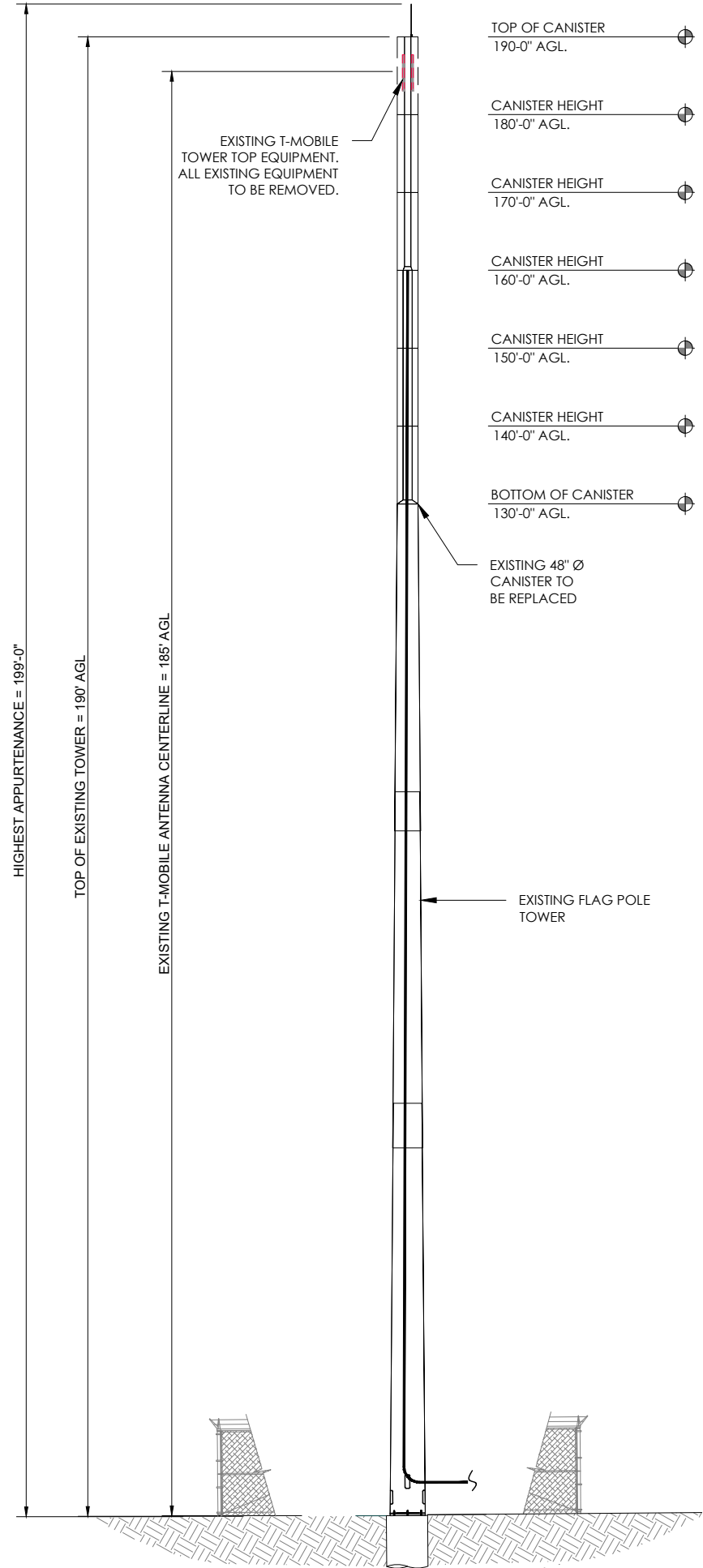
LOCATION:  
162 MATTIE RIDGELL LN  
LILLINGTON, NC 27546  
SBA:  
LILLINGTON  
NC14882-A-01  
T-MOBILE:  
SOUTH LILLINGTON  
5RA0183A  
SITE TYPE:  
190' FLAG POLE  
T-MOBILE ANCHOR

REV	DATE	DESCRIPTION
0	7/17/22	FOR CONSTRUCTION
1	11/30/22	FOR CONSTRUCTION

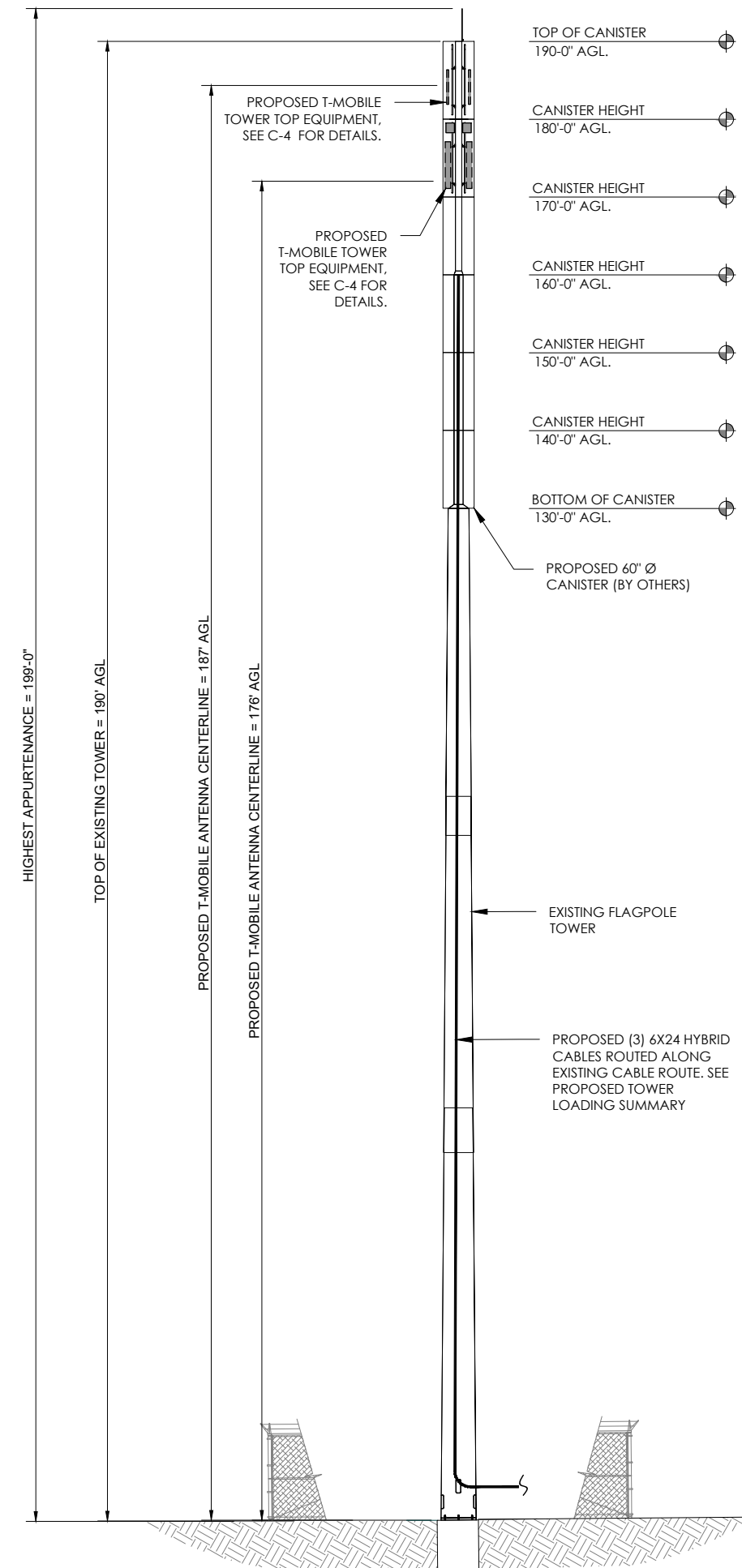
SITE COORDINATES  
LAT: 35.379786  
LONG: -78.820025

DRAWN: RSW  
CHECKED: PWM  
JOB#: 22SBATNCM-0042

**EXISTING EQUIPMENT PLAN**



EXISTING TOWER ELEVATION  
NOT TO SCALE



PROPOSED TOWER ELEVATION  
NOT TO SCALE

**GENERAL NOTES**

1. REFER TO TOWER STRUCTURAL ANALYSIS FOR PROPOSED ANTENNA CABLE LOADING DETAILS
2. TOWER ELEVATION SHOWN IS NOT DRAWN TO SCALE AND IS ONLY INTENDED FOR REFERENCE PURPOSES. REFER TO ORIGINAL TOWER DESIGN FOR ADDITIONAL INFORMATION.
3. ALL TOWER DIMENSIONS SHALL BE VERIFIED WITH THE PLANS PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE DISCOVERED.
4. ALL HARDWARE ASSEMBLE MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED EXACTLY AND SHALL SUPERSEDE ANY CONFLICTING NOTES ENCLOSED HEREIN.
5. ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ANY AND ALL SUBSTITUTIONS MUST BE PROPERLY APPROVED AND AUTHORIZED IN WRITING BY THE OWNER AND ENGINEER PRIOR TO INSTALLATION. CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND OF QUALITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED.
6. CONTRACTOR TO REFER TO THE MOUNT ANALYSIS AND CONCEALMENT DRAWINGS BY OTHERS FOR THIS PROJECT.

FINISH NOTES:

TOWER-	GALVANIZED
TOWER MOUNTS-	GALVANIZED
ANTENNA-	NEUTRAL (MANUFACTURER FINISH)
FOUNDATIONS-	UNPAINTED CONCRETE
ICE BRIDGE-	GALVANIZED
CABLES-	BLACK
BASE CABINETS/EQUIPMENT-	NEUTRAL (MANUFACTURER FINISH)

**TOWER LOADING SUMMARY**

EXISTING	REMOVE	EQUIPMENT	ADD	TOTAL
3	3	ANTENNA	6	6
3	3	TMA	0	0
0	0	RADIOS	6	6
6	0	COAX	0	6
0	0	HYBRIDS	3	3



SBA COMMUNICATIONS CORP.  
5900 BROKEN SOUND PKWY NW  
BOCA RATON, FL 33487



P. MARSHALL & ASSOCIATES

LOCATION:

162 MATTIE RIDGELL LN  
LILLINGTON, NC 27546

SBA: LILLINGTON  
NC14882-A-01

T-MOBILE: SOUTH LILLINGTON

5RA0183A

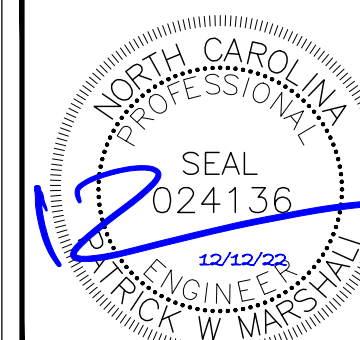
SITE TYPE: 190' FLAG POLE  
T-MOBILE ANCHOR

REV	DATE	DESCRIPTION
0	7/17/22	FOR CONSTRUCTION
1	11/30/22	FOR CONSTRUCTION
2	12/8/22	JX REV. 2
3	12/12/22	FULL CANISTER EXPANSION

SITE COORDINATES

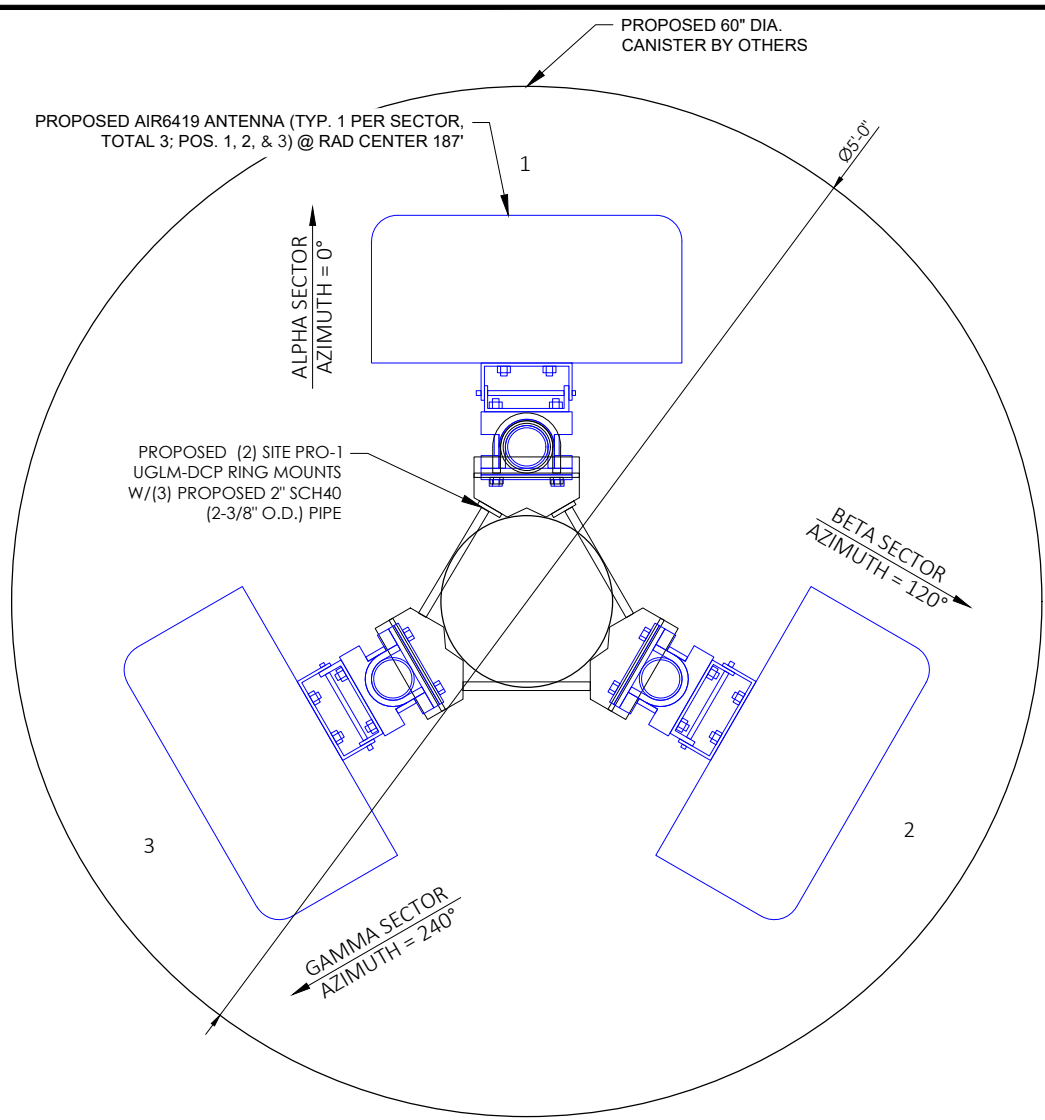
LAT: 35.379786  
LONG: -78.820025

DRAWN: RSW  
CHECKED: PWM  
JOB#: 22SBATNCM-0042

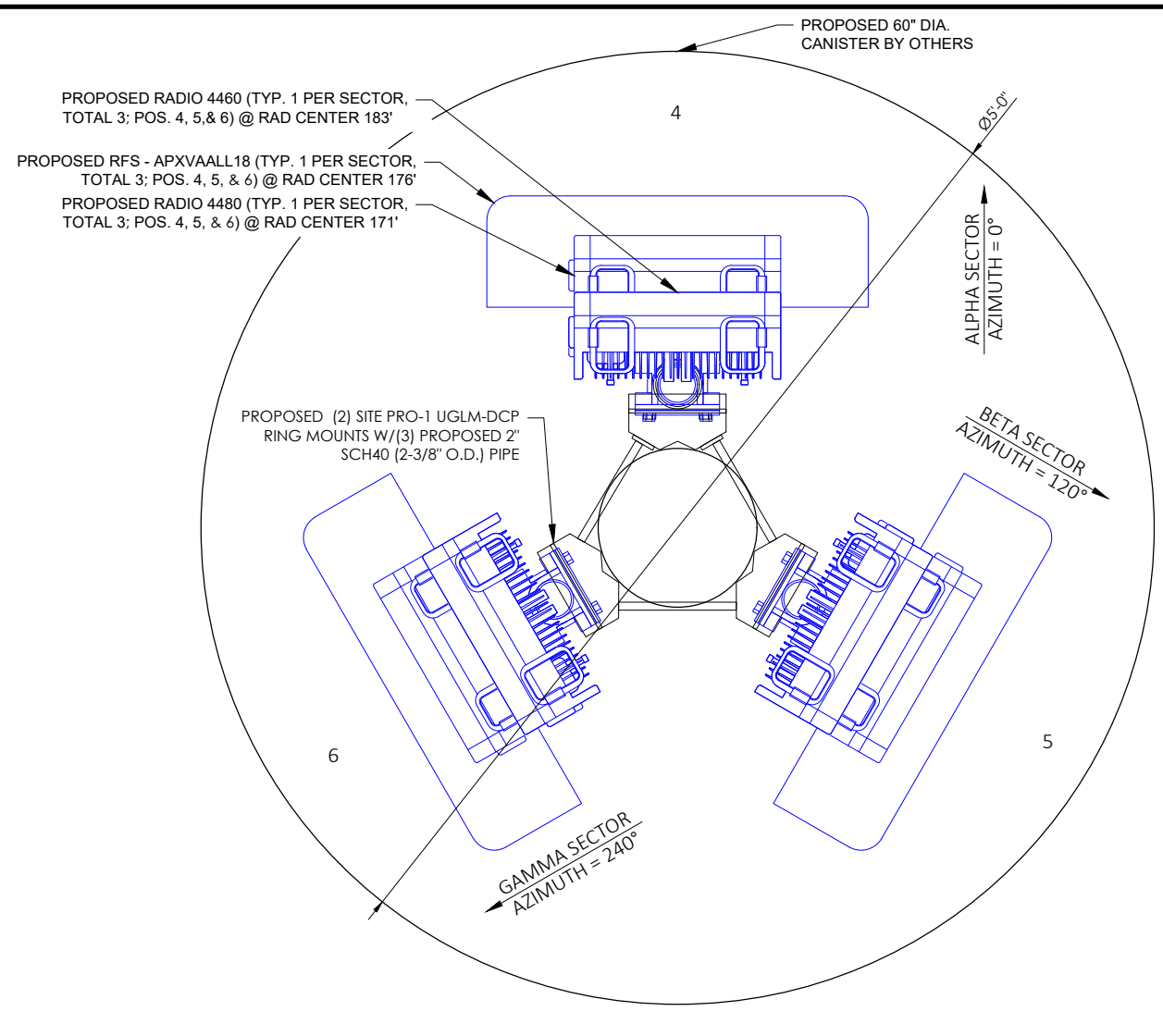


**TOWER ELEVATION**

**C-3**



FINAL ANTENNA PLAN @ RAD CENTER 187'  
NOT TO SCALE



FINAL ANTENNA PLAN @ RAD CENTER 176'  
NOT TO SCALE

**PROPOSED ANTENNA SCHEDULE**

SECTOR	MARK	AZIMUTH	ANTENNA MODEL	RADIO MODEL	CABLE DESCRIPTION
ALPHA	1	0°	ERICSSON - AIR6419 B41 (MASSIVE MIMO) (P)	-	(2) COAX CABLES 1-5/8" (E) (DISCONNECTED)
BETA	2	120°	ERICSSON - AIR6419 B41 (MASSIVE MIMO) (P)	-	(2) COAX CABLES 1-5/8" (E) (DISCONNECTED)
GAMMA	3	240°	ERICSSON - AIR6419 B41 (MASSIVE MIMO) (P)	-	(2) COAX CABLES 1-5/8" (E) (DISCONNECTED)
-	-	-	-	-	-
ALPHA	4	0°	RFS - APXVAALL18_43-U-NA20 (OCTO) (P)	(1) RADIO 4460 B25 + B66 (P @183') (1) RADIO 4480 B71 + B85 (P @171')	(1) 6X24 HCS 4AWG 70M (229') (P)
BETA	5	120°	RFS - APXVAALL18_43-U-NA20 (OCTO) (P)	(1) RADIO 4460 B25 + B66 (P @183') (1) RADIO 4480 B71 + B85 (P @171')	(1) 6X24 HCS 4AWG 70M (229') (P)
GAMMA	6	240°	RFS - APXVAALL18_43-U-NA20 (OCTO) (P)	(1) RADIO 4460 B25 + B66 (P @183') (1) RADIO 4480 B71 + B85 (P @171')	(1) 6X24 HCS 4AWG 70M (229') (P)
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

**ANTENNA NOTE**

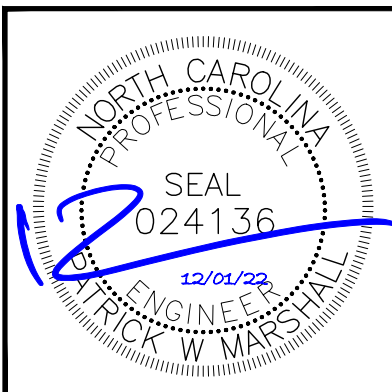
CONTRACTOR TO ROTATE THE ANTENNAS AND OR MOUNTS TO OBTAIN NEW AZIMUTHS. REFER TO FINAL RF DOCUMENTS TO CONFIRM NEW AZIMUTHS

(E)- EXISTING  
(P) - PROPOSED

GC TO PROVIDE POST CONSTRUCTION DOCUMENTATION ON ALL ANTENNA AZIMUTHS AND COLOR CODING FOR CABLES.

**EQUIPMENT NOTES**

- THE HYBRID CABLE LENGTH SHOWN IS ONLY AN ESTIMATE AND SHOULD NOT BE USED FOR ORDERING MATERIALS. CONFIRM THE REQUIRED HYBRID CABLE LENGTH WITH T-MOBILE PRIOR TO ORDERING OR INSTALLATION.
- THE CONTRACTOR SHALL TEST THE OPTICAL FIBER AFTER INSTALLATION IN ACCORDANCE WITH T-MOBILE STANDARDS AND SUPPLY THE RESULTS TO T-MOBILE.
- THE CONTRACTOR SHALL CONFIRM THE TOWER TOP EQUIPMENT LIST ABOVE WITH THE FINAL T-MOBILE RFDS PRIOR TO INSTALLATION.
- ALL PROPOSED ANTENNA CABLES SHALL BE COLOR CODED PER T-MOBILE MARKET STANDARDS.
- REFER TO ERICSSON EQUIPMENT INSTALLATION STANDARDS FOR ADDITIONAL INFORMATION.
- REFER TO EQUIPMENT MANUFACTURER'S SPECIFICATION SHEETS FOR ADDITIONAL INFORMATION NOT LISTED ABOVE.
- CONTRACTOR TO FIELD COORDINATE EXACT LOCATION OF PROPOSED EQUIPMENT WITH EXISTING CONDITIONS ON SITE.
- PROPOSED EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE FASTENERS SHALL BE HIGH STRENGTH (A325, A36)
- DRILLING OF EXISTING STEEL MEMBERS IS NOT PERMITTED.
- BOND PROPOSED EQUIPMENT TO EXISTING SECTOR GROUND BAR PER MANUFACTURER'S SPECIFICATIONS. PROVIDE ADDITIONAL SECTOR GROUND BARS AS REQUIRED.
- ALL ANTENNAS, CABLES, AND MOUNTS SHALL BE INSTALLED IN ACCORDANCE WITH THE ENGINEER'S RECOMMENDATIONS IN A MANNER CONSISTENT WITH THE STRUCTURAL ANALYSIS REPORT.
- CONTRACTOR TO CONTACT T-MOBILE FOR UP-TO-DATE RF DESIGN DATA. NOTIFY ENGINEER IF CONFLICT EXISTS.



LOCATION:  
**162 MATTIE RIDGELL LN  
 LILLINGTON, NC 27546**  
 SBA:  
**LILLINGTON  
 NC14882-A-01**  
 T-MOBILE:  
**SOUTH LILLINGTON  
 5RA0183A**  
 SITE TYPE:  
**190' FLAG POLE  
 T-MOBILE ANCHOR**

REV	DATE	DESCRIPTION
0	7/17/22	FOR CONSTRUCTION
1	11/30/22	FOR CONSTRUCTION

SITE COORDINATES  
 LAT: 35.379786  
 LONG: -78.820025

DRAWN: RSW  
 CHECKED: PWM  
 JOB#: 22SBATNCM-0042

**ANTENNA  
 ORIENTATION &  
 CABLE SCHEDULE**



PROPOSED RF CONFIGURATION:  
67E5D998E ODE+6160

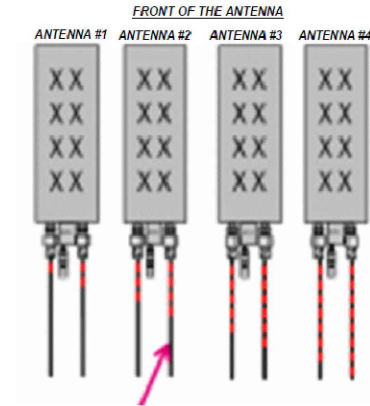
DIAGRAM NOT PROVIDED SEE  
FINAL RFDS FOR DETAILS

1 RFDS PLUMBING DIAGRAM  
SCALE: NOT TO SCALE

### Coax Color Coding

- Antennas will be labeled (back of antenna view) Right to left 1 - X ports
- Coax/jumper lines will be identified by sector color and by number of bands around the coax/jumper

SECTOR A	RED
SECTOR B	GREEN
SECTOR C	BLUE
SECTOR D	YELLOW
SECTOR E	WHITE
SECTOR F	PURPLE
LMU	BROWN - SECTOR COLOR BANDS (1 & 2)
FIBER ID	GRAY
UNUSED COAX	PINK
MICROWAVE	ORANGE
DWE T-1'S + GPS DOWNLINK CABLE	ID W/LABEL MAKER



EXAMPLE: COAX WITH FOUR BANDS OF RED TAPE WILL REPRESENT ALPHA SECTOR AND THE 4TH PORT OF ANTENNA

#### COLOR CODING NOTES:

color	GSM
color	UMTS 1900
color	UMTS AWS
color	LTE
color	FIBER CABLE

#### METALLIC TAG NOTES:

- TWO METALLIC TAGS SHALL BE ATTACHED AT EACH END OF EVERY CABLE LONGER THAN (3) THREE FEET
- CABLE LESS THAN (3) THREE FEET WILL HAVE TWO METALLIC TAGS ATTACHED AT THE CENTER OF THE CABLE
- TAGS WILL BE FASTENED WITH STAINLESS STEEL ZIP TIES APPROPRIATE FOR CABLE DIAMETER.
- STANDARDIZED METALLIC TAG KIT WILL BE ASSEMBLED WITH TAGS ALREADY ENGRAVED TO ACCOMMODATE ALL CONFIGURATIONS.

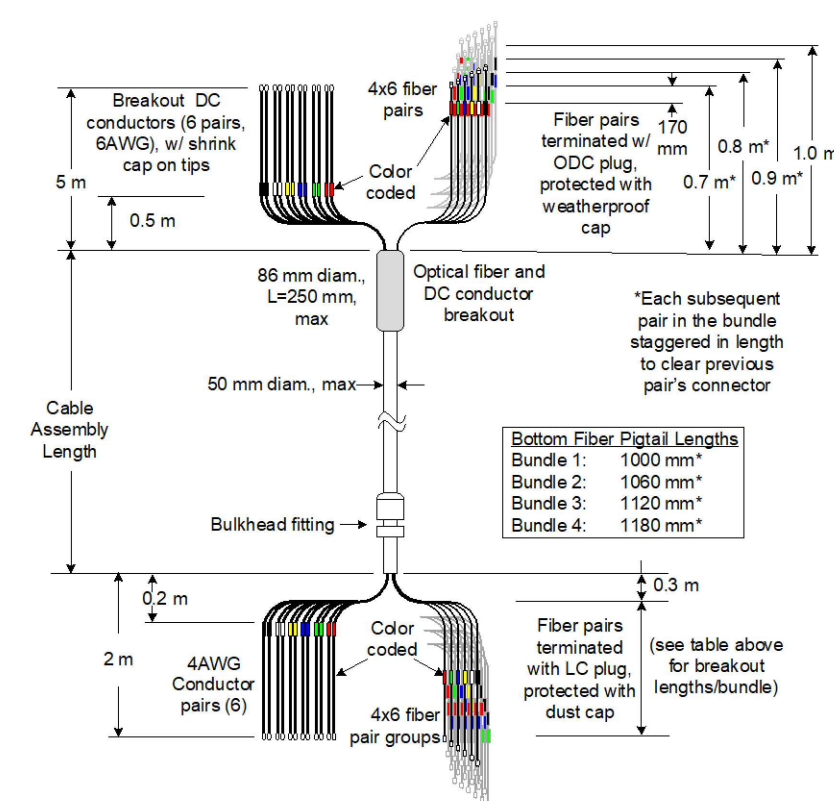
#### ANTENNA AND COAXIAL CABLE SCHEDULE

- ALL ANTENNAS SHALL BE FURNISHED WITH DOWNTILT BRACKETS. CONTRACTOR SHALL COORDINATE REQUIRED MECHANICAL DOWNTILT FOR EACH ANTENNA WITH RF ENGINEER. ANTENNA DOWNTILT SHALL BE SET AND VERIFIED BY A SMART LEVEL.
- CONTRACTOR SHALL INSTALL COLOR CODE RINGS ON EACH OF THE HYBRID CABLES AND JUMPER CABLES WITH UV RESISTANT TAPE. ALL CABLE SHALL BE MARKED AT TOP AND BOTTOM WITH 2" COLOR TAPE OR STENCIL TAG. COLOR TAPE MAY BE OBTAINED FROM GRAYBAR ELECTRONICS.



2 COAX COLOR CODING  
SCALE: NOT TO SCALE

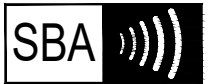
### "6x24" Hybrid Cable System



NOTE:  
ALL FIBER SPARES AT TOWER TOP TO BE SEALED WITH SELF-AMALGAMATING SEALING TAPE.  
DC CABLE SPLICES TO USE THIS SPLICE AND SEALED WITH SELF-AMALGAMATING SEALING TAPE FOLLOWED BY HEAT SHRINK TUBING.

3 6X24 HCS 4AWG HYBRID CABLE, (6) DC PAIRS + (24) OPTICAL PAIRS  
SCALE: NOT TO SCALE

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SBA COMMUNICATIONS CORP.  
5900 BROKEN SOUND PKWY NW  
BOCA RATON, FL 33487



LOCATION:  
162 MATTIE RIDGELL LN  
LILLINGTON, NC 27546  
SBA:  
LILLINGTON  
NC14882-A-01  
T-MOBILE:  
SOUTH LILLINGTON  
5RA0183A  
SITE TYPE:  
190' FLAG POLE  
T-MOBILE ANCHOR

REV	DATE	DESCRIPTION
0	7/17/22	FOR CONSTRUCTION
1	11/30/22	FOR CONSTRUCTION

SITE COORDINATES  
LAT: 35.379786  
LONG: -78.820025

DRAWN: RSW  
CHECKED: PWM  
JOB#: 22SBATNCM-0042

**PLUMBING  
DIAGRAM**

**C-5**



SBA COMMUNICATIONS CORP.  
5900 BROKEN SOUND PKWY NW  
BOCA RATON, FL 33487



LOCATION:  
**162 MATTIE RIDGELL LN  
LILLINGTON, NC 27546**  
SBA:  
**LILLINGTON  
NC14882-A-01**  
T-MOBILE:  
**SOUTH LILLINGTON  
5RA0183A**  
SITE TYPE:  
**190' FLAG POLE  
T-MOBILE ANCHOR**

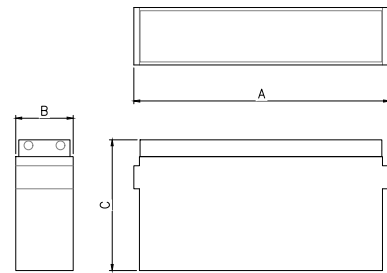
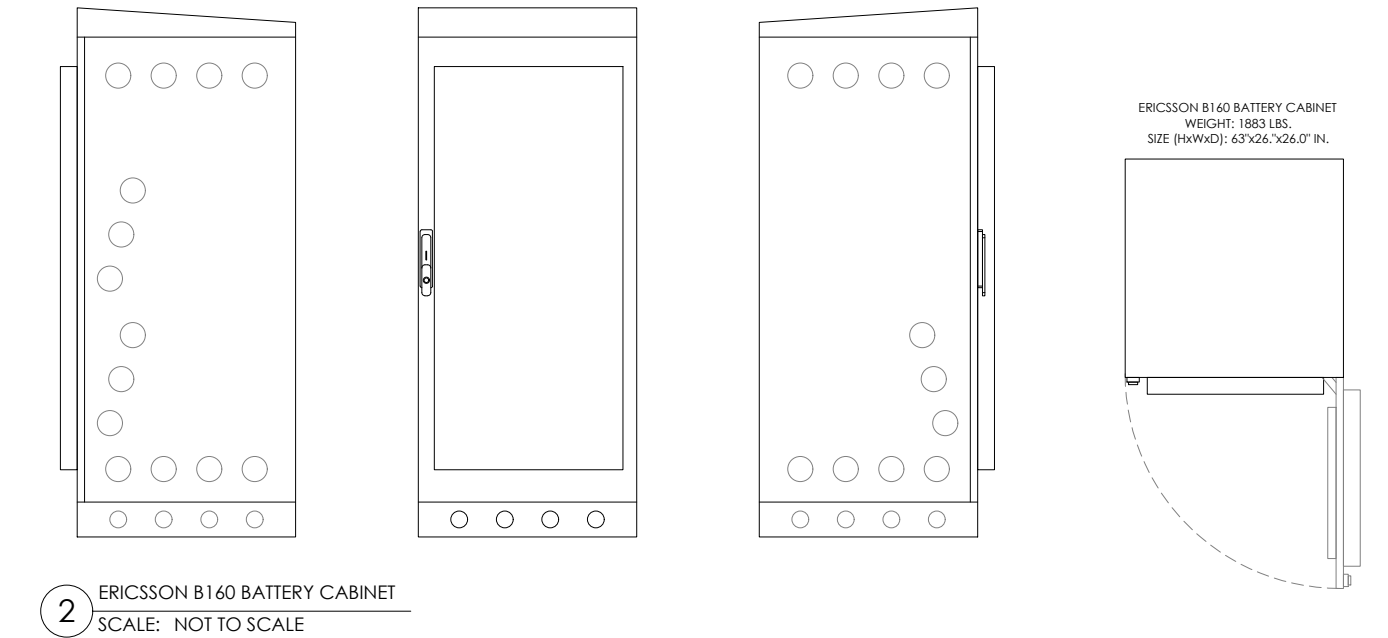
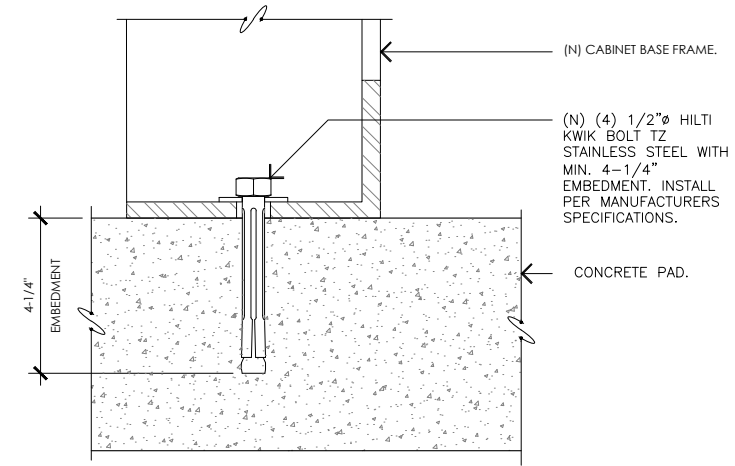
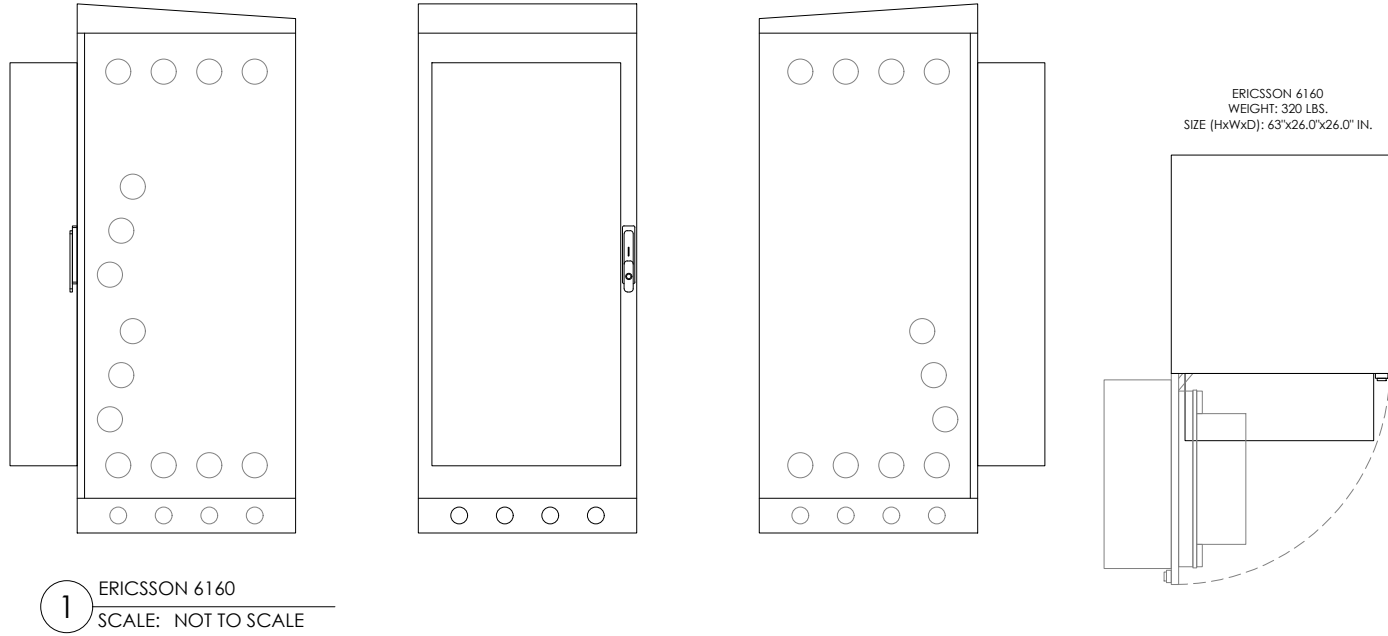
REV	DATE	DESCRIPTION
0	7/17/22	FOR CONSTRUCTION
1	11/30/22	FOR CONSTRUCTION

SITE COORDINATES  
LAT: 35.379786  
LONG: -78.820025

DRAWN: RSW  
CHECKED: PWM  
JOB#: 22SBATNCM-0042

**ANTENNA  
SPECS**

**C-6**



FLOAT VOLTAGE  
CONSTANT VOLTAGE CHARGING IS RECOMMENDED  
RECOMMENDED FLOAT VOLTAGE: 2.27 +/- 0.02 VPC

MODEL NUMBER	VOLTAGE	CAPACITY (AH)		NOMINAL DIMENSIONS						NOMINAL WEIGHT	
		8 HR TO 1.75 VPC @ 25°	10 HR TO 1.8 VPC @ 25°	INCHES			MILLIMETERS			LBS	Kg
				A	B	C	A	B	C		
NSB 190FT RED BATTERY	12	183 / 186 AH	187 / 190 AH	22.0	4.9	12.6	560	125	320	124.3	56.3

ELECTRICAL DATA		
MODEL NUMBER	SHORT CIRCUIT CURRENT	INTERNAL RESISTANCE (mOhms)
NSB 190FT RED BATTERY	5000 A	2.8

**CHAPTER 12, SECTION 1206**

**ELECTRICAL ENERGY STORAGE SYSTEM**

**1206.2 SCOPE:**  
STATIONARY STORAGE BATTERY SYSTEMS HAVING CAPACITIES EXCEEDING THE VALUES SHOWN IN TABLE 1206.2 SHALL COMPLY W/ SECTION 1206.2.1 THROUGH 1206.2.12.6, AS APPLICABLE.

BATTERY STORAGE SYSTEM THRESHOLD QTY'S		
CATTERY TECHNOLOGY	CAPACITY ALLOWED	
LEAD ACID, ALL TYPES	70 kWh (252 MEGAJOULES)	

AH = VOLTAGE (AH)/1000					
VOLTS	AH	kWh	NO. OF BATTERIES	TOTAL kWh	
12	190	1000	2.28	12	27.36

**CONCLUSIONS:**  
27.36 < 70 kWh SECTION 1206.2 DOES NOT APPLY

TOTAL BATTERY WEIGHT (12 BATTERIES): 1,491.6 LBS  
TOTAL GALLONS - ELECTROLYTE & ACID (12 BATTERIES): 33.36

NSB 190FT RED BATTERY LEAD & ACID WEIGHTS (12-VOLT MODULE):				
ELECTROLYTE	WEIGHT			
			/KG	/LBS
ACID	VOLUME	/LBS	23.2	
		/GALLONS	7.8	
	WEIGHT	/KG	4.8	
ACID	VOLUME	/LBS	10.5	
		/GALLONS	2.6	
LEAD	WEIGHT	/KG	17.9	
		/LBS	39.4	
LEAD OXIDE	VOLUME	/KG	23.3	
		/LBS	51.2	
TOTAL WEIGHT	WEIGHT	/KG	56.3	
		/LBS	124.3	

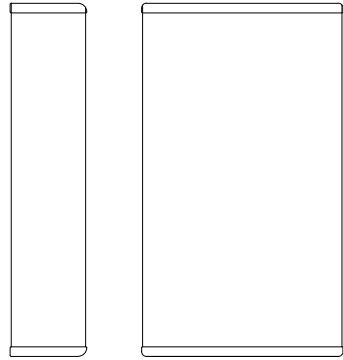
**BATTERY CABINET NOTE**

THE BATTERIES INSTALLED IN THE CABINET ARE VALVE REGULATED LEAD-ACID (VRLA) CELLS BATTERY STRINGS; NORTHSTAR NSB 190FT RED. ALL NORTHSTAR BATTERIES ARE COMPLIANT WITH: TELCORDIA SR4228, IEC 60896; BELLCORE GR-63-CORE, ISSUE 1; UL APPROVED AND UN2800 CERTIFIED. NORTHSTAR IS REGISTERED TO ISO 9001 AND ISO 14001. ERICSSON CABINET PROVIDES REQUIRED VENTILATION, SMOKE, SEISMIC & ADDITIONAL SIGNAGE TO MEET ALL IFC SECTION 608 REQUIREMENTS.



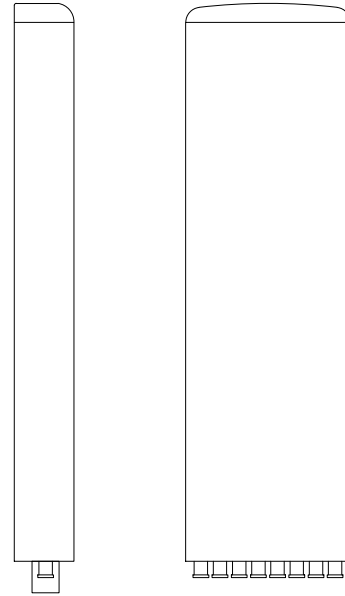
3 NORTHSTAR - NSB 190FT RED BATTERY  
SCALE: NOT TO SCALE

ERICSSON - AIR6419 B41	
WEIGHT (W/O MOUNTING HARDWARE)	83.3 LBS
SIZE (H x W x D)	36.25 x 20.91 x 9.02 IN.
MOUNTING HARDWARE P/N	TBD
RATED WIND VELOCITY	TBD



1 ERICSSON - AIR6419 B41  
SCALE: NOT TO SCALE

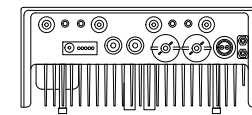
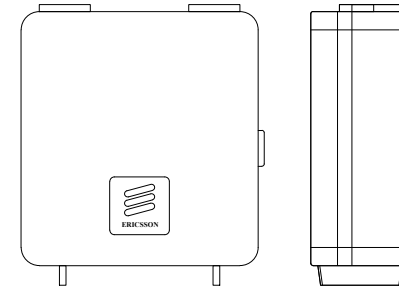
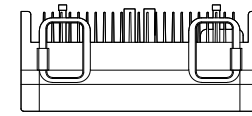
RFS - APXVAALL18_43-U-NA20	
WEIGHT (W/O MOUNTING HARDWARE)	93 LBS
SIZE (H x W x D)	72 x 24 x 8.5 IN.
MOUNTING HARDWARE P/N	APM40-5E
RATED WIND VELOCITY	150 MPH



2 RFS - APXVAALL18\_43-U-NA20  
SCALE: NOT TO SCALE

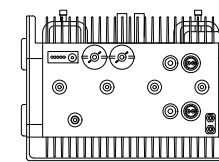
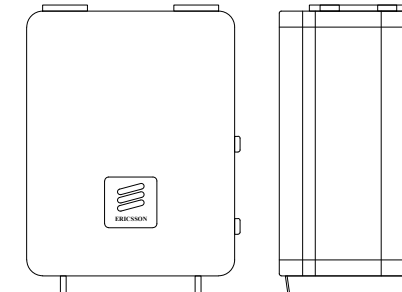
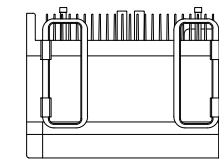
3 NOT USED  
SCALE: NOT TO SCALE

ERICSSON - RADIO 4480 B71+B85	
WEIGHT (W/O MOUNTING HARDWARE)	93 LBS
SIZE (HxWxD)	21.8 x 15.4 x 7.5 IN.



4 ERICSSON RADIO 4480 B71+B85  
SCALE: NOT TO SCALE

ERICSSON - RADIO 4460 B25+B66	
WEIGHT (W/O MOUNTING HARDWARE)	109.0 LBS
SIZE (H x W x D)	17.0 x 15.1 x 11.9 IN.



5 ERICSSON RADIO 4460 B25+B66  
SCALE: NOT TO SCALE

T-Mobile



SBA COMMUNICATIONS CORP.  
5900 BROKEN SOUND PKWY NW  
BOCA RATON, FL 33487



LOCATION:

162 MATTIE RIDGELL LN  
LILLINGTON, NC 27546

SBA: LILLINGTON  
NC14882-A-01

T-MOBILE: SOUTH LILLINGTON  
5RA0183A

SITE TYPE: 190' FLAG POLE  
T-MOBILE ANCHOR

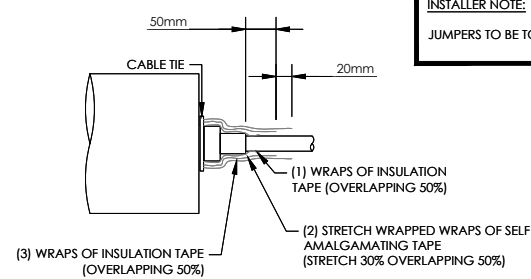
REV	DATE	DESCRIPTION
0	7/17/22	FOR CONSTRUCTION
1	11/30/22	FOR CONSTRUCTION
2	12/8/22	JX REV. 2

SITE COORDINATES  
LAT: 35.379786  
LONG: -78.820025

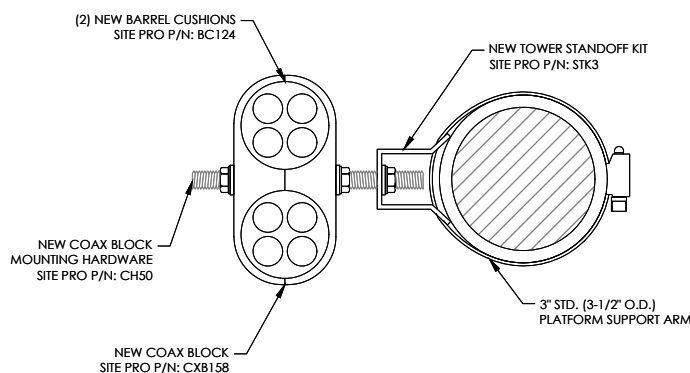
DRAWN: RSW  
CHECKED: PWM  
JOB#: 22SBATNCM-0042

ANTENNA  
SPECS

C-7



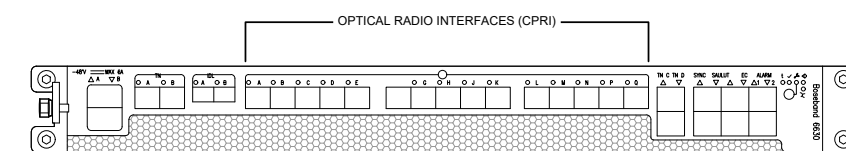
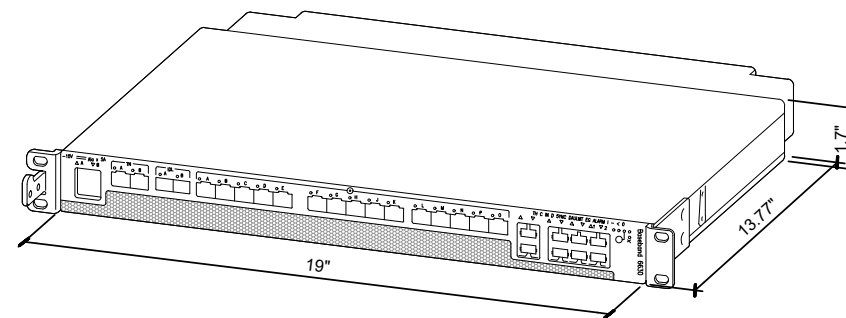
6 RF JUMPER CONNECTION  
SCALE: NOT TO SCALE



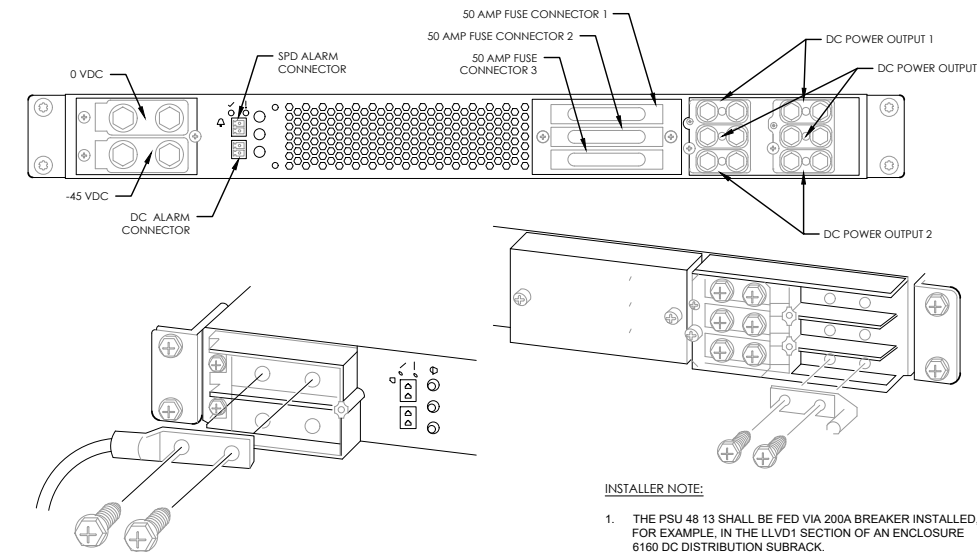
7 RF JUMPER DETAIL  
SCALE: NOT TO SCALE

INSTALLER NOTE:  
JUMPERS TO BE TORQUED TO 221.27 IN./LBS.

ERICSSON BASEBAND 6630	
WEIGHT (W/O MOUNTING HARDWARE)	14.3 LBS
SIZE (H x W x D)	1.7 x 19 x 13.77 IN.



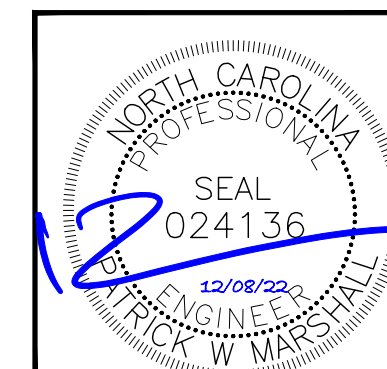
8 ERICSSON BB 6630 / BB 6648  
SCALE: NOT TO SCALE



INSTALLER NOTE:  
1. THE PSU 48 13 SHALL BE FED VIA 200A BREAKER INSTALLED, FOR EXAMPLE, IN THE LLDV1 SECTION OF AN ENCLOSURE 6160 DC DISTRIBUTION SUBRACK.  
2. CONNECT -48 VDC DISTRIBUTION CABLE TO TERMINAL AT THE RIGHT, WHICH WILL BE FED TO RRU/AIR AT THE OTHER END.

ERICSSON PSU 4813	
WEIGHT (W/O MOUNTING HARDWARE)	17.1 LBS
SIZE (H x W x D)	1.7" x 19" x 13.3"
NEEDED INSTALLATION KIT	
PSU4813 INSTALL KIT FOR RBS	34133
PSU4813 INSTALL KIT FOR PBC6200	34134
PSU4813 INSTALL KIT FOR 6160/RBS6230	34135

9 ERICSSON PSU 48 13 VOLTAGE BOOSTER  
SCALE: NOT TO SCALE



# EQUIPMENT NOTES

## DEMO NOTES:

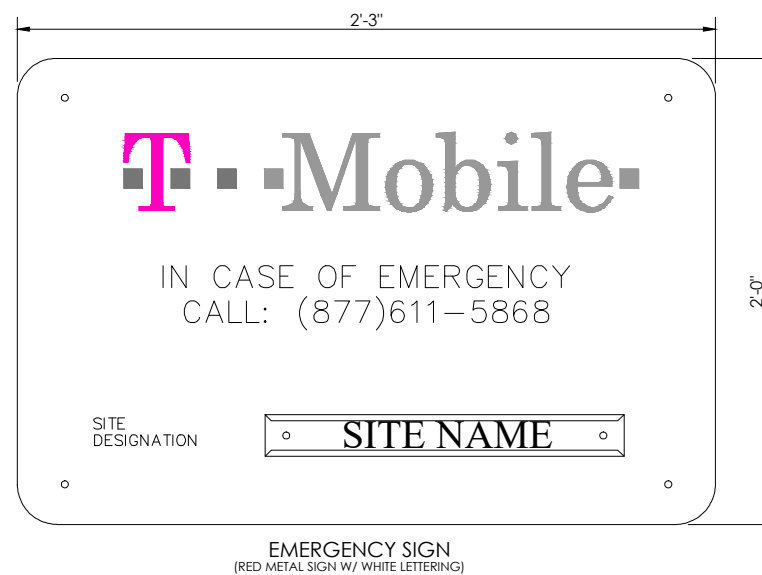
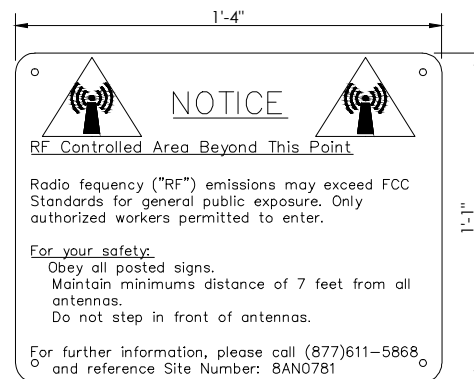
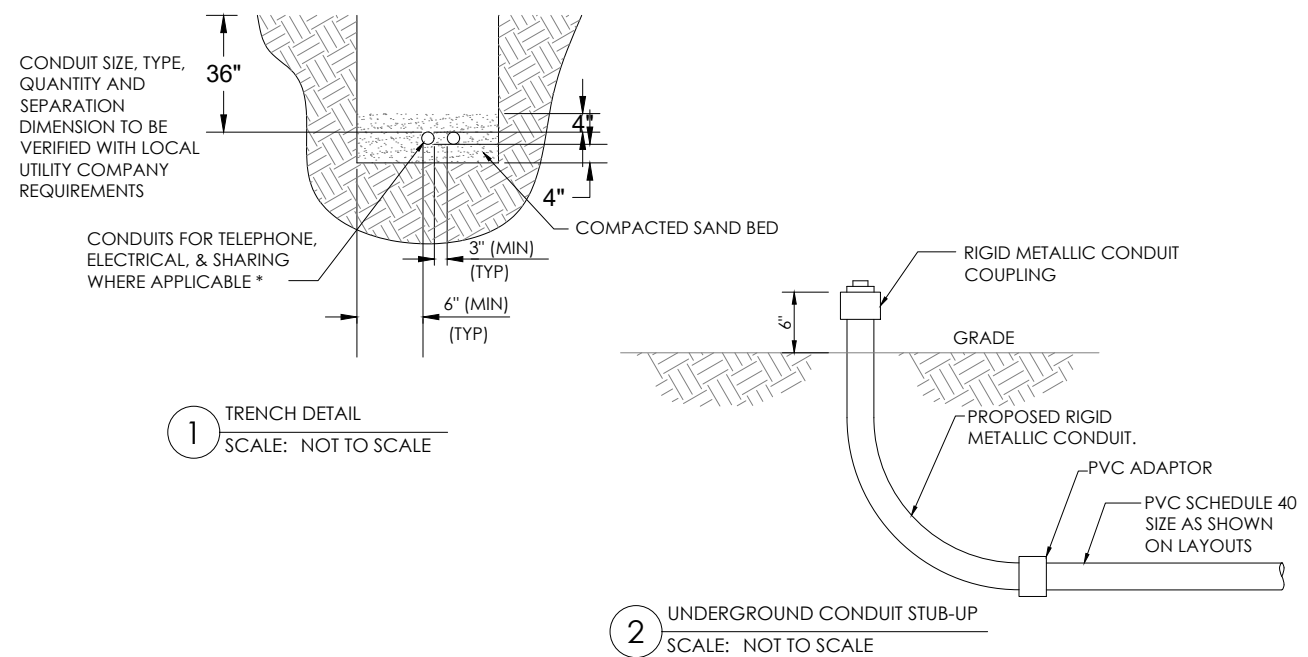
1. REWORK ALL TERMINATION, ELECTRICAL CONNECTORS, CONDUCTORS, CONDUITS, ETC. TO FACILITATE NEW WORK.
2. VERIFY LOCATION IN THE FIELD OF ALL UNDERGROUND UTILITIES PRIOR TO EXCAVATING. COORDINATE WITH PUBLIC UTILITIES AS NECESSARY TO COMPLETE REQUIRED WORK AS INDICATED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR / REPLACEMENT OF ALL DAMAGED UTILITIES AT THE EXPENSE OF THE CONTRACTOR.
3. DEMOLITION IS INCLUDED TO GIVE A COMMON BASIS FOR QUOTATIONS AND MAY NOT SHOW EVERY ITEM TO BE DEMOLISHED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE TO DETERMINE THE EXACT EXTENT OF WORK, COORDINATION, DEMOLITION, TEMPORARY FACILITIES, UTILITIES, ETC. NECESSARY TO COMPLETE THE PROJECT AS INDICATED ON THE CONTRACT DOCUMENTS.
4. PROTECT NETWORK EQUIPMENT, RECTIFIERS, FIBER CABLE, RACEWAYS, UTILITIES, BUILDING SYSTEMS, ETC. FROM DAMAGE.
5. EQUIPMENT DESIGNATED TO BE RELOCATED SHALL BE CLEANED, STORED AND PROTECTED FROM DAMAGE UNTIL REINSTALLED. REPLACE ALL EQUIPMENT DAMAGED DURING RELOCATING.
6. PROVIDE TEMPORARY POWER TO ALL ESSENTIAL SYSTEMS AS REQUIRED TO FACILITATE DEMOLITION. PROVIDE TEMPORARY COOLING UNITS AS REQUIRED.
7. MAINTAIN CIRCUIT CONTINUITY TO EXISTING CIRCUITS AND EQUIPMENT TO REMAIN OR TO BE RELOCATED.
8. WHERE ALLOWED BY CODE IT IS PERMISSIBLE TO REUSE EXISTING CONDUIT. PROVIDE NEW CONDUIT AND CONDUCTORS FOR NEW CIRCUITS AND THE EXTENSION OF EXISTING CIRCUITS.
9. PROVIDE EQUIPMENT PROTECTION ABOVE ALL NETWORK EQUIPMENT (INCLUDING BUT NOT LIMITED TO CABLING, BUS, CABLE TRAY, EQUIPMENT BAYS, RECTIFIERS, BATTERIES, INVERTERS, DISTRIBUTION PANELS, ETC.) WHEN WORKING ABOVE ALL EQUIPMENT. ALL PROTECTION SHALL BE COORDINATED WITH THE SWITCH MANAGER TO ENSURE THAT THE PROTECTION WILL NOT BLOCK ACCESS TO EQUIPMENT OR CAUSE OVERHEATING. PROVIDE TEMPORARY COOLING AS REQUIRED.
10. PROVIDE APPROPRIATE SEALING AND PATCHING OF ANY BUILDING PENETRATIONS AFTER REMOVAL OF ELECTRICAL DEVICES, EQUIPMENT, ETC. MATCH EXISTING WALLS. SEE ARCHITECTURE.

## GENERAL NOTES:

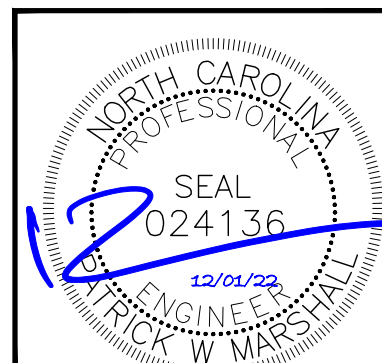
1. IT IS CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE & DETERMINE THE EXACT EXTENT OF WORK, COORDINATION, DEMOLITION, TEMPORARY FACILITIES, UTILITIES, ETC. NECESSARY TO COMPLETE THE PROJECT AS INDICATED ON THE CONTRACT DOCUMENTS.
2. VERIFY LOCATION IN THE FIELD OF ALL UNDERGROUND UTILITIES PRIOR TO EXCAVATING. COORDINATE WITH PUBLIC UTILITIES AS NECESSARY TO COMPLETE REQUIRED WORK AS INDICATED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR/REPLACEMENT OF ALL DAMAGED UTILITIES AT THE EXPENSE OF THE CONTRACTOR.
3. PROVIDE SEPARATE INSULATED GROUNDING CONDUCTOR IN ALL FEEDER & BC.
4. PROVIDE 2-HOLE LUGS CAPABLE OF ACCEPTING MULTIPLE CRIMPS FOR ALL POWER & GROUNDING CONNECTIONS TO A BUS OR WHERE FEASIBLE. USE MANUFACTURER'S COMPRESSION TOOL WITH PROPER DIE FOR EACH CONNECTOR. MANUFACTURER'S EMBOSSED CODING SYSTEM IS REQUIRED. A UNIVERSAL OR DIE-LESS TYPE CRIMPING TOOL SHALL NOT BE USED. PROVIDE LUGS WITH INSPECTOR HOLE FOR ALL INTERIOR INSTALLATIONS. PROVIDE CLOSED LUGS (NO INSPECTION HOLE) FOR EXTERIOR OR UNDERGROUND CONNECTIONS.
5. FEEDER CIRCUITS, GROUND LEADS, & DEDICATED EQUIPMENT CIRCUITS SHALL NOT BE SPLICED.
6. VERIFY LASHING REQUIREMENTS FOR SERVICE ENTRANCE & MAIN DISTRIBUTION EQUIPMENT WITH MANUFACTURER. INSTALL LASHING PER MANUFACTURER'S REQUIREMENTS.

## COMPRESSION LUG NOTES:

REFER TO SPECIFICATION SECTION 260519 & NSTD516 REGARDING REQUIREMENTS FOR A SAMPLE COMPRESSION LUG SUBMITTAL ON ALL PROJECTS. FAILURE TO PROVIDE CORRECT LUGS & SUBMIT A SAMPLE COMPRESSION LUG TO VZW PRIOR TO INSTALLATION OF ANY LUGS MAY RESULT IN REJECTION OF THE INSTALLATION & REPLACEMENT OF ALL LUGS & ASSOCIATED CABLE, WHERE REQUIRED, AT NO COST TO VZW.



NOTES:  
- SIGNS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.  
- SIGNS TO BE INSTALLED AT ROOFTOP ENTRANCE OR ANY OTHER MANDATED AREA



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BOCA RATON, FL 33487



P. MARSHALL & ASSOCIATES

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SOUTH LILLINGTON

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190' FLAG POLE  
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## SITE COORDINATES

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LONG: -78.820025

DRAWN: RSW

CHECKED: PWM

JOB#: 22SBATNCM-0042

## EQUIPMENT NOTES

E-1

T-MOBILE SITE #:		LOCATION:		VOLTAGE: 240/120 1Ø				MOUNTING / ENCLOSURE:					
5RA0183A (EXISTING)		H-FRAME		MAIN C/B: 200 AMPS				EXISTING / NEMA 3R					
7/21/2022				BUS RATING: 200 AMPS				AVAIL. FAULT CURRENT: EXISTING					
								SHORT CIRCUIT RATING: EXISTING					
AMPS/POLES	WIRE & CONDUIT	TYPE	DESCRIPTION	KVA	CKT	A	B	CKT	KVA	DESCRIPTION	TYPE	WIRE & CONDUIT	AMPS/POLES
60/2	EXISTING	EQ	N/A	0.10	1	0.28		2	0.18	N/A	E	EXISTING	20/1
-	-	EQ	-	0.10	3		0.10	4	0.00	LIGHT	L	EXISTING	20/1
60/2	EXISTING	EQ	EXISTING 6201	4.80	5	4.80		6	0.00	SPACE			
-	-	EQ	-	4.80	7		4.80	8	0.00	SPACE			
			SPACE	0.00	9			10	0.00	SPACE			
			SPACE	0.00	11			12	0.00	SPACE			
			SPACE	0.00	13			14	0.00	SPACE			
			SPACE	0.00	15			16	0.00	SPACE			
			SPACE	0.00	17			18	0.00	SPACE			
			SPACE	0.00	19			20	0.00	SPACE			
			SPACE	0.00	21			22	0.00	SPACE			
			SPACE	0.00	23			24	0.00	SPACE			
PHASE TOTAL				5.1			4.9						
				TOTAL CONNECTED LOAD		10.0 KVA			42 A				
				TOTAL DEMAND LOAD		10.0 KVA			42 A				

LOAD TYPE	DESCRIPTION	CONN. KVA	LOAD AMPS	DEMAND FACTOR	DESIGN LOAD KVA	DESIGN LOAD AMPS
L	LIGHTING	0.0	0.0	1.25	0.0	0.0
R	RECEPTACLE	0.0	0.0	NEC	0.0	0.0
M	MOTOR	0.0	0.0	NEC	0.0	0.0
H	HEATING	0.0	0.0	1.00	0.0	0.0
AC	HVAC	0.0	0.0	1.00	0.0	0.0
EQ	EQUIPMENT	9.8	40.8	1.00	9.8	40.8
E	EXISTING	0.2	0.8	1.25	0.2	0.9

\* ALL EQUIPMENT LOADS CONSIDERED CONTINUOUS LOADS

NOTES:  
DEPICTED LOAD BASED ON ASSUMPTIONS OF EQUIPMENT INSTALLED AND WAS NOT V.I.F. NOTIFY E.O.R. OF ANY DISCREPANCIES PRIOR TO INSTALLATION OF PROPOSED EQUIPMENT.

1 EXISTING PANEL SCHEDULE  
SCALE: NOT TO SCALE

T-MOBILE SITE #:		LOCATION:		VOLTAGE: 240/120 1Ø				MOUNTING / ENCLOSURE:					
5RA0183A (PROPOSED)		H-FRAME		MAIN C/B: 200 AMPS				EXISTING / NEMA 3R					
7/21/2022				BUS RATING: 200 AMPS				AVAIL. FAULT CURRENT: EXISTING					
								SHORT CIRCUIT RATING: EXISTING					
AMPS/POLES	WIRE & CONDUIT	TYPE	DESCRIPTION	KVA	CKT	A	B	CKT	KVA	DESCRIPTION	TYPE	WIRE & CONDUIT	AMPS/POLES
60/2	EXISTING	EQ	N/A	0.10	1	0.28		2	0.18	N/A	E	EXISTING	20/1
-	-	EQ	-	0.10	3		0.10	4	0.00	LIGHT	L	EXISTING	20/1
100/2	3#3, 1#6G, 1"C	EQ	EXISTING 6201	5.80	5	9.80		6	4.00	(P) 6160	EQ	2#3/0, 1#6G, 2"C	150/2
-	-	EQ	-	5.80	7		9.80	8	4.00	SPACE	EQ	-	-
			SPACE	0.00	9			10	0.00	SPACE	EQ	-	-
			SPACE	0.00	11			12	0.00	SPACE	EQ	-	-
			SPACE	0.00	13	0.18		14	0.18	(P) 6160 GFI	R	2#12, 1#12G, 1/2"C	20/1
			SPACE	0.00	15			16	0.00	SPACE			
			SPACE	0.00	17			18	0.00	SPACE			
			SPACE	0.00	19			20	0.00	SPACE			
			SPACE	0.00	21			22	0.00	SPACE			
			SPACE	0.00	23			24	0.00	SPACE			
PHASE TOTAL				10.3			9.9						
				TOTAL CONNECTED LOAD		20.2 KVA			84 A				
				TOTAL DEMAND LOAD		20.2 KVA			84 A				

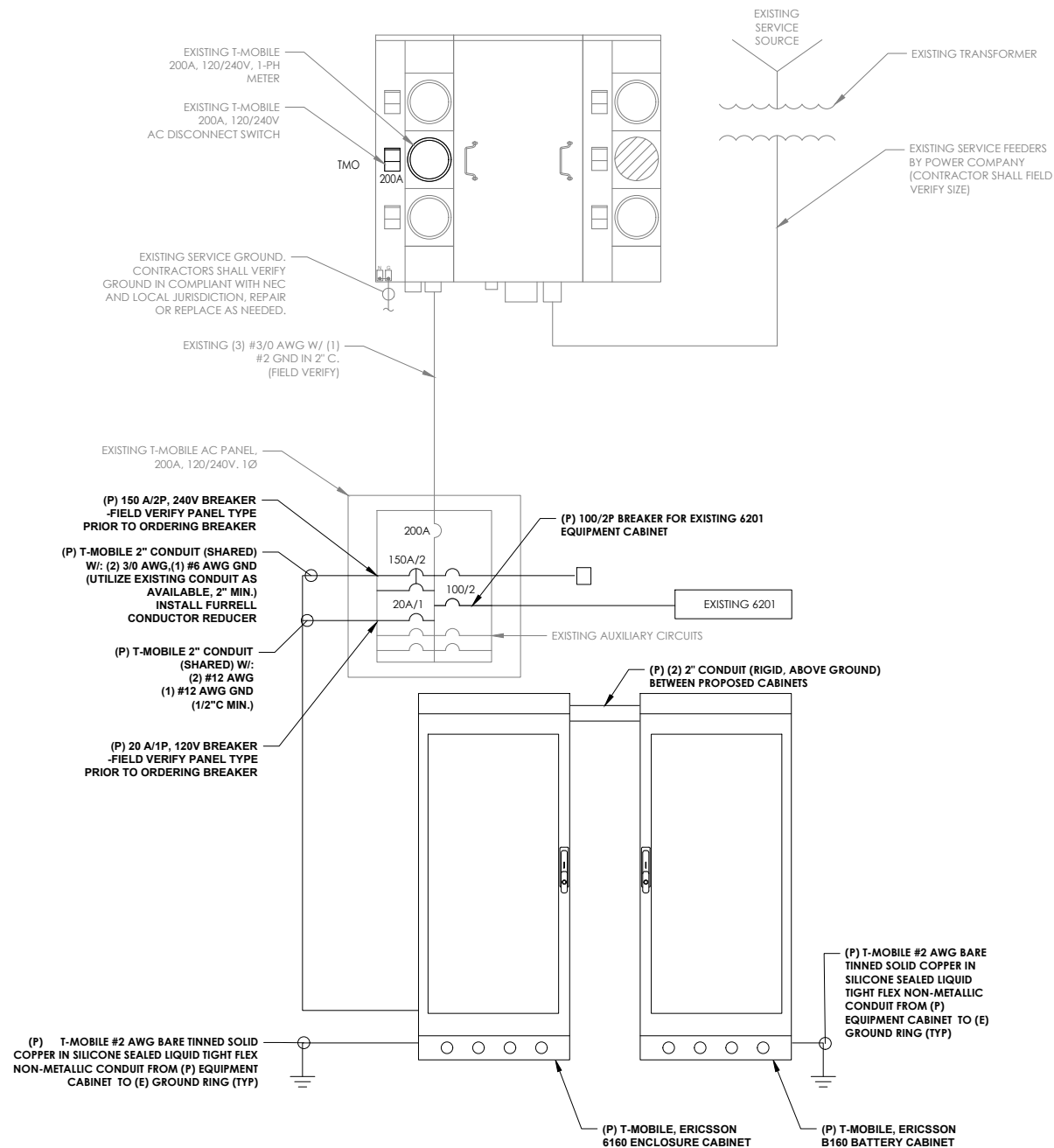
LOAD TYPE	DESCRIPTION	CONN. KVA	LOAD AMPS	DEMAND FACTOR	DESIGN LOAD KVA	DESIGN LOAD AMPS
L	LIGHTING	0.0	0.0	1.25	0.0	0.0
R	RECEPTACLE	0.2	0.8	NEC	0.2	0.8
M	MOTOR	0.0	0.0	NEC	0.0	0.0
H	HEATING	0.0	0.0	1.00	0.0	0.0
AC	HVAC	0.0	0.0	1.00	0.0	0.0
EQ	EQUIPMENT	19.8	82.5	1.00	19.8	82.5
E	EXISTING	0.2	0.8	1.25	0.2	0.9

\* ALL EQUIPMENT LOADS CONSIDERED CONTINUOUS LOADS

NOTES:  
DEPICTED LOAD BASED ON ASSUMPTIONS OF EQUIPMENT INSTALLED AND WAS NOT V.I.F. NOTIFY E.O.R. OF ANY DISCREPANCIES PRIOR TO INSTALLATION OF PROPOSED EQUIPMENT.

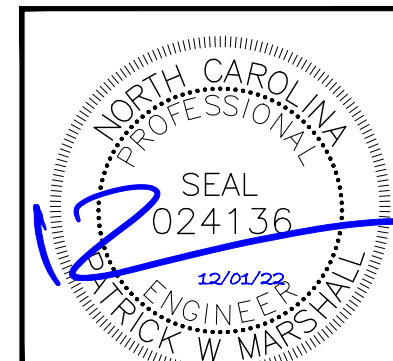
2 PROPOSED PANEL SCHEDULE  
SCALE: NOT TO SCALE

3 ONE-LINE DIAGRAM  
SCALE: NOT TO SCALE



**GENERAL ELECTRICAL NOTES**

- NO SITE SPECIFIC LOAD STUDY WAS ACQUIRED. DEMAND LOADING KVA SHOWN AS ASSUMPTIONS PER MANUFACTURER SPECIFICATION DOCUMENTS & INDUSTRY STANDARD. WHEN OVERAGES ARE VERIFIED ON SITE, ALL DISCREPANCY SHALL BE BROUGHT TO THE ENGINEER OF RECORD PRIOR TO COMMENCING WORK.
- ELECTRICAL SERVICE SHALL BE 200A, 240/120V, 1 P, 3W
- FOR COMPLETE INTERNAL WIRING AND ARRANGEMENT, REFER TO VENDER PRINTS PROVIDED BY EQUIPMENT MANUFACTURER.
- CONTRACTOR SHALL VERIFY AVAILABLE FAULT CURRENT WITH POWER COMPANY AND ENSURE ALL ELECTRICAL EQUIPMENT IS SUITABLE FOR AVAILABLE FAULT CURRENT. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY AND CALCULATE SHORT CIRCUIT FAULT CURRENT AND ARC FLASH AND PROVIDE LABELS ON ELECTRICAL EQUIPMENT PER THE N.E.C. AND LOCAL JURISDICTION. CONTRACTOR SHALL PROVIDE EQUIPMENT RATED FOR FAULT CURRENT.
- CONTRACTOR SHALL COORDINATE UTILITY SERVICES WITH LOCAL UTILITY COMPANIES. VERIFY ALL REQUIREMENTS WITH UTILITY COMPANY STANDARDS. THE MAXIMUM 12-MONTH DEMAND LOAD WAS NOT AVAILABLE AT TIME OF PRINTING. CONTRACTOR SHALL COORDINATE WITH POWER CO., OBTAIN MAXIMUM DEMAND LOAD, MULTIPLY VALUE BY 1.25, ADD ALL NEW LOADS & VERIFY NEW MAXIMUM DEMAND LOAD DOES NOT OVERLOAD ANY PORTION OF THE EXISTING ELECTRICAL SYSTEM. CONTACT EOR IF OVERLOAD IS POSSIBLE BEFORE START OF WORK.
- ONE-LINE DIAGRAM IS SCHEMATIC ONLY AND NOT INDICATIVE OF ACTUAL EQUIPMENT LAYOUT. CONTRACTOR IS RESPONSIBLE FOR LOADING ON ALL PANELS AND FEEDERS PER THE N.E.C. CONTRACTOR SHALL ENSURE CONTINUITY OF EXISTING CIRCUITS TO REMAIN. ELECTRICAL CONTRACTOR SHALL VERIFY THAT ALL EXISTING AND PROPOSED LOADS PLACED ON EXISTING PANELS DO NOT EXCEED THE MAXIMUM LOADING REQUIRED PER THE LATEST EDITION OF THE N.E.C. NOTIFY EOR IF OVERLOAD IS POSSIBLE
- 6230 ENCLOSURE CONFIGURATION INCLUDES (6) 3500W RECTIFIERS. LOAD PROVIDED IN PANEL SCHEDULE IS BASED ON THIS CONFIGURATION PLUS ADDITIONAL (1) PRE-WIRED CIRCUITS. IF ADDITIONAL RECTIFIERS ARE REQUIRED, ENGINEER OF RECORD SHALL BE CONTACTED TO DETERMINE ADEQUACY OF EXISTING PANEL FOR ADDITIONAL LOAD
- CONTRACTOR SHALL FIELD VERIFY EXISTING AC PANEL MODEL AND ENSURE SUFFICIENT BREAKER SPACE IS AVAILABLE. CONTACT EOR IF DISCREPANCIES ARE FOUND.
- CONTRACTOR TO FIELD VERIFY ALL EQUIPMENT RATINGS AND WIRE SIZES. IF ANY DISCREPANCIES EXIST, CONTACT ENGINEER PRIOR TO ROUGH IN.



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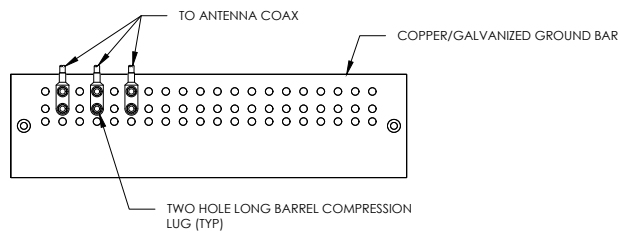
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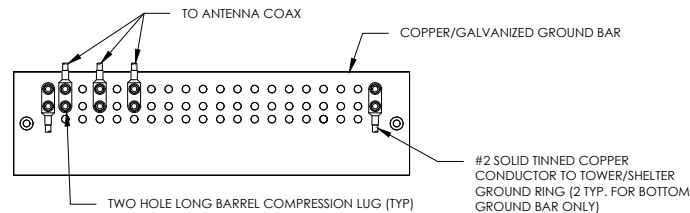
**PANEL SCHEDULE & ONE-LINE DIAGRAM**



NOTES:

1. DOUBLING UP "OR STACKING" OF CONNECTIONS IS NOT PERMITTED.
2. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
3. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL.

1 ANTENNA GROUND BAR DETAIL  
SCALE: NOT TO SCALE

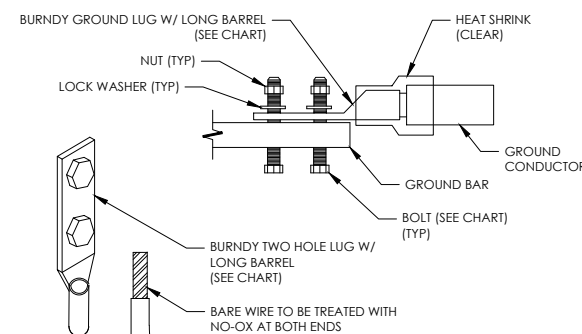


NOTES:

1. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
2. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL (TOWER ONLY).
3. GROUND BAR SHALL BE ISOLATED FROM BUILDING OR SHELTER.

2 TOWER/SHELTER GROUND BAR DETAIL  
SCALE: NOT TO SCALE

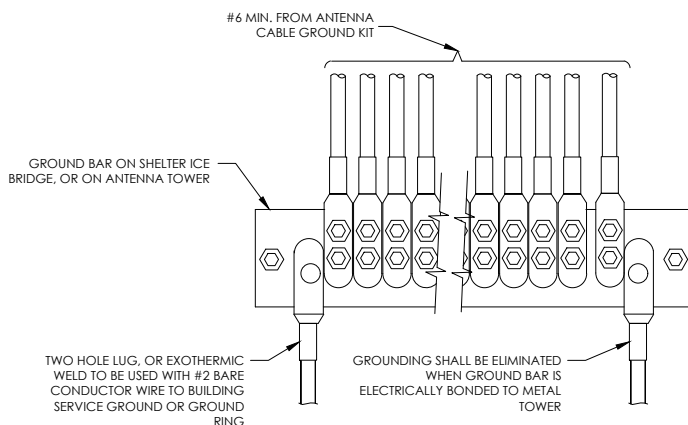
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 SOLID TINNED	YA3C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 STRANDED	YA2C-2TC38	3/8" - 16 NC SS 2 BOLT
#2/0 STRANDED	YA26-2TC38	3/8" - 16 NC SS 2 BOLT
#4/0 STRANDED	YA28-2N	1/2" - 16 NC SS 2 BOLT



NOTE:

ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER, GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.

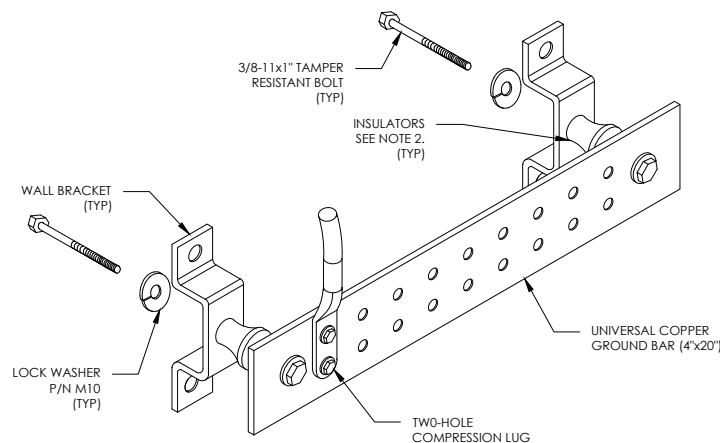
3 MECHANICAL LUG CONNECTION  
SCALE: NOT TO SCALE



TWO HOLE LUG, OR EXOTHERMIC WELD TO BE USED WITH #2 BARE CONDUCTOR WIRE TO BUILDING SERVICE GROUND OR GROUND RING

GROUNDING SHALL BE ELIMINATED WHEN GROUND BAR IS ELECTRICALLY BONDED TO METAL TOWER

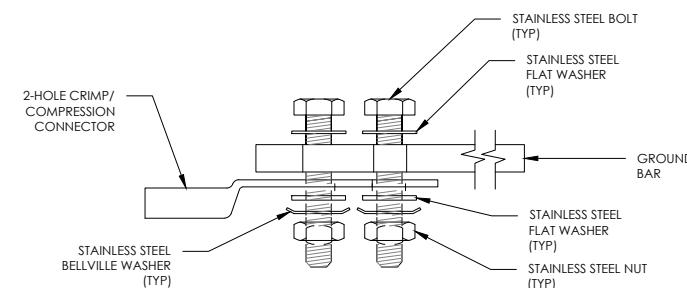
4 GROUNDWIRE INSTALLATION  
SCALE: NOT TO SCALE



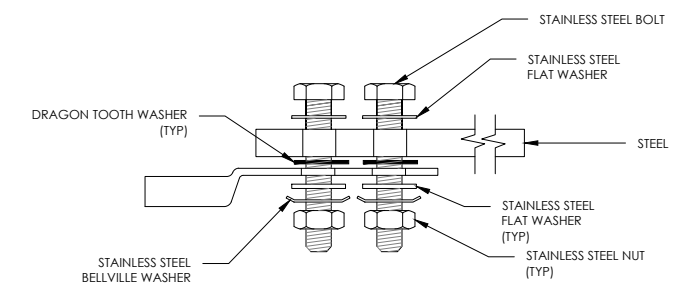
NOTES:

1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY GAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION. CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.
2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL. USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.

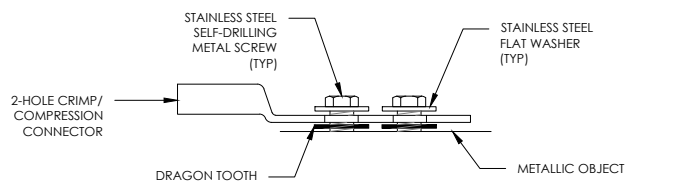
5 GROUND BAR DETAIL  
SCALE: NOT TO SCALE



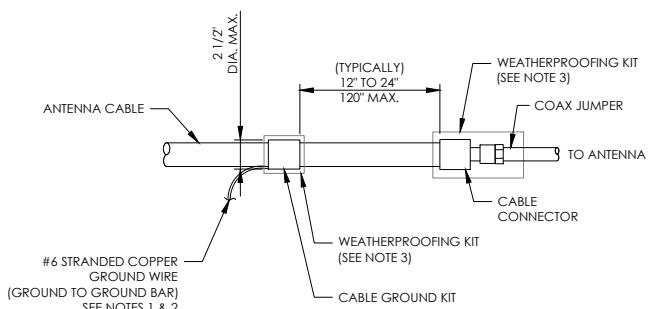
SINGLE CONNECTOR AT GROUND BARS



SINGLE CONNECTOR AT STEEL OBJECTS



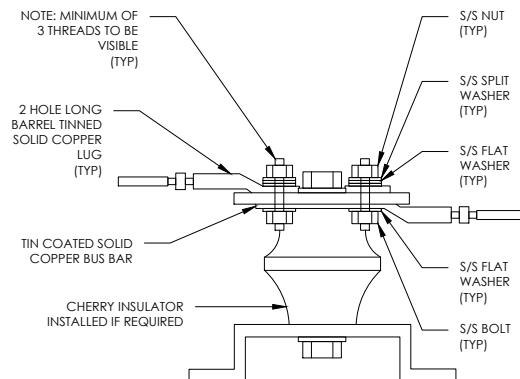
SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS



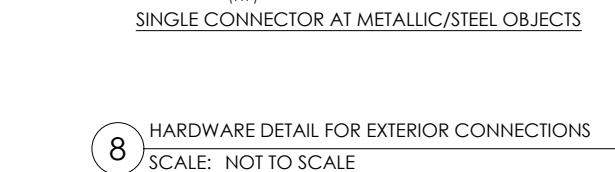
NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

6 CABLE GROUND KIT CONNECTION  
SCALE: NOT TO SCALE



7 LUG DETAIL  
SCALE: NOT TO SCALE



8 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS  
SCALE: NOT TO SCALE



SBA COMMUNICATIONS CORP.  
5900 BROKEN SOUND PKWY NW  
BOCA RATON, FL 33487



P. MARSHALL & ASSOCIATES

LOCATION:

162 MATTIE RIDGELL LN  
LILLINGTON, NC 27546

SBA: LILLINGTON  
NC14882-A-01

T-MOBILE:

SOUTH LILLINGTON  
5RA0183A

SITE TYPE:

190' FLAG POLE  
T-MOBILE ANCHOR

REV	DATE	DESCRIPTION
0	7/17/22	FOR CONSTRUCTION
1	11/30/22	FOR CONSTRUCTION

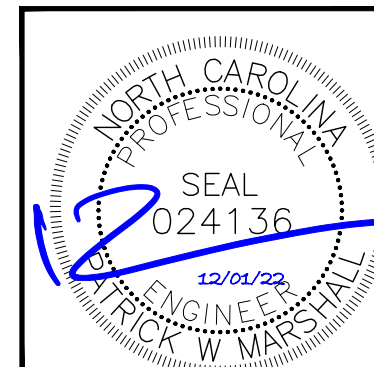
SITE COORDINATES

LAT: 35.379786  
LONG: -78.820025

DRAWN: RSW

CHECKED: PWM

JOB#: 22SBATNCM-0042



GROUNDING  
DETAILS