

THE COMPOUND AUDIT WAS COMPLETED ON 12/24/2024. THE CONSTRUCTION DRAWING REFLECTS CONDITIONS AT TIME OF AUDIT.

# T Mobile

**T-MOBILE SITE NUMBER:** DN04816A  
**T-MOBILE SITE NAME:** CROWN 858492  
**T-MOBILE PROJECT:** COVERAGE STRATEGY  
**RAN TEMPLATE:** 56790EBH\_SR\_T\_6X24

**BUSINESS UNIT #:** 858492  
**SITE ADDRESS:** 3396 EAST UNITED STATES HIGHWAY 50  
 CANON CITY, CO 81212  
**COUNTY:** FREMONT  
**SITE TYPE:** MONOPOLE  
**TOWER HEIGHT:** 99'-0"



**T-MOBILE SITE NUMBER:** DN04816A  
**BU #:** 858492  
**CROWN CASTLE SITE NAME:** ZOD\_ALLTEL\_CO04\_CANONCITY EAST  
 3396 EAST UNITED STATES HIGHWAY 50  
 CANON CITY, CO 81212  
 EXISTING 99'-0" MONOPOLE

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	DES/QA
0	1/29/2025	AS	CONSTRUCTION	AH

**APPLICABLE CODES & REFERENCE DOCUMENTS**

ALL WORK SHALL BE PERFORMED AND MATERIALS 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 THESE CODES:

CODE TYPE	CODE
BUILDING	2021 IBC
MECHANICAL	2021 IMC
ELECTRICAL	2020 NEC

**REFERENCE DOCUMENTS:**

STRUCTURAL ANALYSIS: MORRISON HERSHFIELD  
 DATED: DECEMBER 16, 2024

MOUNT ANALYSIS: BY OTHERS  
 DATED:

RFDS REVISION: 1  
 DATED: 11/25/2024

ORDER ID: 682629  
 REVISION: 0

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

**SHEET NUMBER:** T-1  
**REVISION:** 0

Exhibit 7-1

### SITE INFORMATION

**CROWN CASTLE USA INC.**  
 SITE NAME: ZOD\_ALLTEL\_CO04\_CANONCITY EAST  
 BU NUMBER: 858492

**TOWER OWNER:** CROWN CASTLE  
 2000 CORPORATE DRIVE  
 CANONSBURG, PA 15317

**CARRIER/APPLICANT:** T-MOBILE  
 1400 OPUS PLACE  
 DOWNERS GROVE, IL 60515

**SITE ADDRESS:** 3396 EAST UNITED STATES HIGHWAY 50  
 CANON CITY, CO 81212  
**COUNTY:** FREMONT

**LATITUDE:** 38° 26' 52.50" / 38.447917°  
**LONGITUDE:** -105° 10' 09.70" / -105.169361°  
**LAT/LONG TYPE:** NAD83  
**GROUND ELEVATION:** 5568' ± SE

**AREA OF CONSTRUCTION:** NEW  
**CURRENT ZONING:** NOT AVAILABLE  
**MAP/PARCEL #:** 99404208

**OCCUPANCY CLASSIFICATION:** U  
**TYPE OF CONSTRUCTION:** IIB  
**A.D.A. COMPLIANCE:** FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION

**PROPERTY OWNER:** GLOBAL SIGNAL ACQUISITION  
 PO BOX 277455  
 ATLANTA, GA 30384-7455

**JURISDICTION:** COUNTY OF FREMONT  
 161 JUSTICE CENTER ROAD  
 CANNON CITY, CO 81212

**ELECTRIC PROVIDER:** BLACK HILLS ENERGY CO ELECTRIC  
 (800) 694-8989

**TELCO PROVIDER:** TOWN OF CENTER CO MUNICIPAL UTILITIES

### DRAWING INDEX

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1.1	EXISTING COMPOUND PLAN
C-1.2	FINAL COMPOUND PLAN
C-1.3	EQUIPMENT PLAN
C-2	TOWER ELEVATIONS
C-3	ANTENNA PLAN
C-4	EQUIPMENT SCHEDULE
C-5.1	TOWER EQUIPMENT DETAILS & SPECIFICATIONS
C-5.2	TOWER EQUIPMENT DETAILS & SPECIFICATIONS
C-6.1	ENCLOSURE CLEARANCES
C-6.2	SITE SUPPORT CABINET SPECIFICATIONS
C-6.3	BATTERY CABINET SPECIFICATIONS
C-6.4	PLATFORM SPECIFICATIONS
E-1	CONDUIT ROUTING PLAN
E-2	PANEL SCHEDULES & ONE-LINE DIAGRAM
E-3	UTILITY FRAME AND WIRING DETAILS
E-4	CONDUIT CABLE CHART & CONDUIT SCHEMATIC
E-5	FIBER BOX UTILITY FRAME MOUNTING OPTIONS
E-6	TYPICAL CONDUIT PATH SCHEMATIC
G-1	TYPICAL GROUNDING SCHEMATIC
G-2	GROUNDING DETAILS
ATTACHED	VERTICAL TOWER LEASE AREA DETAILS
ATTACHED	RFDS
ATTACHED	MOUNT SPECIFICATIONS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 22X34. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

CALL COLORADO ONE CALL (800) 922-1987  
 CALL 3 WORKING DAYS BEFORE YOU DIG!

### PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO ENHANCE BROADBAND CONNECTIVITY AND CAPACITY TO THE EXISTING ELIGIBLE WIRELESS FACILITY.

**TOWER SCOPE OF WORK:**

- INSTALL (3) ERICSSON - 840590966 ANTENNA
- INSTALL (3) NOKIA - AEHC ANTENNA
- INSTALL (3) NOKIA - AHLOB RADIO
- INSTALL (3) NOKIA - AHPII RADIO
- INSTALL (2) RFS/CELWAVE - HB158-21U6824-XXM\_TMO CABLES
- INSTALL (1) PLATFORM MOUNT (PV-LPPGS-12M-HR2-AP2)

**GROUND SCOPE OF WORK:**

- INSTALL PLATFORM - 8'X8' 2110JWC-88 W/ 2' EXTENSION & ICE CANOPY WITHIN A PROPOSED 10'-0"X15'-0" LEASE AREA WITHIN EXISTING FENCED COMPOUND
- INSTALL ICE BRIDGE W/ FEEDLINE TRAPEZE
- INSTALL (1) DELTA - HPL3.05 SITE SUPPORT CABINET
- INSTALL (1) DELTA - LB3 BATTERY CABINET
- INSTALL (1) 24 POSITION 200A PPC W/ 200A BREAKER
- INSTALL (1) FIBER CABINET
- INSTALL (1) FIBER HANDHOLE
- INSTALL (1) GPS ANTENNA

### LOCATION MAP



### PROJECT TEAM

**A&E FIRM:** POWER OF DESIGN  
 11490 BLUEGRASS PARKWAY  
 LOUISVILLE, KY 40299  
 (502) 437-5252

**CROWN CASTLE:** 2000 CORPORATE DRIVE  
 CANONSBURG, PA 15317

**CONTACTS:** JASMINB GREGG - AES  
 JASMINB.GREGG@CROWNCastle.COM

PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN NOC AT (800) 788-7011 & CROWN CONSTRUCTION MANAGER.

**CROWN CASTLE USA INC. SITE ACTIVITY REQUIREMENTS:**

- NOTICE TO PROCEED- NO WORK SHALL COMMENCE PRIOR TO CROWN CASTLE USA INC. WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN CASTLE USA INC. NOC AT 800-788-7011 & THE CROWN CASTLE USA INC. CONSTRUCTION MANAGER.
- "LOOK UP" CROWN CASTLE USA INC. SAFETY CLIMB REQUIREMENT:  
THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR CROWN CASTLE USA INC. POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.
- PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.
- ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND CROWN CASTLE USA INC. STANDARD CED-STD-10233, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA-322 (LATEST EDITION).
- ALL SITE WORK TO COMPLY WITH OAS-STD-10068 "INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON CROWN CASTLE USA INC. TOWER SITE," CED-STD-10294 "STANDARD FOR INSTALLATION OF MOUNTS AND APPURTENANCES," AND LATEST VERSION OF ANSI/TIA-1019-2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS." IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY CROWN CASTLE USA INC. PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.
- ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS. LATEST APPROVED REVISION.
- CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
- ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF CONTRACTOR, TOWER OWNER, CROWN CASTLE USA INC., AND/OR LOCAL UTILITIES.
- THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.
- THE SITE GRADE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
- THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
- THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
- CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
- THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
- CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
- CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
- NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

**GREENFIELD GROUNDING NOTES:**

- ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
- THE CONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
- THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.
- METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
- METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
- EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.
- CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
- ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
- ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
- USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
- EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
- ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRAMPS.
- ALL GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
- COMPRESSION GROUND CONNECTIONS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
- ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
- APPROVED ANTI-OXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
- ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
- MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
- BOND ALL METALLIC OBJECTS WITHIN 5 FT OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
- GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC CONDUIT SHALL BE USED, WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e. NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
- ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON-METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).
- BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY).

**GENERAL NOTES:**

- FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:  
CONTRACTOR: GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION  
CARRIER: T-MOBILE  
TOWER OWNER: CROWN CASTLE USA INC.
- THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
- THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.
- NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.
- SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.
- PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CROWN CASTLE.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND CROWN CASTLE PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
- CONTRACTOR IS TO PERFORM A SITE INVESTIGATION AND IS TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.
- THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF CROWN CASTLE USA INC.
- CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
- CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

**CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:**

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A104, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
- UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 paf.
- ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°F AT TIME OF PLACEMENT.
- CONCRETE EXPOSED TO FREEZE-THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER-TO-CEMENT RATIO (W/C) OF 0.45.
- ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPICES SHALL BE CLASS "B" TENSION SPICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:  
#4 BARS AND SMALLER.....40 ksi  
#5 BARS AND LARGER.....60 ksi  
THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:  
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH.....3"  
CONCRETE EXPOSED TO EARTH OR WEATHER:  
#6 BARS AND LARGER.....2"  
#5 BARS AND SMALLER.....1-1/2"  
CONCRETE NOT EXPOSED TO EARTH OR WEATHER:  
SLAB AND WALLS.....3/4"  
BEAMS AND COLUMNS.....1-1/2"
- A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

**ELECTRICAL INSTALLATION NOTES:**

- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
- CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
- ELECTRICAL AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
- ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.  
4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.  
4.2. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING JURISDICTION.
- EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR-CODED IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
- ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND CIRCUIT ID'S).
- PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
- ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
- ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).
- RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
- ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
- ELECTRICAL METALLIC TUBING (EMT) OR METAL-CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS. UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC ON STRAIGHTS AND SCHEDULE 80 PVC UNDER ALL TRAFFIC EASEMENTS AND ALL ELBOWS/90° ABOVE GRADE CONDUIT TO BE SCH 80 PVC OR IMC/RMC CONDUIT. EMT IS ALLOWED AT STUB UP LOCATIONS AND INDOORS ONLY.
- LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
- CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.
- WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREDMOLD SPECIMAT WIREWAY).
- SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
- CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS, EXPLOSIVE DEVICES (i.e. POWDER-ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER, PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.
- EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3R (OR BETTER) FOR EXTERIOR LOCATIONS.
- METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
- NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
- THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR CROWN CASTLE USA INC. BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
- INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "T-MOBILE".
- ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METEDED MULE TAPE PULL CORD INSTALLED.

CONDUCTOR COLOR CODE		
SYSTEM	CONDUCTOR	COLOR
120/240V, 1Ø	A PHASE	BLACK
	B PHASE	RED
	NEUTRAL	WHITE
	GROUND	GREEN
120/208V, 3Ø	A PHASE	BLACK
	B PHASE	RED
	C PHASE	BLUE
	NEUTRAL	WHITE
277/480V, 3Ø	A PHASE	BROWN
	B PHASE	ORANGE OR PURPLE
	C PHASE	YELLOW
	NEUTRAL	GREY
DC VOLTAGE	GROUND	GREEN
	POS (+)	RED**
	NEG (-)	BLACK**

**APWA UNIFORM COLOR CODE:**

- WHITE PROPOSED EXCAVATION
- PINK TEMPORARY SURVEY MARKINGS
- RED ELECTRIC POWER LINES, CABLES, CONDUIT, AND LIGHTING CABLES
- YELLOW GAS, OIL, STEAM, PETROLEUM, OR GASEOUS MATERIALS
- ORANGE COMMUNICATION, ALARM OR SIGNAL LINES, CABLES, OR CONDUIT AND TRAFFIC LOOPS
- BLUE POTABLE WATER
- PURPLE RECLAIMED WATER, IRRIGATION, AND SLURRY LINES
- GREEN SEWERS AND DRAIN LINES

\* SEE NEC 210.5(C)(1) AND (2)  
\*\* POLARITY MARKED AT TERMINATION

**ABBREVIATIONS:**

- ANT ANTENNA
- (E) EXISTING
- FIF FACILITY INTERFACE FRAME
- GEN GENERATOR
- GPS GLOBAL POSITIONING SYSTEM
- GSM GLOBAL SYSTEM FOR MOBILE
- LTE LONG TERM EVOLUTION
- MGB MASTER GROUND BAR
- MW MICROWAVE
- (N) NEW
- NEC NATIONAL ELECTRIC CODE
- (P) PROPOSED
- PP POWER PLANT
- QTY QUANTITY
- RECT RECTIFIER
- RBS RADIO BASE STATION
- RET REMOTE ELECTRIC TILT
- RFDS RADIO FREQUENCY DATA SHEET
- RRH REMOTE RADIO HEAD
- RRU REMOTE RADIO UNIT
- SIAD SMART INTEGRATED DEVICE
- TMA TOWER MOUNTED AMPLIFIER
- TYR TYPICAL
- UMTS UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
- W.P. WORK POINT



T-MOBILE SITE NUMBER:  
**DN04816A**

BU #: 858492

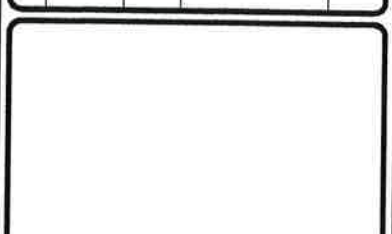
CROWN CASTLE SITE NAME:  
**ZOD\_ALLTEL\_CO04\_ CANONCITY EAST**

3396 EAST UNITED STATES  
HIGHWAY 50  
CANON CITY, CO 81212

EXISTING 99'-0"  
MONOPOLE

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	DES/QI
0	1/29/2025	AS	CONSTRUCTION	AH

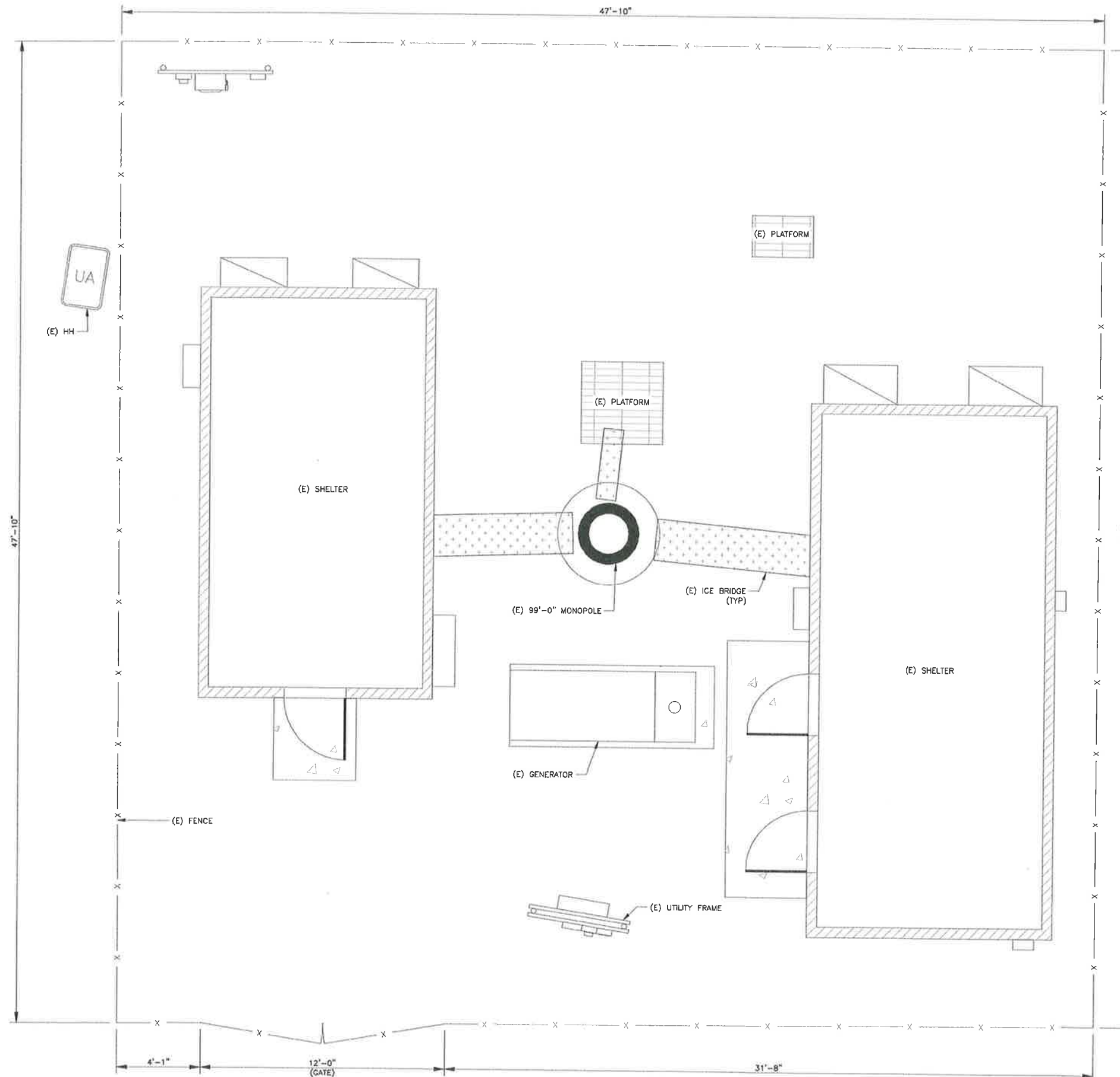


01/29/2025

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER: **T-2**

REVISION: **0**



**EQUIPMENT LEGEND:**

	EXISTING
	TO BE RELOCATED/REMOVED
	NEW/RELOCATED



T-MOBILE SITE NUMBER:  
**DN04816A**

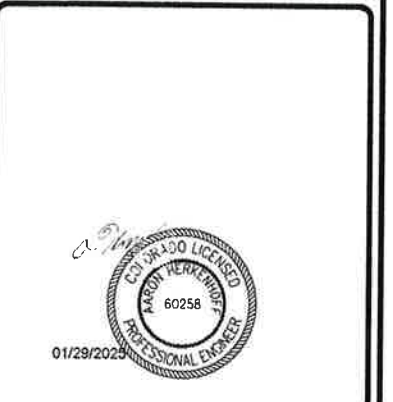
BU #: 858492  
CROWN CASTLE SITE NAME:  
**ZOD\_ALLTEL\_CO04\_  
CANONCITY EAST**

3396 EAST UNITED STATES  
HIGHWAY 50  
CANON CITY, CO 81212

EXISTING 99'-0"  
MONOPOLE

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	1/29/2025	AS	CONSTRUCTION	AH

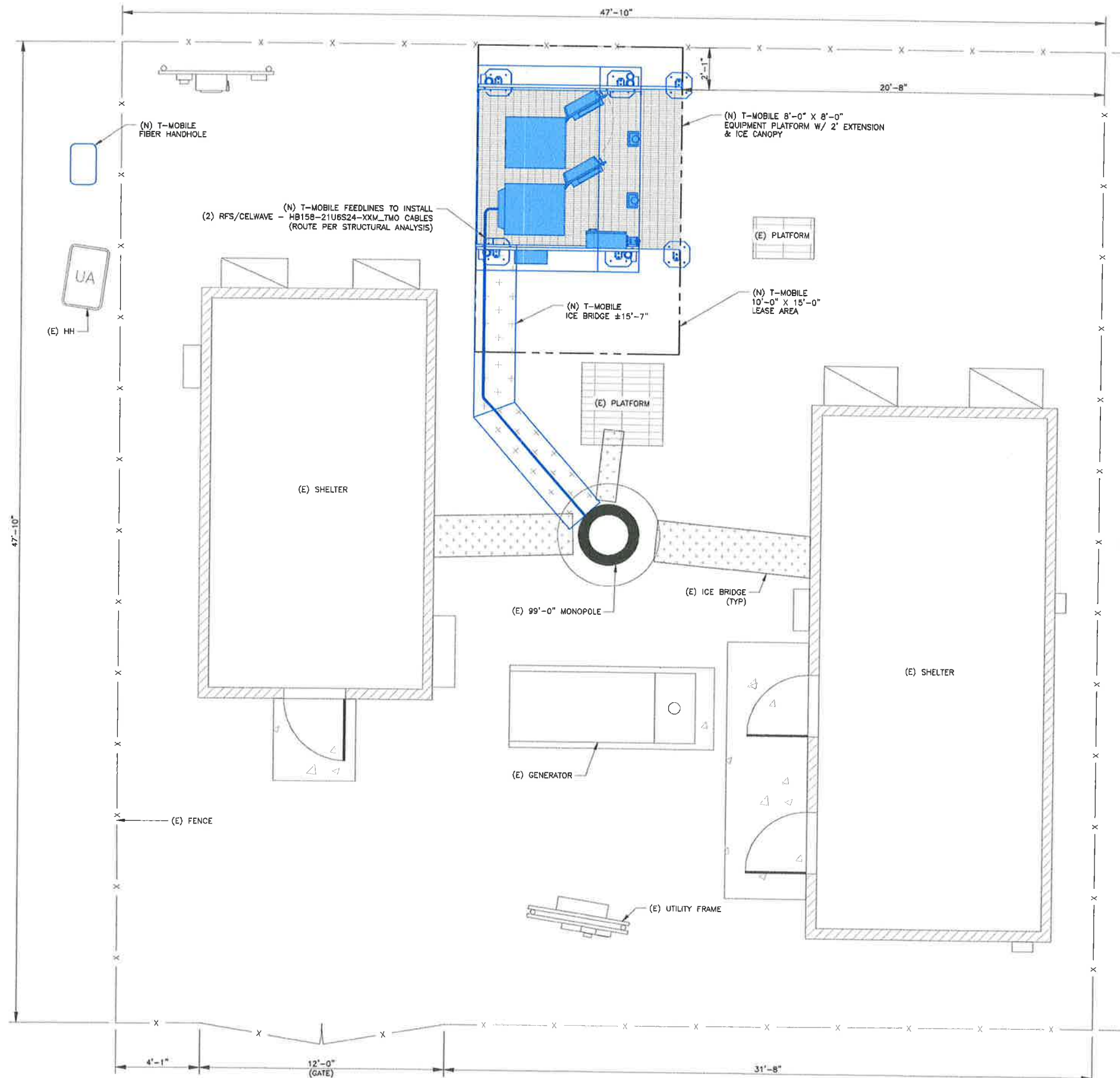


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1 EXISTING SITE PLAN  
SCALE: 3/8"=1'-0" (FULL SIZE)  
3/16"=1'-0" (11x17)



SHEET NUMBER: **C-1.1** REVISION: **0**



**EQUIPMENT LEGEND:**

- EXISTING
- TO BE RELOCATED/REMOVED
- NEW/RELOCATED



**T-MOBILE SITE NUMBER:**  
**DN04816A**

**BU #: 858492**  
**CROWN CASTLE SITE NAME:**  
**ZOD\_ALLTEL\_CO04\_**  
**CANONCITY EAST**

3396 EAST UNITED STATES  
 HIGHWAY 50  
 CANON CITY, CO 81212

EXISTING 99'-0"  
 MONOPOLE

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	DES/QA
0	1/29/2025	AS	CONSTRUCTION	AH



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**1 FINAL SITE PLAN**  
 SCALE: 3/8"=1'-0" (FULL SIZE)  
 3/16"=1'-0" (11x17)

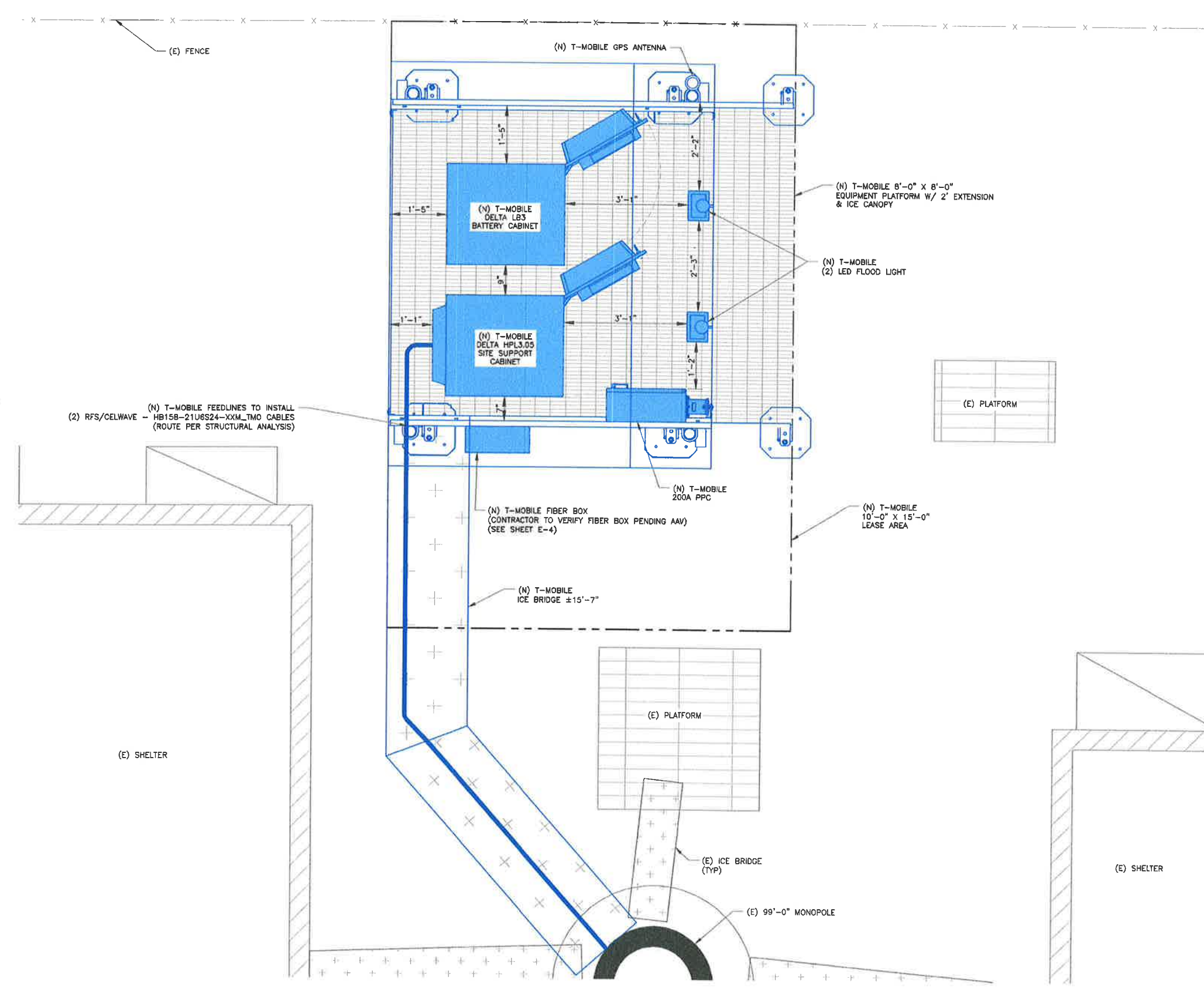


**SHEET NUMBER:**  
**C-1.2**

**REVISION:**  
**0**

**EQUIPMENT LEGEND:**

	EXISTING
	TO BE RELOCATED/REMOVED
	NEW/RELOCATED



**T-MOBILE SITE NUMBER:**  
DN04816A

**BU #: 858492**  
**CROWN CASTLE SITE NAME:**  
ZOD\_ALLTEL\_CO04\_  
CANONCITY EAST

3396 EAST UNITED STATES  
HIGHWAY 50  
CANON CITY, CO 81212

EXISTING 99'-0"  
MONOPOLE

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	1/29/2025	AS	CONSTRUCTION	AH



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**1 FINAL EQUIPMENT PLAN**  
SCALE:  3/4"=1'-0" (FULL SIZE)  
3/8"=1'-0" (11x17)



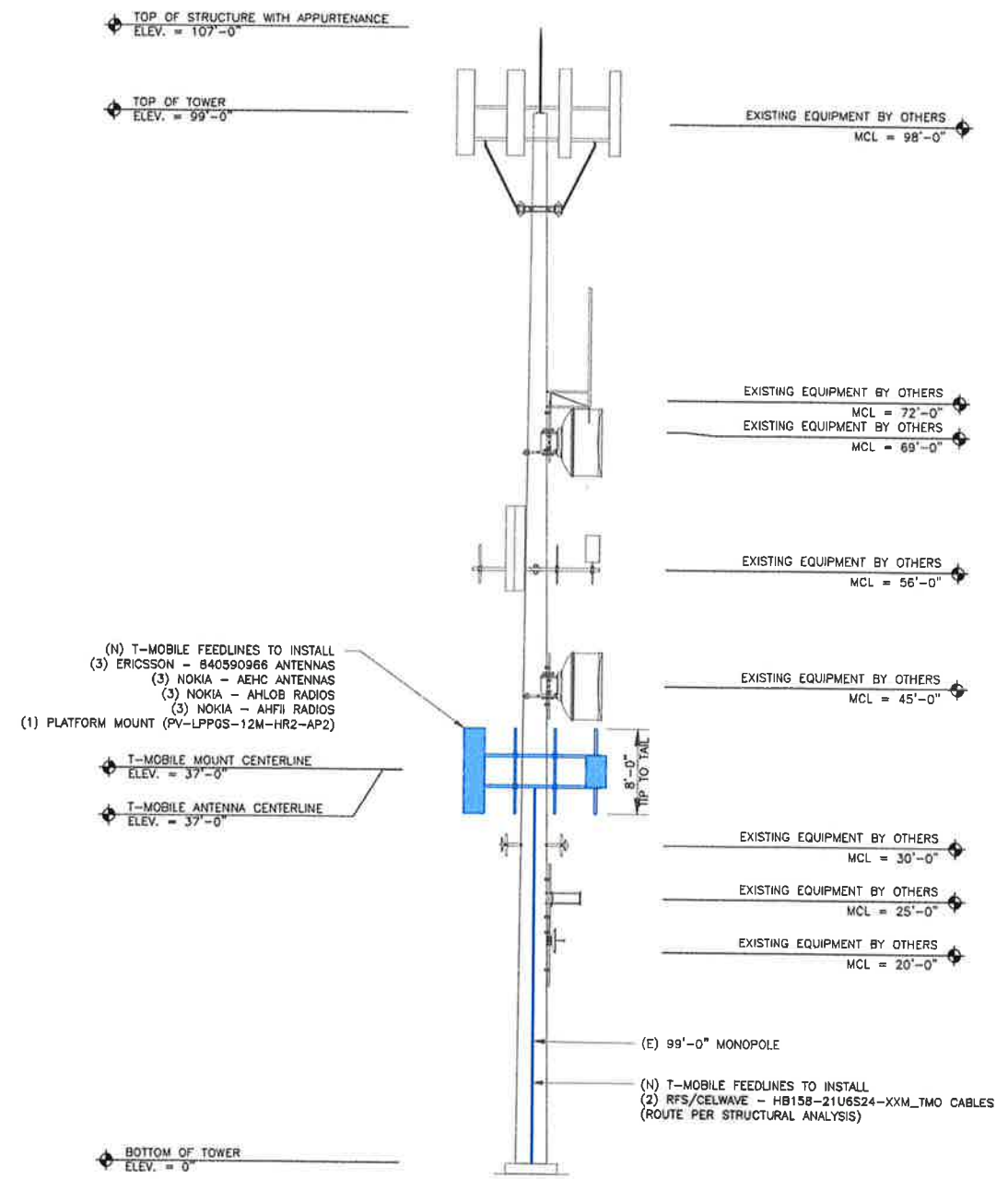
<b>SHEET NUMBER:</b> C-1.3	<b>REVISION:</b> 0
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FAA APPROVED HEIGHT  
108'-0"

ASR HEIGHT FOR FUTURE USE  
108'-0" PER REGISTRATION #1258866

EQUIPMENT LEGEND:

- EXISTING
- TO BE RELOCATED/REMOVED
- NEW



T-MOBILE SITE NUMBER:  
**DN04816A**

BU #: **858492**

CROWN CASTLE SITE NAME:  
**ZOD\_ALLTEL\_CO04\_**  
**CANONCITY EAST**

3396 EAST UNITED STATES  
HIGHWAY 50  
CANON CITY, CO 81212

EXISTING 99'-0"  
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES/QA
0	1/29/2025	AS	CONSTRUCTION	AH



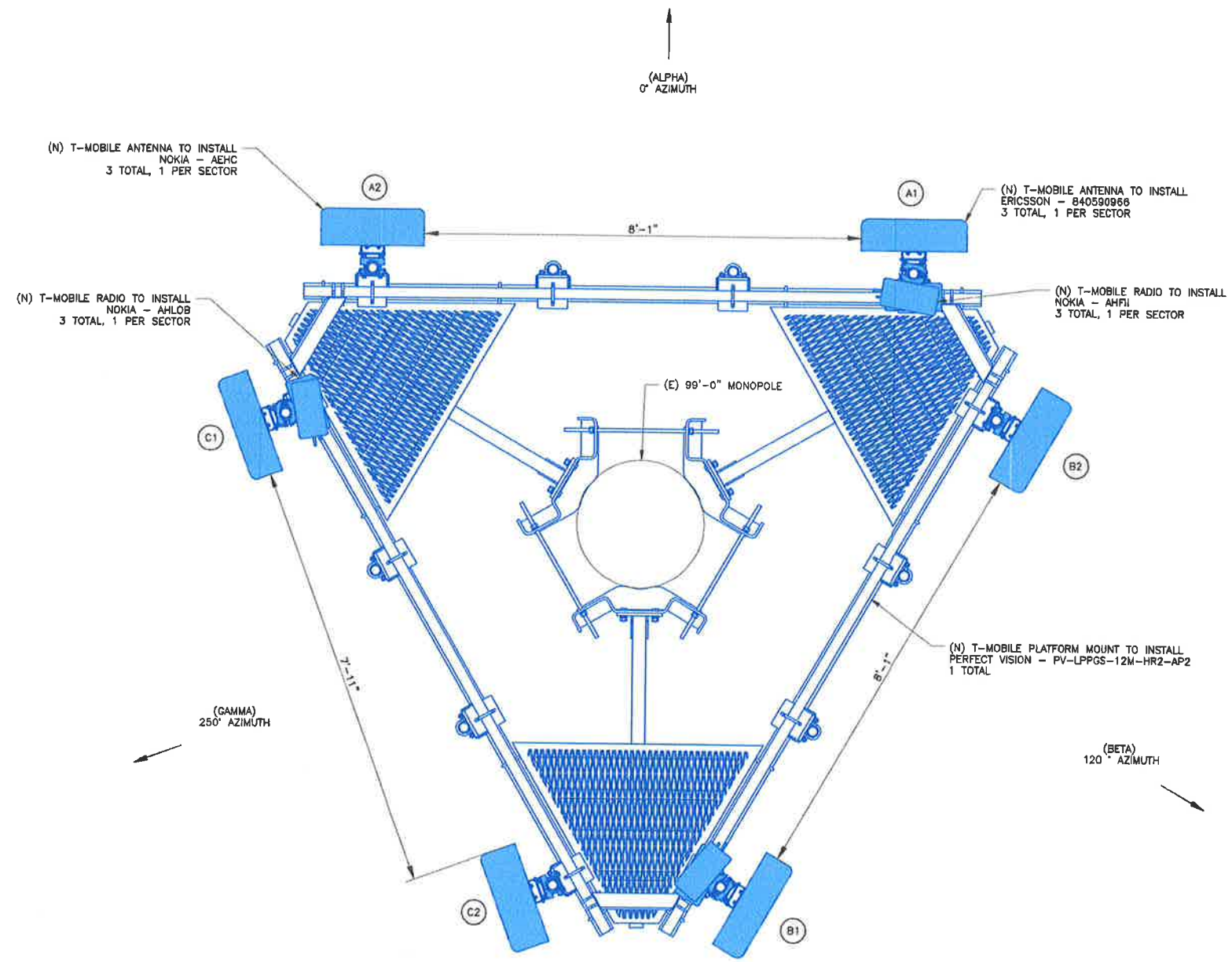
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

1 FINAL TOWER ELEVATION  
SCALE: 1/8"=1'-0" (FULL SIZE)  
1/16"=1'-0" (11x17)

SHEET NUMBER: **C-2** REVISION: **0**

**EQUIPMENT LEGEND:**

	EXISTING
	TO BE RELOCATED/REMOVED
	NEW



**T-Mobile**

**CROWN CASTLE**

**POD**  
POWER OF DESIGN  
11490 BLUEGRASS PKWY  
LOUISVILLE, KY 40299  
502-437-5252

T-MOBILE SITE NUMBER:  
**DN04816A**

BU #: 858492  
CROWN CASTLE SITE NAME:  
**ZOD\_ALLTEL\_CO04\_  
CANONCITY EAST**

3396 EAST UNITED STATES  
HIGHWAY 50  
CANON CITY, CO 81212

EXISTING 99'-0"  
MONOPOLE

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	DES/QR
0	1/29/2025	AS	CONSTRUCTION	AH



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1 FINAL ANTENNA PLAN  
SCALE:  3/4"=1'-0" (FULL SIZE)  
3/8"=1'-0" (11x17)



SHEET NUMBER: **C-3** REVISION: **0**



**FINAL EQUIPMENT SCHEDULE**  
(GC TO VERIFY WITH CURRENT RFDS)

POSITION	ANTENNA				RADIO			DIPLEXER			TMA		SURGE PROTECTION		CABLES			
	TECH	STATUS/MANUFACTURER MODEL	AZIMUTH	RAD CENTER	QTY.	STATUS/MODEL	LOCATION	QTY.	STATUS	LOCATION	QTY.	STATUS	QTY.	STATUS/MODEL	QTY.	STATUS/TYPE	SIZE	LENGTH
A1	N800/L600 L700/N1900 N2100/N2500 L1900/L2100	(N) ERICSSON - B40590966	0°	37'-0"	1	(N) NOKIA - AHLOB	TOWER	-	-	-	-	-	-	-	2	(N) HYBRID	1-5/8"	87'-0"
					1	(N) NOKIA - AHFII	TOWER	-	-	-	-	-	-					
A2	N2500	(N) NOKIA - AEHC	0°	37'-0"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B1	N800/L600 L700/N1900 N2100/N2500 L1900/L2100	(N) ERICSSON - B40590966	120°	37'-0"	1	(N) NOKIA - AHLOB	TOWER	-	-	-	-	-	-	-	-	-	-	-
					1	(N) NOKIA - AHFII	TOWER	-	-	-	-	-	-	-	-	-	-	-
B2	N2500	(N) NOKIA - AEHC	120°	37'-0"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G1	N800/L600 L700/N1900 N2100/N2500 L1900/L2100	(N) ERICSSON - B40590966	250°	37'-0"	1	(N) NOKIA - AHLOB	TOWER	-	-	-	-	-	-	-	-	-	-	-
					1	(N) NOKIA - AHFII	TOWER	-	-	-	-	-	-	-	-	-	-	-
G2	N2500	(N) NOKIA - AEHC	250°	37'-0"	-	-	-	-	-	-	-	-	-	-	-	-	-	-

UNUSED FEEDLINES			
-	-	-	-
-	-	-	-

**T-MOBILE SITE NUMBER:**  
**DN04816A**

**BU #: 858492**  
**CROWN CASTLE SITE NAME:**  
**ZOD\_ALLTEL\_CO04\_**  
**CANONCITY EAST**

3396 EAST UNITED STATES  
HIGHWAY 50  
CANON CITY, CO 81212

EXISTING 99'-0"  
MONOPOLE

ISSUED FOR:				
REV	DATE	DRWN	DESCRIPTION	DES/QA
0	1/29/2025	AS	CONSTRUCTION	AH



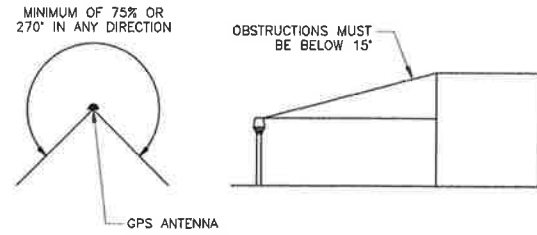
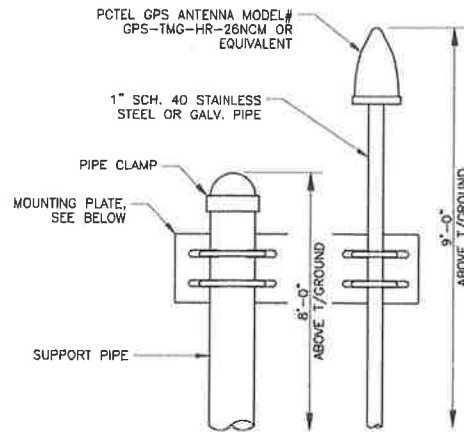
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1 FINAL EQUIPMENT SCHEDULE  
SCALE: NOT TO SCALE

**SHEET NUMBER:**  
**C-4**

**REVISION:**  
**0**

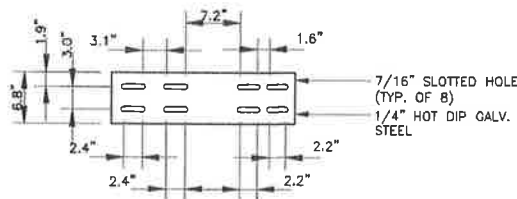




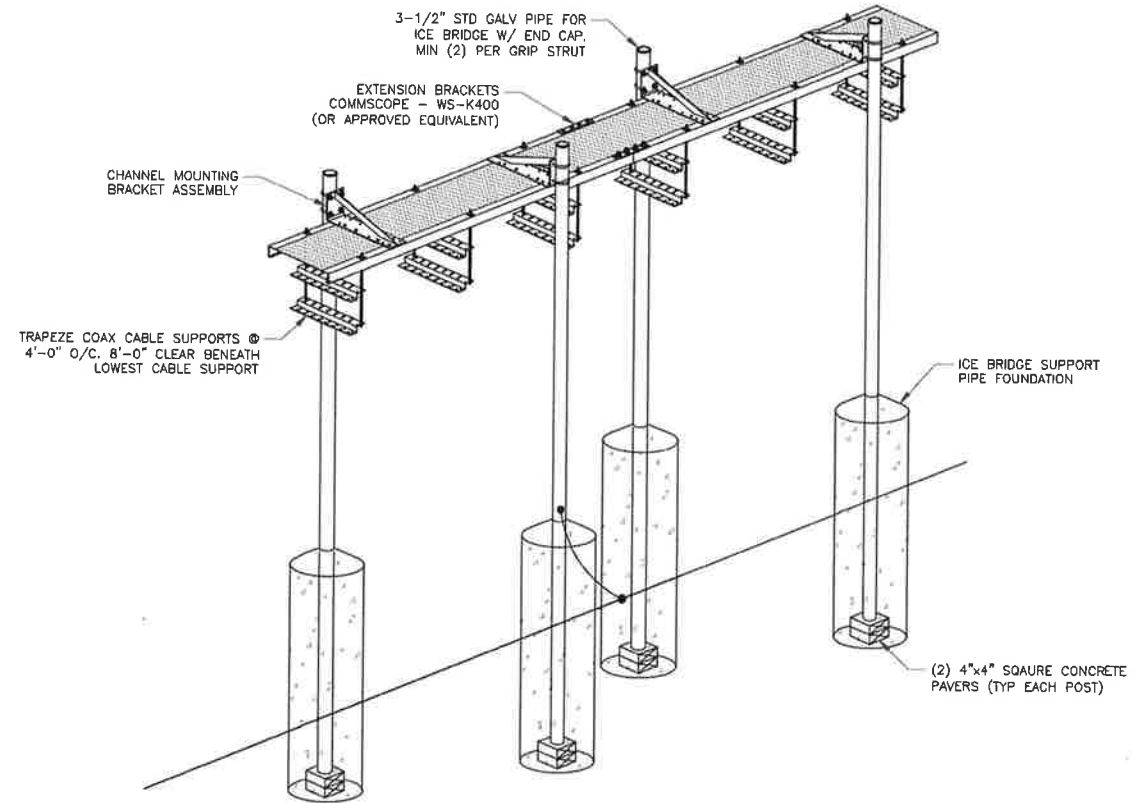
**GPS MINIMUM SKY VIEW REQUIREMENTS**

**NOTES:**

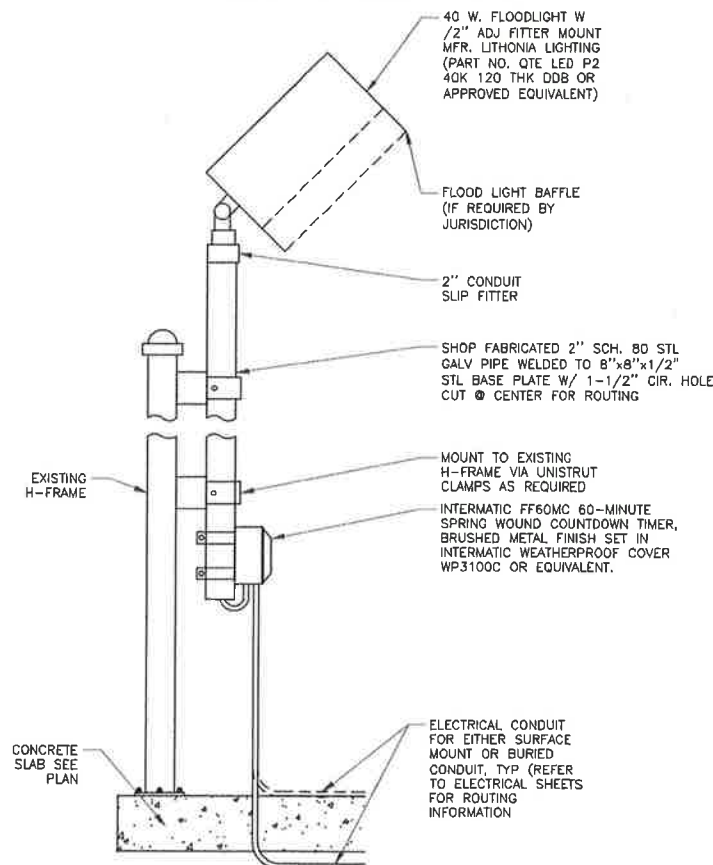
1. THE ELEVATION AND LOCATION OF THE GPS ANTENNA SHALL BE IN ACCORDANCE WITH THE FINAL RF REPORT.
2. THE GPS ANTENNA MOUNT IS DESIGNED TO FASTEN TO A STANDARD 1-1/4" O.D. SCHEDULE 40, GALVANIZED STEEL OR STAINLESS STEEL PIPE. THE PIPE MUST NOT BE THREADED AT THE ANTENNA MOUNT END. THE PIPE SHALL BE CUT TO THE REQUIRED LENGTH (MINIMUM OF 18 INCHES) USING A HAND OR ROTARY PIPE CUTTER TO ASSURE A SMOOTH AND PERPENDICULAR CUT. A HACK SAW SHALL NOT BE USED. THE CUT PIPE END SHALL BE DEBARRED AND SMOOTH IN ORDER TO SEAL AGAINST THE NEOPRENE GASKET ATTACHED TO THE ANTENNA MOUNT. IT IS CRITICAL THAT THE GPS ANTENNA IS MOUNTED SUCH THAT IT IS WITHIN 2 DEGREES OF VERTICAL AND THE BASE OF THE ANTENNA IS WITHIN 2 DEGREES OF LEVEL.
4. DO NOT SWEEP TEST GPS ANTENNA.



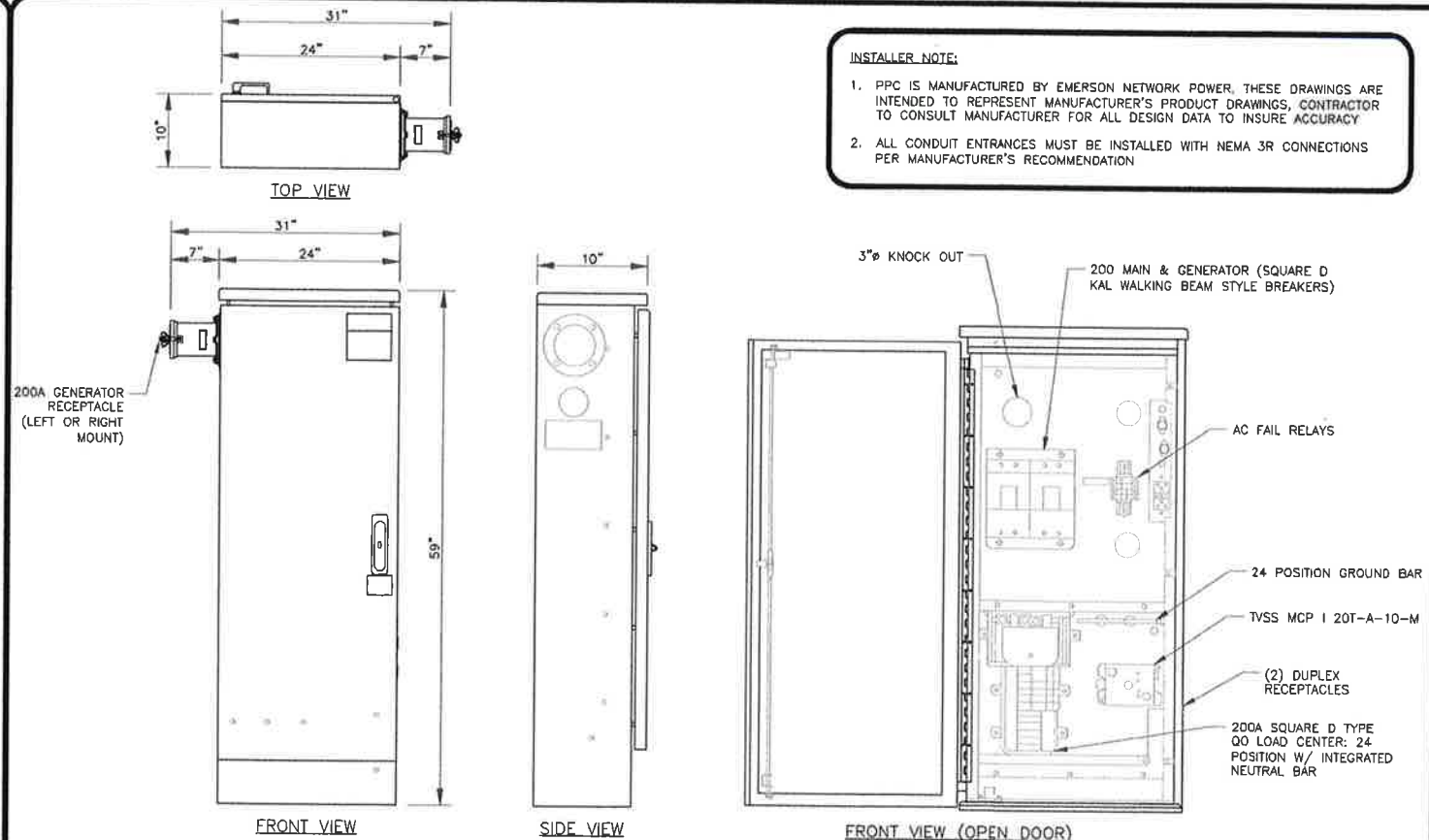
**1** GPS ANTENNA DETAIL  
SCALE: NOT TO SCALE



**2** ICE BRIDGE DETAIL  
SCALE: NOT TO SCALE



**3** 40W LED ON TIMER DETAIL  
SCALE: NOT TO SCALE



**4** PPC DETAIL  
SCALE: NOT TO SCALE

**INSTALLER NOTE:**

1. PPC IS MANUFACTURED BY EMERSON NETWORK POWER. THESE DRAWINGS ARE INTENDED TO REPRESENT MANUFACTURER'S PRODUCT DRAWINGS, CONTRACTOR TO CONSULT MANUFACTURER FOR ALL DESIGN DATA TO INSURE ACCURACY
2. ALL CONDUIT ENTRANCES MUST BE INSTALLED WITH NEMA 3R CONNECTIONS PER MANUFACTURER'S RECOMMENDATION



T-MOBILE SITE NUMBER:  
**DN04816A**

BU #: **858492**  
CROWN CASTLE SITE NAME:  
**ZOD\_ALLTEL\_CO04\_**  
**CANONCITY EAST**

3396 EAST UNITED STATES  
HIGHWAY 50  
CANON CITY, CO 81212

EXISTING 99'-0"  
MONOPOLE

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	DES/QA
0	1/29/2025	AS	CONSTRUCTION	AH

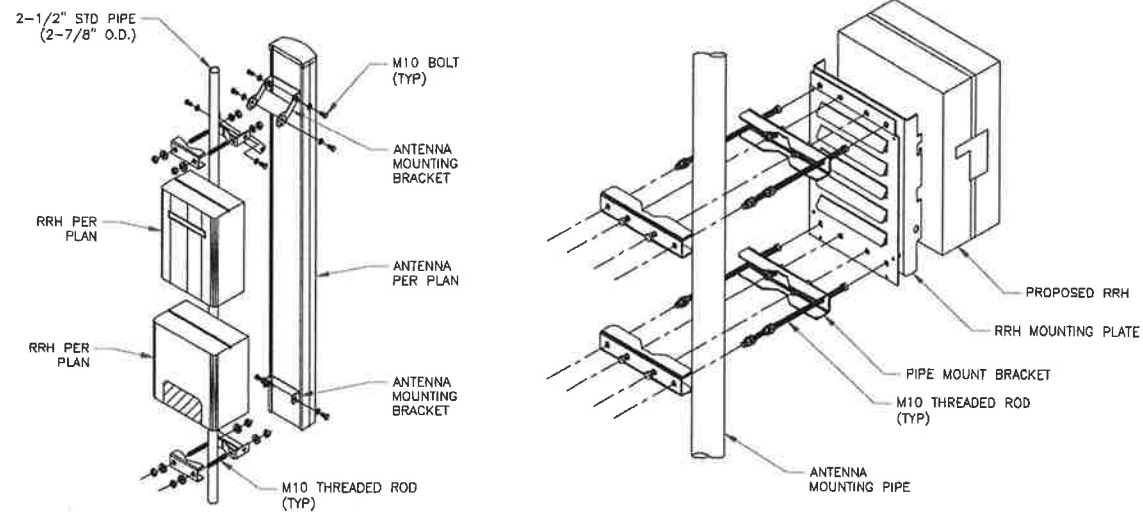


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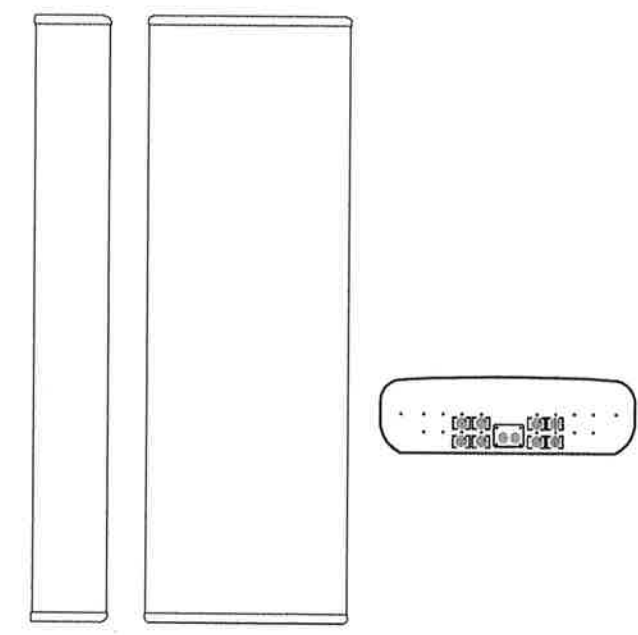
SHEET NUMBER:  
**C-5.1**

REVISION:  
**0**

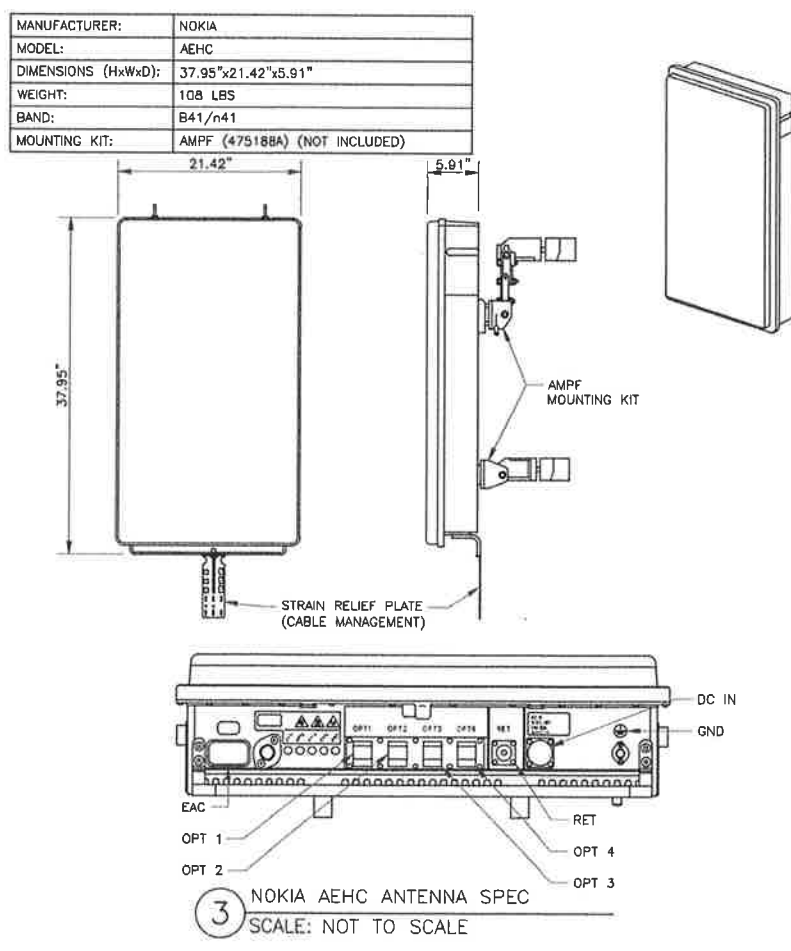
**INSTALLER NOTES:**  
 1. COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRHs RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING.  
 2. DO NOT OPEN RRH PACKAGES IN THE RAIN.  
 3. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS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



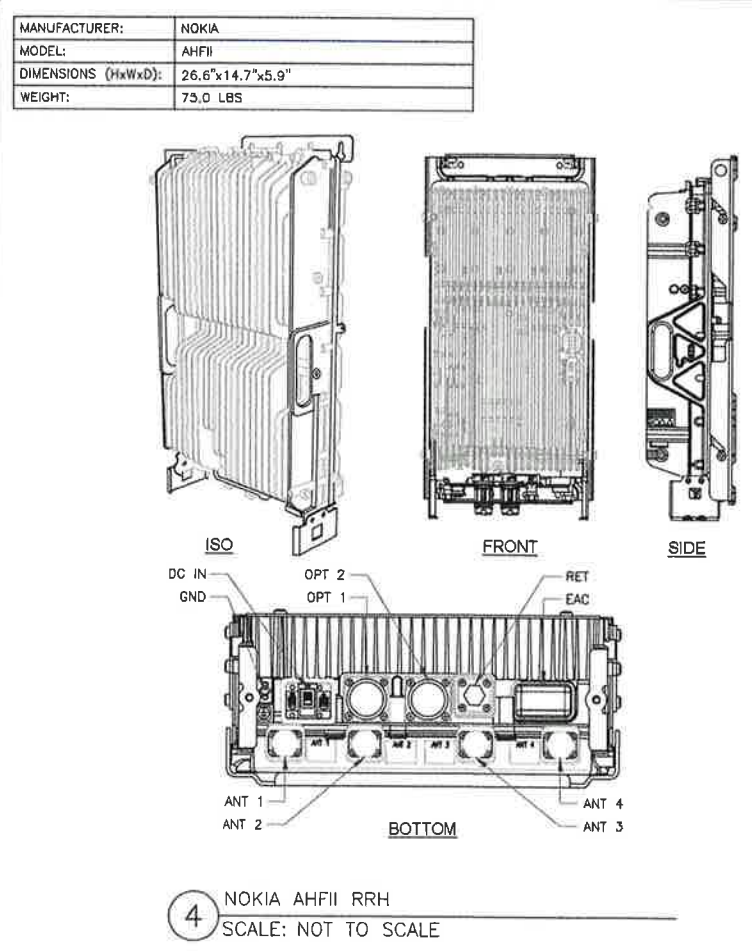
1 ANTENNA WITH RRHs MOUNTING DETAIL  
 SCALE: NOT TO SCALE



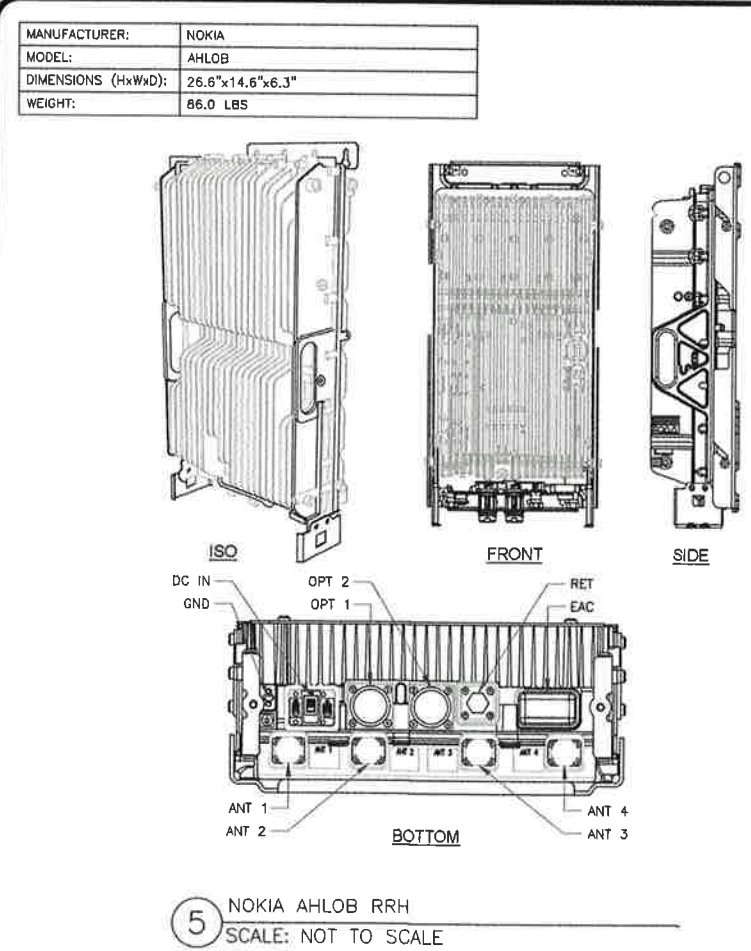
2 ERICSSON - 840590966  
 SCALE: NOT TO SCALE



3 NOKIA AEHC ANTENNA SPEC  
 SCALE: NOT TO SCALE



4 NOKIA AHFII RRH  
 SCALE: NOT TO SCALE



5 NOKIA AHLOB RRH  
 SCALE: NOT TO SCALE

**T-Mobile**

**CROWN CASTLE**

**POD**  
 POWER OF DESIGN  
 11490 BLUEGRASS PKWY  
 LOUISVILLE, KY 40299  
 502-437-5252

T-MOBILE SITE NUMBER:  
**DN04816A**  
 BU #: 858492  
 CROWN CASTLE SITE NAME:  
**ZOD\_ALLTEL\_CO04\_**  
**CANONCITY EAST**

3396 EAST UNITED STATES  
 HIGHWAY 50  
 CANON CITY, CO 81212

EXISTING 99'-0"  
 MONOPOLE

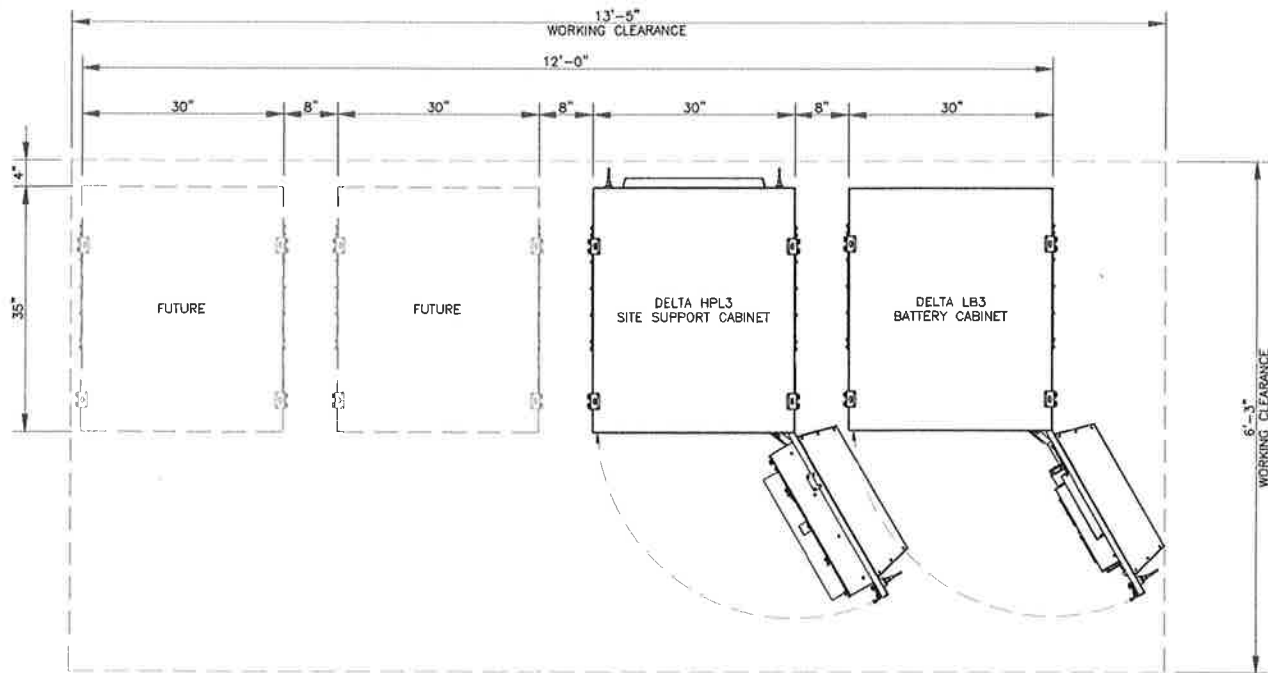
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	1/29/2025	AS	CONSTRUCTION	AH

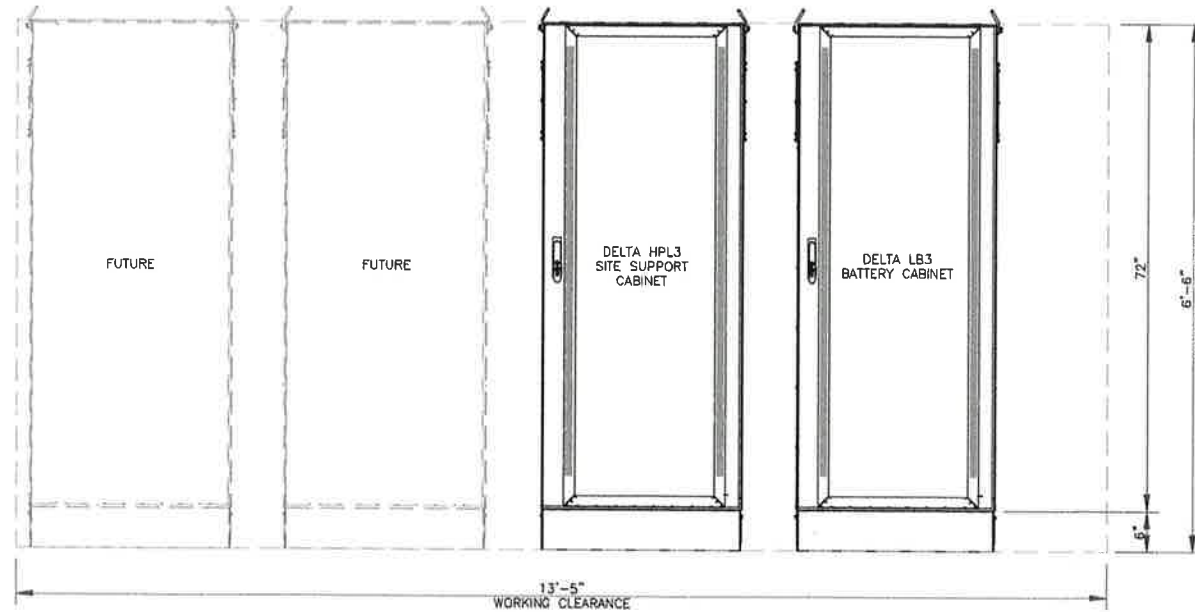


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SHEET NUMBER: **C-5.2** REVISION: **0**



1 PLAN VIEW WORKING CLEARANCE HPL3 & LB3 LAYOUT  
SCALE: NOT TO SCALE



2 ELEVATION VIEW WORKING CLEARANCE HPL3 & LB3 LAYOUT  
SCALE: NOT TO SCALE

**T-Mobile**

**CROWN CASTLE**

**POD**  
POWER OF DESIGN  
11490 BLUEGRASS PKWY  
LOUISVILLE, KY 40299  
502-437-5252

T-MOBILE SITE NUMBER:  
**DN04816A**

BU #: **858492**  
CROWN CASTLE SITE NAME:  
**ZOD\_ALLTEL\_CO04\_**  
**CANONCITY EAST**

3396 EAST UNITED STATES  
HIGHWAY 50  
CANON CITY, CO 81212

EXISTING 99'-0"  
MONOPOLE

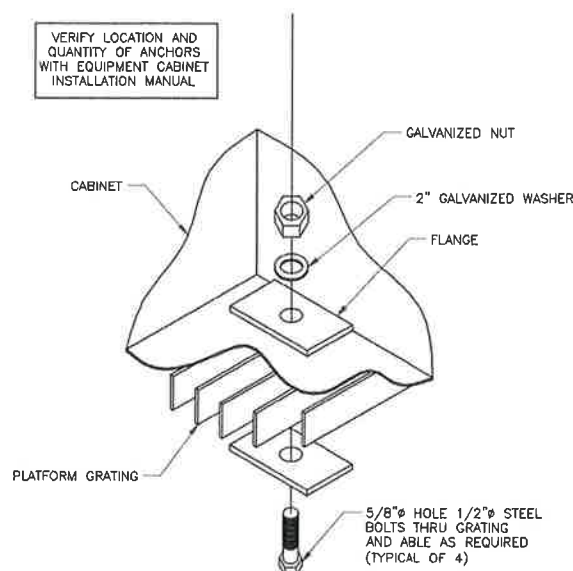
**ISSUED FOR:**

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0	1/29/2025	AS	CONSTRUCTION	AH



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SHEET NUMBER: **C-6.1** REVISION: **0**

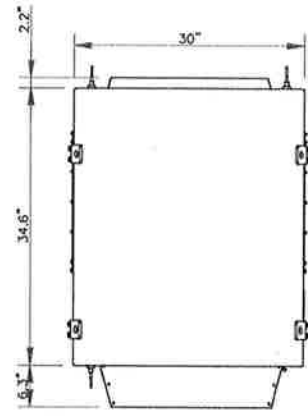


3 TYPICAL ANCHOR BOLT DETAIL  
SCALE: NOT TO SCALE

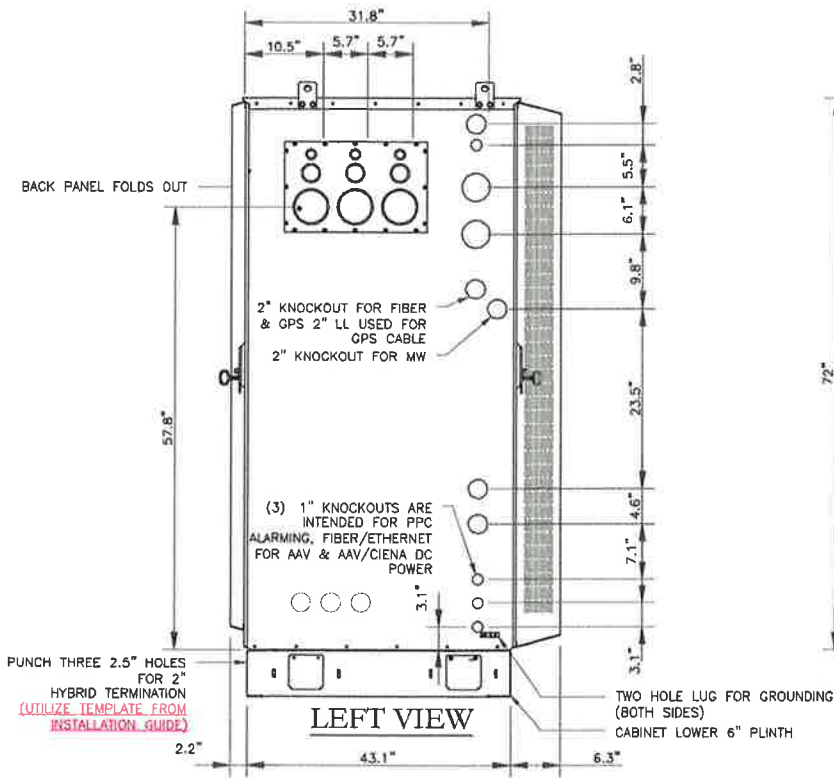
MANUFACTURER:	DELTA
MODEL:	HPL3.05 (HP-LARGE POWER CABINET)
DIMENSIONS (HxWxD):	72"x30"x34.6"
WEIGHT:	860 LBS (NO EQUIPMENT)

**NOTE:**

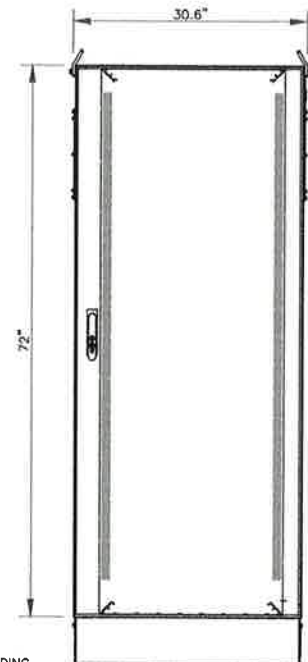
- CORRECT KNOCKOUT TOOL REQUIRED FOR PUNCHING KNOCKOUTS. DO NOT DRILL THROUGH KNOCKOUTS
- CONDUIT MUST BE PROPERLY SECURED TO PREVENT DAMAGE TO CABINETS AND OR CABLING



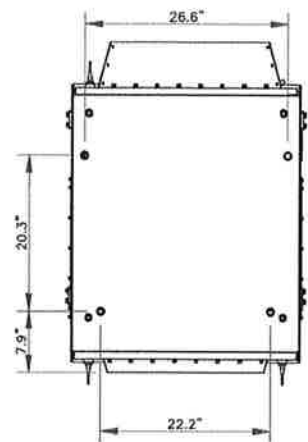
PLAN VIEW



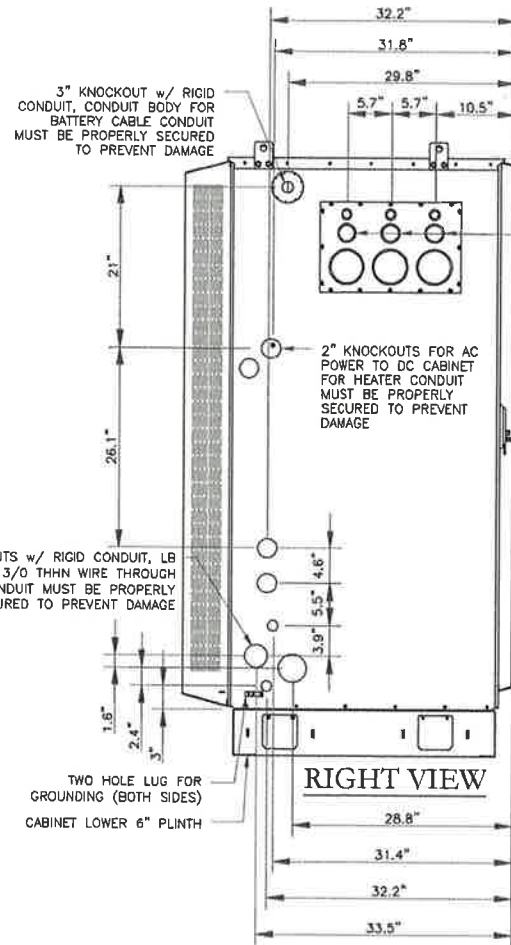
LEFT VIEW



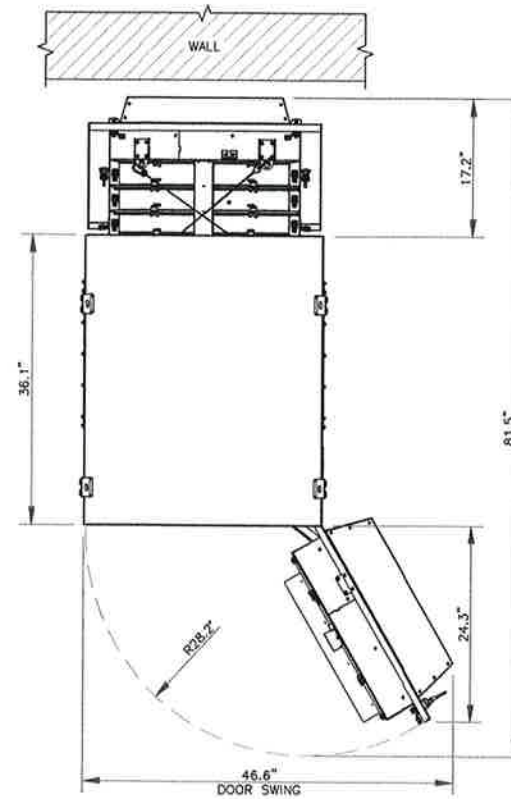
FRONT VIEW



BOLT DOWN PATTERN



RIGHT VIEW



**GROUNDING NOTE:**

CABINET GROUNDING TO USE A SINGLE, #2 BTCW CONDUCTOR, W/ 2-HOLE, 1" C-C, LONG BARREL, WINDOW LUG, IN 3/4" LFNC TO GROUND RING. PLINTH GROUNDING IS NOT REQUIRED.

1 DELTA - HPL3.05 SITE SUPPORT CABINET  
SCALE: NOT TO SCALE



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DN04816A

BU #: 858492  
CROWN CASTLE SITE NAME:  
ZOD\_ALLTEL\_CO04\_  
CANONCITY EAST

3396 EAST UNITED STATES  
HIGHWAY 50  
CANON CITY, CO 81212

EXISTING 99'-0"  
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES/QA
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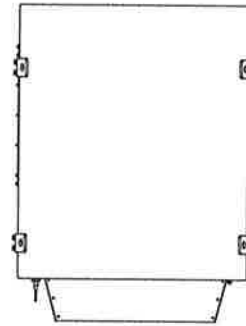


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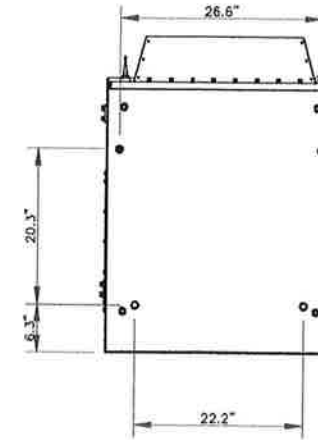
SHEET NUMBER: **C-6.2** REVISION: **0**

MANUFACTURER:	DELTA
MODEL:	LB3 BATTERY SUPPORT CABINET
DIMENSIONS (HxWxD):	72"x30"x35"
WEIGHT:	509 LBS
SKU #:	33932

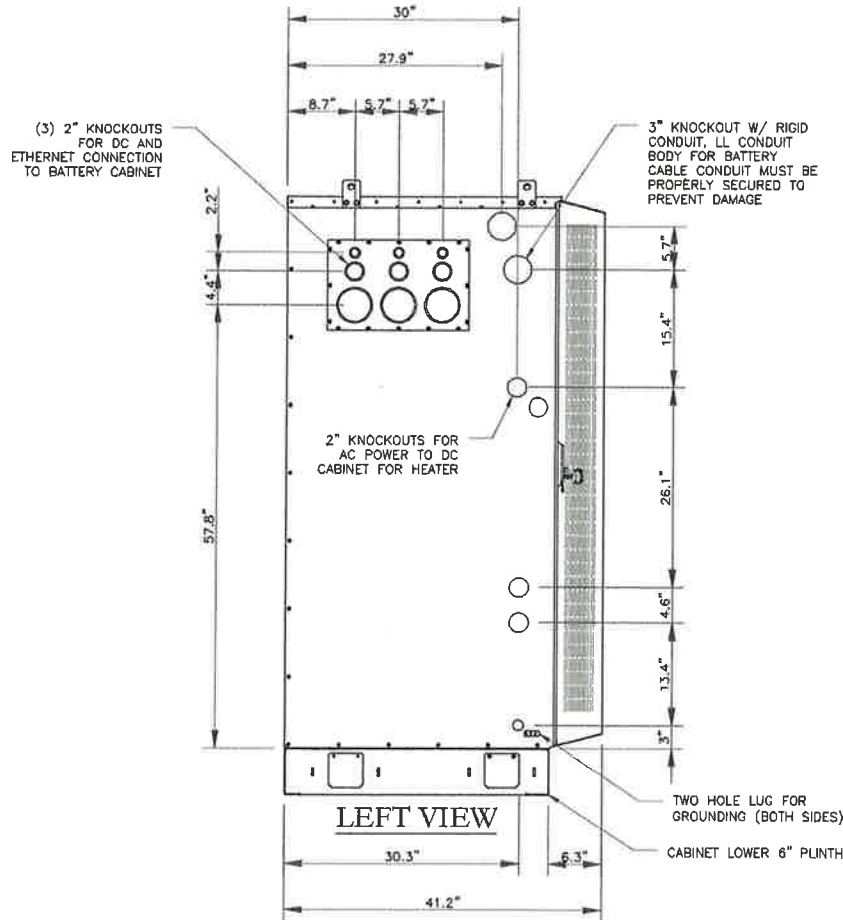
NOTE:  
 CORRECT KNOCKOUT TOOL REQUIRED FOR PUNCHING KNOCKOUTS.  
 DO NOT DRILL THROUGH KNOCKOUTS  
 CONDUIT MUST BE PROPERLY SECURED TO PREVENT DAMAGE TO CABINETS AND OR CABLING  
 GROUNDING NOTE:  
 CABINET GROUNDING TO USE A SINGLE, #2 BTCW CONDUCTOR, W/ 2-HOLE, 1" C-C, LONG BARREL, WINDOW LUG, IN 3/4" LFNC TO GROUND RING. PLINTH GROUNDING IS NOT REQUIRED.



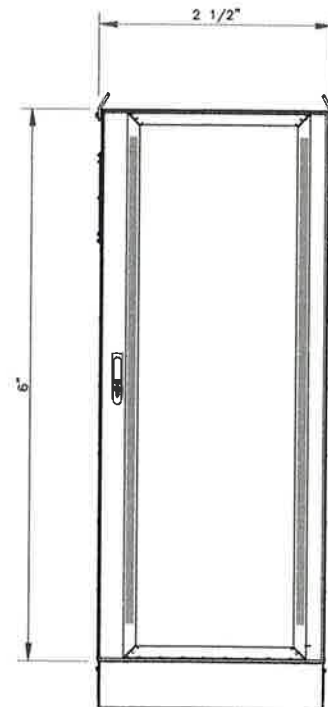
PLAN VIEW



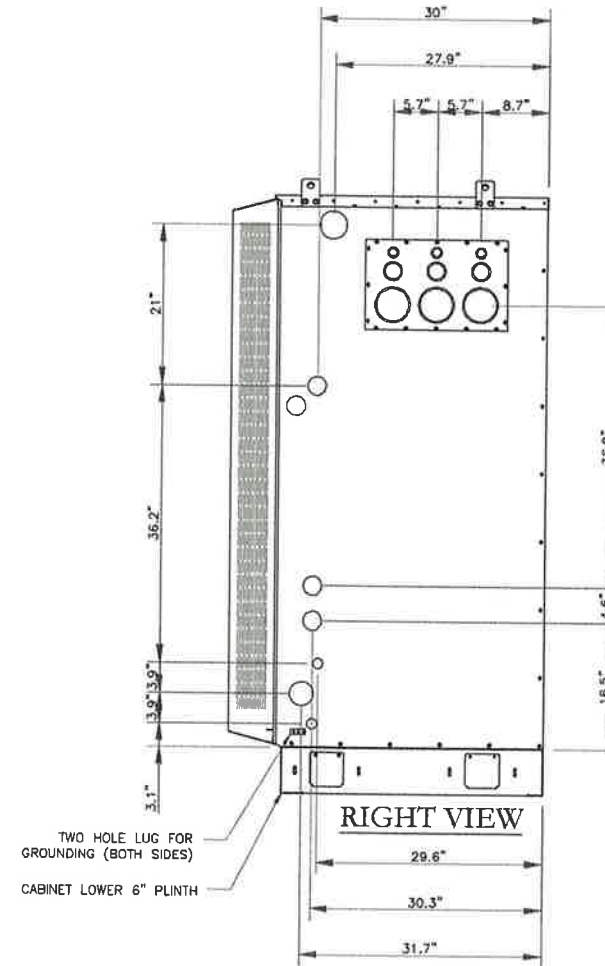
BOLT DOWN PATTERN



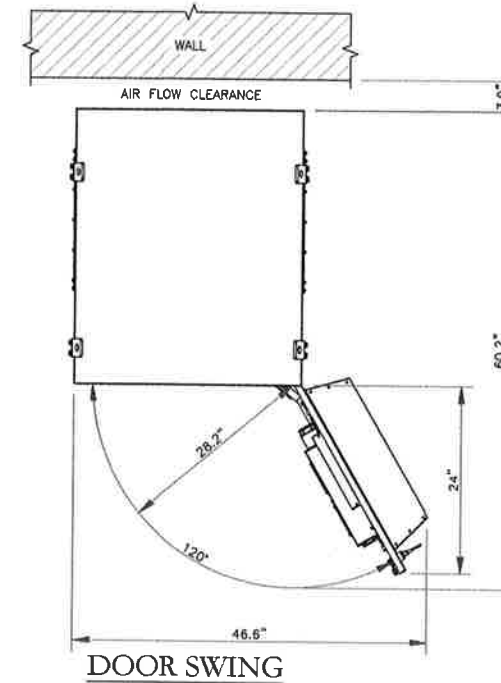
LEFT VIEW



FRONT VIEW



RIGHT VIEW



DOOR SWING

**T-Mobile**

**CROWN CASTLE**

**POD**  
 POWER OF DESIGN  
 11490 BLUEGRASS PKWY  
 LOUISVILLE, KY 40299  
 502-437-5252

T-MOBILE SITE NUMBER:  
**DN04816A**

BU #: **858492**  
 CROWN CASTLE SITE NAME:  
**ZOD\_ALLTEL\_CO04\_**  
**CANONCITY EAST**

3396 EAST UNITED STATES  
 HIGHWAY 50  
 CANON CITY, CO 81212

EXISTING 99'-0"  
 MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES/QA
0	1/29/2025	AS	CONSTRUCTION	AH



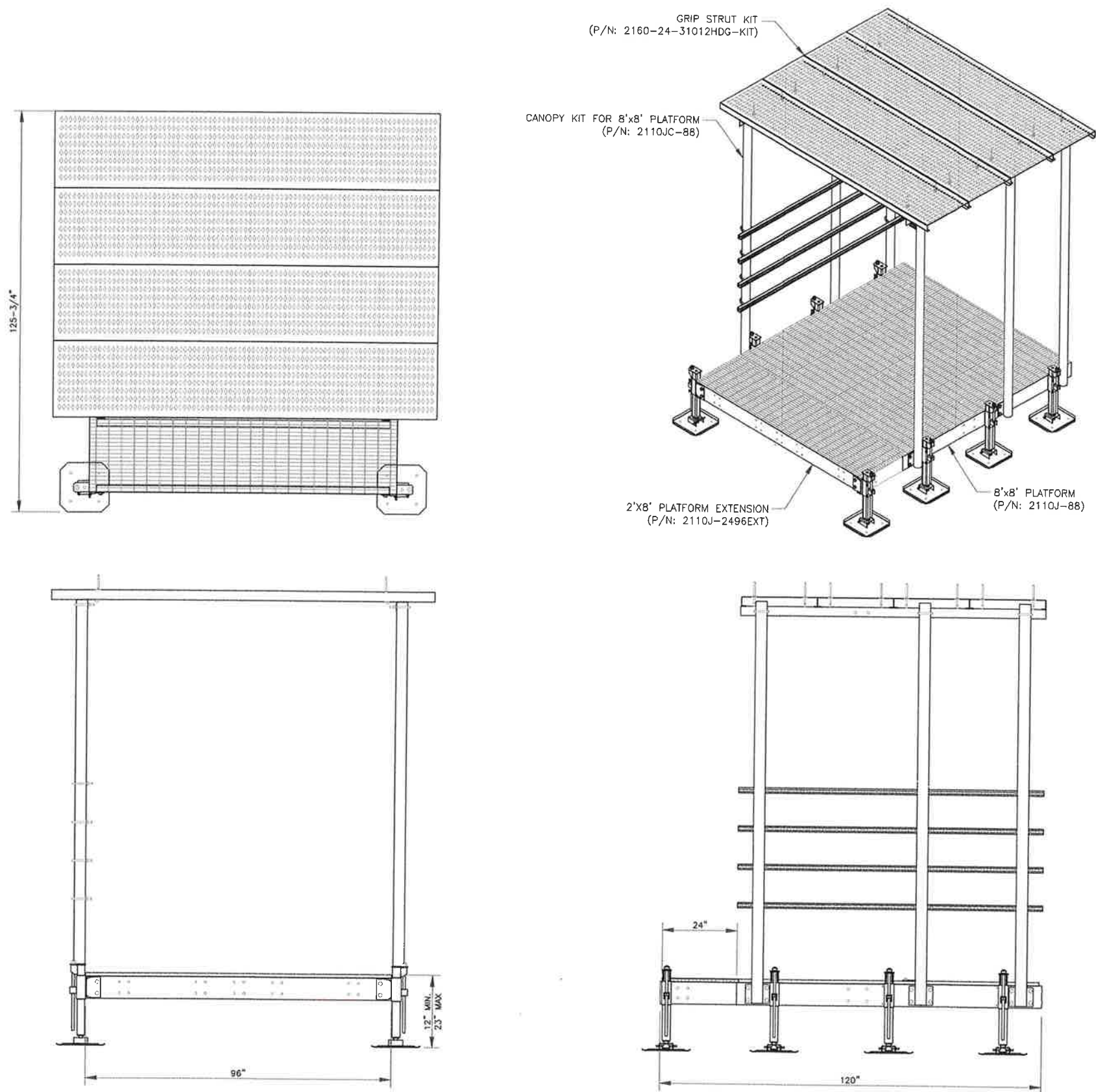
01/29/2025

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SHEET NUMBER:  
**C-6.3**

REVISION:  
**0**

1 DELTA - LB3 BATTERY CABINET  
 SCALE: NOT TO SCALE



1 8' x 8' PLATFORM WITH ICE CANOPY  
SCALE: NOT TO SCALE

**T Mobile**

**CROWN CASTLE**

**POD**  
POWER OF DESIGN  
11490 BLUEGRASS PKWY  
LOUISVILLE, KY 40299  
502-497-5252

T-MOBILE SITE NUMBER:  
**DN04816A**

BU #: 858492  
CROWN CASTLE SITE NAME:  
**ZOD\_ALLTEL\_CO04\_ CANONCITY EAST**

3396 EAST UNITED STATES  
HIGHWAY 50  
CANON CITY, CO 81212

EXISTING 99'-0"  
MONOPOLE

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	DES/QA
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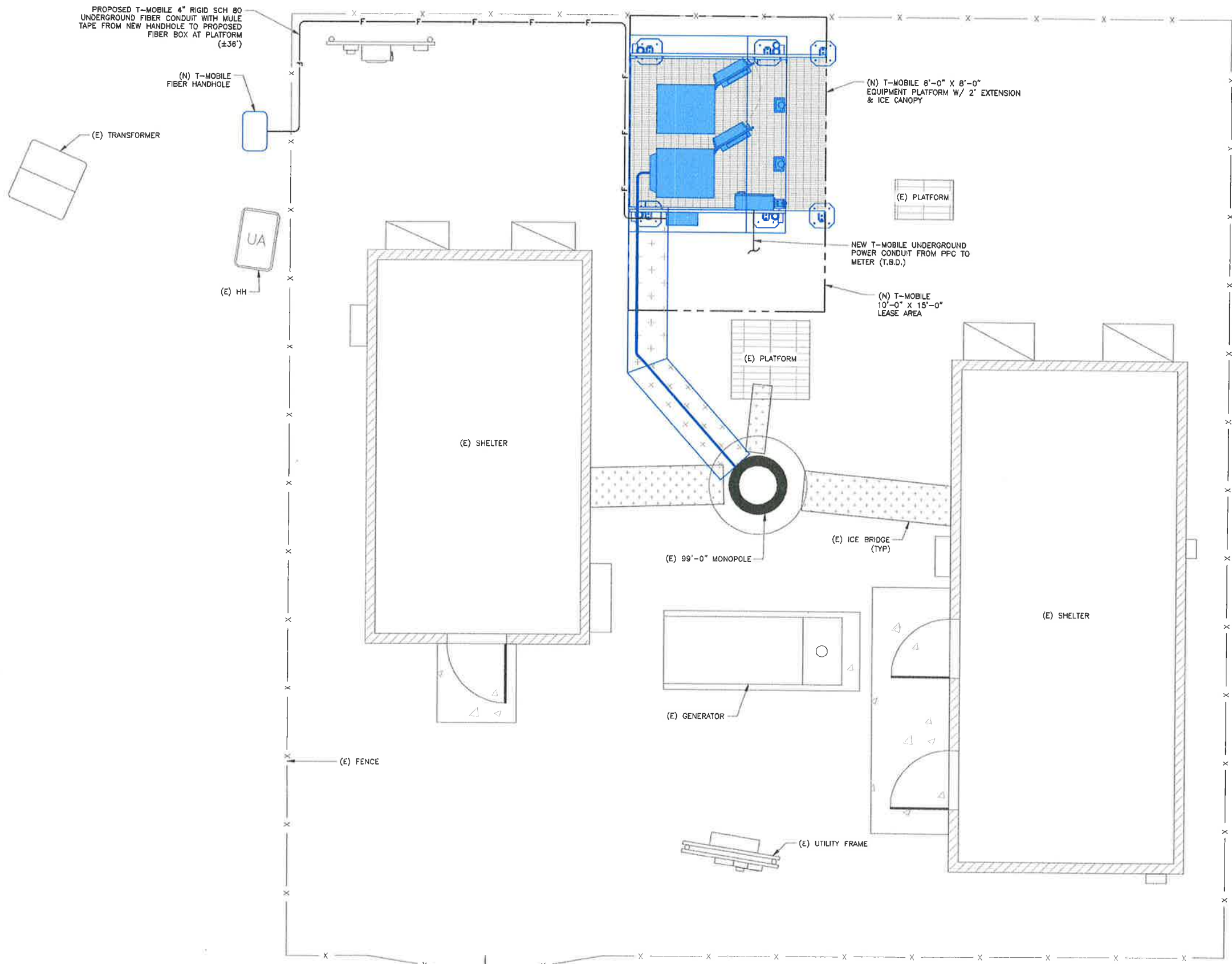


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SHEET NUMBER:  
**C-6.4**

REVISION:  
**0**

**NEW UTILITY SERVICE NOTE:**  
 NEW METER LOCATION TO BE DETERMINED BY THE UTILITY COMPANY. PENDING UTILITY COORDINATION FOR FINAL POWER DESIGN.



T-MOBILE SITE NUMBER:  
**DN04816A**

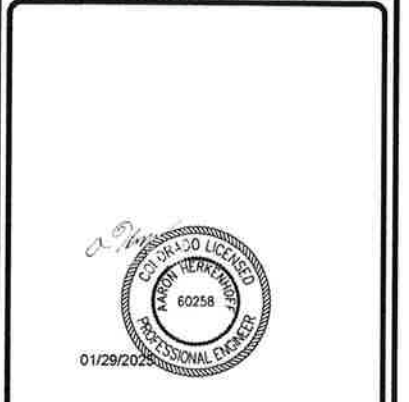
BU #: 858492  
 CROWN CASTLE SITE NAME:  
**ZOD\_ALLTEL\_CO04\_CANONCITY EAST**

3396 EAST UNITED STATES  
 HIGHWAY 50  
 CANON CITY, CO 81212

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**ISSUED FOR:**

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**1** CONDUIT ROUTING PLAN  
 SCALE: 3/8"=1'-0" (FULL SIZE)  
 3/16"=1'-0" (11x17)

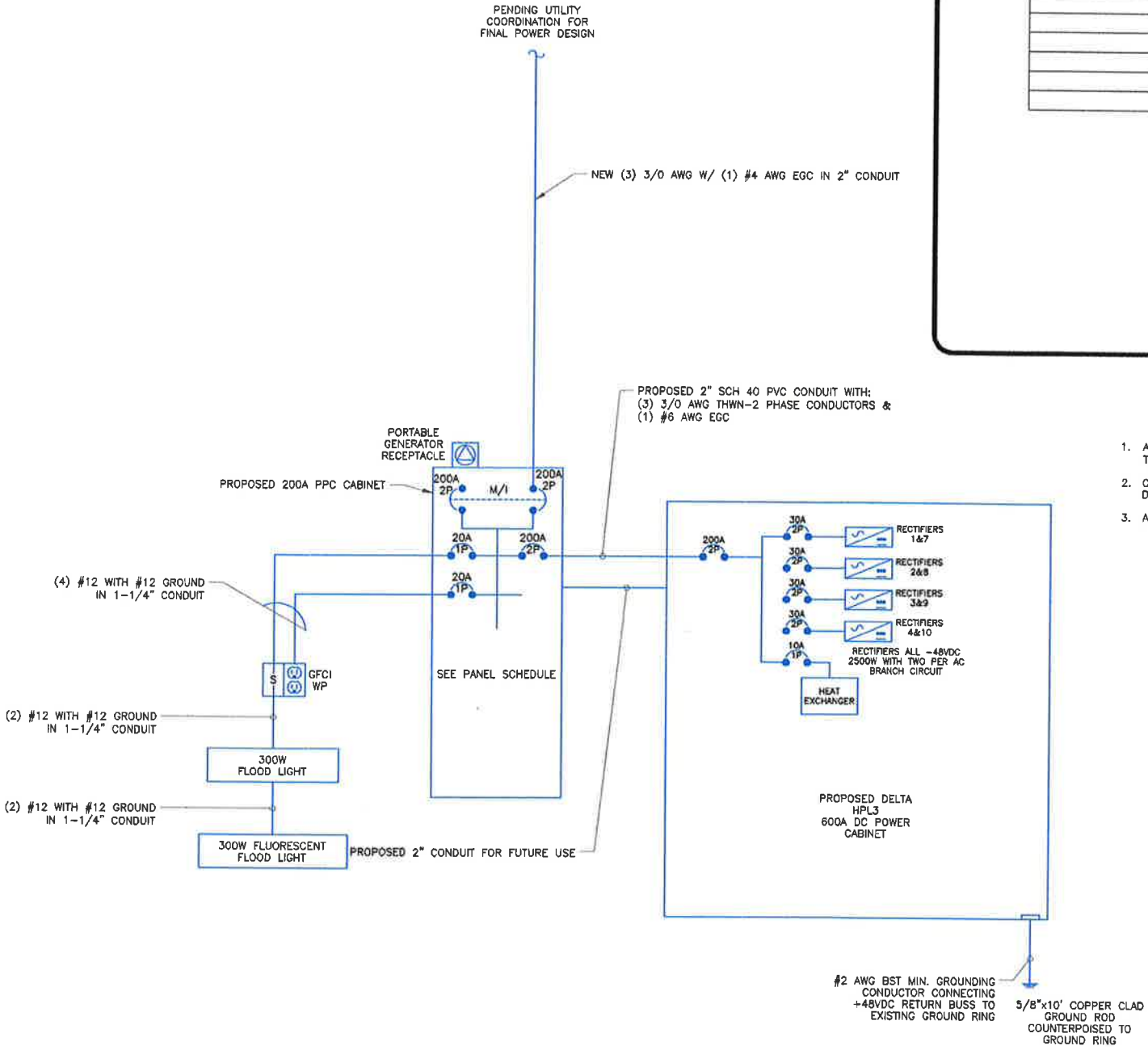


SHEET NUMBER: **E-1** REVISION: **0**

**NEW UTILITY SERVICE NOTE:**  
 NEW METER LOCATION TO BE DETERMINED BY THE UTILITY COMPANY. PENDING UTILITY COORDINATION FOR FINAL POWER DESIGN.

T-MOBILE PANEL SCHEDULE											
MAIN: 200 AMP MAIN BREAKER			VOLTAGE/PHASE: 120/240V, 1-PHASE, 3-WIRE				SHORT CIRCUIT CURRENT RATING: 65,000 AMPS				
MOUNTING: INSIDE PPC ENCLOSURE			ENCLOSURE: NEMA 3R				SURGE PROTECTION DEVICE: YES				
DESCRIPTION	LOAD (VA)	C or NC	C/B	CIR No.	LOAD (VA)		CIR No.	C/B	C or NC	LOAD (VA)	DESCRIPTION
					A-PHASE	B-PHASE					
SURGE PROTECTION DEVICE	0	NC	30	1	300		2	20	NC	300	LIGHTING
	0	NC		3		180	4	20	NC	180	GFCI RECEPTACLE
DELTA SSC CABINET	11000	C	200	5	11180		6	20	NC	180	TELCO CABINET RECEPTACLE
	10180	C		7		10180	8				
		C		15	0		10				
		C		17	0		12				
		C		19	0		14				
				15		0				16	
				17		0				18	
				19		0				20	
				21		0				22	
				23		0				24	
BASE LOAD (VA) =					11480	10380					
25% OF CONTINUOUS LOAD (VA) =					2750	2545					
TOTAL LOAD (VA) =					14230	12905					
TOTAL LOAD (A) =					119	108					

C = CONTINUOUS LOAD; NC = NON-CONTINUOUS LOAD  
 \*\* INDICATES NEW LOAD. ALL OTHER LOADS ARE EXISTING NEW BREAKER TO BE SAME TYPE AND HAVE SAME AIC RATING AS EXISTING CUSTOMER HAS NOT PROVIDED LOADS SHOWN ARE ESTIMATED VALUES



1 ONE-LINE DIAGRAM  
 SCALE: NOT TO SCALE

2 FINAL PANEL SCHEDULE  
 SCALE: NOT TO SCALE

1. ALL PROPOSED CONDUCTOR WIRE TO BE INSTALLED SHALL BE COPPER. ALL WIRE LARGER THAN #10 SHALL BE XHHW-2, THWN-2, THW-2, OR RHW-2 UNLESS NOTED OTHERWISE.
2. CONTRACTOR IS TO FIELD VERIFY ALL EXISTING ITEMS SHOWN ON THE ELECTRICAL ONE-LINE DIAGRAM AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
3. ALL GROUNDING AND BONDING PER THE NEC.



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 HIGHWAY 50  
 CANON CITY, CO 81212

EXISTING 99'-0"  
 MONOPOLE

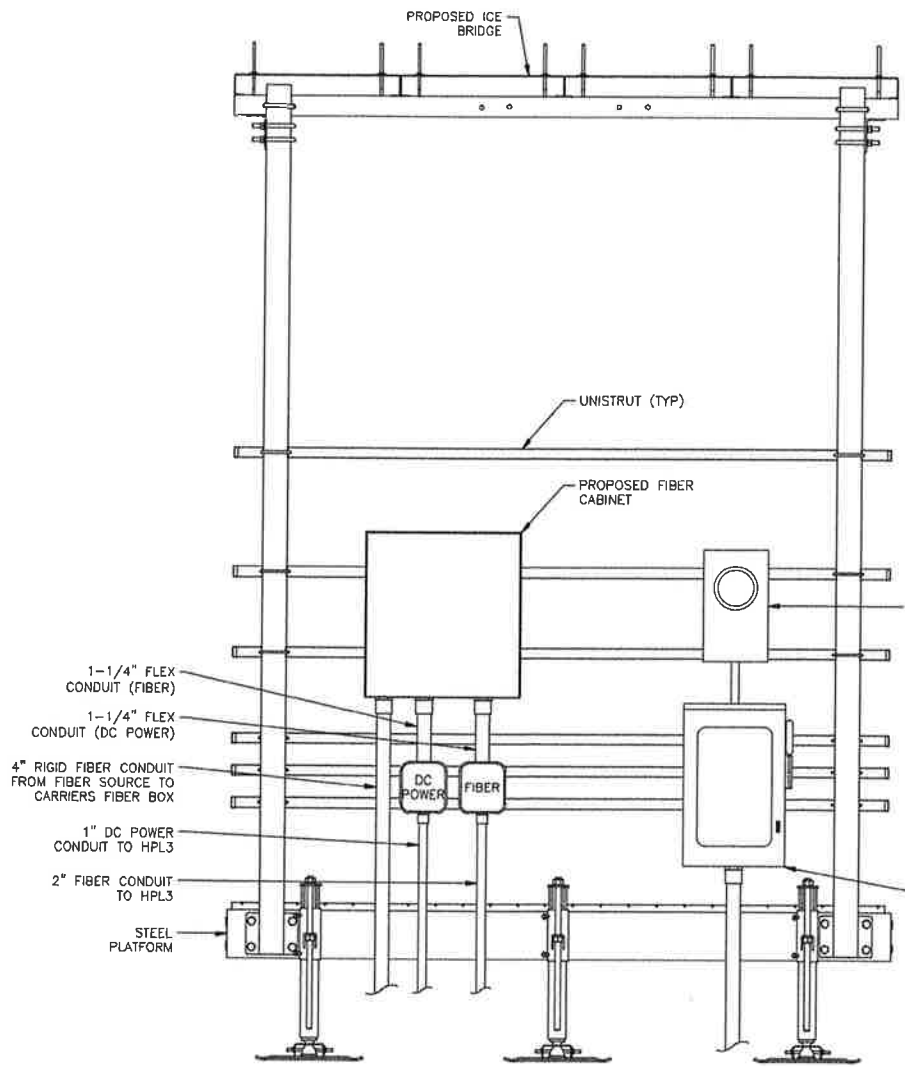
ISSUED FOR:				
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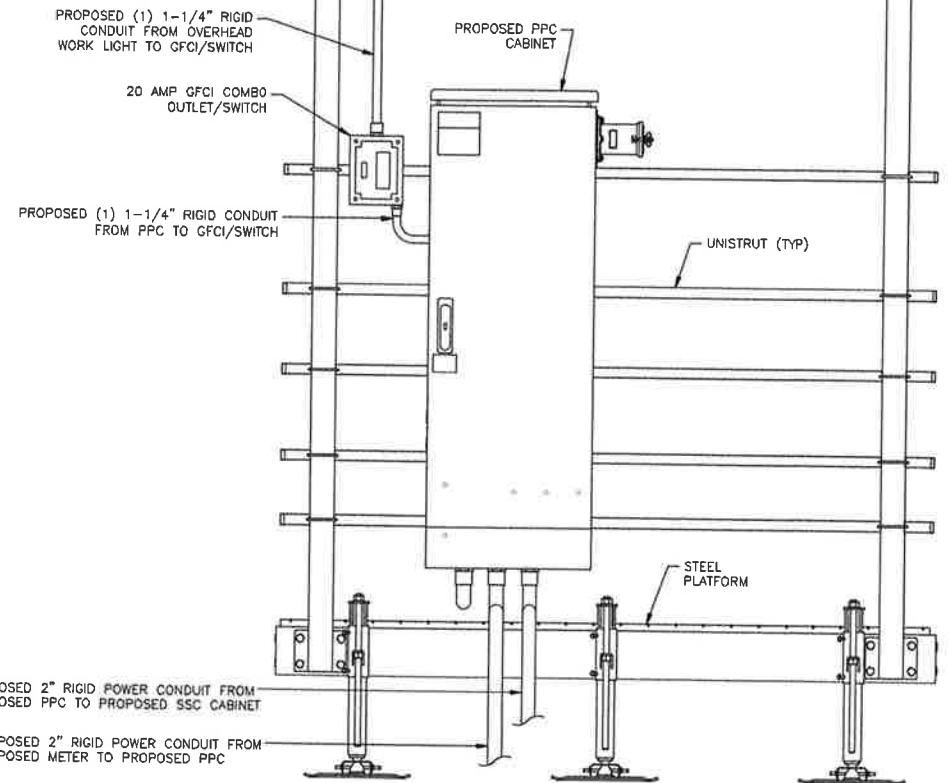
SHEET NUMBER: **E-2** REVISION: **0**





FRONT

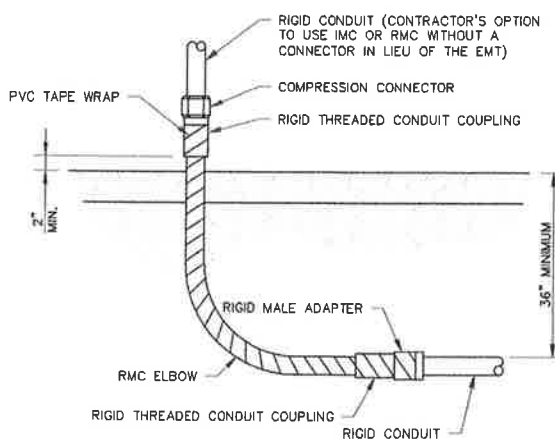
NOTE: CONTRACTOR TO PROVIDE & INSTALL (2) 300W, QUARTZ FLOOD LIGHT. MOUNT FLOOD LIGHT ON ROUND WEATHER-PROOF BOX WITH DIRECTIONAL SHIELDING SHROUD AND 3/4" HUBS. LIGHT SHIELDING SHALL BE FOCUSED ON EQUIPMENT CABINETS ONLY, AND SHALL ONLY BE TURNED ON WHILE EQUIPMENT TECHNICIANS VISIT SITE. BOLT FLOOD LIGHT ASSEMBLY TO OVERHEAD ICE BRIDGE. SEE SHEET C-2 FOR LOCATION



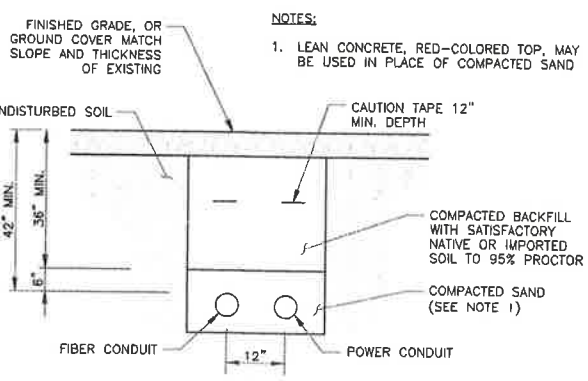
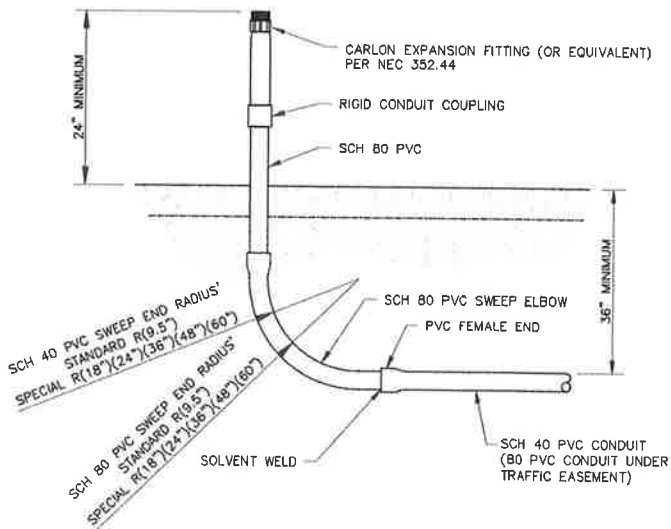
BACK

1 UTILITY FRAME DETAIL  
SCALE: NOT TO SCALE

**INSTALLER NOTES:**  
ALL METAL CONDUIT INSTALLED IN DIRECT CONTACT WITH THE EARTH SHALL BE CONSIDERED TO BE INSTALLED IN A SEVERELY CORROSIVE ENVIRONMENT AND IS REQUIRED TO HAVE SUPPLEMENTAL PROTECTION AGAINST CORROSION (NEC ARTICLE 342.10(B) & 344.10(B)(1)). THIS PROTECTION SHALL EITHER BE AN APPROVED MANUFACTURER INSTALLED PROTECTIVE COATING ON THE CONDUIT OR SHALL BE (2) LAYERS OF 10 MIL PVC PIPE WRAP TAPE INSTALLED USING OPPOSING SPIRAL WRAPS. ON VERTICAL PIPE THE OUTSIDE LAYER OF TAPE SHALL BE WRAPPED SO AS TO PROVIDE SHEDDING OF WATER (I.E. TAPE SHOULD WRAP IN AN UPWARD DIRECTION WITH LOWER WRAP BEING BENEATH THE WRAP ABOVE). SPIRAL WRAPS SHALL HAVE A MINIMUM OF 1/4" OVERLAP WITH THE PRECEDING TAPE WRAP. ANY OTHER METHODS OF CORROSION PROTECTION SHALL REQUIRE APPROVAL BY THE ENGINEER OF RECORD PRIOR TO BEING USED.



2 CONDUIT STUB UP DETAILS  
SCALE: NOT TO SCALE



3 TRENCH DETAIL & SDN NOTES  
SCALE: NOT TO SCALE

**NID:**  
RECOMMENDED MAXIMUM 10A BREAKER PER FEED: A DC-RATED CIRCUIT BREAKER OR FUSE WITH RECOMMENDED 10A (MAXIMUM) MUST BE PROVIDED (APPLIES TO BOTH -48VDC AND +24VDC INSTALLATIONS). A GANGED BREAKER THAT SIMULTANEOUSLY DISCONNECTS BOTH SIDES OF THE SUPPLY LINE IS ALSO ACCEPTABLE.  
POWER QTY 2 (1-A POWER & 1-B POWER)  
GROUNDING HAS M4 RING LUG  
MINIMUM #18 WIRE (GREEN, OR GREEN/YELLOW). CABLES THAT MEET LOCAL ELECTRICAL CODE REQUIREMENTS MUST BE USED. CIRCUIT INTERFACE TO BE COPPER SFP.  
**RACK UNITS:**  
• RACK UNITS 2 RU OF EQUIPMENT UTILIZED, AT LEAST 4 RU TOTAL PREFERRED.  
• NID PLATFORM: ALU 7705 IS 1RU  
• OSP FIBER PANEL: SDN ON NET 1 RU CLARIFIED  
• OSP FIBER PANEL: OFFNET FOR OWNER MEMBERS & 3RD PARTY MEMBERS MAY VARY. TYPICAL 1 RU.



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**CANONCITY EAST**

3396 EAST UNITED STATES  
HIGHWAY 50  
CANON CITY, CO 81212

EXISTING 99'-0"  
MONOPOLE

**ISSUED FOR:**

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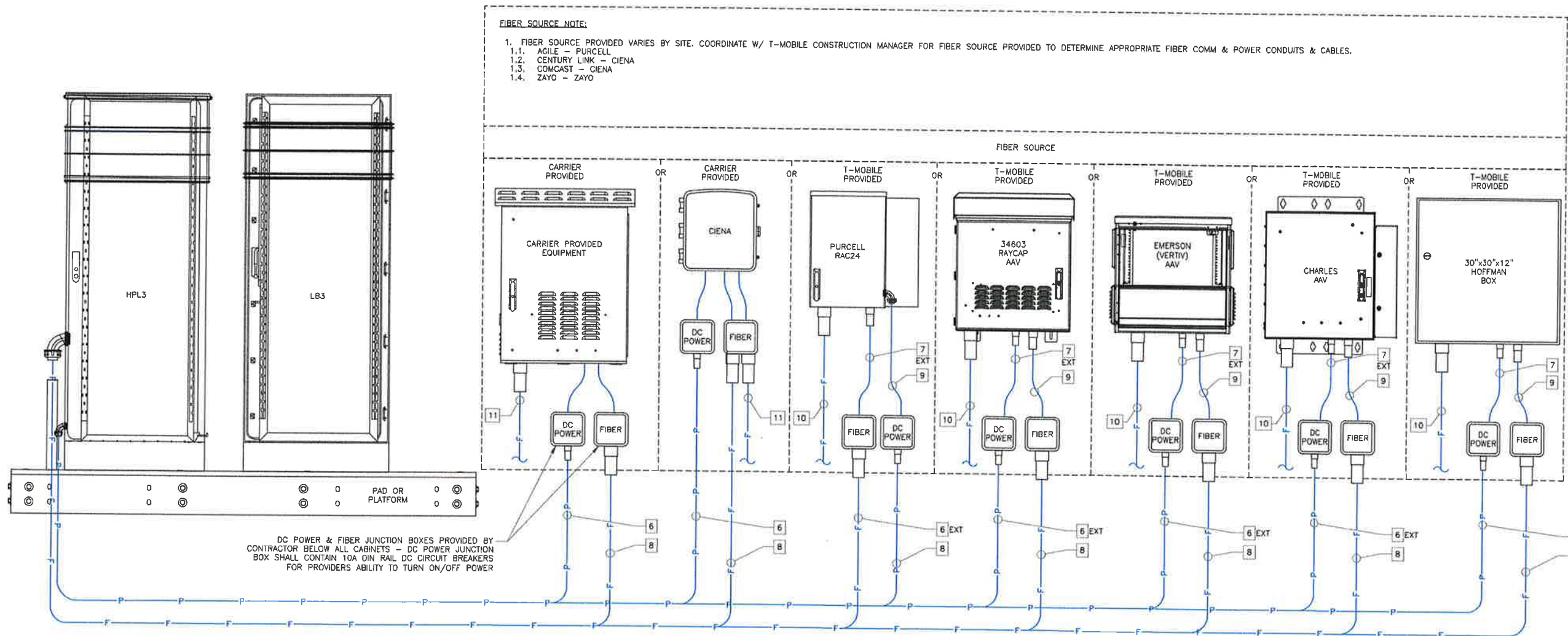


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SHEET NUMBER: **E-3** REVISION: **0**

TYPE	TAG	FROM	TO	CONDUIT SIZE	SERVICE TYPE	CB LABEL	CB SIZE	CB STATUS	WIRE TYPE	# OF SETS	# OF HOTS	HOT SIZE	CONDUCTOR COLOR	COMMENTS
DC POWER	6	HPL3	DC POWER JB	1"	DC	AAV FEED A	10A @ HPL3	ON	RRH	1	2	12 AWG	BLUE, BLACK	FEED A - CARRIER   PRIMARY DC POWER - LAND ON DC BREAKER IN DC POWER JUNCTION BOX
		HPL3	DC POWER JB		DC	AAV FEED B	10A @ HPL3	ON	RRH	1	2	12 AWG	BLUE, BLACK	FEED B - CARRIER   SECONDARY DC POWER - LAND ON DC BREAKER IN DC POWER JUNCTION BOX
	6 EXT	HPL3	DC POWER JB	SHARED	DC	AAV FEED C	10A @ HPL3	ON	RRH	1	2	12 AWG	BLUE, BLACK	FEED C - ENVIRONMENTAL CONTROLS - LAND ON DC BREAKER IN DC POWER JUNCTION BOX
	7	DC POWER JB	FIBER TRANSPORT CABINET	1"	DC	AAV FEED A	10A @ JB	ON	RRH	1	2	12 AWG	BLUE, BLACK	FEED A - CARRIER   PRIMARY DC POWER TO FUSE BLOCK
		DC POWER JB	FIBER TRANSPORT CABINET		DC	AAV FEED B	10A @ JB	OFF	RRH	1	2	12 AWG	BLUE, BLACK	FEED B - CARRIER   SECONDARY DC POWER - 3' LENGTH COILED IN TRANSPORT CABINET & WIRE NUTTED
	7 EXT	DC POWER JB	FIBER TRANSPORT CABINET	SHARED	DC	AAV FEED C	10A @ JB	ON	RRH	1	2	12 AWG	BLUE, BLACK	FEED C - ENVIRONMENTAL CONTROLS - CONNECT TO ENVIRONMENTAL CONTROL
COMM	8	FIBER PROVIDER	FIBER JB	2"	COMM	-	-	-	VERIFY W/ CM	1	-	-	-	FIBER AAV SOURCE (2) CAT6E (OLD) OR (1) 3 PAIR ARMORED FIBER (PROPOSED). CONTINUOUS RUN WITH 6' SLACK COIL IN FIBER JUNCTION BOX.
	9	FIBER JB	FIBER TRANSPORT CABINET	1.25"	COMM	-	-	-	VERIFY W/ CM	1	-	-	-	
COMM SERVICE	10	FIBER SOURCE	FIBER TRANSPORT CABINET	4"	COMM	-	-	-	VERIFY W/ CM	1	-	-	-	SOURCE FIBER REFER TO SHEET E-5 FOR REQUIREMENTS
	11	FIBER SOURCE	FIBER TRANSPORT CABINET	CARRIER PROVIDED	COMM	-	-	-	CARRIER PROVIDED	1	-	-	-	CARRIER PROVIDED SOURCE FIBER COORDINATE WITH PROVIDER FOR SITE SPECIFIC DETAILS

1 CONDUIT & CABLE CHART  
SCALE: NOT TO SCALE



2 CONDUIT SCHEMATIC  
SCALE: NOT TO SCALE



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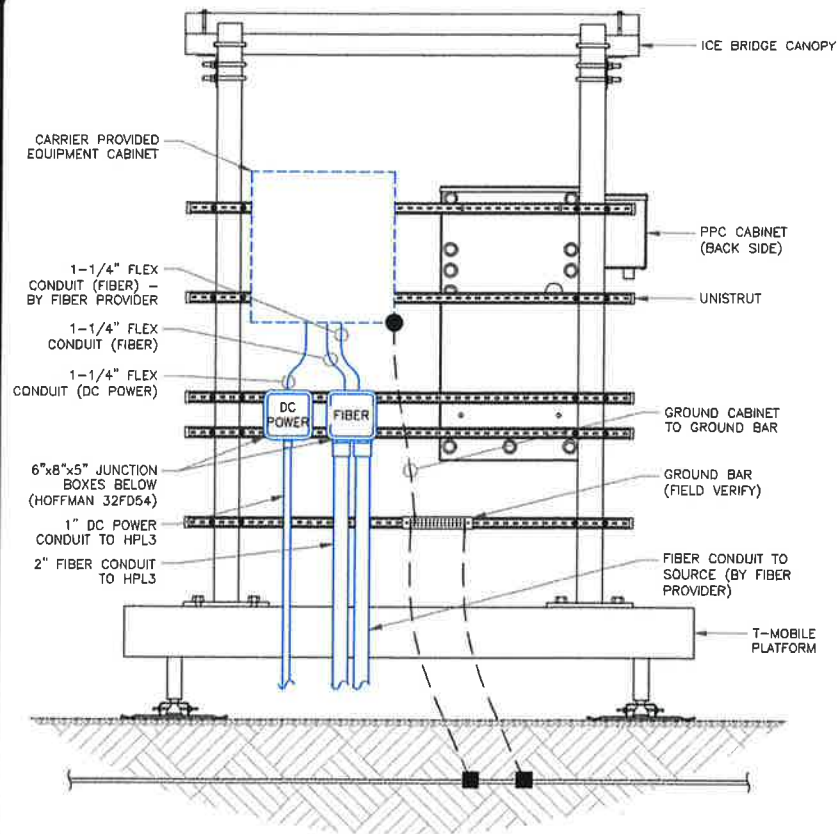
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SHEET NUMBER:

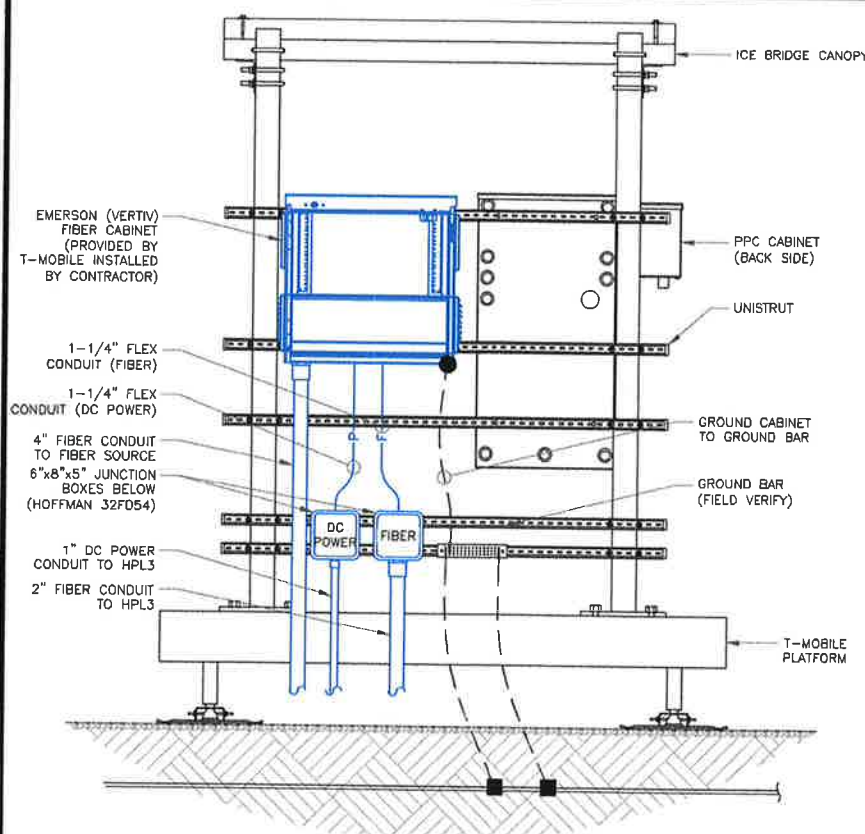
**E-4**

REVISION:

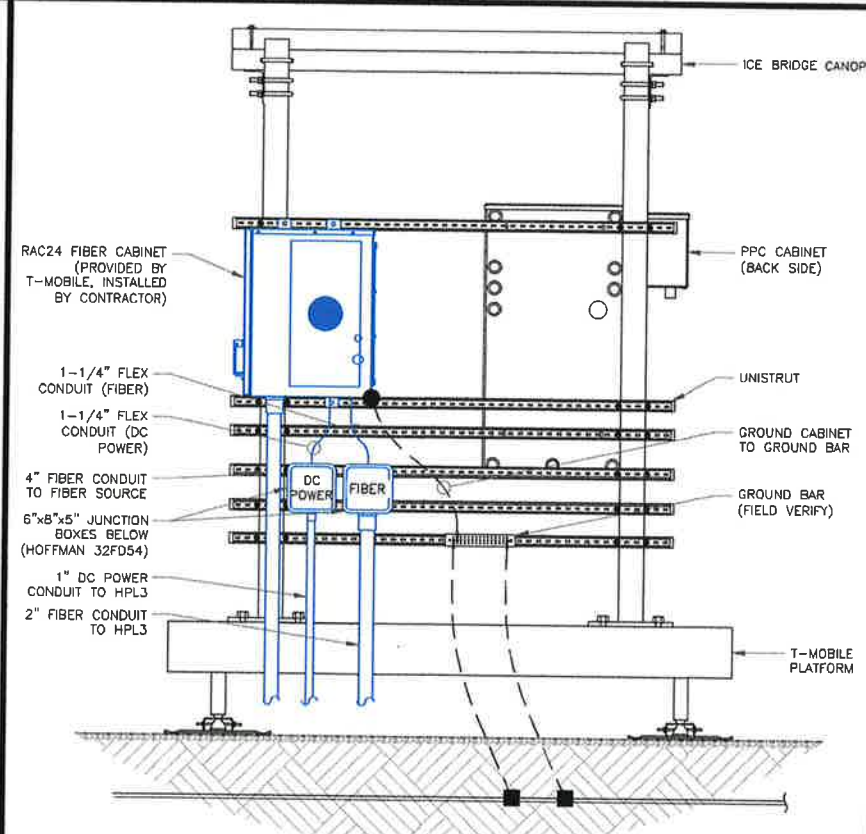
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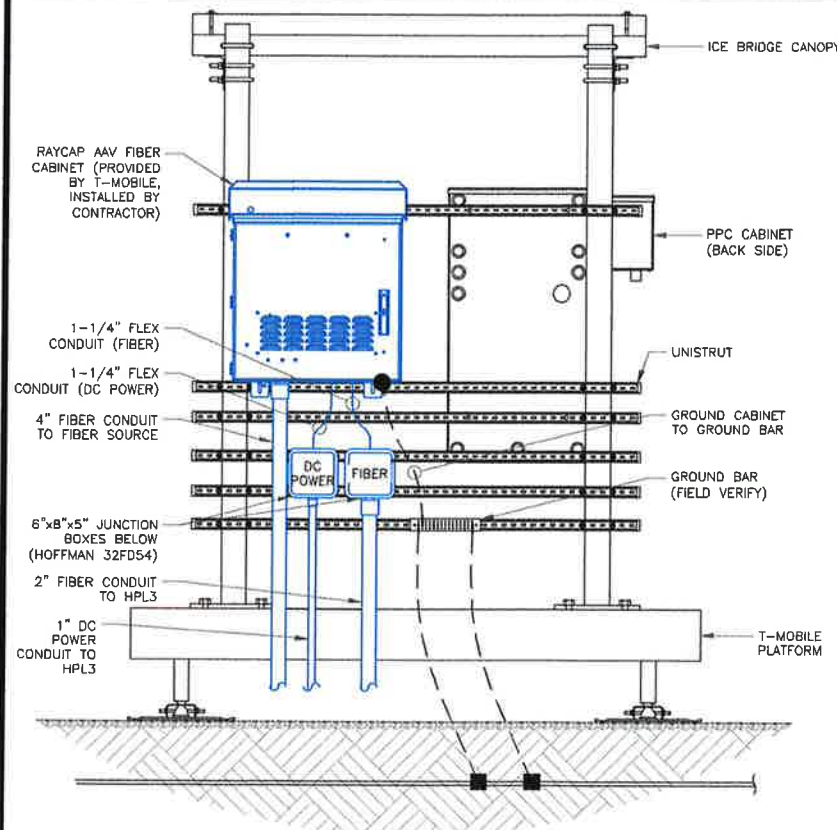
1 CARRIER PROVIDED H-FRAME MOUNTING  
SCALE: NOT TO SCALE



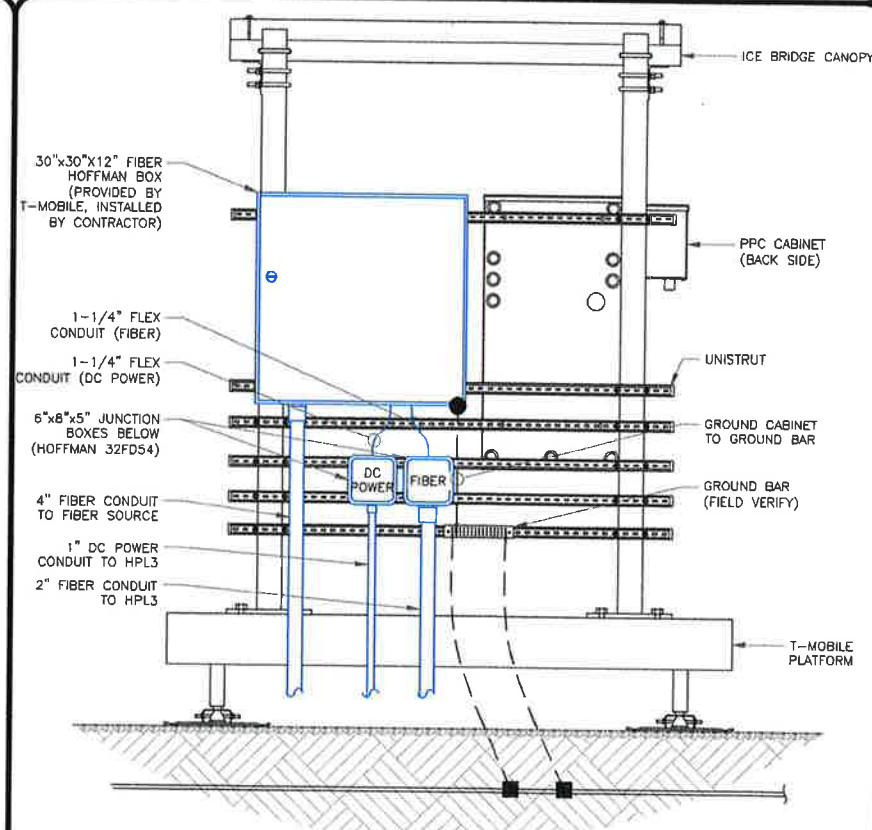
2 EMERSON (VERTIV) H-FRAME MOUNTING  
SCALE: NOT TO SCALE



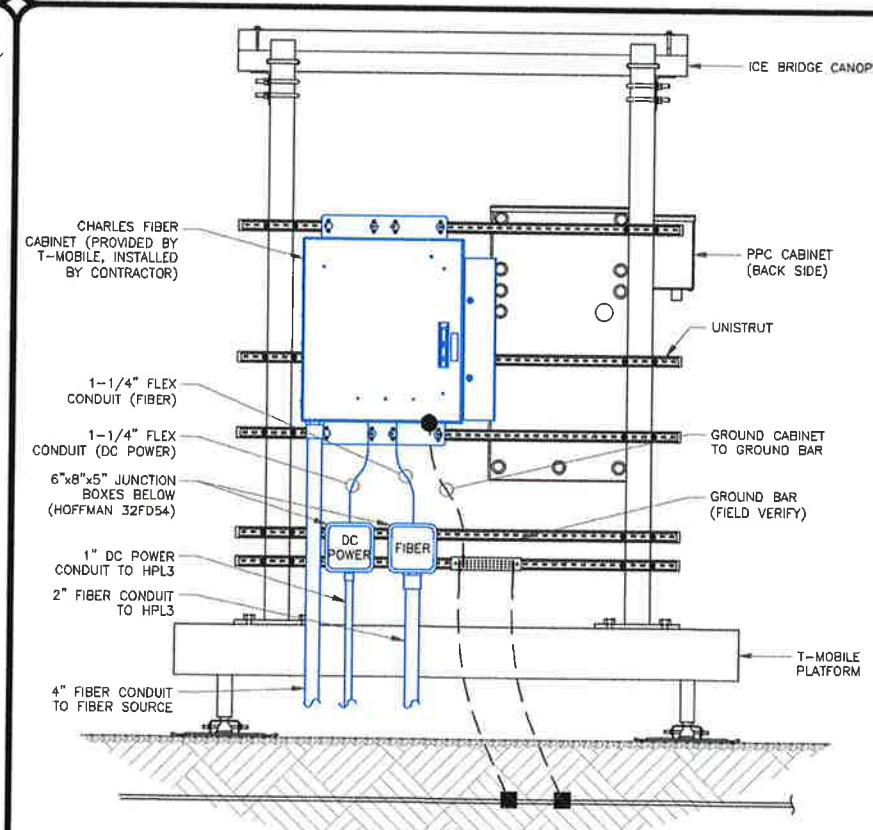
3 PURCELL RAC24 H-FRAME MOUNTING  
SCALE: NOT TO SCALE



4 RAYCAP 34603 AAV H-FRAME MOUNTING  
SCALE: NOT TO SCALE



5 HOFFMAN BOX H-FRAME MOUNTING  
SCALE: NOT TO SCALE



6 CHARLES H-FRAME MOUNTING  
SCALE: NOT TO SCALE

**T Mobile**

**CROWN CASTLE**

**POD**  
POWER OF DESIGN  
11490 BLUEGRASS PKWY  
LOUISVILLE, KY 40299  
502-437-5252

T-MOBILE SITE NUMBER:  
**DN04816A**  
  
BU #: 858492  
CROWN CASTLE SITE NAME:  
**ZOD\_ALLTEL\_CO04\_**  
**CANONCITY EAST**

3396 EAST UNITED STATES  
HIGHWAY 50  
CANON CITY, CO 81212

EXISTING 99'-0"  
MONOPOLE

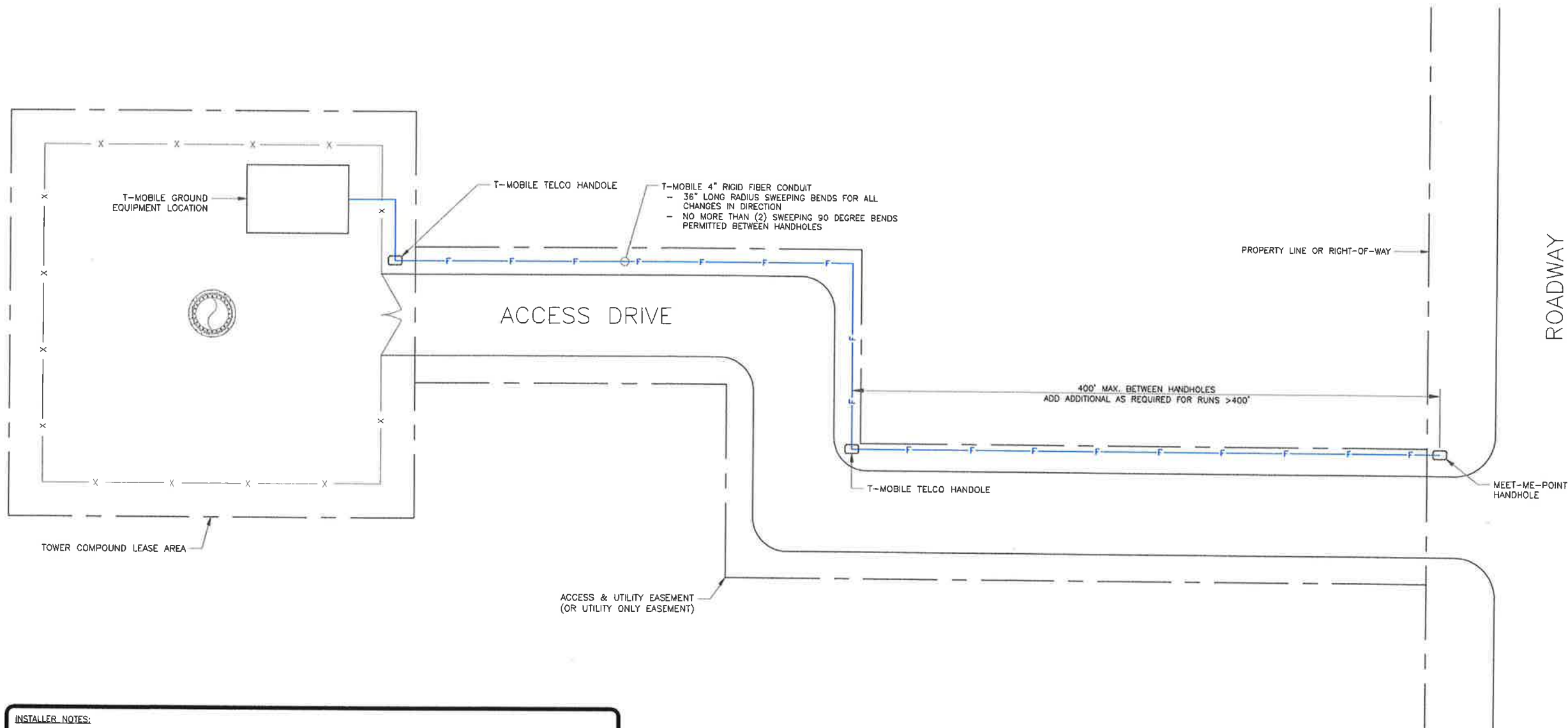
**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	DES/QA
0	1/29/2025	AS	CONSTRUCTION	AH



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SHEET NUMBER: **E-5** REVISION: **0**



**T-Mobile**

**CROWN CASTLE**

**POD**  
POWER OF DESIGN  
11490 BLUEGRASS PKWY  
LOUISVILLE, KY 40299  
502-497-5252

T-MOBILE SITE NUMBER:  
**DN04816A**

BU #: **858492**

CROWN CASTLE SITE NAME:  
**ZOD\_ALLTEL\_CO04\_**  
**CANONCITY EAST**

3396 EAST UNITED STATES  
HIGHWAY 50  
CANON CITY, CO 81212

EXISTING 99'-0"  
MONOPOLE

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	DES/QA
0	1/29/2025	AS	CONSTRUCTION	AH

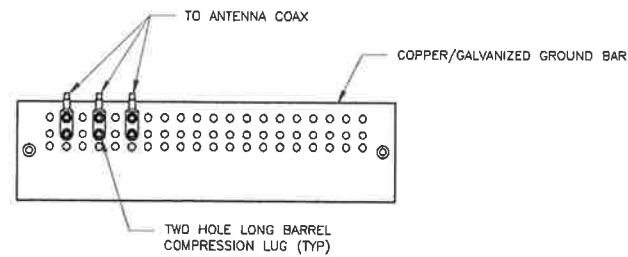


IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

- INSTALLER NOTES:**
1. ALL CONDUIT SHALL BE INSTALLED WITH 36" LONG-RADIUS SWEEPING BENDS FOR ALL CHANGE IN DIRECTIONS, AS REQUIRED. NO MORE THAN TWO (2) SWEEPING 90 DEGREE BENDS ARE PERMITTED BETWEEN HAND HOLES. CONTRACTOR SHALL SUPPLY AND INSTALL ADDITIONAL HAND HOLES, AS REQUIRED.
  2. CONDUIT RUNS BETWEEN HAND HOLES SHALL BE LIMITED TO 400 FEET MAXIMUM. CONTRACTOR SHALL SUPPLY AND INSTALL ADDITIONAL HAND HOLES, AS REQUIRED, FOR LONG RUNS.
  3. ALL CONDUITS SHALL BE SUPPLIED WITH TRACER WIRE FOR FUTURE UTILITY LOCATES, TO HELP PREVENT DAMAGE FROM FUTURE UNDERGROUND WORK.
  4. HAND HOLES SHALL BE A MINIMUM TIER 15 RATED. NOTHING LESS THAN TIER 15 WILL BE ACCEPTABLE IN ANY SITUATION. WHEN SITE SPECIFIC ROUTE REQUIRES, HAND HOLES SHALL BE PROVIDED OF APPROPRIATE HIGHER TIER RATING (TIER 22 OR AASHTO H-20). REFER TO T-5 FOR FURTHER EXPLANATION FOR APPROPRIATE TIER RATING LOCATIONS.
  5. ALL T-MOBILE OWNED HAND HOLES SHALL BE MARKED "TMO" ON INTERIOR INSIDE LID FOR IDENTIFICATION.
  6. CONDUIT STUB ENTRY INTO HAND HOLE SHALL ONLY BE PERMITTED VIA BOTTOM OF HAND HOLE. NO SIDE ENTRY/EXIT IS PERMITTED.
  7. CABLE RACK SHALL BE PROVIDED IN HAND HOLE FOR FIBER CABLE SUPPORT. MAINTAIN CABLE MANUFACTURER SPECIFIED BEND RADIUS WITHIN HAND HOLE AND SUPPORT ON CABLE RACK WITHIN HAND HOLE TO PREVENT DAMAGE TO CABLE.
  8. CONTRACTOR SHALL PERFORM PUBLIC AND PRIVATE UTILITY LOCATES PRIOR TO ANY WORK. EXCAVATIONS NEAR OR WITHIN THE TOLERANCE ZONE OF MARKED UTILITIES SHALL BE CONDUCTED PER STATE RULES & REGULATIONS. INDIANA STATE LAW MANDATES A TWO (2) FOOT TOLERANCE ZONE ON EITHER SIDE OF THE MARKED UTILITIES. EXCAVATIONS NEAR OR WITHIN THE TOLERANCE ZONE SHALL BE PERFORMED INDIANA CODE (IC 8-1-26).
  9. CONTRACTOR SHALL COORDINATE WITH T-MOBILE CONSTRUCTION MANAGER FOR SITE SPECIFIC SURVEY OR LEGAL DESCRIPTION OF EASEMENTS, PRIOR TO START OF CONSTRUCTION. UPON RECEIPT CONTRACTOR SHALL COORDINATE ANY NECESSARY STAKING NEEDED FOR UTILITY ROUTE. CONTRACTOR SHALL ADJUST SERVICE ROUTE, AS REQUIRED, BASED ON SURVEY AND/OR EASEMENT INFORMATION TO ENSURE PROPOSED SERVICE ROUTE (CONDUIT & HANDHOLE) IS WITHIN SPECIFIED AVAILABLE UTILITY EASEMENTS.

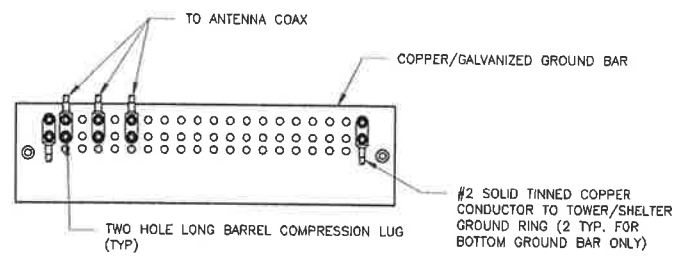
1 TYPICAL CONDUIT PATH SCHEMATIC  
SCALE: NOT TO SCALE

SHEET NUMBER: **E-6** REVISION: **0**



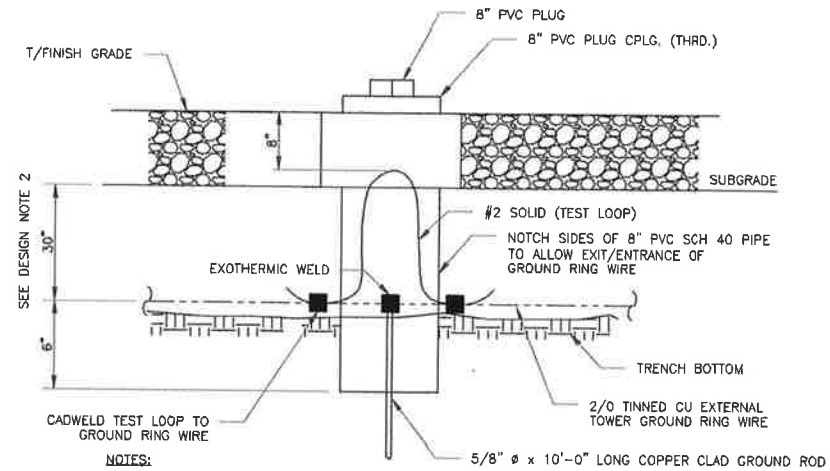
- NOTES:
1. DOUBLING UP "OR STACKING" OF CONNECTIONS IS NOT PERMITTED.
  2. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
  3. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO ANTENNA MOUNT STEEL.

1 ANTENNA SECTOR GROUND BAR DETAIL  
SCALE: NOT TO SCALE



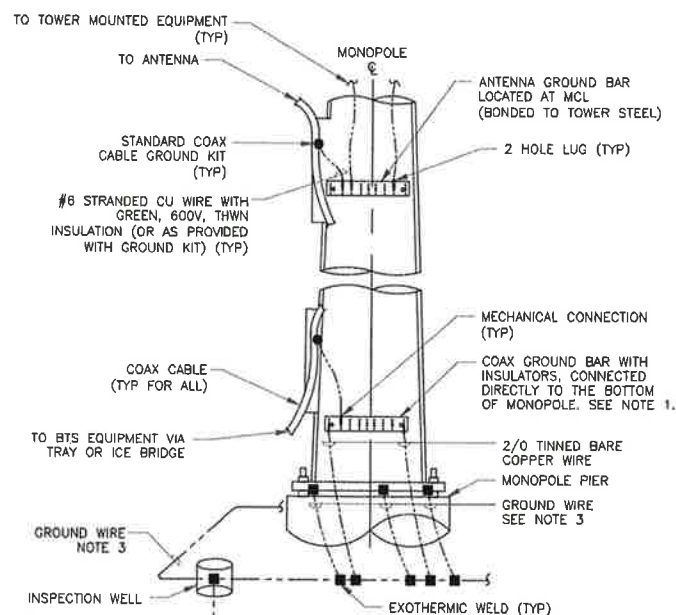
- NOTES:
1. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
  2. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL (TOWER ONLY).
  3. GROUND BAR SHALL BE ISOLATED FROM BUILDING OR SHELTER.

2 TOWER/SHELTER GROUND BAR DETAIL  
SCALE: NOT TO SCALE



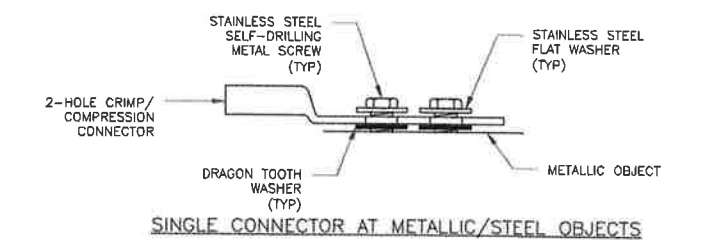
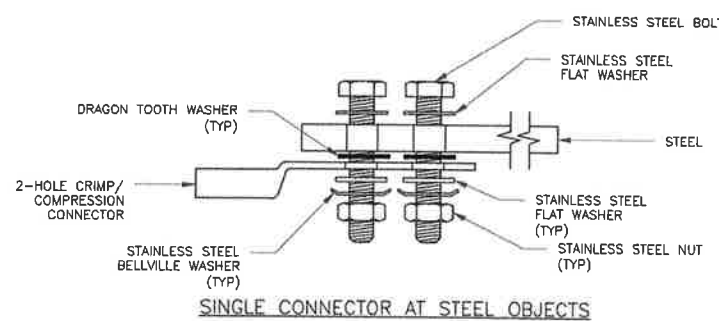
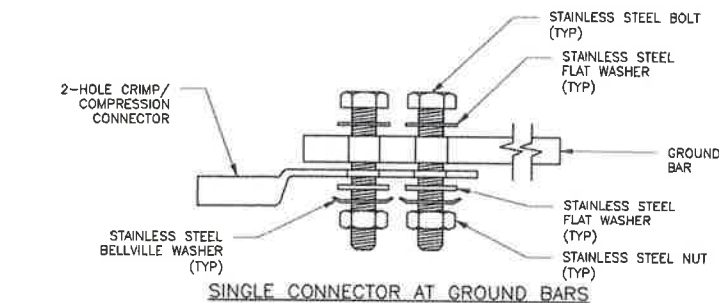
- NOTES:
1. GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL.
  2. GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)

3 INSPECTION WELL DETAIL  
SCALE: NOT TO SCALE

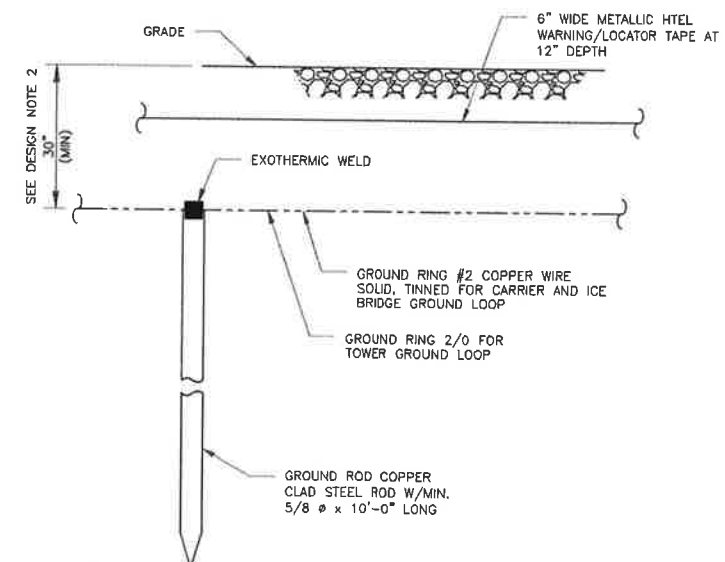


- NOTES:
1. NUMBER OF GROUNDING BARS MAY VARY DEPENDING ON THE TYPE OF TOWER, ANTENNA LOCATIONS AND CONNECTION ORIENTATION. COAXIAL CABLES EXCEEDING 200 FEET ON THE TOWER SHALL HAVE GROUND KITS AT THE MIDPOINT. PROVIDE AS REQUIRED.
  2. ONLY MECHANICAL CONNECTIONS ARE ALLOWED TO BE MADE TO CROWN CASTLE USA INC. TOWERS. ALL MECHANICAL CONNECTIONS SHALL BE TREATED WITH AN ANTI-OXIDANT COATING.
  3. ALL TOWER GROUNDING SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF THE RECOGNIZED EDITION OF ANSI/TIA 222 AND NFPA 780.

4 TYPICAL ANTENNA CABLE GROUNDING  
SCALE: NOT TO SCALE



5 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS  
SCALE: NOT TO SCALE



- NOTES:
1. GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL.
  2. GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)

6 GROUND ROD DETAIL  
SCALE: NOT TO SCALE

**T-Mobile**

**CROWN CASTLE**

**POD**  
POWER OF DESIGN  
11490 BLUEGRASS PKWY  
LOUISVILLE, KY 40299  
502-437-5252

T-MOBILE SITE NUMBER:  
**DN04816A**

BU #: 858492  
CROWN CASTLE SITE NAME:  
**ZOD\_ALLTEL\_CO04\_ CANONCITY EAST**

3396 EAST UNITED STATES  
HIGHWAY 50  
CANON CITY, CO 81212

EXISTING 99'-0"  
MONOPOLE

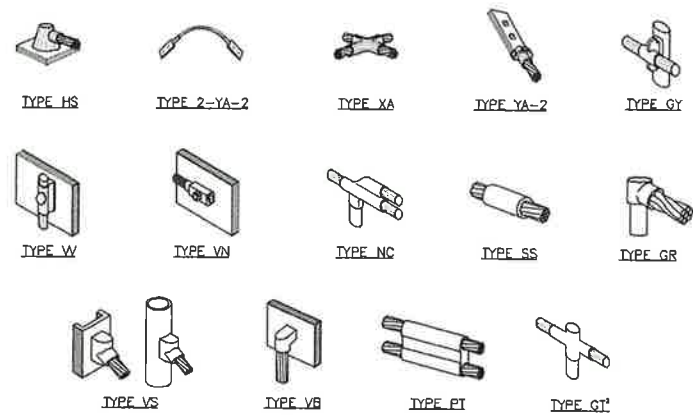
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	1/29/2025	AS	CONSTRUCTION	AH



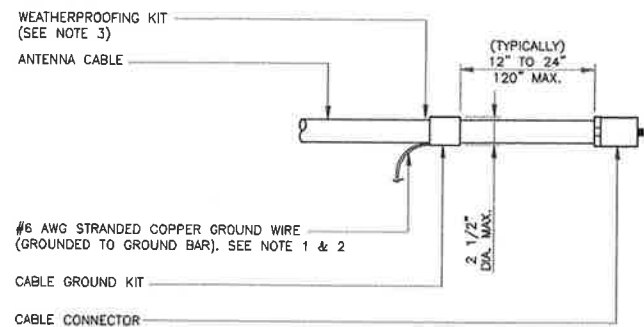
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SHEET NUMBER: **G-1** REVISION: **0**



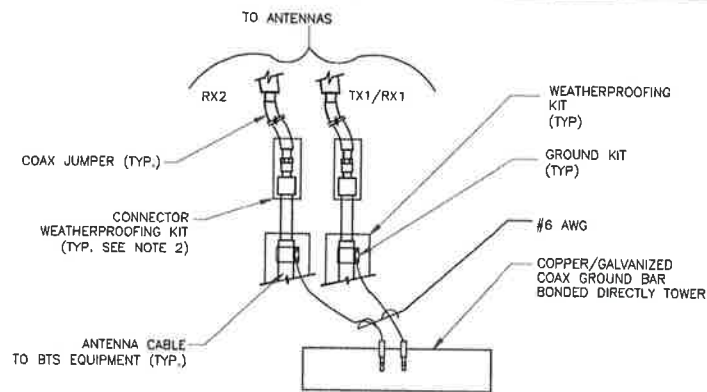
**NOTE:**  
 1. ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH CONSTRUCTION MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.  
 2. MOLD TYPE ONLY TO BE USED BELOW GRADE WHEN CONNECTING GROUND RING TO GROUND ROD.

**1 CADWELD GROUNDING CONNECTIONS**  
 SCALE: NOT TO SCALE



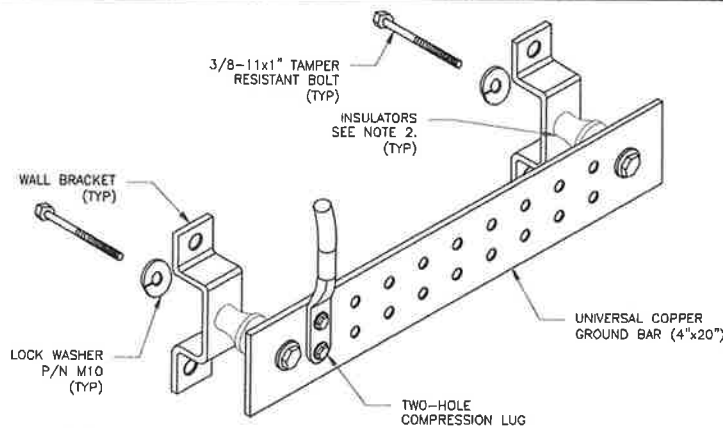
**NOTES:**  
 1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.  
 2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.  
 3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

**3 CABLE GROUND KIT CONNECTION**  
 SCALE: NOT TO SCALE



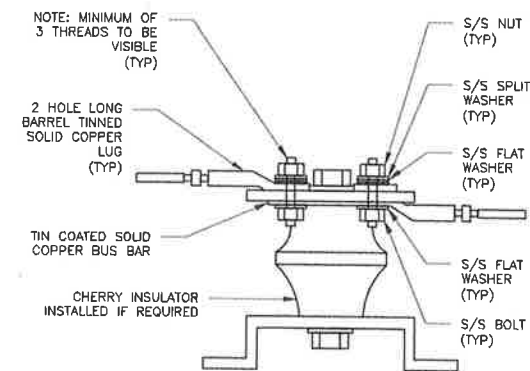
**NOTES:**  
 1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.  
 2. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.

**4 GROUND CABLE CONNECTION**  
 SCALE: NOT TO SCALE



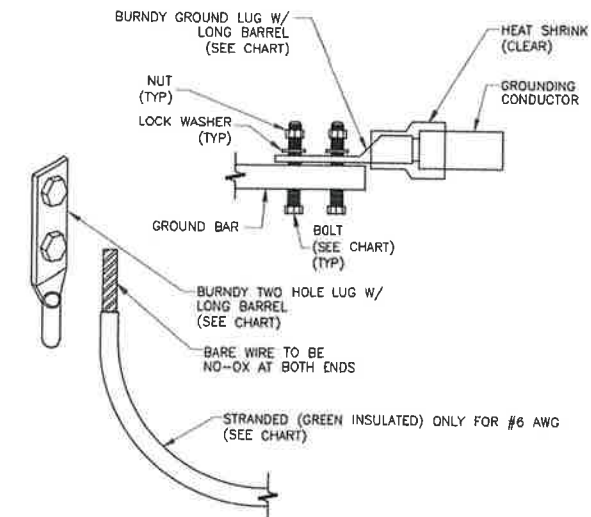
**NOTES:**  
 1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY OAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION. CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.  
 2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL. USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.

**6 GROUND BAR DETAIL**  
 SCALE: NOT TO SCALE



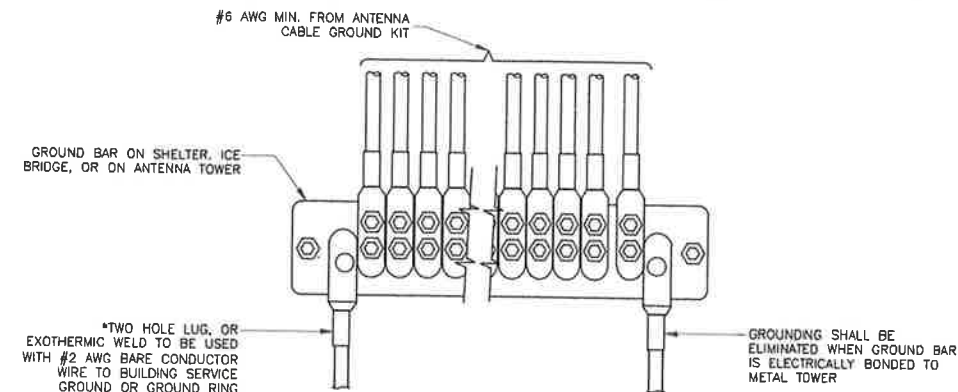
**7 LUG DETAIL**  
 SCALE: NOT TO SCALE

WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 AWG GREEN INSULATED	YA6C-2TC3B	3/8" - 16 NC S 2 BOLT
#2 AWG SOLID TINNED	YA3C-2TC3B	3/8" - 16 NC S 2 BOLT
#2 AWG STRANDED	YA2C-2TC3B	3/8" - 16 NC S 2 BOLT
#2/0 AWG STRANDED	YA26-2TC3B	3/8" - 16 NC S 2 BOLT
#4/0 AWG STRANDED	YA2B-2N	1/2" - 16 NC S 2 BOLT

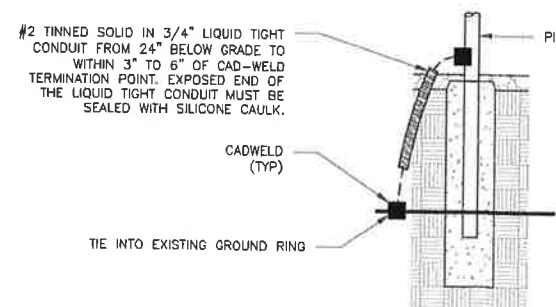


**NOTES:**  
 1. ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER, GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.

**2 MECHANICAL LUG CONNECTION**  
 SCALE: NOT TO SCALE



**5 GROUNDWIRE INSTALLATION**  
 SCALE: NOT TO SCALE



**8 TRANSITIONING GROUND DETAIL**  
 SCALE: NOT TO SCALE

**T-Mobile**

**CROWN CASTLE**

**POD**  
 POWER OF DESIGN  
 11490 BLUEGRASS PKWY  
 LOUISVILLE, KY 40299  
 502-437-5252

T-MOBILE SITE NUMBER:  
**DN04816A**  
 BU #: 858492  
 CROWN CASTLE SITE NAME:  
**ZOD\_ALLTEL\_CO04\_**  
**CANONCITY EAST**

3396 EAST UNITED STATES  
 HIGHWAY 50  
 CANON CITY, CO 81212

EXISTING 99'-0"  
 MONOPOLE

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	1/29/2025	AS	CONSTRUCTION	AH



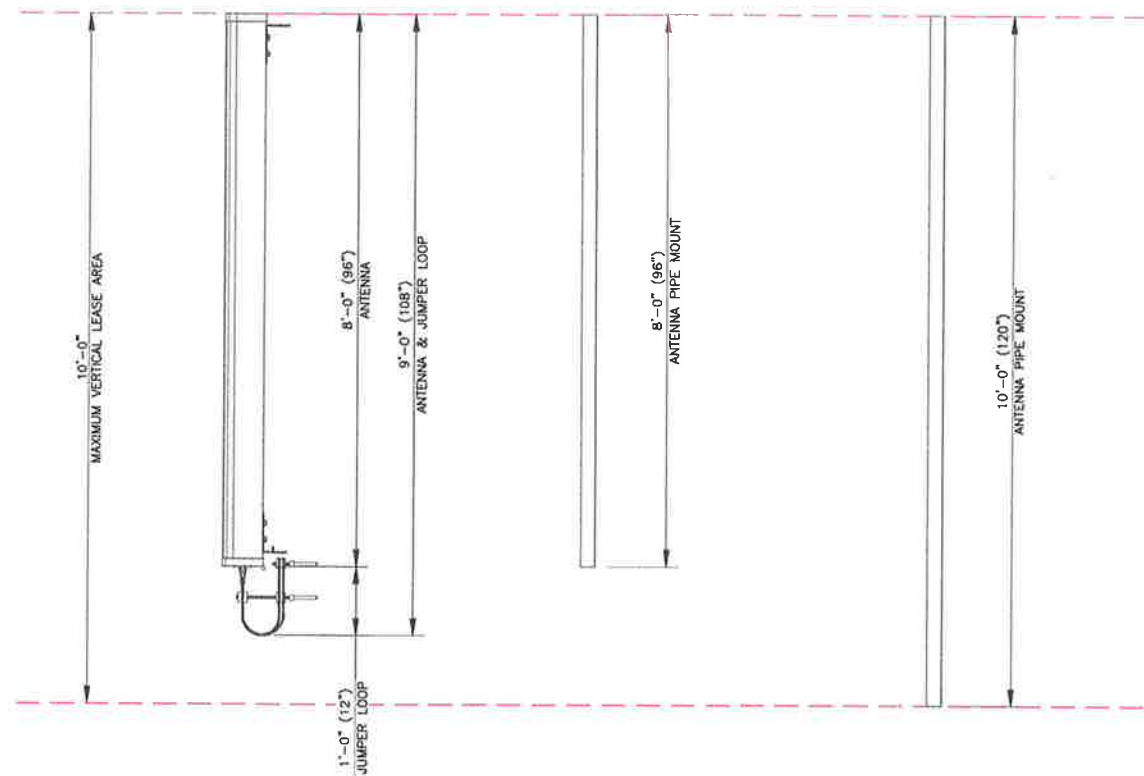
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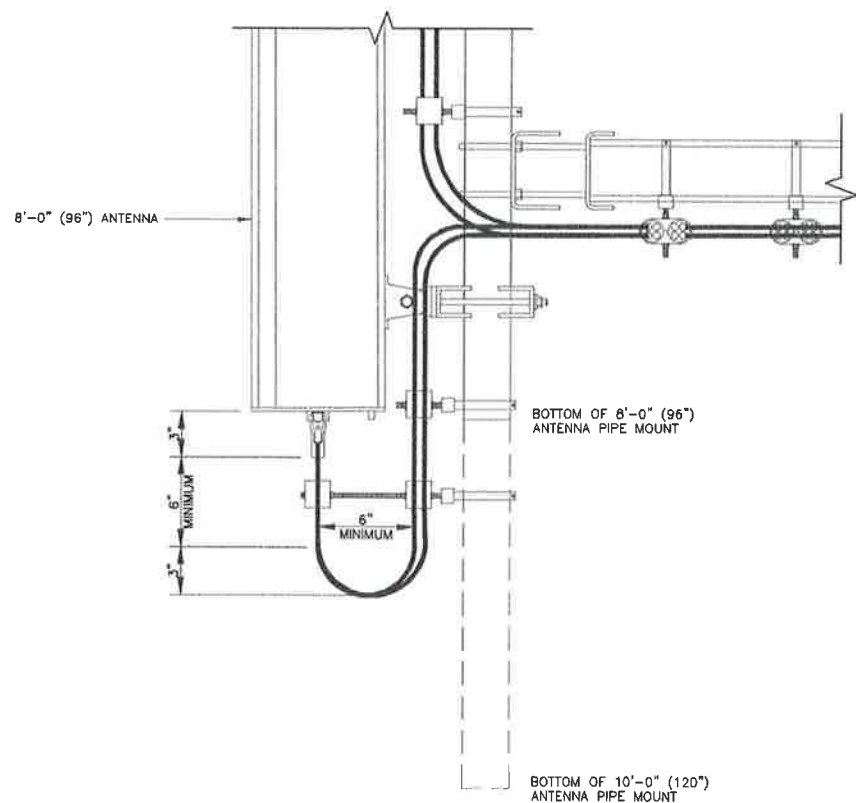
**G-2**

REVISION:

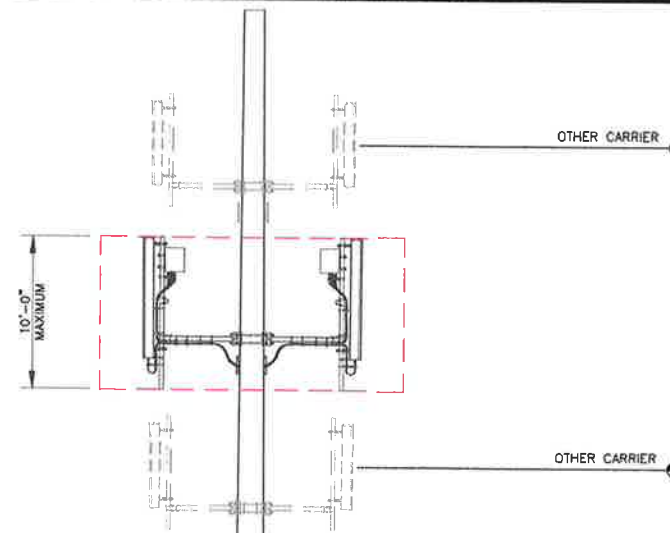
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1 MAXIMUM VERTICAL LEASE AREA  
SCALE: NOT TO SCALE

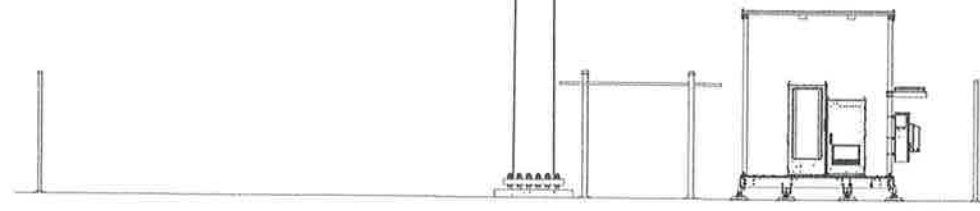


2 JUMPER LOOP  
SCALE: NOT TO SCALE



**ALERT NOTE:**

- DO NOT EXCEED THE 10 FOOT VERTICAL LEASE AREA. ALL T-MOBILE EQUIPMENT, INCLUDING STRUCTURAL MOUNTS, PIPES, CABLES, OR ANY OTHER ITEM INCLUDED IN THE DEPLOYMENT, SHALL BE WITHIN THE 10 FOOT VERTICAL LEASE AREA.
- "NO EXEMPTIONS" OR "PENALTIES WILL INCUR"



3 10 FOOT VERTICAL TOWER LEASE AREA  
SCALE: NOT TO SCALE

**T Mobile**

**CROWN CASTLE**

10 FOOT VERTICAL TOWER LEASE AREA

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	DES/QA
A	10/11/2024	SMM	PRELIMINARY	CWB

**APPENDED DOCUMENT**

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER:  
**REF**

REVISION:  
**0**

11/25/24, 10:44 AM

DN04816A\_Coverage Strategy\_1\_preliminary\_2024-11-25

<b>RAN Template:</b> 56790EBH_SR_T_6x24	<b>A&amp;L Template:</b> 56790EBH_SR_T_6x24
--	--

DN04816A\_Coverage Strategy\_1\_preliminary

Print Name:  
Standard  
Project IDs with associated PORs:  
DN04816A-0002442056  
Coverage Strategy\_Regional Coverage

Section 1 - Site Information

<b>Site ID:</b> DN04816A	<b>Site Name:</b> Crown 858492	<b>Latitude:</b> 38.447917
<b>Status:</b> Preliminary	<b>Site Class:</b> Monopole	<b>Longitude:</b> -105.169361
<b>Version:</b> 1	<b>Site Type:</b> Structure Non Building	<b>Address:</b> 3396 East United States Highway 50
<b>Project Type:</b> Coverage Strategy	<b>Plan Year:</b>	<b>City, State:</b> Canon City, CO
<b>Approved:</b> 11/25/2024 10:44:13 AM	<b>Market:</b> DENVER CO	<b>Region:</b> CENTRAL
<b>Approved By:</b> Kumud.Wasti1@T-Mobile.com	<b>Vendor:</b> Nokia	
<b>Last Modified:</b> 11/25/2024 10:44:13 AM	<b>Landlord:</b> Crown	
<b>Last Modified By:</b> Kumud.Wasti1@T-Mobile.com		

<b>RAN Template:</b> 56790EBH_SR_T_6x24	<b>AL Template:</b> 56790EBH_SR_T_6x24			
<b>Sector Count:</b> 3	<b>Antenna Count:</b> 6	<b>Coax Line Count:</b> 0	<b>TMA Count:</b> 0	<b>RRU Count:</b> 6

Section 2 - Existing Template Images

----- This section is intentionally blank. -----

11/25/24, 10:44 AM

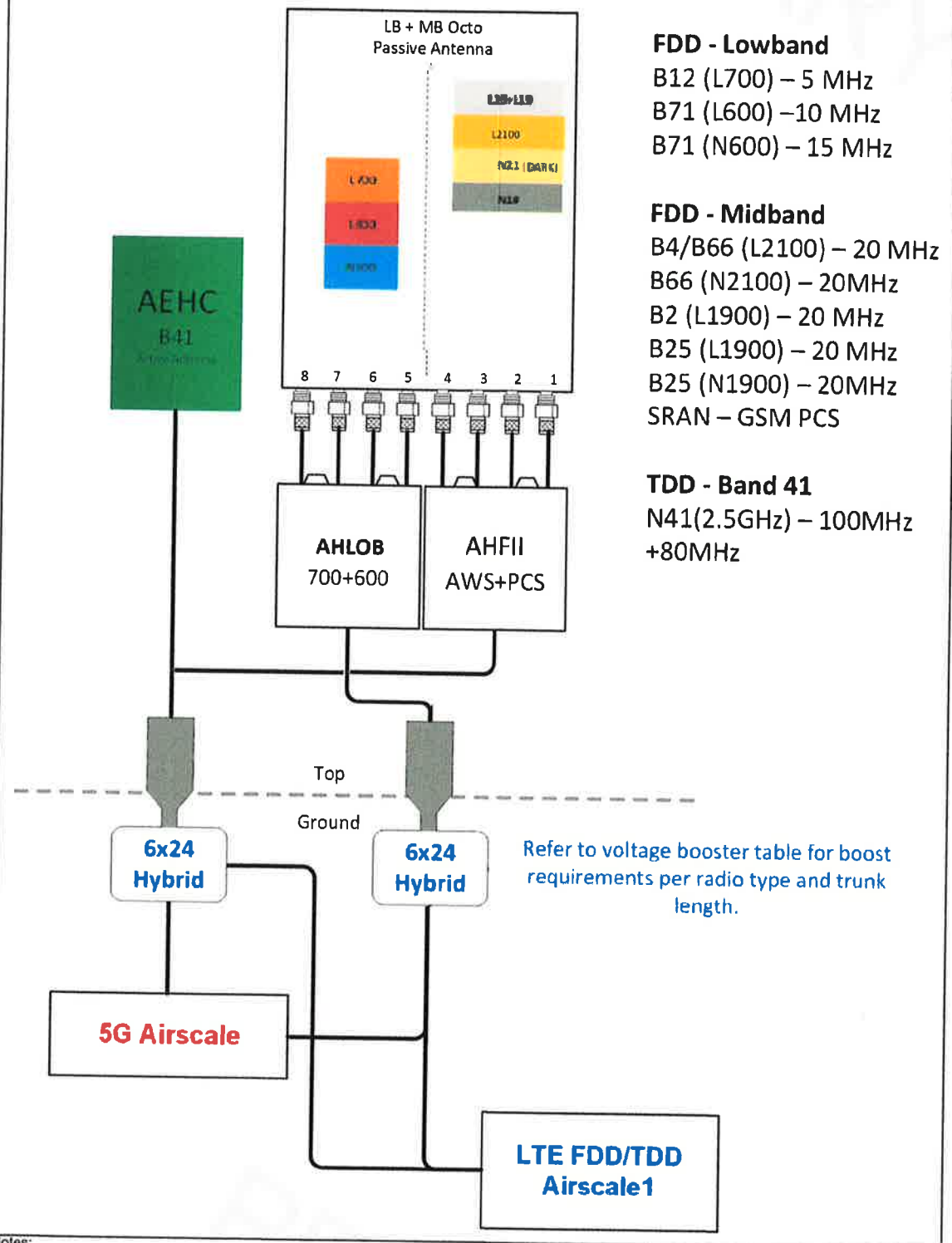
DN04816A\_Coverage Strategy\_1\_preliminary\_2024-11-25

Section 3 - Proposed Template Images

56790EBH\_6x24.png

Configuration 56790EBH\_SR\_T\_6x24

\* For 5G and LTE Airscale BB dimensioning refer to Fiber Port matrices.  
(Alpha, Beta & Gamma)



**FDD - Lowband**  
B12 (L700) – 5 MHz  
B71 (L600) – 10 MHz  
B71 (N600) – 15 MHz

**FDD - Midband**  
B4/B66 (L2100) – 20 MHz  
B66 (N2100) – 20MHz  
B2 (L1900) – 20 MHz  
B25 (L1900) – 20 MHz  
B25 (N1900) – 20MHz  
SRAN – GSM PCS

**TDD - Band 41**  
N41(2.5GHz) – 100MHz  
+80MHz

Notes:



11/25/24, 10:44 AM

DN04816A\_Coverage Strategy\_1\_preliminary\_2024-11-25

DN04816A\_Coverage Strategy\_1\_preliminary

RAN Template: 56790EBH\_SR\_T\_6x24  
 A&L Template: 56790EBH\_SR\_T\_6x24

Print Name: Standard  
 Project IDs with associated PORs: DN04816A-0002442058  
 Coverage Strategy\_Regional Coverage

Section 5 - RAN Equipment

Existing RAN Equipment

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Proposed RAN Equipment

Template: 56790EBH\_SR\_T\_6x24

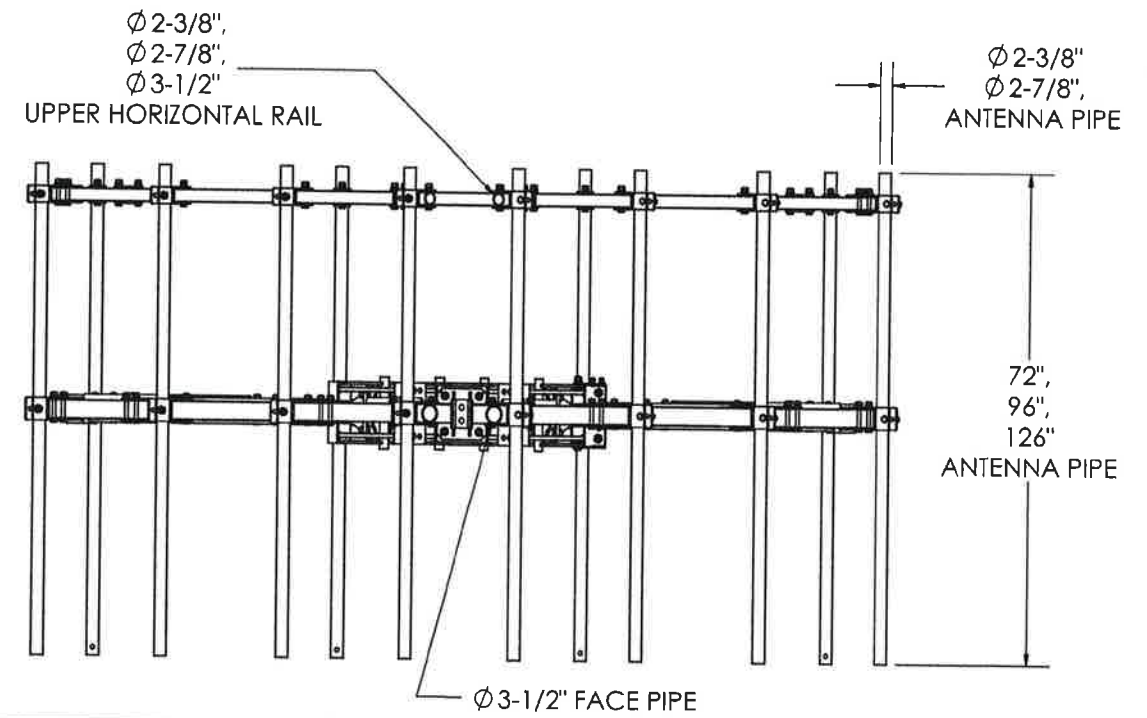
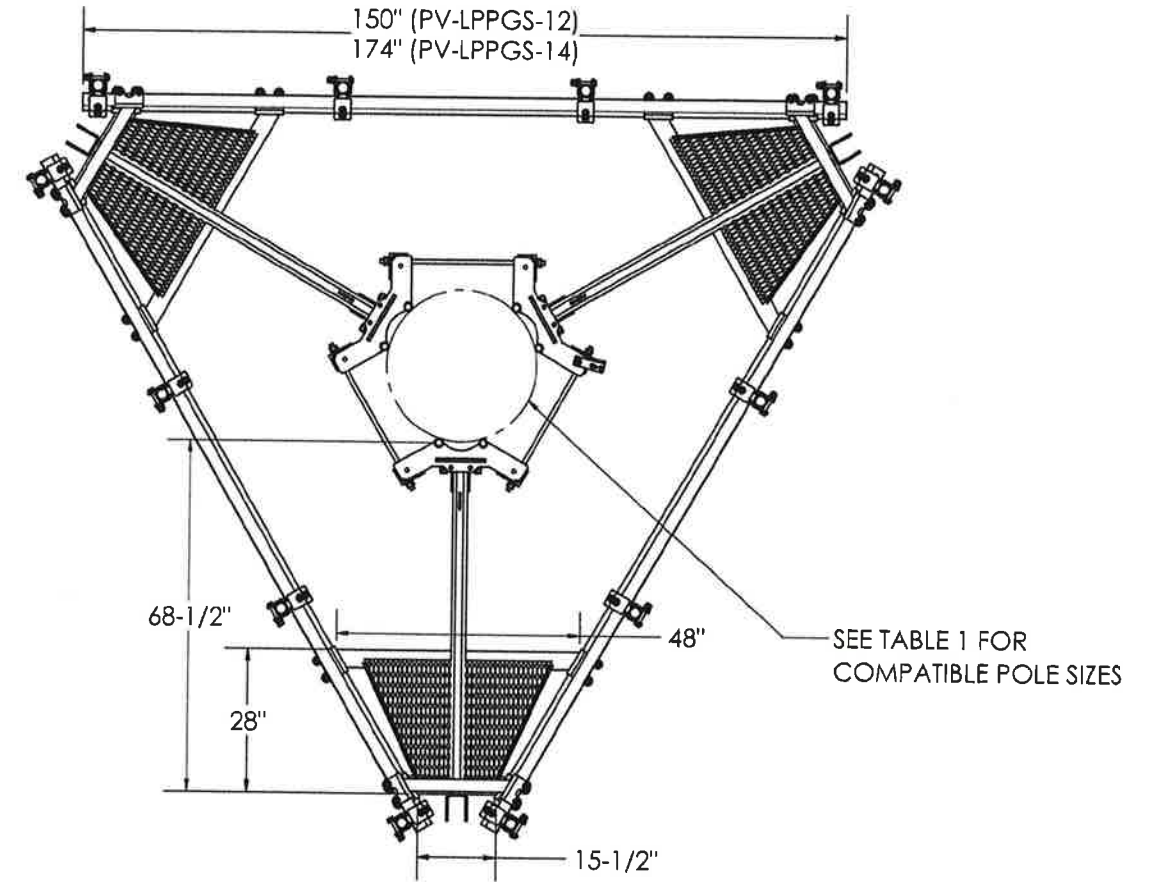
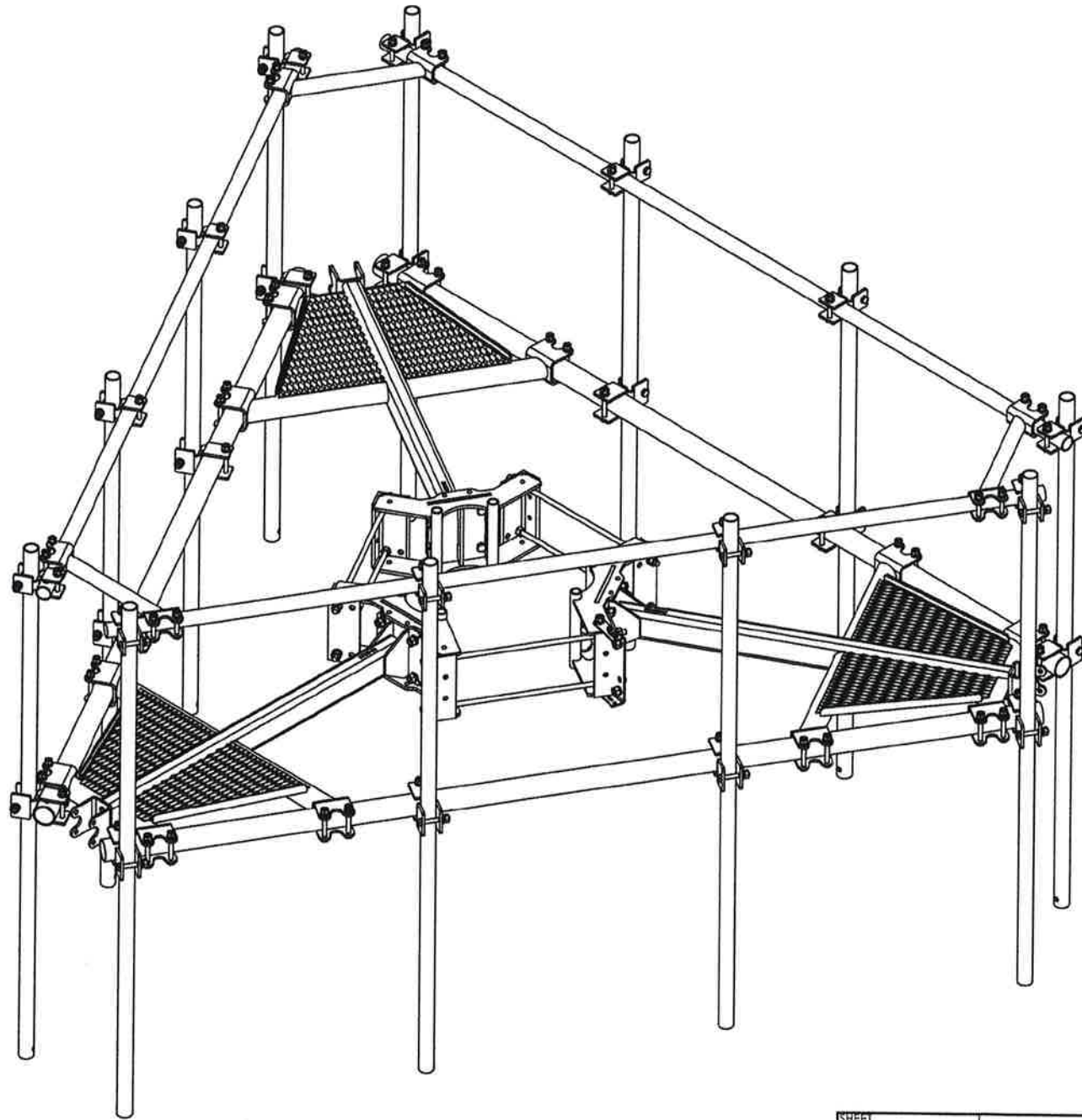
Enclosure	1	2	3
Enclosure Type	Tower Top Mount (Nokia)	Delta HPL3.05 600A Site Support Cabinet	Delta LB3 Battery Cabinet (4 strings)
Radio	AHFII (x3) N1900 N2100 L1900 L2100 AHLOB (x3) N600 L600 L700		
Baseband		ASIL (x2)	
Baseband Submodule		ABIL (x2) N600 ABIO N2500 ABIA (x2) L1900 L2100 ABIA L600 L700 ABIL (x3) N1900 N2100	
Baseband Subrack		AMIA (x2)	
Functionality Groups		Nokia Voltage Booster-HCS 6x24 (If using HPL3.1/HPL3.05 SSC, delete this Booster from layout unless expansion needed) 6x24 Hybrid Trunk (Nokia) *Select Length* (x2) SPD Tray for Nokia 6x24 (If using HPL3.1/HPL3.05 SSC, delete this SPD from layout unless expansion needed) RANEquipment Nokia LTE Common Baseband *Select Card*	
Transport System		CSR IXRe V2 (Gen2)	

RAN Scope of Work:

11.25.2024-KW- RAD updated as per Crown.  
 2xABIL are added to this template for FDD NR High Capacity

# PV-LPPGS MONOPOLE GUARDIAN MOUNT

SEE SHEET 2 - TABLE 1 FOR FULL CONFIGURATION DETAILS



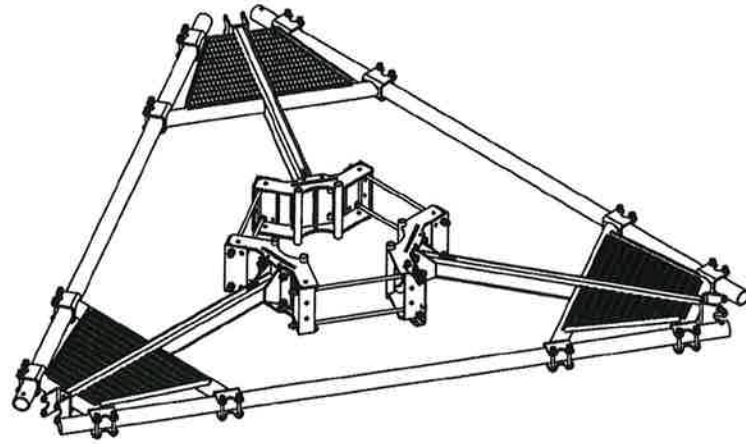
SHEET	1 OF 16	SCALE	1:36	CATEGORY	02_Monopole	9	ACC1 REPLACE ACC2, PV-CMX-CG-80 REPLACE 115-242	3/16/21		
	4/27/2021			SERIES	01_Triangular	8	KKGS UPDATE	2/2/21		
				TYPE	PV-LPPGS_GUARDIAN	7	REPLACED PKBK WITH PV-KKRS	11/11/20		
				BY	DJN	6	ADDED ALL THREAD NOTE TO COLLARS	7/27/20		
				CHECKED	SJS	5	ADDED HR2-AP3 CONFIGS	1/20/20		
				STATUS	APPROVED	REV	DESCRIPTION	DATE		
DIMENSIONS ARE IN INCHES TOLERANCES U.N.O. HOLES: +1/16", -1/32" ANGULAR: PROFILE ±1/4°, BEND ±2° ALL OTHERS: ±1/16"				PERFECT VISION® MONOPOLE GUARDIAN MOUNT DOCUMENT NUMBER LPPGS-ENG-01-R9					REV	9

C:\PV\Steel\Catalog\SW Working Files\Engineering Details\

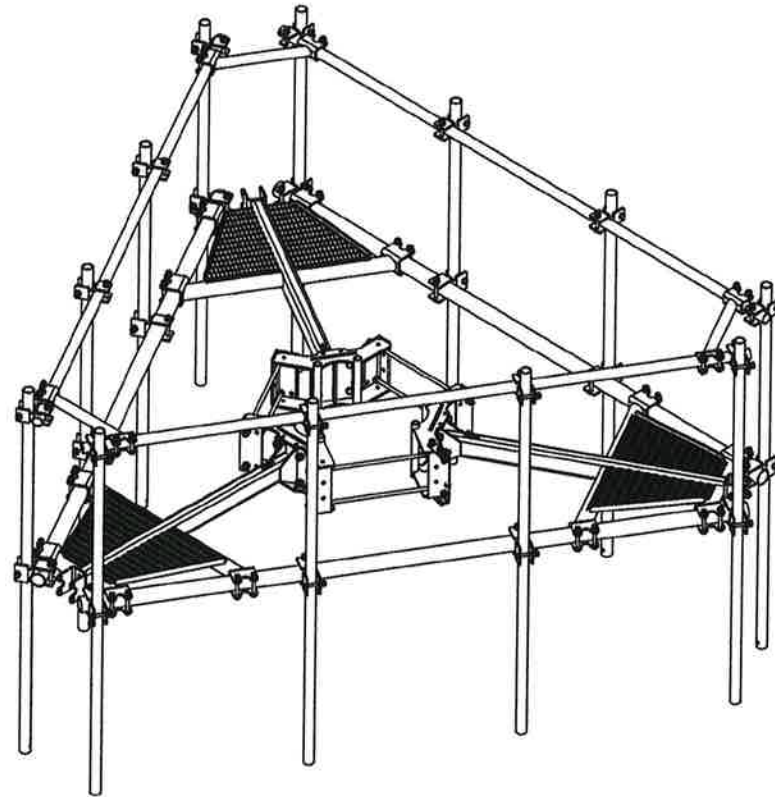




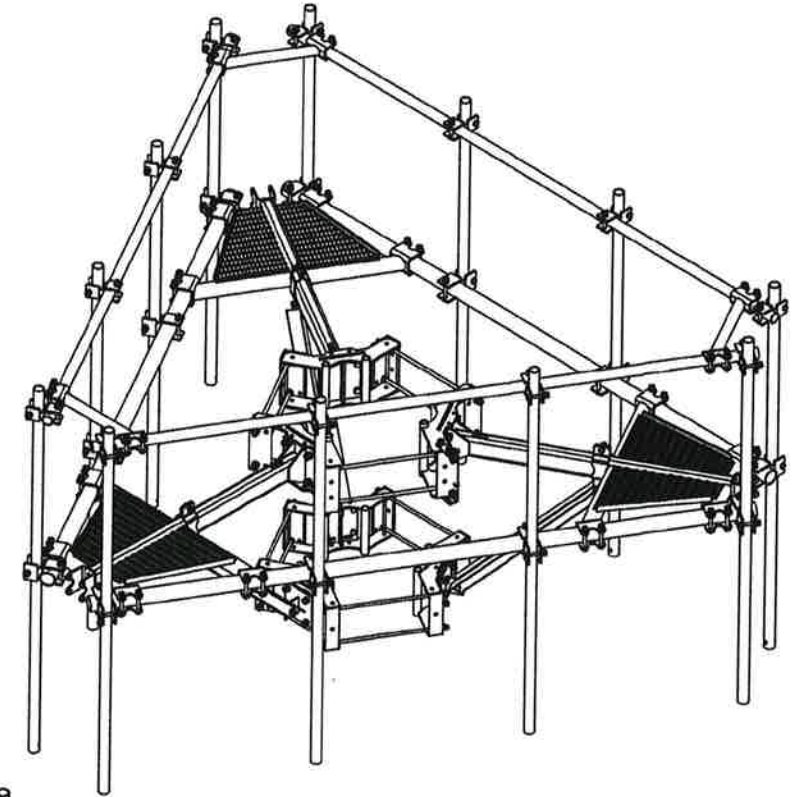
# INCLUDED PART OVERVIEW



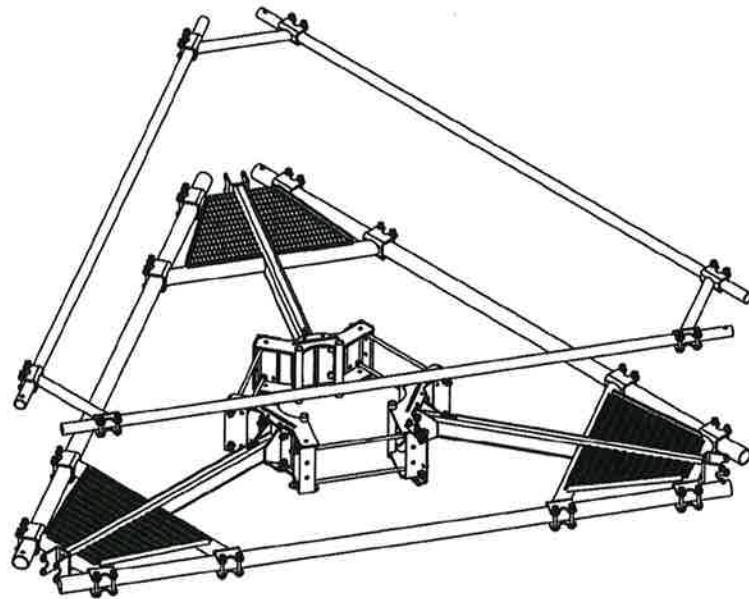
**BASE MOUNT**  
(PV-LPPGS-12M-B SHOWN)



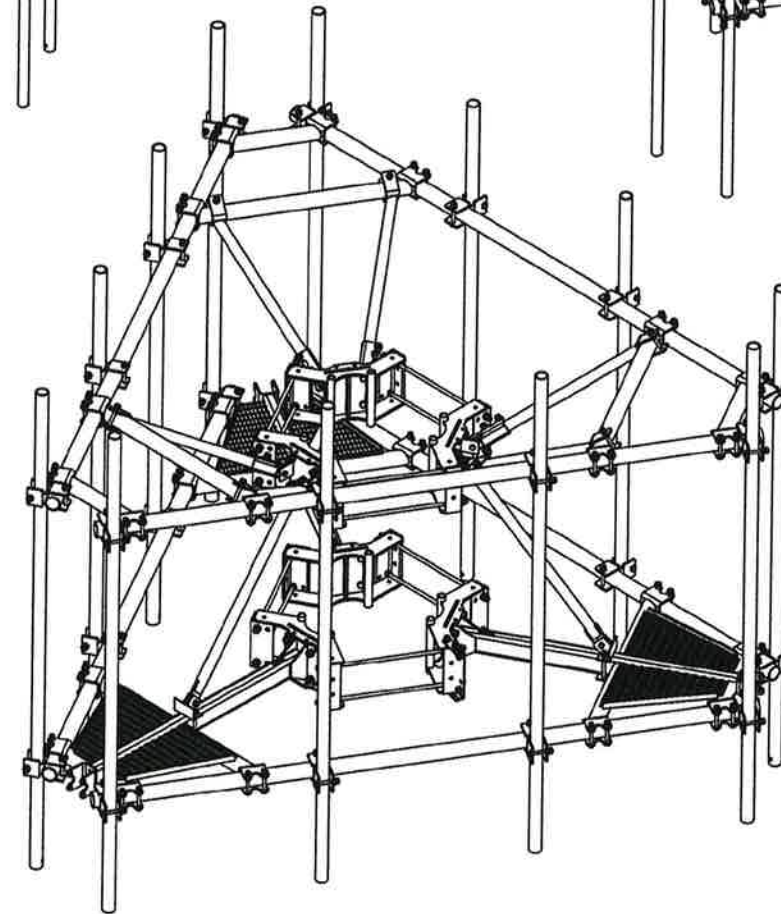
**MOUNT WITH UPPER RAIL AND ANTENNA PIPE**  
(PV-LPPGS-12M-HR2-AP1 SHOWN)



**MOUNT WITH KICKER KIT AND ANTENNA PIPE**  
(PV-LPPGS-12M-HR2-K-AP1 SHOWN)



**MOUNT WITH UPPER RAIL**  
(PV-LPPGS-12M-HR2-B SHOWN)



**MOUNT WITH UPPER BRACE KIT AND ANTENNA PIPE**  
(PV-LPPGS-12M-TKB3-AP4 SHOWN)

Reference Config	Total Connections
Base Mount	48
Add Upper Rail	60
Add (12) Pipes	108*
Add KKGS	144
Add TKB	168

\* APPROXIMATELY 40% LESS THAN INDUSTRY AVERAGE OF EQUIVALENT MOUNT

SHEET 4 OF 16	SCALE 1:40	CATEGORY 02_Monopole	9 ACC1 REPLACE ACC2. PV-CMX-CG-BO REPLACE 115-242	3/16/21	<b>PERFECT VISION</b>
4/27/2021		SERIES 01_Triangular	8 KKGS UPDATE	2/2/21	
DIMENSIONS ARE IN INCHES TOLERANCES U.N.O. HOLES: +1/16", -1/32" ANGULAR: PROFILE ±1/4°, BEND ±2° ALL OTHERS: ±1/16"		TYPE PV-LPPGS_GUARDIAN	7 REPLACED PKBK WITH PV-KKRS	11/11/20	MONOPOLE GUARDIAN MOUNT
		BY DJN	6 ADDED ALL THREAD NOTE TO COLLARS	7/27/20	DOCUMENT NUMBER
		CHECKED SJS	5 ADDED HR2-AP3 CONFIGS	1/20/20	LPPGS-ENG-01-R9
		STATUS APPROVED	REV	DESCRIPTION	DATE
					REV 9

# MOUNT CLASSIFICATIONS

## MOUNT CLASSIFICATION INFORMATION:

- STANDARDS: TIA-222-G, TIA-222-H, TIA-5053
- MAX STRUCTURE HEIGHT: 400ft
- STRUCTURE CLASS: I OR II
- EXPOSURE CATEGORY: B OR C
- TOPOGRAPHIC CATEGORY: 1
- DESIGN WIND PRESSURE: 135psf
- DESIGN WIND PRESSURE (ICED): 15psf
- DESIGN ICE THICKNESS (RADIAL): 2.75"

## MOUNTS EXCEED THE FOLLOWING REQUIREMENTS:

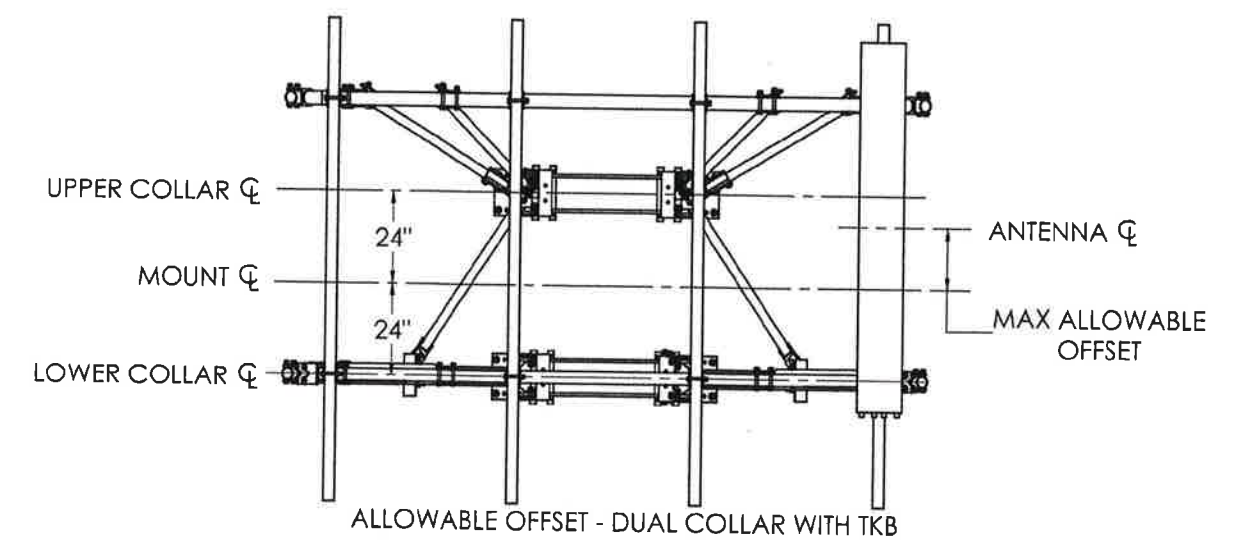
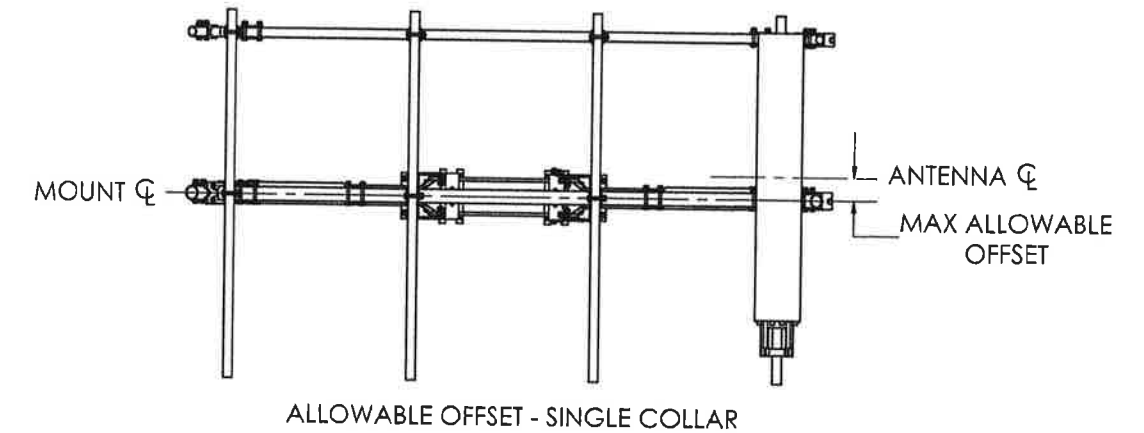
- HEAVY 5
- HEAVY 10
- HEAVY WLL

M1750R(1450)-4[6]	Used at the beginning of each mount identification.
M1750R(1450)-4[6]	The maximum factored horizontal force (1750lbf), F, considered for design under extreme wind condition at each mounting pipe location.
M1750R(1450)-4[6]	Classification category.
M1750R(1450)-4[6]	Maximum factored vertical force (1450lbf), F <sub>z</sub> , considered for design under extreme ice condition at each mounting pipe location.
M1750R(1450)-4[6]	The mount is designed for (4) mounting pipe locations per sector.
M1750R(1450)-4[6]	The centerline of the maximum horizontal concentrated force, F, may be offset vertically from the mount centerline by up to 6 inches.

## APPROVED MOUNT CLASSIFICATIONS:

Part Number	Maximum Antenna Centerline Offset				
	0in	6in	12in	24in	39in
PV-LPPGS-12M-HR2-AP1	M1300R(1250)-4[0]	M1300R(1250)-4[6]	M1100R(1150)-4[12]	M700R(1000)-4[24]	-
PV-LPPGS-12M-HR25-AP1	M1350R(1250)-4[0]	M1350R(1250)-4[6]	M1150R(1200)-4[12]	M750R(1100)-4[24]	-
PV-LPPGS-12M-HR3-AP1	M1350R(1250)-4[0]	M1350R(1250)-4[6]	M1150R(1200)-4[12]	M750R(1100)-4[24]	-
PV-LPPGS-14M-HR2-AP1	M1300R(1200)-4[0]	M1300R(1200)-4[6]	M1100R(1150)-4[12]	M700R(1100)-4[24]	-
PV-LPPGS-14M-HR25-AP1	M1350R(1200)-4[0]	M1350R(1200)-4[6]	M1100R(1150)-4[12]	M700R(1100)-4[24]	-
PV-LPPGS-14M-HR3-AP1	M1350R(1200)-4[0]	M1350R(1200)-4[6]	M1100R(1150)-4[12]	M700R(1100)-4[24]	-
PV-LPPGS-14L-HR2-AP1	M1300R(1200)-4[0]	M1300R(1200)-4[6]	M1100R(1150)-4[12]	M700R(1100)-4[24]	-
PV-LPPGS-14L-HR25-AP1	M1350R(1200)-4[0]	M1350R(1200)-4[6]	M1100R(1150)-4[12]	M700R(1100)-4[24]	-
PV-LPPGS-14L-HR3-AP1	M1350R(1200)-4[0]	M1350R(1200)-4[6]	M1100R(1150)-4[12]	M700R(1100)-4[24]	-
PV-LPPGS-12M-HR2-AP3	M1300R(1250)-4[0]	M1300R(1250)-4[6]	M1100R(1150)-4[12]	M700R(1000)-4[24]	-
PV-LPPGS-12M-HR25-AP3	M1900R(1350)-4[0]	M1900R(1350)-4[6]	M1600R(1250)-4[12]	M1100R(1150)-4[24]	-
PV-LPPGS-12M-HR3-AP3	M1850R(1300)-4[0]	M1850R(1300)-4[6]	M1500R(1250)-4[12]	M1050R(1150)-4[24]	-
PV-LPPGS-14M-HR2-AP3	M1300R(1200)-4[0]	M1300R(1200)-4[6]	M1100R(1150)-4[12]	M700R(1100)-4[24]	-
PV-LPPGS-14M-HR25-AP3	M1800R(1300)-4[0]	M1800R(1300)-4[6]	M1600R(1250)-4[12]	M1200R(1150)-4[24]	-
PV-LPPGS-14M-HR3-AP3	M1800R(1300)-4[0]	M1800R(1300)-4[6]	M1600R(1250)-4[12]	M1200R(1150)-4[24]	-
PV-LPPGS-14L-HR2-AP3	M1300R(1200)-4[0]	M1300R(1200)-4[6]	M1100R(1150)-4[12]	M700R(1100)-4[24]	-
PV-LPPGS-14L-HR25-AP3	M1800R(1300)-4[0]	M1800R(1300)-4[6]	M1600R(1250)-4[12]	M1200R(1150)-4[24]	-
PV-LPPGS-14L-HR3-AP3	M1800R(1300)-4[0]	M1800R(1300)-4[6]	M1600R(1250)-4[12]	M1200R(1150)-4[24]	-
PV-LPPGS-12M-TKB3-AP4	-	-	-	-	M1650R(2750)-4[39]
PV-LPPGS-14M-TKB3-AP4	-	-	-	-	M2400R(3150)-4[39]
PV-LPPGS-14L-TKB3-AP4	-	-	-	-	M2400R(3150)-4[39]

NOTE: ON POLES 3/16" OR LESS THICK, PV-PKBK KICKER KIT IS REQUIRED. SEE SHEETS 3&6



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SHEET	5 OF 16	SCALE	1:48	CATEGORY	02_Monopole	9	ACC1 REPLACE ACC2, PV-CMX-CG-BO REPLACE	3/16/21
				SERIES	01_Triangular	8	KKGS UPDATE	2/2/21
				TYPE	PV-LPPGS_GUARDIAN	7	REPLACED PKBK WITH PV-KKRS	11/11/20
				BY	DJN	6	ADDED ALL THREAD NOTE TO COLLARS	7/27/20
				CHECKED	SJS	5	ADDED HR2-AP3 CONFIGS	1/20/20
				STATUS	APPROVED	REV	DESCRIPTION	DATE
DIMENSIONS ARE IN INCHES TOLERANCES U.N.O. HOLES: +1/16", -1/32" ANGULAR: PROFILE ±1/4", BEND ±2° ALL OTHERS: ±1/16"								
MONOPOLE GUARDIAN MOUNT DOCUMENT NUMBER <b>LPPGS-ENG-01-R9</b>								REV <b>9</b>

# MOUNT CLASSIFICATIONS

## MOUNT CLASSIFICATION INFORMATION:

- STANDARDS: TIA-222-G, TIA-222-H, TIA-5053
- MAX STRUCTURE HEIGHT: 400ft
- STRUCTURE CLASS: I OR II
- EXPOSURE CATEGORY: B OR C
- TOPOGRAPHIC CATEGORY: 1
- DESIGN WIND PRESSURE: 135psf
- DESIGN WIND PRESSURE (ICED): 15psf
- DESIGN ICE THICKNESS (RADIAL): 2.75"

## MOUNTS EXCEED THE FOLLOWING REQUIREMENTS:

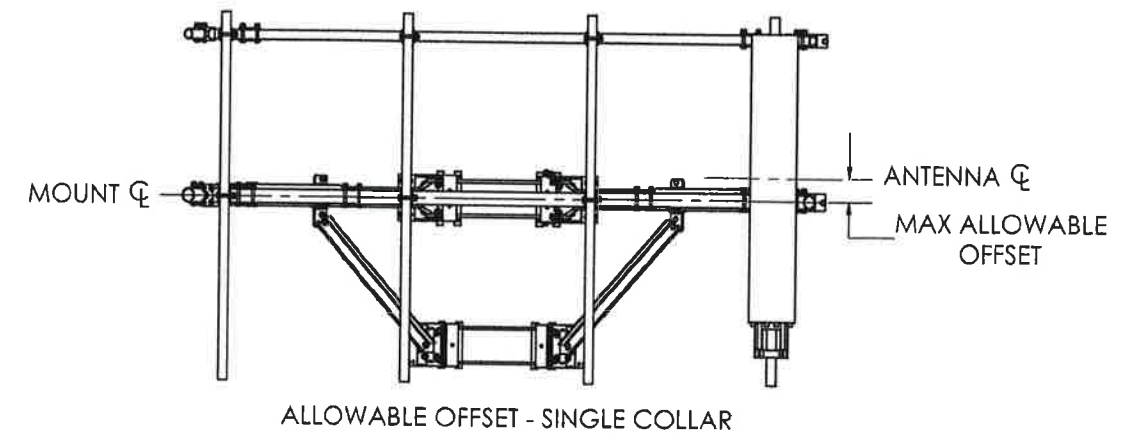
- HEAVY 5
- HEAVY 10
- HEAVY WLL

## APPROVED MOUNT CLASSIFICATIONS:

Table 8: Approved Mount Classifications

Part Number	Maximum Antenna Centerline Offset			
	0in	6in	12in	24in
	PV-LPPGS-12M-HR2-K-AP1	M1400R(1600)-4[0]	M1350R(1600)-4[6]	M1150R(1500)-4[12]
PV-LPPGS-12M-HR25-K-AP1	M1450R(1600)-4[0]	M1450R(1600)-4[6]	M1300R(1500)-4[12]	M1000R(1500)-4[24]
PV-LPPGS-12M-HR3-K-AP1	M1450R(1600)-4[0]	M1450R(1600)-4[6]	M1300R(1500)-4[12]	M1000R(1500)-4[24]
PV-LPPGS-14M-HR2-K-AP1	M1400R(1600)-4[0]	M1250R(1600)-4[6]	M1100R(1500)-4[12]	M800R(1500)-4[24]
PV-LPPGS-14M-HR25-K-AP1	M1450R(1600)-4[0]	M1400R(1600)-4[6]	M1250R(1500)-4[12]	M900R(1500)-4[24]
PV-LPPGS-14M-HR3-K-AP1	M1500R(1600)-4[0]	M1500R(1600)-4[6]	M1300R(1500)-4[12]	M950R(1500)-4[24]
PV-LPPGS-14L-HR2-K-AP1	M1400R(1600)-4[0]	M1250R(1600)-4[6]	M1100R(1500)-4[12]	M800R(1500)-4[24]
PV-LPPGS-14L-HR25-K-AP1	M1450R(1600)-4[0]	M1400R(1600)-4[6]	M1250R(1500)-4[12]	M900R(1500)-4[24]
PV-LPPGS-14L-HR3-K-AP1	M1500R(1600)-4[0]	M1500R(1600)-4[6]	M1300R(1500)-4[12]	M950R(1500)-4[24]
PV-LPPGS-12M-HR2-K-AP3	M1800R(2000)-4[0]	M1800R(2000)-4[6]	M1600R(1800)-4[12]	M1200R(1800)-4[24]
PV-LPPGS-12M-HR25-K-AP3	M2050R(2400)-4[0]	M2050R(2400)-4[6]	M1800R(2200)-4[12]	M1300R(2200)-4[24]
PV-LPPGS-12M-HR3-K-AP3	M2050R(2400)-4[0]	M2050R(2400)-4[6]	M1800R(2200)-4[12]	M1300R(2200)-4[24]
PV-LPPGS-14M-HR2-K-AP3	M1800R(2000)-4[0]	M1800R(2000)-4[6]	M1600R(1800)-4[12]	M1200R(1700)-4[24]
PV-LPPGS-14M-HR25-K-AP3	M2050R(2000)-4[0]	M2050R(2000)-4[6]	M1700R(1800)-4[12]	M1300R(1700)-4[24]
PV-LPPGS-14M-HR3-K-AP3	M2050R(2000)-4[0]	M2050R(1950)-4[6]	M1700R(1800)-4[12]	M1300R(1700)-4[24]
PV-LPPGS-14L-HR2-K-AP3	M1800R(2000)-4[0]	M1800R(2000)-4[6]	M1600R(1800)-4[12]	M1200R(1700)-4[24]
PV-LPPGS-14L-HR25-K-AP3	M2050R(2000)-4[0]	M2050R(2000)-4[6]	M1700R(1800)-4[12]	M1300R(1700)-4[24]
PV-LPPGS-14L-HR3-K-AP3	M2050R(2000)-4[0]	M2050R(1950)-4[6]	M1700R(1800)-4[12]	M1300R(1700)-4[24]

M1750R(1450)-4[6]	Used at the beginning of each mount identification.
M1750R(1450)-4[6]	The maximum factored horizontal force (1750lbf), F, considered for design under extreme wind condition at each mounting pipe location.
M1750R(1450)-4[6]	Classification category.
M1750R(1450)-4[6]	Maximum factored vertical force (1450lbf), F <sub>z</sub> , considered for design under extreme ice condition at each mounting pipe location.
M1750R(1450)-4[6]	The mount is designed for (4) mounting pipe locations per sector.
M1750R(1450)-4[6]	The centerline of the maximum horizontal concentrated force, F, may be offset vertically from the mount centerline by up to 6 inches.

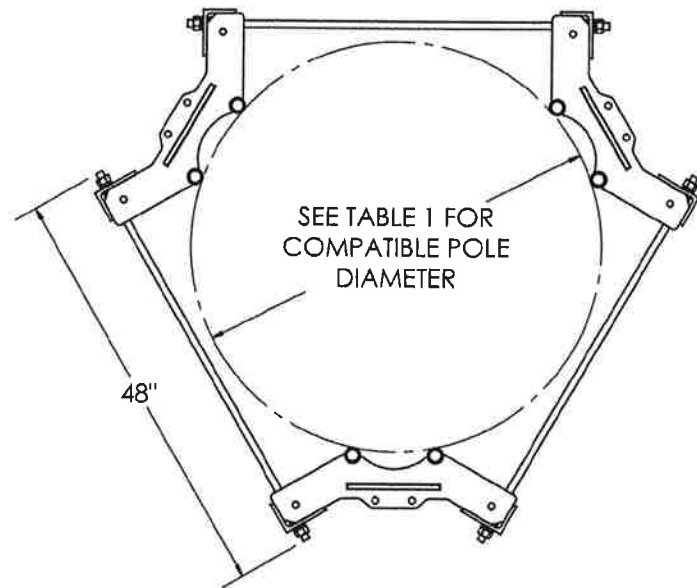
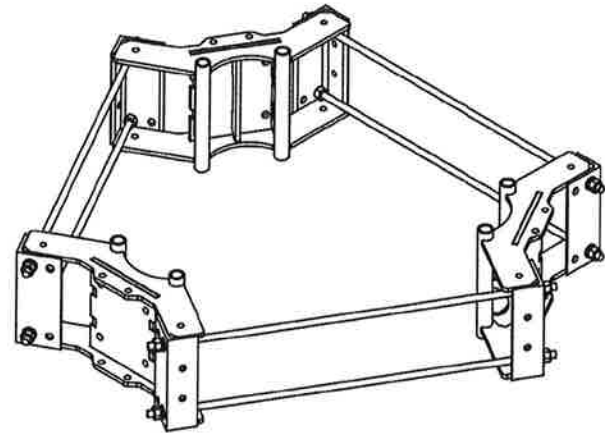


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SHEET 6 OF 16	SCALE 1:48	CATEGORY 02_Monopole	9 ACC1 REPLACE ACC2. PV-CMX-CG-BO REPLACE 115-242	3/16/21	
4/27/2021		SERIES 01_Triangular	8 KKGS UPDATE	2/2/21	
		TYPE PV-LPPGS_GUARDIAN	7 REPLACED PK8K WITH PV-KKRS	11/11/20	MONOPOLE GUARDIAN MOUNT
DIMENSIONS ARE IN INCHES TOLERANCES U.N.O. HOLES: +1/16", -1/32" ANGULAR: PROFILE ±1/4°, BEND ±2° ALL OTHERS: ±1/16"		BY DJN	6 ADDED ALL THREAD NOTE TO COLLARS	7/27/20	DOCUMENT NUMBER
		CHECKED SJS	5 ADDED HR2-AP3 CONFIGS	1/20/20	LPPGS-ENG-01-R9
		STATUS APPROVED	REV	DATE	9

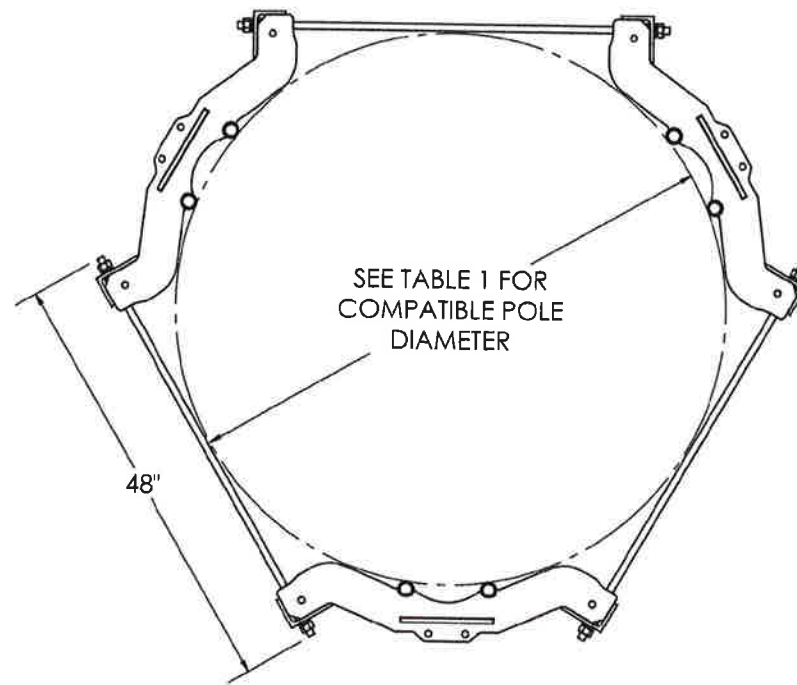
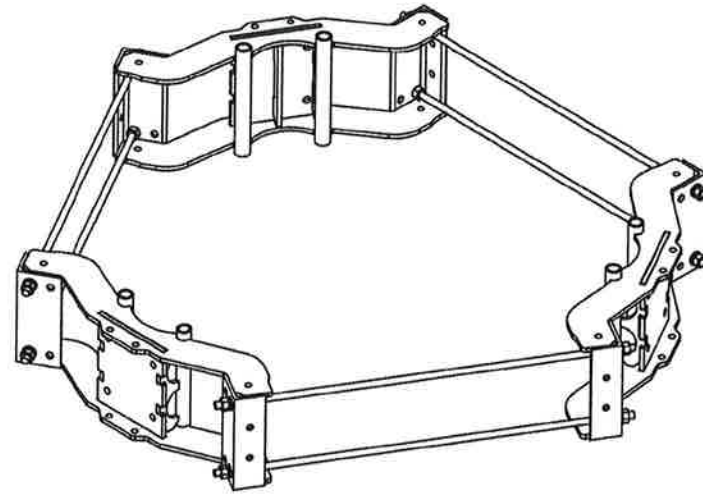
### STANDARD POLE

PV-RM1045-GS

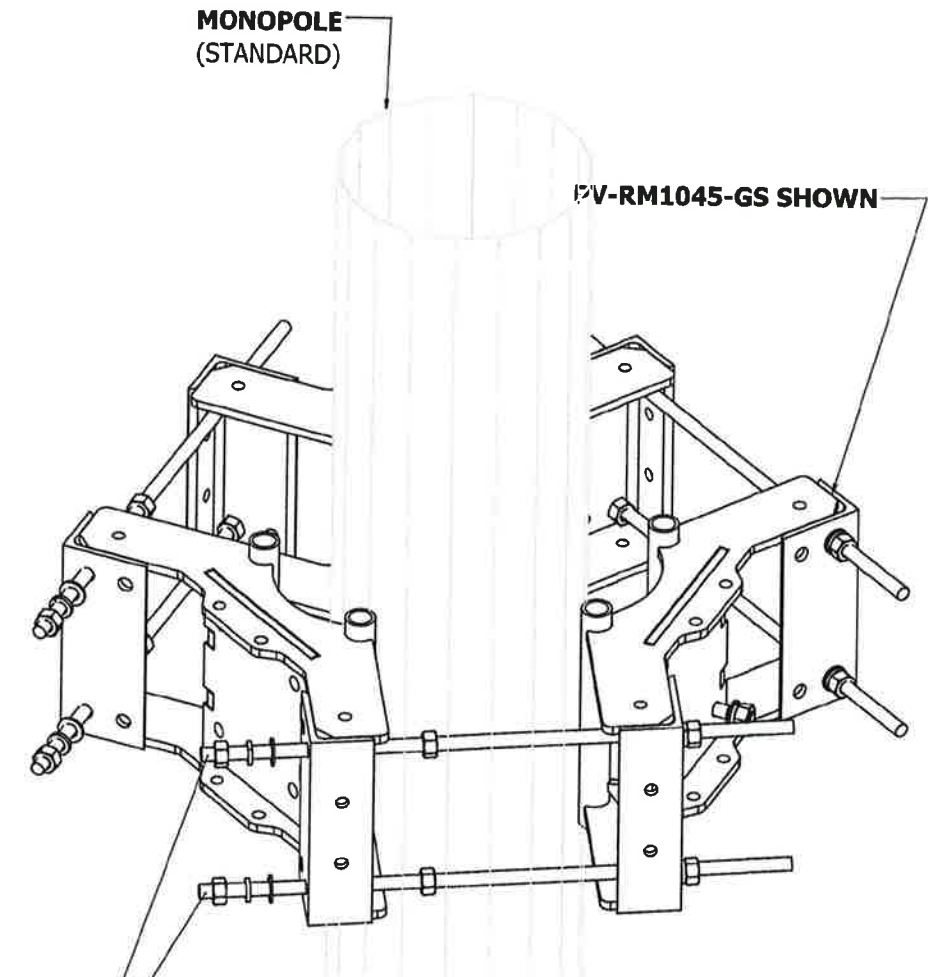


### LARGE POLE

PV-RM3060-GS



### COLLAR MOUNT INSTALLATION



WHEN INSTALLED ADJACENT TO CLIMB PATH REMOVE EXCESS ALL-THREAD TO PROMOTE CLIMBER SAFETY AND PREVENT CONTACT WITH SAFETY CLIMB WIRE ROPE.  
MINIMUM 1" REQUIRED BEYOND HEX NUT

### ROD CUT LENGTH

Table 10: Threaded Rod Cut Length (in)

Pole OD (in)	PV-RM1045-GS	PV-RM3060-GS
10	14	-
15	19.5	-
20	24.5	-
25	29	-
30	33.5	24
35	38	26.5
40	42.5	31
45	48	35.5
50	-	40
55	-	44
60	-	48

SHEET 7 OF 16	SCALE 1:20	CATEGORY 02_Monopole	9	ACC1 REPLACE ACC2, PV-CMX-CG-BO REPLACE 115-242	3/16/21
		SERIES 01_Triangular	8	KKGS UPDATE	2/2/21
4/27/2021	DIMENSIONS ARE IN INCHES TOLERANCES U.N.O. HOLES: +1/16", -1/32" ANGULAR: PROFILE ±1/4", BEND ±2" ALL OTHERS: ±1/16"	TYPE PV-LPPGS_GUARDIAN	7	REPLACED PKBK WITH PV-KKRS	11/11/20
		BY DJN	6	ADDED ALL THREAD NOTE TO COLLARS	7/27/20
		CHECKED SJS	5	ADDED HR2-AP3 CONFIGS	1/20/20
		STATUS APPROVED	REV	DESCRIPTION	DATE



MONOPOLE GUARDIAN MOUNT	REV
DOCUMENT NUMBER LPPGS-ENG-01-R9	9

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# PV-XP-DC

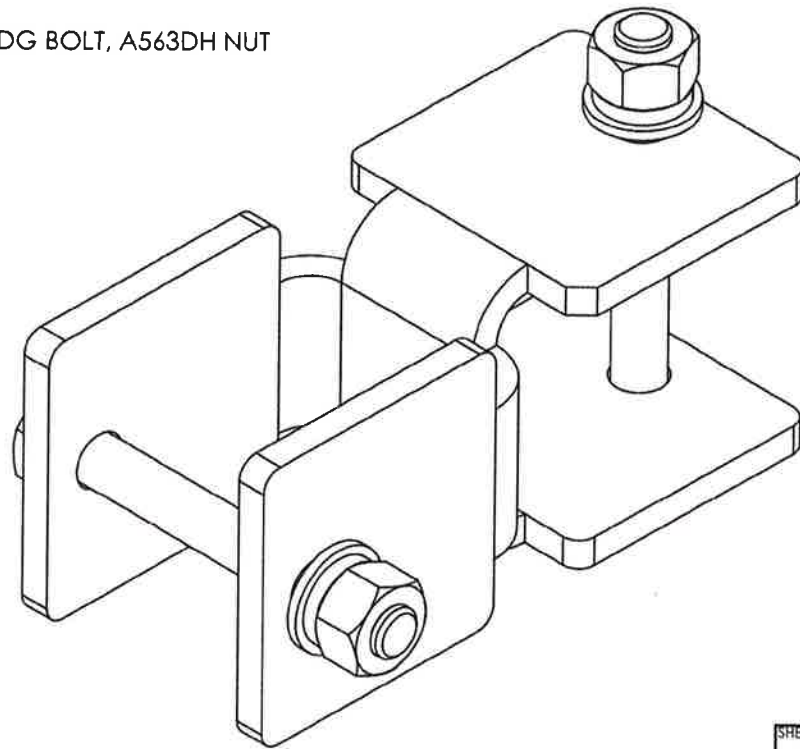
DUALCROSS 90° CROSSOVER BRACKET

Table 11: Crossover Configurations and Capacities

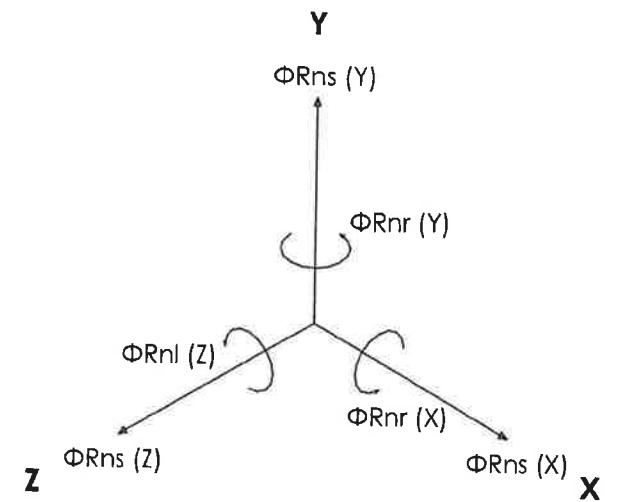
Part Number	Weight <i>lbs</i>	Pipe 1 Size (Vertical) <i>in</i>	Pipe 2 Size (Horizontal) <i>in</i>	Pipe 1 Bolt Size <i>in</i>	Pipe 2 Bolt Size <i>in</i>	Available Sliding Strength ( $\Phi=0.7$ )			Available Torsional Strength ( $\Phi=0.7$ )		Available Lateral Twist Strength ( $\Phi=0.9$ )
						$\Phi Rns$ (X) <i>kip</i>	$\Phi Rns$ (Y) <i>kip</i>	$\Phi Rns$ (Z) <i>kip</i>	$\Phi Rnr$ (X) <i>kip-in</i>	$\Phi Rnr$ (Y) <i>kip-in</i>	$\Phi Rnl$ (Z) <i>kip-in</i>
PV-XP-DC-2020	6.1	$\Phi 2.375$	$\Phi 2.375$	$\Phi 5/8 \times 4-1/2$	$\Phi 5/8 \times 4-1/2$	3.85	3.85	Fixed	6.0	6.0	14.0
PV-XP-DC-2025	7.0	$\Phi 2.375$	$\Phi 2.875$	$\Phi 5/8 \times 4-1/2$	$\Phi 5/8 \times 5$	3.85	3.85	Fixed	6.0	6.0	14.0
PV-XP-DC-2030	8.1	$\Phi 2.375$	$\Phi 3.5$	$\Phi 5/8 \times 4-1/2$	$\Phi 5/8 \times 5-1/2$	3.85	3.85	Fixed	6.8	6.0	14.0
PV-XP-DC-2525	8.0	$\Phi 2.875$	$\Phi 2.875$	$\Phi 5/8 \times 5$	$\Phi 5/8 \times 5$	3.85	3.85	Fixed	6.0	6.0	20.0
PV-XP-DC-2530	9.3	$\Phi 2.875$	$\Phi 3.5$	$\Phi 5/8 \times 5$	$\Phi 5/8 \times 5-1/2$	3.85	3.85	Fixed	6.8	6.0	20.0
PV-XP-DC-3030	10.7	$\Phi 3.5$	$\Phi 3.5$	$\Phi 5/8 \times 5-1/2$	$\Phi 5/8 \times 5-1/2$	3.85	3.85	Fixed	6.8	6.8	27.0
PV-XP-DC-3040	13.1	$\Phi 3.5$	$\Phi 4.5$	$\Phi 5/8 \times 5-1/2$	$\Phi 5/8 \times 6-1/2$	3.85	3.85	Fixed	6.8	6.8	27.0

**NOTES:**

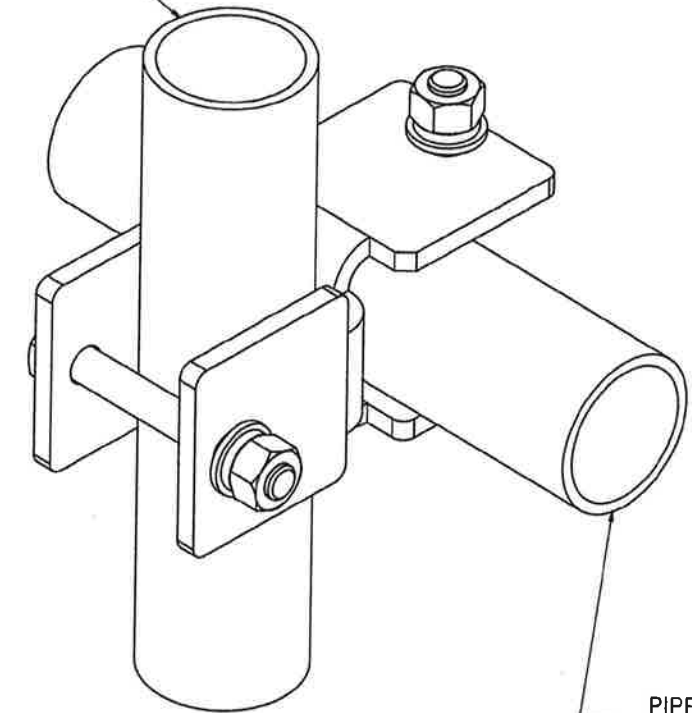
- CAPACITY VALUES EXPERIMENTALLY DETERMINED
- INSTALLATION REQUIREMENTS:
  - MINIMUM BOLT TORQUE: 100 FT-LBS
  - CLEAN, DRY ASSEMBLY
  - GALVANIZED BRACKET AND HARDWARE
  - COLORED WAX COATING ON NUTS
- MATERIALS
  - BRACKET: A36 HDG
  - HARDWARE: A325 HDG BOLT, A563DH NUT



PV-XP-DC  
DUALCROSS 90° CROSSOVER



PIPE 1  
SEE TABLE 1



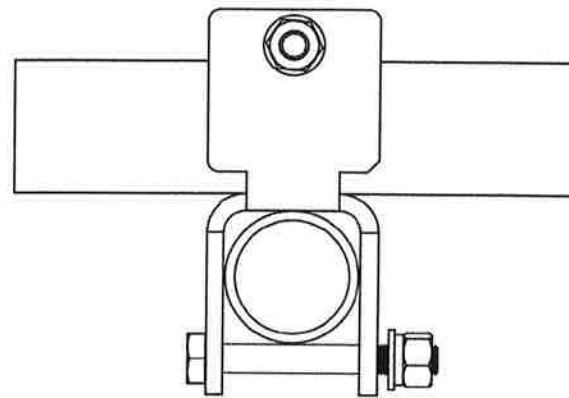
PIPE 2  
SEE TABLE 1

SHEET 8 OF 16		CATEGORY 02_Monopole	9	ACC1 REPLACE ACC2, PV-CMX-CG-BO REPLACE 115-242	3/16/21	<b>PERFECT VISION</b>
4/27/2021	SCALE 1:2	SERIES 01_Triangular	8	KKGS UPDATE	2/2/21	
DIMENSIONS ARE IN INCHES TOLERANCES U.N.O. HOLES: +1/16", -1/32" ANGULAR: PROFILE ±1/4°, BEND ±2° ALL OTHERS: ±1/16"		TYPE PV-LPPGS_GUARDIAN	7	REPLACED PK8K WITH PV-KKRS	11/11/20	MONOPOLE GUARDIAN MOUNT
		BY DJN	6	ADDED ALL THREAD NOTE TO COLLARS	7/27/20	DOCUMENT NUMBER
		CHECKED SJS	5	ADDED HR2-AP3 CONFIGS	1/20/20	LPPGS-ENG-01-R9
		STATUS APPROVED	REV	DESCRIPTION	DATE	9

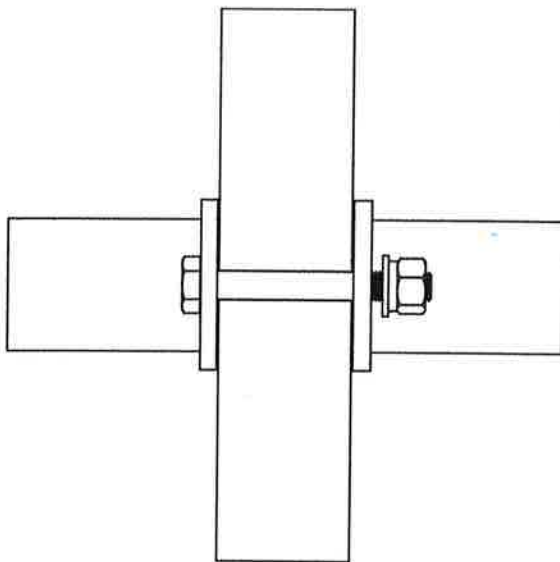
# PV-XP-DC

DUALCROSS 90° CROSSOVER BRACKET

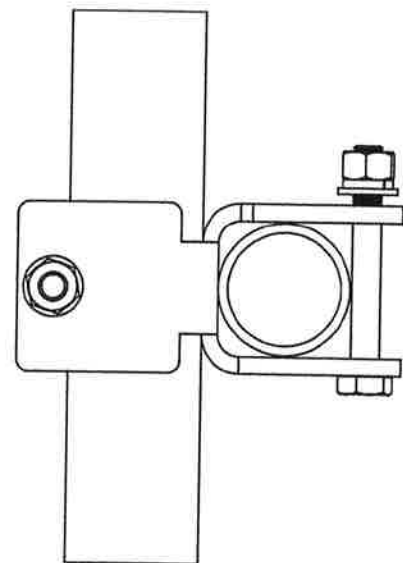
## PRE-INSTALL ASSEMBLY:



TOP

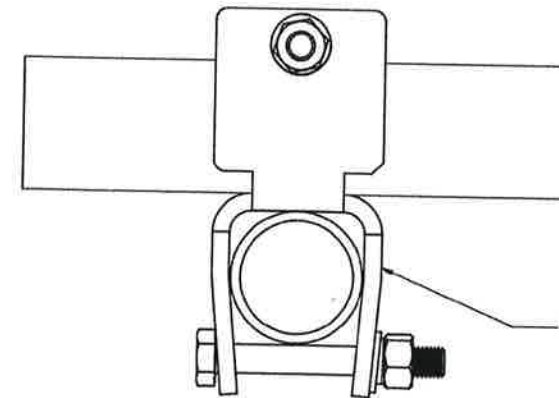


FRONT



SIDE

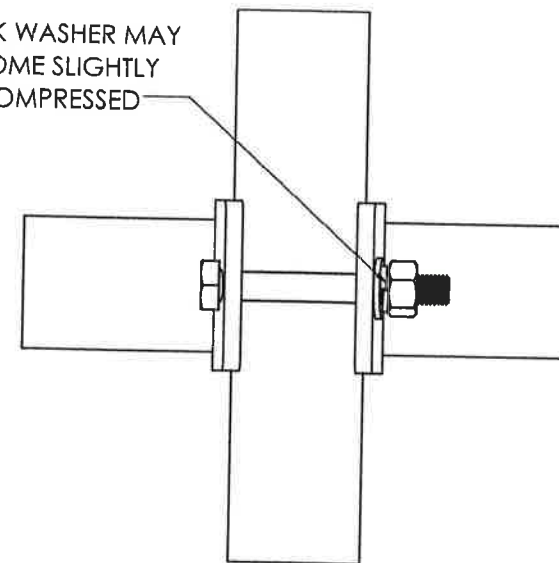
## POST-INSTALL ASSEMBLY:



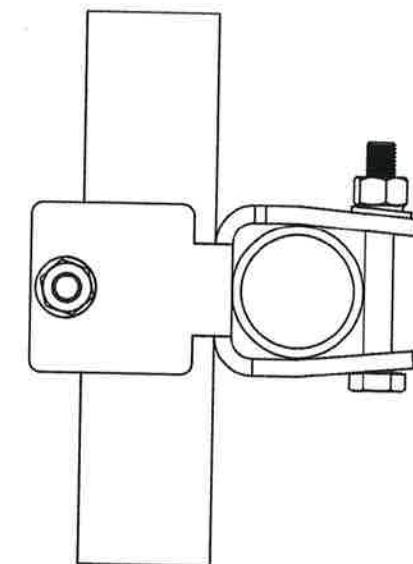
TOP

UNDER SPECIFIED BOLT TORQUE CONDITIONS, PLATES WILL FLEX AROUND PIPES

LOCK WASHER MAY BECOME SLIGHTLY UNCOMPRESSED

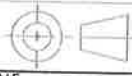


FRONT



SIDE

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SHEET	9 OF 16		CATEGORY	02_Monopole	9	ACC1 REPLACE ACC2, PV-CMX-CG-BO REPLACE 115-242	3/16/21	
	4/27/2021	SCALE 1:4	SERIES	01_Triangular	8	KKGS UPDATE	2/2/21	
	DIMENSIONS ARE IN INCHES TOLERANCES U.N.O. HOLES: +1/16", -1/32" ANGULAR: PROFILE ±1/4°, BEND ±2° ALL OTHERS: ±1/16"		TYPE	PV-LPPGS_GUARDIAN	7	REPLACED PKBK WITH PV-KKRS	11/11/20	
			BY	DJN	6	ADDED ALL THREAD NOTE TO COLLARS	7/27/20	
			CHECKED	SJS	5	ADDED HR2-AP3 CONFIGS	1/20/20	
			STATUS	APPROVED	REV	DESCRIPTION	DATE	
<b>PERFECT VISION</b>							MONOPOLE GUARDIAN MOUNT	
DOCUMENT NUMBER							REV	
LPPGS-ENG-01-R9							9	