

STANDARD PROVISIONS

INTENT

- A. THESE SPECIFICATIONS AND CONSTRUCTION DRAWINGS ACCOMPANYING THEM DESCRIBE THE WORK TO BE PERFORMED AND THE MATERIALS TO BE FURNISHED FOR THE CONSTRUCTION OF THE T-MOBILE SITE.
- B. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE FULLY EXPLANATORY AND COMPLEMENTARY. HOWEVER, SHOULD ANYTHING BE SHOWN, INDICATED OR SPECIFIED ON ONE AND NOT THE OTHER, IT SHALL BE THE SAME AS IF SHOWN, INDICATED OR SPECIFIED ON BOTH.
- C. THE INTENTION OF THE DOCUMENTS IS TO INCLUDE ALL LABOR AND MATERIALS REASONABLY NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS INDICATED IN THE DOCUMENTS.
- D. THE PURPOSE OF THE SPECIFICATIONS IS TO SUPPLEMENT THE INTENT OF THE DRAWINGS AND TO DESIGNATE A PROCEDURE, TYPE OR QUALITY OF MATERIALS REQUIRED TO COMPLETE THE WORK.
- E. MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE WORK HOWEVER, NO CHANGES THAT ALTER THE CHARACTER INTENT OF THE DESIGN WILL BE MADE OR PERMITTED BY T-MOBILE, WITHOUT A CHANGE ORDER.

CONFLICTS

- A. THE CONTRACTOR AND EACH SUBCONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL MEASUREMENTS AT THE SITE BEFORE ORDERING ANY MATERIALS OR PERFORMING ANY WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWINGS. ANY SUCH DISCREPANCY IN DIMENSION WHICH MAY INADVERTENTLY OCCUR SHALL BE SUBMITTED TO THE T-MOBILE CONSTRUCTION PROJECT MANAGER (CPM) FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREA.
- B. THE CONTRACTOR, IF AWARDED THE CONTRACT, WILL NOT BE ALLOWED ANY EXTRA COMPENSATION BY REASON OF ANY MATTER OR THING ABOUT WHICH THE CONTRACTOR MIGHT NOT HAVE FULLY INFORMED HIMSELF PRIOR TO BIDDING.

CONTRACTS AND WARRANTIES

- A. EACH CONTRACTOR IS RESPONSIBLE FOR HELPING TO OBTAIN THE BUILDING PERMIT AT THE LOCAL JURISDICTION AS THE CONTRACTOR OF RECORD, AND PROVIDE SAID JURISDICTION WITH ALL PROOF REQUIRED TO OPERATE AS A CONTRACTOR IN THAT JURISDICTION.

STORAGE:

- A. DO NOT USE THE EXISTING BUILDING SPACE FOR STORAGE OF TOOLS OR MATERIALS WITHOUT THE CONSTRUCTION PROJECT MANAGER AND/OR BUILDING OWNER APPROVAL.
- B. ALL MATERIALS MUST BE STORED IN A LEVEL AND DRY LOCATION AND IN A MANNER THAT WILL NOT OBSTRUCT THE FLOW OF OTHER WORK. ANY EQUIPMENT OR MATERIAL STORAGE METHOD MUST MEET ALL RECOMMENDATIONS OF THE MANUFACTURER.

PROTECTION:

- A. PROTECT FINISHED SURFACES, INCLUDING JAMBS AND HEADS OF OPENINGS USED AS PASSAGEWAYS THROUGH WHICH EQUIPMENT AND MATERIALS WILL PASS.
- B. PROVIDE PROTECTION FOR EQUIPMENT ROOM SURFACES PRIOR TO ALLOWING EQUIPMENT OR MATERIALS TO BE MOVED OVER SUCH SURFACES.
- C. MAINTAIN FINISHED SURFACES CLEAN, UNMARRED AND SUITABLY PROTECTED UNTIL JOB SITE IS ACCEPTED BY CPM.

REPAIRS AND REPLACEMENTS:

- A. IN EVENT OF DAMAGE, THE CONTRACTOR SHALL PROMPTLY MAKE ALL REPLACEMENTS AND REPAIRS AND AT NO ADDITIONAL COST TO T-MOBILE AND/OR BUILDING OWNER.

TEMPORARY FACILITIES:

- A. WATER: WATER IS NOT AVAILABLE TO THE CONTRACTORS ON SITE.
- B. LIGHT AND POWER: LIGHT AND POWER ARE AVAILABLE ON SITE.
- C. TELEPHONE: EACH CONTRACTOR TO PROVIDE HIS OWN TELEPHONE ACCESS IF REQUIRED.
- D. IF PERMANENT POWER IS COMPLETED, ALL CONTRACTORS MAY USE THE SERVICE CONNECTION FOR PRODUCTION WORK ONLY, PROVIDED THAT ELECTRICAL CORDS AND CONNECTIONS ARE FURNISHED BY THE CONTRACTORS AND ARE DISCONNECTED AND PROPERLY STORED DURING NON-WORKING HOURS.

CLEAN UP:

- A. THE CONTRACTORS SHALL AT ALL TIMES KEEP THE SITE FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY THEIR EMPLOYEES AT WORK, AND AT THE COMPLETION OF THE WORK, THEY SHALL REMOVE ALL RUBBISH FROM AND ABOUT THE BUILDING, INCLUDING ALL TOOLS, SCAFFOLDING AND SURPLUS MATERIALS, AND SHALL LEAVE THE WORK CLEAN AND READY FOR USE.
- B. EXTERIOR: VISUALLY INSPECT EXTERIOR SURFACES AND REMOVE ALL TRACES OF SOIL, WATER MATERIALS, SMUDGES AND OTHER FOREIGN MATTER.
 - 1. REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES.
- C. INTERIOR: VISUALLY INSPECT INTERIOR SURFACE AND REMOVE ALL TRACES OF SOIL, WASTE MATERIALS, SMUDGES AND OTHER FOREIGN MATTER.
 - 1. REMOVE ALL TRACES OF SPLASHED MATERIAL FROM ADJACENT SURFACES.
 - 2. REMOVE PAINT DROPPINGS, SPOTS, STAINS AND DIRT FROM FINISHED SURFACES.
- D. CONTRACTOR SHALL WASH AND WAX FLOOR PRIOR TO FINAL ACCEPTANCE. FLOOR WAX SHALL BE OF THE ANTI-STATIC TYPE.

CHANGE ORDER PROCEDURE:

- A. CHANGE ORDER MAY BE INITIATED BY THE CPM, AND/OR THE CONTRACTOR. THE CONTRACTOR, UPON VERBAL REQUEST FROM THE CPM SHALL PREPARE A WRITTEN PROPOSAL DESCRIBING THE CHANGE IN WORK OR MATERIALS AND ANY CHANGES IN THE CONTRACT AMOUNT AND PRESENT TO THE CPM FOR APPROVAL. SUBMIT REQUESTS FOR SUBSTITUTIONS IN THE FORM AND IN ACCORDANCE WITH PROCEDURES REQUIRED FOR CHANGE ORDER PROPOSALS. ANY CHANGES TO THE SCOPE OF WORK OR MATERIALS WHICH ARE PERFORMED BY THE CONTRACTOR WITHOUT A WRITTEN CHANGE ORDER AS DESCRIBED AND APPROVED BY THE CPM, SHALL BECOME THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

RELATED DOCUMENTS AND COORDINATION:

- A. GENERAL CARPENTRY, ELECTRICAL, AND ANTENNA DRAWINGS ARE INTERRELATED. IN PERFORMANCE OF THE WORK, EACH CONTRACTOR MUST REFER TO ALL DRAWINGS. ALL COORDINATION TO BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

SHOP DRAWINGS:

- A. CONTRACTORS TO SUBMIT SHOP DRAWINGS AS REQUIRED AND LISTED IN THESE SPECIFICATIONS THROUGH THE GENERAL CONTRACTOR TO THE CPM, FOR REVIEW.
- B. ALL SHOP DRAWINGS TO BE REVIEWED, CHECKED, CORRECTED, STAMPED AND SIGNED BY GENERAL CONTRACTOR PRIOR TO SUBMITTAL TO THE CPM.

PRODUCTS AND SUBSTITUTIONS:

- A. SUBMIT 3 COPIES OF EACH REQUEST FOR SUBSTITUTION. IN EACH REQUEST IDENTIFY THE PRODUCT FABRICATION OR INSTALLATION METHOD TO BE REPLACED BY THE SUBSTITUTION. INCLUDE RELATED SPECIFICATION SECTION AND DRAWING NUMBERS, AND COMPLETE DOCUMENTATION SHOWING COMPLIANCE WITH THE REQUIREMENTS FOR SUBSTITUTIONS.
- B. ALL NECESSARY PRODUCT DATA AND CUT SHEETS SHALL PROPERLY INDICATE AND DESCRIBE THE ITEMS, PRODUCTS, AND MATERIALS BEING INSTALLED. THE CONTRACTOR SHALL, IF DEEMED NECESSARY BY THE CPM, SUBMIT ACTUAL SAMPLES TO THE CPM FOR APPROVAL IN LIEU OF CUT SHEETS.

COMPLIANCE

- A. ALL MATERIALS, DESIGN, AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES (SOME OF WHICH ARE LISTED BELOW), ORDINANCES, AND AUTHORITIES HAVING JURISDICTION OVER THE WORK. UPON THE COMPLETION OF THE WORK, THE CONTRACTOR SHALL PROVIDE T-MOBILE WITH A CERTIFICATE OF OCCUPANCY (IF REQUIRED) AND OTHER LEGAL DOCUMENTS TO VERIFY SUCH COMPLIANCE. WHERE NO CODES EXIST, THE WORK SHALL CONFORM WITH THE 7TH EDITION (2020) FLORIDA BUILDING CODE, AND/OR THE SPECIFICATIONS HEREIN, WHICHEVER IS MORE STRINGENT, AND A DOCUMENT STATEMENT SHALL BE FURNISHED TO THIS EFFECT.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY COMPLIANCE WITH THE GOVERNING CODES AND TO NOTIFY THE CPM OF ANY DISCREPANCIES PRIOR TO PERFORMING WORK.

REFERENCE TO ANY STANDARD OR CODE OF PRACTICE IN THIS SPECIFICATION SHALL BE DEEMED TO MEAN THE EDITION CURRENT AT THE TIME OF AWARD OF THE CONTRACT. THE CONTRACTOR SHALL COMPLY WITH ALL ZONING AND SITE ACQUISITION SPECIAL STIPULATIONS AS OUTLINED IN THE JOB SPECIFICATIONS, OR AS DIRECTED BY THE CPM.

ANSI/IA/EIA APPLICABLE STANDARDS
7TH EDITION (2020) FLORIDA BUILDING CODE
BUILDING OFFICIALS & CODE ADMINISTRATORS
2017 NATIONAL ELECTRICAL CODE (NEC) WITH LOCAL AMENDMENTS
UNDERWRITERS LABORATORIES (U.L.) APPROVED ELECTRICAL PRODUCTS
AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATIONS (AISC)
LIFE SAFETY CODE NFPA - 101-2018
FEDERAL AVIATION REGULATIONS
NFPA 55 (2016)

PERMITS AND LICENSES

- A. THE SITE ACQUISITION SPECIALIST SHALL OBTAIN, AT HIS OWN EXPENSE, ALL REQUIRED LOCAL, STATE, AND/OR COUNTY CONSTRUCTION PERMITS AND LICENSES. COPIES OF ALL PERMITS SHALL BE SENT TO CPM. APPROVALS FROM RELEVANT PLANNING BOARDS, ENVIRONMENTAL BOARDS, AND/OR OTHER COMMITTEES WILL BE SUPPLIED BY OTHERS, BUT MUST BE CONFIRMED BY THE SITE ACQUISITION SPECIALIST PRIOR TO THE APPLICATION FOR CONSTRUCTION PERMITS.
FAA APPROVAL WILL BE SUPPLIED BY OTHERS, BUT MUST BE CONFIRMED BY THE CONTRACTOR WITH THE CPM PRIOR TO THE COMMENCEMENT OF WORK.
- B. PRIOR TO COMMENCING THE WORK, THE CPM SHALL SCHEDULE AN ON-SITE MEETING WITH ALL MAJOR PARTIES TO THE PROJECT. THIS WOULD INCLUDE (THOUGH NOT LIMITED TO) THE DESIGNATED ELECTRICIAN, LOCAL TELEPHONE COMPANY, CARPENTRY FOREMAN (IF SUBCONTRACTED), A REPRESENTATIVE FROM THE LOCAL SPECIFIED WAREHOUSE AND CPM OR HIS DESIGNATED REPRESENTATIVE.
- C. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES BOTH HORIZONTALLY AND VERTICALLY PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES OR DOUBTS AS TO THE INTERPRETATION OF PLANS SHOULD BE IMMEDIATELY REPORTED TO THE ENGINEER FOR RESOLUTION AND INSTRUCTION AND NO FURTHER WORK SHALL BE PERFORMED UNTIL DISCREPANCY IS CHECKED AND CORRECTED BY THE ENGINEER. FAILURE TO SECURE SUCH INSTRUCTION MEANS CONTRACTOR WILL HAVE WORKED AT HIS OWN RISK AND EXPENSE.
- D. THE CONTRACTOR SHALL BE EQUIPPED WITH A MEANS OF CONSTANT COMMUNICATIONS, SUCH AS A CELLULAR PHONE OR A PAGER.
- E. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL SITE SAFETY INCLUDING BUT NOT LIMITED TO PROTECTION OF ALL SITE PERSONNEL AND THE GENERAL PUBLIC DURING THE ENTIRE SITE CONSTRUCTION PERIOD. HE SHALL TAKE ALL REASONABLE PRECAUTIONS TO PLACE AND MAINTAIN BARRICADES, LAMPS, SIGNS, AND THE LIKE IN ACCORDANCE WITH OSHA SAFETY ACT AND ANSI OCCUPATIONAL GUIDELINES.
- F. PROVIDE DAILY UPDATES ON SITE PROGRESS, EITHER VERBAL OR WRITTEN TO CPM.
- G. COMPLETE INVENTORY OF CONSTRUCTION MATERIALS AND EQUIPMENT IS REQUIRED PRIOR TO START OF CONSTRUCTION.
- H. **COORDINATION WITH PUBLIC UTILITY AUTHORITIES**
THE CONTRACTOR SHALL COORDINATE WITH RELEVANT AUTHORITIES THE WORKS THEY ARE TO BE CARRIED OUT. HE SHALL CONDUCT HIS OPERATIONS SO AS TO NOT INTERFERE WITH THE OPERATIONS OF PUBLIC AND/OR PRIVATE UTILITY AUTHORITIES, INSTALLING SERVICES ON THE SITE.

THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROTECTION OF SUCH FACILITIES AND STRUCTURES DURING CONSTRUCTION OF THIS SITE.

INSPECTIONS

THE CONTRACTOR SHALL NOTIFY THE CPM AT LEAST 24 HOURS IN ADVANCE OF REQUIRED INSPECTIONS. INSPECTIONS THAT WILL BE REQUIRED BY THE CPM OR OTHER DESIGNATED T-MOBILE REPRESENTATIVE ARE:

- 1. INSPECTION OF GROUNDING SYSTEM
- 2. PRACTICAL COMPLETION

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ENSURING THAT ALL RELEVANT AUTHORITY INSPECTIONS ARE CARRIED OUT IN A TIMELY MANNER. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF ALL INSPECTIONS.

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH T-MOBILE'S DESIGNATED ENGINEERING FIRM TO OBTAIN ALL REQUIRED INSPECTIONS AND TESTING. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF ALL INSPECTIONS.

ENVIRONMENTAL PROTECTION

NOISE LEVEL: THE CONTRACTOR SHALL ENSURE THAT STATE AND LOCAL REGULATIONS ARE COMPLIED WITH IN REGARD TO NOISE LEVELS PRODUCED BY HIS OR HIS SUB-CONTRACTOR'S EQUIPMENT OR METHODS OF CONSTRUCTION.

DUST CONTROL: THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO LIMIT THE CREATION OF ANY DUST NUISANCE THAT MIGHT ARISE DURING CONSTRUCTION TO THE SATISFACTION OF THE LOCAL AUTHORITIES AND THE BUILDING OWNER. THE CPM MAY DIRECT THAT WORK CEASE UNTIL SUCH TIME AS ANY PARTICULAR DUST NUISANCE IS CONTROLLED TO THE SATISFACTION OF THE CPM, LOCAL AUTHORITIES, AND BUILDING OWNERS.

REINSTATEMENT

ANY PAVEMENT, FOOTPATH, CURB, GUTTERS, WALLS, FLOORS, SERVICES, AND EXISTING FEATURES OR OTHER PROPERTIES, DISTURBED OR DESTROYED DURING CONSTRUCTION SHALL BE REINSTATED TO A CONDITION AT LEAST EQUAL TO THAT EXISTING BEFORE COMMENCEMENT OF OPERATIONS.

AS-BUILTS DRAWINGS

THE CONTRACTOR SHALL PREPARE A RED LINED SET OF AS-BUILT DRAWINGS. THE FORM OF MARKED UP CONSTRUCTION PLANS SHALL BE STANDARD ACCEPTABLE TO THE T-MOBILE. SUCH DRAWINGS SHALL BE SUBMITTED TO T-MOBILE WITHIN TWO WEEKS FROM PRACTICAL COMPLETION AND PRIOR TO APPROVAL OF THE CONTRACTOR'S FINAL INVOICE.

PRACTICAL COMPLETION

THE FOLLOWING DOCUMENTATION SHALL BE PROVIDED TO T-MOBILE WIRELESS PRIOR TO THE DATE OF PRACTICAL COMPLETION:

- 1. ALL QUALITY ASSURANCE CHECKLISTS AS OUTLINED IN THE PREVIOUS SECTIONS
- 2. WARRANTIES AND MAINTENANCE MANUALS, IF APPLICABLE
- 3. GROUND SYSTEM RESISTANCE TEST
- 4. CERTIFICATE OF OCCUPANCY

INSURANCE AND BONDS:

- A. EACH CONTRACTOR SHALL AT HIS OWN EXPENSE CARRY AND MAINTAIN FOR THE DURATION OF THE PROJECT ALL INSURANCE AS REQUIRED AND LISTED AND SHALL NOT COMMENCE WITH HIS WORK UNTIL HE HAS PRESENTED A CERTIFICATE OF INSURANCE STATING ALL COVERAGES TO THE GENERAL CONTRACTOR WHO SHALL, IN TURN, FORWARD A COPY OF ALL CERTIFICATES TO THE CPM.



1300 CONCORD TERRACE, SUITE 200
SUNRISE FL, 33323

PROJECT INFORMATION:

CROWN CASTLE DXZW
6FB1159A
5455 NW 19TH STREET
LAUDERHILL, FL 33324
BROWARD COUNTY

CURRENT ISSUE DATE:

MAY 2021

ISSUED FOR:

EXCALIBUR

REV. DATE DESCRIPTION:

REV.	DATE	DESCRIPTION

SEAL:

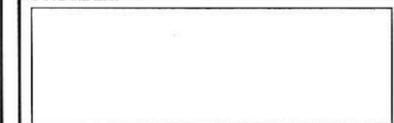


PLANS PREPARED BY:

Kimley-Horn

© 2021 KIMLEY-HORN AND ASSOCIATES, INC.
1920 WEKIVA WAY, SUITE 200
WEST PALM BEACH, FLORIDA 33411
(561) 845-0665
FBPE REGISTRY NO. 696

PROVIDER:



DRAWN BY: CHK. APV.:

GD LF CMM

LICENSURE:

KEVIN K. MARAJH PE 71455
MARIA VICTORIA MARTIN PE 72397
CHELSEA M. MARAJH PE 84300

SHEET TITLE:

GENERAL NOTES

SHEET NUMBER: REVISION:

G-1

KHA Job #:

044290555

Drawing name: K:\WPB_Civil\CELL STRES\Drawn\044290555 - Excalibur\044290555.dwg - 01 May 14, 2021 11:35am by: gersy.daniel

This document, together with the concepts and designs presented herein, is an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and/or reliance on this document without written authorization and approval by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

PROJECT INFORMATION:

CROWN CASTLE DXZW
6FB1159A
5455 NW 19TH STREET
LAUDERHILL, FL 33324
BROWARD COUNTY

CURRENT ISSUE DATE:

MAY 2021

ISSUED FOR:

EXCALIBUR

REV.: DATE: DESCRIPTION:

SEAL:



PLANS PREPARED BY:

Kimley-Horn

© 2021 KIMLEY-HORN AND ASSOCIATES, INC.
1920 WEKIVA WAY, SUITE 200
WEST PALM BEACH, FLORIDA 33411
(561) 845-0665
FBPE REGISTRY NO. 696

PROVIDER:

DRAWN BY: CHK.: APV.:

GD LF CMM

LICENSURE:

KEVIN K. MARAJ PE 71455
MARIA VICTORIA MARTIN PE 72397
CHELSEA M. MARAJ PE 84300

SHEET TITLE:

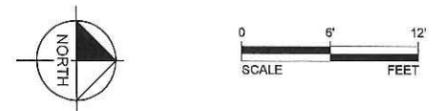
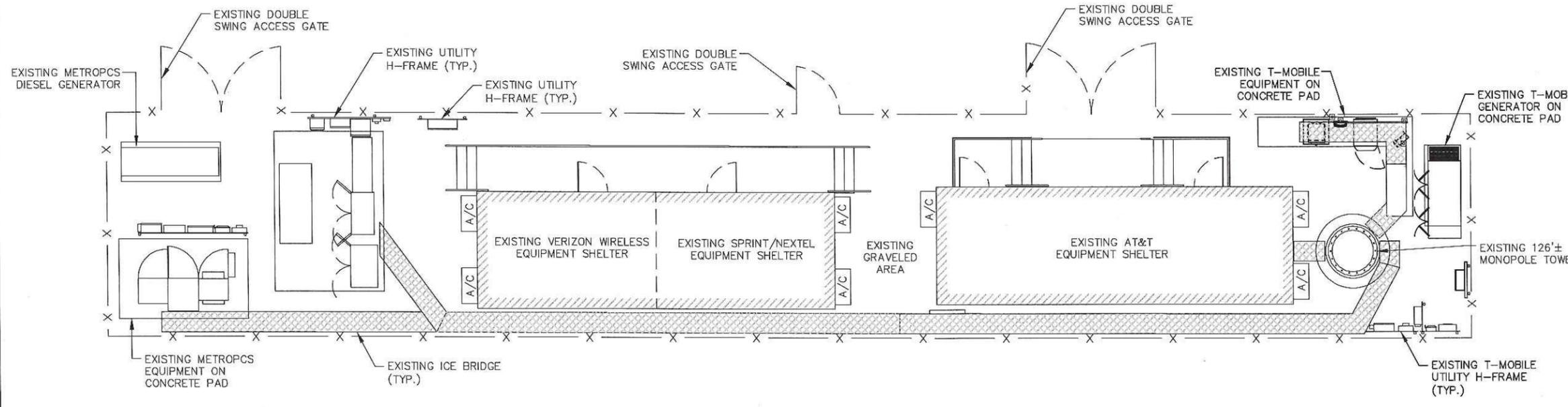
**SITE PLAN & T-MOBILE
EQUIPMENT LAYOUT**

SHEET NUMBER: REVISION:

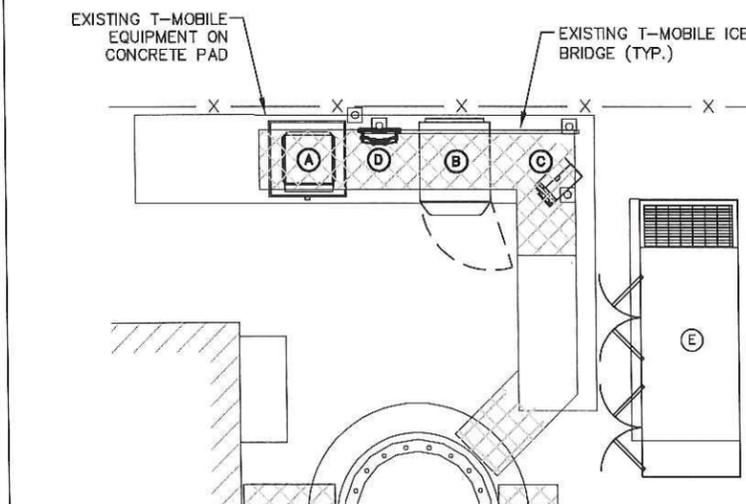
C-1

KHA Job #:

044290555



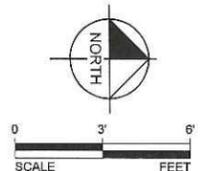
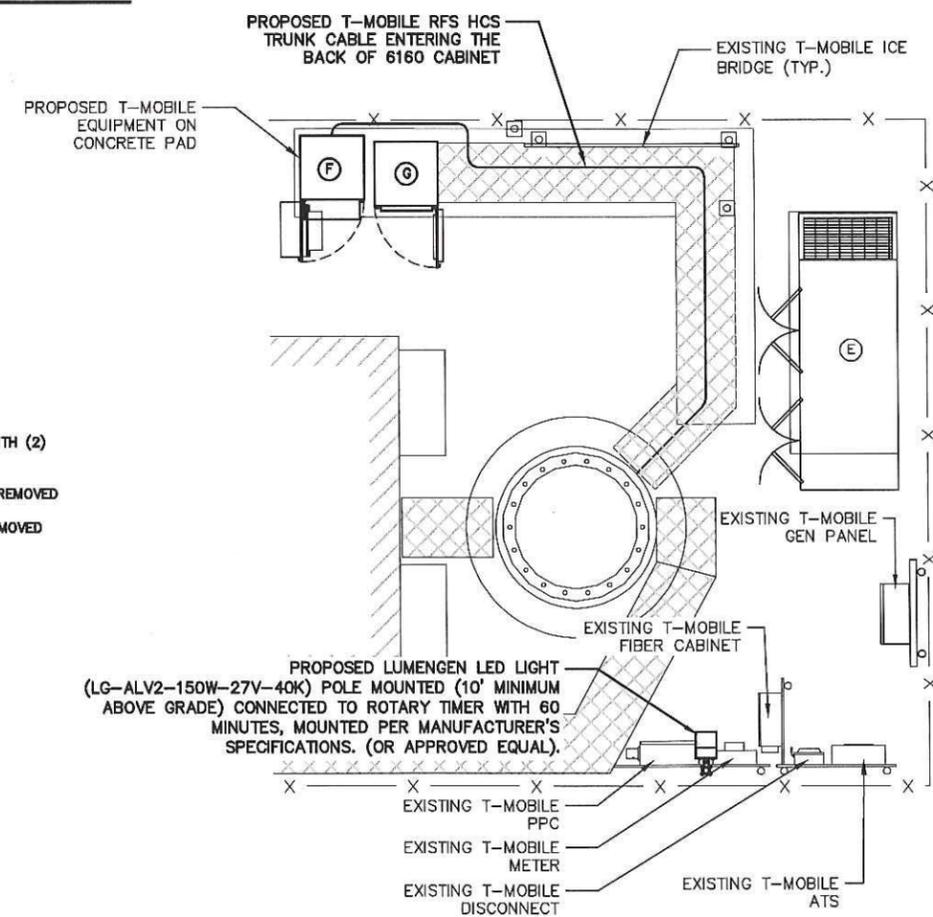
SITE PLAN



EXISTING T-MOBILE EQUIPMENT LAYOUT PLAN

LEGEND

- (A) EXISTING T-MOBILE FIBER BATTERY CABINET WITH (2) RRU'S TO BE REMOVED
- (B) EXISTING T-MOBILE DELTA LARGE SSC TO BE REMOVED
- (C) EXISTING T-MOBILE AIRSCALE AMOB TO BE REMOVED
- (D) EXISTING T-MOBILE COVP TO BE REMOVED
- (E) EXISTING T-MOBILE GENERATOR
- (F) PROPOSED T-MOBILE 6160 CABINET
- (G) PROPOSED T-MOBILE B160 CABINET



PROPOSED T-MOBILE EQUIPMENT LAYOUT PLAN

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Drawing name: K:\WPB_Civil\CELL_SITES\Crown\044290555 - Excalibur\6FB1159A - 615072\0604\6FB1159A EX CD.dwg C-1 May 14, 2021 11:35am by: gary.demid

T-Mobile

1300 CONCORD TERRACE, SUITE 200
SUNRISE FL, 33323

PROJECT INFORMATION:

CROWN CASTLE DXZW
6FB1159A
5455 NW 19TH STREET
LAUDERHILL, FL 33324
BROWARD COUNTY

CURRENT ISSUE DATE:

MAY 2021

ISSUED FOR:

EXCALIBUR

REV. DATE DESCRIPTION:

REV.	DATE	DESCRIPTION

SEAL:



PLANS PREPARED BY:

Kimley-Horn

© 2021 KIMLEY-HORN AND ASSOCIATES, INC.
1920 WEKIVA WAY, SUITE 200
WEST PALM BEACH, FLORIDA 33411
(561) 845-0665
FBPE REGISTRY NO. 696

PROVIDER:



DRAWN BY: CHK.: APV.:

GD LF CMM

LICENSURE:

KEVIN K. MARAJH	PE 71455
MARIA VICTORIA MARTIN	PE 72397
CHELSEA M. MARAJH	PE 84300

SHEET TITLE:

EQUIPMENT
MOUNTING DETAILS

SHEET NUMBER: REVISION:

C-3

KHA Job #:

044290555

INSTALLER NOTES:

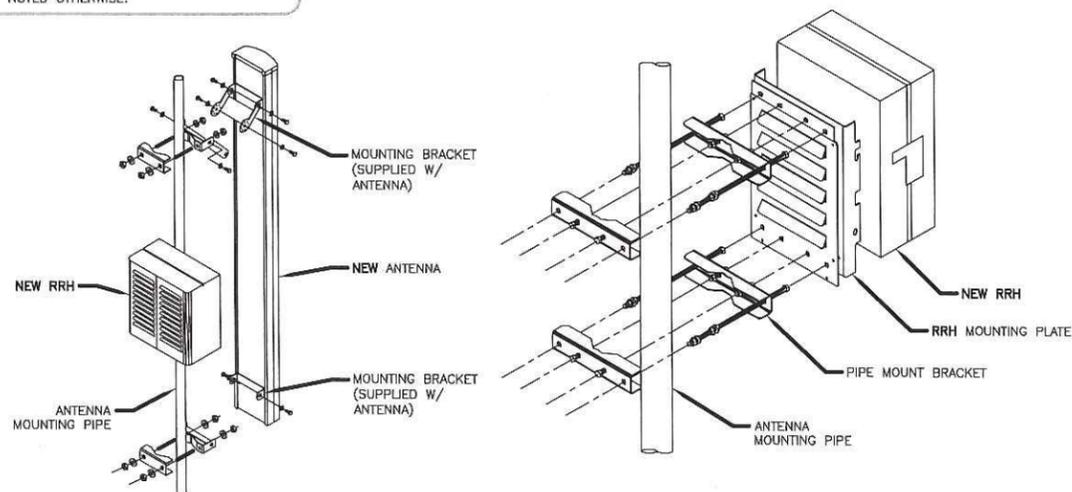
1. COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRHs RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING.
2. DO NOT OPEN RRH PACKAGES IN THE RAIN.
3. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.

PROPOSED ANTENNA
FFVW-65C-R3-VI

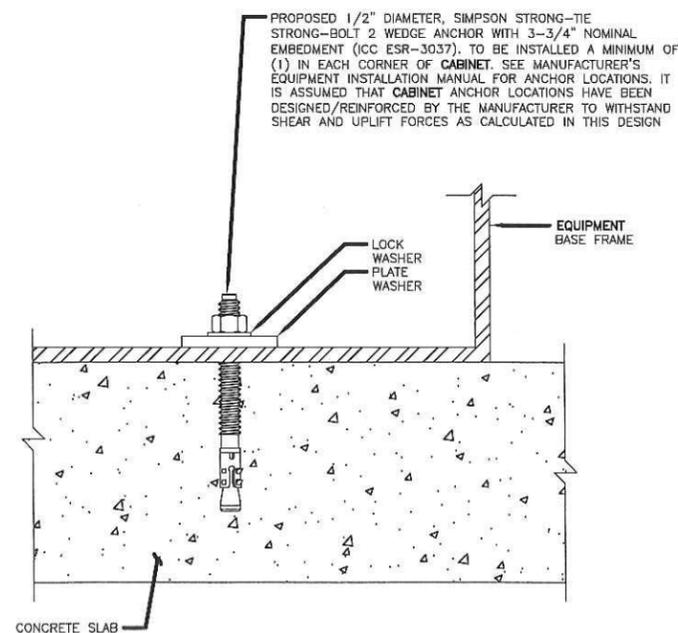
WIDTH: 25.2"
HEIGHT: 95.9"
DEPTH: 9.3"

PROPOSED ANTENNA
AIR6449

WIDTH: 20.5"
HEIGHT: 33.11"
DEPTH: 8.5"



1 ANTENNA WITH RRH MOUNTING DETAIL
SCALE: NOT TO SCALE



2 CABINET ANCHOR DETAIL
SCALE: NOT TO SCALE

Drawing name: K:\WPB_Civil\CELL_STEEL\Green\044290555 - Excalibur\044290555.dwg - 04/14/2021 11:35am by: gary.daniel

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of any improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

GENERAL NOTES:

CONDUIT INSTALLATION NOTES:

ALL CONDUIT RUNS AND EQUIPMENT LOCATIONS ARE SHOWN DIAGRAMMATICALLY CONTRACTOR TO FIELD COORDINATE WITH WIRELESS CARRIER BEFORE INSTALLATION.

CONTRACTOR SHALL PROVIDE TRAFFIC RATED, QUAZITE UL LISTED, PULL BOXES WHERE REQUIRED.

WHERE U.G. CONDUIT ROUTE IS UNDER EXIST SLAB CUT AND PATCH ASPHALT/CONCRETE AS REQUIRED, MATCH EXIST.

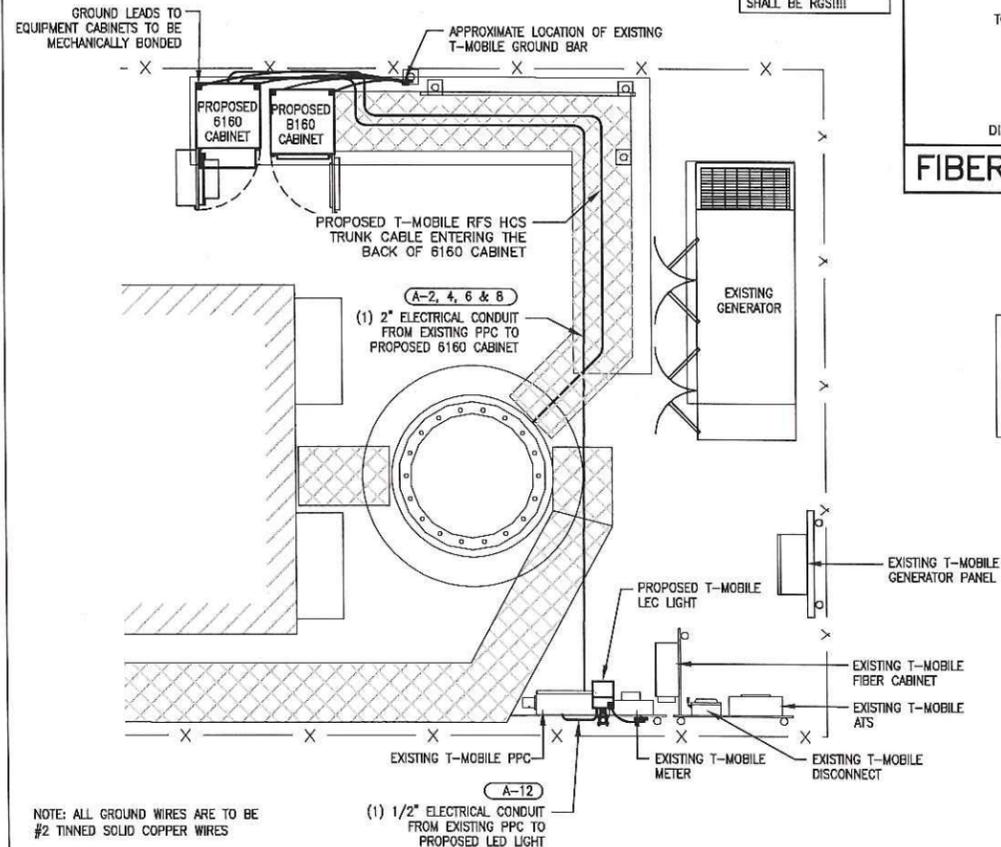
CONTRACTOR SHALL COORDINATE ALL GROUNDING WITH T-MOBILE CPM BEFORE INSTALLATION.

ALL EXPOSED GROUNDING CONDUITS SHALL BE IN A 1/2" PVC SCHEDULE 80 CONDUIT.

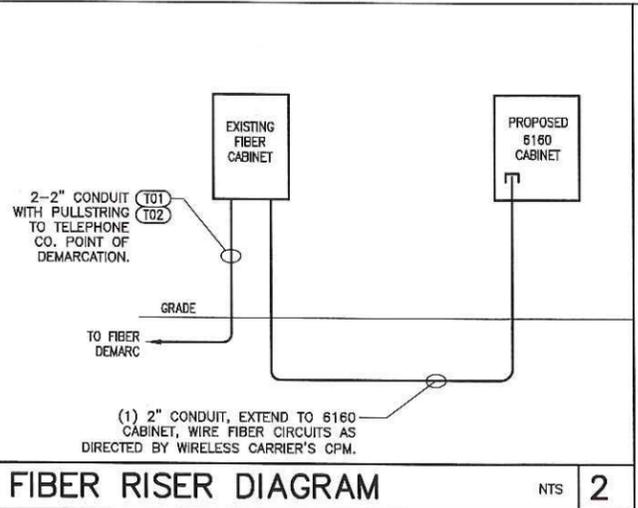
LOAD CALC	
LOAD	AMPS
PROPOSED 6160 CABINET	130
GFI	1
PROPOSED LED LIGHT	1
TOTAL	132

EXIST VOLTAGE PROVIDED: 240V, 1 PHASE, 3W
EXIST SERVICE PROVIDED: 1C/Ø, 3/ØCU, 200A

ALL EXPOSED CONDUIT SHALL BE RGS!!!!

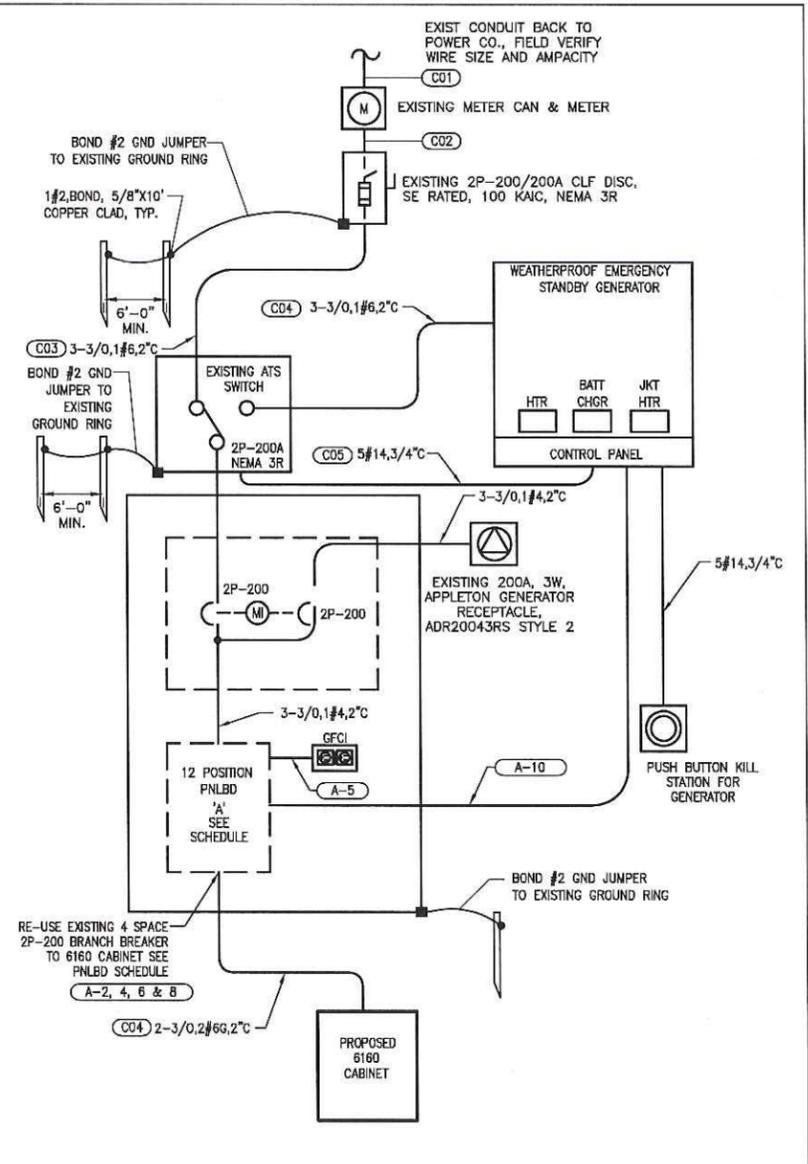


NOTE: ALL GROUND WIRES ARE TO BE #2 TINNED SOLID COPPER WIRES
(1) 1/2" ELECTRICAL CONDUIT FROM EXISTING PPC TO PROPOSED LED LIGHT



FIBER RISER DIAGRAM NTS 2

LOAD UNDER GENERATOR: WIRELESS CABINET OUTPUT (LOAD) IS CONTROLLED BY MONITORING SOFTWARE. SOFTWARE HAS LOAD SHEDDING CAPABILITIES AND IS AWARE WHEN CABINETS ARE ON EMERGENCY POWER AT WHICH TIME ALL WIRELESS CABINETS @ 60% OF MAX LOAD (132 AMPS x 60% LOAD = 79 AMPS)



ONELINE DIAGRAM 3

ELECTRICAL SITE PLAN

- GENERAL
 - THE CONTRACTOR SHALL PROVIDE ALL MATERIAL AND LABOR FOR A COMPLETE ELECTRICAL SYSTEM AS INDICATED ON THE DRAWINGS. ITEMS NOT SHOWN BUT OBVIOUSLY NECESSARY FOR A COMPLETE SYSTEM SHALL BE INCLUDED.
 - THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, INSPECTIONS AND APPROVALS.
 - ALL WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE AND THE LOCAL BUILDING CODES. ALL COMPONENTS SHALL BE U.L. APPROVED.
 - THE CONTRACTOR SHALL BEFORE SUBMITTING HIS BID, VISIT THE SITE OF THE PROJECT AND BECOME FAMILIAR WITH THE CONDITIONS. NO ALLOWANCE WILL BE MADE FOR EXISTING CONDITIONS OR FAILURE OF THE CONTRACTOR TO OBSERVE THEM.
 - EXACT LOCATION OF ALL EQUIPMENT SHALL BE COORDINATED WITH WIRELESS CARRIER, THE BUILDING OWNER AND OTHER TRADES.
 - WHERE EQUIPMENT IS SPECIFIED BY MANUFACTURER AND TYPE, SUBSTITUTION SHALL ONLY BE MADE WITH THE APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL SUBMIT DETAILS OF PROPOSED MATERIALS, REASON FOR CHANGE AND CHANGE IN CONTRACT AMOUNT.
- SCOPE OF WORK
 - THE CONTRACTOR SHALL PROVIDE ALL ELECTRICAL WIRING AND EQUIPMENT UNLESS OTHERWISE INDICATED. MAIN COMPONENTS ARE AS FOLLOWS:
 - PROVIDE ELECTRICAL RACEWAYS & WIRING AS INDICATED ON THE DRAWINGS.
 - PROVIDE ELECTRICAL EQUIPMENT MOUNTED AS DIRECTED BY CARRIER AND AS INDICATED ON THE DRAWINGS.

- CONDUIT
 - CONDUIT SIZES AS SHOWN ON THE DRAWINGS ARE A MINIMUM. THE CONTRACTOR MAY INCREASE AS REQUIRED FOR EASE OF PULLING.
 - CONDUIT TYPES SHALL BE AS FOLLOWS UNLESS OTHERWISE INDICATED:
 - ALL ABOVE GRADE CONDUIT SHALL BE RIGID GALVANIZED STEEL.
 - ALL CONDUIT BELOW GRADE SHALL BE SCHEDULE 40 PVC.
 - CONCEALED CONDUIT IN WALLS OR ABOVE CEILING SHALL BE EMT.
 - ALL EXPOSED CONDUIT SHALL BE NEATLY INSTALLED AND RUN PARALLEL OR PERPENDICULAR TO STRUCTURAL ELEMENTS. SUPPORTS AND MOUNTING HARDWARE
- TELEPHONE CONDUIT WITH PULL WIRE AND CABLE AS INDICATED ON DRAWINGS.
- INSTALL WIRE AND CONDUIT AS INDICATED. PROVIDE CABLE SUPPORTS AS INDICATED.
- REPLACE EXISTING WIRELESS CABINET WITH NEW OWNER FURNISHED WIRELESS CABINETS AS INDICATED ON DRAWINGS.
- REUSE EXISTING GROUND JUMPERS WHEN POSSIBLE FROM FORMER WIRELESS CABINETS; PROVIDE NEW GROUND JUMPERS TO NEW CABINETS AS REQUIRED.
- PROVIDE GROUNDING PROTECTION SYSTEM AS INDICATED.
- RESTORE ALL AREAS TO ORIGINAL CONDITION AFTER INSTALLATION OF CONDUIT.
- CONTRACTOR SHALL CLEARLY LABEL DISCONNECTS AND OTHER RELATED GEAR.
- AT TIME OF PLAN PERMITTING, CONTRACTOR SHALL APPLY FOR A THIRTY (30) DAY TEMPORARY POWER PERMIT FOR TESTING PURPOSES.

- CONDUCTORS
 - CONDUCTORS SHALL BE STRANDED COPPER TYPE THWN WITH 75 DEGREE C RISE INSULATION.
 - PULL BOXES AND JUNCTION BOXES
 - INTERIOR ENCL. SHALL BE NEMA 1. EXTERIOR ENCL. SHALL BE NEMA 3R.
- GROUNDING
 - PROVIDE GROUND SYSTEM AS INDICATED ON THE DRAWINGS AND AS REQUIRED BY THE NATIONAL ELECTRIC CODE AND RADIO EQUIPMENT MANUFACTURER.
 - ALL RACEWAYS REQUIRE GROUNDING CONDUCTORS. BONDING CONDUCTORS THROUGH THE RACEWAY SYSTEM SHALL BE CONTINUOUS FROM MAIN SWITCH GROUND BUSES TO PANEL GROUND BARS, AND FROM PANEL GROUNDING BARS TO BRANCH CIRCUIT OUTLETS, MOTORS, LIGHTS, ETC. THESE GROUND CONDUCTORS ARE REQUIRED THROUGHOUT THE PROJECT REGARDLESS OF WHETHER CONDUIT RUNS SHOW GROUND CONDUCTORS ON THE DRAWINGS.
 - COORDINATE WITH ENCLOSURE SUPPLIER TO INSTALL TELCO GROUND BARS BELOW THE TELCO BOARD. CONNECT TO MAIN GROUNDING SYSTEM.

SHALL BE HOT DIPPED GALVANIZED STEEL. NYLON INSULATED BUSHINGS SHALL BE USED ON ALL CONDUIT TERMINATIONS.

FLEX CONDUIT SHALL BE LIQUID TIGHT FLEXIBLE METALLIC CONDUIT.

NO CONDUIT SHALL BE INSTALLED IN LIFE SAFETY AREAS SUCH AS STAIRWAYS.

CONDUIT ROUTES ARE SCHEMATIC. FIELD VERIFY ROUTE BEFORE BID. COORDINATE ROUTE WITH WIRELESS CARRIER AND BUILDING OWNER.

WEATHERPROOF HUBS SHALL BE USED FOR ALL TOP AND SIDE PENETRATIONS TO ENCLOSURE LOCATED OUTDOORS.

ABBREVIATIONS

ANT	ANTENNA	EMT	ELECTRICAL METALLIC TUBING
AWG	AMERICAN WIRE GAUGE	DWG	DRAWING
BCW	BARE COPPER WIRE	LFS:	LIGHTNING PROTECTION SYSTEM
RWY	RACEWAY	S.S.	STAINLESS STEEL
TYP.	TYPICAL	PNL	PANEL
RGS	RIGID GALVANIZED STEEL	CLF	CURRENT LIMITING FUSE
		CPM	CONST. PROJ. MANAGER

SYMBOLS

▽	CADWELD TYPE CONNECTION	CO1	CONDUIT TAG 1; REFER TO RISER
⊠	5/8" X10'-0" COPPERCLAD GRND. ROD W/INSP. SLEEVE	M-1,3	CONDUIT TAG 1; PANEL SCHEDULE
○	5/8" X10'-0" COPPERCLAD GRND. ROD	⊕	GENERATOR RECEPTACLE
■	MECHANICAL TYPE CONNECTION		
---	#2 TINNED SOLID BARE CU WIRE		
---	UNDER GROUND TELCO CONDUIT		
---	UNDER GROUND ELECTRIC CONDUIT		

ELECTRICAL NOTES

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Review of and proper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

ELECTRICAL SYMBOLS

1300 CONCORD TERRACE, SUITE 200
SUNRISE FL, 33323

PROJECT INFORMATION:
CROWN CASTLE DXZW
6FB1159A
5455 NW 19TH STREET
LAUDERHILL, FL 33324
BROWARD COUNTY

CURRENT ISSUE DATE:
MAY 2021

ISSUED FOR:
EXCALIBUR

REV.: DATE: DESCRIPTION:

SEAL:

PLANS PREPARED BY:
Kimley-Horn
© 2021 KIMLEY-HORN AND ASSOCIATES, INC.
1920 WEKIVA WAY, SUITE 200
WEST PALM BEACH, FLORIDA 33411
(561) 845-0665
FBPE REGISTRY NO. 696

PROVIDER:

DRAWN BY: **GD** CHK.: **LF** APV.: **CMM**

LICENSURE:

KEVIN K. MARAJH PE 71455	MARIA VICTORIA MARTIN PE 72397
CHELSEA M. MARAJH PE 84300	

SHEET TITLE:
ELECTRICAL SITE PLAN AND NOTES

SHEET NUMBER: **E-1** REVISION:

KHA Job #:
044290555

Drawing name: K:\WPB_Civil\CELL_STEES\Green\044290555 - Excalibur\6FB1159A - 6120722\Draw\6FB1159A DX 03.dwg
 E-1 May 14, 2021 11:35am by: gery.danah

GROUNDING PROTECTION SYSTEM NOTES:

GENERAL NOTES: AS APPLICABLE SEE SHEET E-1 FOR GROUNDING PLAN

- PROVIDE "CABLE ENTRANCE GROUND BAR" (CEGB), 3"H X 6"L X 1/4"D. MOUNT AT TELCO CABINET. COORD. INSTALLATION WITH CPM.
- PROVIDE A GND RING BURIED A MINIMUM OF 18" BELOW GRADE. THE GROUND RING SHALL BE INSTALLED A MINIMUM OF 2'-0" AWAY FROM THE FOUNDATION UNLESS SHOWN ON DRAWING.
- BOND DISCONNECT SWITCH, METER, TELEPHONE CABINET AND SERVICE CONDUITS TO BURIED GND RING AS THEY CROSS.
- EACH LEG OF THE WAVEGUIDE STRUCTURE SHALL BE INDIVIDUALLY BONDED TO THE BURIED GND RING. EXOTHERMICALLY WELD CONNECTIONS AT POST FOR WAVEGUIDE STRUCTURE AND BURIED GND RING. PLACE 5/8"x10" COPPERCLAD GND ROD AT 10' INTERVALS ALONG WAVEGUIDE PATH.
- BOND REBAR IN CONCRETE FOR COMMUNICATION STRUCTURE AND EQUIPMENT PAD TO BURIED GND RING. EXOTHERMICALLY WELD A #2 TINNED SOLID COPPER CONDUCTOR TO THE REBAR AND CONNECT TO THE BURIED GND RING.
- PROVIDE INSPECTION SLEEVE AT MAIN SERVICE GROUNDS. EXOTHERMIC CONNECTIONS.
- PROVIDE BONDING CONDUCTOR(S) FROM THE BURIED GND RING TO THE ANTENNA CABLE BUS BAR AT POINT JUST INSIDE OF THE COMMUNICATION STRUCTURE EXT. VERIFY EXACT LOCATION OF COPPER BUS BAR FOR PROPER CONDUCTOR LENGTH. FINAL EXOTHERMIC WELDS TO COPPER BUS BAR BY THE ANTENNA CABLE INSTALLER.
- EXOTHERMICALLY WELD BONDING CONDUCTOR TO COMMUNICATION STRUCTURE LEG AT 1'-0" ABOVE PAD AND BOND TO BURIED GND RING. PROVIDE A 3/4" PVC SLEEVE WITH A GRADUAL BEND IN THE CONCRETE FOUNDATION.
- 5/8"x10'-0" LONG COPPER CLAD GND ROD. 15' SPACING BETWEEN RODS (NON-LINEAR). TYPICAL FOR ALL GND RODS SHOWN. USE STAINLESS STEEL HARDWARE WHERE APPLICABLE.
- ELECTRICAL CONTRACTOR SHALL TAKE MEGGER READINGS OF GND. THE RESULTS SHALL NOT BE GREATER THAN 5 OHMS.
- ALL CONNECTIONS TO GND SYSTEM SHALL BE MADE IN LINE WITH BENDS NOMINAL 12" RADIUS IN THE DIRECTION OF CURRENT FLOW. T-CONNECTIONS WILL NOT BE ALLOWED.
- ALL BENDS IN GND WIRES SHALL BE NOMINAL 12" RADIUS.
- ANTENNA CABLES SHALL BE BONDED AT EACH END. RUNS GREATER THAN 150' SHALL BE BONDED TOWARDS MIDDLE OF LENGTH. COORDINATE LOCATION WITH WIRELESS CARRIER'S PROJECT MANAGER.
- WHEN APPLICABLE, CONTRACTOR SHALL BOND FRAMES TO EACH OTHER AND TO GND RING VIA TWO PATHS. COORDINATE WITH WIRELESS CARRIER PROJECT MANAGER.
- CONTRACTOR CAN PROVIDE ONE OF THE FOLLOWING AS DIRECTED BY THE PROJECT MANAGER: THE SECOND OPTION IS PREFERRED.
 - CADWELD EACH CABINET GND WIRE TO GND RING AS SHOWN IN EQUIPMENT GND DETAIL.
 - CADWELD EACH WIRE TO A 1/4"x4"x24" MIN. COPPER BUS BAR LOCATED BEHIND RADIO CABINET. EXTEND A #2 WIRE FROM EACH END OF COPPER BUS BAR TO GND RING.
- PROVIDED BRAIDED BONDING JUMPERS BETWEEN EACH GATE AND POST (OPTIONAL).
- CONTRACTOR SHALL PROVIDE EXOTHERMIC BONDING AT ALL BURIED GROUND RING CONNECTIONS, STRUCTURAL EQUIPMENT FRAME, SERVICE RACK(S), EXISTING TOWER, GROUND RINGS, AND AS INSTRUCTED BY T-MOBILE CPM.
- CONTRACTOR SHALL PROVIDE MECHANICAL BONDING AT ALL ANTENNA SECTOR GROUND BARS, ALL ELECTRICAL EQUIPMENT DISCONNECTS, TRANSFORMERS, J-BOXES, PANEL-BOARDS, CABINETS, AND MAIN GROUND BAR AS DIRECTED BY T-MOBILE CPM. ALL MECHANICAL CONNECTIONS SHALL BE PROPERLY TERMINATED W/ LUGS, NUTS & BOLTS.
- CONTRACTOR SHALL COAT WITH NOX-OX ALL POINTS OF CONTACT BETWEEN DISSIMILAR METALS.

EXISTING PANELBOARD A

WIRE SIZE	COND SIZE	BUS AMPS		LOAD	POLES	AMPS	BUS		AMPS	POLES	LOAD	BUS AMPS		WIRE SIZE	COND SIZE
		L1	L2				L1	L2				L1	L2		
				SPARE (OFF)	2	20	1	2							
				GFCI	1	20	5	6	200	4	PROPOSED 6160 CABINET	130	2 3/0	2"	
				SPARE (OFF)	2	80	7	8							
				EMPTY			9	10	20	1	GENERATOR RECP	1			
							11	12	20	1	PROPOSED LED LIGHT	1	3#12	1/2"	

NOTE: PROPOSED 1-POLE 20 AMP BREAKER TO POSITION 12 FOR PROPOSED LED LIGHT
 NOTE: RE-USE EXISTING 4 SPACE 2-POLE 200 AMP BRANCH BREAKER IN POSITIONS 2, 4, 6 & 8 FOR PROPOSED 6160 CABINET

RATED VOLTAGE: 120/240 1 PHASE, 3 WIRE BRANCH POLES: 12 18 20 24

CABINET: PEDESTAL SURFACE NEMA 1 3R 4X

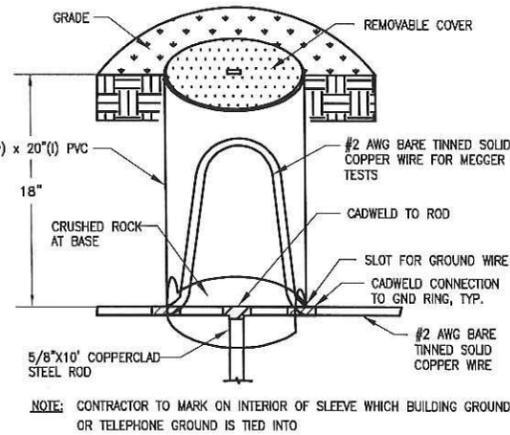
MAIN LUGS ONLY MAIN AMPS BREAKER FUSED SWITCH HINGED DOOR KEYED DOOR LATCH

FUSED CIRCUIT BREAKER BRANCH DEVICES TO BE GFCI BREAKERS FULL NEUTRAL BUS GROUND BUS

ALL BREAKERS MUST BE RATED TO INTERRUPT A SHORT CIRCUIT ISC OF 10,000 AMPS SYMMETRICAL.

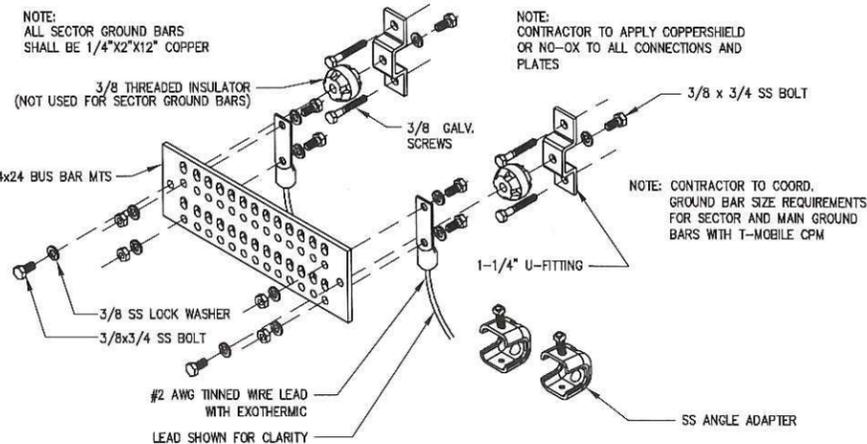
GROUNDING NOTES

NTS 1



INSPECTION SLEEVE

NTS 3

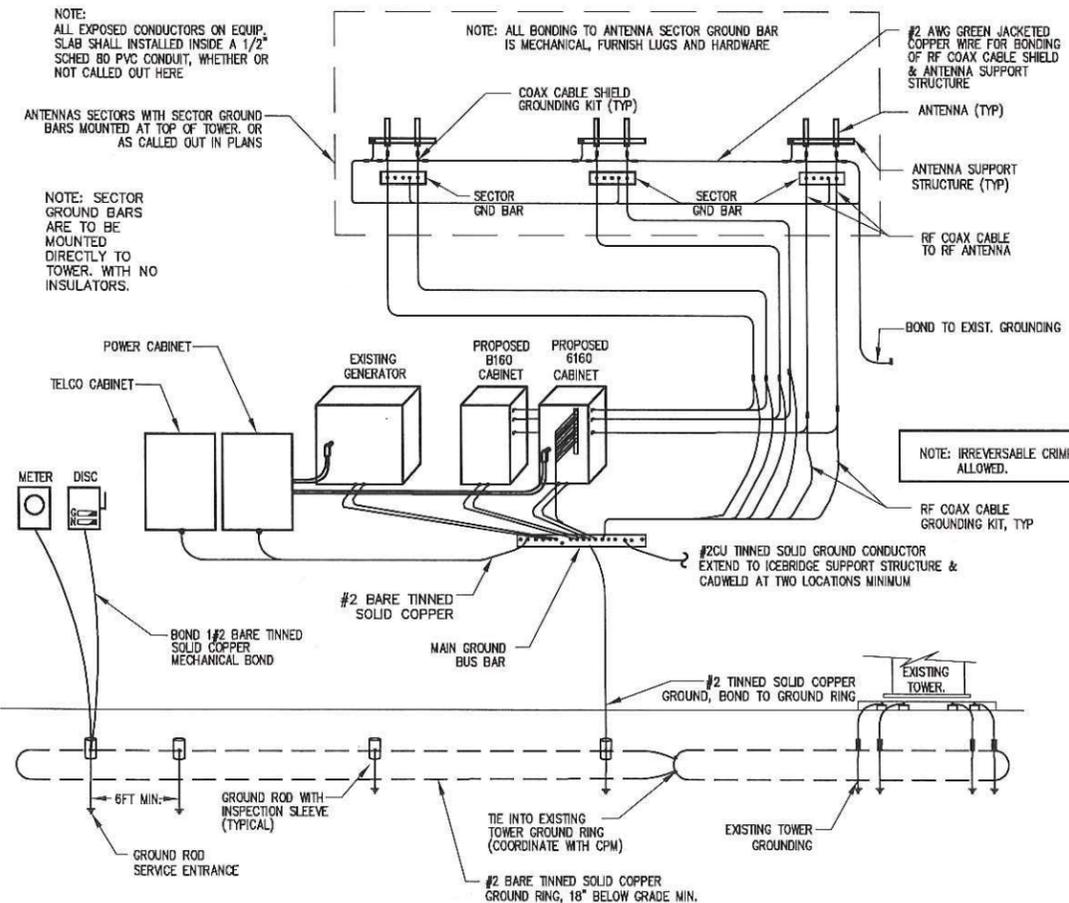


TYPICAL GROUND BAR DETAIL

NTS 4

PANELBOARD SCHEDULE

NTS 2



GROUNDING RISER DIAGRAM

NTS 5



1300 CONCORD TERRACE, SUITE 200
SUNRISE FL, 33323

PROJECT INFORMATION:

CROWN CASTLE DXZW
6FB1159A
5455 NW 19TH STREET
LAUDERHILL, FL 33324
BROWARD COUNTY

CURRENT ISSUE DATE:

MAY 2021

ISSUED FOR:

EXCALIBUR

REV.: DATE: DESCRIPTION:



PLANS PREPARED BY:



© 2021 KIMLEY-HORN AND ASSOCIATES, INC.
1920 WEKIVA WAY, SUITE 200
WEST PALM BEACH, FLORIDA 33411
(561) 845-0665
FBPE REGISTRY NO. 696

PROVIDER:

DRAWN BY: CHK.: APV.:

GD LF CMM

LICENSURE:

KEVIN K. MARAJ PE 71455
MARIA VICTORIA MARTIN PE 72397
CHELSEA M. MARAJ PE 84300

SHEET TITLE:

GROUNDING DETAILS

SHEET NUMBER: REVISION:

E-2

KHA Job #:

044290555

Drawing name: K:\VFP5\COM\CELL_SITES\Crown\044290555 - Excalibur\VFP1159A - E-2 May 14, 2021 11:35am by: gpr\jennifer

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Review of and reliance on this document without written authorization and adoption by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.