

VERIZON SITE NUMBER: 278206

VERIZON SITE NAME: WILLIAMSON NORTH FORT WHITE

PROJECT DESCRIPTION: RFDS 5G L-SUB6

TOWER TYPE: 250' SELF-SUPPORT

SITE ADDRESS: 1282 SOUTHWEST WATSON STREET, FORT WHITE, FL 32038 (COLUMBIA COUNTY)

JURISDICTION: COLUMBIA COUNTY

PRESENT OCCUPANCY TYPE: TELECOMMUNICATIONS FACILITY

CURRENT ZONING: A-3

PARCEL ID #: 27-5S-16-03723-003

PROJECT INFORMATION

LATITUDE: N 30° 01' 19.83" *
LONGITUDE: W 82° 41' 40.33" *
GROUND ELEVATION: 548'± (AMSL) **

*INFORMATION PROVIDED BY RFDS
**INFORMATION PROVIDED BY GOOGLE EARTH

SITE COORDINATES



LOCATION MAP



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

VZW SITE #: 278206
VZW SITE NAME: WILLIAMSON NORTH FORT WHITE
1282 SOUTHWEST WATSON STREET
FORT WHITE, FL 32038

LESSEE:

NAME: VERIZON WIRELESS
ADDRESS: 4700 EXCHANGE COURT, SUITE 100
CITY, STATE, ZIP: BOCA RATON, FL 33431
CONTACT: JOHN SCANDURA
PHONE: (561) 995-5539

TOWER OWNER:

NAME: VERIZON WIRELESS
ADDRESS: 4700 EXCHANGE COURT, SUITE 100
CITY, STATE, ZIP: BOCA RATON, FL 33431
CONTACT: JOHN SCANDURA
PHONE: (561) 995-5539

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: JEREMY K. WOOSTER, P.E.
PHONE: (919) 661-6351

ELECTRICAL ENGINEER:

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

PROPERTY OWNER:

NAME: GINA O. WILLIAMSON
ADDRESS: 1282 SOUTHWEST WATSON STREET
CITY, STATE, ZIP: FORT WHITE, FL 32038
CONTACT: GINA O. WILLIAMSON
PHONE: UNKNOWN

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:

- 2020 FLORIDA BUILDING CODE, 7TH EDITION
- LOCAL BUILDING CODE
- ANSI/TIA-222-H-2-2017
- 2017 NATIONAL ELECTRIC CODE
- 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 BY TOWER ENGINEERING PROFESSIONALS DATED 05/12/21.

DESIGN CRITERIA

UTILITIES:

POWER COMPANY: CLAY ELECTRIC COOP.
CONTACT: CUSTOMER SERVICE
PHONE: (352) 473-8000
METER # NEAR SITE: 158 325 063

TELEPHONE COMPANY: AT&T
CONTACT: CUSTOMER SERVICE
PHONE: (888) 595-2102
PHONE # NEAR SITE: (352) 498-0756
PEDESTAL # NEAR SITE: UNKNOWN

THE PURPOSE OF THIS PROJECT IS AS FOLLOWS:

TOWER SCOPE OF WORK:

- INSTALL (3) ERICSSON VZE01 ANTENNAS
- INSTALL (3) ERICSSON RRUS 8843 RRUS
- INSTALL (1) 1 1/2" HYBRID CABLE
- INSTALL (1) RAYCAP RHSDC-6627-PF-48
- INSTALL (1) RAYCAP RHSDC-6627-PF-48 (AT PAD ON GROUND LEVEL)

GROUND SCOPE OF WORK:

- REMOVE (1) 6120 CABINET
- INSTALL (1) CHARLES CUBE CABINET

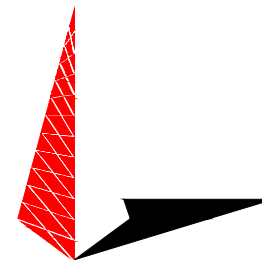
FOR MOUNT MODS: SEE MOUNT MODIFICATION DRAWINGS BY MASER DATED 02/16/21.

SCOPE OF WORK

SHEET	DESCRIPTION	REV
T-1	TITLE SHEET	1
N-1	PROJECT NOTES	1
C-1	SITE PLAN	1
C-1A	EXISTING EQUIPMENT PAD LAYOUT	1
C-1B	PROPOSED EQUIPMENT PAD LAYOUT	1
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	EQUIPMENT CABINET 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
E-5	CABINET POWER CALCULATIONS	1
G-1	GROUNDING DETAILS	1

INDEX OF SHEETS

PLANS PREPARED BY:



TOWER ENGINEERING PROFESSIONALS

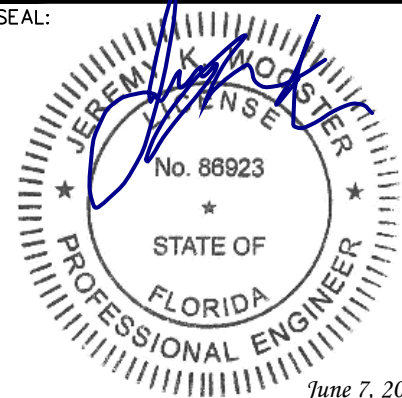
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net

FL COA # 31011

I	06-07-21	CONSTRUCTION
O	05-27-21	PRELIMINARY
REV	DATE	ISSUED FOR:

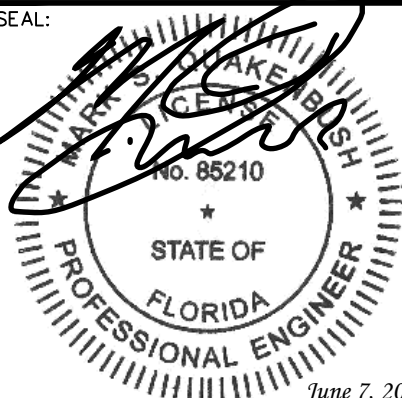
DRAWN BY: HMB CHECKED BY: JHU

SEAL:



June 7, 2021

SEAL:



June 7, 2021

SHEET NUMBER:	REVISION:
T-1	1
	TEP#: 252166.485545

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 318-11, "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:

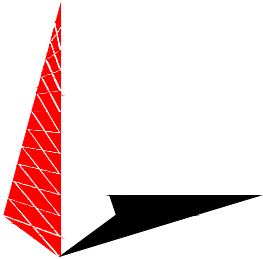


4700 EXCHANGE COURT, SUITE 100
BOCA RATON, FL 33431
(561) 995-5539

PROJECT INFORMATION:

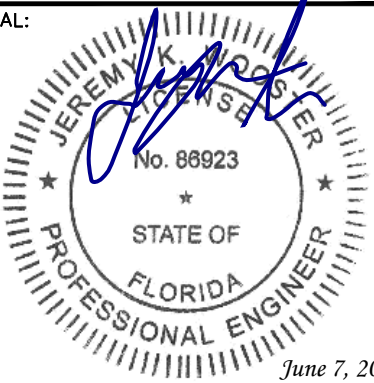
VZW SITE #: 278206
VZW SITE NAME:
WILLIAMSON
NORTH FORT WHITE
1282 SOUTHWEST WATSON STREET
FORT WHITE, FL 32038
(COLUMBIA COUNTY)

PLANS PREPARED BY:



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

SEAL:



I	06-07-21	CONSTRUCTION
O	05-27-21	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: HMB CHECKED BY: JHJ

SHEET TITLE:

PROJECT
NOTES

SHEET NUMBER:	REVISION:
N-1	1
TEP #: 252166.485545	

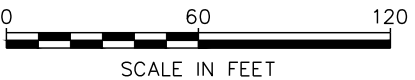
NOTES:

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 FROM MAPS 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.



SITE PLAN

SCALE: 1" = 60'



PLANS PREPARED FOR:

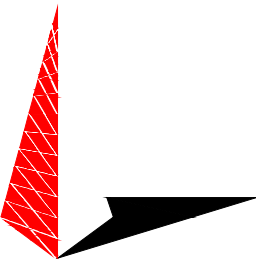


4700 EXCHANGE COURT, SUITE 100
BOCA RATON, FL 33431
(561) 995-5539

PROJECT INFORMATION:

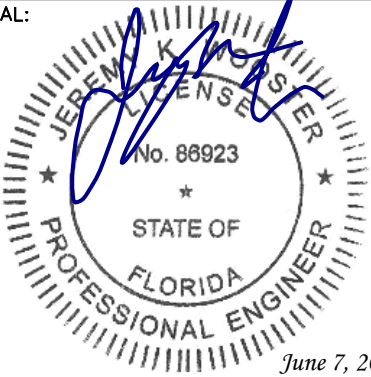
VZW SITE #: 278206
VZW SITE NAME:
WILLIAMSON
NORTH FORT WHITE
1282 SOUTHWEST WATSON STREET
FORT WHITE, FL 32038
(COLUMBIA COUNTY)

PLANS PREPARED BY:



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

SEAL:



I	06-07-21	CONSTRUCTION
O	05-27-21	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: HMB CHECKED BY: JHJ

SHEET TITLE:

SITE PLAN

SHEET NUMBER:	REVISION:
C-1	1
	TEP#: 252166.485545

NOTE:

EQUIPMENT LAYOUT SHOWN BELOW BASED ON DOCUMENTS PROVIDED BY VERIZON WIRELESS.

EXISTING VERIZON
25'-6"x11'-6" EQUIPMENT
PAD TO REMAIN

EXISTING VERIZON
FIBER CABINET TO
REMAIN (TYP OF 2)

EXISTING VERIZON
TELCO BOX TO
REMAIN

EXISTING VERIZON
ILC TO REMAIN

EXISTING VERIZON
ATS TO REMAIN

EXISTING VERIZON
6120 CABINET TO BE
REMOVED. SEE SHEET
C-1B FOR DETAILS.

EXISTING VERIZON ICE
BRIDGE TO REMAIN

EXISTING VERIZON 30kW
DIESEL GENERATOR WITH
210 GALLON TANK TO
REMAIN

EXISTING VERIZON
BATTERY CABINET
TO REMAIN

EXISTING VERIZON RAYCAP
RCMDC-6627-PF-48 TO
REMAIN

EXISTING EQUIPMENT PAD LAYOUT

SCALE: $\frac{3}{8}$ " = 1'-0"

0 2 4
SCALE IN FEET

PLANS PREPARED FOR:

verizon

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

PROJECT INFORMATION:

VZW SITE #: 278206

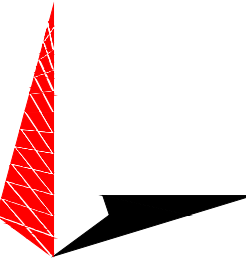
VZW SITE NAME:

WILLIAMSON

NORTH FORT WHITE

1282 SOUTHWEST WATSON STREET
FORT WHITE, FL 32038
(COLUMBIA COUNTY)

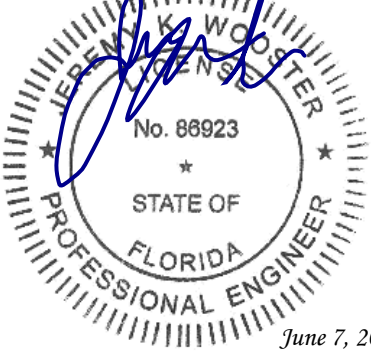
PLANS PREPARED BY:



TOWER ENGINEERING PROFESSIONALS

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

SEAL:



I	06-07-21	CONSTRUCTION
O	05-27-21	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: HMB CHECKED BY: JHJ

SHEET TITLE:

**EXISTING
EQUIPMENT
PAD LAYOUT**

SHEET NUMBER:	REVISION:
C-1A	1
TEP#: 252166.485545	

NOTES:

1. EQUIPMENT LAYOUT SHOWN BELOW BASED ON DOCUMENTS PROVIDED BY VERIZON WIRELESS.
2. CONTRACTOR TO INSTALL EQUIPMENT PER MANUFACTURER'S SPECIFICATIONS.

EXISTING VERIZON
25'-6"x11'-6" EQUIPMENT
PAD

EXISTING VERIZON
FIBER CABINET
(TYP OF 2)

EXISTING VERIZON
TELCO BOX

EXISTING VERIZON
ILC

EXISTING VERIZON
ATS

PROPOSED VERIZON
CHARLES CUBE
CABINET. SEE SHEET
C-4 FOR DETAILS.

EXISTING VERIZON ICE
BRIDGE

EXISTING VERIZON 30kW
DIESEL GENERATOR WITH
210 GALLON TANK

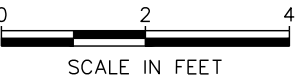
EXISTING VERIZON
BATTERY CABINET

PROPOSED VERIZON RAYCAP
RHSDC-6627-PF-48. SEE
SHEET C-3D FOR DETAILS.

EXISTING VERIZON RAYCAP
RCMDC-6627-PF-48

PROPOSED EQUIPMENT PAD LAYOUT

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



PLANS PREPARED FOR:

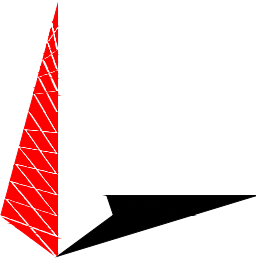


4700 EXCHANGE COURT, SUITE 100
BOCA RATON, FL 33431
(561) 995-5539

PROJECT INFORMATION:

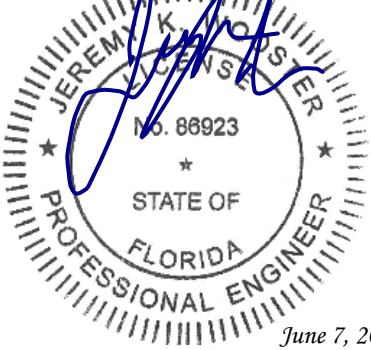
VZW SITE #: 278206
VZW SITE NAME:
WILLIAMSON
NORTH FORT WHITE
1282 SOUTHWEST WATSON STREET
FORT WHITE, FL 32038
(COLUMBIA COUNTY)

PLANS PREPARED BY:



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

SEAL:



I	06-07-21	CONSTRUCTION
O	05-27-21	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: HMB CHECKED BY: JHJ

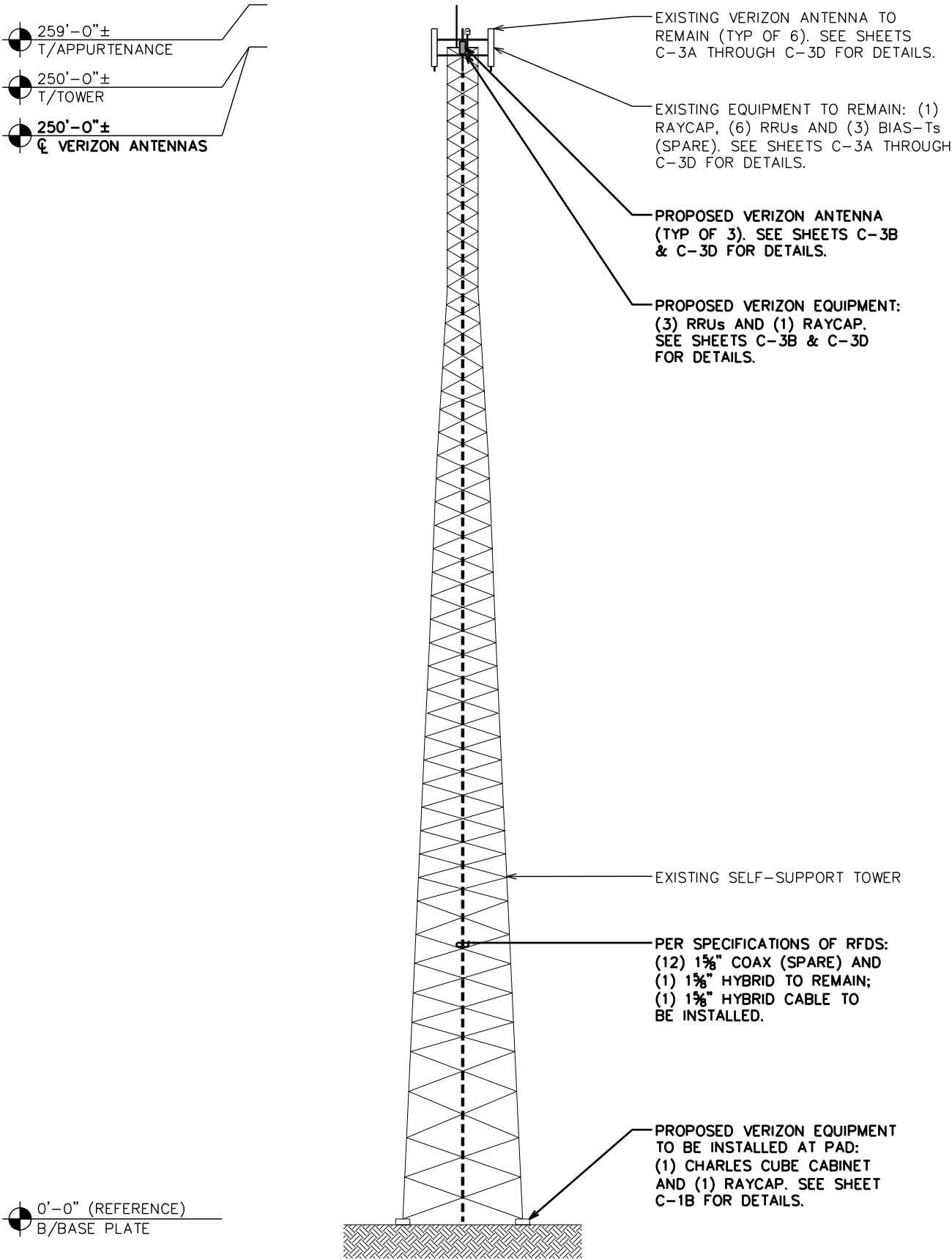
SHEET TITLE:

**PROPOSED
EQUIPMENT
PAD LAYOUT**

SHEET NUMBER:	REVISION:
C-1B	1
TEP#: 252166.485545	

NOTES:

1. EXISTING TOWER HAS SUFFICIENT CAPACITY TO HOLD PROPOSED LOADING. SEE THE STRUCTURAL ANALYSIS REPORT BY TEP DATED MAY 12, 2021 FOR DETAILS.
2. CONTRACTOR TO INSTALL ALL EQUIPMENT PER MANUFACTURER'S SPECIFICATIONS.
3. THE DRAWING IS ONLY A GRAPHIC REPRESENTATION OF THE STRUCTURE. CONDITIONS IN THE FIELD MAY VARY.
4. FAA APPROVED OVERALL HEIGHT = 260'-0".



PROPOSED TOWER ELEVATION

SCALE: 1" = 30'

PLANS PREPARED FOR:

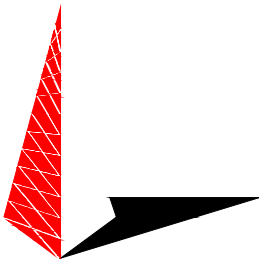


4700 EXCHANGE COURT, SUITE 100
BOCA RATON, FL 33431
(561) 995-5539

PROJECT INFORMATION:

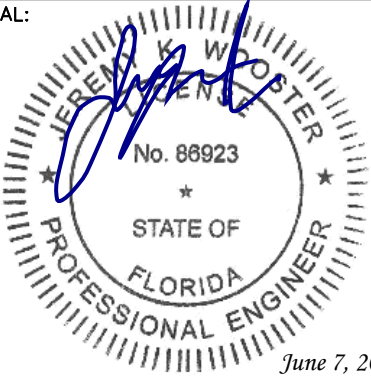
VZW SITE #: 278206
VZW SITE NAME:
WILLIAMSON
NORTH FORT WHITE
1282 SOUTHWEST WATSON STREET
FORT WHITE, FL 32038
(COLUMBIA COUNTY)

PLANS PREPARED BY:



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

SEAL:



I	06-07-21	CONSTRUCTION
O	05-27-21	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: HMB CHECKED BY: JHJ

SHEET TITLE:

**TOWER
ELEVATION**

SHEET NUMBER:	REVISION:
C-2	1
TEP#: 252166.485545	

NOTES:

1. EXISTING MOUNTS DO NOT HAVE SUFFICIENT CAPACITY TO HOLD PROPOSED LOADING. SEE THE MOUNT ANALYSIS REPORT BY MASER CONSULTING DATED FEBRUARY 2, 2021 FOR DETAILS.
2. (3) BIAS-T NOT LOCATED DURING MOUNT MAPPING. IF PRESENT, (3) BIAS-T TO REMAIN.

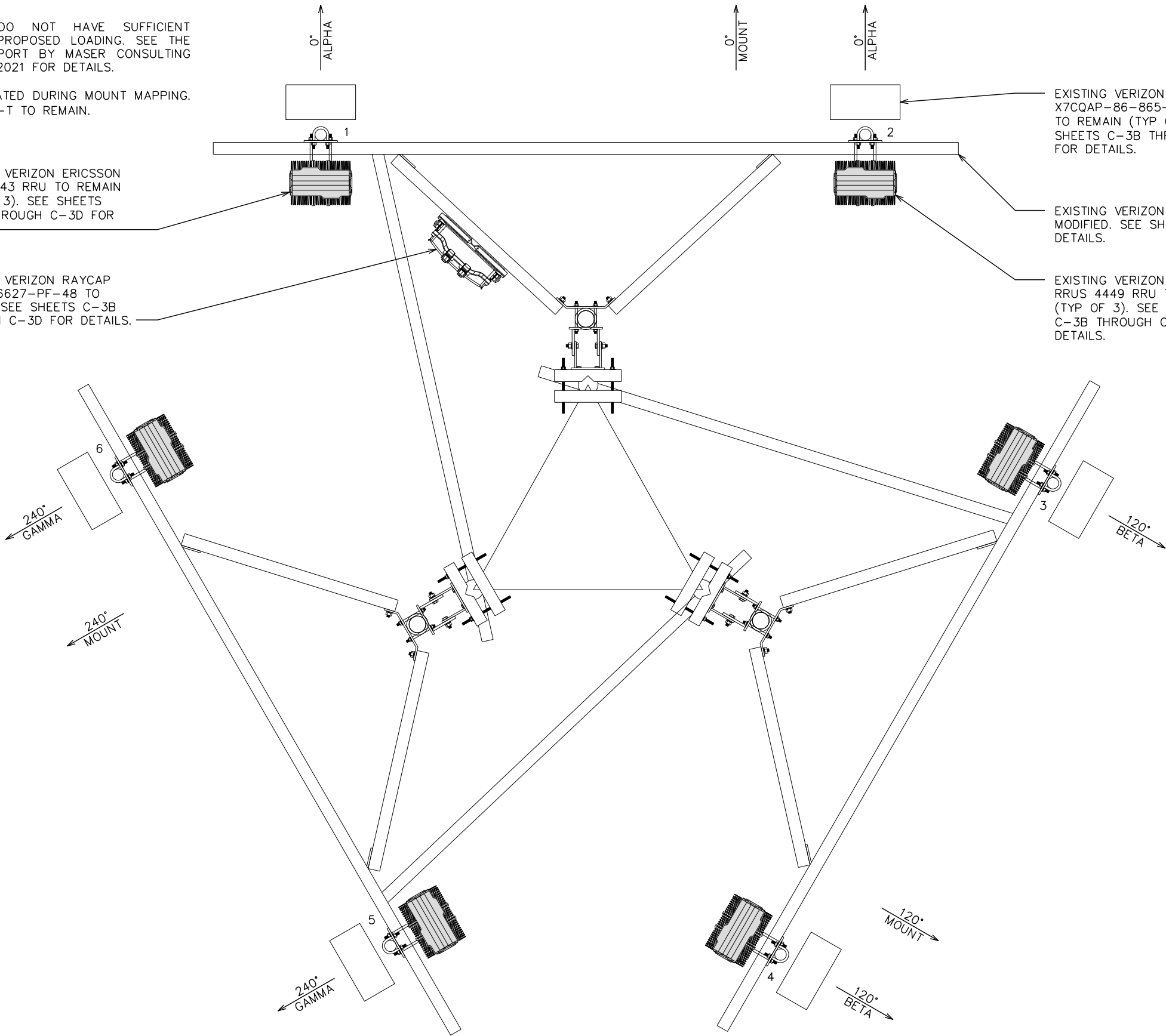
EXISTING VERIZON ERICSSON RRUS 8843 RRU TO REMAIN (TYP OF 3). SEE SHEETS C-3B THROUGH C-3D FOR DETAILS.

EXISTING VERIZON RAYCAP RCMD-6627-PF-48 TO REMAIN. SEE SHEETS C-3B THROUGH C-3D FOR DETAILS.

EXISTING VERIZON CSS X7CQAP-86-865-V-1 ANTENNA TO REMAIN (TYP OF 6). SEE SHEETS C-3B THROUGH C-3D FOR DETAILS.

EXISTING VERIZON MOUNT TO BE MODIFIED. SEE SHEET C-3B FOR DETAILS.

EXISTING VERIZON ERICSSON RRUS 4449 RRU TO REMAIN (TYP OF 3). SEE SHEETS C-3B THROUGH C-3D FOR DETAILS.



EXISTING ANTENNA LAYOUT @ 250'-0"

SCALE: 1/2" = 1'-0"



PLANS PREPARED FOR:

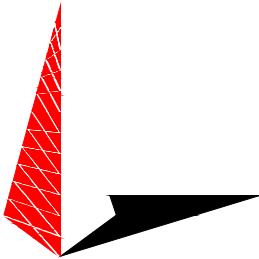


4700 EXCHANGE COURT, SUITE 100
BOCA RATON, FL 33431
(561) 995-5539

PROJECT INFORMATION:

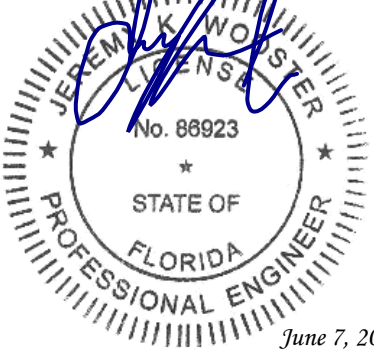
VZW SITE #: 278206
VZW SITE NAME:
WILLIAMSON
NORTH FORT WHITE
1282 SOUTHWEST WATSON STREET
FORT WHITE, FL 32038
(COLUMBIA COUNTY)

PLANS PREPARED BY:



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

SEAL:



I	06-07-21	CONSTRUCTION
O	05-27-21	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: HMB CHECKED BY: JHJ

SHEET TITLE:

EXISTING
ANTENNA LAYOUT

SHEET NUMBER:	REVISION:
C-3A	1
	TEP#: 252166.485545

1. PROPOSED MOUNT MODIFICATION HAS SUFFICIENT CAPACITY TO HOLD PROPOSED LOADING. SEE ANTENNA MOUNT MODIFICATION ANALYSIS REPORT AND MODIFICATION DRAWINGS BY MASER CONSULTING DATED FEBRUARY 16, 2021 FOR DETAILS.
2. CONTRACTOR TO VERIFY PROPOSED LOADING WITH TOWER STRUCTURAL ANALYSIS PRIOR TO CONSTRUCTION.



C-3B	1
TEP#: 252 66.4853	

Figure 1 is a horizontal bar chart with three categories on the x-axis: 0, 2, and 4. The bars are black, white, and black respectively. The x-axis is labeled 'SCALE IN FEET'.

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 1900 LTE 2100 LTE	CSS X7CQAP-86-865-V-1	℄ @ 250'-0"±	(12) 1½"∅ COAX (SPARE)	0°	290'±	1°	1°	(1) ERICSSON RRU [4449 RRU]	(1) RAYCAP [RCMDC-6627-PF-48] *(1) RAYCAP [RCMDC-6627-PF-48]
2	ALPHA		CSS X7CQAP-86-865-V-1	℄ @ 250'-0"±		0°		1°	1°	(1) ERICSSON RRU [8843 RRU]	
3	BETA	AWS3 LTE 700 LTE 1900 LTE 2100 LTE	CSS X7CQAP-86-865-V-1	℄ @ 250'-0"±		120°		1°	1°	(1) ERICSSON RRU [4449 RRU]	
4	BETA		CSS X7CQAP-86-865-V-1	℄ @ 250'-0"±		120°		1°	1°	(1) ERICSSON RRU [8843 RRU]	
5	GAMMA	AWS3 LTE 700 LTE 1900 LTE 2100 LTE	CSS X7CQAP-86-865-V-1	℄ @ 250'-0"±	(1) 1½"∅ HYBRID	240°		0°	1°	(1) ERICSSON RRU [4449 RRU]	
6	GAMMA		CSS X7CQAP-86-865-V-1	℄ @ 250'-0"±		240°		0°	1°	(1) ERICSSON RRU [8843 RRU]	

*NOTE—EQUIPMENT LOCATED AT GROUND LEVEL.

GROUND WORK:

CONTRACTOR TO REMOVE: (1) 6120 CABINET.

PLANS PREPARED FOR:

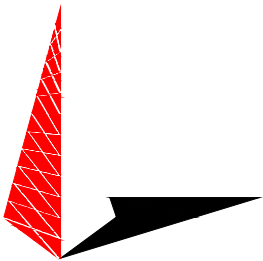


4700 EXCHANGE COURT, SUITE 100
BOCA RATON, FL 33431
(561) 995-5539

PROJECT INFORMATION:

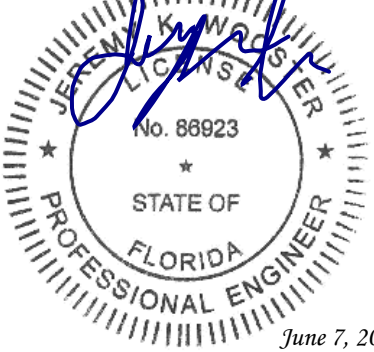
VZW SITE #: 278206
VZW SITE NAME:
WILLIAMSON
NORTH FORT WHITE
1282 SOUTHWEST WATSON STREET
FORT WHITE, FL 32038
(COLUMBIA COUNTY)

PLANS PREPARED BY:



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

SEAL:



I	06-07-21	CONSTRUCTION
O	05-27-21	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: HMB CHECKED BY: JHJ

SHEET TITLE:

EXISTING ANTENNA
& COAX SCHEDULE

SHEET NUMBER:	REVISION:
C-3C	1
	TEP#: 252166.485545

EXISTING ANTENNA & COAX SCHEDULE @ 250'-0"

SCALE: N.T.S.

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 1900 LTE 2100 LTE 850 LTE 850 5G NR NL-SUB6	CSS X7CQAP-86-865-V-1	℄ @ 250'-0"±	(12) 1½"∅ COAX (SPARE)	0°	*290'±	••	••	(1) ERICSSON RRU [4449 RRU]	(1) RAYCAP [RCMDC-6627-PF-48]
2	ALPHA		ERICSSON VZE01	℄ @ 250'-0"±		0°		••	••	(1) ERICSSON RRU [8843 RRU]	
3	ALPHA		CSS X7CQAP-86-865-V-1	℄ @ 250'-0"±		0°		••	••	(1) ERICSSON RRU [RRUS 8843]	
4	BETA	AWS3 LTE 700 LTE 1900 LTE 2100 LTE 850 LTE 850 5G NR NL-SUB6	CSS X7CQAP-86-865-V-1	℄ @ 250'-0"±	(1) 1½"∅ HYBRID	120°		••	••	(1) ERICSSON RRU [4449 RRU]	*** (1) RAYCAP [RCMDC-6627-PF-48]
5	BETA		ERICSSON VZE01	℄ @ 250'-0"±		120°		••	••	(1) ERICSSON RRU [8843 RRU]	
6	BETA		CSS X7CQAP-86-865-V-1	℄ @ 250'-0"±		120°		••	••	(1) ERICSSON RRU [RRUS 8843]	
7	GAMMA	AWS3 LTE 700 LTE 1900 LTE 2100 LTE 850 LTE 850 5G NR NL-SUB6	CSS X7CQAP-86-865-V-1	℄ @ 250'-0"±	(1) 1½"∅ HYBRID	240°		••	••	(1) ERICSSON RRU [4449 RRU]	****(1) RAYCAP [RHSDC-6627-PF-48]
8	GAMMA		ERICSSON VZE01	℄ @ 250'-0"±		240°		••	••	(1) ERICSSON RRU [8843 RRU]	
9	GAMMA		CSS X7CQAP-86-865-V-1	℄ @ 250'-0"±		240°		••	••	(1) ERICSSON RRU [RRUS 8843]	

*NOTE-CONTRACTOR TO VERIFY COAX/CABLE LENGTHS PRIOR TO CONSTRUCTION. CONTRACTOR TO REFERENCE VERIZON ISSUED RFDS PRIOR TO CONSTRUCTION
**NOTE-CONTRACTOR TO REFERENCE VERIZON ISSUED RFDS FOR MECH./ELEC. D-TILTS
***NOTE-EQUIPMENT LOCATED AT GROUND LEVEL
****NOTE-EQUIPMENT TO BE MOUNTED AT GROUND LEVEL

GROUND WORK:

CONTRACTOR TO INSTALL: (1) CHARLES CUBE CABINET.

PLANS PREPARED FOR:



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

PROJECT INFORMATION:

VZW SITE #: 278206

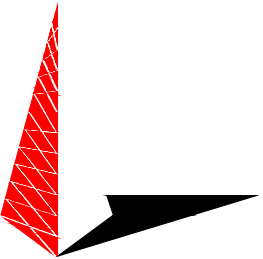
VZW SITE NAME:

WILLIAMSON

NORTH FORT WHITE

1282 SOUTHWEST WATSON STREET
FORT WHITE, FL 32038
(COLUMBIA COUNTY)

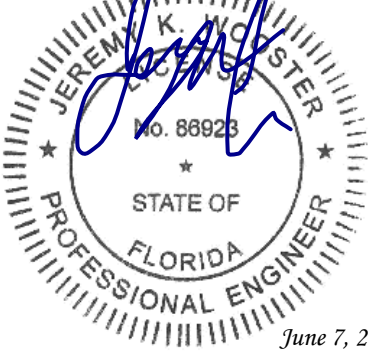
PLANS PREPARED BY:



TOWER ENGINEERING PROFESSIONALS

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

SEAL:



I	06-07-21	CONSTRUCTION
O	05-27-21	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: HMB CHECKED BY: JHJ

SHEET TITLE:

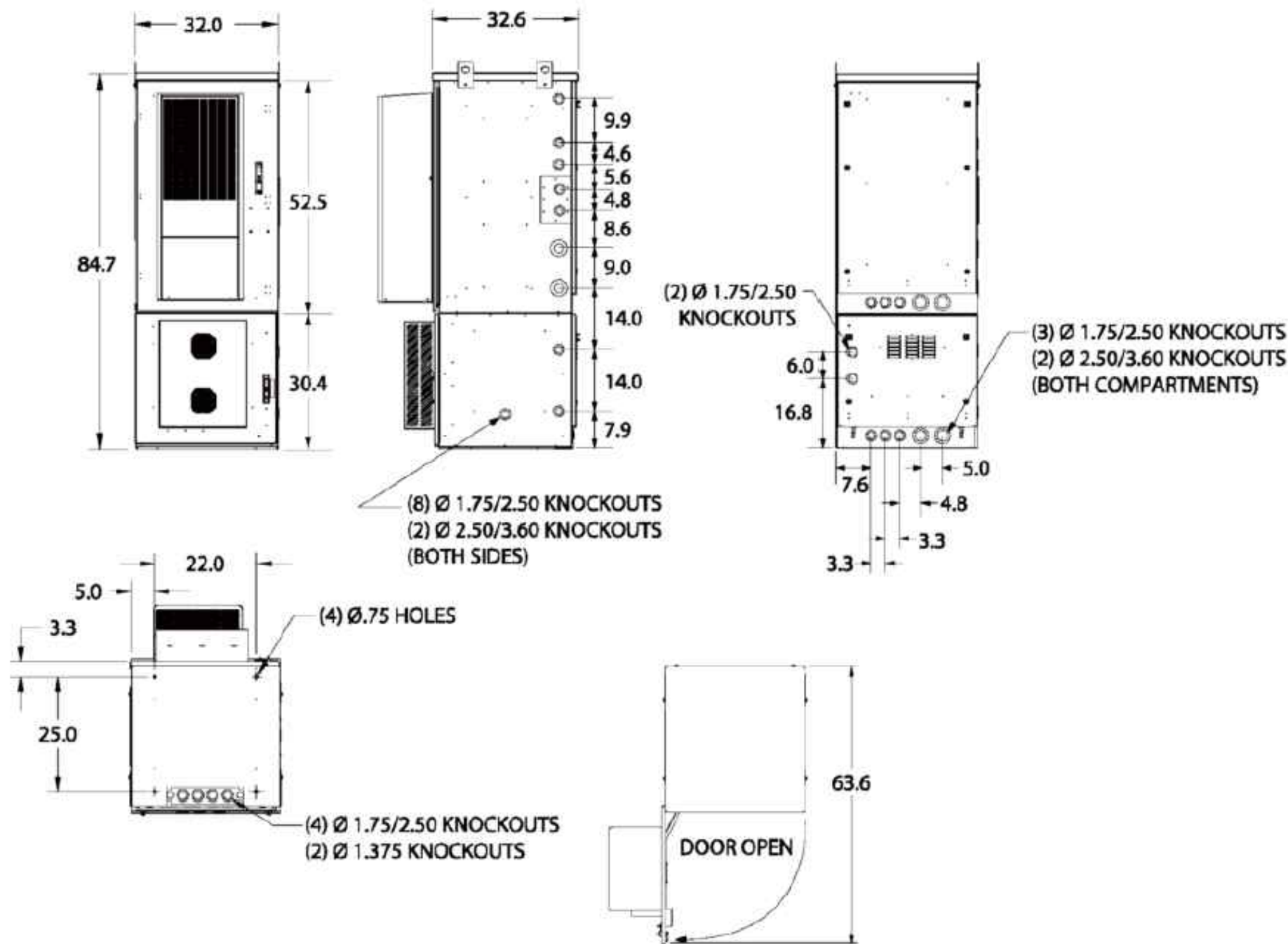
PROPOSED ANTENNA
& COAX SCHEDULE

SHEET NUMBER:	REVISION:
C-3D	1
TEP#: 252166.485545	

PROPOSED ANTENNA & COAX SCHEDULE @ 250'-0"

SCALE: N.T.S.

CUBE SS Series Large Site Support Cabinets



CUBE-SS4x228xxx
Dimensions

**FACTORY INSTALLED
OPTIONS**

96-000003-A
Retractable Overhang

97-002230-A
8" Top Hat Cable Entry
Compartment

96-002162-A
Factory Installed 6" Plinth

**MADE IN THE
USA**

All units in inches

OG-OSP052-A20

INNOVATIVE ENCLOSED SOLUTIONS™

Charles Industries, LLC
An Amphenol Company

Phone: (847) 806-6300
Fax: (847) 806-6231
Web: www.charlesindustries.com

Charles

CHARLES CUBE SS4B228LX1

SCALE: N.T.S.

PLANS PREPARED FOR:

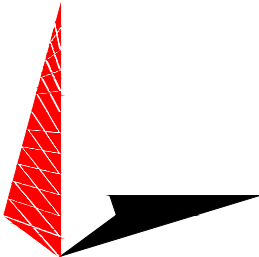
verizon

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

PROJECT INFORMATION:

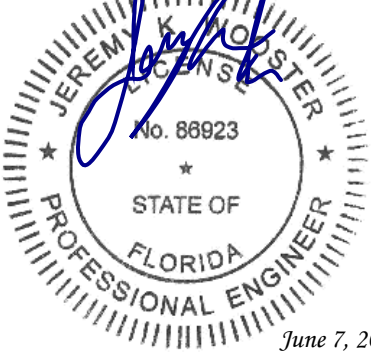
VZW SITE #: 278206
VZW SITE NAME:
WILLIAMSON
NORTH FORT WHITE
1282 SOUTHWEST WATSON STREET
FORT WHITE, FL 32038
(COLUMBIA COUNTY)

PLANS PREPARED BY:



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

SEAL:



I	06-07-21	CONSTRUCTION
O	05-27-21	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: HMB CHECKED BY: JHJ

SHEET TITLE:

**EQUIPMENT
CABINET DETAILS**

SHEET NUMBER:	REVISION:
C-4	1
	TEP#: 252166.485545

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

D. LOCAL AND STATE AMENDMENTS

B. THE NATIONAL ELECTRIC CODE – NFPA–70

E. THE INTERNATIONAL ELECTRIC CODE – IEC (WHERE APPLICABLE)

C. REGULATIONS OF THE SERVING UTILITY COMPANY
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
AFG	–	ABOVE FINISHED GRADE
ATS	–	AUTOMATIC TRANSFER SWITCH
AWG	–	AMERICAN WIRE GAUGE
BCW	–	BARE COPPER WIRE
BFG	–	BELOW FINISHED GRADE
BKR	–	BREAKER
C	–	CONDUIT
CKT	–	CIRCUIT
DISC	–	DISCONNECT
EGR	–	EXTERNAL GROUND RING
EMT	–	ELECTRIC METALLIC TUBING
FSC	–	FLEXIBLE STEEL CONDUIT
GEN	–	GENERATOR
GPS	–	GLOBAL POSITIONING SYSTEM
GRD	–	GROUND
IGB	–	ISOLATED GROUND BAR
IGR	–	INTERIOR GROUND RING (HALO)
KW	–	KILOWATTS
NEC	–	NATIONAL ELECTRIC CODE
PCS	–	PERSONAL COMMUNICATION SYSTEM
PH	–	PHASE
PNL	–	PANEL
PNLBD	–	PANELBOARD
PVC	–	RIGID NON–METALLIC CONDUIT
RGS	–	RIGID GALVANIZED STEEL CONDUIT
SW	–	SWITCH
TGB	–	TOWER GROUND BAR
UL	–	UNDERWRITERS LABORATORIES
V	–	VOLTAGE
W	–	WATTS
XFMR	–	TRANSFORMER
XMTR	–	TRANSMITTER
----	E	UNDERGROUND ELECTRICAL CONDUIT
----	T	UNDERGROUND TELEPHONE CONDUIT
		KILOWATT–HOUR METER
-----		UNDERGROUND BONDING AND GROUNDING CONDUCTOR
		GROUND ROD
		CADWELD
		GROUND ROD WITH INSPECTION WELL

PLANS PREPARED FOR:

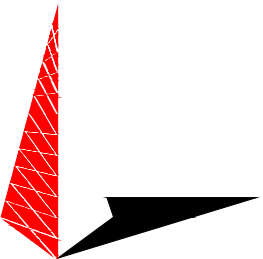


4700 EXCHANGE COURT, SUITE 100
BOCA RATON, FL 33431
(561) 995–5539

PROJECT INFORMATION:

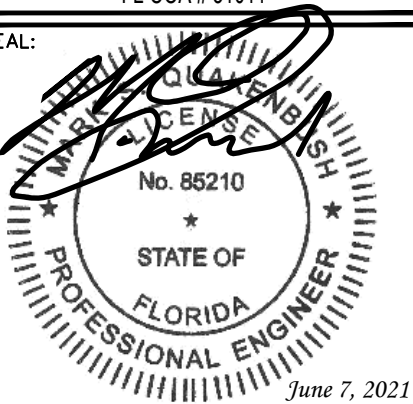
VZW SITE #: 278206
VZW SITE NAME:
WILLIAMSON
NORTH FORT WHITE
1282 SOUTHWEST WATSON STREET
FORT WHITE, FL 32038
(COLUMBIA COUNTY)

PLANS PREPARED BY:



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

SEAL:



I	06-07-21	CONSTRUCTION
O	05-27-21	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: HMB CHECKED BY: JHJ

SHEET TITLE:

ELECTRICAL
NOTES

SHEET NUMBER:	REVISION:
E-1	1
TEP#: 252166.485545	

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. EXISTING LOADING ON THE PANEL IS TAKEN FROM UTILITY BILLS.

PROPOSED BREAKER/LOAD SHOWN IN BOLD

PANEL SCHEDULE - ILC WITH 200A MCB 120/240V											
LOAD SERVED	VOLT AMPERES (WATTS)		TRIP	CKT #	PHASE		CKT #	TRIP	VOLT AMPERES (WATTS)		LOAD SERVED
	L1	L2							L1	L2	
TVSS	100		30A	1	A		2	100A	0		SPARE (OFF)
		100		3	B		4			0	
FIBER CUBE	1440		15A	5	A		6	20A	1920		EBRE
VERIZON CUBE		1440	15A	7	B		8			1920	
LIGHTING CONTACTOR	100		20A	9	A		10	20A	500		LIGHTS
RECTIFIER #1		*1090	30A	11	B		12	20A		180	GFCI RECEPTACLE
	*1090			13	A		14	20A	**1200		GEN CHARGER
RECTIFIER #3		*1090	30A	15	B		16	30A		*1090	RECTIFIER #2
	*1090			17	A		18		*1090		
RECTIFIER #5		*1090	30A	19	B		20	30A		*1090	RECTIFIER #4
	*1090			21	A		22		*1090		
-		-	-	23	B		24	30A		*1090	RECTIFIER #6
-	-		-	25	A		26		*1090		
-		-	-	27	B		28	-		-	-
-	-		-	29	A		30	-	-		-
-		-	-	31	B		32	-		-	-
-	-		-	33	A		34	-	-		-
-		-	-	35	B		36	-		-	-
-	-		-	37	A		38	-	-		-
-		-	-	39	B		40	-		-	-
-	-		-	41	A		42	-	-		-
VOLT AMPS	4910	4810							6890	5370	VOLT AMPS
L1 VOLT AMPERES				11800	10180	L2 VOLT AMPERES					
				98.3	84.8						
				98.3							
				122.9							
						L2 AMPS					
						MAX AMPS					
						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 #: 278206

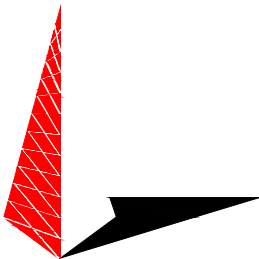
VZW SITE NAME:

WILLIAMSON

NORTH FORT WHITE

1282 SOUTHWEST WATSON STREET
FORT WHITE, FL 32038
(COLUMBIA COUNTY)

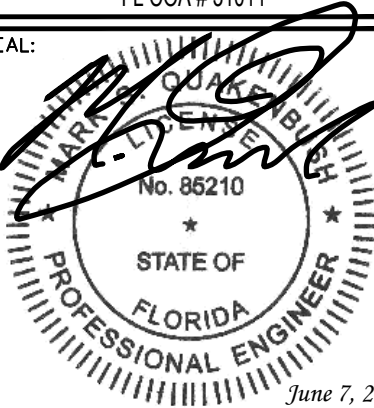
PLANS PREPARED BY:



TOWER ENGINEERING PROFESSIONALS

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

SEAL:



I	06-07-21	CONSTRUCTION
O	05-27-21	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: HMB CHECKED BY: JHJ

SHEET TITLE:

POWER PANEL
SCHEDULE

SHEET NUMBER:	REVISION:
E-2	1
TEP#: 252166.485545	

POWER PANEL SCHEDULE

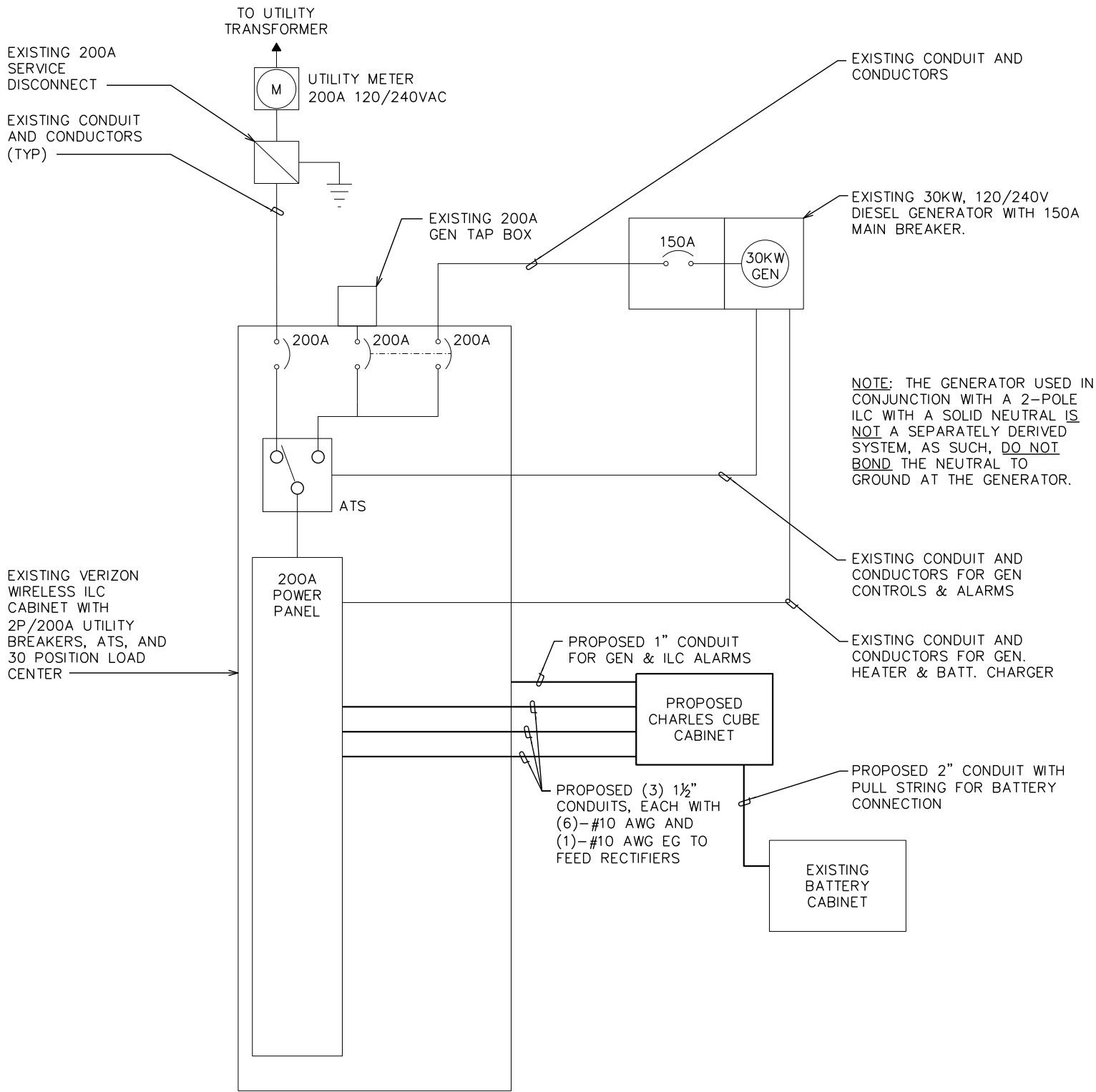
SCALE: N.T.S.

NOTES:

- 1. FOR COMPLETE INTERNAL WIRING AND ARRANGEMENT, REFER TO VENDOR PRINTS PROVIDED BY EQUIPMENT MANUFACTURER.
- 2. 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.
- 3. CONTRACTOR SHALL REVIEW AND COMPLY WITH MANUFACTURERS EQUIPMENT DRAWINGS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE SHOWN.
- 4. 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.
- 5. THE GROUNDED SERVICE CONDUCTOR SHALL BE GROUNDED AT THE SERVICE DISCONNECT ONLY.
- 6. DO NOT BOND THE NEUTRAL TO GROUND AT THE GENERATOR.
- 7. 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:

- 1. ELECTRICAL SERVICE SHALL BE 200A, 240/120V, 1Ø, 3W.
- 2. COMPLY WITH MANUFACTURER SPECIFICATIONS REGARDING WIRING REQUIREMENTS.
- 3. CONDUCTOR SIZES BASED ON TYPICAL CONFIGURATIONS. CONTRACTOR WILL VERIFY WITH MANUFACTURER SPECIFICATIONS BEFORE ORDERING OR INSTALLING PARTS.
- 4. WIRE COUNT IS BASED ON EQUIPMENT SPECIFICATIONS PROVIDED BY VERIZON WIRELESS.
- 5. 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.
- 6. EXISTING GROUNDING ELECTRODE CONDUCTOR & MAIN BONDING JUMPER. CONTRACTOR TO VERIFY EXISTENCE AND LOCATION.
- 7. CONDUCTOR SIZED BASED ON A MAXIMUM GENERATOR BREAKER RATING OF 200A.



ELECTRICAL ONE-LINE DIAGRAM

SCALE: N.T.S.

PLANS PREPARED FOR:

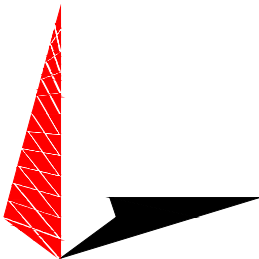


4700 EXCHANGE COURT, SUITE 100
BOCA RATON, FL 33431
(561) 995-5539

PROJECT INFORMATION:

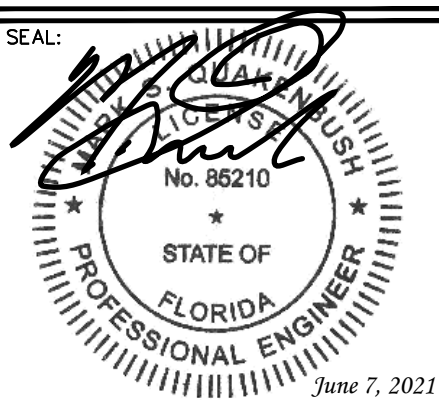
VZW SITE #: 278206
VZW SITE NAME:
WILLIAMSON
NORTH FORT WHITE
1282 SOUTHWEST WATSON STREET
FORT WHITE, FL 32038
(COLUMBIA COUNTY)

PLANS PREPARED BY:



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

SEAL:



I	06-07-21	CONSTRUCTION
O	05-27-21	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: HMB CHECKED BY: JHJ

SHEET TITLE:

**ONE-LINE
DIAGRAM**

SHEET NUMBER:	REVISION:
E-3	1
TEP#: 252166.485545	

LABEL LIST:

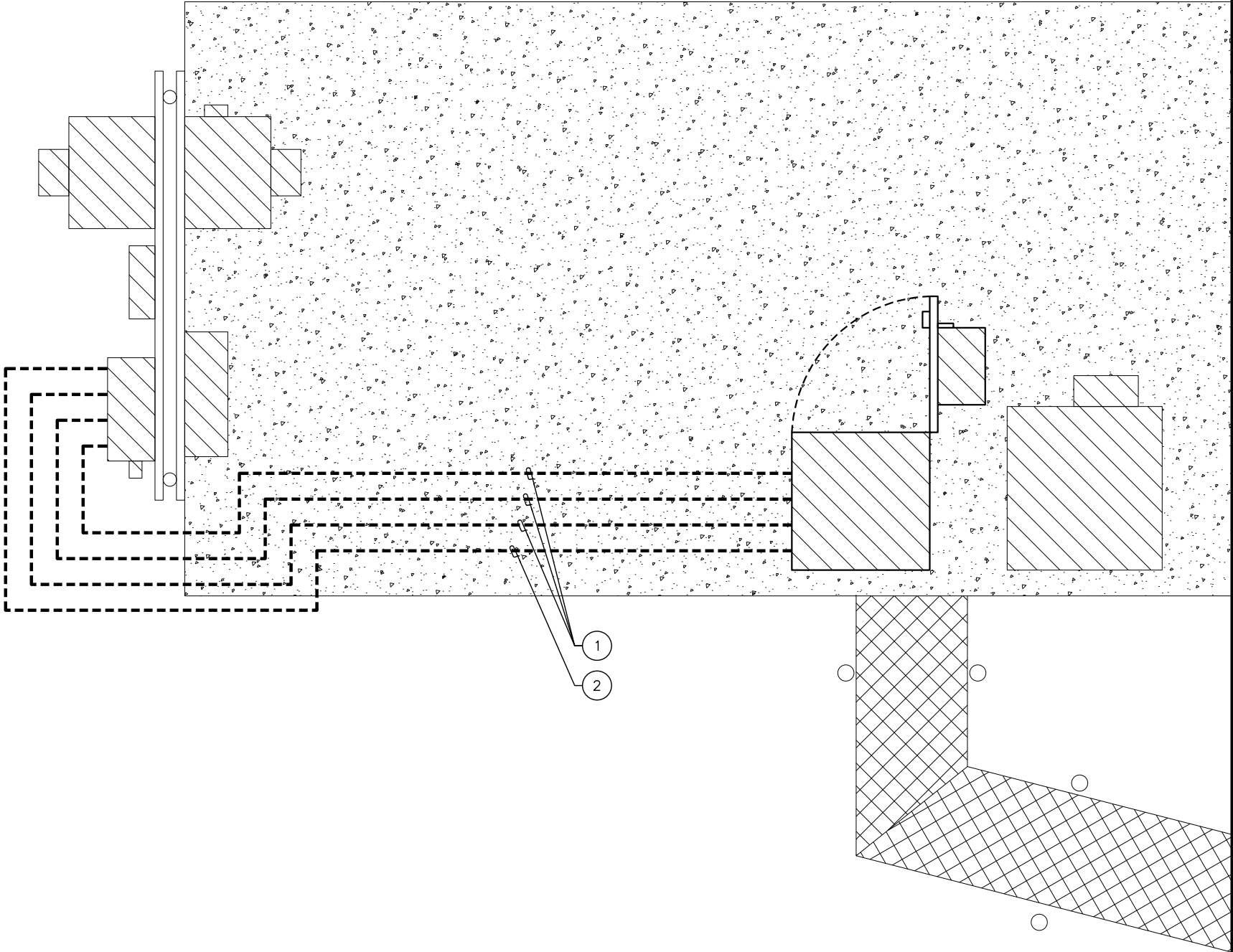
- 1

(3)-1½" CONDUITS FROM ILC TO CHARLES CUBE CABINET FOR RECTIFIERS
- 2

(1)-1" CONDUIT FROM ILC TO CHARLES CUBE CABINET FOR GENERATOR AND ILC ALARMS

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 ILC TO GENERATOR UNDERGROUND AND STUB UP CONDUITS MINIMUM 6" HIGH INSIDE GENERATOR BASE AND TERMINATE WITH MALE ADAPTER AND THREADED BUSHING.



POWER ROUTING PLAN

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

PLANS PREPARED FOR:

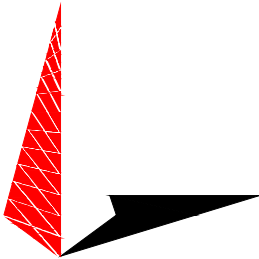
verizon

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

PROJECT INFORMATION:

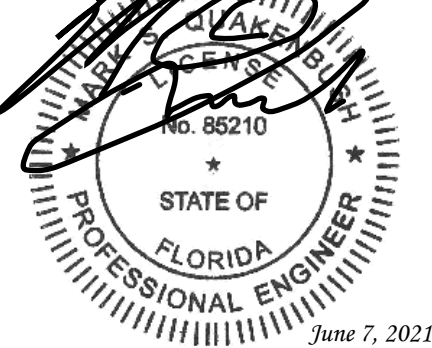
VZW SITE #: 278206
VZW SITE NAME:
WILLIAMSON
NORTH FORT WHITE
1282 SOUTHWEST WATSON STREET
FORT WHITE, FL 32038
(COLUMBIA COUNTY)

PLANS PREPARED BY:



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

SEAL:



I	06-07-21	CONSTRUCTION
O	05-27-21	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: HMB CHECKED BY: JHJ

SHEET TITLE:

POWER
ROUTING PLAN

SHEET NUMBER:	REVISION:
E-4	1
TEP#: 252166.485545	

CABINET MACRO RIGHT SIZE CALCULATOR (AC/Generator)V8.05

Site Name:Williamson North Fort White

Address:

Site Number:143447

Color Key

User Input

Results

Calculated Items

Look Up Data

New Plant Load @48V

242.22A

540

0

0

0

DC Plant Selection & Loads

	Existing Site Load (Amps)
48 V	Existing Plant +24 V or -48V?
75 V	Existing Rectifier Size

No

Are you adding loads not accounted for in selections below?

0.0 A

Future Site Load (Amps) (If Not Accounted for Below)

48V

Future Added Load, -48V only

0

Number of Equipment Cabinets Being Added to Site?

0

Number of Battery Cabinets Being Added to Site?

0

Existing Radio Loads

Existing Remote Radio Head Loads

(only RRHs existing onsite AND exterior of shelter)

Manuf.	Model	Count	RRH Loads	RRH Being Removed?
Select RRH Manuf.				No
Select RRH Manuf.				No
Select RRH Manuf.				No
Select RRH Manuf.				No
Total			W	

0

New Loads

New Remote Radio Head Loads

(RRHs being added to the site)

Manuf.	Model	Count	RRH Loads
Ericsson	Radio 8843 B2/66A (Dual Band)	6	5,640 W
Ericsson	Radio 4449 (Dual Band)	3	2,820 W
Ericsson	Sub6 Radio	3	4,620 W
Select RRH Manuf.			
Select RRH Manuf.			
Select RRH Manuf.			
Total			13,080 W

Submarket

RAN Vendor

Ericsson

Sub6

Yes

NR

No

CRAN Fed

No

Total Load

560 W

560

RESULTS

242.2 A	Projeted 48V DC Float (A) (Total DC Load)
6	Min. 48V 75A Rectifier Count
200 A	Service size if 120/240V 1Ø
200 A	Service size if 120/208V 3Ø
30 kW	Diesel Genset (Sea Level)
48/50 kW	LP/NG Genset (Sea Level)

OVERALL RESULTS

Existing Load	0.0 W
Future Additional Load	13080.0 W
Add'l Cabinet HVAC Load	0.0 W
Total New Plant Float Load	13080.0 W
Total New 48V DC Amps	242.2 A
Min. 48V 75A Rectifier Count	6
AC Load if 120/240V 1Ø	102.8 A
Min 1 Ø 240 V Utility Size	200 A
AC Load if 120/208V 3Ø	68.6 A
Min 3 Ø 208 V Utility Size	200 A
Generator Peak Loads	24.7 kW
Generator (Diesel Size)	30 kW
Generator (LP/NG)	48/50 kW

PLANS PREPARED FOR:

verizon

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

PROJECT INFORMATION:

VZW SITE #: 278206

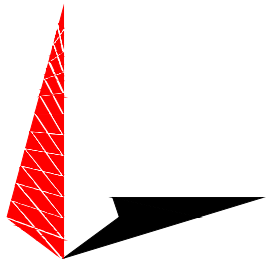
VZW SITE NAME:

WILLIAMSON

NORTH FORT WHITE

1282 SOUTHWEST WATSON STREET
FORT WHITE, FL 32038
(COLUMBIA COUNTY)

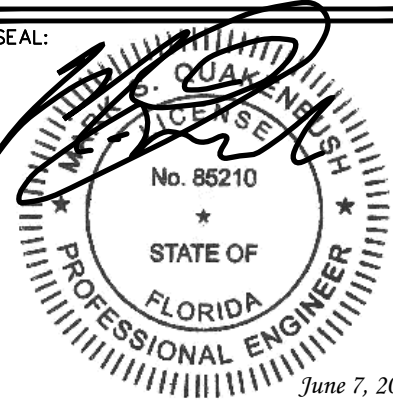
PLANS PREPARED BY:



TOWER ENGINEERING PROFESSIONALS

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

SEAL:



June 7, 2021

I	06-07-21	CONSTRUCTION
O	05-27-21	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: HMB

CHECKED BY: JHJ

SHEET TITLE:

CABINET POWER

CALCULATIONS

SHEET NUMBER:

E-5

REVISION:

1

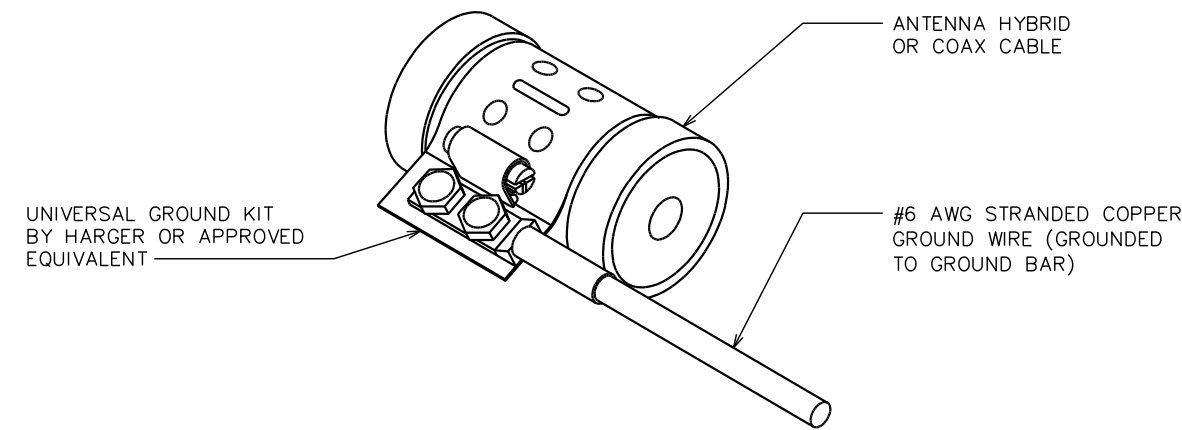
TEP#: 252166.485545

CABINET POWER CALCULATIONS

SCALE: N.T.S.

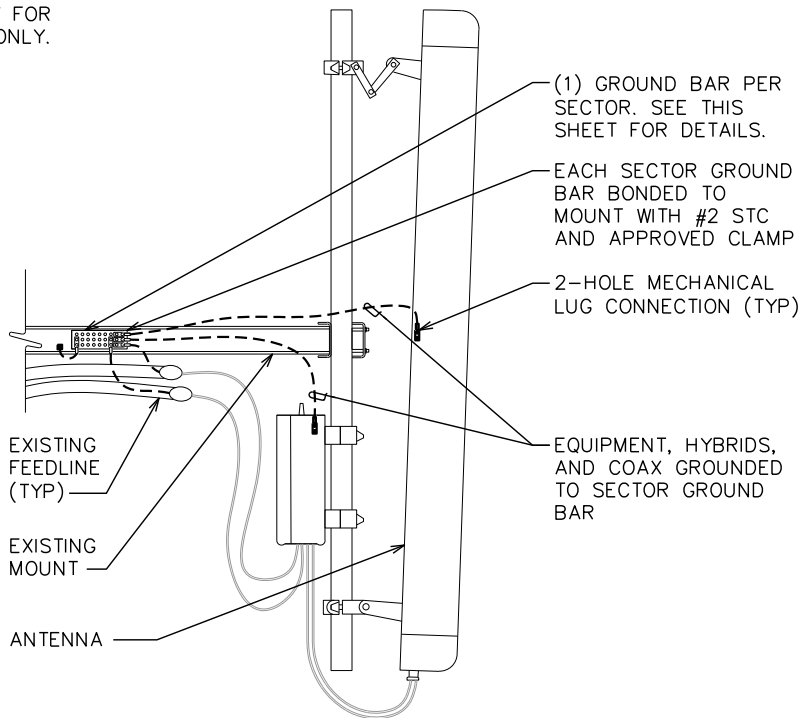
NOTES:

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



NOTE:

DRAWING SHOWN BELOW FOR SCHEMATIC PURPOSES ONLY.

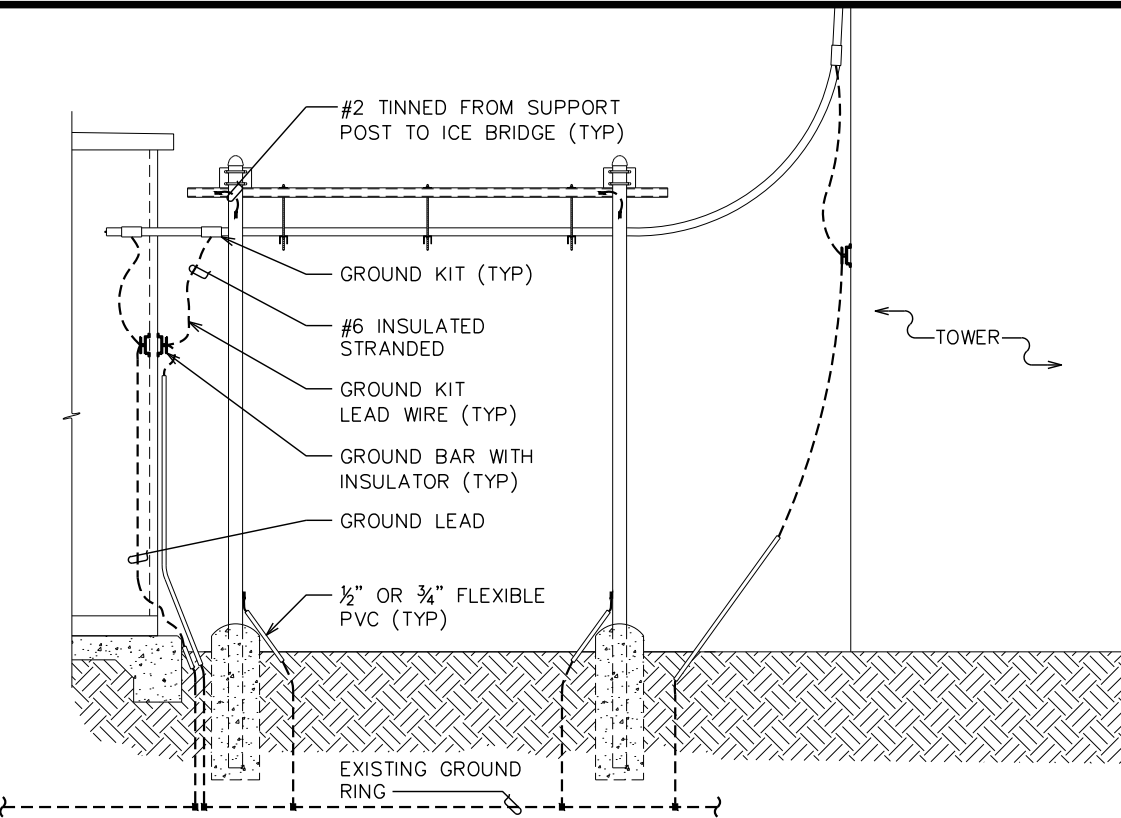


GROUNDING DETAILS

SCALE: N.T.S.

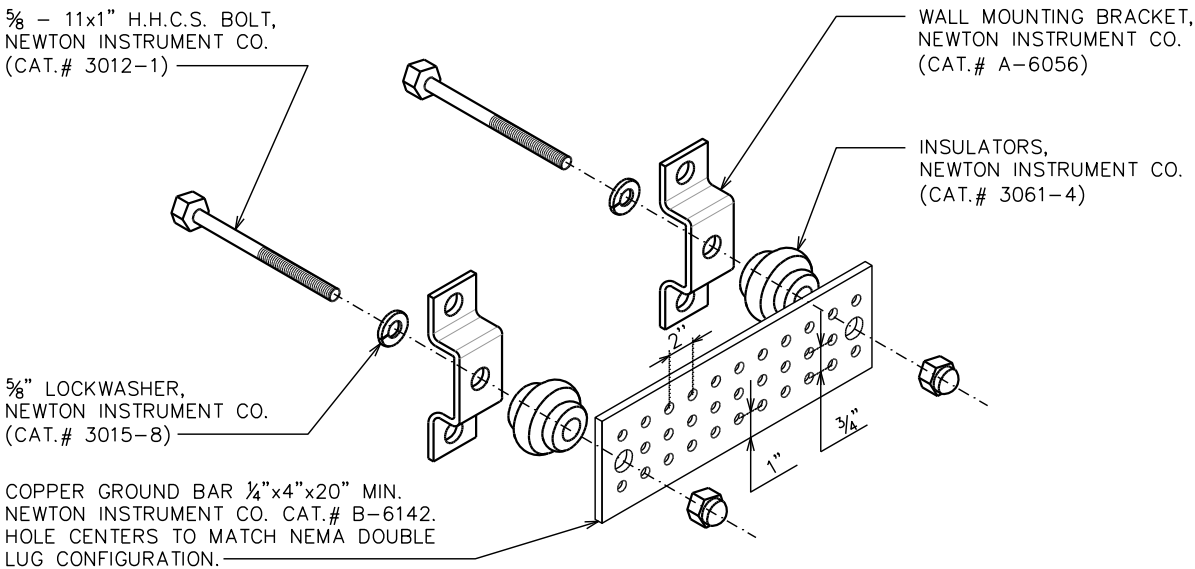
ANTENNA & EQUIPMENT GROUNDING DETAIL

SCALE: N.T.S.



ICE BRIDGE/HYBRID/COAX/GROUNDING BAR ELEVATION

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.

STANDARD GROUND BAR DETAILS

SCALE: N.T.S.

PLANS PREPARED FOR:

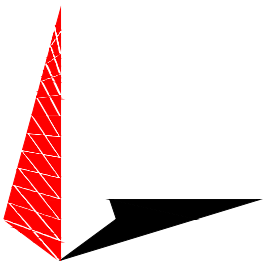
verizon

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

PROJECT INFORMATION:

VZW SITE #: 278206
VZW SITE NAME:
WILLIAMSON
NORTH FORT WHITE
1282 SOUTHWEST WATSON STREET
FORT WHITE, FL 32038
(COLUMBIA COUNTY)

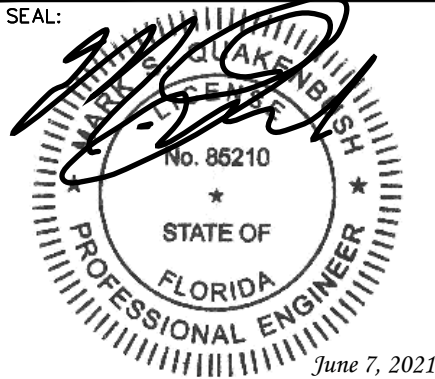
PLANS PREPARED BY:



TOWER ENGINEERING PROFESSIONALS

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

SEAL:



I	06-07-21	CONSTRUCTION
O	05-27-21	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: HMB CHECKED BY: JHJ

SHEET TITLE:

**GROUNDING
DETAILS**

SHEET NUMBER:	REVISION:
G-1	1
TEP#: 252166.485545	