

RESOLUTION NO.: R-2020-022

*Authorizing the City Manager to execute a Lease Agreement between the City of Columbia and New Cingular Wireless PCS, LLC for the use of the Columbia Water GenStar Elevated Water Storage Tank Site*

ORIGINAL  
STAMPED IN RED

BE IT RESOLVED by the Mayor and City Council this 18th day of August, 2020, that the City Manager is authorized to execute the attached Lease Agreement, or on a form approved by the City Attorney, between the City of Columbia and New Cingular Wireless PCS, LLC for the use of the Columbia Water GenStar Elevated Storage Tank Site, for the terms and conditions therein contained.

Requested by:

Assistant City Manager Shealy

  
\_\_\_\_\_  
Mayor

Approved by:

  
\_\_\_\_\_  
City Manager

Approved as to form:

*T. A. Knox*  
\_\_\_\_\_  
City Attorney

ATTEST:

  
\_\_\_\_\_  
City Clerk

Introduced: 8/18/2020

Final Reading: 8/18/2020

STATE OF SOUTH CAROLINA )  
 )  
COUNTY OF RICHLAND )

LICENSE AGREEMENT

License to New Cingular Wireless PCS, LLC to use property located at the Columbia Water GenStar Elevated Water Storage Tank Site (the "License")

Richland County, South Carolina

New Cingular Wireless PCS, LLC, a Delaware limited liability company, (Licensee) is hereby granted a non-exclusive license for a term of five (5) years (the "Initial Term") beginning upon Licensee's construction start (the "Commencement Date") 9/17/2020 and ending at midnight upon the expiration of the Initial Term, or renewal terms thereafter \_\_\_\_\_ by the City of Columbia (The City), to place antennas and appurtenances on the Columbia Water GenStar Elevated Water Storage Tank located at 1201 Summit Parkway, Columbia, Richland County, SC as shown substantially on Exhibit "A": (The Property). In addition, New Cingular Wireless PCS, LLC is given permission to place concrete pads, and equipment cabinets, equipment shelter, generator, underground communication and electrical utilities, and an electrical utility pole on the premises in such sizes and at such locations to be approved by The City. The concrete pads will be used to locate communications equipment associated with the antennas and miscellaneous equipment on the tank. Said antennas, cables, pads, equipment cabinets, shelter, generator, pole, utilities and miscellaneous appurtenances to be known as "The Equipment". Licensee shall have the right to add additional antennas only upon the written authorization of the City Manager.

THIS LICENSE is granted subject to the following conditions:

1. That the use and occupation of the said premises shall be without cost or expense to The City, under the general supervision and subject to the approval of The City and subject also to such rules and regulations as they may from time to time prescribe. Provided, however, that no rules or regulations adopted subsequent to the date hereof shall be used to divest Licensee of any of its rights hereunder. Any reference to The City shall extend to and include the City Manager or City Council and their duly appointed or elected successors and authorized representatives.

2. That the Licensee shall, at its own expense and without cost or expense to The City maintain and keep in good repair and condition The Equipment.

3. That any interference with or damage to property under control of The City by Licensee incident to the exercise of the privileges herein granted shall be promptly corrected by the Licensee to the satisfaction of The City. That The City shall have no obligation to eliminate any interference with Licensee's operation, maintenance or repair of The Equipment from any source whatsoever. Subject to the provisions of Paragraph 18, The City may allow other communications equipment to be installed on the Property. However, should interference occur or be anticipated as a result of the installation of communications equipment by any additional private entity, the Licensee and the private entity shall make all reasonable efforts to eliminate the interference to allow for installation by the private entity. In the event interference cannot be sufficiently eliminated by all

reasonable efforts of the Licensee and the private entity, the private entity will not be allowed to install the proposed communications equipment.

4. That the Licensee shall be responsible for all costs or installation, repair, operation, and maintenance of The Equipment and all utilities (to be measured by metering which is separate from The City's) necessary to operate the same.

5. That no additions to or alterations of The Property shall be made without the prior written consent of The City. That the installation, construction, repair, operation and maintenance of The Equipment shall be in conformity with all federal, state and local laws and regulations, including but not limited to those of the Federal Communications Commission. The location of the antennas shall be mutually agreed upon by The City and Licensee. In the event that a mutual agreement cannot be reached, either side may void this agreement in which event any prepaid rent shall be refunded. Licensee shall procure and maintain current during the Initial Term of this License and any renewal terms hereof, any licenses or permits required by any federal, state, and local law or regulation. Copies of all licenses or permits required or obtained shall be furnished to The City upon request. Licensee acknowledges that from time to time, the City will perform operational and maintenance activities at and on the Water Tower, including painting the Water Tower, and Licensee agrees to accommodate The City's activities so as to not interfere with said operation and/or maintenance.

6. Should it become necessary for The City in their maintenance responsibilities on The Property to perform services which would otherwise be their responsibility of Licensee, The City shall, except in cases of emergency, give Licensee fifteen (15) days' notice to perform those services. Should Licensee fail to perform aid services after said notice, The City may provide the same and charge the cost thereof as additional rent. Provided, however, if by their nature said services would take more than 15 days to complete Licensee shall be deemed to have complied with the provisions of this paragraph if within said notice period it commences work thereon and diligently pursues the completion of the same.

7. At the termination of this License, whether by the expiration of its term or otherwise, Licensee shall within 120 days remove The Equipment from The Property and repair any damages done to The Property by Licensee, reasonable wear and tear excepted. All portions of the Communication Facility brought onto the Property by Licensee will be and remain Licensee's personal property and, at Licensee's option, may be removed by Licensee at any time during or after the Term. The City covenants and agrees that no part of the Communication Facility constructed, erected or placed on the Premises by Licensee will become, or be considered as being affixed to or a part of, the Property, it being the specific intention of The City that all improvements of every kind and nature constructed, erected or placed by Licensee on the Premises will be and remain the property of Licensee and may be removed by Licensee at any time during or after the Term. Any portions of the Communication Facility that Licensee does not remove within one hundred twenty (120) days after the later of the end of the Term and cessation of Licensee's operations at the Premises shall be deemed abandoned and owned by The City. Licensee will be responsible for all costs incurred by The City associated with the removal of equipment abandoned on-site by the Licensee.

8. That the Licensee shall maintain the gate to The Property locked at all times by interlocking Licensee's lock with the existing lock(s). The Licensee shall provide The City with a key to said lock.

9. The Licensee shall notify The City prior to any entry onto the Property by calling the operator on duty at the City of Columbia Canal Water Treatment Plant, current telephone number (803) 476 0957.

10. The Licensee shall hold harmless and indemnify The City for damages to property or injuries to persons which are caused by, arise out of, or which are incident to, construction, maintenance, and use of The Property by Licensee, its agents, employees, and/or invitees.

11. That at any time the Licensee is actively engaged in installation, construction and/or major maintenance activities on the premises, the Licensee shall provide certificate(s) of insurance as evidence of compliance with City of Columbia ordinances Section 11-71 (2020) incorporated herein by reference. Provided, however, that should this License be assigned to AT&T, then AT&T shall be allowed to self insure.

12. That the Licensee, upon The City's request, shall temporarily remove any or all components of the Equipment, which The City deems reasonably necessary, to appropriately repair, maintain, or improve The City's water system or communications systems, or repair, maintain, install or construct other equipment or structures of The City or other persons or entities (which are listed by way of illustration and not limitation) as may from time to time be allowed by The City. Provided, however, that Licensee shall be given not less than 120 days' notice of the same and The City shall, when reasonably possible, provide Licensee with an alternate location on The Property for the purpose of arranging for a temporary communications facility.

13. The Licensee's rights to the Property hereunder are not exclusive. Subject to the provisions of paragraph number "3", The City may allow other persons or entities to make use of The Property for any purpose whatsoever, in The City's sole and exclusive discretion.

14. That the Licensee and The City agree that if the whole or any part of The Property shall be taken or acquired by any other public authority for any public or quasi-public use, then in that event, this License shall terminate from the date when the possession of the part so taken shall be required for such use or purpose and all damages awarded for such taking shall belong to and be the property of The City. Provided, however that should The City construct a replacement facility, Licensee shall have the right and option to locate its communications facility on the replacement property under the same terms and conditions set forth in this License.

15. That in consideration for the rights granted by The City to the Licensee herein, the Licensee shall pay as an annual License Fee, in advance, the sum of Thirty Three Thousand and No/One Hundredths (\$33,000.00) Dollars. Said sum shall be paid by Licensee on the anniversary of the commencement date each year thereafter throughout the original 5 year term of this license. The initial License Fee payment will be forwarded by Licensee to The City within forty-five (45) days after the Commencement Date.

16. That the Licensee may renew this License for four (4) additional consecutive five (5) year terms, under the same covenants, terms and conditions contained herein. This License shall be deemed automatically extended until such time as Licensee gives notice of its intention not to renew.

17. That the annual License Fee for the extended terms shall be as follows:

<u>Extended Term</u>	<u>Annual License Fee</u>
1 <sup>st</sup>	\$38,247.00
2 <sup>nd</sup>	\$44,328.00
3 <sup>rd</sup>	\$51,376.00
4 <sup>th</sup>	\$59,545.00

The annual License Fee for the extended terms shall be payable in the same manner as the annual License Fee for the Initial Term.

18. Should the property being occupied by the Licensee be needed by The City for a public/governmental purpose and said need cannot be fulfilled by relocating Licensee's equipment to another area on The Property which is suitable to Licensee, The City shall, upon 180 days' notice to Licensee, have the right to terminate this License. Any unused prepaid rent shall be refunded to Licensee.

19. That this License shall contain the entire License between The City and the Licensee. In order to be binding, any modification thereof shall be in writing and signed by The City and the Licensee.

20. That this License and the performance thereof shall be governed, interpreted, construed and regulated by the law of the State of South Carolina. The Licensee agrees to subject itself to the jurisdiction and venue of the Circuit Courts of Richland County, State of South Carolina, as to all matters and disputes arising or to arise under this License and the performance thereof.

21. That written notice to the parties shall be made by placing such notice in the United States Mail, certified, postage prepaid, return receipt requested, or by a nationally recognized overnight courier, postage prepaid and addressed to:

To the City:  
City of Columbia, S.C.  
City Manager  
Post Office Box 147  
Columbia, SC, 29217

With a copy to:  
City of Columbia, S.C.  
Director of Utilities and Engineering  
P. O. Box 147  
Columbia, SC 29217

Licensee:  
New Cingular Wireless PCS, LLC  
Attn: Network Real Estate Administration  
Re: Cell Site #: 091-096  
Fixed Asset #: 14615778  
1025 Lenox Blvd. 3<sup>rd</sup> Floor NE  
Atlanta, GA, 30319

With a copy to:  
New Cingular Wireless PCS, LLC  
Attn.: Legal Dept – Network Operations  
Re: Cell Site #: 091-096  
Fixed Asset #: 14615778  
208 S. Akard Street  
Dallas, TX 75202-4206

Either party hereto may change the place for the giving of notice to it by thirty (30) days' prior written notice to the other party hereto as provided herein.

22. That this License may not be sold, assigned or transferred by the Licensee without prior approval or consent of The City except to Licensee's parent company or any affiliate or subsidiary of Licensee or its parent company, or to any successor entity with or into which Licensee is sold, merged or consolidated, or to any entity resulting from a reorganization of Licensee or its parent company. Provided, however, that this License may be transferred to an AT&T Company without the consent of The City and AT&T will enjoy the same assignment rights of Licensee as are set forth herein. The City will be given written notice of any sale, assignment or transfer.

23. That the failure of either the Licensee or The City to insist upon the strict performance of any provision of this License shall not be deemed to be a waiver of the right to insist upon strict performance of such provision or of any other provision of this License at any time. Waiver of any breach of this License by the Licensee or The City shall not constitute waiver of a subsequent breach.

24. That in the event of any provision of the License is determined to be void or unenforceable, all other provisions shall remain in full force and effect.

25. That this License shall extend to and bind the successors and assigns of the Licensee. This License is binding upon The City in accordance with its terms and conditions.

26. The obligation of Licensee to pay the License Fee hereunder shall not commence until such time as it has given The City written notice that it is commencing installation of the equipment. Licensee shall, however, have the right after notification as provided for herein to go onto The Property for the purpose of conducting studies necessary to obtain the above permits. Furthermore, should any governmental agency revoke or otherwise terminate Licensee's right to operate the equipment, the Licensee may terminate this License Agreement.

27. If any provisions hereof require the consent of a party to this License, said consent will not be unreasonable withheld, conditioned or delayed.

28. Both parties agree to record a memorandum of this License in the office of the RMC for Richland County, SC =

IN WITNESS WHEREOF, the undersigned have executed this License Agreement effective as of the day and year of the last signature hereinbelow.

WITNESSES:

*Erika M Hammond*  
*[Signature]*

CITY OF COLUMBIA

*Teresa Wilson*  
TERESA WILSON  
City Manager, City of Columbia, SC

WITNESSES:

*Melodie Wade*  
MELODIE WADE  
*Timothy P. Harold Davis*  
TIMOTHY P. HAROLD DAVIS

New Cingular Wireless PCS, LLC,  
a Delaware limited liability company

By: AT&T Mobility Corporation  
Its: Manager

By: *[Signature]*

Print Name: Len Lindros

Its: Area Mgr. Const. & Engrg.

Date: 9/17/2020

**APPROVED AS TO FORM**

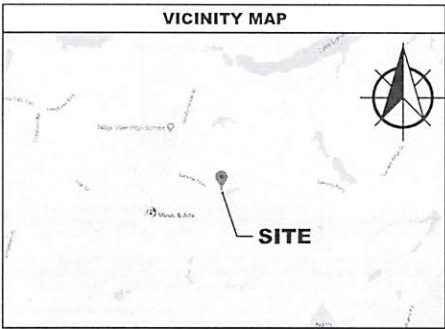
*[Signature]*  
Legal Department City of Columbia, SC

7/22/20

EXHIBIT A

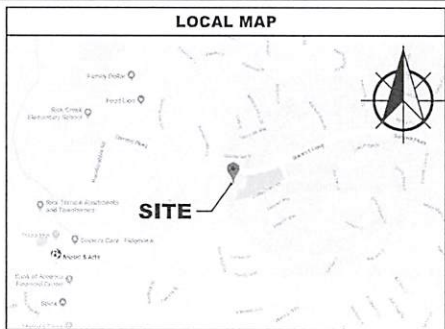
The Property and The Equipment  
as depicted on construction drawings by Mastec Network Solutions dated 4/20/20





**DIRECTIONS**

FROM 218 COLLEGE STREET, HEAD NORTHWEST ON COLLEGE ST TOWARD N ACADEMY ST. USE THE LEFT LANE TO TURN LEFT AT THE 1ST CROSS STREET ONTO N ACADEMY ST. TURN LEFT AT THE 1ST CROSS STREET ONTO BUNCOMBE ST. CONTINUE ONTO W NORTH ST. CONTINUE ONTO I-385 S. MERGE ONTO I-26 E. TAKE EXIT 107B TO MERGE ONTO I-20 E TOWARD FLORENCE. TAKE EXIT 73B TO MERGE ONTO SC-277 N TOWARD I-77 NICHARLOTTE. EXIT ONTO SC-555 N. MERGE ONTO SC-555 N. TURN RIGHT ONTO HARDCRABBLE RD/STATE RD S-40-63. TURN RIGHT ONTO SUMMIT PKWY. DESTINATION WILL BE ON THE RIGHT.



# COLOCATION CONSTRUCTION DRAWINGS



FA #: **14615778**      SITE ID: **091-096**

SITE NAME:  
**091-096 SUMMIT PARKWAY**

SITE ADDRESS:  
**1201 SUMMIT PARKWAY  
COLUMBIA, SC 29229  
(RICHLAND COUNTY)**



SHEET INDEX			
SHEET	DESCRIPTION	REV.	REV. DATE
T-1	TITLE SHEET	1	4/20/20
GN-1	GENERAL NOTES	0	3/20/20
C-1A	GENERAL LOCATION SITE PLAN	0	3/20/20
C-1	COMPOUND PLAN	1	4/20/20
C-2	EQUIPMENT LAYOUT	0	3/20/20
C-3	ANTENNA LAYOUT & TOWER ELEVATION	0	3/20/20
C-4	EQUIPMENT DETAILS	0	3/20/20
C-5	CABINET DETAILS	0	3/20/20
C-6	CABINET MOUNTING DETAILS	0	3/20/20
C-7	GENERATOR DETAILS	0	3/20/20
C-8	CIVIL DETAILS	0	3/20/20
C-9	PHOTOS	0	3/20/20
E-1	SERVICE ROUTING & SINGLE LINE DIAGRAM	0	3/20/20
E-2	ELECTRICAL NOTES	0	3/20/20
E-3	SINGLE LINE DIAGRAM	0	3/20/20
E-4	PANEL SCHEDULE	0	3/20/20
G-1	GROUNDING PLAN	0	3/20/20
G-2	GROUNDING DETAILS	0	3/20/20
G-3	GROUNDING DETAILS	0	3/20/20
G-4	GROUNDING NOTES	0	3/20/20

**GENERAL NOTES**

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION, THEREFORE HANDICAP ACCESS IS NOT REQUIRED. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED. NO WORK SHALL COMMENCE WITHOUT THE APPROVED TOWER/ANTENNA MOUNT STRUCTURAL ANALYSIS REPORT SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER UNDER SEPARATE COVER.

**CODE COMPLIANCE**

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:

- 2018 SC BUILDING CODE
- ANS/TIA/EIA-222-H
- LOCAL BUILDING CODE
- CITY/COUNTY ORDINANCES
- FAA COMPLIANCE
- 2017 NEC CODE COMPLIANCE
- 2018 INTERNATIONAL RESIDENTIAL CODE
- 2018 SC FIRE CODE
- 2015 SC MECHANICAL CODE
- 2018 RESIDENTIAL CODES

SITE SUMMARY	
SCOPE TYPE:	COLOCATION
OCCUPANCY TYPE:	TELECOMMUNICATIONS
STRUCTURE HEIGHT:	142±
STRUCTURE TYPE:	WATER TANK
LATITUDE:	34° 09' 24.21" N (34.1567260°)
LONGITUDE:	80° 54' 12.54" W (-80.9034850°)
JURISDICTION:	RICHLAND COUNTY
COUNTY:	RICHLAND
PARCEL ID:	R20314-01-05

PROJECT DIRECTORY	
APPLICANT:	NEW CINGULAR WIRELESS PCS LLC 218 COLLEGE STREET GREENVILLE, SC 29601
TOWER OWNER:	CITY OF COLUMBIA % FINANCE DIRECTOR P.O. BOX 147 COLUMBIA, SC 29217
PROJECT MANAGER:	MASTECC NETWORK SOLUTIONS 507 AIRPORT BLVD, SUITE 111 MORRISVILLE, NC 27560 YVETTE RHINEHARDT PHONE: (919) 674-5846
SITE DESIGN:	DEWBERRY ENGINEERS INC. 2610 WYCLIFF ROAD, SUITE 410 RALEIGH, NC 27607 CONTACT: JESSICA ROBBINS PHONE: (919) 636-6303

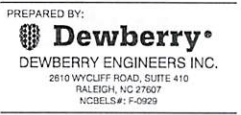


04/20/2020

SUBMITTALS			
DATE	DESCRIPTION	REV	ISSUED BY
3/20/20	FOR CONSTRUCTION	0	DSW
4/20/20	FOR CONSTRUCTION	1	DSW

DRAWN BY: \_\_\_\_\_ SRF  
CHECKED BY: \_\_\_\_\_ DSW  
APP'D BY: \_\_\_\_\_ WP  
DEWBERRY PROJECT NO: 50107750

THE INFORMATION CONTAINED IN THESE DOCUMENTS IS PROPRIETARY BY NATURE. REPRODUCTION OR CAUSING TO BE REPRODUCED THE WHOLE OR ANY PART OF THESE DRAWINGS WITHOUT THE PERMISSION OF MASTEC NETWORK SOLUTIONS IS PROHIBITED.



SITE ID:  
**091-096**

SITE NAME:  
**091-096 SUMMIT PARKWAY**

SITE ADDRESS:  
**1201 SUMMIT PARKWAY  
COLUMBIA, SC 29229**

FA LOCATION:  
**14579327**

SITE NUMBER:  
**N/A**

SHEET TITLE  
**TITLE SHEET**

SHEET NUMBER  
**T-1**

**GENERAL NOTES:**

1. ALL REFERENCES MADE TO OWNER IN THESE DOCUMENTS SHALL BE CONSIDERED AT&T 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 THAT HE DOES HAVE SUFFICIENT EXPERIENCE AND ABILITY, THAT HE IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED AND THAT HE IS PROPERLY LICENSED AND PROPERLY REGISTERED TO DO THIS WORK IN THE STATE OF SOUTH CAROLINA.
3. THE STRUCTURE SHALL BE DESIGNED IN ACCORDANCE WITH ANSII/A-222-G-2-2009. THIS CONFORMS TO THE REQUIREMENTS OF THE SOUTH CAROLINA BUILDING CODE, 2012 EDITION.
4. WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE SOUTH CAROLINA BUILDING CODE, 2012 EDITION.
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 INSURE THE SAFETY OF THE STRUCTURE AND ITS 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 AT&T 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 AT&T SPECIFICATIONS. CERTIFICATES DEMONSTRATING PROOF OF COVERAGE SHALL BE PROVIDED TO AT&T PRIOR TO THE START OF THE WORK ON THE PROJECT.
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 AT&T 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.



03/20/2020

**SUBMITTALS**

DATE	DESCRIPTION	REV	ISSUED BY
3/20/20	FOR CONSTRUCTION	0	DSW

DRAWN BY: SRF  
 CHECKED BY: DSW  
 APP'D BY: WVP  
 DEWBERRY PROJECT NO: 50107750

THE INFORMATION CONTAINED IN THESE DOCUMENTS IS PROPRIETARY BY NATURE. REPRODUCTION OR CAUSING TO BE REPRODUCED THE WHOLE OR ANY PART OF THESE DRAWINGS WITHOUT THE PERMISSION OF MASTEC NETWORK SOLUTIONS IS PROHIBITED.

PREPARED FOR:



PREPARED BY:



PREPARED BY:



SITE ID:  
**091-096**

SITE NAME:  
**091-096 SUMMIT PARKWAY**

SITE ADDRESS:  
**1201 SUMMIT PARKWAY  
COLUMBIA, SC 29229**

FA LOCATION:  
**14579327**

SITE NUMBER:  
**N/A**

SHEET TITLE  
**GENERAL NOTES**

SHEET NUMBER  
**GN-1**





03/20/2020

**SUBMITTALS**

DATE	DESCRIPTION	REV	ISSUED BY
3/20/20	FOR CONSTRUCTION	0	DSW

DRAWN BY: SRP  
 CHECKED BY: DSW  
 APP'VD BY: WP  
 DEWBERRY PROJECT NO: 50107750

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PREPARED BY:  
**Mastec**  
 Network Solutions  
 507 AIRPORT BLVD, SUITE 111  
 MORRISVILLE, NC 27560

PREPARED BY:  
**Dewberry**  
 DEWBERRY ENGINEERS INC.  
 2810 WYCLIFF ROAD, SUITE 410  
 RALEIGH, NC 27607  
 NCRELS # F-6926

SITE ID:  
**091-096**

SITE NAME:  
**091-096 SUMMIT PARKWAY**

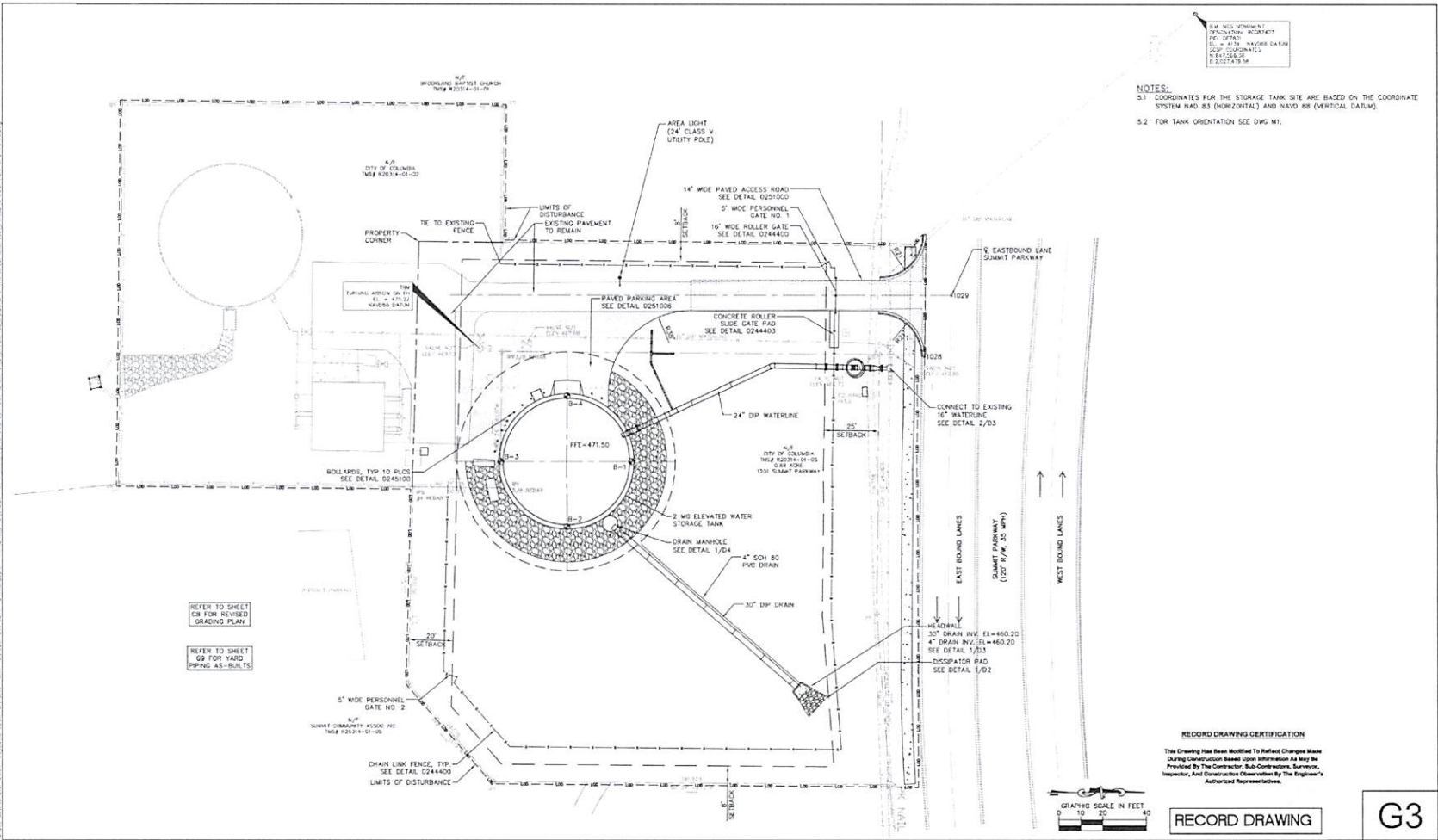
SITE ADDRESS:  
**1201 SUMMIT PARKWAY  
 COLUMBIA, SC 29229**

FA LOCATION:  
**14579327**

SITE NUMBER:  
**N/A**

SHEET TITLE  
**GENERAL LOCATION SITE PLAN**

SHEET NUMBER  
**C-1A**



NOTES:  
 5.1 COORDINATES FOR THE STORAGE TANK SITE ARE BASED ON THE COORDINATE SYSTEM HAD 83 (HORIZONTAL) AND NAVD 88 (VERTICAL DATUM).  
 5.2 FOR TANK ORIENTATION SEE DWS M1.

**RECORD DRAWING CERTIFICATION**  
 This Drawing Has Been Modified To Reflect Changes Made During Construction Based Upon Information As May Be Provided By The Contractor, Sub-Contractors, Surveyors, Inspectors, And Construction Observation By The Engineer's Authorized Representatives.



**RECORD DRAWING**

**G3**

SHEET NUMBER  
 6  
 OF  
 28

NO.	REVISIONS	DATE	BY
2	RECORD DRAWINGS	10/25/17	KFC
1	CONNECTED SURVEY DATA AND CONFORMED DOCUMENTATION	6/23/15	KFC

**Kimley Horn**  
 © 2017 KIMLEY-HORN AND ASSOCIATES, INC.  
 200 SOUTH SPYGLASS STREET, SUITE 200, CHARLOTTE, NC 28202  
 PHONE: 704-333-8131  
 WWW.KIMLEY-HORN.COM

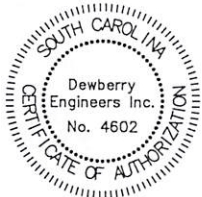
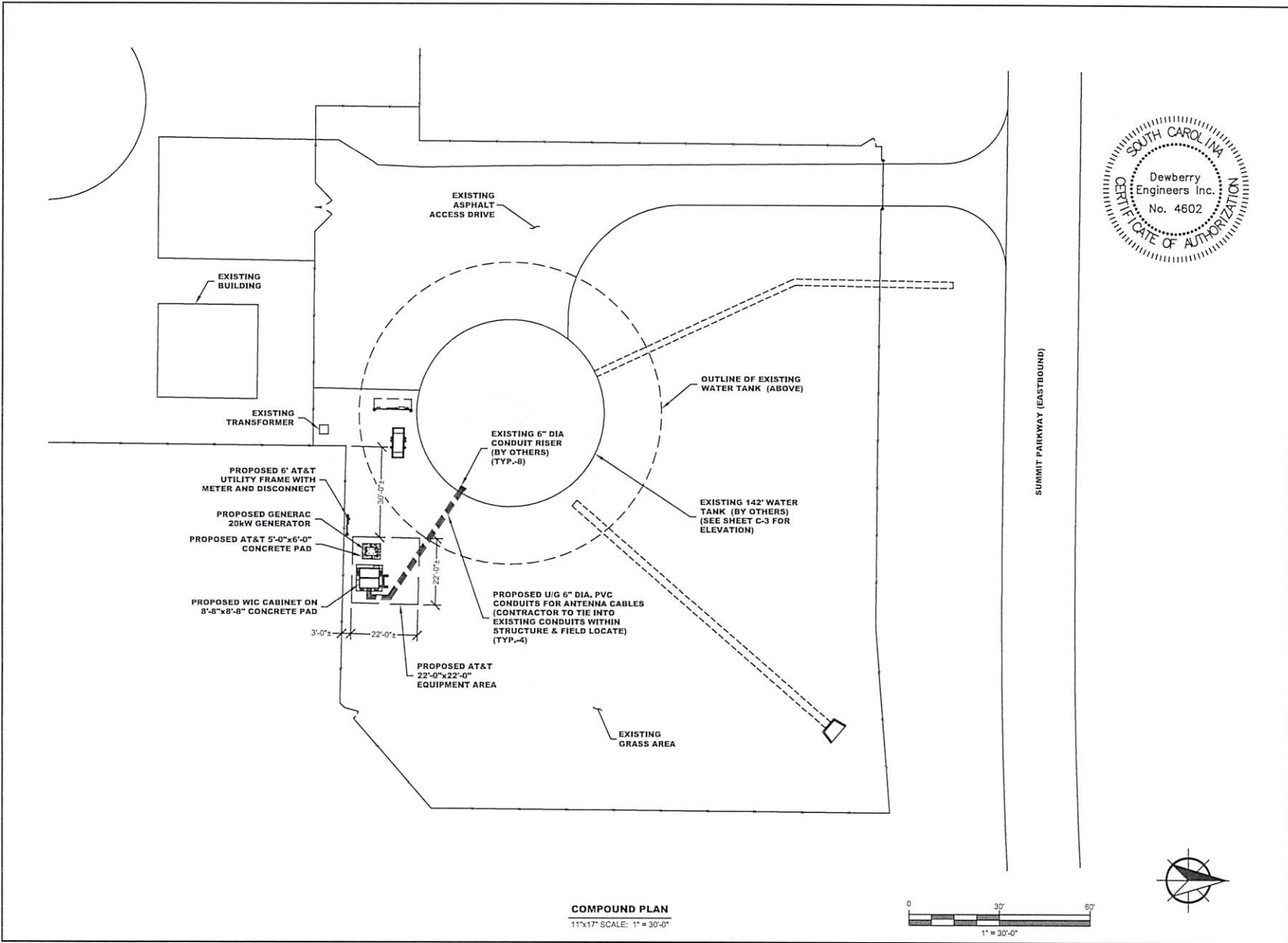
KHA PROJECT 012354003  
 DATE 9/23/17  
 SCALE 1" = 20'  
 DESIGNED BY KFC  
 DRAWN BY JSD  
 CHECKED BY  
**2 MG GENSTAR ELEVATED WATER STORAGE TANK**  
 PREPARED FOR  
**CITY OF COLUMBIA, SOUTH CAROLINA**  
**DEPARTMENT OF UTILITIES & ENGINEERING**



**GENERAL LOCATION SITE PLAN**

**GENERAL LOCATION SITE PLAN**  
 11"x17" SCALE: N.T.S.

Drawn by: William Panek, PE, No. 20384, State of South Carolina. Checked by: DSW, No. 19873, State of South Carolina. App'vd by: WP, No. 19873, State of South Carolina.



**SUBMITTALS**

DATE	DESCRIPTION	REV	ISSUED BY
3/29/20	FOR CONSTRUCTION	0	DSW
4/20/20	FOR CONSTRUCTION	1	DSW

DRAWN BY: SRF  
 CHECKED BY: DSW  
 APP'D BY: WP  
 DEWBERRY PROJECT NO: 50107750

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PREPARED BY:

DEWBERRY ENGINEERS INC.  
 2610 WYCLIFF ROAD, SUITE 410  
 RALEIGH, NC 27607  
 NCBELS#: F-0929

SITE ID:  
**091-096**

SITE NAME:  
**091-096 SUMMIT PARKWAY**

SITE ADDRESS:  
**1201 SUMMIT PARKWAY  
 COLUMBIA, SC 29229**

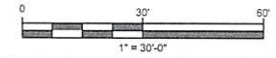
FA LOCATION:  
**14579327**

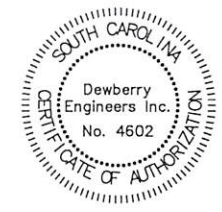
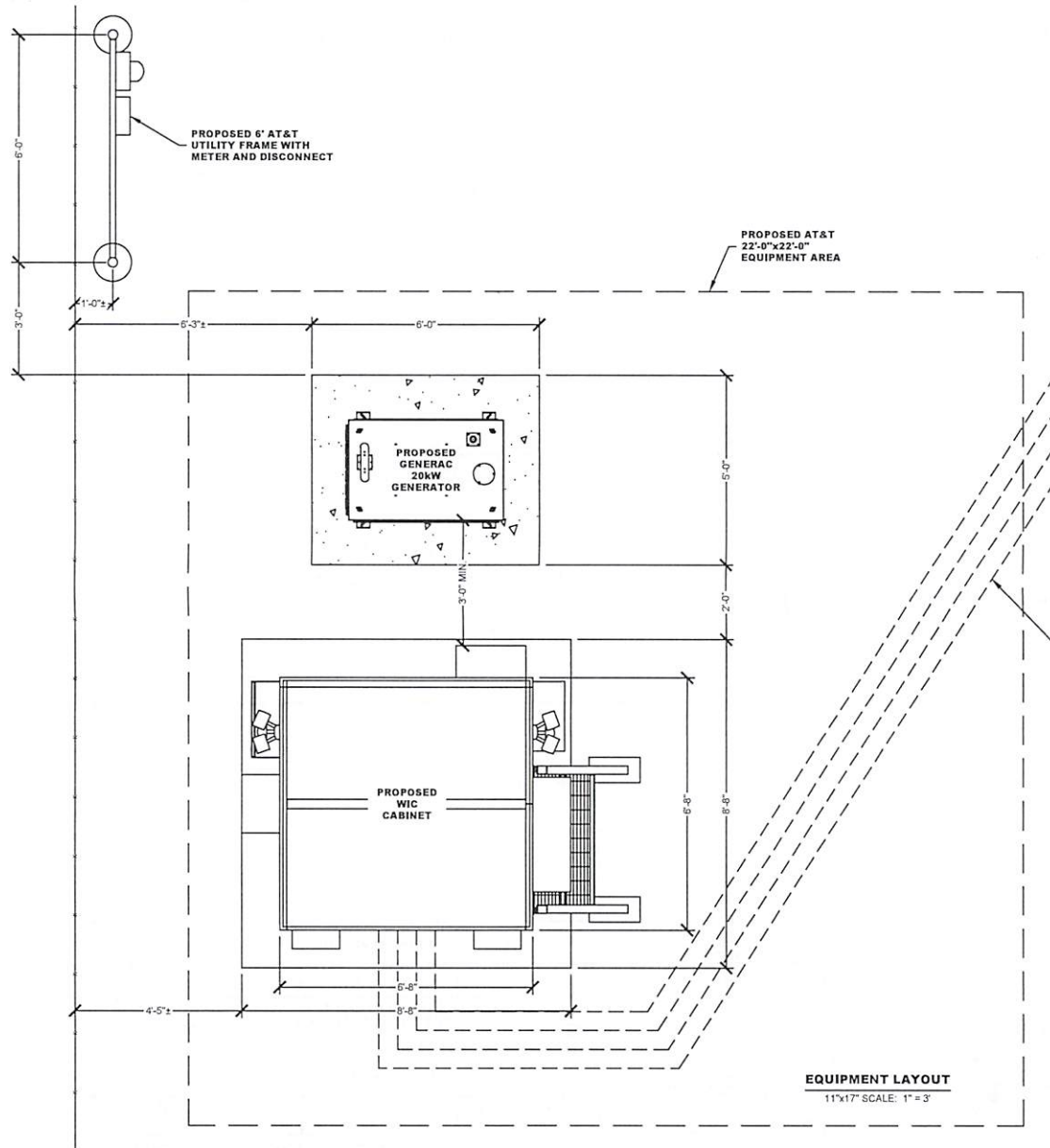
SITE NUMBER:  
**N/A**

SHEET TITLE  
**COMPOUND PLAN**

SHEET NUMBER  
**C-1**

**COMPOUND PLAN**  
 11"x17" SCALE: 1" = 30'-0"





03/20/2020

SUBMITTALS			
DATE	DESCRIPTION	REV	ISSUED BY
3/20/20	FOR CONSTRUCTION	0	DSW

DRAWN BY: SRP  
 CHECKED BY: DSW  
 APP'D BY: WP  
 DEWBERRY PROJECT NO: 50107750

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PREPARED FOR:  
 at&t

PREPARED BY:  
 MasTec Network Solutions  
 507 AIRPORT BLVD, SUITE 111  
 MORRISVILLE, NC 27560

PREPARED BY:  
 Dewberry  
 DEWBERRY ENGINEERS INC.  
 2810 WYCLIFF ROAD, SUITE 410  
 RALEIGH, NC 27607  
 NCBELS#: F-0629

SITE ID:  
**091-096**

SITE NAME:  
**091-096 SUMMIT PARKWAY**

SITE ADDRESS:  
**1201 SUMMIT PARKWAY  
 COLUMBIA, SC 29229**

FA LOCATION:  
**14579327**

SITE NUMBER:  
**N/A**

SHEET TITLE  
**EQUIPMENT LAYOUT**

SHEET NUMBER  
**C-2**

FINAL RF EQUIPMENT SCHEDULE												
SECTOR POSITION	CORRAL PDS.	FREQUENCY BAND	ANTENNA MAKE/MODEL	RAD CENTER	AZIMUTH	E. TILT	M. TILT	(QTY.) RADIO	(QTY.) TMA	(QTY.) SURGE PROTECTION	(QTY.) CABLES	CABLE LENGTH
A1	3	LTE 700	COMMSCOPE - NNH4-65C-R6 (P)	142'-0"	20°	4°	0°	(1) RRU5 4478 B14 (P)	-	-	(1) FIBER TRUNK (P) (3) DC TRUNKS (#4 AWG) (P)	260'±
A2	4	-	-	-	-	-	-	-	-	(1) DC9-48-60-24-8C-EV (P)	-	-
A3	5	LTE 700/ AWS/1900	COMMSCOPE - NNH4-65C-R6 (P)	142'-0"	20°	4°, 2°, 2° 2°, 2°	0°	(1) RRU5 4449 B5/B12 (P) (1) RRU5 8843 B2/B66A (P)	-	-	-	-
A4	-	-	-	-	-	-	-	-	-	-	-	-
A5	-	-	-	-	-	-	-	-	-	-	-	-
B1	16	LTE 700	COMMSCOPE - NNH4-65C-R6 (P)	142'-0"	140°	4°	0°	(1) RRU5 4478 B14 (P)	-	-	(1) FIBER TRUNK (P) (3) DC TRUNKS (#4 AWG) (P)	260'±
B2	17	-	-	-	-	-	-	-	-	(1) DC9-48-60-24-8C-EV (P)	-	-
B3	18	LTE 700/ AWS/1900	COMMSCOPE - NNH4-65C-R6 (P)	142'-0"	140°	4°, 2°, 2° 2°, 2°	0°	(1) RRU5 4449 B5/B12 (P) (1) RRU5 8843 B2/B66A (P)	-	-	-	-
B4	-	-	-	-	-	-	-	-	-	-	-	-
B5	-	-	-	-	-	-	-	-	-	-	-	-
C1	31	LTE 700	COMMSCOPE - NNH4-65C-R6 (P)	142'-0"	260°	4°	0°	(1) RRU5 4478 B14 (P)	-	-	(1) FIBER TRUNK (P) (3) DC TRUNKS (#4 AWG) (P)	260'±
C2	32	-	-	-	-	-	-	-	-	(1) DC9-48-60-24-8C-EV (P)	-	-
C3	33	LTE 700/ AWS/1900	COMMSCOPE - NNH4-65C-R6 (P)	142'-0"	260°	4°, 2°, 2° 2°, 2°	0°	(1) RRU5 4449 B5/B12 (P) (1) RRU5 8843 B2/B66A (P)	-	-	-	-
C4	-	-	-	-	-	-	-	-	-	-	-	-
C5	-	-	-	-	-	-	-	-	-	-	-	-
<b>TOTALS</b>			(6) ANTENNAS	-	-	-	-	(9) RRU'S	(0) TMA	(3) SPD	(12) CABLES	-

(P) = PROPOSED

- ALL RRU MOUNTING BRACKETS TO BE SUPPLIED BY AT&T

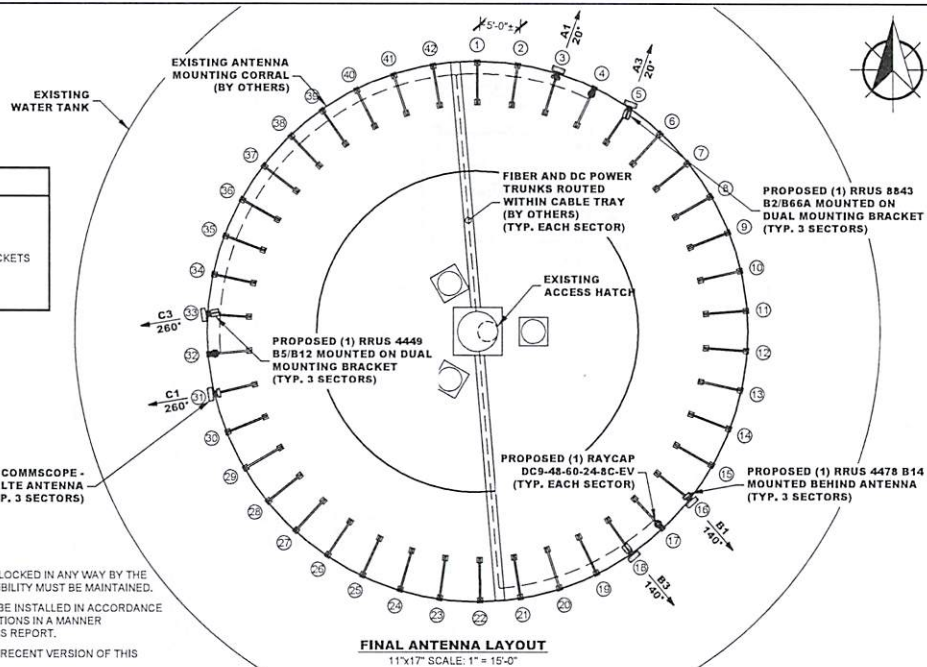
- MAINTAIN 3'-0" MIN. SEPARATION BETWEEN FIRST NET AND LTE 700 ANTENNAS

**SCOPING NOTES - TOWER**

- INSTALL (6) NNH4-65C-R6 ANTENNAS
- INSTALL (3) NEW RRU5 4449 B5/B12
- INSTALL (3) NEW RRU5 4478 B14
- INSTALL (3) NEW RRU5 8843 B2/B66A
- INSTALL (3) NEW B2B DUAL RRU MOUNTING BRACKETS
- INSTALL (3) NEW RAYCAP DC9-48-60-24-8C-EV
- INSTALL (3) NEW FIBER TRUNKS
- INSTALL (9) NEW DC POWER TRUNKS (#4 AWG)

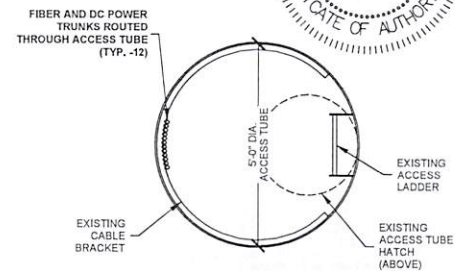
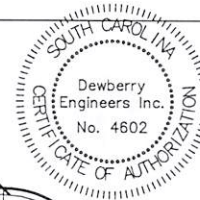
**NOTES:**

- THE REQUIRED FAA LIGHTING MUST NOT BE BLOCKED IN ANY WAY BY THE ANTENNAS. THE REQUIRED 360° LIGHTING VISIBILITY MUST BE MAINTAINED.
- ALL ANTENNAS, CABLES AND MOUNTS SHALL BE INSTALLED IN ACCORDANCE WITH THE TOWER ENGINEER'S RECOMMENDATIONS IN A MANNER CONSISTENT WITH THE STRUCTURAL ANALYSIS REPORT.
- ALL ANTENNA INFORMATION BASED ON MOST RECENT VERSION OF THIS SITES RFDS.

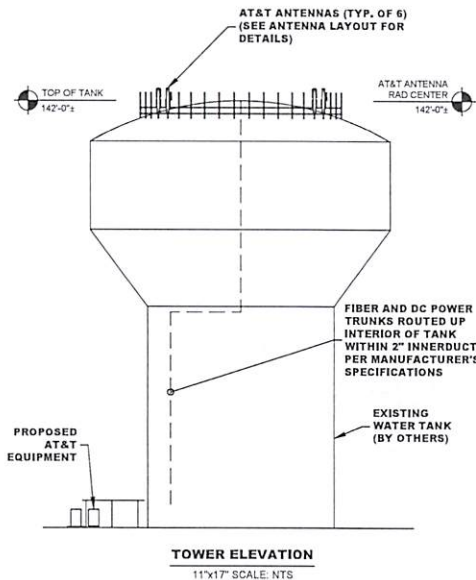


**NOTES:**

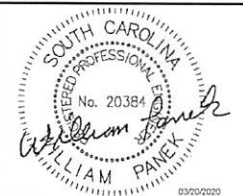
1. SOME EXISTING AND PROPOSED INFORMATION NOT SHOWN FOR CLARITY.
2. PRIOR TO THE START OF ANY WORK, A STRUCTURAL ANALYSIS AND A MOUNT ANALYSIS PERFORMED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF THE PROJECT MUST BE COMPLETED TO DETERMINE THE ADEQUACY OF EXISTING MOUNTS AND TOWER FOR ADDITION OF NEW EQUIPMENT. CONTRACTOR SHALL OBTAIN A COPY PRIOR TO START OF ANY WORK.
3. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER OF RECORD FOR ANY DISCREPANCIES.



**ACCESS TUBE CABLE ROUTING**  
11'x17' SCALE: NTS



**TOWER ELEVATION**  
11'x17' SCALE: NTS



**SUBMITTALS**

DATE	DESCRIPTION	REV	ISSUED BY
3/20/20	FOR CONSTRUCTION	0	DSW

DRAWN BY: SRF  
 CHECKED BY: DSW  
 APP'D BY: WF  
 DEWBERRY PROJECT NO: 50107750

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**MasTec**  
 Network Solutions  
 507 AIRPORT BLVD, SUITE 111  
 MORRISVILLE, NC 27560

PREPARED BY:  
**Dewberry**  
 DEWBERRY ENGINEERS INC.  
 2810 WYCLIFF ROAD, SUITE 410  
 RALEIGH, NC 27607  
 NCBEL# : F-0929

SITE ID:  
**091-096**

SITE NAME:  
**091-096 SUMMIT PARKWAY**

SITE ADDRESS:  
**1201 SUMMIT PARKWAY  
 COLUMBIA, SC 29229**

FA LOCATION:  
**14579327**

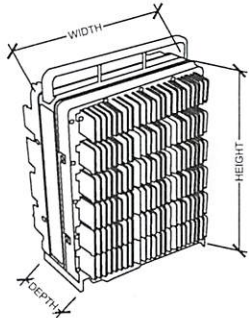
SITE NUMBER:  
**N/A**

SHEET TITLE  
**ANTENNA LAYOUT &  
 TOWER ELEVATION**

SHEET NUMBER  
**C-3**

**ERICSSON RRU8 8843 B2/B66A**

- DIMENSIONS (H x W x D): 14.9" x 13.2" x 10.9" (INCLUDES SUNSHIELD)
- WEIGHT: 72.0 LBS
- B2 TX = 1930-1990 MHZ, B66A TX = 2110-2180 MHZ
- B2 RX = 1850-1910 MHZ, B66A RX = 1710-1780 MHZ
- CPRI 2 PORTS X 2.5/4.9/9.8/10.1 GBPS.



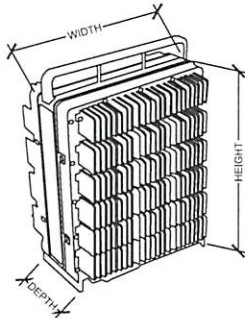
**NOTE:**  
RRUS CAN ONLY BE PAINTED ON SOLAR SHIELD.

**ERICSSON RRU8 8843 B2/B66A DETAIL**

SCALE: N.T.S.

**ERICSSON RRU8 4449 B5/B12**

- DIMENSIONS (H x W x D): 17.9" x 13.2" x 9.4" (INCLUDES SUNSHIELD)
- WEIGHT: 71.0 LBS
- B5 TX = 869-894 MHZ, B12 TX = 729-746 MHZ
- B5 RX = 824-849 MHZ, B12 RX = 699-716 MHZ
- CPRI 2 PORTS X 2.5/4.9/9.8/10.1 GBPS.



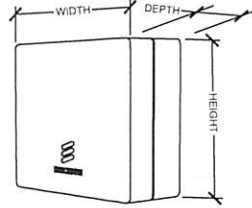
**NOTE:**  
RRUS CAN ONLY BE PAINTED ON SOLAR SHIELD.

**ERICSSON RRU8 4449 B5/B12 DETAIL**

SCALE: N.T.S.

**ERICSSON RRU8 4478 B14**

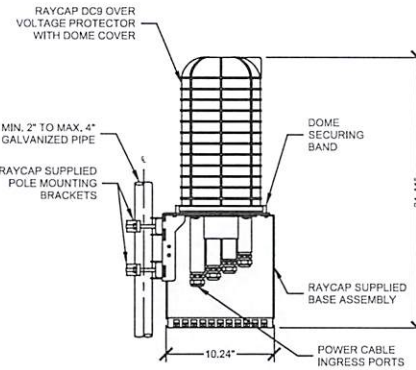
- DIMENSIONS (H x W x D): 15" x 13.2" x 7.3" (INCLUDES SUNSHIELD)
- WEIGHT: 59.4 LBS
- TX = 758-768 MHZ
- RX = 788-798 MHZ
- CPRI 2 PORTS X 2.5/4.9/9.8/10.1 GBPS.



**NOTE:**  
RRUS CAN ONLY BE PAINTED ON SOLAR SHIELD.

**ERICSSON RRU8 4478 B14 DETAIL**

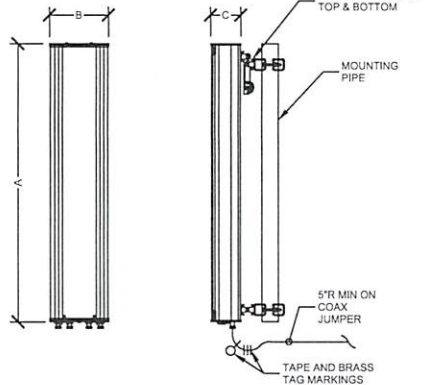
SCALE: N.T.S.



**NOTES:**  
RAYCAP VIA AT&T SUPPLIES THE DC9 OVER VOLTAGE PROTECTOR AND PIPE MOUNTING BRACKETS. SUBCONTRACTOR SHALL SUPPLY THE PIPE.

**RAYCAP DC9-48-60-24-8C-EV OVP ASSEMBLY**

SCALE: N.T.S.



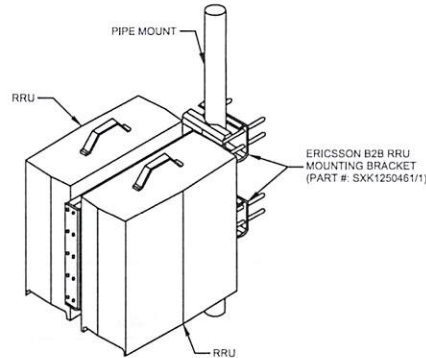
**NEW ANTENNA SPECIFICATIONS**

ANTENNA MODEL	LENGTH (A)	WIDTH (B)	DEPTH (C)	WEIGHT
COMMSCOPE NNH4-65C-R6	96.0"	19.6"	7.8"	102.1 LBS

**NEW ANTENNA SPECIFICATIONS**

SCALE: N.T.S.

**AT&T SUPPLIED ERICSSON SXK1250461/1 B2B RRU MOUNTING BRACKET**



**DUAL B2B RRU MOUNTING BRACKET**

SCALE: N.T.S.



**SUBMITTALS**

DATE	DESCRIPTION	REV	ISSUED BY
3/20/20	FOR CONSTRUCTION	0	DSW

DRAWN BY:	SRF
CHECKED BY:	DSW
APPROVED BY:	VP
DEWBERRY PROJECT NO:	56107750

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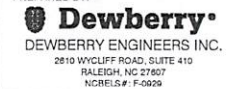
PREPARED FOR:



PREPARED BY:



PREPARED BY:



SITE ID:  
**091-096**

SITE NAME:  
**091-096 SUMMIT PARKWAY**

SITE ADDRESS:  
**1201 SUMMIT PARKWAY  
COLUMBIA, SC 29229**

FA LOCATION:  
**14579327**

SITE NUMBER:  
**N/A**

SHEET TITLE  
**EQUIPMENT DETAILS**

SHEET NUMBER  
**C-4**



**EQUIPMENT SPECIFICATIONS**

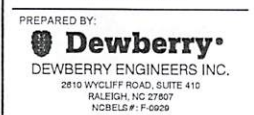
- EXTERNAL DIMENSIONS (H x W x D): 9.5' x 6.6' x 6.6'
- INTERNAL DIMENSIONS (H x W x D): 96" x 70.5" x 70.5"
- WEIGHT: 5500 LBS

**SUBMITTALS**

DATE	DESCRIPTION	REV	ISSUED BY
3/2/20	FOR CONSTRUCTION	0	DSW

DRAWN BY: SRF  
 CHECKED BY: DSW  
 APPROVED BY: VP  
 DEWBERRY PROJECT NO. 50107750

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SITE ID:  
**091-096**

SITE NAME:  
**091-096 SUMMIT PARKWAY**

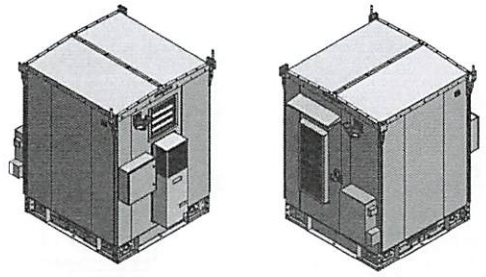
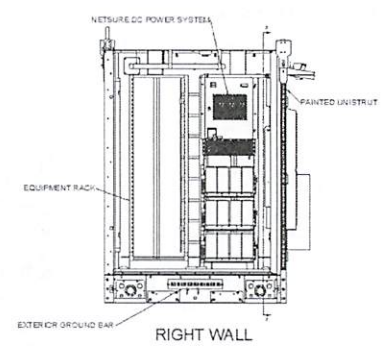
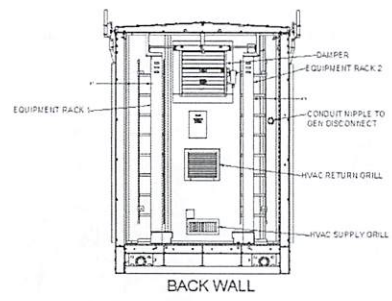
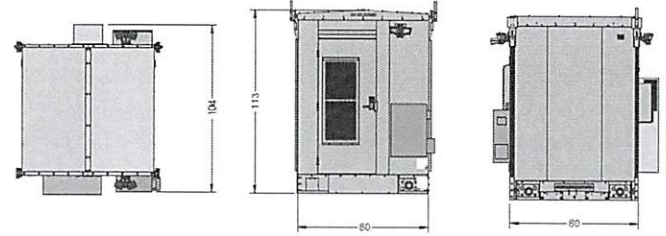
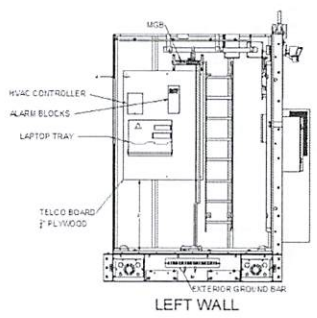
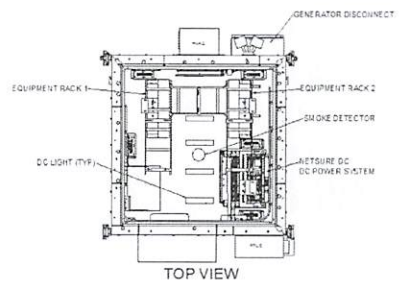
SITE ADDRESS:  
**1201 SUMMIT PARKWAY  
COLUMBIA, SC 29229**

FA LOCATION:  
**14579327**

SITE NUMBER:  
**N/A**

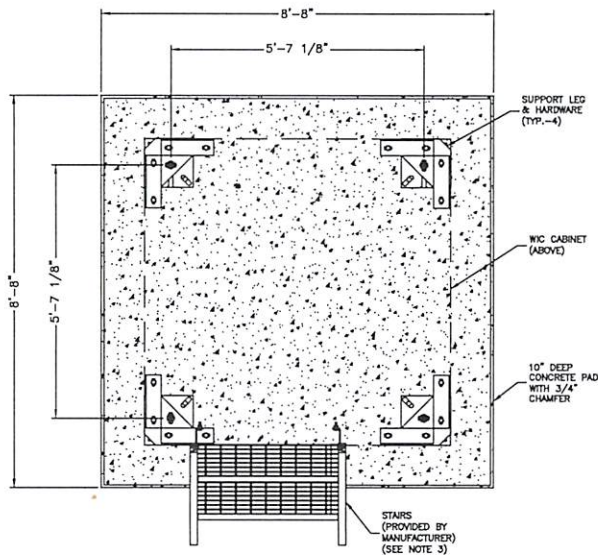
SHEET TITLE  
**CABINET DETAILS**

SHEET NUMBER  
**C-5**

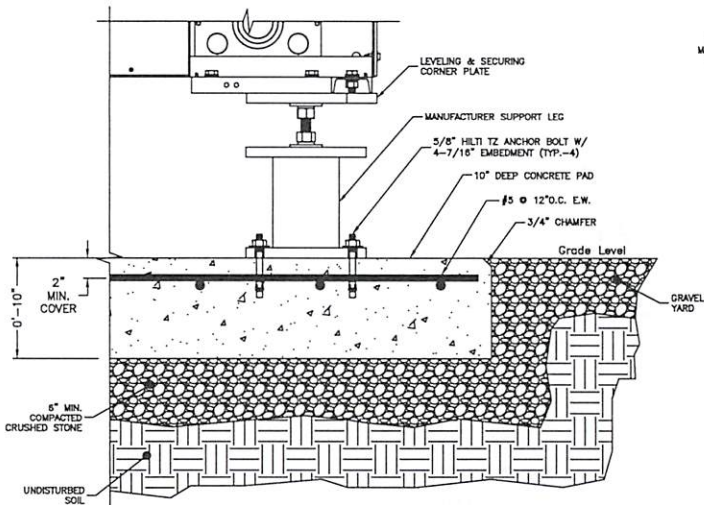


**VERTIV SMARTMOD WALK-IN-CABINET**  
SCALE: N.T.S.

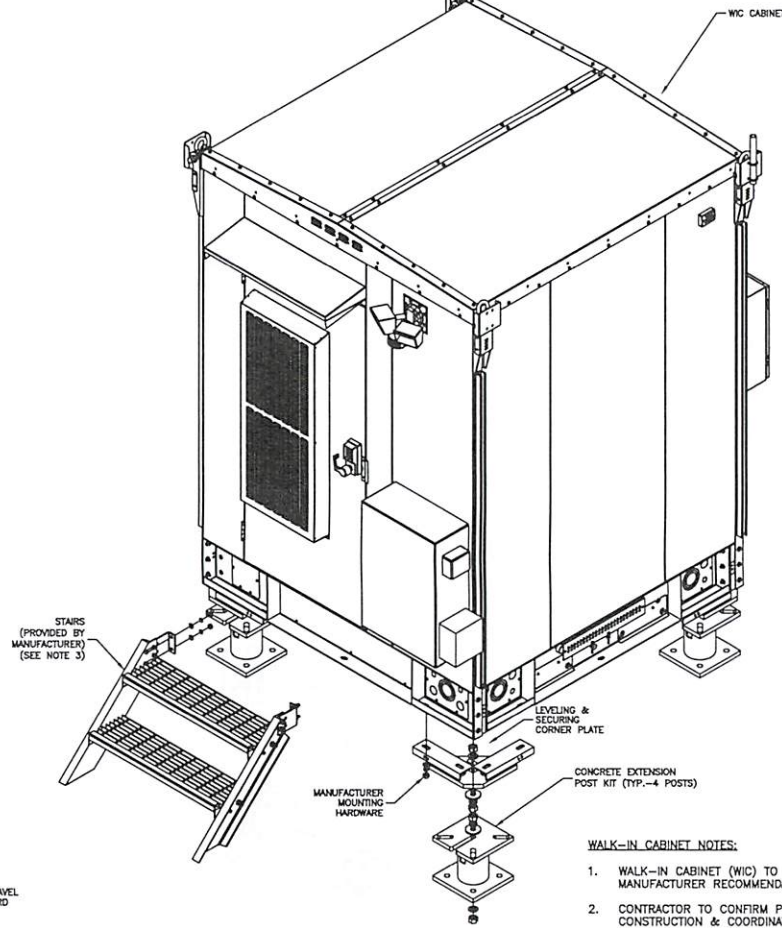




**WIC FOUNDATION DETAIL**  
11"x17" SCALE: 3/8" = 1'-0"



**WIC BASE SECTION**  
11"x17" SCALE: 1" = 1'-0"



**WIC ISOMETRIC**  
11"x17" SCALE: N.T.S.

**WALK-IN CABINET NOTES:**

1. WALK-IN CABINET (WIC) TO BE INSTALLED ACCORDING TO MANUFACTURER RECOMMENDATIONS & SPECIFICATIONS.
2. CONTRACTOR TO CONFIRM PARTS & HARDWARE PRIOR TO CONSTRUCTION & COORDINATE WITH AT&T CM.
3. FOUNDATION TO BE FLUSH WITH EXISTING GRADE. CONTRACTOR SHALL MAINTAIN A MAXIMUM 18" CLEARANCE FROM GRADE TO BOTTOM OF WIC TO ACCOMMODATE STAIRS. VERIFY IN FIELD PRIOR TO POST INSTALLATION.
4. COORDINATE POWER & TELCO CONDUIT STUBUP PLACEMENT WITH ELECTRICAL TRADES. SEE E-1 FOR ADDITIONAL INFORMATION.
5. PROVIDE WORKING HVAC AND ELECTRICAL WORKING SPACE CLEARANCES PER MANUFACTURER RECOMMENDATIONS & CODE REQUIREMENTS.
6. WIC DIMENSIONS: 6'-8"W X 6'-8"L X 9'-6" TALL (NO BASE)  
WIC WEIGHT: 5500 LBS (EMPTY) 7500 LBS (FULLY INTEGRATED)
7. CONTRACTOR TO PROVIDE AND INSTALL SPECIFIED CONCRETE ANCHORS.



**SUBMITTALS**

DATE	DESCRIPTION	REV	ISSUED BY
3/20/20	FOR CONSTRUCTION	0	DSW

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APP'D BY: WP  
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Network Solutions  
507 AIRPORT BLVD, SUITE 111  
MCRIEVILLE, NC 27560

PREPARED BY:

**Dewberry**  
DEWBERRY ENGINEERS INC.  
2610 WYCLIFF ROAD, SUITE 410  
RALEIGH, NC 27607  
NCBELS #: F-5629

SITE ID:  
**091-096**

SITE NAME:  
**091-096 SUMMIT PARKWAY**

SITE ADDRESS:  
**1201 SUMMIT PARKWAY  
COLUMBIA, SC 29229**

FA LOCATION:  
**14579327**

SITE NUMBER:  
**N/A**

SHEET TITLE  
**CABINET MOUNTING  
DETAILS**

SHEET NUMBER  
**C-6**

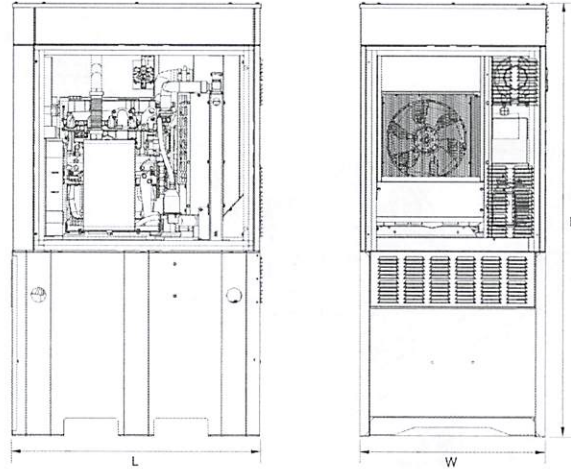
**SDC20 | 2.5L | 20 kW - AC**  
**INDUSTRIAL DIESEL GENERATOR SET**

EPA Certified Stationary Emergency

DIMENSIONS AND WEIGHTS\*

**GENERAC** INDUSTRIAL POWER

Model G007098-0 (Steel)



**Level 2 Sound Attenuation Enclosure**

Run Time Hours	48
Usable Capacity Gal (L)	92 (348.2)
L x W x H in (mm)	48 x 36 x 90 (1219.2 x 914.4 x 2286)
Weight lbs (kg)	2400 (1089)
Sound Level	71 dBA

\* All measurements are approximate and for estimation purposes only.

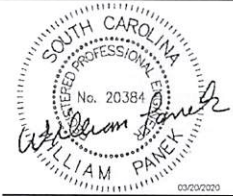
YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER

Specification characteristics may change without notice. Dimensions and weights are for preliminary purposes only. Please consult a Generac Power Systems Industrial Dealer for detailed installation drawings.

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Document No. 1000009019  
 Rev. WIP 11/04/16

**GENERATOR DETAIL**  
 SCALE: N.T.S.



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 2810 WYCLIFF ROAD, SUITE 410  
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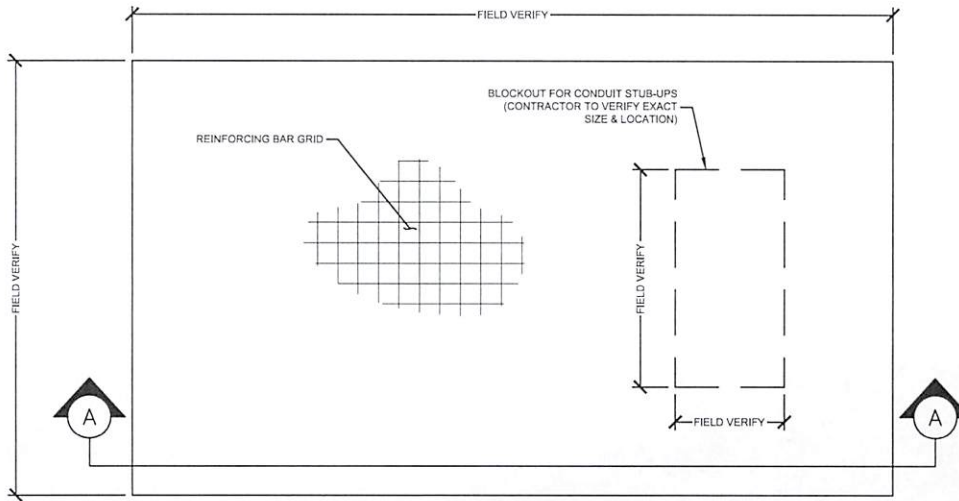
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**GENERATOR DETAILS**

SHEET NUMBER

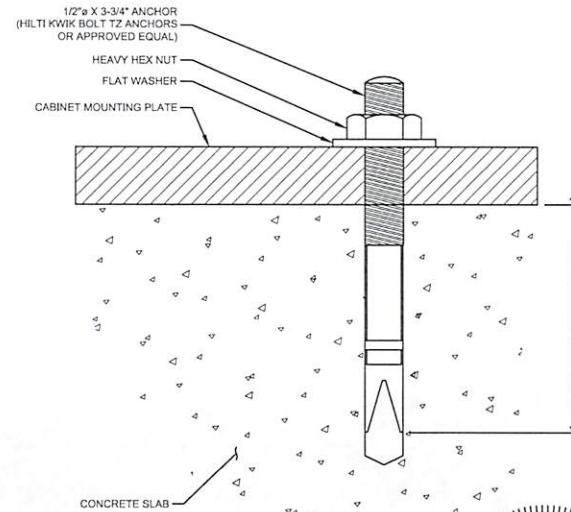
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SPEC SHEET

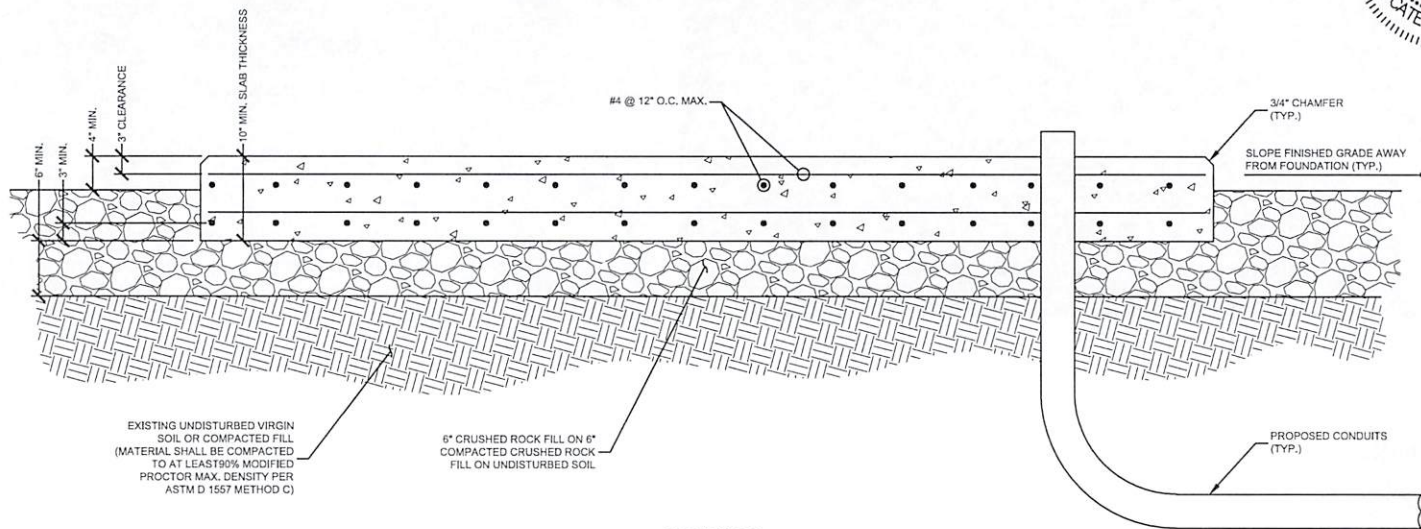
5 of 6



**EQUIPMENT PAD PLAN**  
SCALE: N.T.S.



**ANCHORAGE DETAIL**  
SCALE: N.T.S.



**SECTION A-A**  
SCALE: N.T.S.



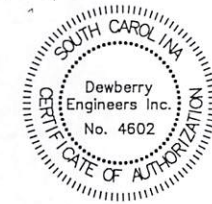
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 RALEIGH, NC 27607  
 NCELS# F-0929

SITE ID:  
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**091-096 SUMMIT PARKWAY**

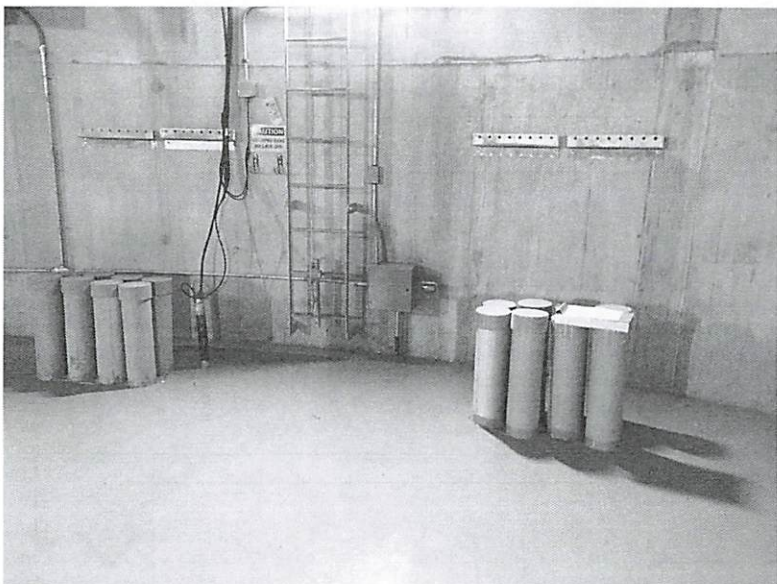
SITE ADDRESS:  
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FA LOCATION:  
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SITE NUMBER:  
**N/A**

SHEET TITLE  
**CIVIL DETAILS**

SHEET NUMBER  
**C-8**



**EXISTING ENTRY PORTS**  
SCALE: N.T.S.



**EXISTING CABLE SUPORT BRACKETS**  
SCALE: N.T.S.

SUBMITTALS			
DATE	DESCRIPTION	REV	ISSUED BY
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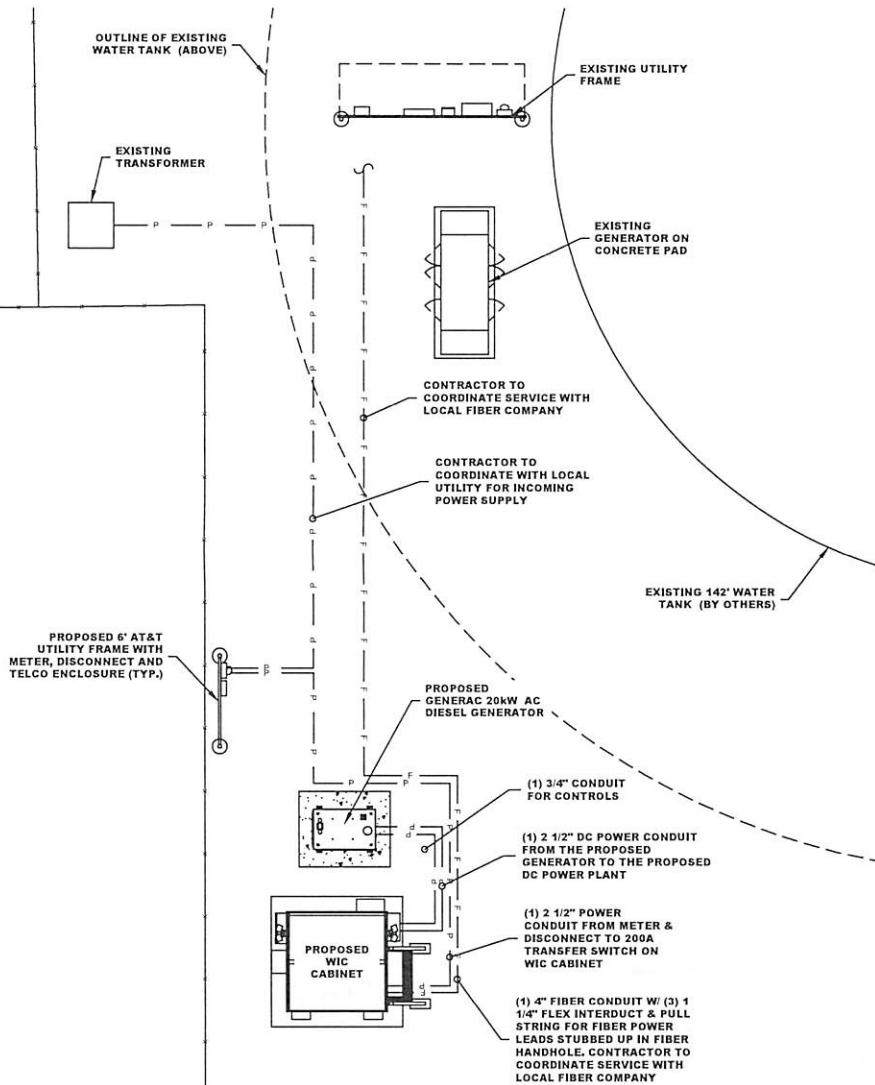
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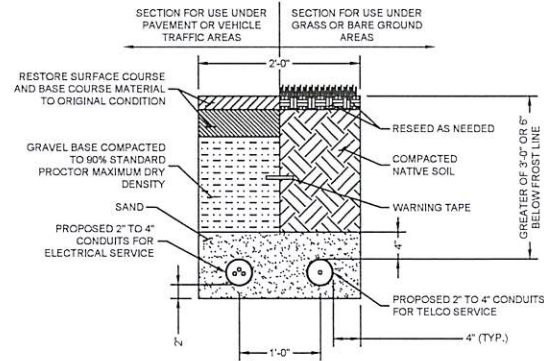
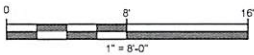
SHEET TITLE  
**PHOTOS**

SHEET NUMBER  
**C-9**

CONTRACTOR TO COORDINATE WITH LOCAL UTILITY FOR INCOMING FIBER SUPPLY



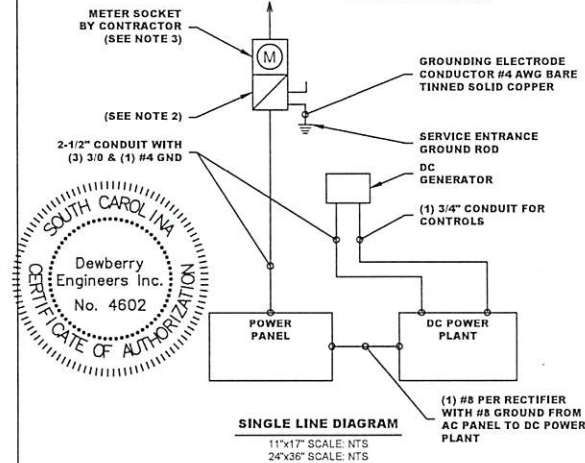
**SERVICE ROUTING PLAN**  
11"x17" SCALE: 1" = 8'-0"



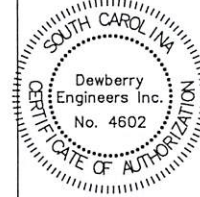
**JOINT UTILITY TRENCH DETAIL**  
SCALE: NTS

**SINGLE LINE DIAGRAM NOTES:**

1. ELECTRICAL SERVICE SHALL BE 120/240V, 1Ø, 3W, 200A.
2. PROVIDE SERVICE ENTRANCE RATED CIRCUIT BREAKER TYPE DISCONNECT SWITCH.
3. INSTALL A 200 AMP METER BASE AS DIRECTED BY THE UTILITY COMPANY.



**SINGLE LINE DIAGRAM**  
11"x17" SCALE: NTS  
24"x36" SCALE: NTS



**SUBMITTALS**

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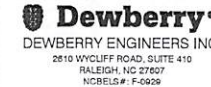
PREPARED FOR:



PREPARED BY:



PREPARED BY:



SITE ID:  
091-096

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SITE ADDRESS:  
1201 SUMMIT PARKWAY  
COLUMBIA, SC 29229

FA LOCATION:  
14579327

SITE NUMBER:  
N/A

SHEET TITLE  
SERVICE ROUTING &  
SINGLE LINE DIAGRAM

SHEET NUMBER  
E-1

**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 WARRANTY 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 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 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 BUSES, 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	PNLBD	-	PANELBOARD
AFG	-	ABOVE FINISHED GRADE	PVC	-	RIGID NON-METALLIC CONDUIT
ATS	-	AUTOMATIC TRANSFER SWITCH	RGS	-	RIGID GALVANIZED STEEL CONDUIT
AWG	-	AMERICAN WIRE GAUGE	SW	-	SWITCH
BCW	-	BARE COPPER WIRE	TGB	-	TOWER GROUND BAR
BFG	-	BELOW FINISHED GRADE	UL	-	UNDERWRITERS LABORATORIES
BKR	-	BREAKER	V	-	VOLTAGE
C	-	CONDUIT	W	-	WATTS
CKT	-	CIRCUIT	XFMR	-	TRANSFORMER
DISC	-	DISCONNECT	XMTR	-	TRANSMITTER
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			

	— P —	UNDERGROUND ELECTRICAL CONDUIT
	— F —	UNDERGROUND FIBER CONDUIT
		KILOWATT-HOUR METER
	---	UNDERGROUND BONDING AND GROUNDING CONDUCTOR.
		GROUND ROD
	▲	COMPRESSION TYPE CONNECTIONS
	■	EXOTHERMIC TYPE CONNECTIONS
		GROUND ROD WITH INSPECTION WELL



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**PREPARED BY:**



**PREPARED BY:**



**SITE ID:**

091-096

**SITE NAME:**

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**FA LOCATION:**

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**SITE NUMBER:**

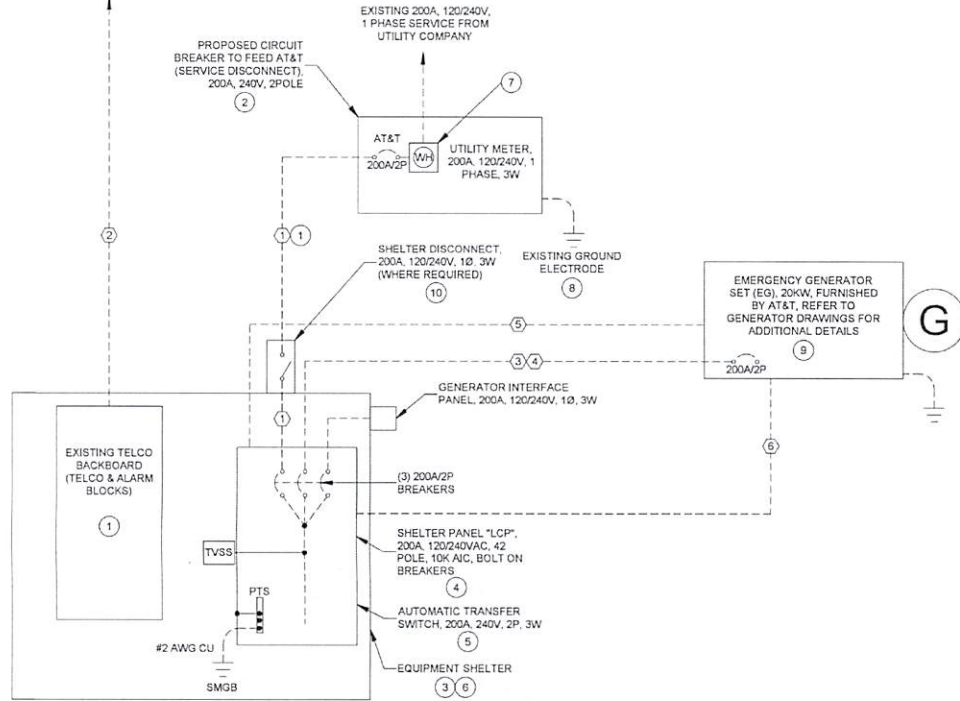
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**SHEET TITLE**  
**ELECTRICAL NOTES**

**SHEET NUMBER**

E-2

EXISTING TELCO/FIBER SERVICE FROM LOCAL DEMARCATION POINT



**CABLE AND CONDUIT SCHEDULE**

MARK	CONDUIT		WIRES EACH CONDUIT		EQUIPMENT			FROM	TO	RESPONSIBILITY	REMARKS		
	QTY.	SIZE	TYPE	QTY.	SIZE	GROUND SIZE	VOLTS					AMPS	SUB. CAT.
①	1	0-2 1/2"	PVC	3	#30	#4	240	200	AC POWER	SVC DISC	SHELTER PNL	MASTEC	POWER TO SHELTER, SEE NOTE 8
②	1	0'-4"	PVC	WITH (3) 1-1/4" ORANGE INNERDUCTS (1) 25 PR CAT 5e SHIELDED - 3#12 FOR DC POWER FOR FIBER					TELCO	HAND HOLE	SHELTER	MASTEC	25 PAIR AND 24 VDC POWER FOR FIBER
③	1	1-1/4"	PVC	2	#30	#4	240	200	AC POWER	GEN DISC	SHELTER ATS	MASTEC	GENERATOR POWER TO SHELTER, NOTE 8
④	1	1-1/4"	PVC	1	#30	#4	240	200	AC POWER	GEN DISC	SHELTER ATS	MASTEC	GENERATOR POWER TO SHELTER, NOTE 8
⑤	1	1"	PVC	(7) #14 AND BELDEN						CNTL PNL	SHELTER ATS	MASTEC	GENERATOR ALARM/CONTROL
⑥	1	1-1/4"	PVC	4	#12	#12	120	(2) 20	AC POWER	CNTL PNL	SHELTER PNL	MASTEC	(2) 20A, 120V CIRCUITS GENERATOR BATTERY CHARGER AND HEATER

**FAULT CURRENT SUMMARY TABLE**

FAULT LOCATION	AVAILABLE FAULT CURRENT (AMPS RMS SYMMETRICAL)			REMARKS
	SCA L-L	SCA L-N		
TRANSFORMER SECONDARY (*)	13,021	19,533		ASSUMING INFINITE AVAILABLE ON PRIMARY
METER CENTER	10,935	12,420		IMPEDANCE - 40' INCOMING SERVICE CONDUCTORS
SHELTER MAIN CIRCUIT BREAKER	8,021	6,805		IMPEDANCE - 50' FEEDER CONDUCTORS, MC TO SHELTER

**PANEL SCHEDULE**

11"x17" SCALE: NTS



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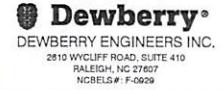
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PREPARED BY:



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FA LOCATION:

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SITE NUMBER:

N/A

SHEET TITLE

SINGLE LINE DIAGRAM

SHEET NUMBER

E-3

**GENERAL NOTES:**

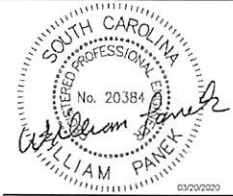
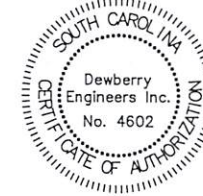
- CONTRACTOR SHALL COORDINATE INCOMING SERVICES WITH LOCAL UTILITIES PRIOR TO TRENCHING.
- ALL CONDUCTORS SHALL BE COPPER, 75° C RATED (MIN), AND CONDUCTOR INSULATION SHALL BE THWN OR THHN.
- ALL TERMINATIONS SHALL BE LISTED AND IDENTIFIED FOR USE WITH 75° C RATED CONDUCTORS OPERATING AT 75° C.
- GROUND FAULT PROTECTION REQUIRED FOR UTILITY RECEPTACLES.
- SERVICE NEUTRAL SHALL BE GROUNDED AT ONE LOCATION ONLY.
- WHITE/NEUTRAL, GREEN/GROUND SHALL BE MAINTAINED THROUGHOUT THE SITE ELECTRICAL SYSTEM (TAPE WILL NOT BE ACCEPTABLE).
- EQUIPMENT LOCATED OUTSIDE OR EXPOSED TO MOISTURE SHALL BE NEMA 3R RATED.
- CONTRACTOR SHALL USE RIGID METAL CONDUIT (RMC) OR INTERMEDIATE METAL CONDUIT (IMC) WHERE POWER CONDUITS ARE EXPOSED, OTHERWISE ALL CONDUITS SHALL BE SCHEDULE 80 PVC, UNLESS OTHERWISE NOTED.
- ALL NEWLY INSTALLED EQUIPMENT SHALL BE RATED AT 10K AIC MINIMUM. HIGHER RATINGS SHALL BE REQUIRED WHERE AVAILABLE FAULT CURRENT EXCEEDS THIS VALUE. EXACT FAULT CURRENT AVAILABLE SHALL BE COORDINATED WITH LOCAL UTILITY BASED ON EXACT CONDITIONS (TRANSFORMER SIZE, PERCENT IMPEDANCE, LENGTH OF CONDUCTORS, ETC.).

**NOTES BY SYMBOL:**

- CONTRACTOR SHALL FURNISH AND INSTALL POWER CONDUCTORS FROM METER CENTER TO SHELTER. METER WILL BE FURNISHED AND INSTALLED BY LOCAL UTILITY COMPANY.
- CONTRACTOR SHALL PROVIDE AND INSTALL CIRCUIT BREAKER IN METER CENTER TO FEED AT&T SHELTER. CIRCUIT BREAKER SHALL BE 200A, 240V, 2 POLE, TYP AND AIC RATING SHALL MATCH EXISTING.
- EQUIPMENT SHELTER SHALL BE FURNISHED BY CARRIER AND SHALL BE INSTALLED BY CONTRACTOR. ALL ITEMS SHOWN WITHIN SHELTER ARE PROVIDED WITH THE SHELTER AND ARE SHOWN FOR REFERENCE ONLY UNLESS OTHERWISE NOTED. PROVIDE THE CONNECTIONS INDICATED. OBTAIN SHELTER DRAWINGS FOR CIRCUIT CONNECTIONS, BREAKER AND CONDUCTOR SIZES, AND ADDITIONAL INFORMATION.
- CONTRACTOR SHALL PROVIDE ALL CIRCUIT BREAKERS REQUIRED TO FEED AT&T EQUIPMENT. CONTRACTOR SHALL LABEL ALL CIRCUIT BREAKERS WITH RESPECT TO WHAT THEY FEED.
- EQUIPMENT SHELTER IS EQUIPPED WITH TRANSFER SWITCH FOR GENERATOR CONNECTIONS. REFER TO SHELTER DRAWINGS FOR DETAILS. BREAKERS ARE INTERLOCKED TO ALLOW ONLY 1 BREAKER CLOSED AT ANY GIVEN TIME.
- THE CONTRACTOR SHALL REFER TO SHELTER DRAWINGS AND SPECIFICATIONS FOR CONTROL AND ALARM WIRING. INTERIOR ALARMS ARE PRE-WIRED.
- CONTRACTOR SHALL PROVIDE AND INSTALL NAMEPLATE ON METER TO INDICATE "AT&T". NAMEPLATES SHALL BE PHENOLIC, WHITE LETTERS ON BLACK BACKGROUND.
- CONTRACTOR SHALL BOND NEUTRAL TO GROUND AT ONE LOCATION ONLY PER NEC 250 AND LOCAL CODE REQUIREMENTS.
- DO NOT BOND GENERATOR NEUTRAL TO GROUND OR GENERATOR FRAME. GENERATOR NEUTRAL IS BONDED TO SERVICE ENTRANCE NEUTRAL BOND VIA SOLIDLY GROUNDED ATS (OPEN TRANSITION, FLOATING NEUTRAL AT GENERATOR)
- SHELTER DISCONNECT IS FURNISHED WITH SHELTER. ON SITES WHERE SERVICE IS OBTAINED FROM AN EXISTING SOURCE (METER CENTER), OR SERVICE DISCONNECT IS LOCATED ON EQUIPMENT RACK, SHELTER DISCONNECT MAY BE OMITTED.

**NOTES:**

- SERVICE BOND IS TO BE MADE BY DEVICES (STRAPS, SCREWS, ETC.) SUPPLIED BY EQUIPMENT MANUFACTURER. IF NO SUCH DEVICE IS SUPPLIED, BOND IS TO BE MADE IN ACCORDANCE WITH NEC ARTICLE 250.
- CONDUCTOR OVERCURRENT PROTECTION DEVICES ARE SELECTED IN ACCORDANCE WITH NEC ARTICLE 240-3.
- CONDUCTOR SIZING IS SELECTED FROM NEC ARTICLE 310-16.
- ALL LUGS THAT HOLD MORE THAN ONE WIRE SHALL BE LISTED FOR MULTI-BARRELL CONNECTIONS.
- ALL CONDUCTORS SHALL BE INSULATED THHN WIRE.



**SUBMITTALS**

DATE	DESCRIPTION	REV	ISSUED BY
3/26/20	FOR CONSTRUCTION	0	DSW

DRAWN BY: SRF  
 CHECKED BY: DSW  
 APP'D BY: VP  
 DEWBERRY PROJECT NO: 50107750

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PREPARED FOR:



PREPARED BY:



PREPARED BY:



SITE ID:  
**091-096**

SITE NAME:  
**091-096 SUMMIT PARKWAY**

SITE ADDRESS:  
**1201 SUMMIT PARKWAY  
 COLUMBIA, SC 29229**

FA LOCATION:  
**14579327**

SITE NUMBER:  
**N/A**

SHEET TITLE  
**PANEL SCHEDULE**

SHEET NUMBER  
**E-4**

PANEL SCHEDULE														
LOAD SERVED	VOLT AMPERES (WATTS)		WIRE	BREAKER		CKT#	PHASE	CKT#	BREAKER		WIRE	VOLT AMPERES (WATTS)		LOAD SERVED
	L1	L2		P	TRIP				TRIP	P		L1	L2	
RECTIFIER #1	2000		10	2	30	1	A	2	20	1	12	180		EXT. GFCI OUTLETS
		2000				3	B	4	30	2	10			
RECTIFIER #3	2000		10	2	30	5	A	6				2000		RECTIFIER #2
		2000				7	B	8						
RECTIFIER #5	2000		10	2	30	9	A	10	30	2	10	2000		RECTIFIER #4
		2000				11	B	12						
FUTURE RECTIFIERS						13	A	14						FUTURE RECTIFIERS
						15	B	16						
						17	A	18						
						19	B	20						
						21	A	22						
						23	B	24						
1 TON AC UNIT	3504		12	2	20	25	A	26						
		3504				27	B	28	20	1	12			70
APPLIANCE OUTLETS	480		12	1	20	29		30						
<b>VOLT AMPS</b>	<b>9984</b>	<b>9504</b>										<b>6180</b>	<b>6070</b>	<b>VOLT AMPS</b>
						<b>L1 VOLT AMPERES</b>	<b>16644</b>	<b>13574</b>						
							<b>31738</b>							
							<b>132.20</b>							
							<b>165.3</b>							
							<b>181.8</b>							
								<b>TOTAL VOLT AMPERES</b>						
								<b>TOTAL AMPS</b>						
								<b>AMPS x +25%</b>						
								<b>x +10% FOR MAIN</b>						

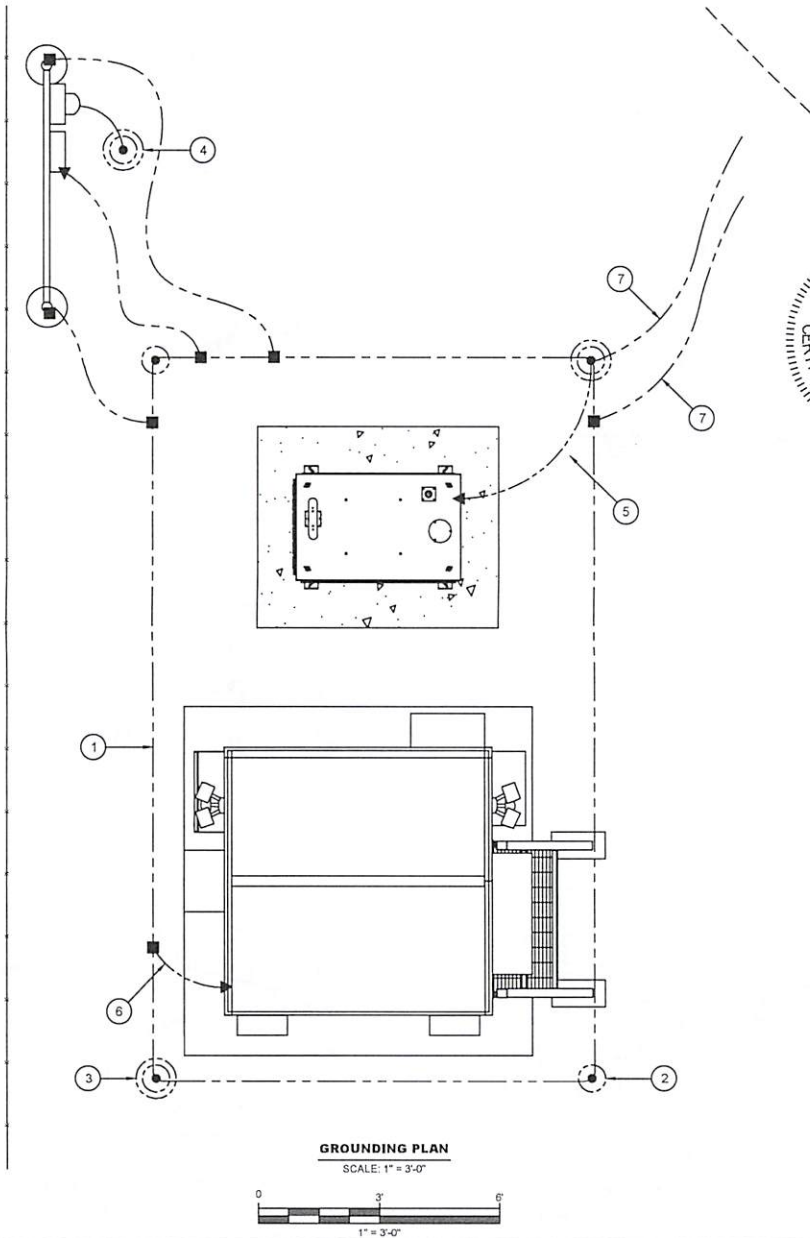
**WIC PANEL SCHEDULE**  
 11"x17" SCALE: NTS



CALLOUTS:

- ① #2 SOLID BARE TINNED COPPER CONDUCTOR 30" BELOW GRADE OR 6" BELOW FROST LINE, WHICH EVER IS GREATER (TYP.) MINIMUM 24" BENDING RADIUS (EQUIPMENT GROUND RING)
- ② 5/8"x10' COPPER CLAD GROUND ROD
- ③ 5/8"Ø 10' LONG COPPER CLAD GROUND ROD WITH INSPECTION WELL, TOP OF GROUND ROD MAX 24" BURY (MIN. (4) PER COMPOUND)
- ④ 5/8"x10' COPPER CLAD GROUND ROD (ELEC. SERVICE GROUND)
- ⑤ #2 AWG GENERATOR BOND BURIED 30" BELOW GRADE OR 6" BELOW FROST LINE, WHICHEVER IS GREATER (TYP.) MINIMUM 24" BENDING RADIUS
- ⑥ #2 AWG CABINET BOND BURIED 30" BELOW GRADE OR 6" BELOW FROST LINE, WHICHEVER IS GREATER (TYP.) MINIMUM 24" BENDING RADIUS
- ⑦ #2 SOLID BARE TINNED COPPER CONDUCTOR 30" BELOW GRADE OR 6" BELOW FROST LINE, WHICH EVER IS GREATER (TYP.) MINIMUM 24" BENDING RADIUS (EQUIPMENT GROUND RING TO WATER TANK GROUNDING SYSTEM)

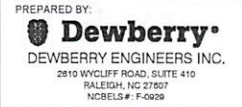
LEGEND	
---	#2 SOLID BARE TINNED COPPER CONDUCTOR
▲	MECHANICAL CONNECTION (BURNDY OR EQUIVALENT)
■	EXOTHERMIC CONNECTION (CADWELD OR EQUIVALENT)
⊙	INSPECTION WELL
⊕	5/8" DIA. X 10'-0" LONG, STEEL CLAD W/ A PURE COPPER JACKET (10' MAX SEPARATION)



SUBMITTALS			
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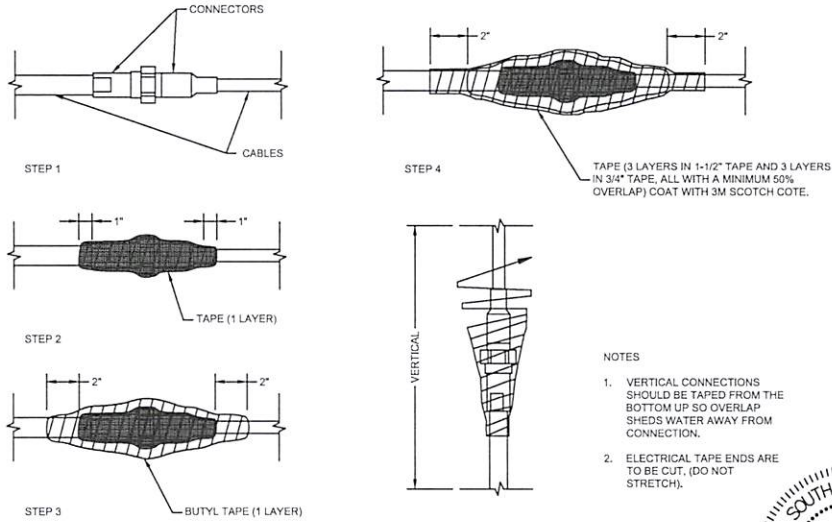
FA LOCATION:  
**14579327**

SITE NUMBER:  
**N/A**

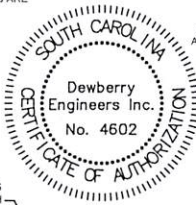
SHEET TITLE  
**GROUNDING PLAN**

SHEET NUMBER  
**G-1**

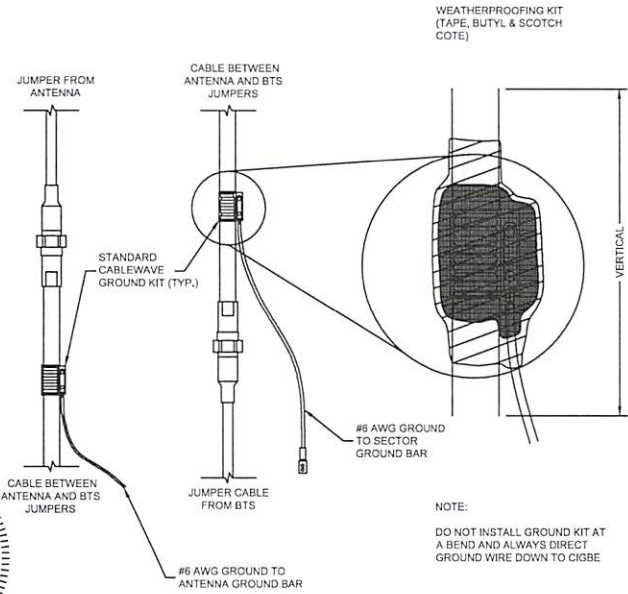




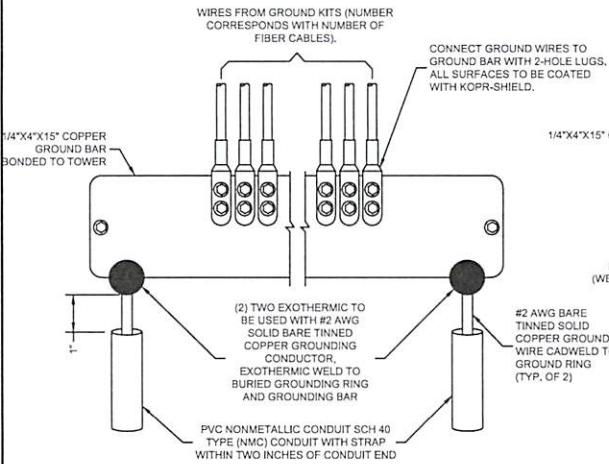
**CABLE WEATHERPROOFING DETAILS**  
SCALE: N.T.S.



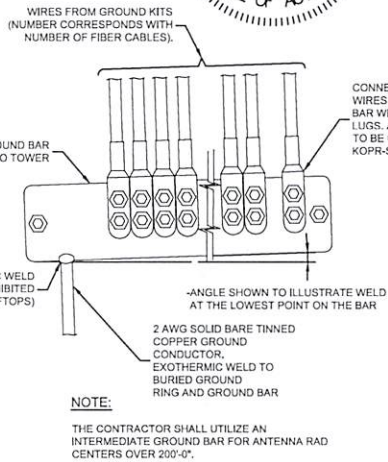
- NOTES**
1. VERTICAL CONNECTIONS SHOULD BE TAPED FROM THE BOTTOM UP SO OVERLAP SHEDS WATER AWAY FROM CONNECTION.
  2. ELECTRICAL TAPE ENDS ARE TO BE CUT, (DO NOT STRETCH).



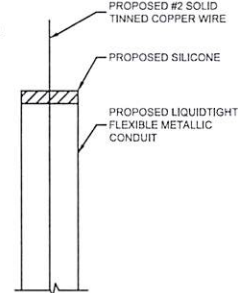
**GROUND KIT CONNECTION DETAILS**  
SCALE: N.T.S.



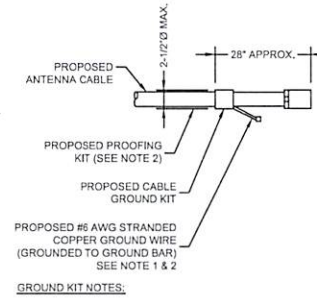
**LOWER GROUND BAR**  
SCALE: N.T.S.



**UPPER/INTERMEDIATE GROUND BAR**  
SCALE: N.T.S.



**GROUND WIRE WEATHERPROOFING**  
SCALE: N.T.S.



**CABLE BAR DETAIL**  
SCALE: N.T.S.



**SUBMITTALS**

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**Dewberry**  
DEWBERRY ENGINEERS INC.  
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RALEIGH, NC 27607  
NCBELS #: F-0629

SITE ID:  
**091-096**

SITE NAME:  
**091-096 SUMMIT PARKWAY**

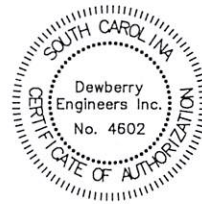
SITE ADDRESS:  
**1201 SUMMIT PARKWAY  
COLUMBIA, SC 29229**

FA LOCATION:  
**14579327**

SITE NUMBER:  
**N/A**

SHEET TITLE  
**GROUNDING DETAILS**

SHEET NUMBER  
**G-3**



**ELECTRICAL-GROUNDING ROD SYSTEM NOTES:**

1. ALL GROUNDING CONNECTIONS SHALL BE MADE BY THE EXOTHERMIC PROCESS CONNECTIONS SHALL INCLUDE ALL CABLE TO CABLE, SPLICES, ETC. ALL CABLE TO GROUND RODS, GROUND RODS SPLICES, AND LIGHTNING PROTECTION SYSTEM AS INDICATED. GROUND FOUNDATION ONLY AS INDICATED BY PM. ALL MATERIALS USED (MOLDS, WELDING, METAL, TOOLS, ETC.) SHALL BE BY EXOTHERMIC PROCESS AND INSTALLED PER MANUFACTURERS RECOMMENDATIONS AND PROCEDURES. GROUND CONDUCTOR SHALL HAVE A MINIMUM 24" BENDING RADIUS.
2. ALL EXOTHERMIC CONNECTIONS ON GALVANIZED SURFACES SHALL BE CLEANED THOROUGHLY AND COLORED TO MATCH SURFACE WITH (2) TWO COATS OF SHERWIN-WILLIAMS GALVITE (WHITE) PAINT B50W3 (OR EQUAL) OR SHERWIN-WILLIAMS SILVERBRITE (ALUMINUM) B59S11 (OR EQUAL).
3. ALL ELECTRICAL & MECHANICAL GROUND CONNECTIONS SHALL HAVE ANTI-OXIDANT COMPOUND APPLIED TO CONNECTION.
4. GROUND RODS SHALL BE INSTALLED VERTICALLY IN THE PROPOSED UNDISTURBED EARTH.
5. GROUND RING AROUND BUILDING SHALL BE BARE COPPER, 4/0, BARE TINNED COPPER CONDUCTOR, IN CONTACT WITH BARE EARTH AT A MINIMUM DEPTH OF 42". ALL CONDUCTOR BENDS SHALL NOT BE LESS THAN A MINIMUM RADIUS OF 8".
6. THE FENCE LINE WILL BE GROUNDED AT THE CORNER POSTS AND GATES. POSTS SHALL HAVE ONE #4/0 THWN COPPER CONDUCTOR WIRE CONNECTED TO A 5/8"x8" SOLID COPPER CLAD GROUND ROD WHICH IS INCORPORATED INTO THE EXTERIOR GROUND RING. GATE POSTS SHALL HAVE A STRANDED COPPER GROUND-JUMPER TO THE SWING GATE FRAME. ALL CONNECTIONS ARE TO BE CAD-WELDED AND SPRAYED WITH COLD-GALVANIZED PAINT.
7. FENCE/GATE: GROUND FENCE POSTS WITHIN 6' OF ENCLOSURE AND 25' OF TOWER AS INDICATED ON DRAWINGS. GROUND EACH GATE POST AND CORNER POST. GROUND CONNECTIONS TO FENCE POSTS SHALL BE MADE BY THE EXOTHERMIC PROCESS AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND PROCEDURES. ALL OTHER CONNECTIONS FOR THE GROUND GRID SYSTEM SHALL BE MADE BY THE EXOTHERMIC PROCESS, AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND PROCEDURES.
8. ALL DETAILS ARE SHOWN IN GENERAL TERMS. ACTUAL GROUNDING INSTALLATION AND CONSTRUCTION MAY VARY DUE TO THE SPECIFIC SITE CONDITIONS.
9. UTILITY COMPANY COORDINATION: ELECTRICAL CONTRACTOR SHALL

CONFIRM THAT ALL WORK IS IN ACCORDANCE WITH THE RULES OF THE LOCAL UTILITY COMPANY BEFORE SUBMITTING THE BID. THE CONTRACTOR SHALL CHECK WITH THE UTILITY COMPANIES SUPPLYING SERVICE TO THIS PROJECT AND SHALL DETERMINE FROM THEM ALL EQUIPMENT AND CHARGES WHICH THEY WILL REQUIRE AND SHALL INCLUDE THE COSTS IN THE BID.

10. GROUND TEST: GROUND TESTS SHALL BE PERFORMED AS REQUIRED BY LESSEE STANDARD PROCEDURES. GROUND GRID RESISTANCE SHALL NOT EXCEED 5 OHMS.
11. GROUND RINGS ARE TO BE INSTALLED A MINIMUM OF 2'-0" FROM EQUIPMENT AND TOWER.

**ELECTRICAL-GROUNDING ROD SYSTEM NOTES:**

1. GROUND RODS SHALL BE INSTALLED NOT MORE THAN 8' APART.
2. GROUND RODS SHALL BE INSTALLED 6" MIN. BELOW FROST.
3. ALL BELOW GRADE GROUND RINGS AND GROUND LEADS SHALL BE #2 AWG SOLID, TINNED BARE COPPER WIRE.
4. ALL BELOW GROUND CONNECTIONS SHALL BE EXOTHERMIC WELDS.
5. UNLESS PROVIDED WITH A FACTORY APPLIED LEAD, ALL CONNECTIONS TO GROUND BARS SHALL BE BURINDY HYGROUND COMPRESSION LUGS OR EQUAL.
6. STEEL SHALL BE TO BARE METAL, GRIND GALV. FINISH OR PAINT OFF PRIOR TO WELDING, REPAIR GALV. FINISH OR PAINT AS REQUIRED, MATCH PAINT COLOR.
7. ALL LUG CONNECTIONS SHALL BE 2 HOLD LONG BARREL COMPRESSION TYPE OR APPROVED EQUAL.
8. ALL HARDWARE TO ATTACH MECHANICAL GROUND CONNECTIONS SHALL BE STAINLESS STEEL.
9. ALL MECHANICAL CONNECTIONS SHALL HAVE NOAX OR APPROVED EQUAL APPLIED BETWEEN COMPRESSION LUG AND FIXTURE.

**LEAD IDENTIFICATION & DESCRIPTION:**

1	RING, EXTERNAL BURIED W/RODS	#2 SBTC
1A	RING, CONCRETE ENCASED	#2 SBTC
2	DEEP ANODE (TO IMPROVE OHMS)	ROD OR PIPE
3	RING TO BLDG STL FRAME	#2 SBTC
4	MAN AC PANEL NEUTRAL BUS TO (2) GROUND RODS, ISOLATED FROM LEAD #1	NEC 250.66
5	RING TO GROUND BAR	(2) #2 SBTC
6	RING TO EXT MTL OBJECT	#2 SBTC
7	DEEP ANODE TO MGB	NSTD33-9
8	AC PANEL TO WATER METER	NEC 250.66
9	EXT WATER TO INT WATER PIPES	NSTD33-9
10	INT WATER PIPE TO MGB	NSTD33-9
11-12	NOT USED	
13	AC PANEL TO MGB	NSTD33-9
14	MGB/FGB TO BLDG STL FRAME	#2/0 I-STR
14C	MGB/FGB TO ROOF/WALL MTL PNL	#1/0 I-STR
15	MGB/FGB TO FGB-HE SAME FLOOR	#2/0 I-STR
16	NOT USED	
16A	ECPCB TO CABLE ENTRY RACK	#1/0 I-STR
17	MGB TO CABLE SHIELDING	#6 I-STR
17A	ECPCB TO CABLE SHIELDING	#6 I-STR
17B	MGB/FGB TO F-0 SPLICE SHELF	#1 I-STR
18	LOWEST MGB/FGB TO HIGHEST FGB	#2/0 I-STR
19	LEAD 18 TO OTHER FGB, <5'	#2/0 I-STR
20	MGB/FGB TO BRANCH AC PNL	#6 I-STR
20A	NEAREST GRIND TO DISCONNECT PNL	NEC 250.66
20B	GWB TO AC DISTR PNL	#6 I-STR
21	MGB/FGB TO INT HALO	#2 I-STR
21A	INTERIOR 'GREEN' HALO	#2 I-STR
21B	INT HALO TO EXT RING	#2 SBTC
21C	INT HALO TO EQUIPMENT MTL	#6 I-STR
22	ROOF TOWER RING TO ROOF GRND	NFPA 780
23A	MGB/FGB TO ECPCB, SAME FLOOR	#1 I-STR
23A	MGB/FGB TO CRAF LNR PROT	#6 I-STR
24	ECPCB TO EACH PROTECTOR ASSEMBLY	#6 I-STR
24A	LOWER PROT ASSY TO UPPER	#6 I-STR

25	RING TO NEAREST LIGHTNING ROD	#2 SBTC
26	LIGHTNING ROD SYS TO NEARBY MTL	NFPA 780
27	RING TO TOWER RING	(2) #2 SBTC
28	RING TO SHELTER RING	(2) #2 SBTC
29	BRANCH AC PNL TO BTTY CHG FRM	NSTD33-11
30	BRANCH AC PNL TO OUTLETS	NSTD33-11
31	MGB/FGB TO PWR. BTTY FRAMES	#2/0 I-STR
32	#31 TO BATTERY CHARGER FRAME	#6 I-STR
33	#31 TO BATTERY RACK FRAME	#6 I-STR
34	#31 TO PCU FRAME	#6 I-STR
35	#31 TO DCU FRAME	#6 I-STR
36	#31 TO PCU FRAME	#6 I-STR
37	MGB/FGB TO BTTY RETURN	NSTD33-14.5
37A	MGB/FGB TO RTN TERM CARR SUPP	#6 I-STR
38	FGB TO FDU GB	#750MCM I-STR
38A	FGB TO PDU GB CARRIER SUPPLY	#2/0 I-STR
39	DC BUS DUCT TO NEXT SECTION	#6 I-STR
40	DC BUS DUCT TO MGB/FGB	#6 I-STR
41A	MGB/FGB TO #58	#2/0 I-STR
42-44	NOT USED	
45	MAIN AC PNL TO BRANCH AC PNL	NSTD33-11
46	BRANCH AC PNL TO DED OUTLET	NSTD33-11
47	FGB TO INTEG FRM	#2 I-STR
48	LEAD #31 TO INTEG FRM	#6 I-STR
49	INTEG FRM TO EQUIP SHELF	BY FASTENERS
50	PDU BTTY RET TO #51	#2/0 I-STR
51	#50 TO TRANS FROM ISO DC PWR	#6 I-STR
52	TRANS FRM FUSE TO FRM OR BAR	#6 I-STR
53A	MGB/FGB TO PDF/BDFB	NSTD33-22
54	MGB/FGB TO STATIC DEVICES	#6 I-STR
55	MGB/FGB TO CABLE AT ENTRY	#6 I-STR
56	MGB/FGB TO AC PWR RADIO XMTRR	#6 I-STR
57A	MGB/FGB TO CSL GRID/RUNWAY	#2/0 I-STR
58A	#41A TO AISLE FRAME	#2 I-STR
59A	#58A TO EACH SGL FRAME GRND	#6 I-STR
60-89	NOT USED	
90	GENERATOR FRAME TO EXT RING	#2 SBTC



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PREPARED BY:



PREPARED BY:



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NCELS #: F-0929

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SHEET TITLE

GROUNDING NOTES

SHEET NUMBER

G-4