

VERIZON SITE NUMBER: 228806
 VERIZON SITE NAME: FORT WHITE ARP
 PROJECT DESCRIPTION: RFDS 5G L-SUB6
 TOWER TYPE: 250' SELF-SUPPORT
 SITE ADDRESS: 19039 SOUTHWEST STATE ROAD 47, FORT WHITE, FL 32038 (COLUMBIA COUNTY)
 JURISDICTION: COLUMBIA COUNTY
 PRESENT OCCUPANCY TYPE: TELECOMMUNICATIONS FACILITY
 CURRENT ZONING: A-3
 PIN #: 04-7S-16-04128-000



4700 EXCHANGE COURT, SUITE 100
 BOCA RATON, FL 33431
 (561) 995-5539

VZW SITE #: 228806
 VZW SITE NAME: FORT WHITE ARP
 19039 SOUTHWEST STATE ROAD 47
 FORT WHITE, FL 32038

THE PURPOSE OF THIS PROJECT IS AS FOLLOWS:
 TOWER SCOPE OF WORK:
 • REMOVE (2) JMA X7CQAP-FRO-845-VR0 ANTENNAS
 • REMOVE (2) JMA X7-865 ANTENNAS
 • REMOVE (4) ERICSSON RRUS32 RRUs
 • REMOVE (1) COMMSCOPE TMA-T-DB78-DD-A TMA
 • REMOVE (1) COMMSCOPE E15R05P19 TMA
 • REMOVE (4) COMMSCOPE ATSBT-TOP-FM BAIS-Ts
 • REMOVE (2) 1 1/2" COAX
 • REMOVE (1) RAYCAP RC3DC-3315-PF-48
 • INSTALL (4) ERICSSON AIR6449 ANTENNAS
 • INSTALL (2) JMA MX06FRO840-02 ANTENNAS
 • INSTALL (3) ERICSSON RRUS 4449 RRUs
 • INSTALL (4) ERICSSON RRUS 8843 RRUs
 • INSTALL (3) COMMSCOPE CHB626-43-2X COMBINERS
 • INSTALL (2) 1 1/2" HYBRID CABLES
 • INSTALL (2) RAYCAPS RCMDC-6627-PF-48
 • INSTALL (2) RAYCAPS RVDC-4520-RM-48 (IN SHELTER ON GROUND LEVEL)
 GROUND SCOPE OF WORK:
 • REMOVE (8) ERICSSON 2212 RRUs
 • REMOVE (1) COMMSCOPE CBC78-DF-2X DIPLEXER
 • REMOVE (1) 6201 CABINET
 • REMOVE (1) 30kW GENERATOR
 • INSTALL (1) ERICSSON RRUS 4449 RRU
 • INSTALL (1) 900A GE INFINITY DC PLANT
 • INSTALL (1) 50kW GENERATOR
 • INSTALL (1) 19" RACK

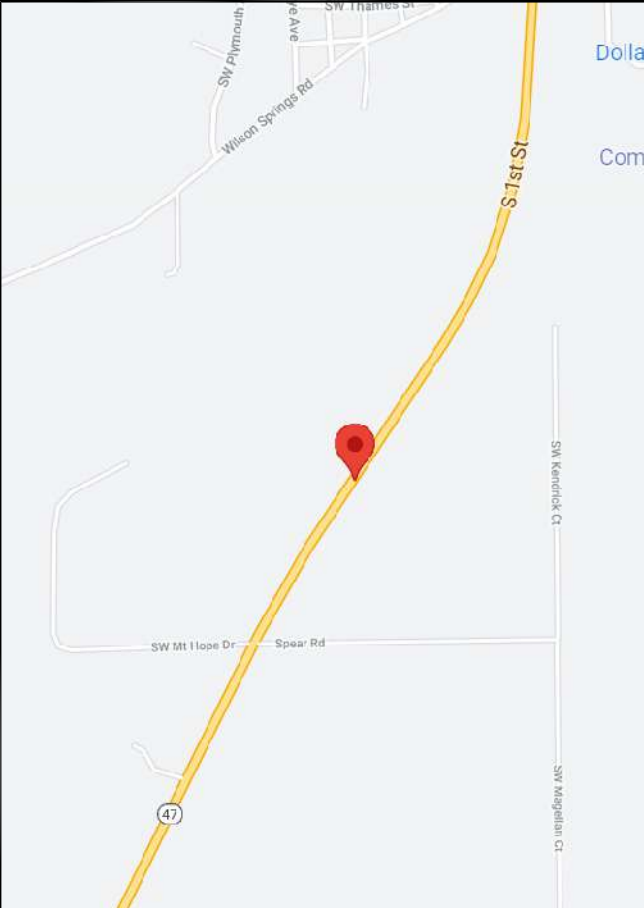
PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
 326 TRYON ROAD
 RALEIGH, NC 27603-3530
 OFFICE: (919) 661-6351
 www.tepgroup.net
 FL COA # 31011

PROJECT INFORMATION

LATITUDE: N 29° 54' 46.60" *
 LONGITUDE: W 82° 42' 54.70" *
 GROUND ELEVATION: 75± (AMSL) **
 *INFORMATION PROVIDED BY RFDS
 **INFORMATION PROVIDED BY GOOGLE EARTH

SITE COORDINATES



LOCATION MAP

LESSEE:
 NAME: VERIZON WIRELESS
 ADDRESS: 4700 EXCHANGE COURT, SUITE 100
 CITY, STATE, ZIP: BOCA RATON, FL 33431
 CONTACT: MARTHA GINTIS
 PHONE: (561) 995-5539
TOWER OWNER:
 NAME: SBA COMMUNICATIONS CORPORATION
 ADDRESS: 8051 CONGRESS AVENUE
 CITY, STATE, ZIP: BOCA RATON, FL 33487
 CONTACT: GENERAL INQUIRIES
 PHONE: (800) 487-7483

SURVEYOR:
 NAME: N/A
 ADDRESS: N/A
 CITY, STATE, ZIP: N/A
 CONTACT: N/A
 PHONE: N/A

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

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

PROPERTY OWNER:
 NAME: GEORGE, MERRY S.
 ADDRESS: P.O. BOX 174
 CITY, STATE, ZIP: FORT WHITE, FL 32038
 CONTACT: MERRY S. GEORGE
 PHONE: UNKNOWN

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. 2020 FLORIDA BUILDING CODE, 7TH EDITION
 2. LOCAL BUILDING CODE
 3. ANSI/TIA-222-H-2-2017
 4. 2017 NATIONAL ELECTRIC CODE
 5. CITY/COUNTY ORDINANCES

CODE COMPLIANCE

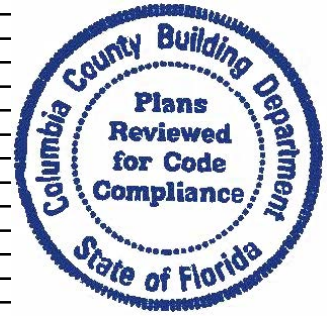
ULTIMATE WIND SPEED: 120 MPH
 SERVICE WIND SPEED: 60 MPH
 RISK CATEGORY: II
 EXPOSURE CATEGORY: C
 TOPOGRAPHIC CATEGORY: 1.0
 INFORMATION PROVIDED BY PASSING STRUCTURAL ANALYSIS REPORT BY TOWER ENGINEERING SOLUTIONS DATED 09/22/21.

DESIGN CRITERIA

UTILITIES:
 POWER COMPANY: CLAY ELECTRIC COOPERATIVE CENTRAL OFFICE
 CONTACT: (800) 224-4917
 PHONE: 154 951 587
 METER # NEAR SITE:
 TELEPHONE COMPANY: UNKNOWN
 CONTACT: UNKNOWN
 PHONE: UNKNOWN
 PHONE # NEAR SITE: (386) 497-9403
 PEDESTAL # NEAR SITE: UNKNOWN

SCOPE OF WORK

SHEET	DESCRIPTION	REV
T-1	TITLE SHEET	1
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C-1	SITE PLAN	1
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C-2	TOWER ELEVATION	1
C-3A	EXISTING ANTENNA LAYOUT	1
C-3B	PROPOSED ANTENNA LAYOUT	1
C-3C	EXISTING ANTENNA & COAX SCHEDULE	1
C-3D	PROPOSED ANTENNA & COAX SCHEDULE	1
C-4	GENERATOR DETAILS	1
C-5	DC PLANT DETAILS	1
E-1	ELECTRICAL NOTES	1
E-2	POWER PANEL SCHEDULE	1
E-3	ONE LINE DIAGRAM	1
E-4	POWER ROUTING PLAN	1
G-1	GROUNDING DETAILS	1

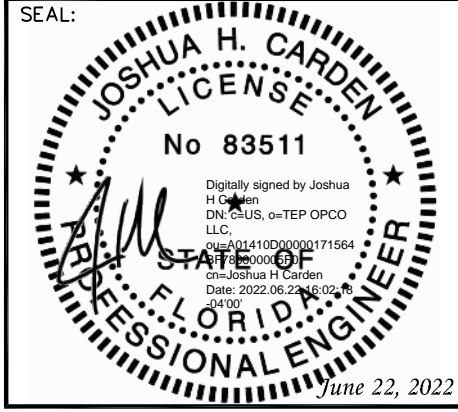


INDEX OF SHEETS

REV	DATE	ISSUED FOR:
I	06-22-22	CONSTRUCTION
O	11-04-21	PRELIMINARY

DRAWN BY: TDL CHECKED BY: LLS

DIGITAL SEAL:
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SHEET NUMBER: **T-1** REVISION: **1**
 TEP#: 257394.485424

PROJECT NOTES:

1. ALL REFERENCES TO THE OWNER AND/OR LESSEE IN THESE DOCUMENTS SHALL BE CONSIDERED VERIZON OR ITS DESIGNATED REPRESENTATIVE.
2. WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE 2020 FLORIDA BUILDING CODE, 7TH EDITION.
3. 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.
4. ALL HARDWARE ASSEMBLY MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED EXACTLY AND SHALL SUPERSEDE ANY CONFLICTING NOTES ENCLOSED HEREIN.
5. 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 VERIFICATIONS. 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.
6. 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.
7. 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 ENSURING THAT THIS PROJECT AND RELATED WORK COMPLIES WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY CODES AND REGULATIONS GOVERNING THIS WORK.
8. ACCESS TO THE PROPOSED WORK SITE MAY BE RESTRICTED. THE CONTRACTOR SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULE AND MATERIALS ACCESS, WITH THE RESIDENT LEASING AGENT FOR APPROVAL.
9. 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.
10. IF APPLICABLE, ALL CONCRETE WORK SHALL COMPLY TO LOCAL CODES AND THE ACI 318-14, "BUILDING REQUIREMENTS FOR STRUCTURAL CONCRETE".
11. ALL TOWER DIMENSIONS SHALL BE VERIFIED WITH THE PLANS (LATEST REVISION) PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE DISCOVERED. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY GOVERNING AGENCY INSPECTORS.
12. ALL TOWER MODIFICATION WORK SHALL BE IN ACCORDANCE WITH TIA-1019-A STANDARD FOR INSTALLATION, ALTERATION AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS.

PLANS PREPARED FOR:



4700 EXCHANGE COURT, SUITE 100
BOCA RATON, FL 33431
(561) 995-5539

PROJECT INFORMATION:

VZW SITE #: 228806
VZW SITE NAME:
FORT WHITE ARP

19039 SOUTHWEST STATE ROAD 47
FORT WHITE, FL 32038
(COLUMBIA COUNTY)

PLANS PREPARED BY:

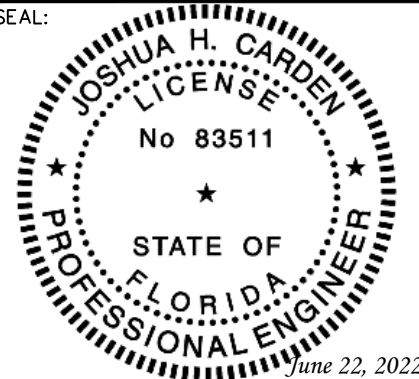


TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
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OFFICE: (919) 661-6351
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FL COA # 31011

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SEAL:



I	06-22-22	CONSTRUCTION
O	11-04-21	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: TDL CHECKED BY: LLS

SHEET TITLE:

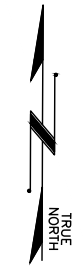
PROJECT NOTES

SHEET NUMBER: REVISION:

N-1 **1**
TEP#: 257394.485424

NOTES:

1. SITE PLAN SHOWN BELOW WAS REPRODUCED FROM INFORMATION PROVIDED BY COLUMBIA COUNTY GIS. 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. EXISTING INFORMATION INDICATED ON THE SITE PLAN SHOWN WAS REPRODUCED BY INFORMATION PROVIDED BY COLUMBIA COUNTY GIS. 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 ZONE "X" AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN ACCORDING TO FEMA COMMUNITY PANEL #12023C0490C, EFFECTIVE FEBRUARY 4, 2009.



PLANS PREPARED FOR:

verizon

4700 EXCHANGE COURT, SUITE 100
BOCA RATON, FL 33431
(561) 995-5539

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(COLUMBIA COUNTY)

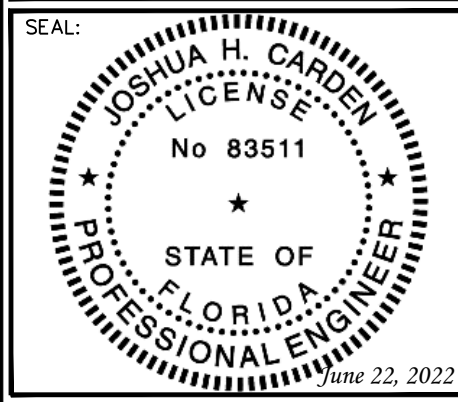
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DRAWN BY: TDL CHECKED BY: LLS

SHEET TITLE:

SITE PLAN

SHEET NUMBER: **C-1** REVISION: **1**

TEP#: 257394.485424

SITE PLAN
SCALE: 1" = 40'



NOTES:

- EQUIPMENT LAYOUT SHOWN BELOW BASED ON DOCUMENTS PROVIDED BY VERIZON WIRELESS.
- EXISTING EQUIPMENT NOT LISTED ON THE RFDS. CONTRACTOR TO VERIFY THE EXISTENCE OF THIS EQUIPMENT WITH VERIZON.
- (1) COMMSCOPE CBC78-DF-2X DIPLEXER NOT LOCATED DURING SITE VISIT. IF PRESENT, (1) COMMSCOPE CBC78-DF-2X DIPLEXER TO BE REMOVED.

EXISTING VERIZON
ATS TO REMAIN

EXISTING VERIZON
PPC CABINET TO
REMAIN

EXISTING VERIZON
CABLE ENTRY PORT
TO REMAIN

EXISTING VERIZON
ERICSSON 2212 RRU
TO BE REMOVED
(TYP OF 8). SEE
SHEET C-1B FOR
DETAILS.

EXISTING VERIZON
30kW GENERATOR
TO BE REMOVED.
SEE SHEET C-1B
FOR DETAILS.

EXISTING VERIZON
BTS CABINET TO
REMAIN

EXISTING VERIZON
500 GAL LP TANK
TO REMAIN

EXISTING 5' LP
SPARK RADIUS

EXISTING VERIZON 19"
RACK TO REMAIN

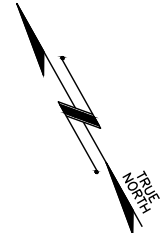
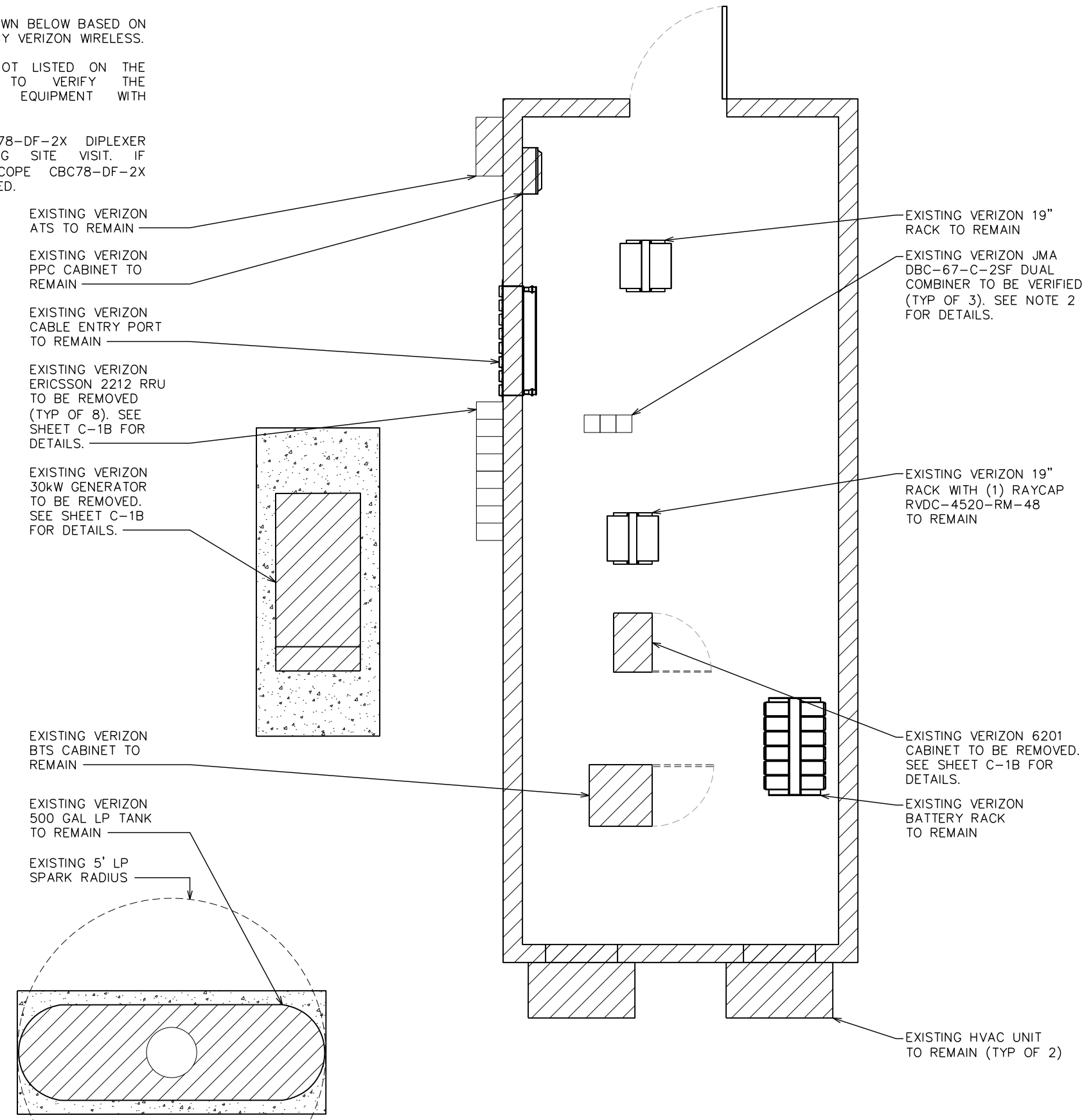
EXISTING VERIZON JMA
DBC-67-C-2SF DUAL
COMBINER TO BE VERIFIED
(TYP OF 3). SEE NOTE 2
FOR DETAILS.

EXISTING VERIZON 19"
RACK WITH (1) RAYCAP
RVDC-4520-RM-48
TO REMAIN

EXISTING VERIZON 6201
CABINET TO BE REMOVED.
SEE SHEET C-1B FOR
DETAILS.

EXISTING VERIZON
BATTERY RACK
TO REMAIN

EXISTING HVAC UNIT
TO REMAIN (TYP OF 2)



PLANS PREPARED FOR:

verizon

4700 EXCHANGE COURT, SUITE 100
BOCA RATON, FL 33431
(561) 995-5539

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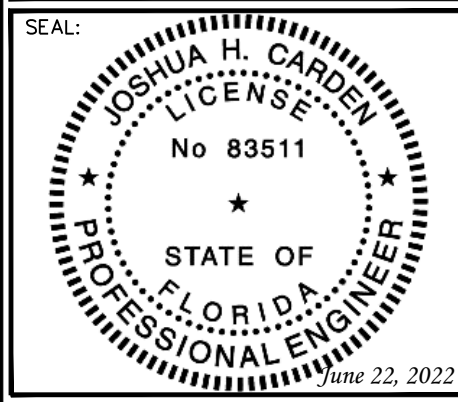
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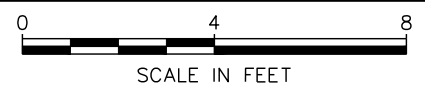
**EXISTING
SHELTER
LAYOUT**

SHEET NUMBER: **C-1A** REVISION: **1**

TEP#: 257394.485424

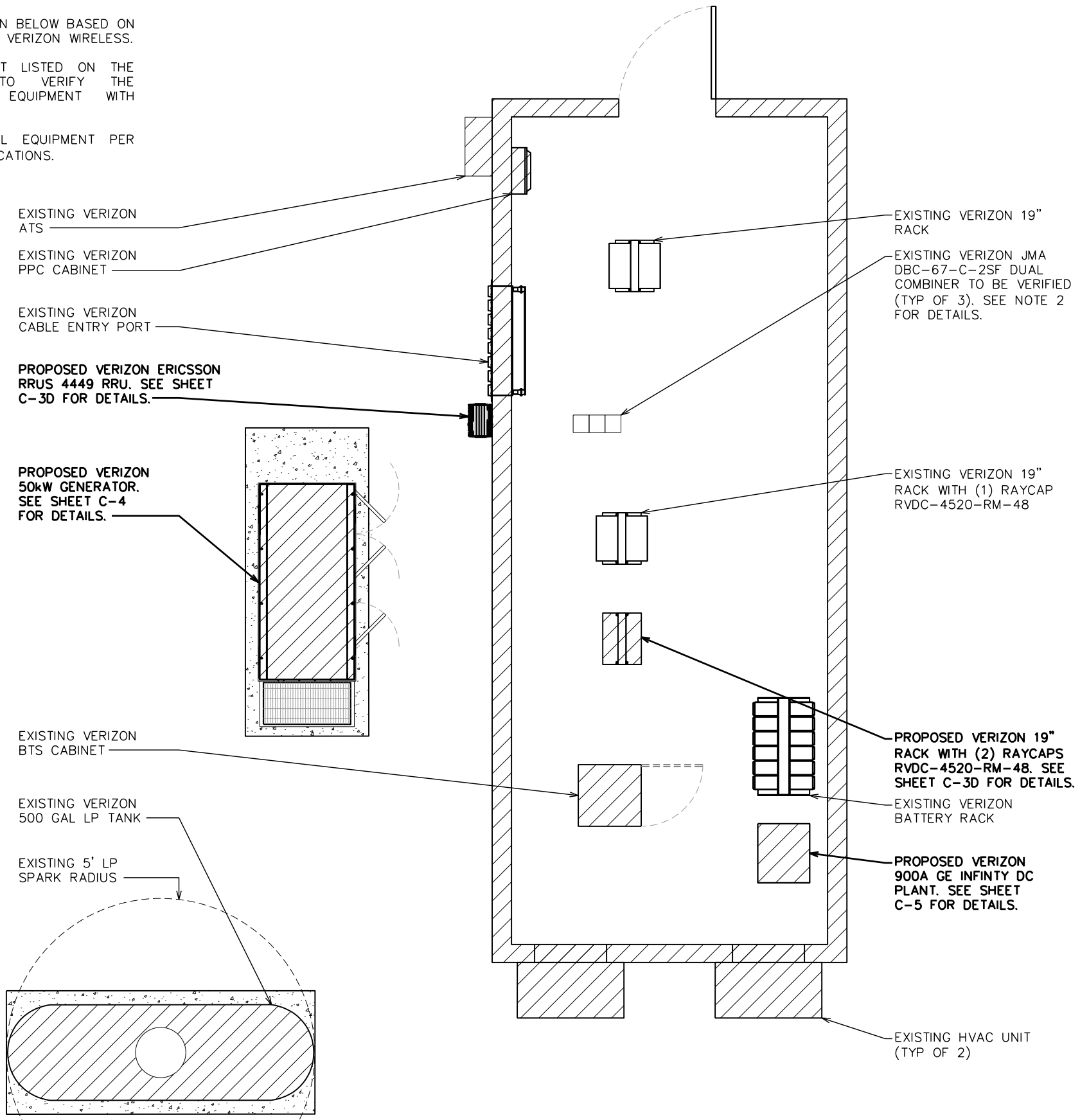
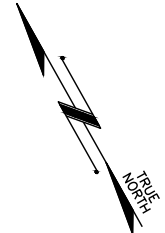
EXISTING SHELTER LAYOUT

SCALE: 1/4" = 1'-0"



NOTES:

- EQUIPMENT LAYOUT SHOWN BELOW BASED ON DOCUMENTS PROVIDED BY VERIZON WIRELESS.
- EXISTING EQUIPMENT NOT LISTED ON THE RFDS. CONTRACTOR TO VERIFY THE EXISTENCE OF THIS EQUIPMENT WITH VERIZON.
- CONTRACTOR TO INSTALL EQUIPMENT PER MANUFACTURER'S SPECIFICATIONS.



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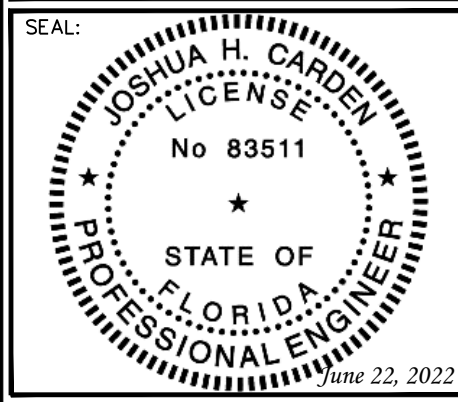
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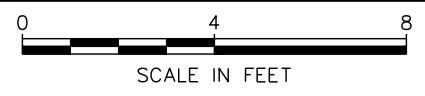
SHEET TITLE:

PROPOSED SHELTER LAYOUT

SHEET NUMBER:	REVISION:
C-1B	1
TEP#: 257394.485424	

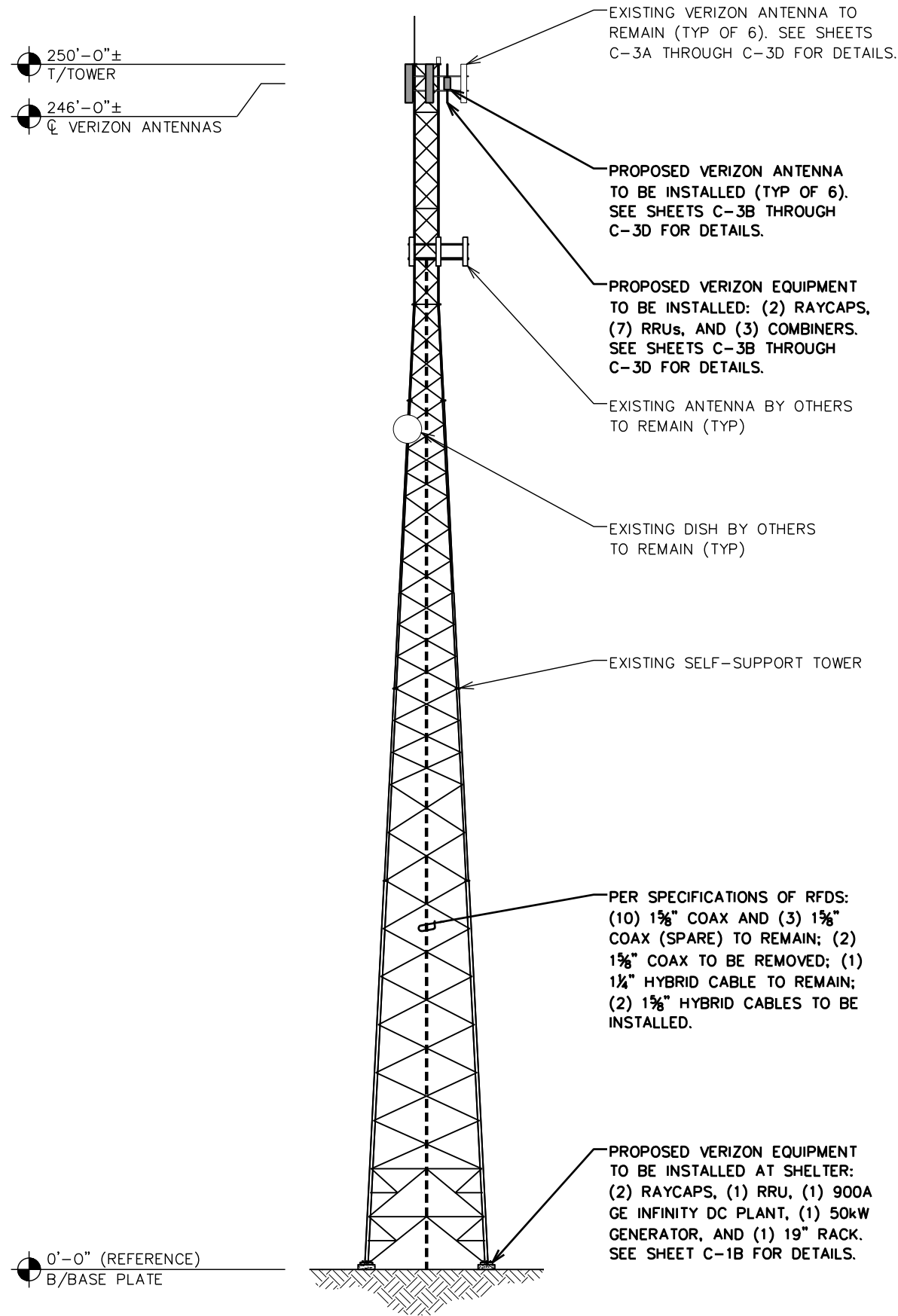
PROPOSED SHELTER LAYOUT

SCALE: 1/4" = 1'-0"



NOTES:

- EXISTING TOWER HAS SUFFICIENT CAPACITY TO HOLD PROPOSED LOADING. SEE STRUCTURAL ANALYSIS REPORT BY TOWER ENGINEERING SOLUTIONS DATED SEPTEMBER 22, 2021 FOR DETAILS.
- THE DRAWING IS ONLY A GRAPHIC REPRESENTATION OF THE STRUCTURE. CONDITIONS IN THE FIELD MAY VARY.
- CONTRACTOR TO INSTALL ALL EQUIPMENT PER MANUFACTURER'S SPECIFICATIONS.
- FAA APPROVED OVERALL HEIGHT = 255'-0".



250'-0"±
T/TOWER

246'-0"±
Q VERIZON ANTENNAS

0'-0" (REFERENCE)
B/BASE PLATE

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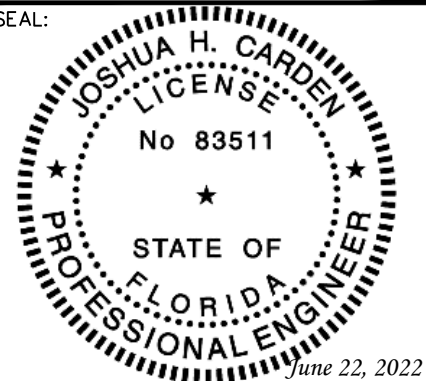
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SHEET TITLE:

TOWER ELEVATION

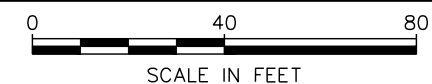
SHEET NUMBER: | REVISION:

C-2 | **1**

TEP#: 257394.485424

PROPOSED TOWER ELEVATION

SCALE: 1" = 40'



NOTES:

EXISTING MOUNTS DO NOT HAVE SUFFICIENT CAPACITY TO HOLD PROPOSED LOADING. SEE THE ANTENNA MOUNT ANALYSIS REPORT BY MASER DATED FEBRUARY 4, 2021 FOR DETAILS.

EXISTING VERIZON CSS X7CQAP-86-865-VR0 ANTENNA TO BE RELOCATED. SEE SHEETS C-3B THROUGH C-3D FOR DETAILS.

EXISTING VERIZON COMMSCOPE E15R05P19 AND TMA-T-DB78-DD-A TO BE REMOVED. SEE SHEETS C-3B THROUGH C-3D FOR DETAILS.

EXISTING VERIZON JMA X7CQAP-FRO-845-VR0 ANTENNA TO BE REMOVED (TYP OF 2). SEE SHEETS C-3B THROUGH C-3D FOR DETAILS.

EXISTING VERIZON ERICSSON RRUS32 RRU TO BE REMOVED (TYP OF 4). SEE SHEET C-3B THROUGH C-3D FOR DETAILS.

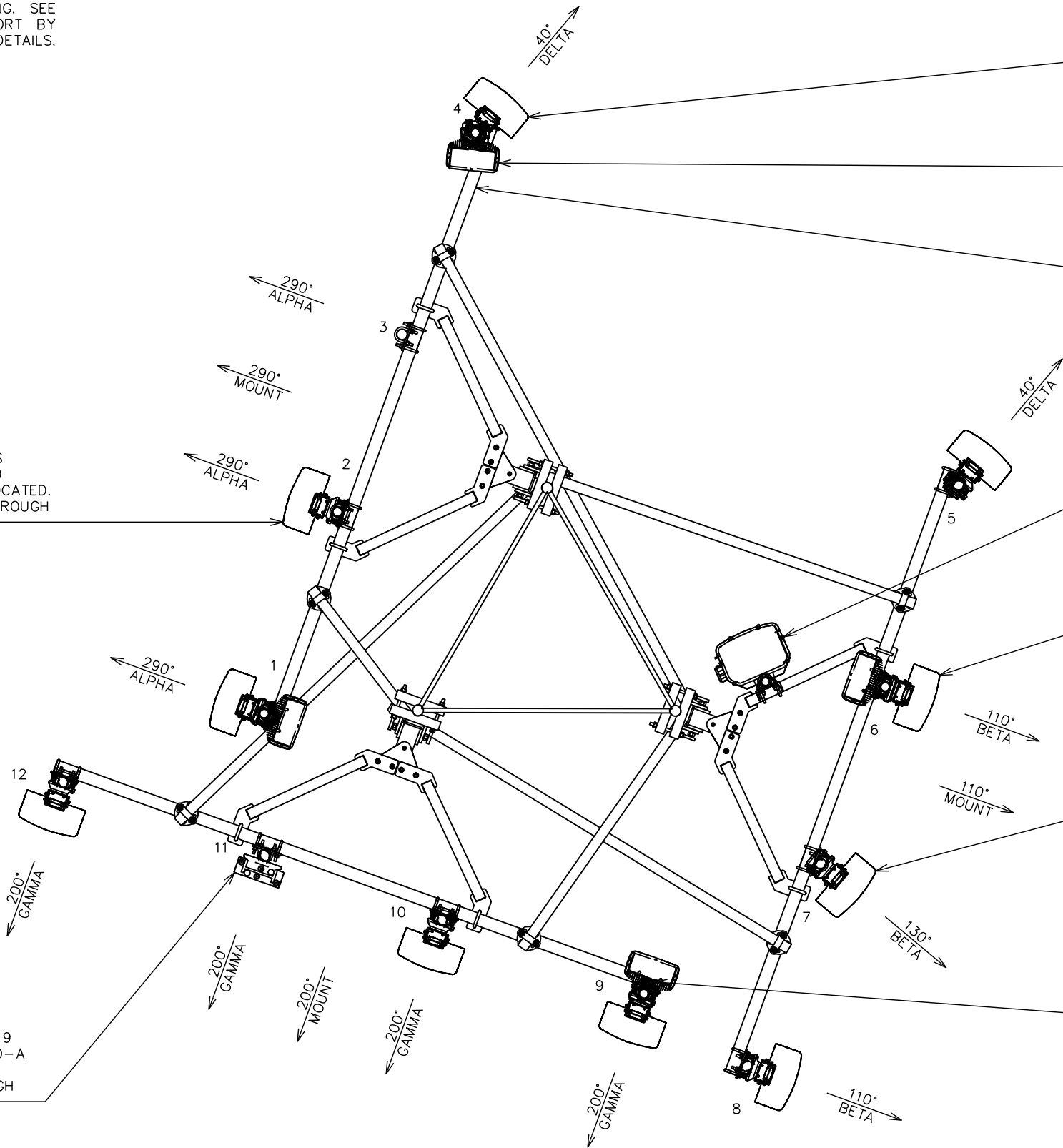
EXISTING VERIZON SECTOR MOUNT TO BE MODIFIED (TYP OF 3). SEE SHEET C-3B FOR DETAILS.

EXISTING VERIZON RAYCAP RC3DC-3315-PF-48 TO BE REMOVED. SEE SHEETS C-3B THROUGH C-3D FOR DETAILS.

EXISTING VERIZON CSS X7CQAP-86-865-VR0 ANTENNA TO REMAIN (TYP OF 5). SEE SHEETS C-3B THROUGH C-3D FOR DETAILS.

EXISTING VERIZON JMA X7-865 ANTENNA TO BE REMOVED (TYP OF 2). SEE SHEETS C-3B THROUGH C-3D FOR DETAILS.

EXISTING VERIZON COMMSCOPE ATSBT-TOP-FM BAI5-T TO BE REMOVED (TYP OF 4). SEE SHEETS C-3B THROUGH C-3D FOR DETAILS.



PLANS PREPARED FOR:



4700 EXCHANGE COURT, SUITE 100
BOCA RATON, FL 33431
(561) 995-5539

PROJECT INFORMATION:

VZW SITE #: 228806
VZW SITE NAME:
FORT WHITE ARP

19039 SOUTHWEST STATE ROAD 47
FORT WHITE, FL 32038
(COLUMBIA COUNTY)

PLANS PREPARED BY:

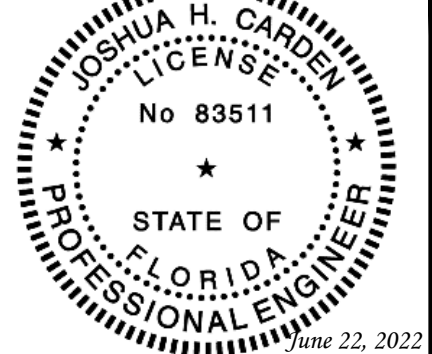
TOWER ENGINEERING PROFESSIONALS

326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net
FL COA #31011

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SEAL:



1	06-22-22	CONSTRUCTION
0	11-04-21	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: TDL CHECKED BY: LLS

SHEET TITLE:

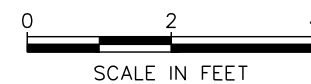
EXISTING ANTENNA LAYOUT

SHEET NUMBER: REVISION:

C-3A 1
TEP#: 257394.485424

EXISTING ANTENNA LAYOUT @ 246'-0"

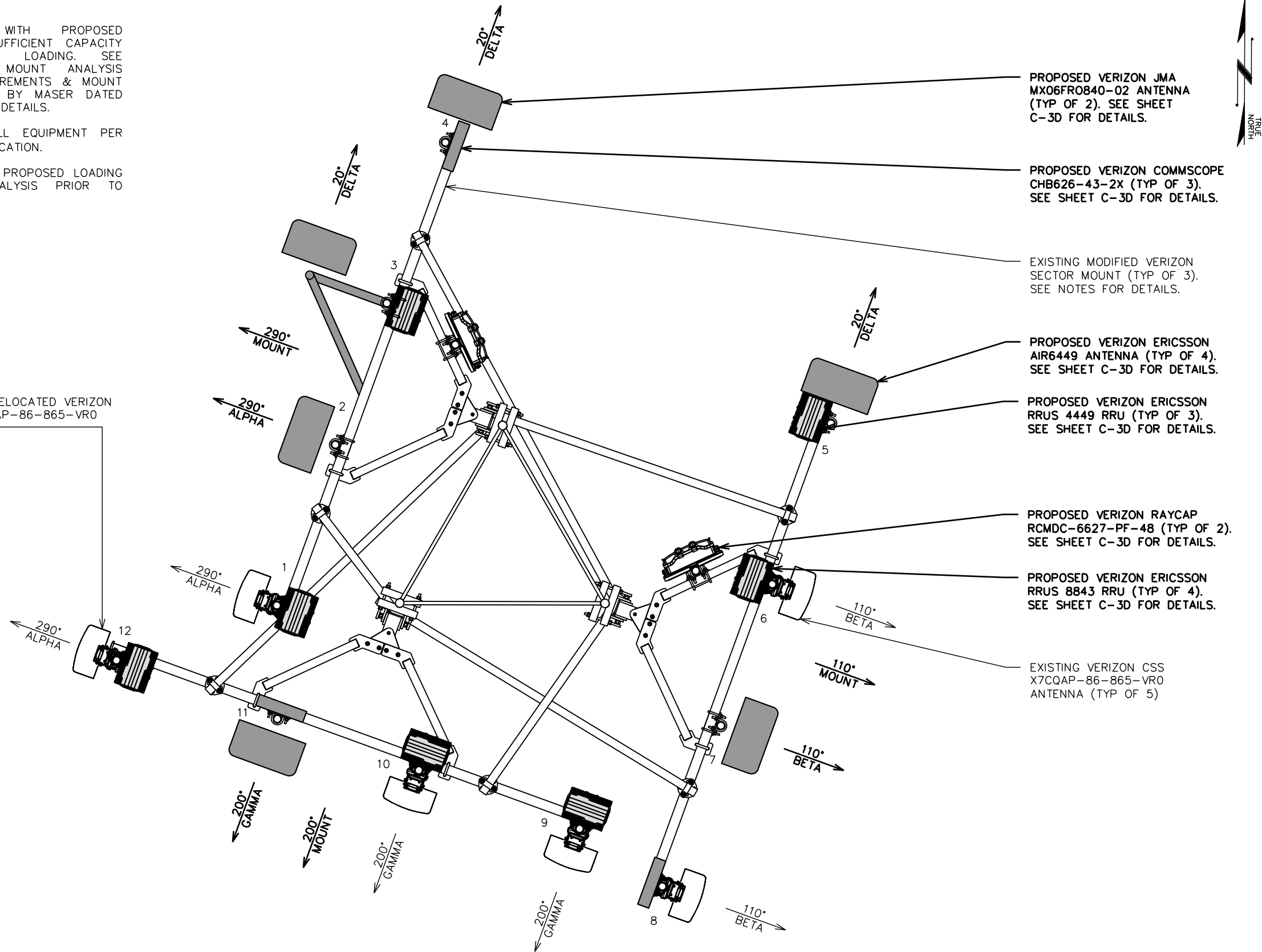
SCALE: 3/8" = 1'-0"



NOTES:

- EXISTING MOUNTS WITH PROPOSED MODIFICATIONS HAVE SUFFICIENT CAPACITY TO HOLD PROPOSED LOADING. SEE POST-MOD ANTENNA MOUNT ANALYSIS REPORT AND PMI REQUIREMENTS & MOUNT MODIFICATION DRAWINGS BY MASER DATED FEBRUARY 17, 2021 FOR DETAILS.
- CONTRACTOR TO INSTALL EQUIPMENT PER MANUFACTURER'S SPECIFICATION.
- CONTRACTOR TO VERIFY PROPOSED LOADING WITH STRUCTURAL ANALYSIS PRIOR TO CONSTRUCTION.

EXISTING RELOCATED VERIZON CSS X7CQAP-86-865-VRO ANTENNA



PROPOSED VERIZON JMA MX06FRO840-02 ANTENNA (TYP OF 2). SEE SHEET C-3D FOR DETAILS.

PROPOSED VERIZON COMMSCOPE CHB626-43-2X (TYP OF 3). SEE SHEET C-3D FOR DETAILS.

EXISTING MODIFIED VERIZON SECTOR MOUNT (TYP OF 3). SEE NOTES FOR DETAILS.

PROPOSED VERIZON ERICSSON AIR6449 ANTENNA (TYP OF 4). SEE SHEET C-3D FOR DETAILS.

PROPOSED VERIZON ERICSSON RRUS 4449 RRU (TYP OF 3). SEE SHEET C-3D FOR DETAILS.

PROPOSED VERIZON RAYCAP RCMDC-6627-PF-48 (TYP OF 2). SEE SHEET C-3D FOR DETAILS.

PROPOSED VERIZON ERICSSON RRUS 8843 RRU (TYP OF 4). SEE SHEET C-3D FOR DETAILS.

EXISTING VERIZON CSS X7CQAP-86-865-VRO ANTENNA (TYP OF 5)

PLANS PREPARED FOR:



4700 EXCHANGE COURT, SUITE 100
BOCA RATON, FL 33431
(561) 995-5539

PROJECT INFORMATION:

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VZW SITE NAME:
FORT WHITE ARP

19039 SOUTHWEST STATE ROAD 47
FORT WHITE, FL 32038
(COLUMBIA COUNTY)

PLANS PREPARED BY:

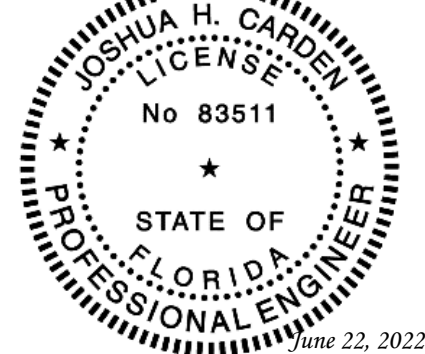
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REV	DATE	ISSUED FOR:

DRAWN BY: TDL | CHECKED BY: LLS

SHEET TITLE:

PROPOSED ANTENNA LAYOUT

SHEET NUMBER: | REVISION:

C-3B | **1**
TEP#: 257394.485424

PROPOSED ANTENNA LAYOUT @ 246'-0"

SCALE: 3/8" = 1'-0"



PLANS PREPARED FOR:



4700 EXCHANGE COURT, SUITE 100
BOCA RATON, FL 33431
(561) 995-5539

PROJECT INFORMATION:

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VZW SITE NAME:
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19039 SOUTHWEST STATE ROAD 47
FORT WHITE, FL 32038
(COLUMBIA COUNTY)

PLANS PREPARED BY:

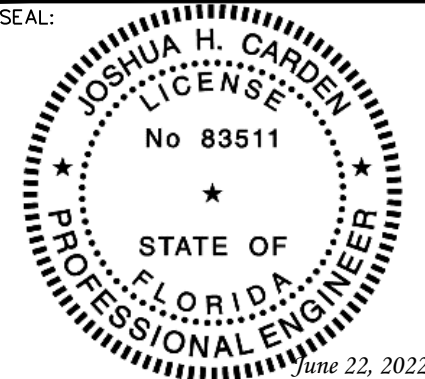
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0	11-04-21	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: TDL CHECKED BY: LLS

SHEET TITLE:

EXISTING ANTENNA & COAX SCHEDULE

SHEET NUMBER: REVISION:

C-3C **1**
TEP#: 257394.485424

EXISTING ANTENNA & COAX SCHEDULE

POS.	SECTOR	USE	MANUFACTURER (MODEL #)	RAD CENTER	CABLE SIZE	AZIMUTH (TN)	CABLE LENGTH	MECH. D-TILT	ELEC. D-TILT	EQUIPMENT [MODEL #]	J-BOX (TOWER)	
1	ALPHA	AWS3 LTE 700 LTE 850 CDMA 2100 LTE	JMA X7CQAP-86-865-VR0	☉ @ 246'-0"±	(10) 1 5/8" ∅ COAX (3) 1 5/8" ∅ COAX (SPARE) (1) 1 1/4" ∅ HYBRID *(2) 1 5/8" ∅ COAX	290°	286'±	0°	1°	*(2) ERICSSON RRUs [RRUS 32]	*(1) RAYCAP [RC3DC-3315-PF-48] **(1) RAYCAP [RVDC-4520-RM-48]	
2	ALPHA		-	-		-		-	-			-
3	ALPHA		JMA X7CQAP-86-865-VR0	☉ @ 246'-0"±		290°		0°	1°	*(2) COMMSCOPE BAIS-Ts [ATSBT-TOP-MF]		
4	ALPHA		*JMA X7CQAP-FRO-845-VR0	☉ @ 246'-0"±		40°		0°	1°			
5	BETA	AWS3 LTE 700 LTE 850 CDMA 2100 LTE	*JMA X7CQAP-FRO-845-VR0	☉ @ 246'-0"±		40°		0°	1°	*(1) ERICSSON RRU [RRUS 32]		
6	BETA		JMA X7CQAP-86-865-VR0	☉ @ 246'-0"±		110°		0°	1°			
7	BETA		*CSS X7-865	☉ @ 246'-0"±		130°		-	-	*(2) COMMSCOPE BAIS-T [ATSBT-TOP-MF]		
8	BETA		JMA X7CQAP-86-865-VR0	☉ @ 246'-0"±		110°		0°	1°			
9	GAMMA	AWS3 LTE 700 LTE 850 CDMA 2100 LTE	JMA X7CQAP-86-865-VR0	☉ @ 246'-0"±		200°		0°	1°	*(1) ERICSSON RRU [RRUS 32]		
10	GAMMA		*CSS X7-865	☉ @ 246'-0"±		200°		-	-	*(1) COMMSCOPE BAIS-T [ATSBT-TOP-MF]		
11	GAMMA		-	-		-		-	-	*(1) COMMSCOPE TMA [E15R09P19]		
12	GAMMA		JMA X7CQAP-86-865-VR0	☉ @ 246'-0"±		200°		0°	1°	*(1) COMMSCOPE TMA [TMA-T-DB78-DD-A]		

*NOTE-EXISTING ANTENNA/EQUIPMENT TO BE REMOVED
**NOTE-EXISTING EQUIPMENT LOCATED IN SHELTER ON GROUND LEVEL

GROUND WORK:

CONTRACTOR TO REMOVE: (8) ERICSSON 2212 RRUs, (1) COMMSCOPE CBC78-DF-2X DIPLEXER, (1) 6201 CABINET, AND (1) 30kW GENERATOR.

EXISTING ANTENNA & COAX SCHEDULE @ 246'-0"

SCALE: N.T.S.

PLANS PREPARED FOR:



4700 EXCHANGE COURT, SUITE 100
BOCA RATON, FL 33431
(561) 995-5539

PROJECT INFORMATION:

VZW SITE #: 228806
VZW SITE NAME:
FORT WHITE ARP

19039 SOUTHWEST STATE ROAD 47
FORT WHITE, FL 32038
(COLUMBIA COUNTY)

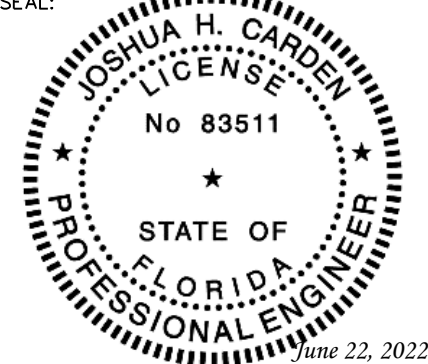
PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
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OFFICE: (919) 661-6351
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SEAL:



I	06-22-22	CONSTRUCTION
O	11-04-21	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: TDL CHECKED BY: LLS

SHEET TITLE:

PROPOSED ANTENNA & COAX SCHEDULE

SHEET NUMBER: **C-3D** REVISION: **1**
TEP#: 257394.485424

PROPOSED EQUIPMENT IN BOLD

PROPOSED ANTENNA & COAX SCHEDULE												
POS.	SECTOR	USE	MANUFACTURER (MODEL #)	RAD CENTER	CABLE SIZE	AZIMUTH (TN)	CABLE LENGTH	MECH. D-TILT	ELEC. D-TILT	EQUIPMENT [MODEL #]	J-BOX (TOWER)	
1	ALPHA	AWS3 LTE 700 LTE 850 CDMA 2100 LTE 850 LTE 850 5G NR 1900 LTE NL-SUB6	JMA X7CQAP-86-865-VR0	☉ @ 246'-0"±	(10) 1½"∅ COAX (3) 1½"∅ COAX (SPARE) (1) 1¼"∅ HYBRID (2) 1½"∅ HYBRIDS	290°	*286'±	••	••	(1) ERICSSON RRU [RRUS 4449]	*** (1) RAYCAP [RVDC-4520-RM-48] (2) RAYCAPS [RCMDC-6627-PF-48] **** (2) RAYCAPS [RVDC-4520-RM-48]	
2	ALPHA		ERICSSON AIR6449	☉ @ 246'-0"±		290°		••	••	(1) ERICSSON RRU [RRUS 8843]		
3	ALPHA		JMA MX06FRO840-02	☉ @ 246'-0"±		20°		••	••	(1) COMMSCOPE COMBINER [CHB626-43-2X]		
4	ALPHA		JMA MX06FRO840-02	☉ @ 246'-0"±		20°		••	••	(1) ERICSSON RRU [RRUS 4449]		
5	BETA	AWS3 LTE 700 LTE 850 CDMA 2100 LTE 850 LTE 850 5G NR 1900 LTE NL-SUB6	ERICSSON AIR6449	☉ @ 246'-0"±		20°		110°	••	••		(1) ERICSSON RRU [RRUS 8843]
6	BETA	JMA X7CQAP-86-865-VR0	☉ @ 246'-0"±	110°		••		••	(1) ERICSSON RRU [RRUS 8843]			
7	BETA	ERICSSON AIR6449	☉ @ 246'-0"±	110°		••		••	(1) COMMSCOPE COMBINER [CHB626-43-2X]			
8	BETA	JMA X7CQAP-86-865-VR0	☉ @ 246'-0"±	110°		••		••	(1) ERICSSON RRU [RRUS 4449]			
9	GAMMA	AWS3 LTE 700 LTE 850 CDMA 2100 LTE 850 LTE 850 5G NR 1900 LTE NL-SUB6	JMA X7CQAP-86-865-VR0	☉ @ 246'-0"±		200°		••	••	(1) ERICSSON RRU [RRUS 8843]		
10	GAMMA	JMA X7CQAP-86-865-VR0	☉ @ 246'-0"±	200°		••		••	(1) ERICSSON RRU [RRUS 8843]			
11	GAMMA	ERICSSON AIR6449	☉ @ 246'-0"±	200°		••		••	(1) COMMSCOPE COMBINER [CHB626-43-2X]			
12	GAMMA	JMA X7CQAP-86-865-VR0	☉ @ 246'-0"±	290°		••		••	(1) ERICSSON RRU [RRUS 4449]			

*NOTE-CONTRACTOR TO VERIFY COAX/CABLE LENGTHS PRIOR TO CONSTRUCTION. CONTRACTOR TO REFERENCE VERIZON ISSUED RFDS PRIOR TO CONSTRUCTION.

**CONTRACTOR TO REFERENCE VERIZON ISSUED RFDS FOR MECH./ELEC. D-TILTS

***NOTE-EXISTING EQUIPMENT LOCATED IN SHELTER ON GROUND LEVEL

****NOTE-PROPOSED EQUIPMENT TO BE LOCATED IN SHELTER ON GROUND LEVEL

GROUND WORK:

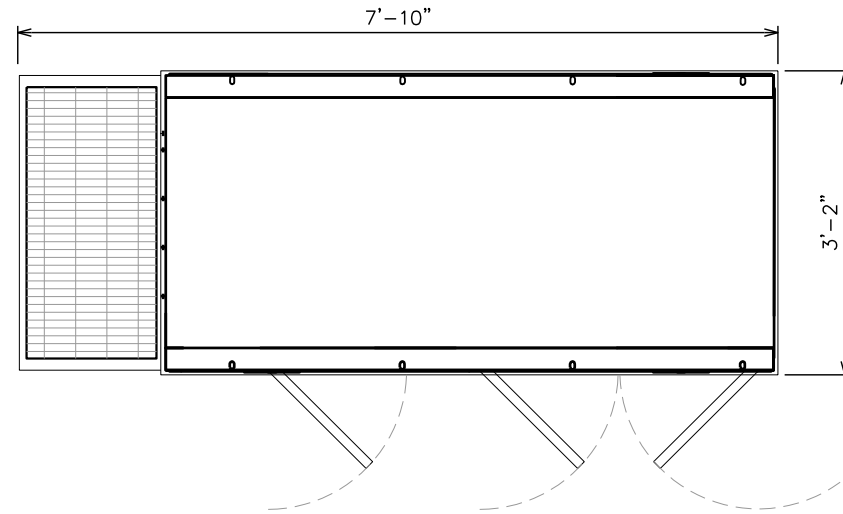
CONTRACTOR TO INSTALL: (1) ERICSSON RRUS 4449 RRU, (1) 900A GE INFINITY DC PLANT, (1) 50kW GENERATOR, AND (1) 19" RACK.

PROPOSED ANTENNA & COAX SCHEDULE @ 246'-0"

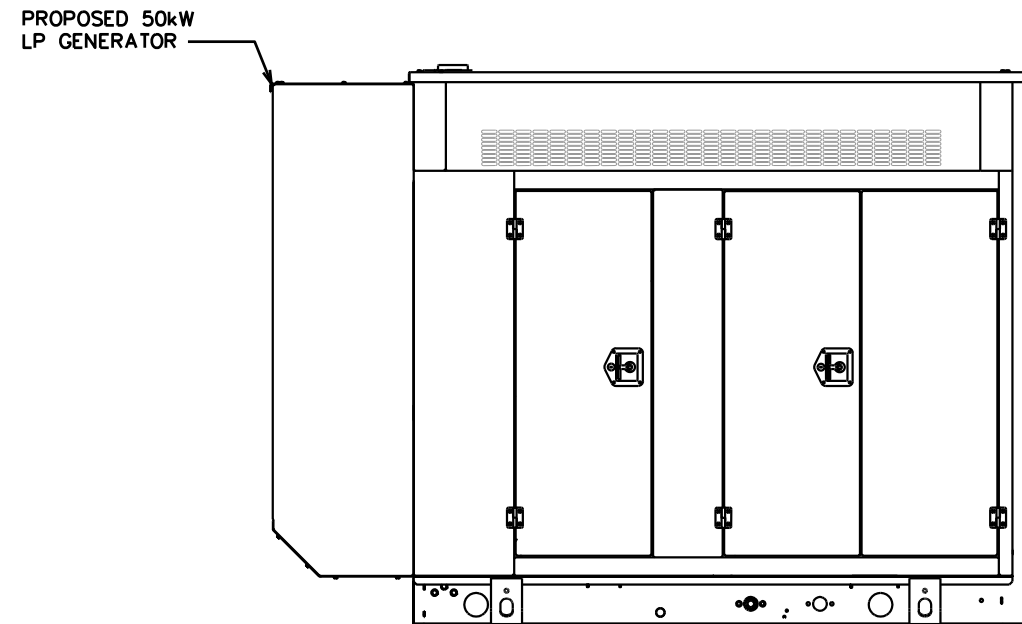
SCALE: N.T.S.

NOTES:

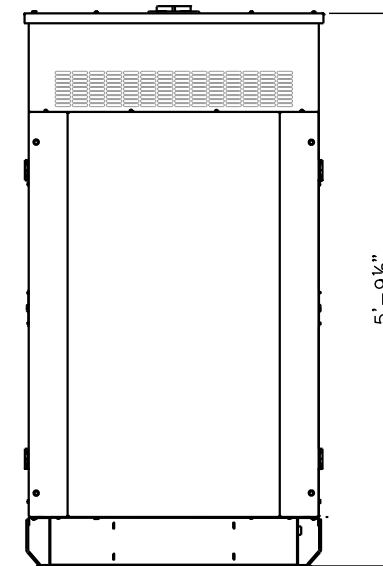
1. 50KW INDUSTRIAL LP GENERATOR BY GENERAC INDUSTRIAL POWER (P/N: SG050NA). CONTRACTOR TO VERIFY DIMENSIONS WITH MANUFACTURER.
2. ANCHOR GENERATOR TO CONCRETE PAD PER MANUFACTURER'S SPECIFICATION.



PLAN VIEW



ELEVATION VIEW



SIDE VIEW

PLANS PREPARED FOR:



4700 EXCHANGE COURT, SUITE 100
BOCA RATON, FL 33431
(561) 995-5539

PROJECT INFORMATION:

VZW SITE #: 228806
VZW SITE NAME:
FORT WHITE ARP

19039 SOUTHWEST STATE ROAD 47
FORT WHITE, FL 32038
(COLUMBIA COUNTY)

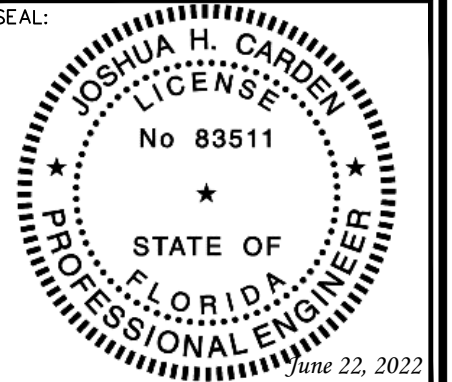
PLANS PREPARED BY:

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326 TRYON ROAD
RALEIGH, NC 27603-3530
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REV	DATE	ISSUED FOR:

DRAWN BY: TDL | CHECKED BY: LLS

SHEET TITLE:

**GENERATOR
DETAILS**

SHEET NUMBER: | REVISION:

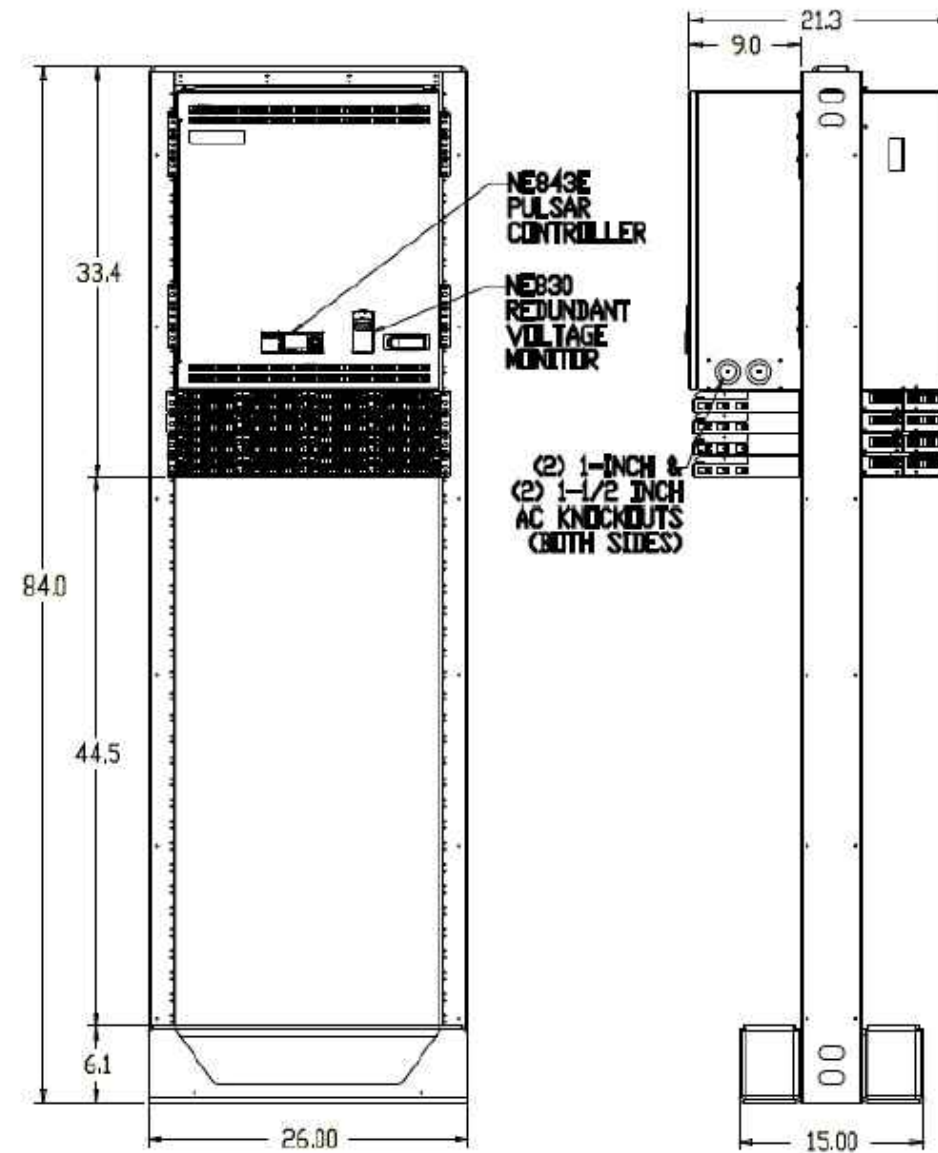
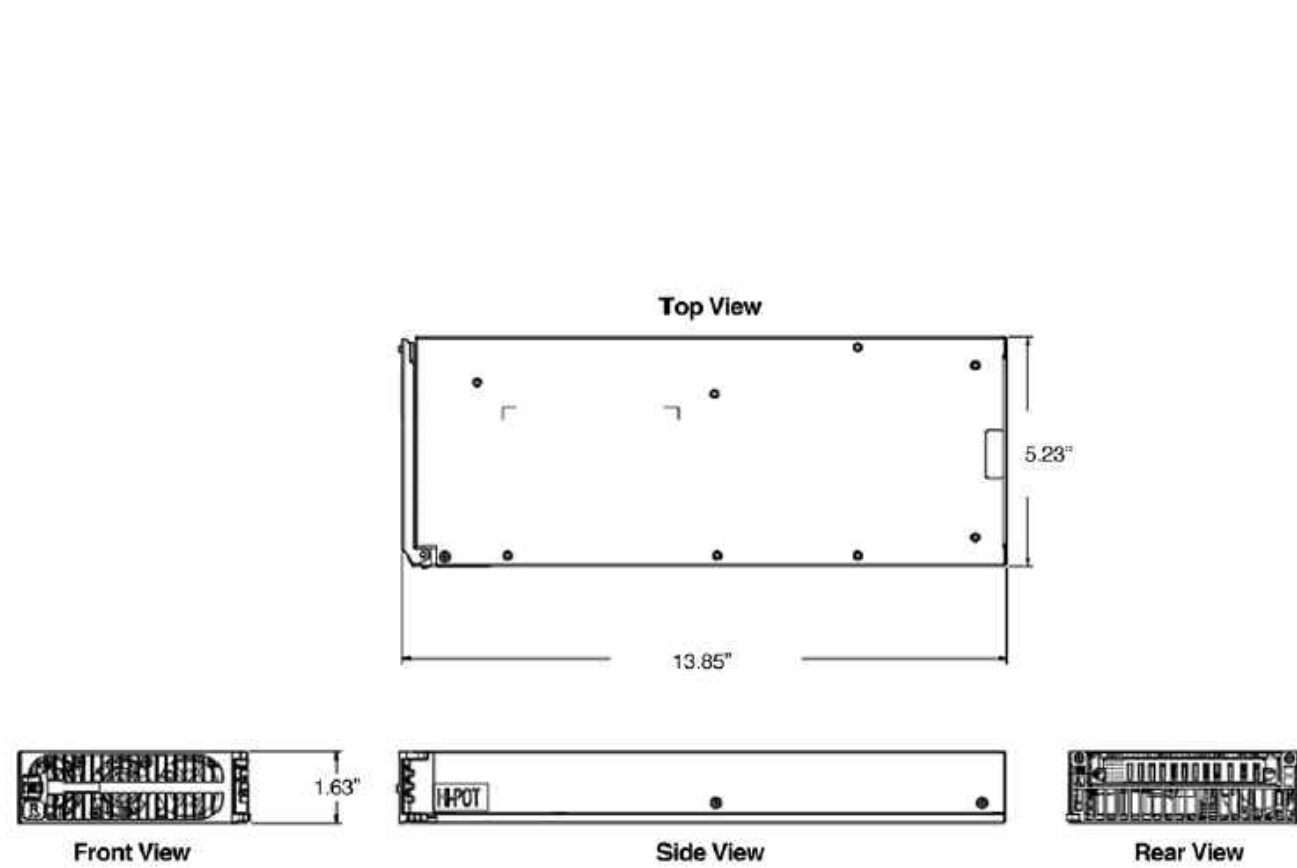
C-4 | **1**
TEP#: 257394.485424

GENERATOR DETAILS

SCALE: N.T.S.

NOTES:

1. INFINITY M POWER SYSTEM, DUAL VOLTAGE, RACK MOUNTED POWER SYSTEM BY GE. CONTRACTOR TO VERIFY DIMENSIONS WITH MANUFACTURER.
2. CONTRACTOR TO INSTALL PER MANUFACTURER'S SPECIFICATIONS.



PLANS PREPARED FOR:



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(561) 995-5539

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FORT WHITE, FL 32038
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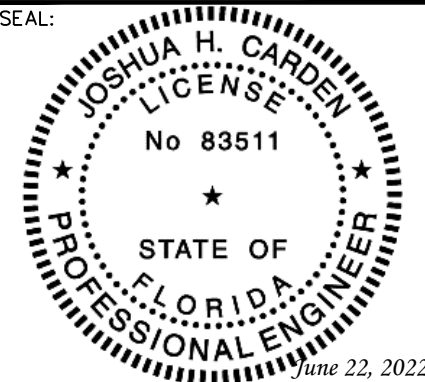
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DRAWN BY: TDL CHECKED BY: LLS

SHEET TITLE:

**DC PLANT
DETAILS**

SHEET NUMBER: REVISION:

C-5 **1**

TEP#: 257394.485424

DC PLANT DETAILS

SCALE: N.T.S.

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 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. THE CONDUIT SHALL BE RIGID STEEL AT GRADE TRANSITIONS OR WHERE EXPOSED TO DAMAGE.
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 OR PVC.
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	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		

----	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:

verizon

4700 EXCHANGE COURT, SUITE 100
BOCA RATON, FL 33431
(561) 995-5539

PROJECT INFORMATION:

VZW SITE #: 228806
VZW SITE NAME:
FORT WHITE ARP

19039 SOUTHWEST STATE ROAD 47
FORT WHITE, FL 32038
(COLUMBIA COUNTY)

PLANS PREPARED BY:

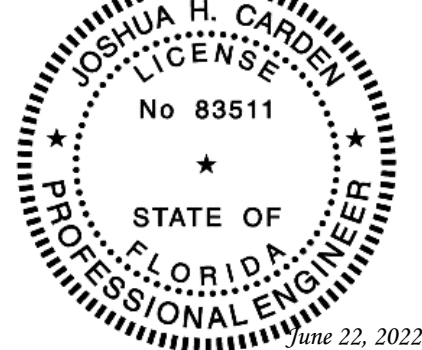
TOWER ENGINEERING PROFESSIONALS

326 TRYON ROAD
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I	06-22-22	CONSTRUCTION
O	11-04-21	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: TDL CHECKED BY: LLS

SHEET TITLE:

ELECTRICAL
NOTES

SHEET NUMBER: REVISION:

E-1

1

TEP#: 257394.485424

NOTES:

1. ALL CONDUCTORS ARE TYPE THWN (75°C) COPPER.
2. MAXIMUM LENGTH OF RUN FOR RECTIFIER CIRCUITS IS 50-FT.
3. INTERSECT/GENERAC INTEGRATED LOAD CENTER INCLUDES 200A MAIN DISCONNECT AND TRANSFER SWITCH FOR PORTABLE OR PERMANENT GENERATOR.
4. RECTIFIER LOADS ARE CONSIDERED TO BE NON-CONTINUOUS.
5. IF ADDITIONAL FUTURE LOADS ARE ADDED WHICH CAUSE TOTAL DEMAND TO EXCEED GENERATOR BREAKER SIZE, BACKUP POWER SYSTEM SHALL BE EVALUATED AND UPGRADED AS NECESSARY.
6. THE RECTIFIER QUANTITY AND LOADING SHOWN ARE BASED ON CALCULATIONS PROVIDED BY VERIZON DATED 02/08/21. CHANGES TO THE DC LOADING MAY REQUIRE TO THE AC POWER DESIGN OR OTHER EQUIPMENT CHANGES.
7. EXISTING LOADING ON THE PANEL IS TAKEN FROM UTILITY BILLS.

PROPOSED BREAKER/LOAD SHOWN IN BOLD

PANEL SCHEDULE - PPC WITH 200A MCB 120/240V										
LOAD SERVED	VOLT AMPERES (WATTS)		TRIP	CKT #	PHASE	CKT #	TRIP	VOLT AMPERES (WATTS)		LOAD SERVED
	L1	L2						L1	L2	
HVAC #1	2050		35A	1	A	2	35A	2050		HVAC #2
		2050		3	B	4			2050	
INTERIOR LIGHTS	500		20A	5	A	6	20A	-		SPARE
DUPLEX RECEPTACLE		180	20A	7	B	8	20A		180	DUPLEX RECEPTACLE
GFCI RECEPTACLE	180		20A	9	A	10	30A	1017*		RECTIFIER #2
EXTERIOR LIGHTS		500	20A	11	B	12		1017*		
RECTIFIER #1	1017*		30A	13	A	14	30A	1017*		RECTIFIER #4
		1017*		15	B	16		1017*		
RECTIFIER #3	1017*		30A	17	A	18	30A	1017*		RECTIFIER #6
		1017*		19	B	20		1017*		
RECTIFIER #5	1017*		30A	21	A	22	30A	1760		BTS 1
		1017*		23	B	24		1760		
RECTIFIER #7	1017*		30A	25	A	26	30A	1760		BTS 2
		1017*		27	B	28		1760		
GEN HEATER	1500		20A	29	A	30	20A	1200**		GEN BATT CHARGER
VOLT AMPS	8298	6798						9821	8801	VOLT AMPS
L1 VOLT AMPERES				18119		15599	L2 VOLT AMPERES			
				18119			MAX L1/L2 VOLT AMPERES			
				150.99			MAX AMPS			
				188.74			MAX AMPS x125%			

*LOADING BASED ON VALUES FROM OTHR3000 CALCULATOR
 **GENERATOR BATTERY CHARGER LOAD IS 0 VA DURING GENERATOR OPERATION

PLANS PREPARED FOR:



4700 EXCHANGE COURT, SUITE 100
 BOCA RATON, FL 33431
 (561) 995-5539

PROJECT INFORMATION:

VZW SITE #: 228806
VZW SITE NAME:
FORT WHITE ARP

19039 SOUTHWEST STATE ROAD 47
 FORT WHITE, FL 32038
 (COLUMBIA COUNTY)

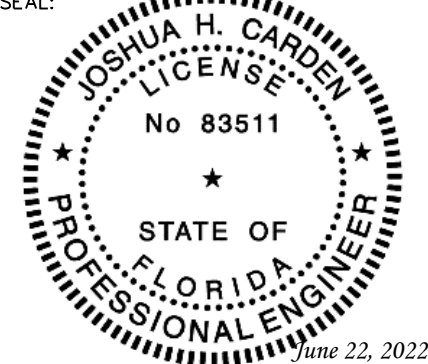
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DRAWN BY: TDL CHECKED BY: LLS

SHEET TITLE:

POWER PANEL SCHEDULE

SHEET NUMBER: REVISION:

E-2 **1**

TEP#: 257394.485424

POWER PANEL SCHEDULE

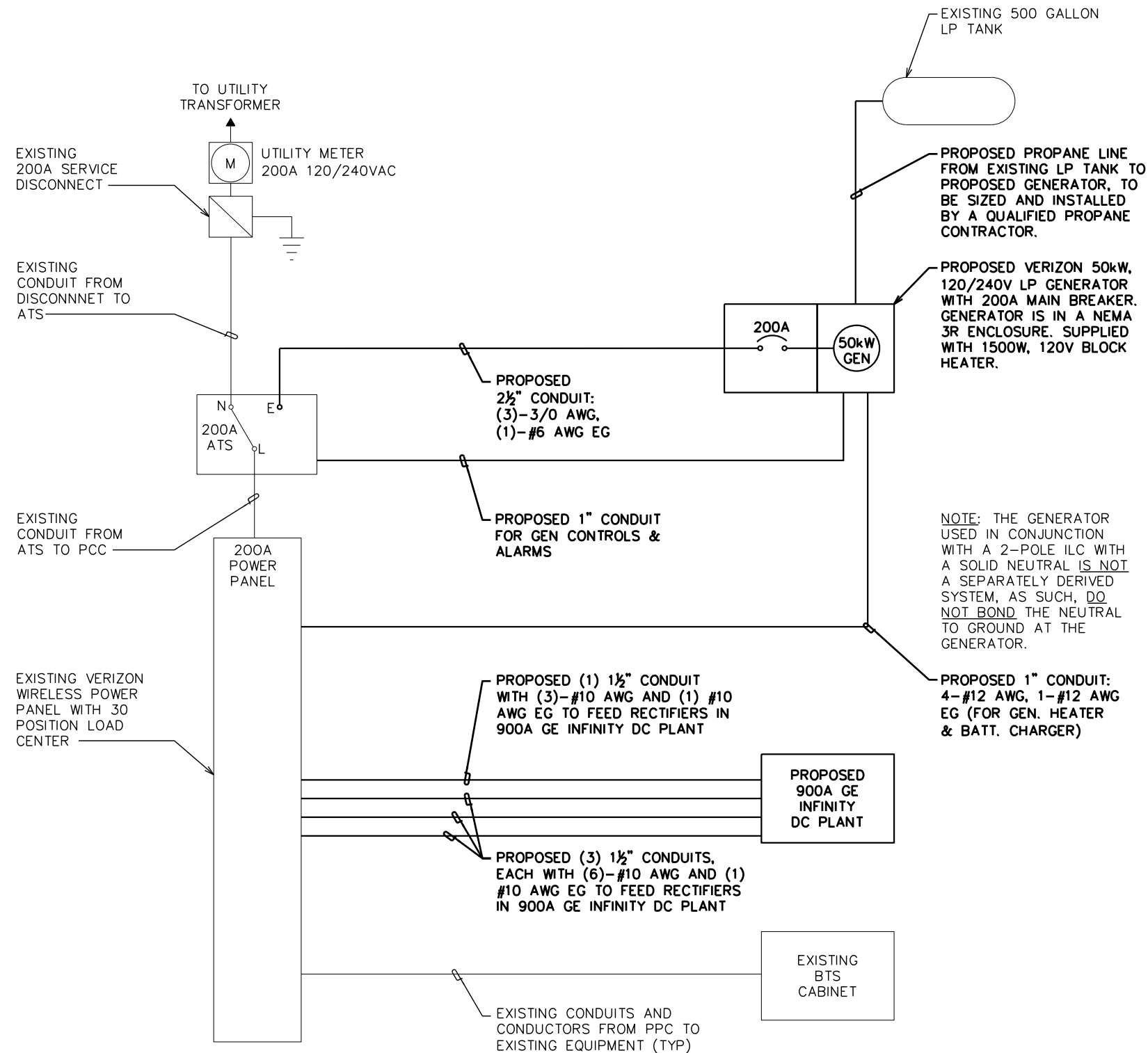
SCALE: N.T.S.

NOTES:

- FOR COMPLETE INTERNAL WIRING AND ARRANGEMENT, REFER TO VENDOR PRINTS PROVIDED BY EQUIPMENT MANUFACTURER.
- WHEN UTILITY COMPANY REQUIRES A SERVICE DISCONNECT OTHER THAN THE MAIN BREAKER IN POWER PANEL OF THE UTILITY CABINET, REMOVE BONDING JUMPER IN EQUIPMENT CABINETS AND BOND SERVICE DISCONNECT PER NEC REQUIREMENTS.
- CONTRACTOR SHALL REVIEW AND COMPLY WITH MANUFACTURERS EQUIPMENT DRAWINGS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE SHOWN.
- CONTRACTOR SHALL OBTAIN THE MAXIMUM AVAILABLE FAULT CURRENT AT THE UTILITY SERVICE POINT FROM THE ELECTRIC COMPANY IN WRITING PRIOR TO ORDERING MATERIALS AND ENSURE THE EQUIPMENT WILL HAVE HIGHER RATING WITH A MIN VALUE OF 10,000A.
- THE GROUNDED SERVICE CONDUCTOR SHALL BE GROUNDED AT THE SERVICE DISCONNECT ONLY.
- DO NOT BOND THE NEUTRAL TO GROUND AT THE GENERATOR.
- SIGNAGE MUST BE DISPLAYED ON DISCONNECT "OPENING THE EQUIPMENT DISCONNECT WILL CAUSE THE EMERGENCY GENERATOR TO START. TO REMOVE POWER ENTIRELY FROM EQUIPMENT, THE GENERATOR MUST BE TURNED OFF USING THE GENERATOR STOP SWITCH."

ONE-LINE DIAGRAM NOTES:

- ELECTRICAL SERVICE SHALL BE 200A, 240/120V, 1 ϕ , 3W.
- COMPLY WITH MANUFACTURER SPECIFICATIONS REGARDING WIRING REQUIREMENTS.
- CONDUCTOR SIZES BASED ON TYPICAL CONFIGURATIONS. CONTRACTOR WILL VERIFY WITH MANUFACTURER SPECIFICATIONS BEFORE ORDERING OR INSTALLING PARTS.
- WIRE COUNT IS BASED ON EQUIPMENT SPECIFICATIONS PROVIDED BY VERIZON WIRELESS.
- NEUTRAL CONDUCTORS TO THE RECTIFIERS WERE LEFT OFF AT THE ADVICE OF VERIZON WIRELESS EQUIPMENT ENGINEER. CONTRACTOR TO VERIFY WIRING REQUIREMENTS WITH RECTIFIER MANUFACTURER SPECIFICATIONS.
- EXISTING GROUNDING ELECTRODE CONDUCTOR & MAIN BONDING JUMPER. CONTRACTOR TO VERIFY EXISTENCE AND LOCATION.
- CONDUCTOR SIZED BASED ON A MAXIMUM GENERATOR BREAKER RATING OF 200A.
- THE RECTIFIER QUANTITY AND LOADING SHOWN ARE BASED ON CALCULATIONS PROVIDED BY VERIZON DATED 02/08/21. CHANGES TO THE DC LOADING MAY REQUIRE TO THE AC POWER DESIGN OR OTHER EQUIPMENT CHANGES.



ELECTRICAL ONE-LINE DIAGRAM

SCALE: N.T.S.

PLANS PREPARED FOR:



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BOCA RATON, FL 33431
(561) 995-5539

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FORT WHITE ARP

19039 SOUTHWEST STATE ROAD 47
FORT WHITE, FL 32038
(COLUMBIA COUNTY)

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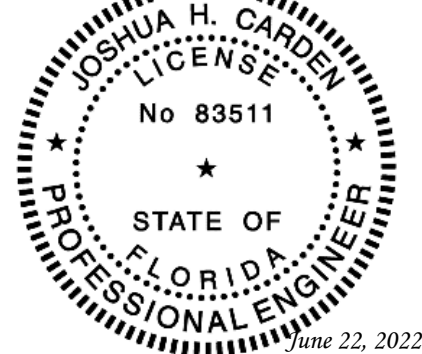
TOWER ENGINEERING PROFESSIONALS

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ONE-LINE DIAGRAM

SHEET NUMBER: REVISION:

E-3

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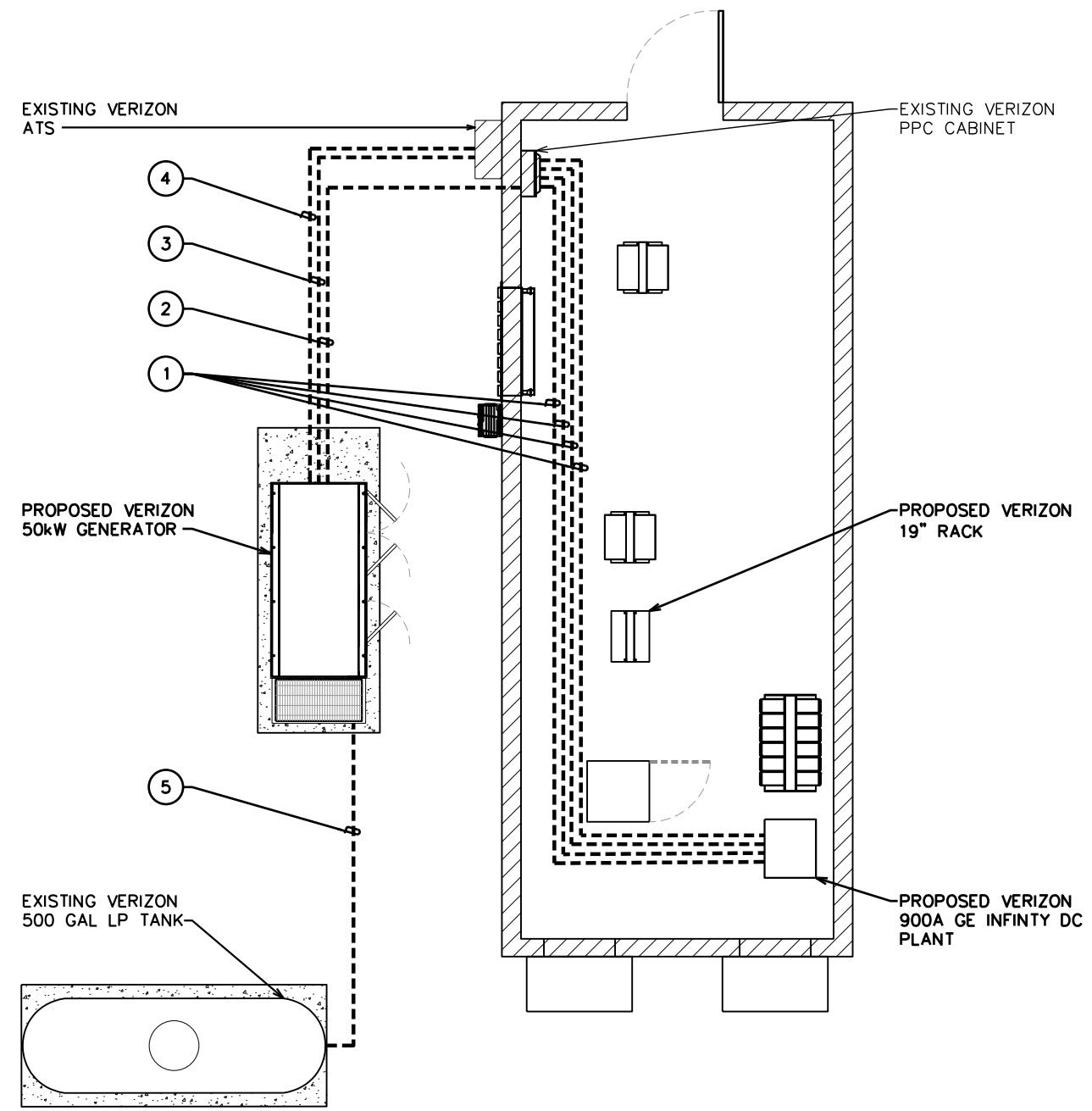
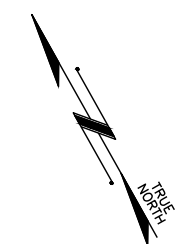
TEP#: 257394.485424

LABEL LIST:

- ① (4)-1½" CONDUIT FOR RECTIFIERS IN 900A GE INFINITY DC PLANT TO POWER PANEL
- ② (1)-1" CONDUIT FOR GENERATOR HEATER & BATTERY CHARGER FROM PPC TO GENERATOR
- ③ (1)-1" CONDUIT FOR ALARM AND CONTROL WIRING FROM ATS TO GENERATOR
- ④ (1)-2½" CONDUIT FOR POWER FROM ATS TO GENERATOR
- ⑤ PROPOSED LP FUEL LINE FROM EXISTING 500 GAL LP TANK TO PROPOSED 50kW GENERATOR

NOTES:

- 1. POWER AND TELCO CONDUITS RECEIVING CONDUCTORS BY OTHERS TO HAVE PULL ROPES.
- 2. ALL TELCO CONDUITS ARE TO BE STUBBED IN D-MARC LOCATION.
- 3. ALL POWER CONDUITS ARE TO BE TERMINATED AT THE METER CENTER.
- 4. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES PRIOR TO TRENCHING. ANY DAMAGE CAUSED TO THE EXISTING UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 5. ALL CONDUITS SHALL BE INSTALLED PRIOR TO FINISH GRADING, GEOFABRIC, AND STONE INSTALLATION.
- 6. CONTRACTOR SHALL INSTALL SWEEPS AT ALL CONDUIT DIRECTION CHANGES UNLESS NOTED OTHERWISE.
- 7. RUN CONDUITS FROM PANEL/ATS TO GENERATOR UNDERGROUND AND STUB UP CONDUITS MINIMUM 6" HIGH INSIDE GENERATOR BASE AND TERMINATE WITH MALE ADAPTER AND THREADED BUSHING.



PLANS PREPARED FOR:

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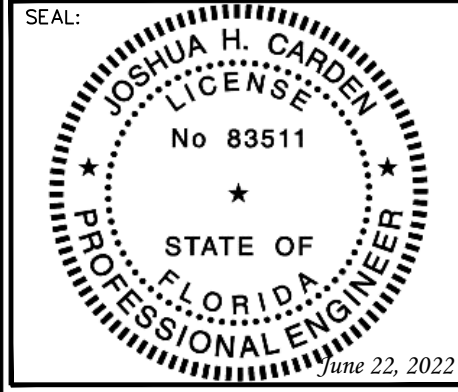
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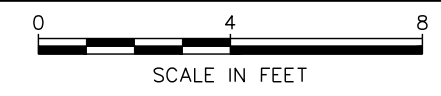
SHEET TITLE:

POWER ROUTING PLAN

SHEET NUMBER:	REVISION:
E-4	1
TEP#: 257394.485424	

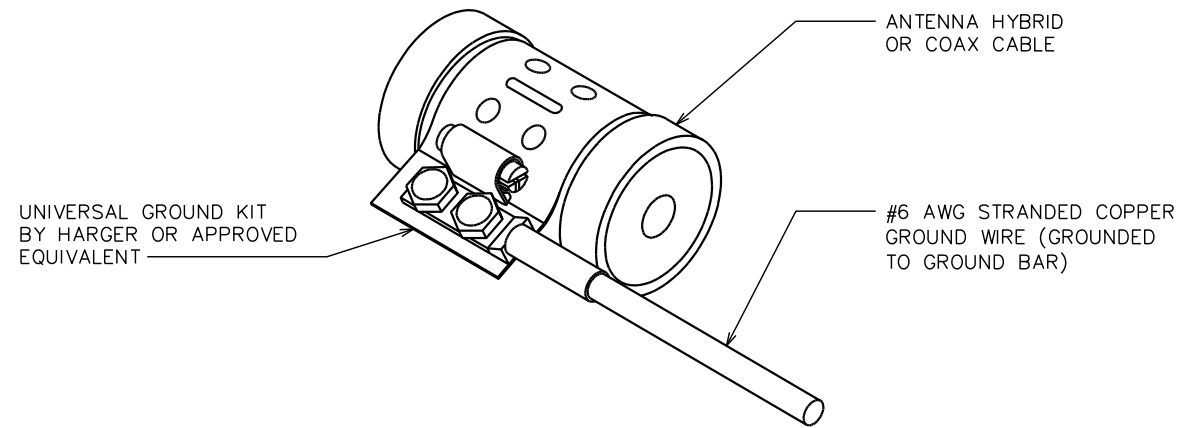
POWER ROUTING PLAN

SCALE: ¼" = 1'-0"



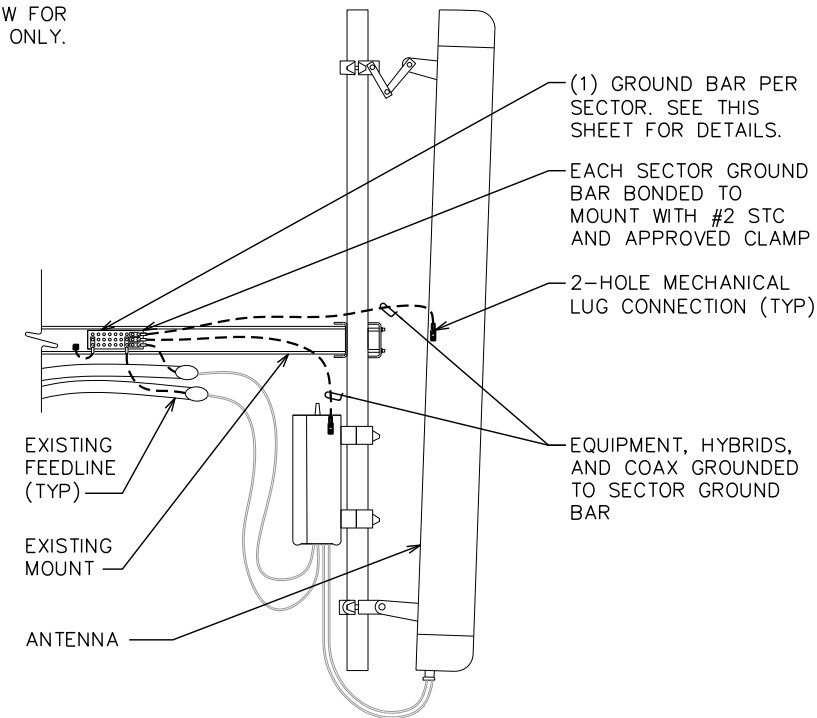
NOTES:

1. DO NOT INSTALL COAX GROUND KIT AT A BEND.
2. CONTRACTOR TO WEATHERPROOF COAX GROUND.



NOTE:

DRAWING SHOWN BELOW FOR SCHEMATIC PURPOSES ONLY.



PLANS PREPARED FOR:



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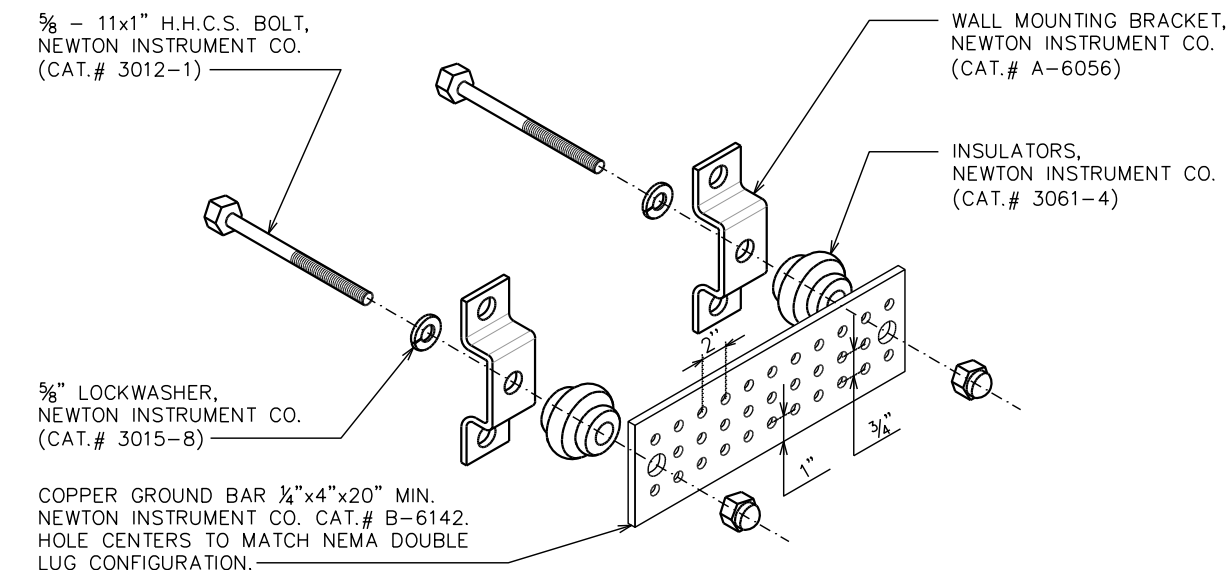
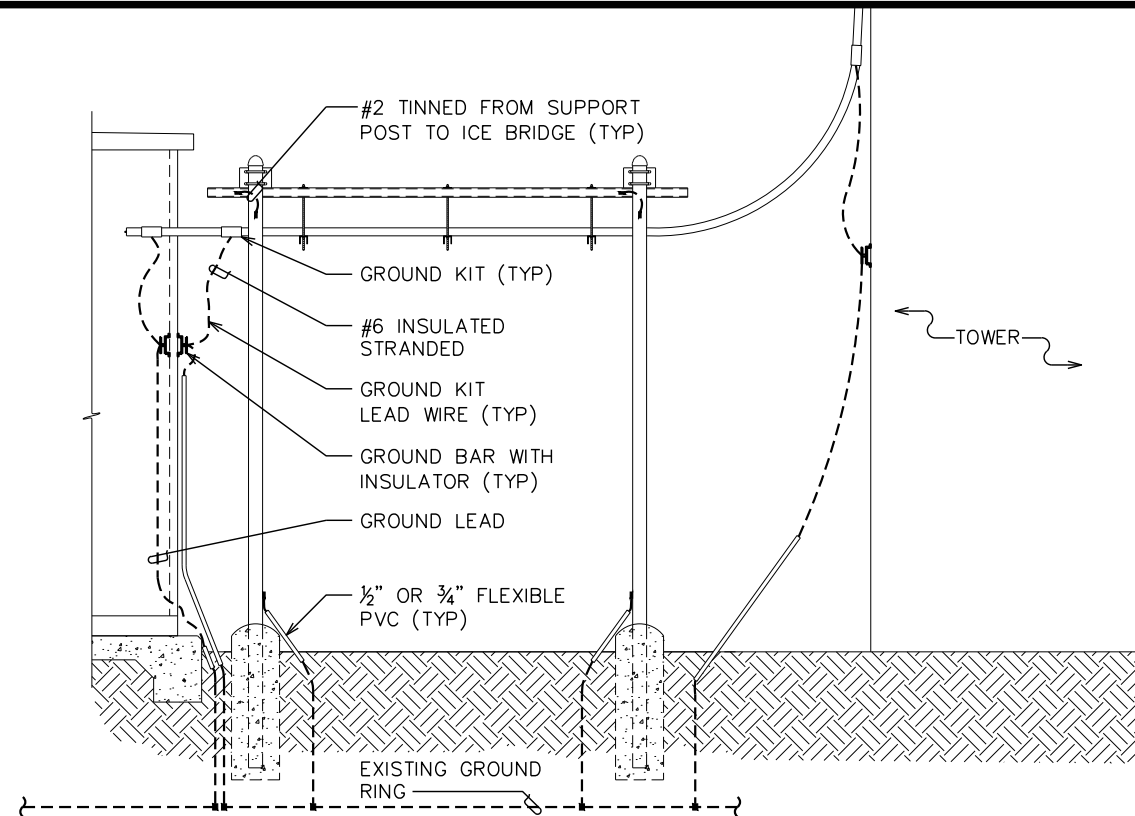
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GROUNDING DETAILS

SCALE: N.T.S.

ANTENNA & EQUIPMENT GROUNDING DETAIL

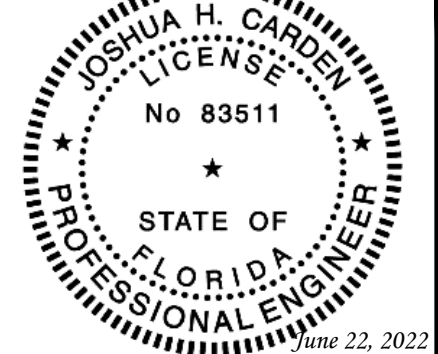
SCALE: N.T.S.



NOTES:

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

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GROUNDING DETAILS

SHEET NUMBER: REVISION:

G-1

1

TEP#: 257394.485424

ICE BRIDGE/HYBRID/COAX/GROUNDING BAR ELEVATION

SCALE: N.T.S.

STANDARD GROUND BAR DETAILS

SCALE: N.T.S.