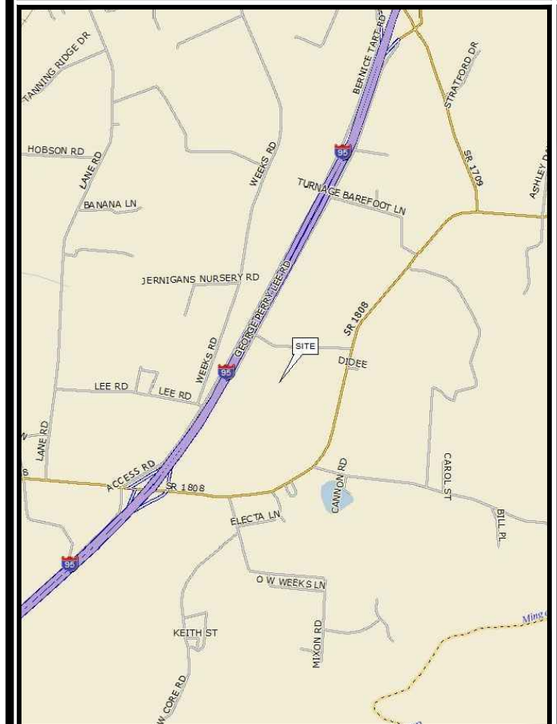
T-MOBILE SITE ID:	5DR0307A
PROJECT TYPE:	ANCHOR
PROJECT DESCRIPTION:	EQUIPMENT INSTALLATION
TOWER TYPE:	250' SELF-SUPPORT TOWER
JURISDICTION:	HARNETT COUNTY
PRESENT OCCUPANCY TYPE:	TELECOMMUNICATIONS FACILITY
CURRENT ZONING:	RA-30
PARCEL #:	1527-92-3974.000
TECHNOLOGY TYPE:	ERICSSON/RFS
BACKHAUL TYPE:	TELCO/FIBER

PROJECT INFORMATION

LATITUDE	N 35° 19' 22.58"* (35.32294)
LONGITUDE	W 74° 33' 56.84"* (-78.56579)
GROUND ELEVATION =	231'± (AMSL)**

*INFORMATION PROVIDED BY ATC
**INFORMATION PROVIDED BY GOOGLE EARTH

TOWER COORDINATES



LOCATION MAP

T-Mobile

NOTICE TO CONTRACTOR
All construction shall comply with the plans as drawing (Color) and is subject to field inspection and verification.
Reviewed for Code Compliance
06/06/2022
Harnett COUNTY NORTH CAROLINA

2105 WATER RIDGE PKWY
CHARLOTTE, NC 28217

T-MOBILE SITE ID: 5RD0307A
T-MOBILE SITE NAME: ADDIE WEBB ALLTEL (LAKESIDE)

155 ADDIE WEBB LANE,
DUNN, NC 28334-8776
(HARNETT COUNTY)

ANCHOR CONFIGURATION:
67D5998E_1XAIR+10P+1QP INDOOR

LESSEE:
NAME: T-MOBILE
ADDRESS: 2105 WATER RIDGE PKWY
CITY, STATE, ZIP: CHARLOTTE, NC 28217

TOWER OWNER:
NAME: AMERICAN TOWER
ADDRESS: 10 PRESIDENTIAL WAY
CITY, STATE, ZIP: WOBURN, MA 01801
SITE NAME: LAKESIDE RD NC
SITE #: 97606

PROPERTY OWNER:
NAME: CHARLES E WEBB TESTAMENTARY TRUST U & SMITH ANITA W TRUSTEE
ADDRESS: 4529 SOUTH RIDGE DR
CITY, STATE, ZIP: FUQUAY VARINA, NC 27526-8539
CONTACT: UNKNOWN
PHONE: UNKNOWN

CIVIL ENGINEER:
NAME: TOWER ENGINEERING PROFESSIONALS
ADDRESS: 326 TRYON ROAD
CITY, STATE, ZIP: RALEIGH, NC 27603-3530
CONTACT: SCOTT BRANTLEY, P.E.
PHONE: (919) 661-6351

ELECTRICAL ENGINEER:
NAME: TOWER ENGINEERING PROFESSIONALS
ADDRESS: 326 TRYON ROAD
CITY, STATE, ZIP: RALEIGH, NC 27603-3530
CONTACT: MARK S. QUAKENBUSH, P.E.
PHONE: (919) 661-6351

CONTACT INFORMATION

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING:

1. INTERNATIONAL BUILDING CODE (2018 EDITION) W/ NC AMENDMENTS
2. NORTH CAROLINA CODE COUNCIL
3. ANSI/TIA-222-H
4. 2020 NEC
5. LOCAL BUILDING CODE
6. CITY/COUNTY ORDINANCES

CODE COMPLIANCE

THE PROPOSED PROJECT SCOPE OF WORK WILL CONSIST OF REMOVING ANTENNA MOUNTS, ANTENNAS, RADIOS, CABLES, AND RELATED EQUIPMENT AS WELL AS GROUND EQUIPMENT AND THE INSTALLATION OF ANTENNA, RADIOS, CABLES AND RELATED EQUIPMENT ON THE TOWER AS WELL AS RADIOS, CABINETS, UTILITIES AND ANCILLARY EQUIPMENT ON THE GROUND.

PROJECT SCOPE OF WORK

UTILITIES:

POWER COMPANY:	DUKE ENERGY
CONTACT:	CUSTOMER SERVICE
PHONE:	(800) 777-9898
METER # NEAR SITE:	328 444 636
FIBER COMPANY:	CENTURYLINK
CONTACT:	CUSTOMER SERVICE
PHONE:	(800) 201-4099
PHONE # NEAR SITE:	(336) 667-2505
PEDESTAL # NEAR SITE:	UNKNOWN

SHEET	DESCRIPTION	REV
T1	TITLE SHEET	0
T2-T6	APPENDIX B	0
N1	PROJECT NOTES	0
C1	SITE PLAN	0
C1A	COMPOUND DETAIL	0
C1B	EQUIPMENT LAYOUT	0
C2	TOWER ELEVATION	0
C3	EXISTING AND PROPOSED ANTENNA PLAN	0
C4	EXISTING ANTENNA & CABLE SCHEDULE	0
C5	PROPOSED ANTENNA & CABLE SCHEDULE	0
C6	CABINET DETAILS	0
C7	EQUIPMENT DETAILS	0
E1	ELECTRICAL NOTES	0
E2	ONE-LINE DIAGRAM & ELECTICAL DETAILS	0
E3	POWER PANEL SCHEDULES	0
E4	ROUTING PLAN & EQUIPMENT GROUNDING PLAN	0
G1	TMO GROUNDING NOTES	0
G2	GROUNDING DETAILS I	0

INDEX OF SHEETS

PLANS PREPARED BY:

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

NC LIC#: P-1403

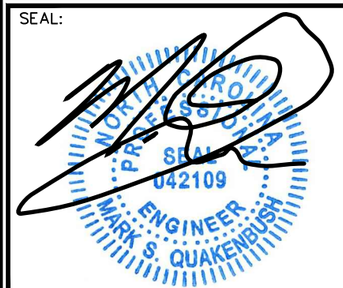
REV	DATE	ISSUED FOR:
0	05-17-22	100% CONSTRUCTION

DRAWN BY: VSM | CHECKED BY: BSE

SEAL:

May 17, 2022

SEAL:



May 17, 2022

SHEET NUMBER: T-1

REVISION: 0

TEP#: 129994.320357

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: ADDIE WEBB ALLTEL (LAKESIDE)

Address: 155 ADDIE WEBB LANE, DUNN, NC Zip Code 28334-8776

Owner/Authorized Agent: TRACI BRINSON Phone # (410) 905 - 1036 E-Mail Traci.Brinson@AmericanTower.com

Owned By: ☐ City/County ☒ Private ☐ State

Code Enforcement Jurisdiction: ☐ City_____ ☒ County HARNETT ☐ State

CONTACT: Tower Engineering Professionals

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural				( )	
Civil	Tower Engineering Professionals	Scott Brantley, P.E.	048226	(919) 661-6351	sbrantaley@tepgroup.net
Electrical	Tower Engineering Professionals	Mark S. Quakenbush	042109	(919) 661-6351	mquakenbush@tepgroup.net
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 ☒ 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

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
3rd Floor	N/A		
2nd Floor	N/A		
Mezzanine	N/A		
1st Floor	336 SQ FT EQUIPMENT SHELTER		
Basement	N/A		
TOTAL	336 SQ FT EQUIPMENT SHELTER		

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.

☐ Non-Separated Use (508.3) - The required type of constr… shall be determined by applying the height and … of the applicable occupancies to the ent… restrictive type of construction, so de… the entire building.

☐ Separated Use (508.4) - See below for area … y, the area of the occupancy shall be such that the s… ctual floor area of each use divided by the allowable … hall not exceed 1.

Actual Area of Occupancy A / *Allowable Area of Occupancy A* + *…upancy B* / *Occupancy B* ≤ 1

_____ + _____ + ….. = _____ ≤ 1.00

N/A NOT A BUILDING

2018 NC Administrative Code and Policies

PLANS PREPARED FOR:

T-Mobile

2105 WATER RIDGE PKWY
CHARLOTTE, NC 28217

PROJECT INFORMATION:

TMO ID: 5RD0307A
ADDIE WEBB ALLTEL (LAKESIDE)
155 ADDIE WEBB LANE
DUNN, NC 28334-8776
(HARNETT COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net
NC LIC#: P-1403

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May 17, 2022

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SHEET TITLE:

APPENDIX B

SHEET NUMBER: **T-2**

REVISION: 0

TEP#: 129994.320357

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

[1] Frontage area increases from Section 50
a. Perimeter which fronts a publ ving 20 feet minimum width = _____ (F)
b. Total Building Perimeter
c. Ratio (F/P) = _____
d. W = Minimum width _____ (W)
e. Percent of frontage increase = [F/P – 0.25] x *W*/30 = _____ (%)

[2] Unlimited area applicable under co Section 507.

[3] Maximum Building Area = total numb 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 506.2.

N/A
NOT A BUILDING

ALLOWABL

	AL	WN 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" qua .3 or 504.4.

N/A
NOT A BUILDING

FIRE PROTECTION REQUIREMENTS

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

N/A
NOT A BUILDING

N/A
NOT A BUILDING

* Indicate section number permitting reduction

2018 NC Administrative Code and Policies

PLANS PREPARED FOR:

T-Mobile

2105 WATER RIDGE PKWY
CHARLOTTE, NC 28217

PROJECT INFORMATION:

TMO ID: 5RD0307A
ADDIE WEBB ALLTEL (LAKESIDE)
155 ADDIE WEBB LANE
DUNN, NC 28334-8776
(HARNETT COUNTY)

PLANS PREPARED BY:

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326 TRYON ROAD
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OFFICE: (919) 661-6351
www.tepgroup.net
NC LIC#: P-1403

SEAL:

NORTH CAROLINA PROFESSIONAL SEAL 048283 ENGINEER SCOTT C. BRANKLEY

May 17, 2022

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DRAWN BY: VSM | CHECKED BY: BSE

SHEET TITLE:

APPENDIX B

SHEET NUMBER: **T-3**

REVISION: **0**

TEP#: 129994.320357

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 (%)

N/A
NOT A BUILDING

LM REQUIREMENTS

Emergency Lighting:
Exit Signs:
Fire Alarm: Yes
Smoke Detection Systems: Yes Partial _____
Panic Hardware: 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 calculation (Table 1004.1.2)
- ☐ Occupant loads for each area
- ☐ Exit access travel distances (1017)
- ☐ Common path of travel distances (Tables 1006.2
- ☐ Dead end lengths (1020.4)
- ☐ Clear exit widths for each exit door
- ☐ Maximum calculated occupant load c an accommodate based on egress width (1005.3)
- ☐ Actual occupant load for each exit
- ☐ A separate schematic plan indi oor/ceiling and/or roof structure is provided for purposes of occupancy sepa
- ☐ Location of doors with p 0)
- ☐ Location of doors with nd the amount of delay (1010.1.9.7)
- ☐ Location of doors with el gress locks (1010.1.9.9)
- ☐ Location of doors equipped w open devices
- ☐ Location of emergency escape w dows (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

N/A
NOT A BUILDING

ACCESSIBLE DWELLING UNITS
(SECTION 1107)

Total Units	Accessible Units Required	Accessible Units Provided	Type A Units Required	Type A Units Provid	pe B	Type B Units Provided	total accessible Units provided

N/A
NOT A BUILDING

ACC

LOT OR PARKING AREA	TOTAL # OF PARKING SP			CESSIBLE SPACES PROVIDED		TOTAL # ACCESSIBLE PROVIDED
	REQUIRED	PR	H AISLE	VAN SPACES WITH 132" ACCESS AISLE	VAN SPACES WITH 8' ACCESS AISLE	
TOTAL						

PLUMBING FIXTURE REQUIREMENTS
(TABLE 2902.1)

USE		WATERCLOSETS			URINALS	LAVATORIES			SHOWERS /TUBS	DRINKING FOUNTAINS	
		MALE	FEMALE	UNISEX		MALE	FEMALE	UNISEX		REGULAR	ACCESSIBLE
SPACE	EXIST'G										
	NEW										
	REQ'D										

SPECIAL

Special approval: (Local Jurisdiction, Departmen PI, DHHS, etc., describe below)

N/A
NOT A BUILDING

PLANS PREPARED FOR:

T-Mobile

2105 WATER RIDGE PKWY
CHARLOTTE, NC 28217

PROJECT INFORMATION:

TMO ID: 5RD0307A
ADDIE WEBB ALLTEL (LAKESIDE)
155 ADDIE WEBB LANE
DUNN, NC 28334-8776
(HARNETT COUNTY)

PLANS PREPARED BY:

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APPENDIX B

SHEET NUMBER: **T-4**

REVISION: **0**

TEP#: 129994.320357

ENERGY SUMM

ENERGY REQUIREMENTS:
The following data shall be considered minimum and any [illegible]quired to meet the energy code shall also be provided. Each Designer shall furnish the requi[illegible]t information for the plan data sheet. If performance method, state the annual energy cost [illegible]e design vs annual energy cost for the proposed design.

Existing building envelope complies with [illegible] Yes (The remainder of this section is not applicable)

Exempt Building: ☐ No ☐ Ye[illegible]ference): _____

Climate Zone: ☐ 3[illegible]

Method of Compliance: [illegible] ☐ Performance ☐ Prescriptive
AS[illegible].1 ☐ Performance ☐ Prescriptive
(If "[illegible]er" 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 or doors with glazi[illegible]
U-Value of assembly:
Solar heat gain coefficie[illegible]
projection factor:
Door R-Values: _____

Walls below grade (each asse[illegible]
Description of ass[illegible] _____
U-Value of tota[illegible] _____
R-Value of in[illegible] _____

Floors over unconditioned [illegible] 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: _____

N/A
NOT A BUILDING

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
STRUCTURAL DESIGN
(PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)

DESIGN LOADS:

Importance Factors: Snow (I_S) _____
Seismic (I_E) _____

Live Loads: Roof _____
Mezzanine _____
Floor _____

Ground Snow Load: _____ psf

Wind Load: Basic Wind Sp[illegible] (ASCE-7)
Exposure Ca[illegible]

SEISMIC DESIGN CATEGORY: [illegible] ☐ C ☐ D
Provide the following Seismic Design Par[illegible]
Risk Category (Table 1604.5) ☐ I [illegible] ☐ II ☐ III ☐ IV
Spectral Response Acceleration [illegible]S_S_____ %g S_1_____ %g
Site Classification (ASCE 7) ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F
Data Source: ☐ Field Test ☐ Presumptive ☐ Historical Data
Basic structural system ☐ 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

PLANS PREPARED FOR:

T-Mobile

2105 WATER RIDGE PKWY
CHARLOTTE, NC 28217

PROJECT INFORMATION:
TMO ID: 5RD0307A
ADDIE WEBB ALLTEL (LAKESIDE)
155 ADDIE WEBB LANE
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PLANS PREPARED BY:

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SEAL:

NORTH CAROLINA PROFESSIONAL SEAL 048222 ENGINEER SCOTT C. BRANKLEY

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APPENDIX B

SHEET NUMBER: **T-5**
REVISION: **0**
TEP#: 129994.320357

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

N/A
NOT A BUILDING

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

N/A
NOT A BUILDING

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

PLANS PREPARED FOR:

T-Mobile

2105 WATER RIDGE PKWY
CHARLOTTE, NC 28217

PROJECT INFORMATION:

TMO ID: 5RD0307A
ADDIE WEBB ALLTEL (LAKESIDE)
155 ADDIE WEBB LANE
DUNN, NC 28334-8776
(HARNETT COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net
NC LIC#: P-1403

SEAL:

NORTH CAROLINA PROFESSIONAL SEAL 048224 ENGINEER SCOTT C. BRADLEY

May 17, 2022

REV	DATE	ISSUED FOR:
0	05-17-22	100% CONSTRUCTION

DRAWN BY: VSM | CHECKED BY: BSE

SHEET TITLE:

APPENDIX B

SHEET NUMBER: **T-6**

REVISION: **0**

TEP#: 129994.320357

PROJECT NOTES:

1. ALL REFERENCES MADE TO OWNER IN THESE DOCUMENTS SHALL BE CONSIDERED T–MOBILE OR ITS DESIGNATED REPRESENTATIVE.
2. ALL WORK PRESENTED ON THESE DRAWINGS MUST BE COMPLETED BY THE CONTRACTOR UNLESS NOTED OTHERWISE. THE CONTRACTOR MUST HAVE CONSIDERABLE EXPERIENCE IN PERFORMANCE OF WORK SIMILAR TO THAT DESCRIBED HEREIN. BY ACCEPTANCE OF THIS ASSIGNMENT, THE CONTRACTOR IS ATTESTING TO HAVE SUFFICIENT EXPERIENCE AND ABILITY, IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED, AND IS PROPERLY LICENSED AND PROPERLY REGISTERED TO DO THIS WORK IN THE STATE OF NORTH CAROLINA.
3. THE STRUCTURE SHALL BE DESIGNED IN ACCORDANCE WITH ANSI/TIA–222–H AND CONFORM TO THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE, 2018 EDITION WITH NC AMENDMENTS.
4. WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE, 2018 EDITION WITH NC AMENDMENTS.
5. UNLESS SHOWN OR NOTED OTHERWISE ON THE CONTRACT DRAWINGS, OR IN THE SPECIFICATIONS, THE FOLLOWING NOTES SHALL APPLY TO THE MATERIALS LISTED HEREIN, AND TO THE PROCEDURES TO BE USED ON THIS PROJECT.
6. ALL HARDWARE ASSEMBLY MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED EXACTLY AND SHALL SUPERSEDE ANY CONFLICTING NOTES ENCLOSED HEREIN.
7. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO ENSURE THE SAFETY OF THE STRUCTURE AND IT'S COMPONENT PARTS DURING ERECTION AND/OR FIELD MODIFICATIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF TEMPORARY BRACING, GUYS OR TIE DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER THE COMPLETION OF THE PROJECT.
8. ALL DIMENSIONS, ELEVATIONS, AND EXISTING CONDITIONS SHOWN ON THE DRAWINGS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BEGINNING ANY MATERIALS ORDERING, FABRICATION OR CONSTRUCTION WORK ON THIS PROJECT. CONTRACTOR SHALL NOT SCALE CONTRACT DRAWINGS IN LIEU OF FIELD VERIFICATION. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND THE OWNER'S ENGINEER. THE DISCREPANCIES MUST BE RESOLVED BEFORE THE CONTRACTOR IS TO PROCEED WITH THE WORK. THE CONTRACT DOCUMENTS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE OWNER AND/OR THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE PROTECTIVE MEASURES OR THE PROCEDURES.
9. 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. THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR INSURING THAT THIS PROJECT AND RELATED WORK COMPLIES WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY CODES AND REGULATIONS GOVERNING THIS WORK.
RENTAL CHARGES, SAFETY, PROTECTION AND MAINTENANCE OF RENTED EQUIPMENT SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
11. ACCESS TO THE PROPOSED WORK SITE MAY BE RESTRICTED. THE CONTRACTOR SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULE AND MATERIALS ACCESS, WITH THE LESSEE PROJECT MANAGER.
12. BILL OF MATERIALS AND PART NUMBERS LISTED ON CONSTRUCTION DRAWINGS ARE INTENDED TO AID CONTRACTOR/OWNER. CONTRACTOR/OWNER SHALL VERIFY PARTS AND QUANTITIES WITH MANUFACTURER PRIOR TO BIDDING AND/OR ORDERING MATERIALS.
13. ALL PERMITS THAT MUST BE OBTAINED ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
14. 24 HOURS PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, THE CONTRACTOR MUST NOTIFY THE APPLICABLE JURISDICTIONAL (STATE, COUNTY OR CITY) ENGINEER.
15. THE CONTRACTOR SHALL REWORK (DRY, SCARIFY, ETC.) ALL MATERIAL NOT SUITABLE FOR SUBGRADE IN ITS PRESENT STATE. AFTER REWORKING, IF THE MATERIAL REMAINS UNSUITABLE, THE CONTRACTOR SHALL UNDERCUT THIS MATERIAL AND REPLACE WITH APPROVED MATERIAL. ALL SUBGRADES SHALL BE PROOFROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK PRIOR TO PAVING. ANY SOFT MATERIAL SHALL BE REWORKED OR REPLACED.
16. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL PIPES, DITCHES, AND OTHER DRAINAGE STRUCTURES FREE FROM OBSTRUCTION UNTIL WORK IS ACCEPTED BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED BY FAILURE TO MAINTAIN DRAINAGE STRUCTURE IN OPERABLE CONDITION.
17. THE OWNER SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHILE WORK IS BEING PERFORMED. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY GOVERNING AGENCY INSPECTORS.
18. ANY BUILDINGS ON THIS SITE ARE INTENDED TO SHELTER EQUIPMENT WHICH WILL ONLY BE PERIODICALLY MAINTAINED AND ARE NOT INTENDED FOR HUMAN OCCUPANCY.
19. TEMPORARY FACILITIES FOR PROTECTION OF TOOLS AND EQUIPMENT SHALL CONFORM TO LOCAL REGULATIONS AND SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
20. THE CONTRACTOR AND ITS SUBCONTRACTORS SHALL CARRY LIABILITY INSURANCE IN THE AMOUNTS AND FORM IN ACCORDANCE WITH LESSEE SPECIFICATIONS. CERTIFICATES DEMONSTRATING PROOF OF COVERAGE SHALL BE PROVIDED TO LESSEE PRIOR TO THE START OF THE WORK ON THE PROJECT.1.
21. THE CONTRACTOR SHALL CONTACT ALL APPLICABLE UTILITY SERVICES TO VERIFY LOCATIONS OF EXISTING UTILITIES AND REQUIREMENTS FOR NEW UTILITY CONNECTIONS PRIOR TO EXCAVATING.
22. THE CONTRACTOR SHALL MAINTAIN THE JOB CLEAR OF TRASH AND DEBRIS. ALL WASTE MATERIALS SHALL BE REMOVED FROM THE SITE PRIOR TO SUBSTANTIAL COMPLETION AND PRIOR TO FINAL ACCEPTANCE. THE CONTRACTOR SHALL FURNISH ONE 55 GALLON BARREL, AND TRASH BAGS, AND SHALL REMOVE TRASH, DEBRIS, ETC., ON A DAILY BASIS.
23. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH ALL CONDITIONS PRIOR TO SUBMITTING HIS PROPOSAL. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS SHOWN ON THESE DRAWINGS WITH THOSE AT THE SITE. ANY VARIATION WHICH REQUIRES PHYSICAL CHANGE SHALL BE BROUGHT TO THE ATTENTION OF THE T–MOBILE PROJECT ENGINEER FOR FACILITIES/CONSTRUCTION.
24. THE CONTRACTOR SHALL GUARANTEE THE WORK PERFORMED ON THE PROJECT BY THE CONTRACTOR AND ANY OR ALL OF THE SUBCONTRACTORS WHO PERFORMED WORK FOR THE CONTRACTOR ON THIS PROJECT. THE GUARANTEE SHALL BE FOR A FULL YEAR FOLLOWING ISSUANCE OF THE FINAL PAYMENT OF RETAINAGE. ALL MATERIALS AND WORKMANSHIP SHALL BE WARRANTED FOR ONE YEAR FROM ACCEPTANCE DATE.

PLANS PREPARED FOR:

T-Mobile

2105 WATER RIDGE PKWY
CHARLOTTE, NC 28217

PROJECT INFORMATION:

TMO ID: 5RD0307A
ADDIE WEBB ALLTEL (LAKESIDE)
155 ADDIE WEBB LANE
DUNN, NC 28334–8776
(HARNETT COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net
NC LIC#: P-1403

SEAL:

NORTH CAROLINA PROFESSIONAL SEAL 048222 ENGINEER SCOTT C. BRANNLEY

May 17, 2022

REV	DATE	ISSUED FOR:
0	05-17-22	100% CONSTRUCTION

DRAWN BY: VSM | CHECKED BY: BSE

SHEET TITLE:

PROJECT NOTES

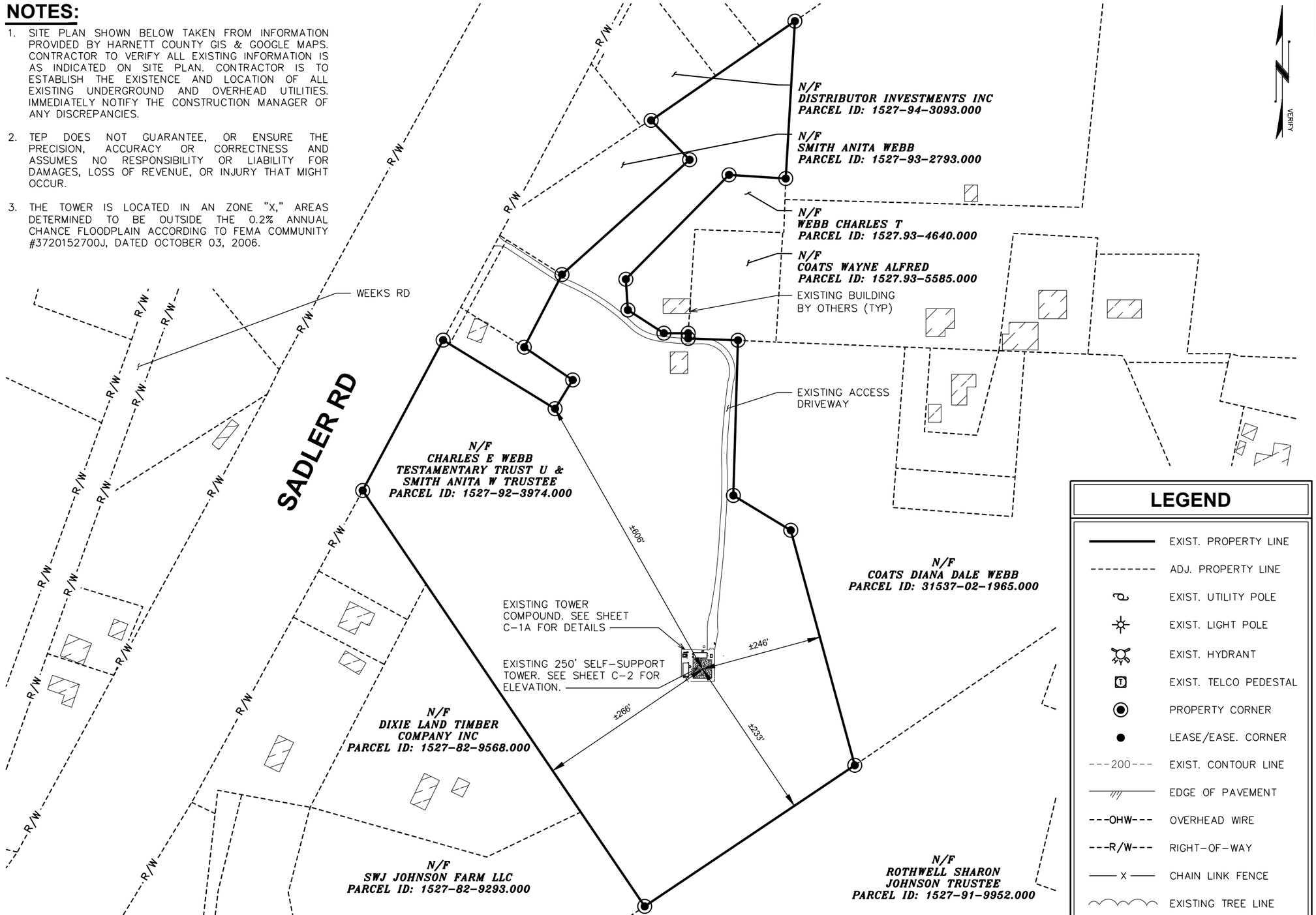
SHEET NUMBER: **N-1**

REVISION: **0**

TEP#: 129994.320357

NOTES:

1. SITE PLAN SHOWN BELOW TAKEN FROM INFORMATION PROVIDED BY HARNETT COUNTY GIS & GOOGLE MAPS. CONTRACTOR TO VERIFY ALL EXISTING INFORMATION IS AS INDICATED ON SITE PLAN. CONTRACTOR IS TO ESTABLISH THE EXISTENCE AND LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES. IMMEDIATELY NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES.
2. TEP DOES NOT GUARANTEE, OR ENSURE THE PRECISION, ACCURACY OR CORRECTNESS AND ASSUMES NO RESPONSIBILITY OR LIABILITY FOR DAMAGES, LOSS OF REVENUE, OR INJURY THAT MIGHT OCCUR.
3. THE TOWER IS LOCATED IN AN ZONE "X," AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN ACCORDING TO FEMA COMMUNITY #3720152700J, DATED OCTOBER 03, 2006.



SITE PLAN

SCALE: 1" = 200'

LEGEND

- EXIST. PROPERTY LINE
- ADJ. PROPERTY LINE
- EXIST. UTILITY POLE
- EXIST. LIGHT POLE
- EXIST. HYDRANT
- EXIST. TELCO PEDESTAL
- PROPERTY CORNER
- LEASE/EASE. CORNER
- ---200--- EXIST. CONTOUR LINE
- EDGE OF PAVEMENT
- ---OHW--- OVERHEAD WIRE
- ---R/W--- RIGHT-OF-WAY
- ——X—— CHAIN LINK FENCE
- EXISTING TREE LINE

0 200 400

SCALE IN FEET

PLANS PREPARED FOR:

T-Mobile

2105 WATER RIDGE PKWY
CHARLOTTE, NC 28217

PROJECT INFORMATION:

TMO ID: 5RD0307A
ADDIE WEBB ALLTEL (LAKESIDE)
155 ADDIE WEBB LANE
DUNN, NC 28334-8776
(HARNETT COUNTY)

PLANS PREPARED BY:

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SEAL:

NORTH CAROLINA PROFESSIONAL SEAL 048226 ENGINEER SCOTT C. BRANTLEY

May 17, 2022

REV	DATE	ISSUED FOR:
0	05-17-22	100% CONSTRUCTION

DRAWN BY: VSM CHECKED BY: BSE

SHEET TITLE:

SITE PLAN

SHEET NUMBER: **C-1**

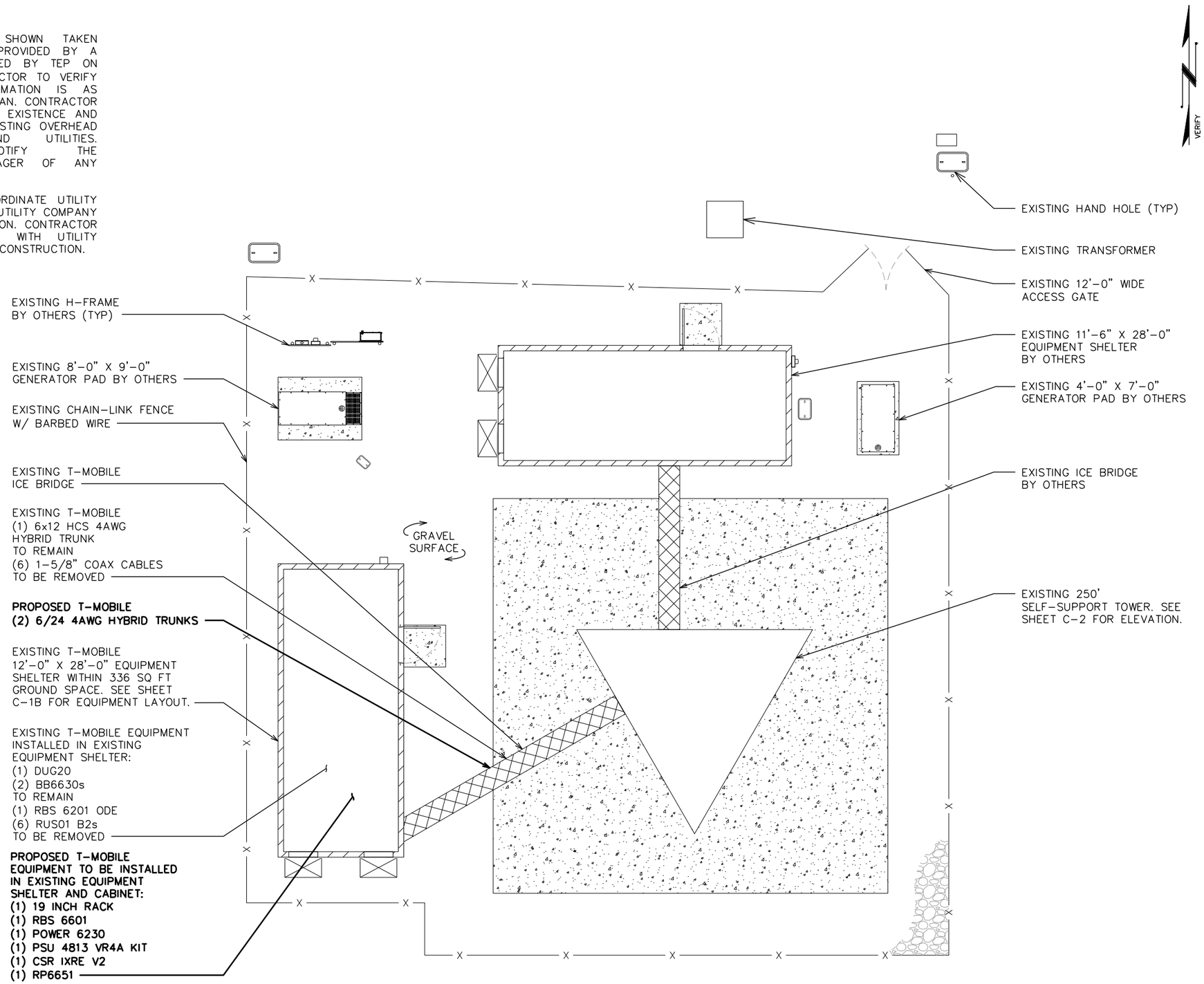
REVISION: **0**

TEP#: 129994.320357

NOTES:

1. COMPOUND DETAIL SHOWN TAKEN FROM INFORMATION PROVIDED BY A SITE WALK PERFORMED BY TEP ON 02/24/2022. CONTRACTOR TO VERIFY ALL EXISTING INFORMATION IS AS INDICATED ON SITE PLAN. CONTRACTOR IS TO ESTABLISH THE EXISTENCE AND LOCATION OF ALL EXISTING OVERHEAD AND UNDERGROUND UTILITIES. IMMEDIATELY NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES.

2. CONTRACTOR TO COORDINATE UTILITY SERVICE WITH LOCAL UTILITY COMPANY PRIOR TO CONSTRUCTION. CONTRACTOR TO VERIFY ROUTING WITH UTILITY COMPANIES PRIOR TO CONSTRUCTION.



COMPOUND DETAIL

SCALE: 1" = 10'

0 10 20

SCALE IN FEET

PLANS PREPARED FOR:

T-Mobile

2105 WATER RIDGE PKWY
CHARLOTTE, NC 28217

PROJECT INFORMATION:

TMO ID: 5RD0307A
ADDIE WEBB ALLTEL (LAKESIDE)
155 ADDIE WEBB LANE
DUNN, NC 28334-8776
(HARNETT COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
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OFFICE: (919) 661-6351
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NC LIC#: P-1403

SEAL:

NORTH CAROLINA PROFESSIONAL SEAL 048220 ENGINEER SCOTT C. BRADLEY

May 17, 2022

REV	DATE	ISSUED FOR:
0	05-17-22	100% CONSTRUCTION

DRAWN BY: VSM | CHECKED BY: BSE

SHEET TITLE:

COMPOUND DETAIL

SHEET NUMBER: **C-1A**

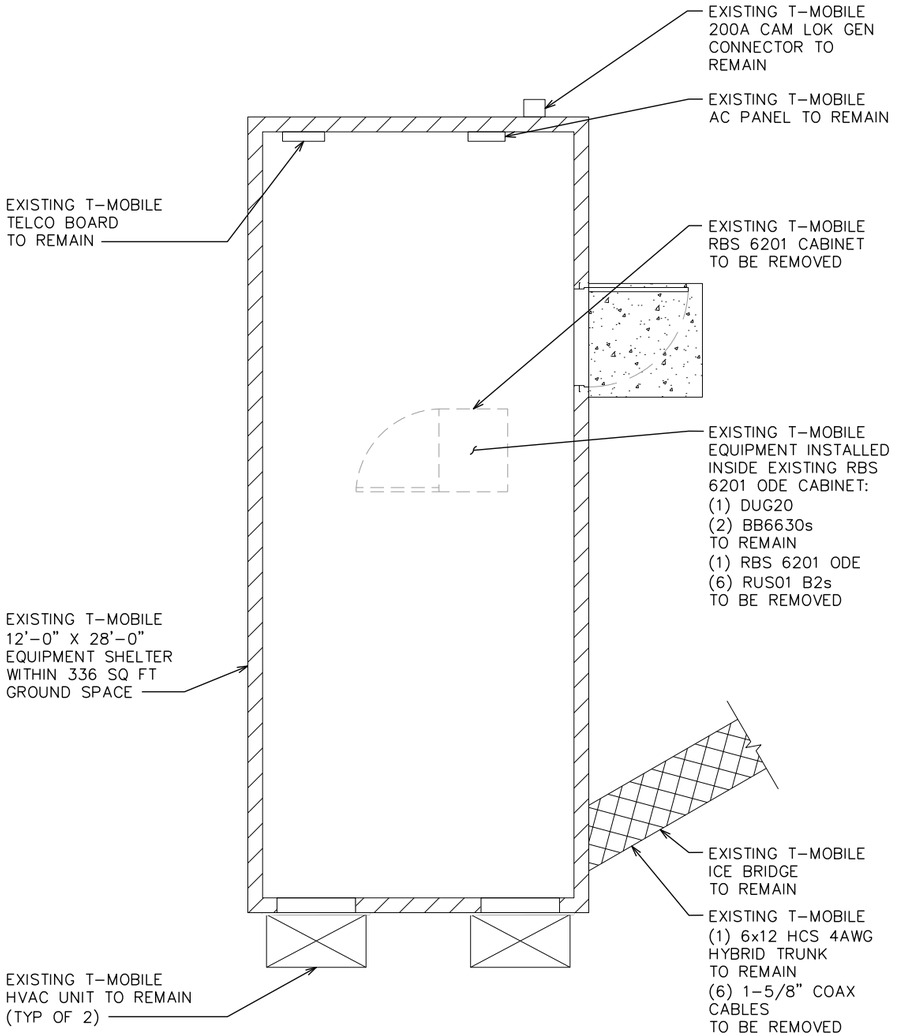
REVISION: **0**

TEP#: 129994.320357

NOTE:

LAYOUT DETAIL SHOWN BELOW TAKEN FROM SITE WALK PERFORMED BY TEP DATED 02/24/22. CONTRACTOR TO VERIFY ALL EXISTING INFORMATION IS AS INDICATED ON SITE PLAN. CONTRACTOR IS TO ESTABLISH THE EXISTENCE AND LOCATION OF ALL EXISTING OVERHEAD AND UNDERGROUND UTILITIES. IMMEDIATELY NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES.

VERIFY



EXISTING EQUIPMENT LAYOUT

SCALE: 3/16" = 1'-0"

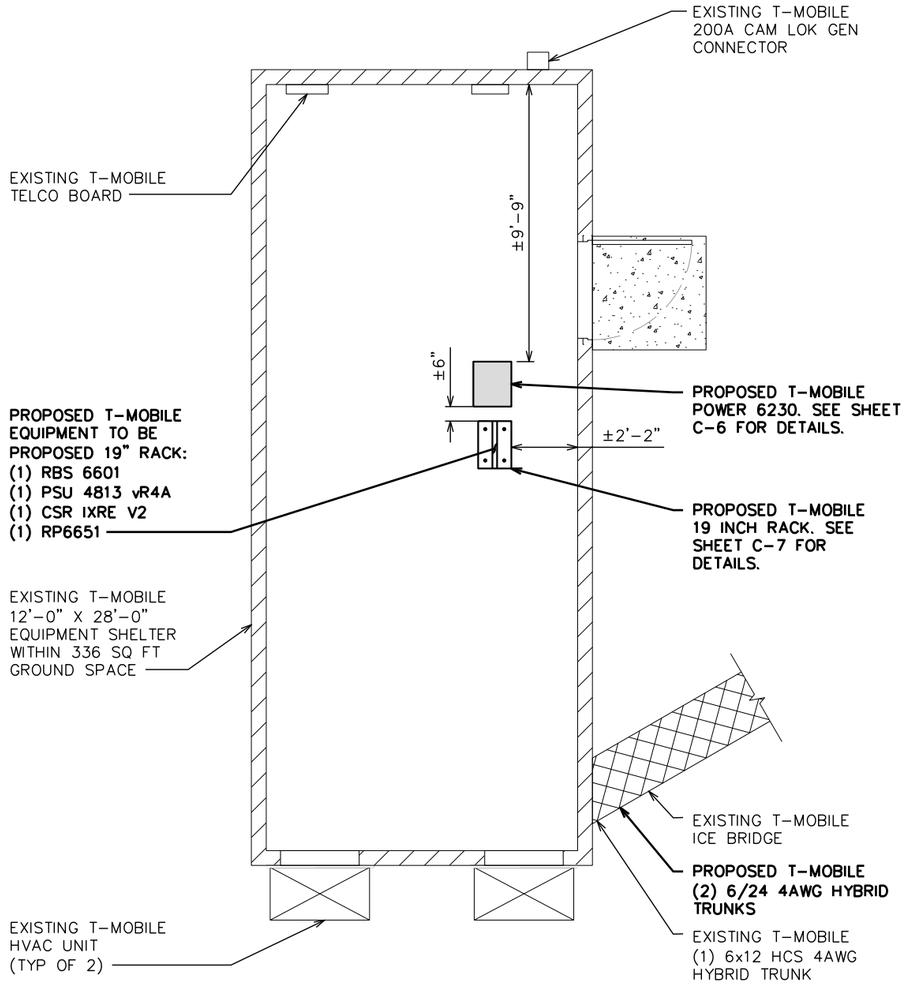
0 4 8

SCALE IN FEET

NOTES:

1. LAYOUT DETAIL SHOWN BELOW TAKEN FROM SITE WALK PERFORMED BY TEP DATED 2/22/22. CONTRACTOR TO VERIFY ALL EXISTING INFORMATION IS AS INDICATED ON SITE PLAN. CONTRACTOR IS TO ESTABLISH THE EXISTENCE AND LOCATION OF ALL EXISTING OVERHEAD AND UNDERGROUND UTILITIES. IMMEDIATELY NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES.
2. ALL RACKS AND EQUIPMENT CABINETS ARE TO HAVE TWO GROUNDING LEADS. ALL EQUIPMENT INSTALLED IN RACKS MUST HAVE A CHASSIS GROUND ATTACHED TO A COMMON BUS BAR ON THE RACK. COMMON BUS BAR MUST BE GROUNDED TO MAIN GROUND BAR. SEE G-1 FOR GROUNDING NOTES.
3. CONTRACTOR TO FOLLOW THE LATEST VERSION OF T-MOBILE REGIONAL CONSTRUCTION STANDARDS. CONTACT T-MOBILE FOR DETAILS.
4. CONTRACTOR TO ROUTE NEW POWER AND FIBER CONDUIT AROUND EDGE OF PAD TO MINIMIZE TRIP HAZARDS. SEE SHEET E-4 FOR ELECTRICAL ROUTING PLAN.

VERIFY



PROPOSED EQUIPMENT LAYOUT

SCALE: 3/16" = 1'-0"

0 4 8

SCALE IN FEET

PLANS PREPARED FOR:

T-Mobile

2105 WATER RIDGE PKWY
CHARLOTTE, NC 28217

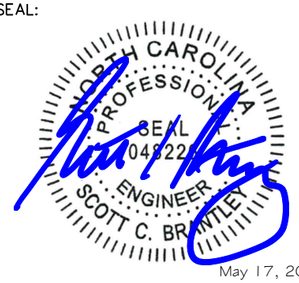
PROJECT INFORMATION:

TMO ID: 5RD0307A
ADDIE WEBB ALLTEL (LAKESIDE)
155 ADDIE WEBB LANE
DUNN, NC 28334-8776
(HARNETT COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net
NC LIC#: P-1403

SEAL:



May 17, 2022

REV	DATE	ISSUED FOR:
0	05-17-22	100% CONSTRUCTION

DRAWN BY: VSM | CHECKED BY: BSE

SHEET TITLE:

COMPOUND DETAIL

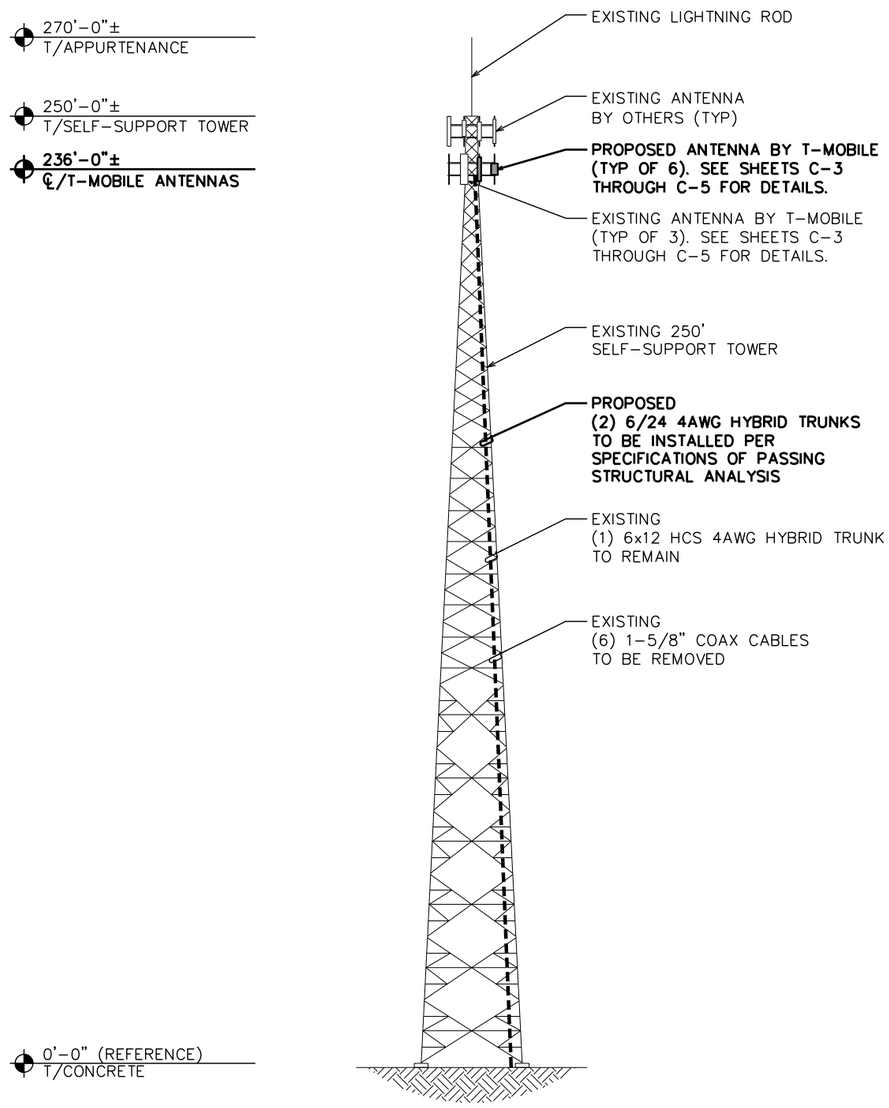
SHEET NUMBER: **C-1B**

REVISION: **0**

TEP#: 129994.320357

NOTES:

1. PROPOSED CABLES TO BE ROUTED PER SPECIFICATIONS OF PASSING STRUCTURAL ANALYSIS.
2. THE TOWER DRAWING IS ONLY A GRAPHIC REPRESENTATION OF THE STRUCTURE. THE ACTUAL TOWER IN THE FIELD MAY VARY.
3. CONTRACTOR TO VERIFY PROPOSED LOADING AND ANY LOADING TO BE REMOVED WITH PASSING STRUCTURAL ANALYSIS PRIOR TO CONSTRUCTION. CONTRACTOR TO CONTACT T-MOBILE OR TOWER OWNER IMMEDIATELY IN THE EVENT OF ANY DISCREPANCIES.



TOWER ELEVATION

SCALE: 1" = 40'

0 40 80

SCALE IN FEET

PLANS PREPARED FOR:

T-Mobile

2105 WATER RIDGE PKWY
CHARLOTTE, NC 28217

PROJECT INFORMATION:

TMO ID: 5RD0307A
ADDIE WEBB ALLTEL (LAKESIDE)
155 ADDIE WEBB LANE
DUNN, NC 28334-8776
(HARNETT COUNTY)

PLANS PREPARED BY:

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NC LIC#: P-1403

SEAL:

NORTH CAROLINA PROFESSIONAL SEAL 048226 ENGINEER SCOTT C. BRADLEY

May 17, 2022

REV	DATE	ISSUED FOR:
0	05-17-22	100% CONSTRUCTION

DRAWN BY: VSM CHECKED BY: BSE

SHEET TITLE:

TOWER ELEVATION

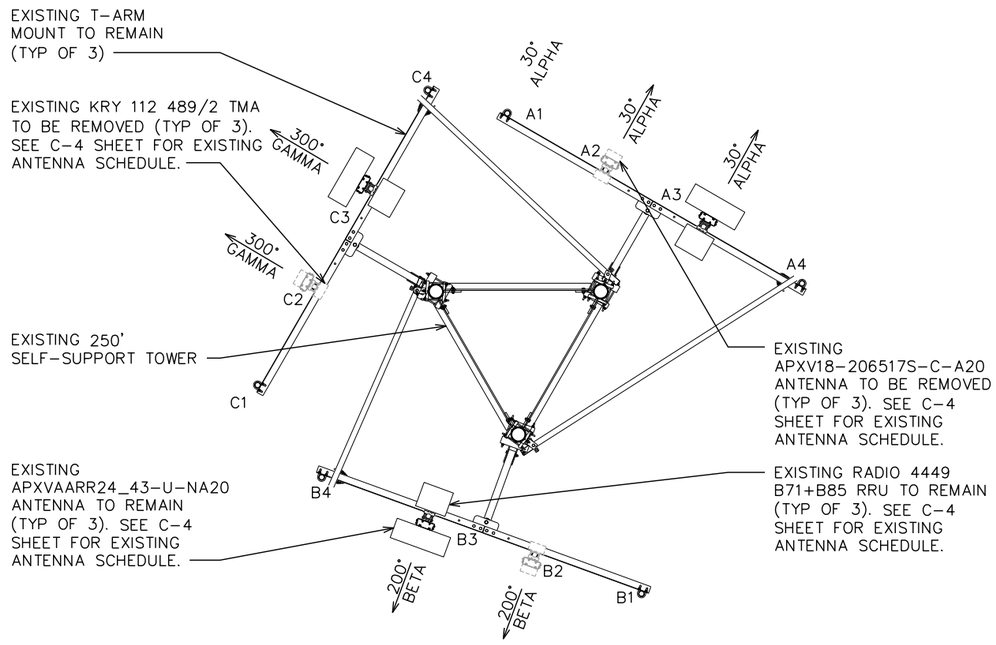
SHEET NUMBER: **C-2**

REVISION: **0**

TEP#: 129994.320357

NOTES:

1. TEP DID NOT CONFIRM THE EXISTING ANTENNA CONFIGURATION OR MOUNT CONFIGURATION.
2. ANTENNA POSITIONING SHOWN BELOW PER RFDS POSITIONING. ANTENNA LOCATIONS IN FIELD MAY VARY.



EXISTING ANTENNA PLAN AT 236'-0"

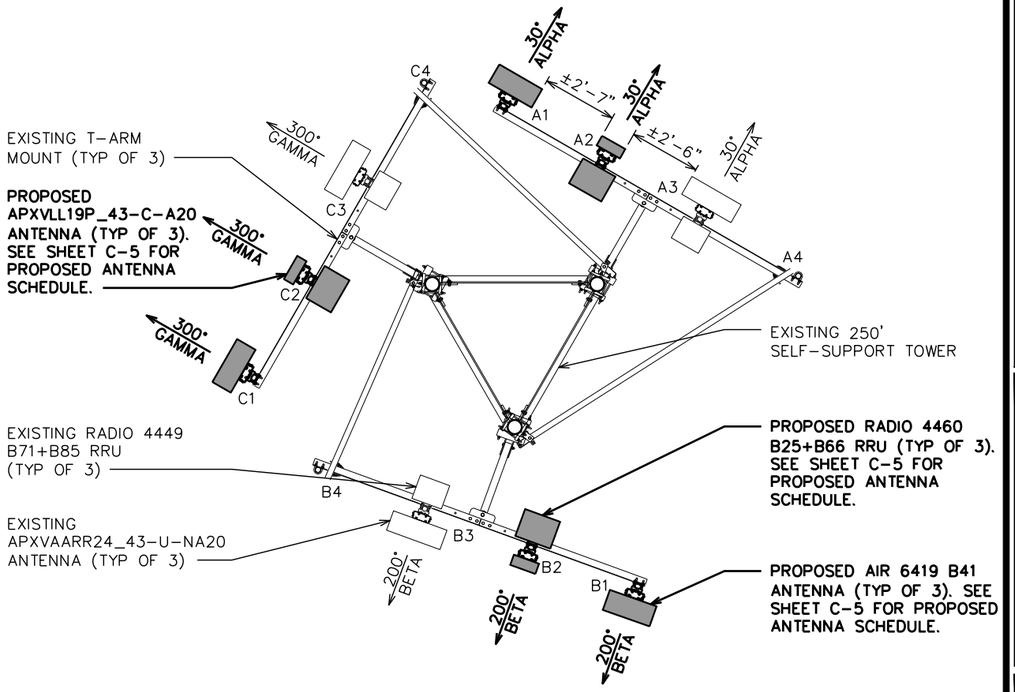
SCALE: 3/16" = 1'-0"

0 4 8

SCALE IN FEET

NOTES:

1. TEP DID NOT CONFIRM THE EXISTING ANTENNA CONFIGURATION OR MOUNT CONFIGURATION. CONTRACTOR TO CONFIRM MOUNT IS SUFFICIENT FOR PROPOSED LESSEE EQUIPMENT (I.E. CONFIRM MOUNT PIPE IS OF SUFFICIENT LENGTH). TEP DID NOT ANALYZE THE ANTENNA MOUNT TO DETERMINE ADEQUATE STRUCTURAL CAPACITY FOR ANY LOADING.
2. CONTRACTOR TO VERIFY PROPOSED LOADING WITH PASSING STRUCTURAL ANALYSIS PRIOR TO CONSTRUCTION.
3. CONTRACTOR TO ENSURE CLIMBING PATH AND SAFETY CLIMB IS UNOBSTRUCTED AT COMPLETION OF WORK.
4. ANTENNA POSITIONING SHOWN BELOW PER RFDS POSITIONING. ANTENNA LOCATIONS IN FIELD MAY VARY.



PROPOSED ANTENNA PLAN AT 236'-0"

SCALE: 3/16" = 1'-0"

0 4 8

SCALE IN FEET

PLANS PREPARED FOR:

T-Mobile

2105 WATER RIDGE PKWY
CHARLOTTE, NC 28217

PROJECT INFORMATION:

TMO ID: 5RD0307A
ADDIE WEBB ALLTEL (LAKESIDE)
155 ADDIE WEBB LANE
DUNN, NC 28334-8776
(HARNETT COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net
NC LIC#: P-1403

SEAL:

May 17, 2022

REV	DATE	ISSUED FOR:
0	05-17-22	100% CONSTRUCTION

DRAWN BY: VSM | CHECKED BY: BSE

SHEET TITLE:

ANTENNA PLAN

SHEET NUMBER: **C-3**

REVISION: **0**

TEP#: 129994.320357

NOTE:

THE EXISTING ANTENNA SCHEDULE IS BASED ON THE T-MOBILE ISSUED RFDS, LOCATIONS IN FIELD MAY VARY. NOTIFY T-MOBILE IMMEDIATELY OF ANY DISCREPANCIES.

EXISTING ANTENNA/CABLE SCHEDULE
67D04G_1DP+1OP SITE CONFIGURATION

POS.	SECTOR	MANUFACTURER (MODEL #)	MOUNTING HEIGHT	AZIMUTH (TN)	MECH. TILT	FEEDLINE SIZE	FEEDLINE LENGTH	EQUIPMENT [MODEL #]
A1	ALPHA	–	℄ @ 236'-0"	–	–	(1) 6X12 HCS 4AWG HYBRID TRUNK *(6) 1-5/8" COAX CABLE	100m 256'	–
A2	ALPHA	*RFS APXV18-206517S-C-A20		30°	0°			*(1) ERICSSON TMA [KRY 112 489/2]
A3	ALPHA	RFS APXVAARR24_43-U-NA20		30°	0°			(1) ERICSSON RRU [RADIO 4449 B71+B85]
A4	ALPHA	–		–	–			–
B1	BETA	–		–	–			–
B2	BETA	*RFS APXV18-206517S-C-A20		200°	0°			*(1) ERICSSON TMA [KRY 112 489/2]
B3	BETA	RFS APXVAARR24_43-U-NA20		200°	0°			(1) ERICSSON RRU [RADIO 4449 B71+B85]
B4	BETA	–		–	–			–
C1	GAMMA	–		–	–			–
C2	GAMMA	*RFS APXV18-206517S-C-A20		300°	0°			*(1) ERICSSON TMA [KRY 112 489/2]
C3	GAMMA	RFS APXVAARR24_43-U-NA20		300°	0°			(1) ERICSSON RRU [RADIO 4449 B71+B85]
C4	GAMMA	–		–	–			–

*NOTE: EXISTING EQUIPMENT TO BE REMOVED

EXISTING ANTENNA & CABLE SCHEDULE

SCALE: N.T.S.

PLANS PREPARED FOR:

T-Mobile

2105 WATER RIDGE PKWY
CHARLOTTE, NC 28217

PROJECT INFORMATION:

TMO ID: 5RD0307A
ADDIE WEBB ALLTEL (LAKESIDE)

155 ADDIE WEBB LANE
DUNN, NC 28334-8776
(HARNETT COUNTY)

PLANS PREPARED BY:

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NC LIC#: P-1403

SEAL:

May 17, 2022

REV	DATE	ISSUED FOR:
0	05-17-22	100% CONSTRUCTION

DRAWN BY: VSM | CHECKED BY: BSE

SHEET TITLE:

EXISTING ANTENNA & CABLE SCHEDULE

SHEET NUMBER: **C-4**

REVISION: **0**

TEP#: 129994.320357

NOTES:

1. CONTRACTOR TO REFERENCE T–MOBILE ISSUED RFDS AND GIVE PRECEDENCE TO INFORMATION PROVIDED IN RFDS OVER INFORMATION PROVIDED IN THIS TABLE.
2. CONTRACTOR TO VERIFY PROPOSED LOADING WITH PASSING STRUCTURAL ANALYSIS PRIOR TO CONSTRUCTION AND CONTACT T–MOBILE IN THE EVENT OF ANY DISCREPANCIES.
3. IF STRUCTURAL ANALYSIS AND RFDS DO NOT MATCH CONTRACTOR IS TO CONTACT T–MOBILE IMMEDIATELY.
4. 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.
5. THE CONTRACTOR SHALL TEST THE OPTICAL FIBER AFTER INSTALLATION IN ACCORDANCE WITH T–MOBILE STANDARDS AND SUPPLY THE RESULTS TO T–MOBILE.
6. ALL EXISTING AND PROPOSED ANTENNA CABLES SHALL BE COLOR CODED PER T–MOBILE MARKET STANDARDS.
7. REFER TO EQUIPMENT MANUFACTURER'S SPECIFICATION SHEETS FOR ADDITIONAL INFORMATION.

PROPOSED EQUIPMENT IN BOLD

PROPOSED ANTENNA/CABLE SCHEDULE: 67D5998E_1XAIR+1OP+1QP SITE CONFIGURATION

POS.	SECTOR	MANUFACTURER (MODEL #)	MOUNTING HEIGHT	AZIMUTH (TN)	MECH. TILT	FEEDLINE SIZE	FEEDLINE LENGTH	EQUIPMENT [MODEL #]
A1	ALPHA	**ERICSSON AIR6419 B41**	℄ @ 236'–0"	**30°**	**0°**	(1) 6x12 HCS 4AWG HYBRID TRUNK **(2) 6/24 4AWG HYBRID TRUNKS**	100m **100m**	–
A2	ALPHA	**RFS APXVLL19P_43–C–A20**		**30°**	**0°**			**(1) ERICSSON RRU [RADIO 4460 B25+B66]**
A3	ALPHA	RFS APXVAARR24_43–U–NA20		30°	0°			(1) ERICSSON RRU [RADIO 4449 B71+B85]
A4	ALPHA	–		–	–			–
B1	BETA	**ERICSSON AIR6419 B41**		**200°**	**0°**			–
B2	BETA	**RFS APXVLL19P_43–C–A20**		**200°**	**0°**			**(1) ERICSSON RRU [RADIO 4460 B25+B66]**
B3	BETA	RFS APXVAARR24_43–U–NA20		200°	0°			(1) ERICSSON RRU [RADIO 4449 B71+B85]
B4	BETA	–		–	–			–
C1	GAMMA	**ERICSSON AIR6419 B41**		**300°**	**0°**			–
C2	GAMMA	**RFS APXVLL19P_43–C–A20**		**300°**	**0°**			**(1) ERICSSON RRU [RADIO 4460 B25+B66]**
C3	GAMMA	RFS APXVAARR24_43–U–NA20		300°	0°			(1) ERICSSON RRU [RADIO 4449 B71+B85]
C4	GAMMA	–		–	–			–

PROPOSED ANTENNA & CABLE SCHEDULE

SCALE: N.T.S.

PLANS PREPARED FOR:

T-Mobile

2105 WATER RIDGE PKWY
CHARLOTTE, NC 28217

PROJECT INFORMATION:

TMO ID: 5RD0307A
ADDIE WEBB ALLTEL (LAKESIDE)
155 ADDIE WEBB LANE
DUNN, NC 28334–8776
(HARNETT COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net
NC LIC#: P-1403

SEAL:

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 048226 SCOTT C. BRADLEY

May 17, 2022

REV	DATE	ISSUED FOR:
0	05-17-22	100% CONSTRUCTION

DRAWN BY: VSM | CHECKED BY: BSE

SHEET TITLE:
PROPOSED ANTENNA & CABLE SCHEDULE

SHEET NUMBER: **C-5**

REVISION: **0**

TEP#: 129994.320357

NOTES:

INFORMATION SHOWN PROVIDED BY T-MOBILE.
CONTRACTOR TO REFERENCE CABINET MANUFACTURER'S SPECIFICATIONS FOR FURTHER DETAILS.

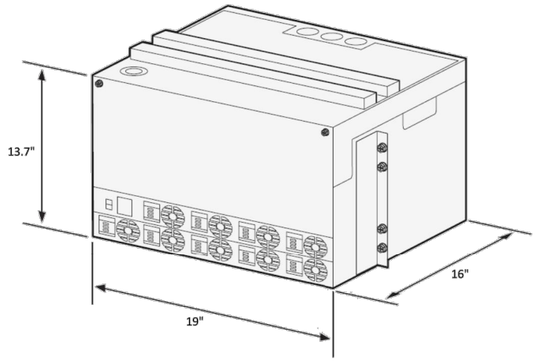

Figure 1

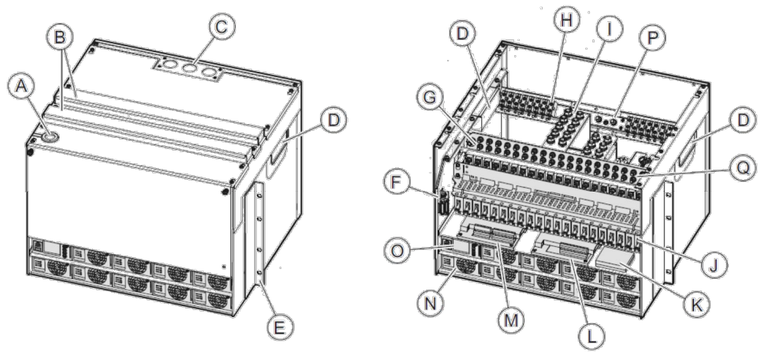

Figure 2

Feature	Unit
A	Alarm circuit breaker cable, temperature sensor, SCU power cable
B	Cable routing
C	AC cable interface
D	Battery cable inlet
E	Adaptor bracket for wall mounting kit
F	RTN alarm
G	0 V bus bar DC connection
H	AC input
I	0 V/RTN for battery cables
J	DC distribution circuit breaker
K	DC SPD
L	Extended interface board (EIB)
M	Interface board (IB2)
N	Rectifier
O	Power controller unit (PCU)
P	AC grounding
Q	-48 VDC distribution

The general specifications for the 6230 DC power system are as follows:

Mechanical Specification	
Weight	52.8 lbs.
Dimensions (H x W x D)	13.7" x 19" x 16"
Mounting position	On top of battery rack
Color	Gray, NCS 2002-B (RAL 7035)
Power System	
Input voltage	3W+N+PE: 346/200-415/240 VAC 2W+N+PE: 208/120-220/127 VAC 1W+N+PE: 200-250 VAC Range 85 – 300 VAC
Line frequency	45 – 65 Hz
Maximum input current	155 A (load and batteries) 103 A (load only)
Input power	<33 kW
Output load (-48 VDC)	24 kW
Total capacity (-48 VDC)	31.5 kW
DC Output voltage	Nominal: -48 VDC; Range: -42.3 to -57.6 VDC
DC Output power	24 kW to load, 7.5 kW to batteries
AC SPD	Class 2 / Type 2
PSU slots	9
Rectifier efficiency	96%
Priority load disconnect	8 circuit breakers
Low voltage disconnect 1	6 circuit breakers
Low voltage disconnect 2	6 circuit breakers
Avail Circuit breaker ratings	3A, 5A, 10A, 15A, 20A, 25A, 30A, 40A, 50A, 60A, 80A, 100A, 200A
Battery interface	2 circuit breakers
Battery circuit breaker rating	125 A 2 pol (200 A)
PSU capacity	3500 watts
Operating Environmental	
Operation	-40°C to +55°C; 0-90% non-condensing relative humidity
Transportation	-40°C to +70°C; 0-90% non-condensing relative humidity
Storage	-40°C to +55°C; 0-90% non-condensing relative humidity
Acoustic Noise	
Max @ +45°F ambient	< 65 dB
Remote Management	
External alarms	32
Fault management	Following alarms are sent to ENM:
	- Battery temperature sensors missing/faulty
	- AC mains failure per rectifier
	- Rectifier over temperature alarm
	- Battery circuit breaker trip
	- Load circuit breaker trip
	- Rectifier failure
	- Battery not possible to charge
	- External alarms
	- LVD/BLVD disconnect
Performance Management	Following data is sent to ENM:
	- System voltage
	- System current
	- System power
	- Total delivered energy
	- Battery temperature
	- Battery voltage
	- Battery current
	- Battery state of charge
	- Rectifier output voltage
	- Rectifier output current
	- Rectifier input voltage
	- Rectifier run time
Configuration Management	Following parameters can be set remotely from ENM
	- Float charge voltage
	- Elevated charge voltage
	- Battery disconnect voltage
	- Load disconnect voltage
	- Temperature compensation
	- Battery capacity
	- Alarm limits for all analogue values
	- Rectifier current limit
	- Battery temperature sensors
	- State of health test
	- Compensation factor
	- Charging algorithm, float, temp comp, boost, equalization
Inventory Management	Inventory record in Cabinet Controller can be fetched remotely
	- Cabinet controller
	- Power controller
	- Rectifiers
	- Cabinet
	- Battery test record

ERICSSON POWER 6230 DETAILS

SCALE: N.T.S.

PLANS PREPARED FOR:

T-Mobile

2105 WATER RIDGE PKWY
CHARLOTTE, NC 28217

PROJECT INFORMATION:

TMO ID: 5RD0307A
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155 ADDIE WEBB LANE
DUNN, NC 28334-8776
(HARNETT COUNTY)

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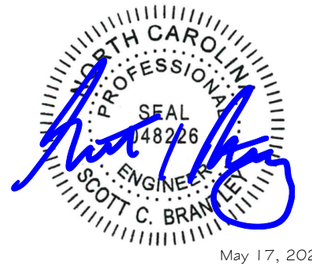

May 17, 2022

REV	DATE	ISSUED FOR:
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DRAWN BY: VSM | CHECKED BY: BSE

SHEET TITLE:

CABINET DETAILS

SHEET NUMBER: **C-6**

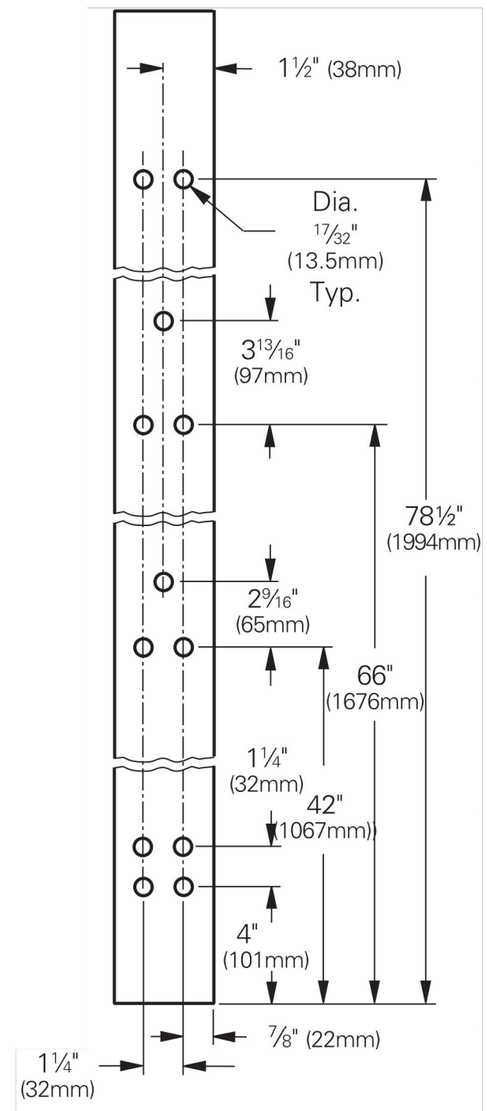
REVISION: **0**

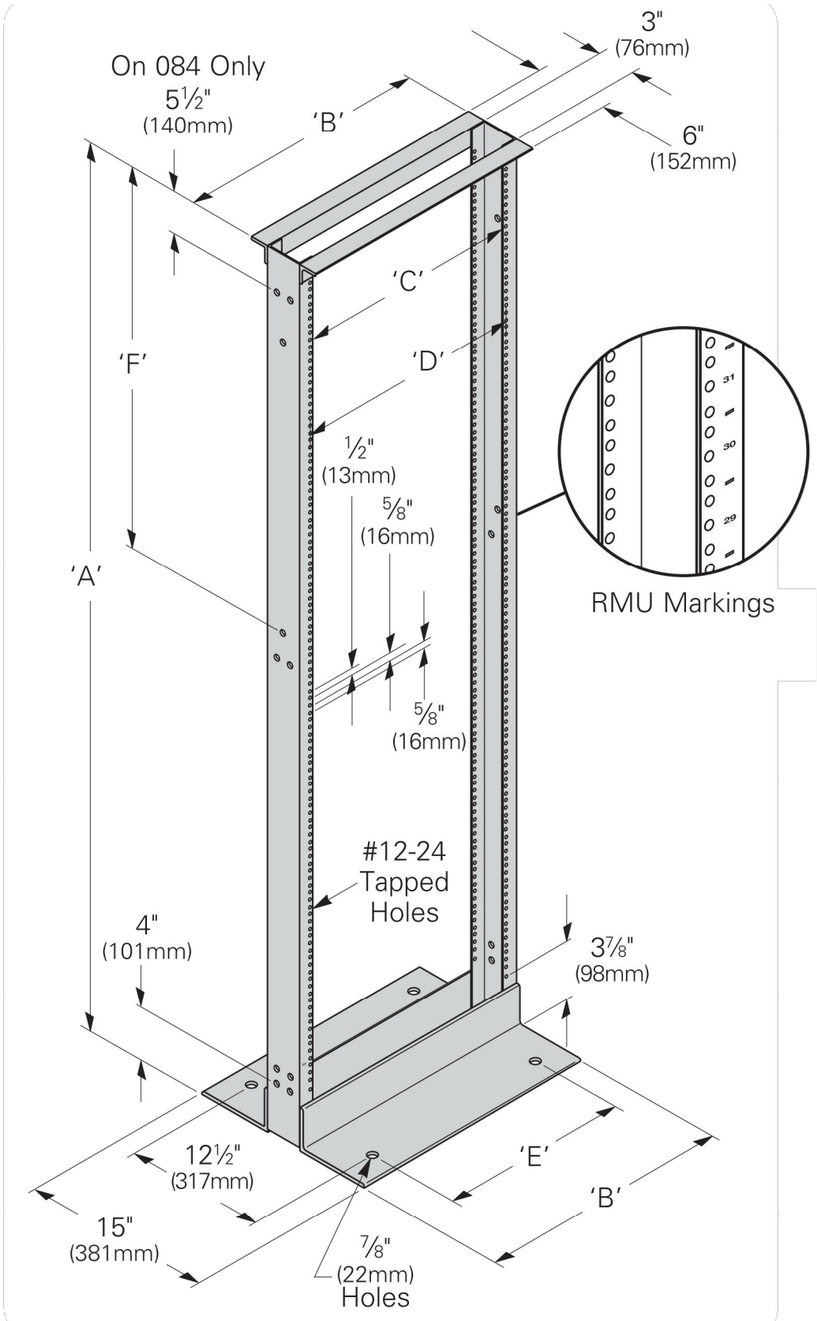
TEP#: 129994.320357

NOTES:

INFORMATION SHOWN PROVIDED BY T-MOBILE.
CONTRACTOR TO REFERENCE CABINET MANUFACTURER'S SPECIFICATIONS FOR FURTHER DETAILS.

Junction Hole Pattern for 84" tall rails





ERICSSON 19" RACK DETAILS

SCALE: N.T.S.

PLANS PREPARED FOR:

T-Mobile

2105 WATER RIDGE PKWY
CHARLOTTE, NC 28217

PROJECT INFORMATION:

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155 ADDIE WEBB LANE
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SEAL:

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DRAWN BY: VSM CHECKED BY: BSE

SHEET TITLE:

CABINET DETAILS

SHEET NUMBER: **C-7**

REVISION: **0**

TEP#: 129994.320357

ELECTRICAL NOTES:

SCOPE:

1. PROVIDE LABOR, MATERIALS, INSPECTION, AND TESTING TO PROVIDE CODE COMPLIANCE FOR ELECTRIC, TELEPHONE, AND GROUNDING/LIGHTNING SYSTEMS.

CODES:

1. THE INSTALLATION SHALL COMPLY WITH APPLICABLE LAWS AND CODES. THESE INCLUDE BUT ARE NOT LIMITED TO THE LATEST ADOPTED EDITIONS OF:
   A. THE NATIONAL ELECTRICAL SAFETY CODE
   B. THE NATIONAL ELECTRIC CODE – NFPA–70
   C. REGULATIONS OF THE SERVING UTILITY COMPANY
   D. LOCAL AND STATE AMENDMENTS
   E. THE INTERNATIONAL ELECTRIC CODE – IEC (WHERE APPLICABLE)
2. PERMITS REQUIRED SHALL BE OBTAINED BY THE CONTRACTOR.
3. AFTER COMPLETION AND FINAL INSPECTION OF THE WORK, THE OWNER SHALL BE FURNISHED A CERTIFICATE OF COMPLETION AND APPROVAL.

TESTING:

1. UPON COMPLETION OF THE INSTALLATION, OPERATE AND ADJUST THE EQUIPMENT AND SYSTEMS TO MEET SPECIFIED PERFORMANCE REQUIREMENTS. THE TESTING SHALL BE DONE BY QUALIFIED PERSONNEL.

GUARANTEE:

1. IN ADDITION TO THE GUARANTEE OF THE EQUIPMENT BY THE MANUFACTURER, EACH PIECE OF EQUIPMENT SPECIFIED HEREIN SHALL ALSO BE GUARANTEED FOR DEFECTS OF MATERIAL OR WORKMANSHIP OCCURRING DURING A PERIOD OF ONE (1) YEAR FROM FINAL ACCEPTANCE OF THE WORK BY THE OWNER AND WITHOUT EXPENSE TO THE OWNER.
2. THE WARRANTEE CERTIFICATES & GUARANTEES FURNISHED BY THE MANUFACTURERS SHALL BE TURNED OVER TO THE OWNER.

UTILITY CO-ORDINATION:

1. CONTRACTOR SHALL COORDINATE WORK WITH THE POWER AND TELEPHONE COMPANIES AND SHALL COMPLY WITH THE SERVICE REQUIREMENTS OF EACH UTILITY COMPANY.

EXAMINATION OF SITE:

1. PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL VISIT THE SITE OF THE JOB AND SHALL FAMILIARIZE HIMSELF WITH THE CONDITIONS AFFECTING THE PROPOSED ELECTRICAL INSTALLATION AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. FAILURE TO COMPLY WITH THE INTENT OF THIS SECTION WILL IN NO WAY RELIEVE THE CONTRACTOR OF PERFORMING THE WORK NECESSARY FOR A COMPLETE AND WORKING SYSTEM OR SYSTEMS.

CUTTING, PATCHING AND EXCAVATION:

1. COORDINATION OF SLEEVES, CHASES, ETC., BETWEEN SUBCONTRACTORS WILL BE REQUIRED PRIOR TO THE CONSTRUCTION OF ANY PORTION OF THE WORK. CUTTING AND PATCHING OF WALLS, PARTITIONS, FLOORS, AND CHASES IN CONCRETE, WOOD, STEEL OR MASONRY SHALL BE DONE AS PROVIDED ON THE DRAWINGS.
2. NECESSARY EXCAVATIONS AND BACKFILLING INCIDENTAL TO THE ELECTRICAL WORK SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWING.
3. SEAL PENETRATIONS THROUGH RATED WALLS, FLOORS, ETC., WITH APPROVED METHOD AS LISTED BY UL.

RACEWAYS / CONDUITS GENERAL:

1. CONDUCTORS SHALL BE INSTALLED IN LISTED RACEWAYS. CONDUIT SHALL BE RIGID STEEL, EMT, SCH40 PVC, OR SCH80PVC AS INDICATED ON THE DRAWINGS. THE RACEWAY SYSTEM SHALL BE COMPLETE COMPLETE BEFORE INSTALLING CONDUCTORS.
2. EXTERIOR RACEWAYS AND GROUNDING SLEEVES SHALL BE SEALED AT POINTS OF ENTRANCE AND EXIT. THE RACEWAY SYSTEM SHALL BE BONDED PER NEC.

EXTERIOR CONDUIT:

1. EXPOSED CONDUIT SHALL BE NEATLY INSTALLED AND RUN PARALLEL OR PERPENDICULAR TO STRUCTURAL ELEMENTS. SUPPORTS AND MOUNTING HARDWARE SHALL BE HOT DIPPED GALVANIZED STEEL.
2. WHERE INSTALLED ON EXTERIOR STRUCTURES OR EXPOSED TO DAMAGE, THE CONDUIT SHALL BE RIGID STEEL.
3. UNDERGROUND CONDUITS SHALL BE RIGID STEEL, SCH40 PVC, OR SCH80 PVC AS INDICATED ON THE DRAWINGS.
4. BURIAL DEPTH OF CONDUITS SHALL BE AS REQUIRED BY CODE FOR EACH SPECIFIC CONDUIT TYPE AND APPLICATION, BUT SHALL NOT BE LESS THAN THE FROST DEPTH AT THE SITE.
5. CONDUIT ROUTES ARE SCHEMATIC. CONTRACTOR SHALL FIELD VERIFY ROUTES BEFORE BID. COORDINATE ROUTE WITH WIRELESS CARRIER AND/OR BUILDING OWNER.

INTERIOR CONDUIT:

1. CONCEALED CONDUIT IN WALLS OR INTERIOR SPACES ABOVE GRADE MAY BE PVC OR EMT.
2. CONDUIT RUNS SHALL USE APPROVED COUPLINGS AND CONNECTORS. PROVIDE INSULATED BUSHING FOR ALL CONDUIT TERMINATIONS. CONDUIT RUNS IN A WET LOCATION SHALL HAVE WATERPROOF FITTINGS.
3. PROVIDE SUPPORTS FOR CONDUITS IN ACCORDANCE WITH NEC REQUIREMENTS. CONDUITS SHALL BE SIZED AS REQUIRED BY NEC.

EQUIPMENT:

1. DISCONNECT SWITCHES SHALL BE SERVICE ENTRANCE RATED, HEAVY DUTY TYPE.
2. CONTRACTOR SHALL VERIFY MAXIMUM AVAILABLE FAULT CURRENT AND COORDINATE INSTALLATION WITH THE LOCAL UTILITY BEFORE STARTING WORK. CONTRACTOR WILL VERIFY THAT EXISTING CIRCUIT BREAKERS ARE RATED FOR MORE THAN AVAILABLE FAULT CURRENT AND REPLACE AS NECESSARY.
3. NEW CIRCUIT BREAKERS SHALL BE RATED TO WITHSTAND THE MAXIMUM AVAILABLE FAULT CURRENT AS DETERMINED BY THE LOCAL UTILITY.

CONDUCTORS:

1. FURNISH AND INSTALL CONDUCTORS SPECIFIED IN THE DRAWINGS. CONDUCTORS SHALL BE COPPER AND SHALL HAVE TYPE THWN (MIN) (75° C) INSULATION, RATED FOR 600 VOLTS.
2. THE USE OF ALUMINUM CONDUCTORS SHALL BE LIMITED TO THE SERVICE FEEDERS INSTALLED BY THE UTILITY.
3. CONDUCTORS SHALL BE PROVIDED AND INSTALLED AS FOLLOWS:
   A. MINIMUM WIRE SIZE SHALL BE #12 AWG.
   B. CONDUCTORS SIZE #8 AND LARGER SHALL BE STRANDED. CONDUCTORS SIZED #10 AND #12 MAY BE SOLID OR STRANDED.
   C. CONNECTION FOR #10 AWG #12 AWG SHALL BE BY TWISTING TIGHT AND INSTALLING INSULATED PRESSURE OR WIRE NUT CONNECTIONS.
   D. CONNECTION FOR #8 AWG AND LARGER SHALL BE BY USE OF STEEL CRIMP–ON SLEEVES WITH NYLON INSULATOR.
3. CONDUCTORS SHALL BE COLOR CODED IN ACCORDANCE WITH NEC STANDARDS.

UL COMPLIANCE:

1. ELECTRICAL MATERIALS, DEVICES, CONDUCTORS, APPLIANCES, AND EQUIPMENT SHALL BE LABELED/LISTED BY UL OR ACCEPTED BY JURISDICTION (I.E., LOCAL COUNTY OR STATE) APPROVED THIRD PARTY TESTING AGENCY.

GROUNDING:

1. ELECTRICAL NEUTRALS, RACEWAYS AND NON–CURRENT CARRYING PARTS OF ELECTRICAL EQUIPMENT AND ASSOCIATED ENCLOSURES SHALL BE GROUNDED IN ACCORDANCE WITH NEC ARTICLE 250. THIS SHALL INCLUDE NEUTRAL CONDUCTORS, CONDUITS, SUPPORTS, CABINETS, BOXES, GROUND BUSSES, ETC. THE NEUTRAL CONDUCTOR FOR EACH SYSTEM SHALL BE GROUNDED AT A SINGLE POINT.
2. PROVIDE GROUND CONDUCTOR IN RACEWAYS PER NEC.
3. PROVIDE BONDING AND GROUND TO MEET NFPA 780 – "LIGHTNING PROTECTION" AS A MINIMUM.
4. PROVIDE GROUNDING SYSTEM AS INDICATED ON THE DRAWINGS, AS REQUIRED BY THE NATIONAL ELECTRIC CODE, RADIO EQUIPMENT MANUFACTURERS, AND MOTOROLA R56 (AS APPLICABLE).

ABBREVIATIONS AND LEGEND

A	–	AMPERE
AFG	–	ABOVE FINISHED GRADE
ATS	–	AUTOMATIC TRANSFER SWITCH
AWG	–	AMERICAN WIRE GAUGE
BCW	–	BARE COPPER WIRE
BFG	–	BELOW FINISHED GRADE
BKR	–	BREAKER
C	–	CONDUIT
CKT	–	CIRCUIT
DISC	–	DISCONNECT
EGR	–	EXTERNAL GROUND RING
EMT	–	ELECTRIC METALLIC TUBING
FSC	–	FLEXIBLE STEEL CONDUIT
GEN	–	GENERATOR
GPS	–	GLOBAL POSITIONING SYSTEM
GRD	–	GROUND
IGB	–	ISOLATED GROUND BAR
IGR	–	INTERIOR GROUND RING (HALO)
KW	–	KILOWATTS
NEC	–	NATIONAL ELECTRIC CODE
PCS	–	PERSONAL COMMUNICATION SYSTEM
PH	–	PHASE
PNL	–	PANEL
PNLBD	–	PANELBOARD
PVC	–	RIGID NON–METALLIC CONDUIT
RGS	–	RIGID GALVANIZED STEEL CONDUIT
SW	–	SWITCH
TGB	–	TOWER GROUND BAR
UL	–	UNDERWRITERS LABORATORIES
V	–	VOLTAGE
W	–	WATTS
XFMR	–	TRANSFORMER
XMTR	–	TRANSMITTER

——E——	UNDERGROUND ELECTRICAL CONDUIT
——T——	UNDERGROUND TELEPHONE CONDUIT
	KILOWATT–HOUR METER
	UNDERGROUND BONDING AND GROUNDING CONDUCTOR.
⌀	GROUND ROD
●	CADWELD
⊠	GROUND ROD WITH INSPECTION WELL

PLANS PREPARED FOR:

T-Mobile

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CHARLOTTE, NC 28217

PROJECT INFORMATION:

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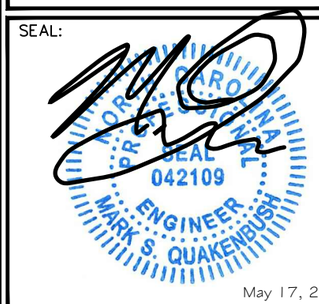

May 17, 2022

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DRAWN BY: VSM | CHECKED BY: BSE

SHEET TITLE:

ELECTRICAL NOTES

SHEET NUMBER: **E-1**

REVISION: **0**

TEP#: 129994.320357

ONE-LINE DIAGRAM NOTES:

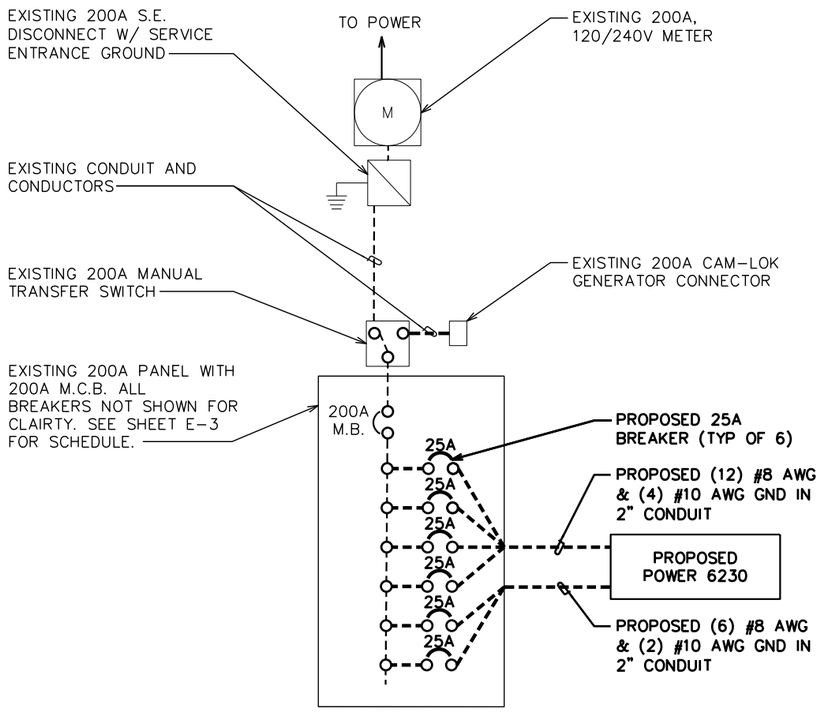
1. ELECTRICAL SERVICE IS: 200A, 120/240V, 1ø, 3W.
2. FOR COMPLETE INTERNAL WIRING AND ARRANGEMENT, REFER TO VENDOR PRINTS PROVIDED BY EQUIPMENT MANUFACTURER.

UTILITY NOTES:

1. CONTRACTOR SHALL VERIFY AVAILABLE FAULT CURRENT WITH POWER COMPANY AND ENSURE ALL ELECTRICAL EQUIPMENT IS SUITABLE FOR AVAILABLE FAULT CURRENT.
2. CONTRACTOR SHALL COORDINATE UTILITY SERVICES WITH LOCAL UTILITY COMPANIES. VERIFY ALL REQUIREMENTS WITH UTILITY COMPANY STANDARDS.
3. ONE-LINE DIAGRAM IS FOR SCHEMATIC PURPOSES ONLY AND IS NOT INDICATIVE OF THE ACTUAL EQUIPMENT LAYOUT.
4. ALL EQUIPMENT WILL HAVE A MINIMUM AIC OF 10 KA. CONTRACTOR TO DETERMINE AVAILABLE FAULT CURRENT BEFORE ENERGIZING EQUIPMENT. THE AMOUNT OF AVAILABLE FAULT CURRENT SHALL BE MARKED ON THE SERVICE EQUIPMENT PER NEC 110.24.
5. CONTRACTOR SHALL NOTIFY UTILITY COMPANY OF CHANGES IN ELECTRICAL LOAD.
6. CONTRACTOR TO VERIFY EXISTING CONDUIT(S) SIZE(S) PRIOR TO CONSTRUCTION AND MAY REUSE EXISTING CONDUIT(S) IF THEY MEET THE MINIMUM REQUIREMENTS PER NEC CODE.
7. GROUNDING ELECTRODE CONDUCTOR SIZE FOR SINGLE 200A SERVICE ONLY. IF METER SHARES A COMMON NEUTRAL/GROUND POINT, CONTRACTOR SHALL INSTALL (1) 3/0 COPPER GEC INSTEAD.

UL NOTE:

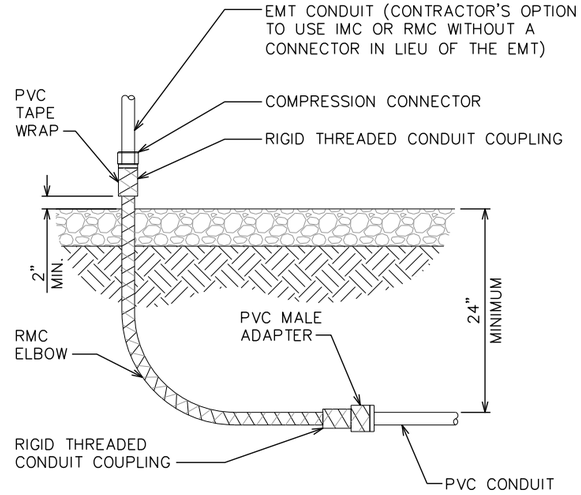
ELECTRICAL MATERIALS, DEVICES, CONDUCTORS, APPLIANCES AND EQUIPMENT SHALL BE LABELED/LISTED BY UL OR ACCEPTED BY JURISDICTION (I.E.: LOCAL COUNTY OR STATE) APPROVED THIRD PARTY TESTING AGENCY



ONE-LINE DIAGRAM

SCALE: N.T.S.

NOTE:
ALL METAL CONDUIT INSTALLED IN DIRECT CONTACT WITH THE EARTH SHALL BE CONSIDERED TO BE INSTALLED IN A SEVERELY CORROSIVE ENVIRONMENT AND IS REQUIRED TO HAVE SUPPLEMENTAL PROTECTION AGAINST CORROSION (NEC ARTICLE 342.10(B) & 344.10(B)(1)). THIS PROTECTION SHALL EITHER BE AN APPROVED MANUFACTURER INSTALLED PROTECTIVE COATING ON THE CONDUIT OR SHALL BE (2) LAYERS OF 10 MIL PVC PIPE WRAP TAPE INSTALLED USING OPPOSING SPIRAL WRAPS. ON VERTICAL PIPE THE OUTSIDE LAYER OF TAPE SHALL BE WRAPPED SO AS TO PROVIDE SHEDDING OF WATER (I.E., TAPE SHOULD WRAP IN AN UPWARD DIRECTION WITH LOWER WRAP BEING BENEATH THE WRAP ABOVE). SPIRAL WRAPS SHALL HAVE A MINIMUM OF ¼" OVERLAP WITH THE PRECEDING TAPE WRAP. ANY OTHER METHODS OF CORROSION PROTECTION SHALL REQUIRE APPROVAL BY THE ENGINEER OF RECORD PRIOR TO BEING USED.

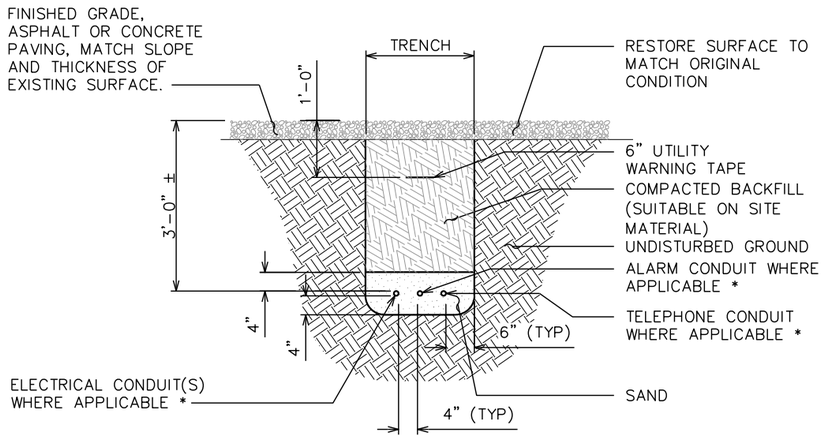


UNDERGROUND CONDUIT STUB UP DETAIL

SCALE: N.T.S.

TRENCHING NOTES:

1. ACTUAL SEPARATION OF CONDUITS TO BE DETERMINED BY SITE SPECIFIC REQUIREMENTS.
2. UNDERGROUND CONDUIT TRENCH TO BE LOCATED AS CLOSE TO COMPOUND FENCE AS POSSIBLE WITHOUT COMPROMISING THE INTEGRITY OF THE FENCE.
3. PROVIDE PVC CONDUIT BELOW GRADE EXCEPT AS NOTED BELOW.
4. PROVIDED RGS CONDUIT AND ELBOWS AT STUB-UP LOCATIONS (I.E. SERVICE POLES, EQUIPMENT, ETC.)
5. PROVIDE RGS CONDUIT FOR INSTALLATIONS BELOW PARKING LOTS AND ROADWAYS.



* SEPARATION DIMENSION TO BE VERIFIED WITH LOCAL UTILITY COMPANY REQUIREMENTS

UNDERGROUND CONDUIT(S) TRENCHING DETAIL

SCALE: N.T.S.

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T-Mobile

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DRAWN BY: VSM | CHECKED BY: BSE

SHEET TITLE:

ONE-LINE DIAGRAM & ELECTRICAL DETAILS

SHEET NUMBER: **E-2**

REVISION: 0

TEP#: 129994.320357

NOTE:

LOAD CALCULATIONS TAKEN FROM INFORMATION PROVIDED BY T-MOBILE & CALCULATED USING THE T-MOBILE LOAD ANALYSIS TOOL. CONTRACTOR TO VERIFY LOADS WITH MANUFACTURER'S SPECIFICATIONS PRIOR TO CONSTRUCTION.

EXISTING 200A M.C.B, 240/120 VAC, 1Ø, 3W PANEL SCHEDULE

LOAD SERVED	VOLT AMPERES (WATTS) L1	VOLT AMPERES (WATTS) L2	TRIP	CKT #	PHASE	CKT #	TRIP	VOLT AMPERES (WATTS) L1	VOLT AMPERES (WATTS) L2	LOAD SERVED
ACH 1	3816		60	1	A	2	60	3816		ACH #2
		3816		3	B	4			3816	
*RECTIFIER #1 (OFF)	0		20	5	A	6	100	5196		*RBS 6201
		0		7	B	8			5196	
*RECTIFIER #3 (OFF)	0		20	9	A	10	20	0		*RECTIFIER #4 (OFF)
		0		11	B	12			0	
*RECTIFIER #7 (OFF)	0		20	13	A	14	20	0		*RECTIFIER #6 (OFF)
		0		15	B	16			0	
*RECTIFIER #5 (OFF)	0		20	17	A	18	20	0		*RECTIFIER #8 (OFF)
		0		19	B	20			0	
SPARE	–		–	21	A	22	–	0		SPARE
SPARE		–	–	23	B	24	–		–	SPARE
SPARE	–		–	25	B	26	–	–		SPARE
SPARE		–	–	27	A	28	–		–	SPARE
SPARE	–		–	29	B	30	–	–		SPARE
SPARE		–	–	31	A	32	–		–	SPARE
SPARE	–		–	33	B	34	–	–		SPARE
SPARE		–	–	35	A	36	–		–	SPARE
RECEPTACLES	180		20	37	B	38	15	500		INTERIOR LIGHTS
RECEPTACLES		180	20	39	A	40	15		500	EXTERIOR LIGHTS
SMOKE DET.	200		20	41	A	42	20	180		RECEPTACLES, EXT.
VOLT AMPS	4196	3996						9692	9512	VOLT AMPS

L1 VOLT AMPERES	13888	13508 L2 VOLT AMPERES
	13888	MAX VOLT AMPERES
	115.7	MAX AMPS
	144.7	MAX AMPS x 125%

*NOTE – EXISTING BREAKER TO BE REMOVED

**NOTE – CONTRACTOR TO CONFIRM THAT THE LOADING ON BREAKER IS ACCURATE PRIOR TO CONSTRUCTION.

EXISTING PANEL SCHEDULE

SCALE: N.T.S.

NOTE:

LOAD CALCULATIONS TAKEN FROM INFORMATION PROVIDED BY T-MOBILE & CALCULATED USING THE T-MOBILE LOAD ANALYSIS TOOL. CONTRACTOR TO VERIFY LOADS WITH MANUFACTURER'S SPECIFICATIONS PRIOR TO CONSTRUCTION.

PROPOSED 200A M.C.B, 240/120 VAC, 1Ø, 3W PANEL SCHEDULE

LOAD SERVED	VOLT AMPERES (WATTS) L1	VOLT AMPERES (WATTS) L2	TRIP	CKT #	PHASE	CKT #	TRIP	VOLT AMPERES (WATTS) L1	VOLT AMPERES (WATTS) L2	LOAD SERVED
ACH 1	3816		60	1	A	2	60	3816		ACH #2
		3816		3	B	4			3816	
SPARE	–		–	5	A	6	**25**	**1920**		**POWER 6230 #1**
SPARE		–	–	7	B	8			**1920**	
SPARE	–		–	9	A	10	**25**	**1920**		**POWER 6230 #2**
SPARE		–	–	11	B	12			**1920**	
SPARE	–		–	13	A	14	**25**	**1920**		**POWER 6230 #3**
SPARE		–	–	15	B	16			**1920**	
SPARE	–		–	17	A	18	**25**	**1920**		**POWER 6230 #4**
SPARE		–	–	19	B	20			**1920**	
SPARE	–		–	21	A	22	**25**	**1920**		**POWER 6230 #5**
SPARE		–	–	23	B	24			**1920**	
SPARE	–		–	25	B	26	**25**	**1920**		**POWER 6230 #6**
SPARE		–	–	27	A	28			**1920**	
SPARE	–		–	29	B	30	–	–		SPARE
SPARE		–	–	31	A	32	–		–	SPARE
SPARE	–		–	33	B	34	–	–		SPARE
SPARE		–	–	35	A	36	–		–	SPARE
RECEPTACLES	180		20	37	B	38	15	500		INTERIOR LIGHTS
RECEPTACLES		180	20	39	A	40	15		500	EXTERIOR LIGHTS
SMOKE DET.	200		20	41	A	42	20	180		RECEPTACLES, EXT.
VOLT AMPS	4196	3996						14096	12188	VOLT AMPS

L1 VOLT AMPERES	18292	16184 L2 VOLT AMPERES
	18292	MAX VOLT AMPERES
	152.4	MAX AMPS
	190.5	MAX AMPS x 125%

*NOTE – PROPOSED BREAKERS & LOADS IN BOLD. CONTRACTOR TO CONFIRM PROPOSED BREAKER SIZES AND LOCATIONS WITH T-MOBILE CM PRIOR TO CONSTRUCTION.

**NOTE – CONTRACTOR TO CONFIRM THAT THE LOADING ON BREAKER IS ACCURATE PRIOR TO CONSTRUCTION.

PROPOSED PANEL SCHEDULE

SCALE: N.T.S.

PLANS PREPARED FOR:

T-Mobile

2105 WATER RIDGE PKWY
CHARLOTTE, NC 28217

PROJECT INFORMATION:

TMO ID: 5RD0307A
ADDIE WEBB ALLTEL (LAKESIDE)
155 ADDIE WEBB LANE
DUNN, NC 28334-8776
(HARNETT COUNTY)

PLANS PREPARED BY:

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326 TRYON ROAD
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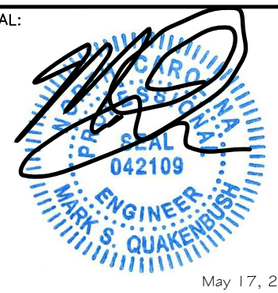
OFFICE: (919) 661-6351
www.tepgroup.net
NC LIC#: P-1403

SEAL:



May 17, 2022

REV	DATE	ISSUED FOR:
O	05-17-22	100% CONSTRUCTION

DRAWN BY: VSM | CHECKED BY: BSE

SHEET TITLE:

PANEL SCHEDULES

SHEET NUMBER: **E-3**

REVISION: **0**

TEP#: 129994.320357

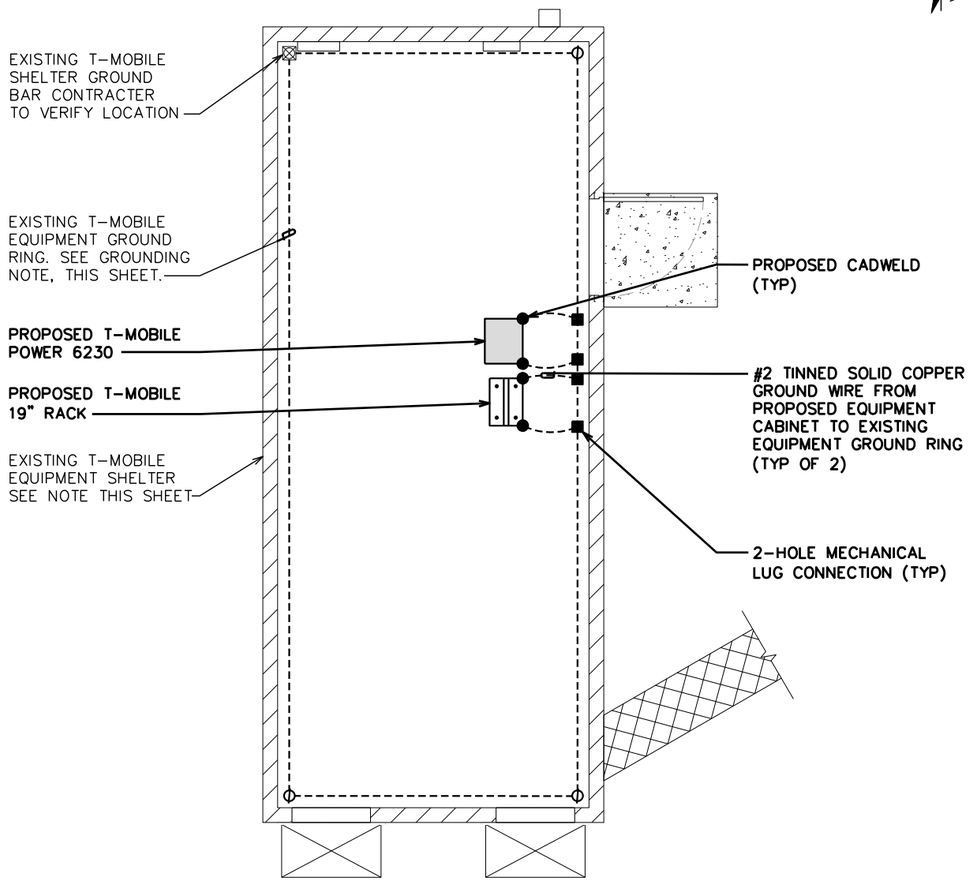
GROUNDING NOTES:

1. CONTRACTOR TO VERIFY EXISTENCE AND LOCATION OF EXISTING SITE GROUND SYSTEM.
2. CONTRACTOR SHALL VERIFY THAT GROUNDING ELECTRODES SHALL BE CONNECTED IN A RING USING #2 AWG BARE TINNED COPPER WIRE. THE TOP OF THE GROUND RODS AND THE RING CONDUCTOR SHALL BE 30" BELOW FINISHED GRADE. GROUNDING ELECTRODES SHALL BE DRIVEN ON 10'-0" CENTERS (PROVIDE AND INSTALL AS REQUIRED. REQUIRED PER PLAN BELOW).
3. GROUNDING CONDUCTORS SHALL BE OF EQUAL LENGTH, MATERIAL, AND BONDING TECHNIQUE.
4. CONTRACTOR SHALL ENSURE GROUND RING IS WITHIN 12 TO 36 INCHES OF THE EQUIPMENT PAD. PROVIDE AND INSTALL GROUNDING CONNECTIONS SHOWN BELOW AS NEEDED PER EXISTING SITE GROUNDING SYSTEM. CONTRACTOR SHALL VERIFY ALL EXISTING SITE GROUNDING CONDITIONS BEFORE STARTING WORK OR PURCHASING EQUIPMENT.
5. ALL DOWN CONDUCTORS MUST GO DOWN.

NOTE:

TYPICAL GROUNDING PLAN SHOWN IS FOR SCHEMATIC PURPOSES ONLY AND DOES NOT REFLECT EXISTING OR PROPOSED EQUIPMENT LOCATIONS

VERIFY



EQUIPMENT GROUNDING PLAN

SCALE: 3/16" = 1'-0"

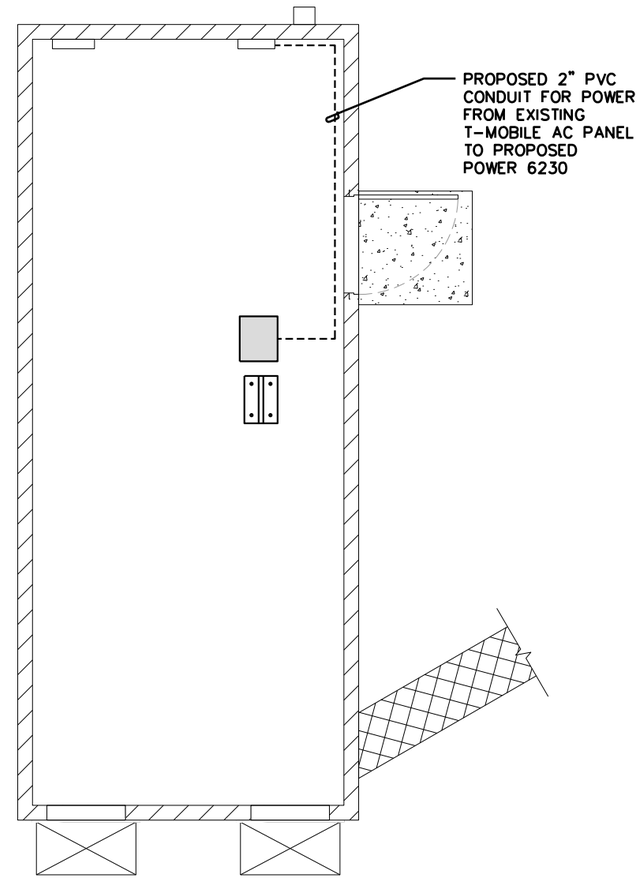
0 4 8

SCALE IN FEET

NOTE:

CONTRACTOR TO REFERENCE SHEET C1-B FOR EXACT LOCATION AND ORIENTATION OF EQUIPMENT PAD

VERIFY



ELECTRICAL ROUTING PLAN

SCALE: 3/16" = 1'-0"

0 4 8

SCALE IN FEET

PLANS PREPARED FOR:

T-Mobile

2105 WATER RIDGE PKWY
CHARLOTTE, NC 28217

PROJECT INFORMATION:

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ADDIE WEBB ALLTEL (LAKESIDE)
155 ADDIE WEBB LANE
DUNN, NC 28334-8776
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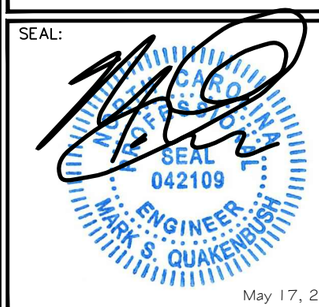

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SHEET TITLE:

ROUTING PLAN & EQUIPMENT GROUNDING PLAN

SHEET NUMBER: **E-4**

REVISION: **0**

TEP#: 129994.320357

T-MOBILE GROUNDING NOTES:

ALL GROUNDS MUST ROUTE DOWNHILL FOR ENTIRE DURATION OF ROUTE

ICE BRIDGE/ EQUIPMENT POST:

#2 SOLID COPPER TINNED, EXOTHERMICALLY WELDED TO GROUND RING (BOTH ENDS), FINAL WELD COLD GALVANIZED, IN ½" NON-METALLIC SEAL TIGHT CONDUIT, SEALED WITH SILICONE, ANCHORED TO PAD/PLATFORM TO AVOID TRIP HAZARD USING HAMMER SET ANCHORS.

PEDESTALS, PLINTHS, SSC CABINET, FCOA CABINETS:

1. #2 SOLID COPPER TINNED, 2 HOLE LUG WITH FLAT AND LOCK WASHER AT EQUIPMENT; EXOTHERMICALLY WELDED TO GROUND RING, FINAL WELD COLD GALVANIZED, IN ½" NON-METALLIC SEAL TIGHT CONDUIT, SEALED WITH SILICONE, ANCHORED TO PAD TO AVOID TRIP HAZARD USING HAMMER SET ANCHORS. EACH PART REQUIRES A SEPARATE DOWNLEAD, NO DAISY CHAINS.

2. ALL COMPONENTS INSIDE FCOA CABINETS REQUIRE A DEDICATED GROUND.

COVP's:

#6 THHN STRANDED (GREEN JACKET), CONNECTED AT EQUIPMENT SIDE USING OVP TERMINAL BLOCK CONNECTION; MECHANICALLY CONNECTED TO GROUND REFERENCE AT MASTER BUSS BAR USING 2 HOLE LUG WITH FLAT AND LOCK WASHER, IN ½" NON-METALLIC SEAL TIGHT CONDUIT, SEALED WITH SILICONE, AND ANCHORED TO PAD/PLATFORM TO AVOID TRIP HAZARD.

ANTENNA/ COVP/ RRU MAST PIPES:

1. ALL VERTICAL MAST PIPES: #2 SOLID COPPER TINNED, EXOTHERMICALLY WELDED TO TOP OF PIPE (PIPE, DOWN MOLD), FINAL WELD COLD GALVANIZED, BONDED TO TOP BUSS BAR WITH 2 HOLE COPPER COMPRESSION LUG, FLAT AND LOCK WASHER.

2. EXISTING/REUSED PIPES: #2 SOLID COPPER TINNED, BONDED WITH COLD WATER CLAMP TO TOP OF PIPE, BONDED TO TOP BUSS WITH 2 HOLE COPPER COMPRESSION LUG, FLAT AND LOCK WASHER

AIR TERMINALS:

TO BE INSTALLED, ONLY IF REQUIRED

TMA's, DIPLEXERS AND TRIPLEXERS:

1. #6 THHN, WITH PROPER COPPER COMPRESSION LUG, FLATS AND LOCK WASHERS

2. ALL GROUND LUGS ON TMA MUST BE GROUNDED WITH SEPARATE DOWNLEAD TO BUSS BAR (NO DAISY CHAINS)

ELEVATED STEEL PLATFORMS WITH LUNAR FEET:

#2 SOLID COPPER TINNED, EXOTHERMICALLY WELDED (FLAT PLATE MOLD) TO OUTSIDE PERIMETER BEAMS IN FOUR (4) PLACES, FINAL WELD COLD GALVANIZED, BONDED DIRECTLY TO SUBGRADE GROUND RING.

STEEL CANOPY (STEEL PLATFORM OR CONCRETE PAD):

1. #2 SOLID COPPER TINNED, EXOTHERMICALLY WELDED (PIPE, DOWN MOLD) TO BOTTOM OF ALL VERTICAL SUPPORT POSTS, TYPICALLY FOUR (4) PIPES, FINAL WELD COLD GALVANIZED, BONDED DIRECTLY TO SUBGRADE GROUND RING.

2. #2 SOLID COPPER TINNED, EXOTHERMICALLY WELDED (PIPE, UP MOLD) TO TOP OF ALL VERTICAL SUPPORT POSTS, TYPICALLY FOUR (4) PIPES, FINAL WELD COLD GALVANIZED, BONDED UP TO CANOPY GRIP-STRUT USING 2 HOLE COPPER COMPRESSION LUG, FLAT AND LOCK WASHER.

RRU:

#6 THHN, WITH PROPER COPPER COMPRESSION LUG, ANTI-OXIDANT TO SECTOR BUSS BAR

FSBE ALARM BOX:

#6 THHN WITH ONE HOLE LUG BONDED TO PREVIOUSLY GROUNDED FCOA, PLINTH OR BUSS BAR.

SURGE SUPPRESSORS:

#6 THHN TO PREVIOUSLY GROUNDED BUSS BAR USING PROPER LUGS

FYGA/FYGB BRACKET:

1. #6 THHN TO PREVIOUSLY GROUNDED BUSS BAR USING PROPER LUGS

2. THROUGH BOLTS WITH FLAT, LOCK ON BRACKET

BUSS BARS:

1. PLATFORM / PAD BUSS BAR SHOULD BE MINIMUM 12" TINNED COPPER WITH INSULATORS, AND SHOULD HAVE TWO (2) EXOTHERMICALLY WELDED DOWN LEADS DIRECTLY TO GROUND RING USING #2 SOLID COPPER TINNED WIRE.

2. SECTOR BUSS BAR SHOULD BE PROPERLY SIZED TO ACCOMMODATE NECESSARY GROUNDING FOR EQUIPMENT ON EACH MOUNT, AND MAY BE SOLID COPPER (TINNED NOT REQUIRED). DO NOT USE INSULATORS ON SECTOR BUSS BARS ATTACH DIRECTLY TO TOWER MOUNT STEEL.

GENERAL:

- NO GROUND KITS ON HYBRID TRUNKS (TOP OR BOTTOM)
- NO GROUND KITS ON MICROWAVE IF CABLES (TOP OR BOTTOM)
- MICROWAVE SURGE SUPPRESSORS ARE NOT TO BE INSTALLED UPSTAIRS ON TOWER, DOWNSTAIRS ONLY (BULKHEAD PREFERRED)
- MICROWAVE ODU MUST BE GROUNDED TO TOWER TOP SECTOR OR COLLECTOR BUSS BAR
- ALL TMA'S AND DIPLEXERS MUST BE GROUNDED TO BUSS BAR. NO DAISY CHAIN ON TWIN/DUAL TMA
- ALL LUGS SHOULD BE PROPERLY SIZED FOR CONDUCTOR, BURNDY TINNED COPPER COMPRESSION STYLE
  1. INDOOR (OR INSIDE CABINET) SHOULD HAVE WINDOW
  2. OUTDOOR SHOULD NOT HAVE WINDOW

PLANS PREPARED FOR:

T-Mobile

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PROJECT INFORMATION:

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155 ADDIE WEBB LANE
DUNN, NC 28334-8776
(HARNETT COUNTY)

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SEAL:

May 17, 2022

REV	DATE	ISSUED FOR:
0	05-17-22	100% CONSTRUCTION

DRAWN BY: VSM | CHECKED BY: BSE

SHEET TITLE:

TMO GROUNDING NOTES

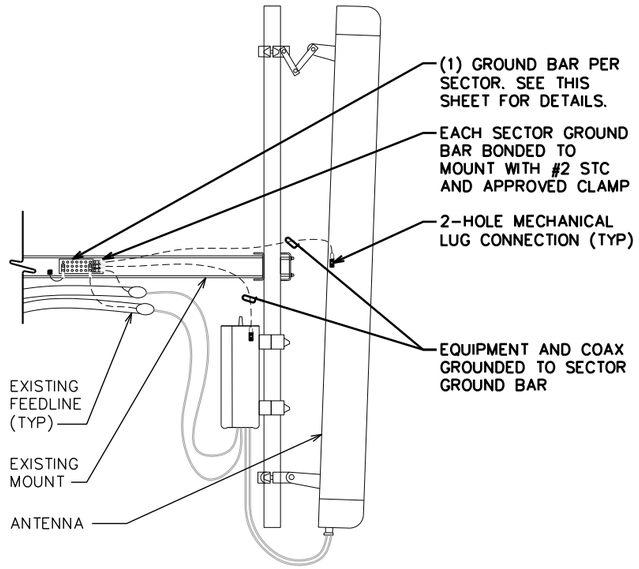
SHEET NUMBER: **G-1**

REVISION: **0**

TEP#: 129994.320357

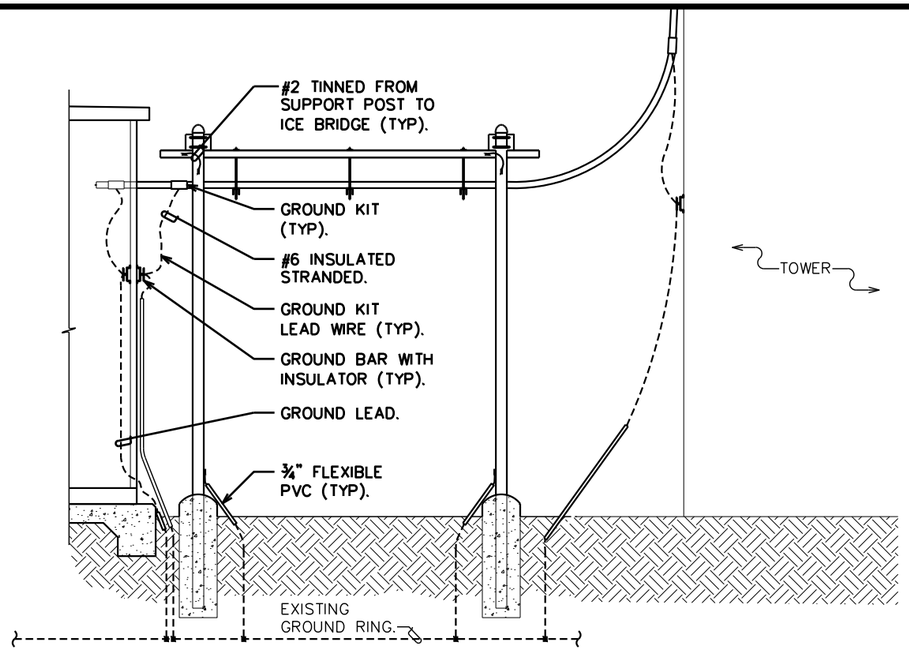
NOTE:

DRAWING SHOWN BELOW FOR SCHEMATIC PURPOSES ONLY



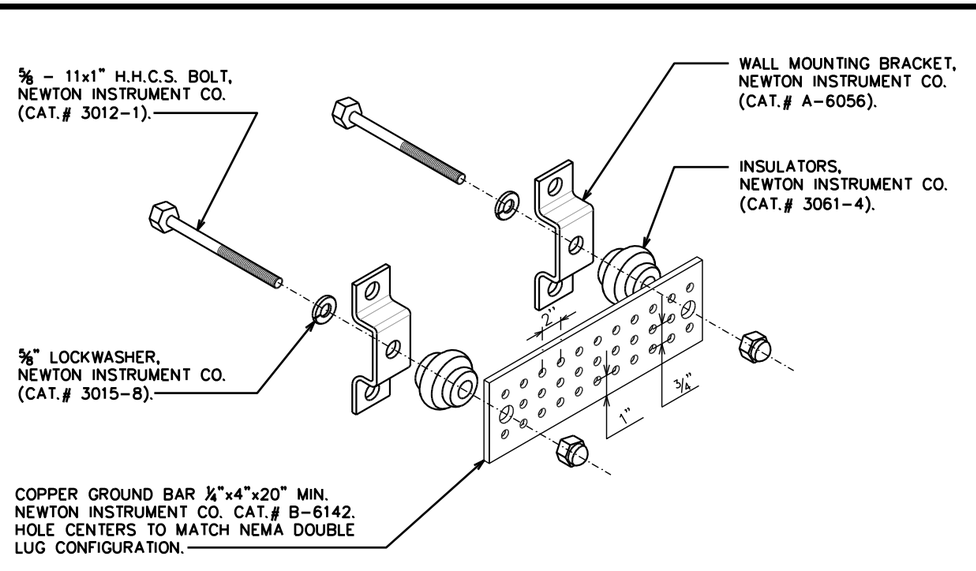
ANTENNA & EQUIPMENT GROUNDING DETAIL

SCALE: N.T.S.



ICE BRIDGE/COAX/GROUNDING BAR ELEVATION

SCALE: N.T.S.



NOTE:

GROUND BAR SHALL BE SIZED TO ACCOMMODATE ALL GROUNDING CONNECTIONS REQUIRED AS WELL AS PROVIDE 50% SPARE CAPACITY

STANDARD GROUND BAR DETAILS

SCALE: N.T.S.

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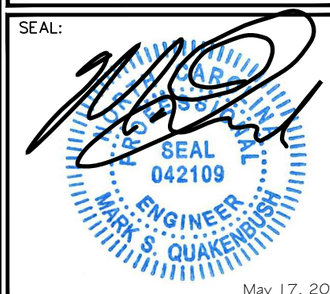

May 17, 2022

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DRAWN BY: VSM | CHECKED BY: BSE

SHEET TITLE:

GROUNDING DETAILS

SHEET NUMBER: **G-2**

REVISION: **0**

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