



161 INVERNESS DR W, 2ND FLOOR  
ENGLEWOOD, CO 80112

AT&T SITE NAME: WIDFIELD HIGH SCHOOL CO  
AT&T SITE ID: COL02205  
AT&T PACE NUMBER: MRUTH042458  
AT&T FA CODE: 15312479  
USID: 295097  
NSB - MONOPOLE  
LTE 1C/2C/3C/4C/5G NR 1SR



AMERICAN TOWER®

ATC SITE NAME: WIDFIELD HIGH SCHOOL II  
ATC SITE NUMBER: 370609  
SITE ADDRESS: 527 WIDFIELD DRIVE  
COLORADO SPRINGS, CO 80911  
(EL PASO COUNTY)



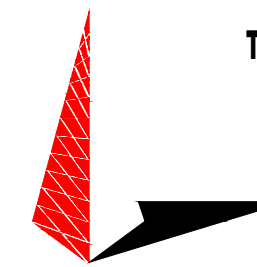
LOCATION MAP



161 INVERNESS DR W, 2ND FLOOR  
ENGLEWOOD, CO 80112



AMERICAN TOWER®  
19100 VON KARMAN AVE  
SUITE 200  
IRVINE, CA 92612



TOWER ENGINEERING PROFESSIONALS  
4710 E ELWOOD ST, STE 9  
PHOENIX, AZ 85040  
OFFICE: (480) 285-0036  
www.tepgroup.net

\*LATITUDE N 38° 45' 17.39" (38.75483°)  
\*LONGITUDE W 104° 43' 50.02" (-104.73056°)  
\*GROUND ELEV. (AMSL) = 5,795'±  
\*INFORMATION PROVIDED BY ATC

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING:

1. INTERNATIONAL BUILDING CODE (2018 EDITION)	4. NATIONAL ELECTRIC CODE (2020 EDITION)
2. INTERNATIONAL CODE COUNCIL	5. LOCAL BUILDING CODE
3. ANSII/TIA/EIA-222-H	6. CITY/COUNTY ORDINANCES

POWER COMPANY: COLORADO SPRINGS UTILITIES  
CONTACT: CUSTOMER SERVICE  
PHONE: (719) 448-4800  
METER # NEAR SITE: UNKNOWN  
TELEPHONE COMPANY: LEC UNASSIGNED  
CONTACT: UNKNOWN  
PHONE: UNKNOWN  
PHONE # NEAR SITE: UNKNOWN  
PEDESTAL # NEAR SITE: UNKNOWN

FROM COLORADO SPRINGS DOWNTOWN HEAD SOUTH ON I-25, TAKE EXIT 135 AND TURN LEFT ONTO S ACADEMY BLVD FOR .8 MILES, TAKE US 85 RAMP TO FOUNTAIN AND TAKE US 85 SOUTH FOR 1.4 MILES, TURN LEFT ONTO MAIN ST FOR .4 MILES, TURN RIGHT ONTO NORMAN DR. FOR .1 MILES, CONTINUE ONTO WIDFIELD DR. FOR .3 MILES, TURN LEFT ONTO HACKBERRY DR. FOLLOW THE ROAD TOWARDS THE BACK ENTRANCE OF THE FOOTFIELD FIELD SITE WILL BE ON THE RIGHT.

TOWER COORDINATES

CODE COMPLIANCE

AT&T SITE NAME:	WIDFIELD HIGH SCHOOL CO	PROJECT DESCRIPTION:	COLLOCATION
AT&T SITE ID:	COL02205	TOWER TYPE:	119' MONOPOLE
FA:	15312479	JURISDICTION:	EL PASO COUNTY
PACE NUMBER:	MRUTH042458	LEASE AREA:	300 SQ FT
ATC SITE NAME:	WIDFIELD HIGH SCHOOL II	CURRENT ZONING:	A-5
ATC SITE NUMBER:	370609	PROPERTY TAX SCHEDULE NUMBER:	6512300001

UTILITY INFORMATION

DESIGN PACKAGE BASED ON RF DATA SHEET  
RFDS NAME: COL02205  
REVISION: 1.00  
ISSUED: 09/21/2020 5:43:37 P.M.  
DATE UPDATED: 10/14/2020 11:33:08 A.M.

DRIVING DIRECTIONS

PROJECT INFORMATION

**SITE CONSTRUCTION MANAGER:**  
NAME: AT&T  
ADDRESS: 161 INVERNESS DR W, 2ND FLOOR  
CITY, STATE, ZIP: ENGLEWOOD, CO 80112  
CONTACT: REID POST  
PHONE: (720) 838-4228

**SITE APPLICANT:**  
NAME: AT&T  
ADDRESS: 4393 S RIVERBOAT RD, 4TH FLOOR  
CITY, STATE, ZIP: SALT LAKE CITY, UT 84123  
CONTACT: JAN ROBINETTE  
PHONE: (801) 201-4173

**CIVIL ENGINEER:**  
NAME: TOWER ENGINEERING PROFESSIONALS  
ADDRESS: 326 TRYON ROAD  
CITY, STATE, ZIP: RALEIGH, NC 27803  
CONTACT: GRAHAM M. ANDRES, P.E.  
PHONE: (919) 661-6351

**ELECTRICAL ENGINEER:**  
NAME: TOWER ENGINEERING PROFESSIONALS  
ADDRESS: 326 TRYON ROAD  
CITY, STATE, ZIP: RALEIGH, NC 27803  
CONTACT: GRAHAM M. ANDRES, P.E.  
PHONE: (919) 661-6351

**PROPERTY OWNER:**  
NAME: WIDFIELD SCHOOL DISTRICT NO 3  
ADDRESS: 1820 MAIN ST  
CITY, STATE, ZIP: COLORADO SPRINGS, CO 80911

SHEET:	DESCRIPTION:	REV
T-1	TITLE SHEET	1
T-2	GENERAL NOTES	0
C-1.1	SITE PLAN	1
C-1.2	COMPOUND DETAIL	0
C-2	EQUIPMENT & ANTENNA LAYOUTS	0
C-3	EXISTING AND FINAL ELEVATIONS	0
C-4	EQUIPMENT DETAILS	0
C-5	EQUIPMENT DETAILS	0
C-6	W/C SHELTER DETAILS	0
C-7	GENERATOR DETAILS	0
C-8	FOUNDATION DETAILS	0
E-1	ELECTRICAL PANEL & GROUNDING PLANS	0
E-2	ONE-LINE DIAGRAM	0
E-3	DC SYSTEM DETAILS	0
G-1	GROUNDING DETAILS	0
G-2	GROUNDING DETAILS	0

NUMBER OF SECTORS: 3  
NUMBER OF ANTENNAS: 6  
NUMBER OF TMAS: 0  
NUMBER OF RRHS: 9  
NUMBER OF FIBER/DC SQUIDS: 0  
NUMBER OF DC SQUIDS: 3  
NUMBER OF FIBER TRUNK CABLES: 3  
NUMBER OF DC TRUNK CABLES: 6  
NUMBER OF RF CABLES: 0

RFDS DATA

THE PURPOSE OF THIS PROJECT IS AS FOLLOWS:

TOWER SCOPE OF WORK:

- INSTALL (3) SECTOR FRAMES
- INSTALL (6) ANTENNAS
- INSTALL (9) RRHS
- INSTALL (3) SQUIDS
- INSTALL (3) FIBER TRUNKS
- INSTALL (6) DC TRUNKS

GROUND SCOPE OF WORK:

- INSTALL (1) W.I.C. SHELTER PAD
- INSTALL (1) GENERATOR PAD
- INSTALL (1) W.I.C. SHELTER
- INSTALL (1) GENERATOR
- INSTALL (1) H-FRAME
- INSTALL METER AND DISCONNECT
- INSTALL FIBER BOX

NSB - MONOPOLE  
LTE - 1C/2C/3C/4C/5G NR 1SR

SCOPE OF WORK

JURISDICTIONAL APPROVAL

DO NOT SCALE DRAWINGS.

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

Approved

By: Craig Dossey, Executive Director

Date: 01/11/2022



El Paso County Planning & Community Development

PCD FILE NO. PPR-21-034

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	QA
A	11-23-20	KT	PRELIMINARY	EGG
B	12-14-20	SDD	90% CONSTRUCTION	EGG
C	02-18-21	CAK	90% CONSTRUCTION	EGG
O	04-23-21	GV	100% CONSTRUCTION	EGG
T	12-13-21	SRZ	100% CONSTRUCTION	EGG

SEAL:



December 13, 2021

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 TITLE:

TITLE SHEET

SHEET NUMBER:

T-1

REVISION:

1

TEP #:

177861.243634

PROJECT TEAM

SHEET INDEX

GENERAL NOTES

**GENERAL CONSTRUCTION NOTES:**

1. OWNER FURNISHED MATERIALS, AT&T "THE COMPANY" WILL PROVIDE AND THE CONTRACTOR WILL INSTALL
  - A. BTS EQUIPMENT FRAME (PLATFORM) AND ICEBRIDGE SHELTER (GROUND BUILD/CO-LOCATE ONLY)
  - B. AC/TELCO INTERFACE BOX (PPC)
  - C. ICE BRIDGE (CABLE TRAY WITH COVER) (GROUND BUILD/CO-LOCATE ONLY, GC TO FURNISH AND INSTALL FOR ROOFTOP INSTALLATION)
  - D. TOWERS, MONOPOLES
  - E. TOWER LIGHTING
  - F. GENERATORS & LIQUID PROPANE TANK
  - G. ANTENNA STANDARD BRACKETS, FRAMES AND PIPES FOR MOUNTING
  - H. ANTENNAS (INSTALLED BY OTHERS)
  - I. TRANSMISSION LINE
  - J. TRANSMISSION LINE JUMPERS
  - K. TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS
  - L. TRANSMISSION LINE GROUND KITS
  - M. HANGERS
  - N. HOISTING GRIPS
  - O. BTS EQUIPMENT
2. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES, COPPER-CLAD OR XIT CHEMICAL GROUND ROD(S), BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, TEMPORARY ELECTRICAL POWER, CONDUIT, LANDSCAPING COMPOUND STONE, CRANES, CORE DRILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR AUGER MOUNTS, MISCELLANEOUS FASTENERS, CABLE TRAYS, NON-STANDARD ANTENNA FRAMES AND ALL OTHER MATERIAL AND LABOR REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND SPECIFICATIONS. IT IS THE POSITION OF AT&T TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP AND PAYMENT OF REQUIRED PERMITS.
3. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSII/EIA/IA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS.
4. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
6. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
7. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
8. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
9. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
11. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
12. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE AT&T REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE AT&T REP PRIOR TO PROCEEDING.
13. EACH CONTRACTOR SHALL COOPERATE WITH THE AT&T REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
14. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE AT&T CONSTRUCTION MANAGER.
15. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
16. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE AT&T REP AND ENGINEER OF RECORD IMMEDIATELY.
17. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
18. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
19. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH AMERICAN TOWER CORPORATION (ATC) AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
20. CONTRACTOR SHALL FURNISH ##### AND AMERICAN TOWER CORPORATION (ATC) WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
21. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH AT&T REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.
22. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH AT&T REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY AT&T MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH AT&T SPECIFICATIONS AND REQUIREMENTS.

24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO AT&T FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO AT&T SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
26. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
27. CONTRACTOR SHALL NOTIFY AT&T REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
28. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.

29. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.

30. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE AT&T REP. ANY WORK FOUND BY THE AT&T REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.

31. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.

32. AT&T FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE AT&T WAREHOUSE, NO LATER THAN 48HR AFTER BEING NOTIFIED INSURED, STORED, UNCRATE, PROTECTED AND INSTALLED BY THE CONTRACTOR WITH ALL APPURTENANCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AFTER PICKING IT UP.

33. AT&T OR HIS ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OWN OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO AT&T OR THEIR ARCHITECT/ENGINEER.

**STRUCTURAL STEEL NOTES:**

1. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS."
2. STRUCTURAL STEEL ROLLED SHAPES, PLATES AND BARS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS:
  - A. ASTM A-572, GRADE 50 - ALL W SHAPES, UNLESS NOTED OR A992 OTHERWISE
  - B. ASTM A-36 - ALL OTHER ROLLED SHAPES, PLATES AND BARS UNLESS NOTED OTHERWISE.
  - C. ASTM A-500, GRADE B - HSS SECTION (SQUARE, RECTANGULAR, AND ROUND)
  - D. ASTM A-325, TYPE SC OR N - ALL BOLTS FOR CONNECTING STRUCTURAL MEMBERS
  - E. ASTM F-1554 07 - ALL ANCHOR BOLTS, UNLESS NOTED OTHERWISE
3. ALL EXPOSED STRUCTURAL STEEL MEMBERS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123. EXPOSED STEEL HARDWARE AND ANCHOR BOLTS SHALL BE GALVANIZED PER ASTM A153 OR B695.
4. ALL FIELD CUT SURFACES, FIELD DRILLED HOLES AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.
5. DO NOT DRILL HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
6. CONNECTIONS:
  - A. ALL WELDING TO BE PERFORMED BY AWS CERTIFIED WELDERS AND CONDUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1.
  - B. ALL WELDS SHALL BE INSPECTED VISUALLY. 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. REPAIR ALL WELDS AS NECESSARY.
  - C. INSPECTION SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
  - D. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE BURNING/WELDING PERMITS AS REQUIRED BY LOCAL GOVERNING AUTHORITY AND IF REQUIRED SHALL HAVE FIRE DEPARTMENT DETAIL FOR ANY WELDING ACTIVITY.
  - E. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNLESS NOTED OTHERWISE.

- F. MINIMUM WELD SIZE TO BE 0.1875 INCH FILLET WELDS, UNLESS NOTED OTHERWISE.
- G. PRIOR TO FIELD WELDING GALVANIZING MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING 1/2" BEYOND ALL FIELD WELD SURFACES. AFTER WELD AND WELD INSPECTION IS COMPLETE, REPAIR ALL GROUND AND WELDED SURFACES WITH ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS RECOMMENDATIONS.
- H. THE CONTRACTOR SHALL PROVIDE ADEQUATE SHORING AND/OR BRACING WHERE REQUIRED DURING CONSTRUCTION UNTIL ALL CONNECTIONS ARE COMPLETE.
- I. ANY FIELD CHANGES OR SUBSTITUTIONS SHALL HAVE PRIOR APPROVAL FROM THE ENGINEER, AND AT&T PROJECT MANAGER IN WRITING

**SPECIAL CONSTRUCTION ANTENNA INSTALLATION NOTES:**

1. WORK INCLUDED:
  - A. ANTENNA AND COAXIAL CABLES ARE FURNISHED BY AT&T UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OF COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL AND
  - B. INSTALL ANTENNA AS INDICATE ON DRAWINGS AND AT&T SPECIFICATIONS.
  - C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS
  - D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE AND PROVIDE PRINTOUT OF THAT TEST.
  - E. CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF SWEEP TESTS USING ANRITZU-PACKARD 8713B RF SCALAR NETWORK ANALYZER. SUBMIT FREQUENCY DOMAIN REFLECTOMETER(FDR) TESTS RESULTS TO THE PROJECT MANAGER. SWEEP TESTS SHALL BE AS PER ATTACHED RFS "MINIMUM FIELD TESTING RECOMMENDED FOR ANTENNA AND HELIAX COAXIAL CABLE SYSTEMS" DATED 10/5/93. TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING SERVICE AND BE BOUND AND SUBMITTED WITHIN ONE WEEK OF WORK COMPLETION.

- F. INSTALL COAXIAL CABLES AND TERMINATING BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTIONS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE NOTED.

- G. ANTENNA AND COAXIAL CABLE GROUNDING:
  2. ALL EXTERIOR #6 GREED GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPlice WEATHERPROOFING KIT #221213 OR EQUAL.
  3. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS)

**CONCRETE AND REINFORCING STEEL NOTES:**

1. DESIGN AND CONSTRUCTION OF ALL CONCRETE ELEMENTS SHALL CONFORM TO THE LATEST EDITIONS OF ALL APPLICABLE CODES INCLUDING: ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", ACI 117 "SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS", AND ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE."
2. MIX DESIGN SHALL BE APPROVED BY AT&T REP PRIOR TO PLACING CONCRETE.
3. CONCRETE SHALL BE NORMAL WEIGHT, 6 % AIR ENTRAINED (+/- 1.5%) WITH A SLUMP RANGE OF 3-6" AND HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI UNLESS OTHERWISE NOTED.
4. THE FOLLOWING MATERIALS SHALL BE USED:
 

PORTLAND CEMENT:	ASTM C150, TYPE 2
REINFORCEMENT:	ASTM A185, PLAIN STEEL WELDED WIRE FABRIC
REINFORCEMENT BARS:	ASTM A615, GRADE 60, DEFORMED
NORMAL WEIGHT AGGREGATE:	ASTM C33
WATER:	ASTM C 94/C 94M
WELDED WIRE FABRIC:	ASTM A185
ADMIXTURES:	
-WATER-REDUCING AGENT:	ASTM C 494/C 494M, TYPE A
-AIR-ENTERING AGENT:	ASTM C 260/C 260M
-SUPERPLASTICIZER:	ASTM C494, TYPE F OR TYPE G
-RETARDING:	ASTM C 494/C 494M, TYPE B
5. MINIMUM CONCRETE COVER FOR REINFORCING STEEL SHALL BE NO LESS THAN 3".
6. A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE IN ACCORDANCE WITH ACI 301 SECTION 4.2.4, UNLESS NOTED OTHERWISE.
7. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL, OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR APPROVAL FROM AN ATC ENGINEER WHEN DRILLING HOLES IN CONCRETE.
8. ADMIXTURES SHALL CONFORM TO THE APPROPRIATE ASTM STANDARD AS REFERENCED IN "METHOD 1" OF ACI 301.
9. DO NOT WELD OR TACK WELD REINFORCING STEEL.
10. ALL DOWELS, ANCHOR BOLTS, EMBEDDED STEEL, ELECTRICAL CONDUITS, PIPE SLEEVES, GROUNDS AND ALL OTHER EMBEDDED ITEMS AND FORMED DETAILS SHALL BE IN PLACE BEFORE START OF CONCRETE PLACEMENT.

11. REINFORCEMENT SHALL BE COLD BENT WHENEVER BENDING IS REQUIRED.
12. DO NOT PLACE CONCRETE IN WATER, ICE, OR ON FROZEN GROUND.
13. FOR COLD-WEATHER (ACI 308) AND HOT-WEATHER (ACI 301M) CONCRETE PLACEMENT, CONFORM TO APPLICABLE ACI CODES AND RECOMMENDATIONS. IN EITHER CASE, MATERIALS CONTAINING CHLORIDE, CALCIUM, SALTS, ETC. SHALL NOT BE USED. PROTECT FRESH CONCRETE FROM WEATHER FOR 7 DAYS, MINIMUM.
14. ALL CONCRETE SHALL HAVE A "SMOOTH FORM FINISH."
15. SPLICING OF REINFORCEMENT IS PERMITTED ONLY AT LOCATIONS SHOWN IN THE CONTRACT DRAWINGS OR AS ACCEPTED BY THE ENGINEER. UNLESS OTHERWISE SHOWN OR NOTED REINFORCING STEEL SHALL BE SPLICED TO DEVELOP ITS FULL TENSILE CAPACITY (CLASS A) IN ACCORDANCE WITH ACI 318.
16. DETAILING OF REINFORCING STEEL SHALL CONFORM TO "ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" (ACI 315).
17. ALL SLAB CONSTRUCTION SHALL BE CAST MONOLITHICALLY WITHOUT HORIZONTAL CONSTRUCTION JOINTS, UNLESS SHOWN IN THE CONTRACT DRAWINGS.
18. LOCATION OF ALL CONSTRUCTION JOINTS ARE SUBJECT TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS, CONFORMANCE WITH ACI 318, AND ACCEPTANCE OF THE ENGINEER. DRAWINGS SHOWING LOCATION OF DETAILS OF THE PROPOSED CONSTRUCTION JOINTS SHALL BE SUBMITTED WITH REINFORCING STEEL PLACEMENT DRAWINGS.
19. SPLICES OF WWF AT ALL SPLICED EDGES, SHALL BE SUCH THAT THE OVERLAP MEASURED BETWEEN OUTERMOST CROSS WIRES OF EACH FABRIC SHEET IS NOT LESS THAN THE SPACING OF THE CROSS WIRE PLUS 2 INCHES, NOR LESS THAN 6".
20. BAR SUPPORTS SHALL BE ALL-GALVANIZED METAL WITH PLASTIC TIPS.
21. ALL REINFORCEMENT SHALL BE SECURELY TIED IN PLACE TO PREVENT DISPLACEMENT BY CONSTRUCTION TRAFFIC OR CONCRETE. THE WIRE SHALL BE OF SUFFICIENT STRENGTH FOR INTENDED PURPOSE, BUT NOT LESS THAN NO. 18 GAUGE.
22. SLAB ON GROUND: COMPACT STRUCTURAL FILL TO 95% DENSITY AND THEN PLACE 6" GRAVEL BENEATH SLAB.

**ELECTRICAL NOTES:**

1. ELECTRICAL DESIGN SHALL BE PERFORMED BY ELECTRICAL CONTRACTOR. STRUCTURAL DESIGN SHALL BE PERFORMED BY GENERAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL ENSURE THAT ALL WORK COMPLIES WITH ALL APPLICABLE LOCAL AND STATE CODES AND NATIONAL ELECTRICAL CODE.
2. ALL SUGGESTED ELECTRICAL ELEMENTS (SUCH AS BREAKER SIZES, WIRE SIZES, CONDUITS SIZES ARE FOR ZONING PURPOSES ONLY. IT IS THE RESPONSIBILITY TO OF THE ELECTRICAL CONTRACTOR TO CONFIRM COMPLIANCE WITH LOCAL ELECTRICAL CODES AND PASS ALL APPLICABLE AND NECESSARY INSPECTIONS. IN SOME EVENTS, IT MAY BE NECESSARY TO PERFORM AN ELECTRICAL LOAD STUDY TO VERIFY THE CAPACITY OF THE EXISTING SERVICE. THIS IS NOT THE RESPONSIBILITY OF CONCORDIA. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
3. CONTRACTOR SHALL FIELD LOCATE ALL BELOW GRADE GROUND LINES AND UTILITY LINES PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR RELOCATION OF ALL UTILITIES AND GROUND LINES THAT MAY BECOME DISTURBED OR CONFLICTING IN THE COURSE OF CONSTRUCTION.

ALL DISCREPANCIES FROM WHAT IS SHOWN ON THESE CONSTRUCTION DRAWINGS SHALL BE COMMUNICATED TO ATC ENGINEERING IMMEDIATELY FOR CORRECTION OR RE-DESIGN. FAILURE TO COMMUNICATE DIRECTLY WITH ATC ENGINEERING OR ANY CHANGES FROM THE DESIGN CONDUCTED WITHOUT PRIOR APPROVAL FROM ATC ENGINEERING SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.



**AT&T SITE ID: COL02205**  
**AT&T FA CODE: 15312479**  
**AT&T PACE #: MRUTH042458**  
**ATC #: 370609**  
**WIDEFIELD HIGH SCHOOL II**

**527 WIDEFIELD DRIVE**  
**COLORADO SPRINGS,**  
**CO 80911**  
**(EL PASO COUNTY)**  
**EXISTING 119'-0"**  
**MONOPOLE TOWER**  
**NSB - LTE - 1C/2C/3C/4C/**  
**5G NR 1SR**

ISSUED FOR:				
REV	DATE	DRWN	DESCRIPTION	QA
A	11-23-20	KT	PRELIMINARY	EGG
B	12-14-20	SD	90% CONSTRUCTION	EGG
C	02-18-21	CAK	90% CONSTRUCTION	EGG
O	04-23-21	GV	100% CONSTRUCTION	EGG

**SEAL:**

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 TITLE:**

**GENERAL NOTES**

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

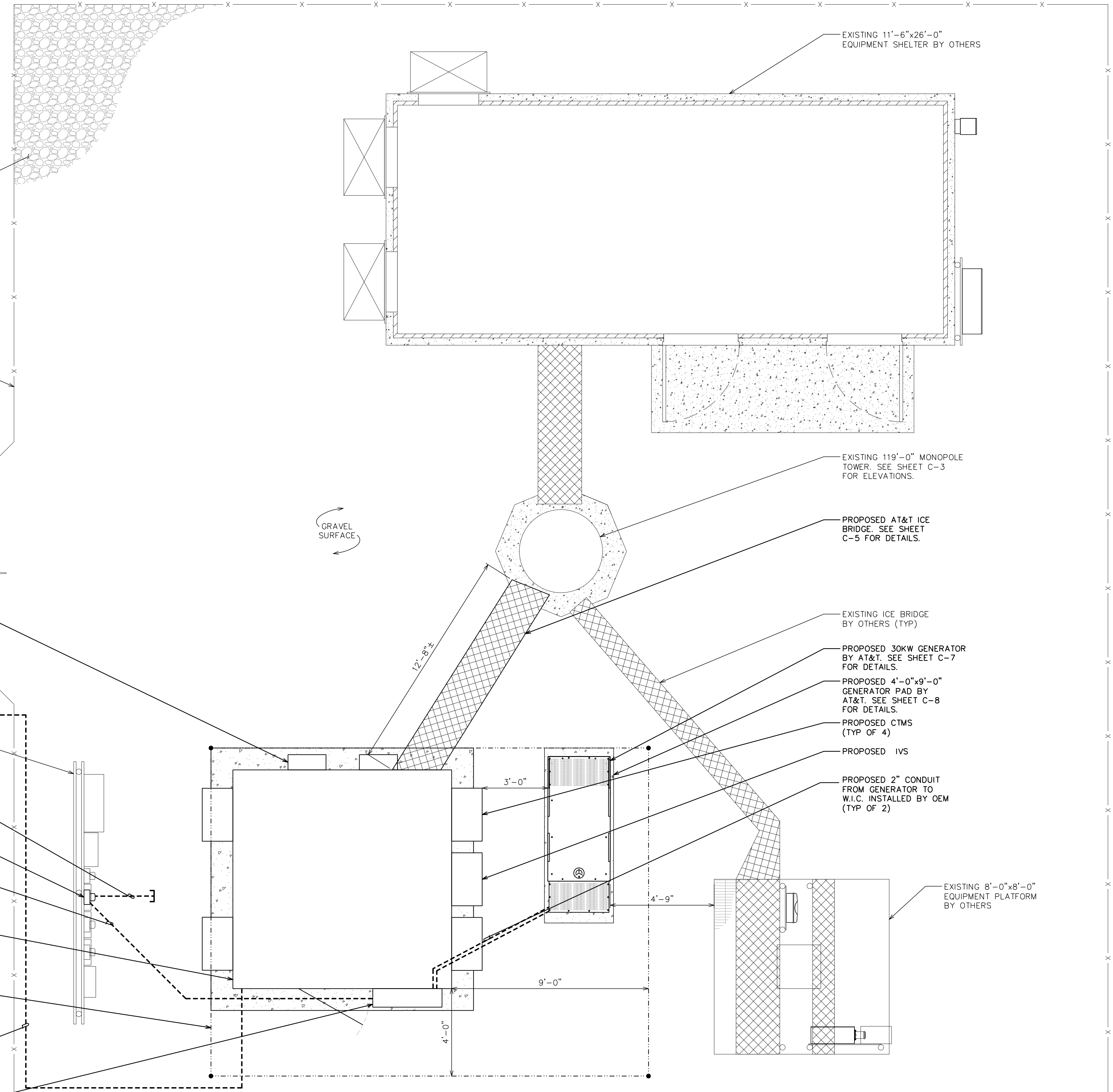
**TEP #:** 177861.243634



**NOTES:**

1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE AT&T REPRESENTATIVE AND LOCAL UTILITY COMPANY FOR THE INSTALLATION OF CONDUITS, CONDUCTORS, BREAKERS, DISCONNECTS, OR ANY OTHER EQUIPMENT REQUIRED FOR ELECTRICAL SERVICE. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE STATE AND NATIONAL CODES, ORDINANCES AND REGULATIONS APPLICABLE TO THIS PROJECT.
4. UTILITY COORDINATION PENDING.

- EXISTING GRAVEL WITHIN COMPOUND
- EXISTING CHAIN-LINK FENCED COMPOUND
- EXISTING 12'-0" WIDE ACCESS GATE
- PROPOSED DC-12 (TYP OF 2)
- PROPOSED HANDHOLE BY AT&T
- PROPOSED FIBER ROUTE BY AT&T TO EXISTING TELCO SERVICE. SEE SHEET E-4 FOR DETAILS.
- EXISTING UTILITY RACK
- PROPOSED UNDERGROUND ROUTING TO EXISTING TRANSFORMER. SEE NOTES, THIS SHEET.
- PROPOSED METER TO BE INSTALLED IN EMPTY SOCKET ON EXISTING METER BANK
- PROPOSED 2 1/2" CONDUIT WITH (3) 3/0 AND (1) #6 GND FROM METER TO W.I.C.
- PROPOSED 10'-0"x10'-0" W.I.C. ON A PROPOSED 12'-0"x12'-0" EQUIPMENT PAD BY AT&T. SEE SHEETS C-6 & C-9 FOR DETAILS.
- PROPOSED 15'-0"x20'-0" LEASE AREA BY AT&T
- PROPOSED (1) 4" TELCO CONDUIT W/ (3) 1-1/4" FLEX INNERDUCT & PULL STRING FOR FIBER STUBBED UP IN FIBER HANDHOLE. CONTRACTOR TO COORDINATE SERVICE WITH LOCAL TELEPHONE COMPANY
- PROPOSED AC POWER PANEL BY AT&T



**AT&T**  
161 INVERNESS DR W, 2ND FLOOR  
ENGLEWOOD, CO 80112

**AMERICAN TOWER**  
19100 VON KARMAN AVE  
SUITE 200  
IRVINE, CA 92612

**TOWER ENGINEERING PROFESSIONALS**  
4710 E ELWOOD ST, STE 9  
PHOENIX, AZ 85040  
OFFICE: (480) 285-0036  
www.tepgroup.net

**AT&T SITE ID: COL02205**  
**AT&T FA CODE: 15312479**  
**AT&T PACE #: MRUTH042458**  
**ATC #: 370609**  
**WIDEFIELD HIGH SCHOOL II**

**527 WIDEFIELD DRIVE**  
**COLORADO SPRINGS,**  
**CO 80911**  
**(EL PASO COUNTY)**  
**EXISTING 119'-0"**  
**MONOPOLE TOWER**  
**NSB - LTE - 1C/2C/3C/4C/**  
**5G NR 1SR**

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	QA
A	11-23-20	KT	PRELIMINARY	EGG
B	12-14-20	SDD	90% CONSTRUCTION	EGG
C	02-18-21	CAK	90% CONSTRUCTION	EGG
O	04-23-21	GV	100% CONSTRUCTION	EGG

**SEAL:**

April 23, 2021

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 TITLE:**  
**COMPOUND DETAIL**

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

**REVISION:**  
**0**

**TEP #:** 177861.243634

**COMPOUND DETAIL**

SCALE: 3/16" = 1'-0" (24x36)  
SCALE: 3/32" = 1'-0" (11x17)

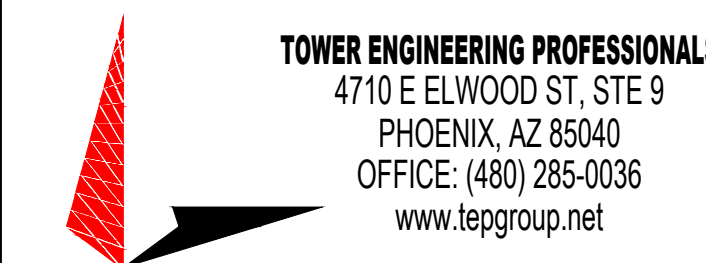
0 4 8  
SCALE IN FEET



161 INVERNESS DR W, 2ND FLOOR  
ENGLEWOOD, CO 80112



19100 VON KARMAN AVE  
SUITE 200  
IRVINE, CA 92612



4710 E ELWOOD ST, STE 9  
PHOENIX, AZ 85040  
OFFICE: (480) 285-0036  
www.tepgroup.net

**AT&T SITE ID: COL02205**  
**AT&T FA CODE: 15312479**  
**AT&T PACE #: MRUTH042458**  
**ATC #: 370609**  
**WIDEFIELD HIGH SCHOOL II**

**527 WIDEFIELD DRIVE**  
**COLORADO SPRINGS,**  
**CO 80911**  
**(EL PASO COUNTY)**  
**EXISTING 119'-0"**  
**MONOPOLE TOWER**  
**NSB - LTE - 1C/2C/3C/4C/**  
**5G NR 1SR**

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	QA
A	11-23-20	KT	PRELIMINARY	EGG
B	12-14-20	SDD	90% CONSTRUCTION	EGG
C	02-18-21	CAK	90% CONSTRUCTION	EGG
O	04-23-21	GV	100% CONSTRUCTION	EGG

**SEAL:**



April 23, 2021

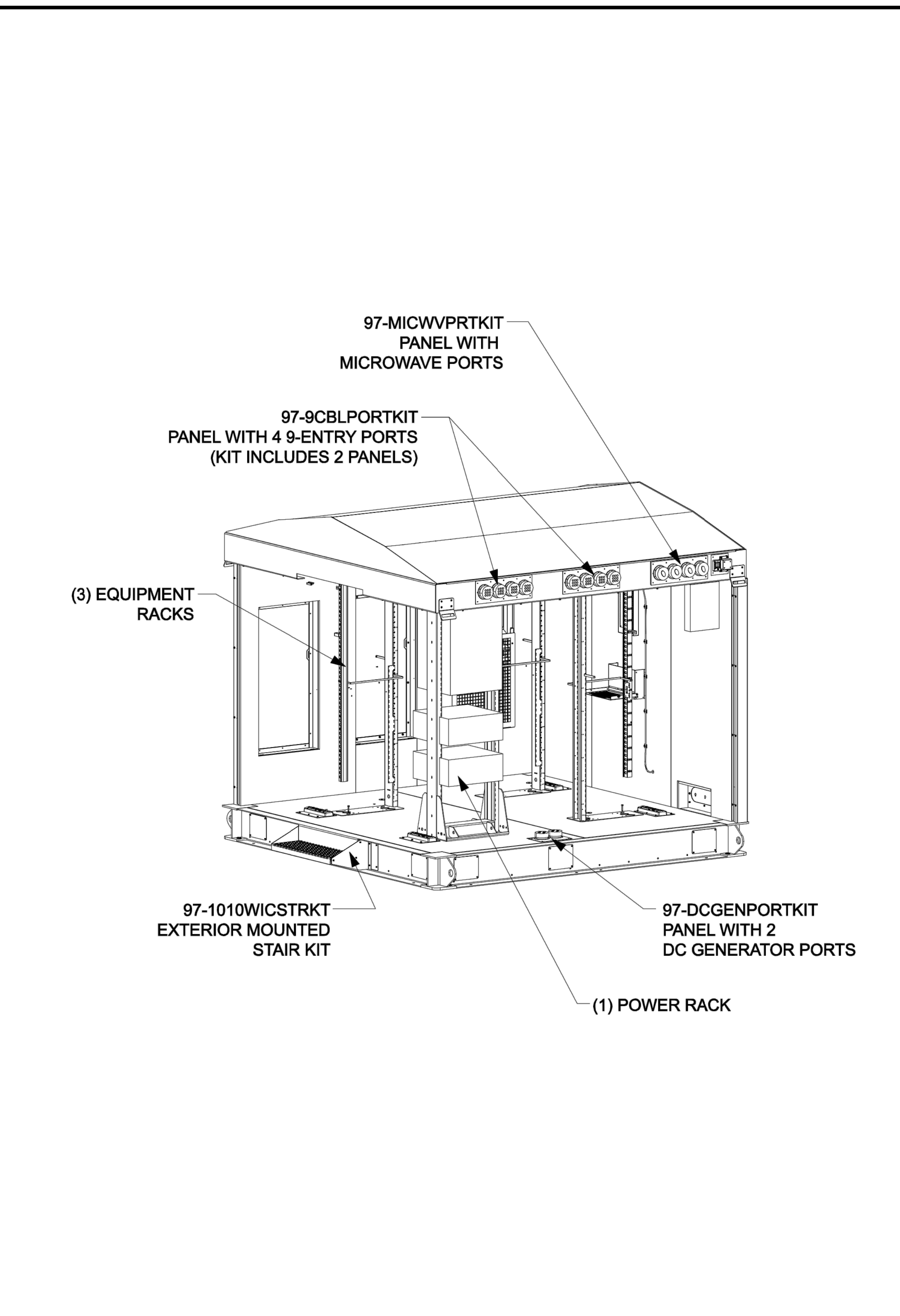
IT IS A VIOLATION OF LAW FOR ANY PERSON,  
UNLESS THEY ARE ACTING UNDER THE DIRECTION  
OF A LICENSED PROFESSIONAL ENGINEER,  
TO ALTER THIS DOCUMENT.

**SHEET TITLE:**  
**FINAL EQUIPMENT & ANTENNA LAYOUTS**

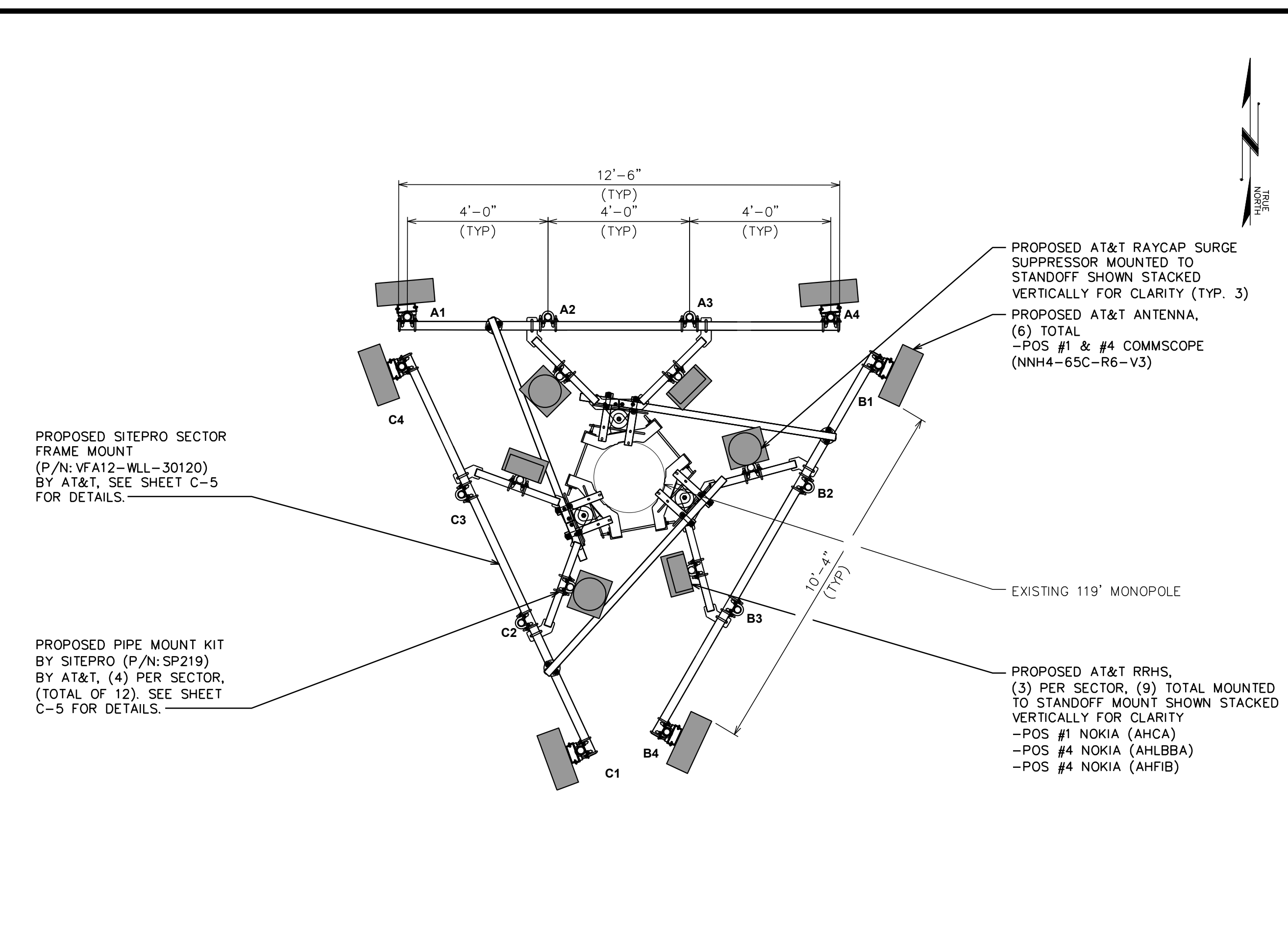
**SHEET NUMBER:**  
**C-2**

**REVISION:**  
**0**

**TEP #:** 177861.243634



**FINAL EQUIPMENT LAYOUT**  
SCALE: N.T.S.



**FINAL ANTENNA LAYOUT**

SCALE: 3/8" = 1'-0" (24x36)  
SCALE: 3/16" = 1'-0" (11x17)  
SCALE IN FEET

**NOTE:**  
SCHEDULE EQUIPMENT SHOULD BE REFERENCED OFF RFDS LISTED ON SHEET T-1.

PROPOSED EQUIPMENT IN BOLD>

SECTOR	POS.	MANUFACTURER (MODEL #)	ANTENNA TIP HEIGHT	ANTENNA POSITION SEPARATION	CABLE SIZE	CABLE LENGTH	SQUID/RRH/TMA/DIPLEXER [MODEL #]
ALPHA	1	*COMMSCOPE (NNH4-65C-R6-V3)	100'-0"±	4'-0"	(6) 0.92" DC TRUNKS 6 AWG 6 (3) 0.39" FIBER TRUNKS (6) 2" CONDUITS	150'±	*(1) RAYCAP SQUID [DC9-48-60-24-BC-EV] *(1) NOKIA RRH [AIRSCALE TRI RRH 4T4R B12/14/29 370W AHLBBA] *(1) NOKIA RRH [AIRSCALE DUAL RRH 4T4R B25/66 320W AHFIB] *(1) NOKIA RRH [AIRSCALE RRH 4T4R B5 160W AHCA]
ALPHA	2	-	-				
ALPHA	3	-	-				
ALPHA	4	*COMMSCOPE (NNH4-65C-R6-V3)	100'-0"±				
BETA	1	*COMMSCOPE (NNH4-65C-R6-V3)	100'-0"±				*(1) RAYCAP SQUID [DC9-48-60-24-BC-EV] *(1) NOKIA RRH [AIRSCALE TRI RRH 4T4R B12/14/29 370W AHLBBA] *(1) NOKIA RRH [AIRSCALE DUAL RRH 4T4R B25/66 320W AHFIB] *(1) NOKIA RRH [AIRSCALE RRH 4T4R B5 160W AHCA]
BETA	2	-	-				
BETA	3	-	-				
BETA	4	*COMMSCOPE (NNH4-65C-R6-V3)	100'-0"±				
GAMMA	1	*COMMSCOPE (NNH4-65C-R6-V3)	100'-0"±				*(1) RAYCAP SQUID [DC9-48-60-24-BC-EV] *(1) NOKIA RRH [AIRSCALE TRI RRH 4T4R B12/14/29 370W AHLBBA] *(1) NOKIA RRH [AIRSCALE DUAL RRH 4T4R B25/66 320W AHFIB] *(1) NOKIA RRH [AIRSCALE RRH 4T4R B5 160W AHCA]
GAMMA	2	-	-				
GAMMA	3	-	-				
GAMMA	4	*COMMSCOPE (NNH4-65C-R6-V3)	100'-0"±				

\*OR SIMILAR  
\*\*CONTRACTOR TO REFER TO THE LATEST RFDS FOR FINAL CONFIGURATION

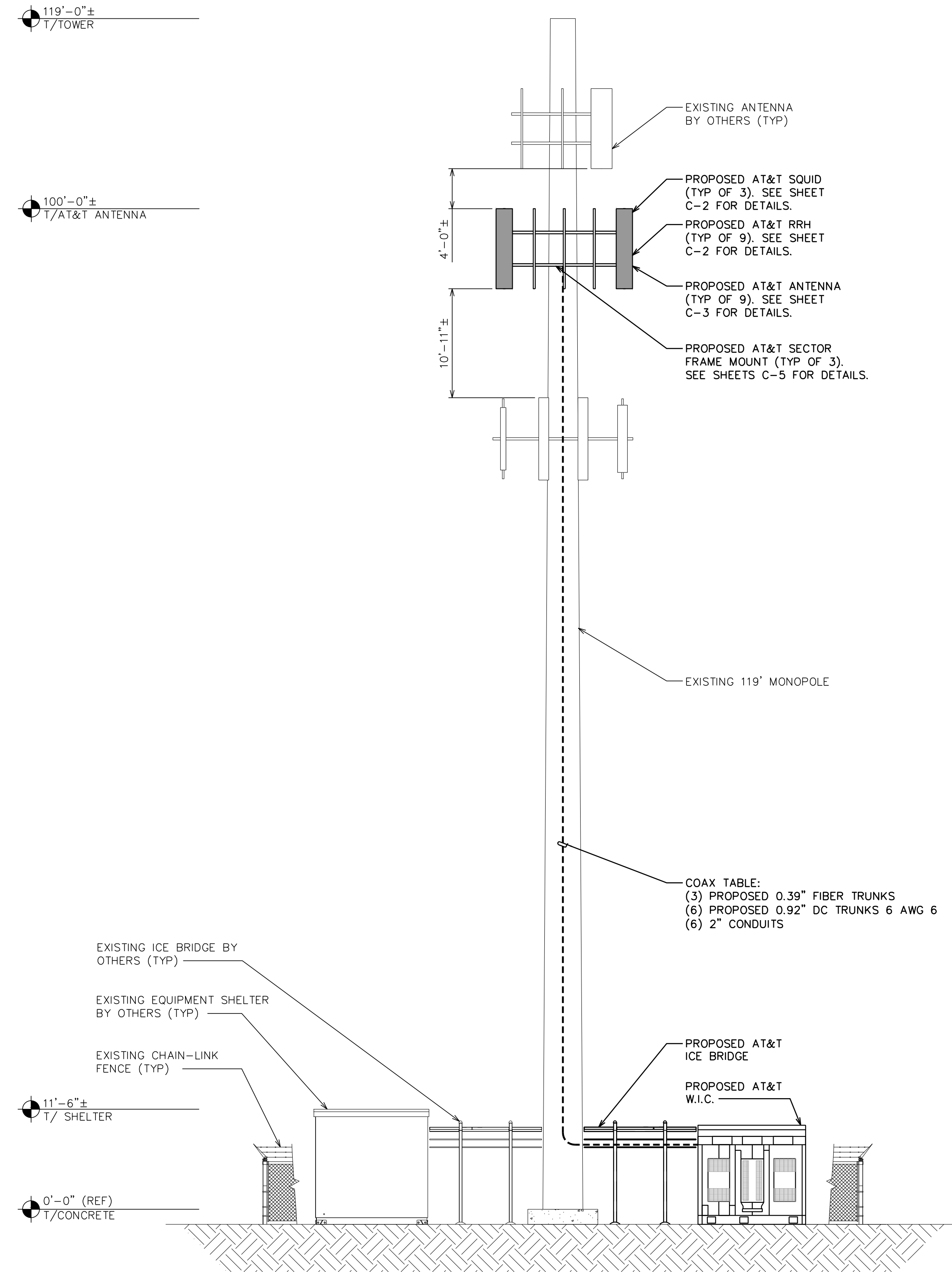
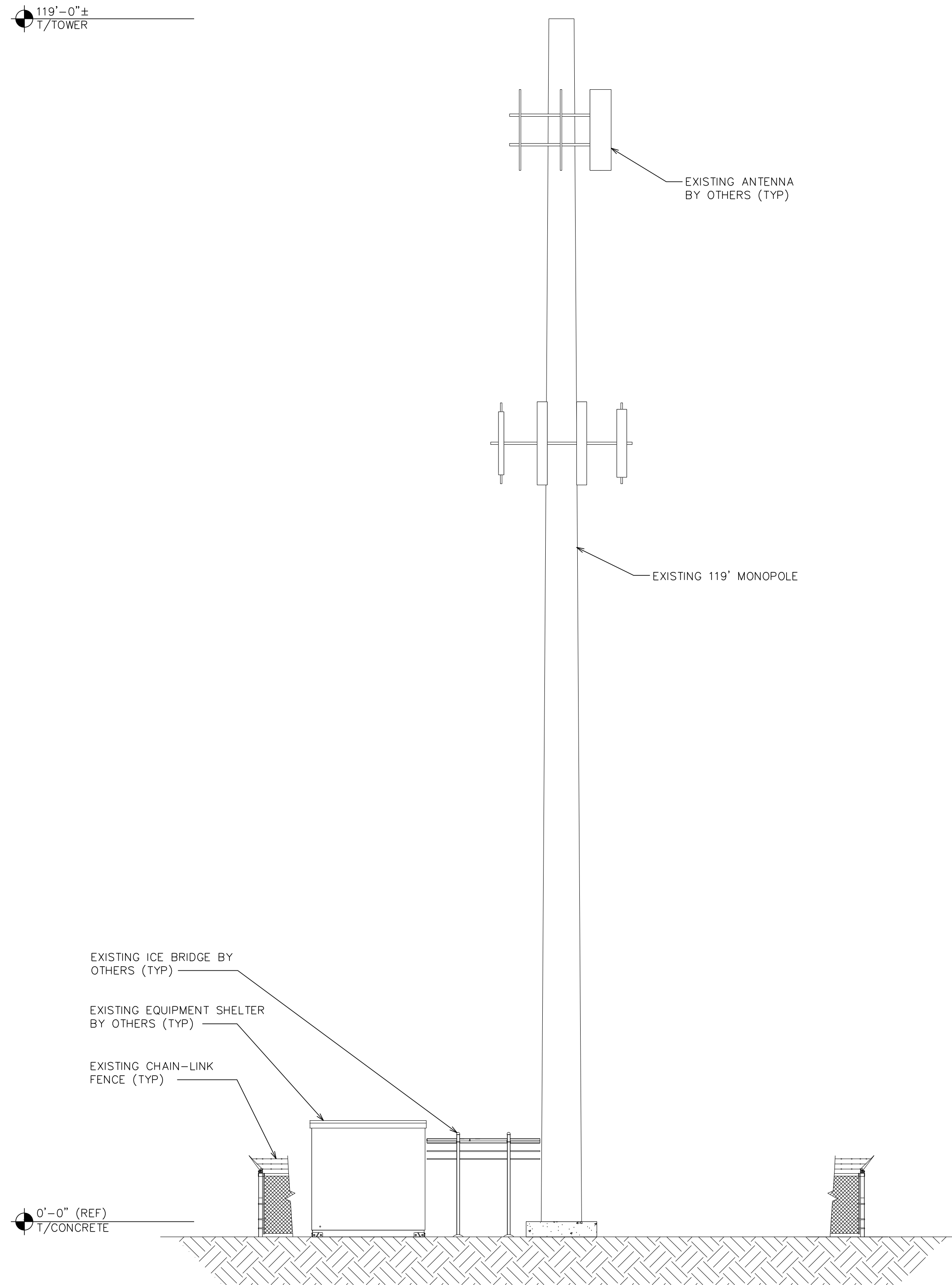
**FINAL ANTENNA SCHEDULE**  
SCALE: N.T.S.

**NOTE:**

TOWER ELEVATION IS FOR SCHEMATIC PURPOSES ONLY. TEP DID NOT CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO ANTENNA HEIGHTS, ANTENNA AZIMUTHS, AND MOUNT CONFIGURATIONS.

**NOTES:**

1. PROPOSED CABLES TO BE ROUTED PER SPECIFICATIONS OF PASSING STRUCTURAL ANALYSIS.
2. TOWER ELEVATION IS FOR SCHEMATIC PURPOSES ONLY. TEP DID NOT CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO ANTENNA HEIGHTS, ANTENNA AZIMUTHS, AND MOUNT CONFIGURATIONS.
3. CONTRACTOR TO VERIFY PROPOSED LOADING WITH PASSING STRUCTURAL ANALYSIS PRIOR TO CONSTRUCTION. CONTRACTOR TO CONTACT AT&T OR AMERICAN TOWER CORPORATION IMMEDIATELY IN THE EVENT OF ANY DISCREPANCIES.



161 INVERNESS DR W, 2ND FLOOR  
ENGLEWOOD, CO 80112

19100 VON KARMAN AVE  
SUITE 200  
IRVINE, CA 92612

4710 E ELWOOD ST, STE 9  
PHOENIX, AZ 85040  
OFFICE: (480) 285-0036  
www.tepgroup.net

**AT&T SITE ID: COL02205**  
**AT&T FA CODE: 15312479**  
**AT&T PACE #: MRUTH042458**  
**ATC #: 370609**  
**WIDEFIELD HIGH SCHOOL II**

**527 WIDEFIELD DRIVE**  
**COLORADO SPRINGS,**  
**CO 80911**  
**(EL PASO COUNTY)**  
**EXISTING 119'-0"**  
**MONOPOLE TOWER**  
**NSB - LTE - 1C/2C/3C/4C/**  
**5G NR 1SR**

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	QA
A	11-23-20	KT	PRELIMINARY	EGG
B	12-14-20	SDD	90% CONSTRUCTION	EGG
C	02-18-21	CAK	90% CONSTRUCTION	EGG
O	04-23-21	GV	100% CONSTRUCTION	EGG

**SEAL:**

April 23, 2021

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 TITLE:**  
**EXISTING AND FINAL ELEVATIONS**

**SHEET NUMBER:**  
**C-3**

**REVISION:**  
**0**

**TEP #:** 177861.243634

**EXISTING TOWER ELEVATION**

SCALE: 1/8" = 1'-0" (24x36)  
 SCALE: 1/6" = 1'-0" (11x17)

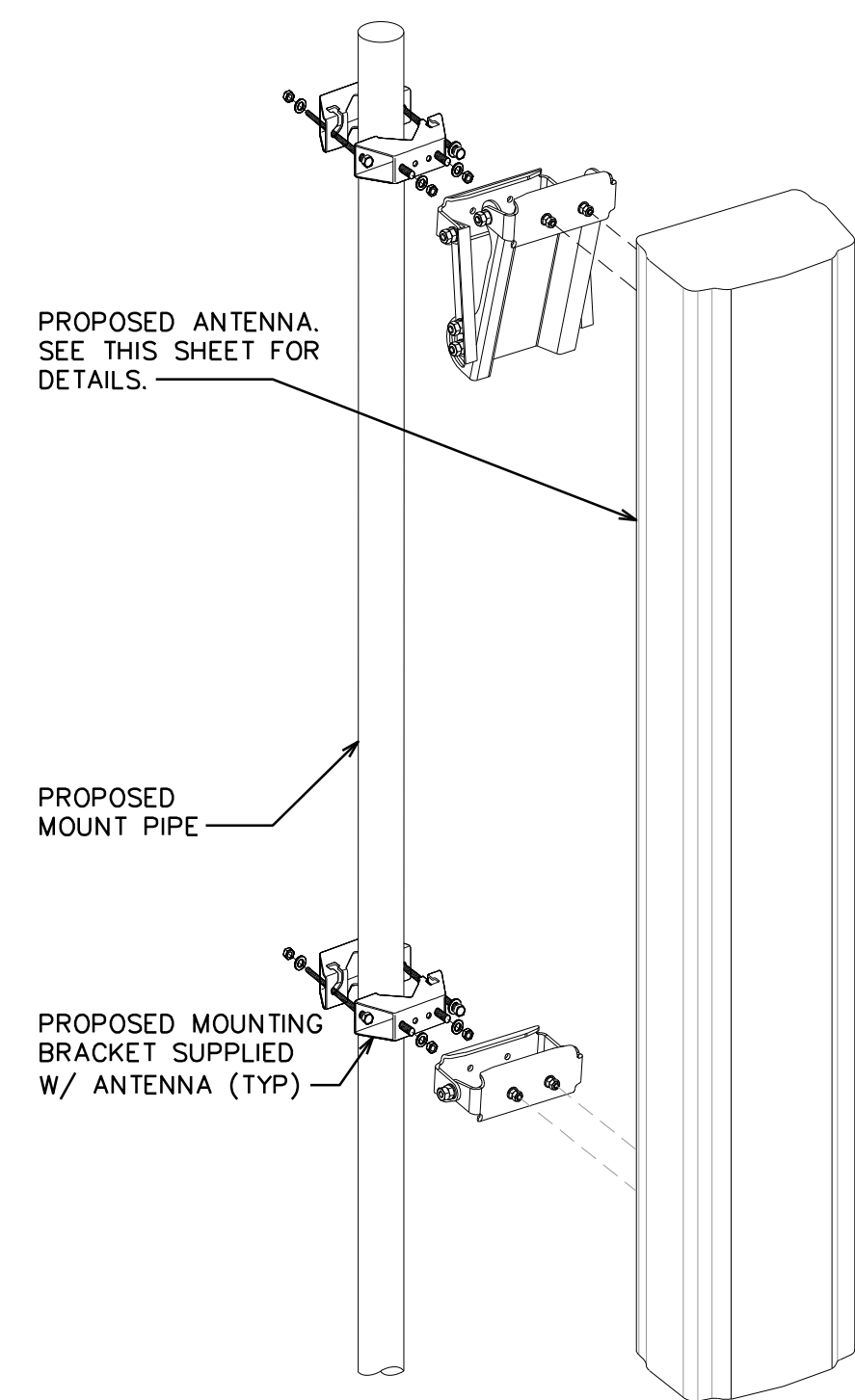


**FINAL TOWER ELEVATION**

SCALE: 1/8" = 1'-0" (24x36)  
 SCALE: 1/6" = 1'-0" (11x17)



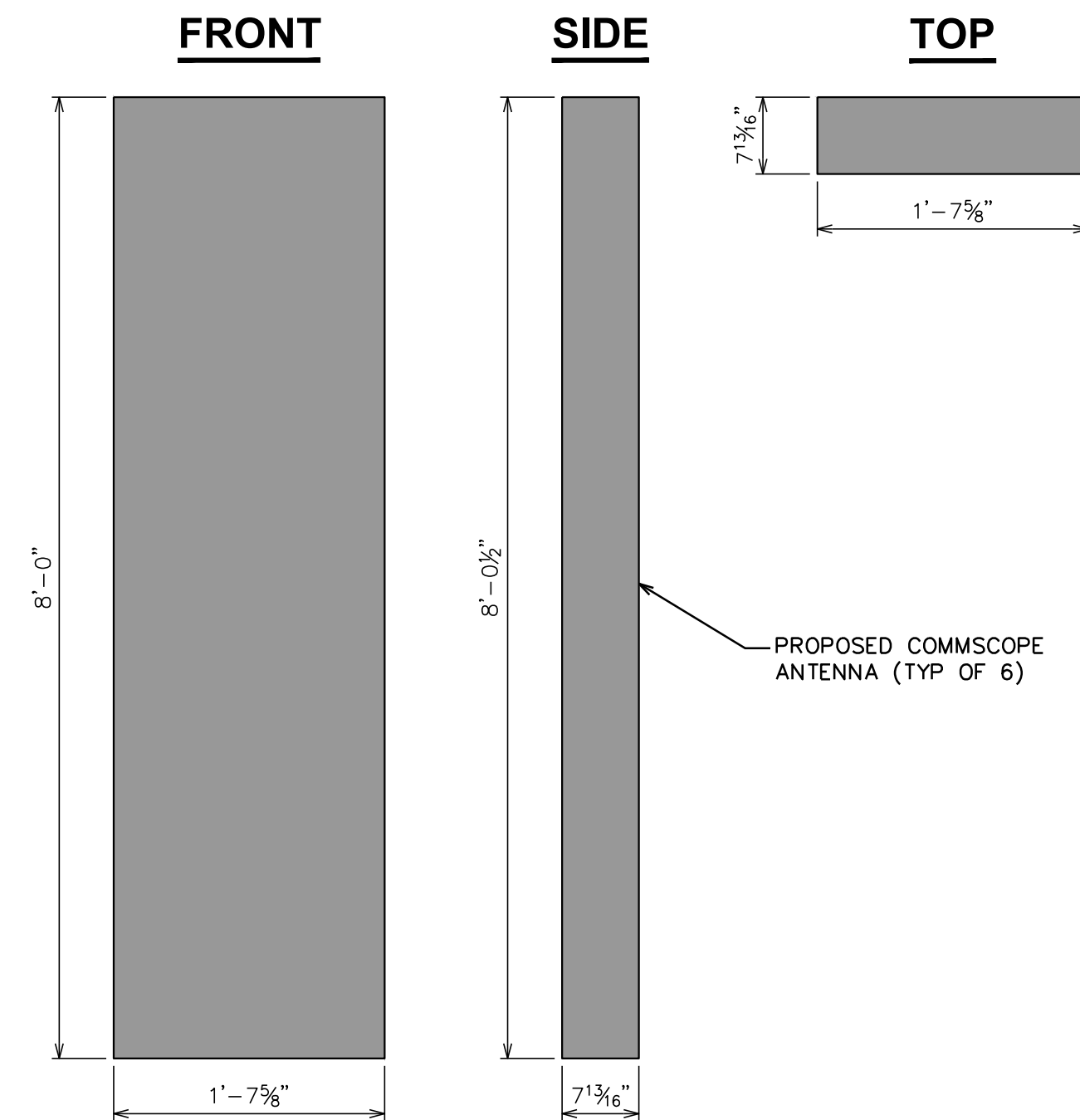
**ANTENNA**



**CELLMAX  
CMA-UBTULBULBHH/6517/17/21/21**

DIMENSIONS, HxWxD: 96" x 19.6" x 7.8"

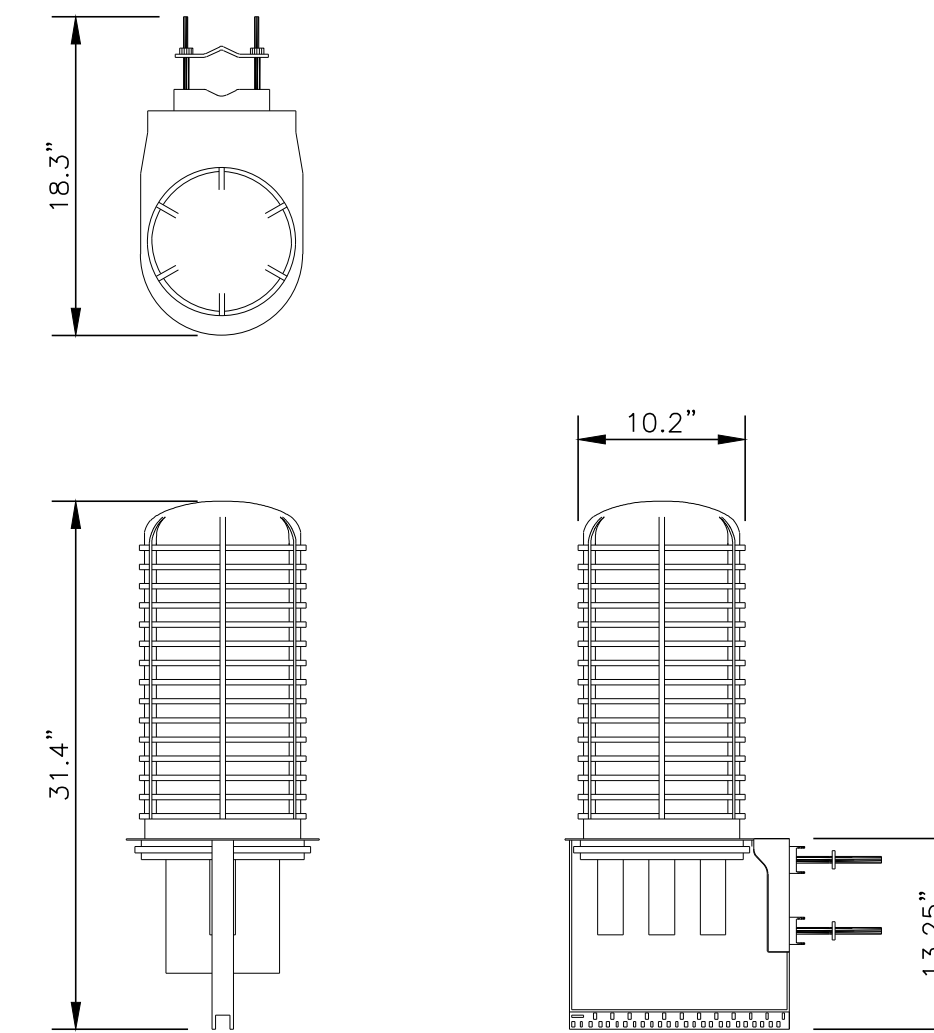
WEIGHT, W/O PRE-MOUNTED BRACKETS: 102.5 lbs



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

RAYCAP - DC9-48-60-24-8C-EV  
SIZE: 31.4x18.3x10.2 IN.  
WEIGHT: 16.0 LBS  
NOMINAL OPERATING VOLTAGE: 48 VDC  
VOLTAGE PROTECTION RATING: 400 V  
WIND LOADING: 150 MPH SUSTAINED (105.7 LBS)  
WIND LOADING: 195 MPH GUST (213.6 LBS)

CONTRACTOR TO USE "THREAD LUBRICANT" ON MOUNTING BOLTS DURING INSTALLATION



**EQUIPMENT MOUNTING DETAIL**

SCALE: N.T.S.

**PROPOSED COMMSCOPE ANTENNA DETAIL**

SCALE: N.T.S.

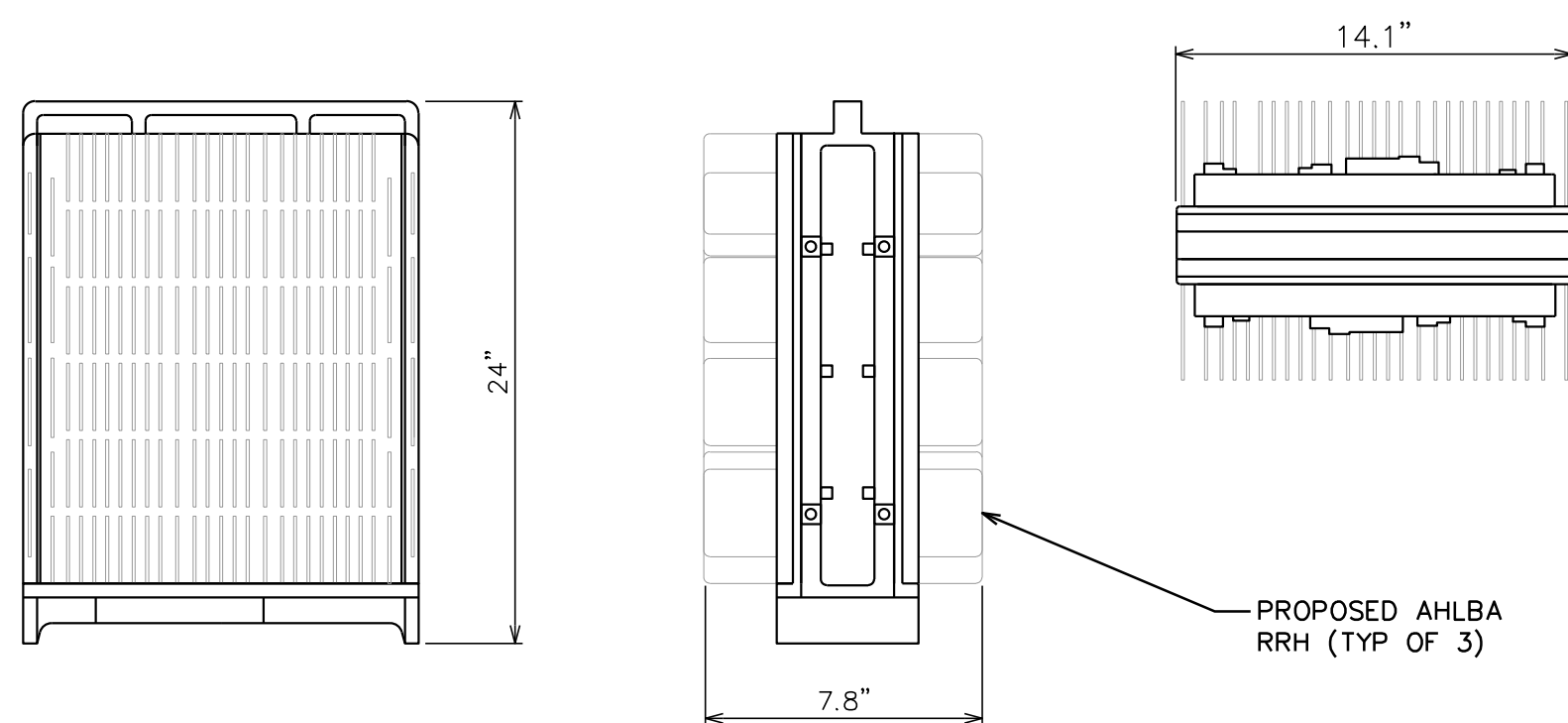
**PROPOSED RAYCAP OVP DETAIL**

SCALE: N.T.S.

**FRONT**

**SIDE**

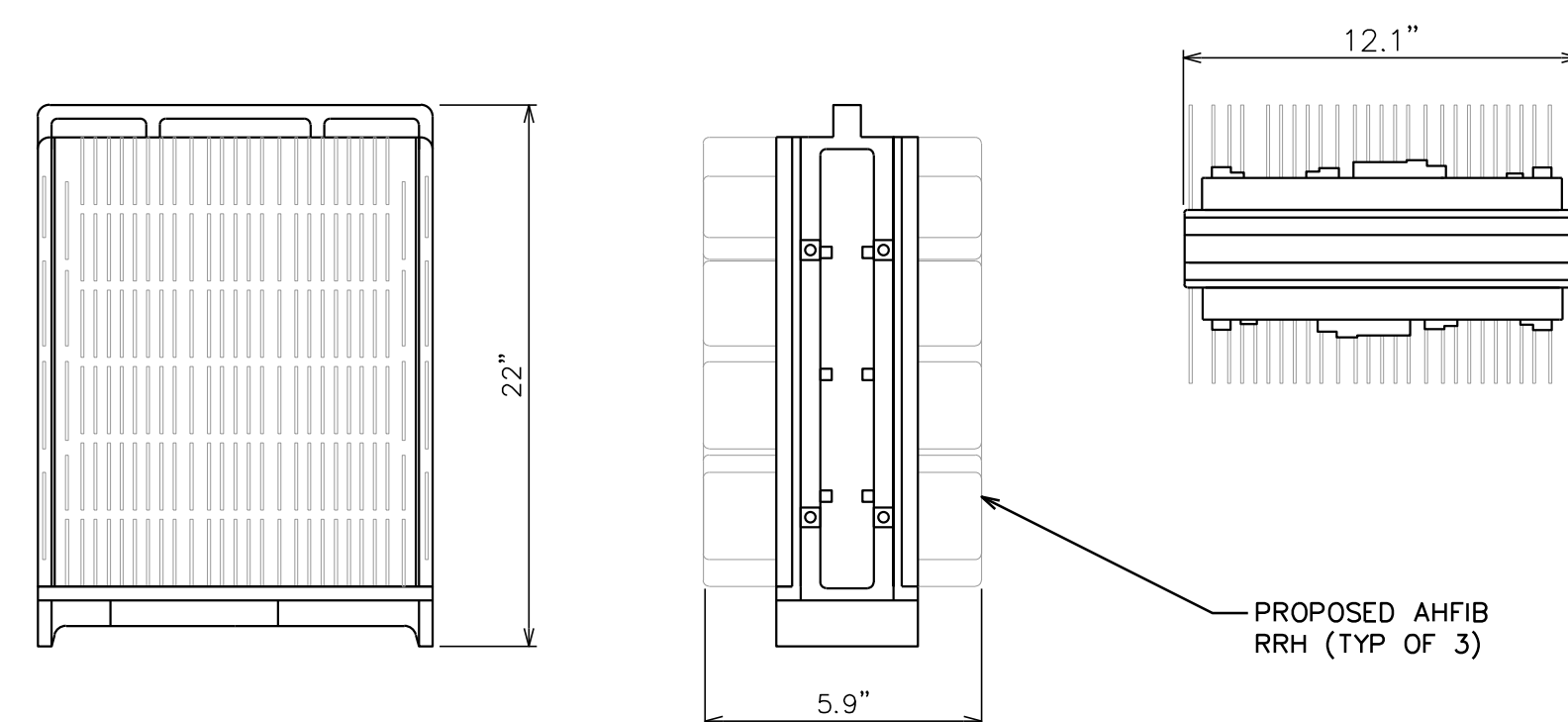
**TOP**



**FRONT**

**SIDE**

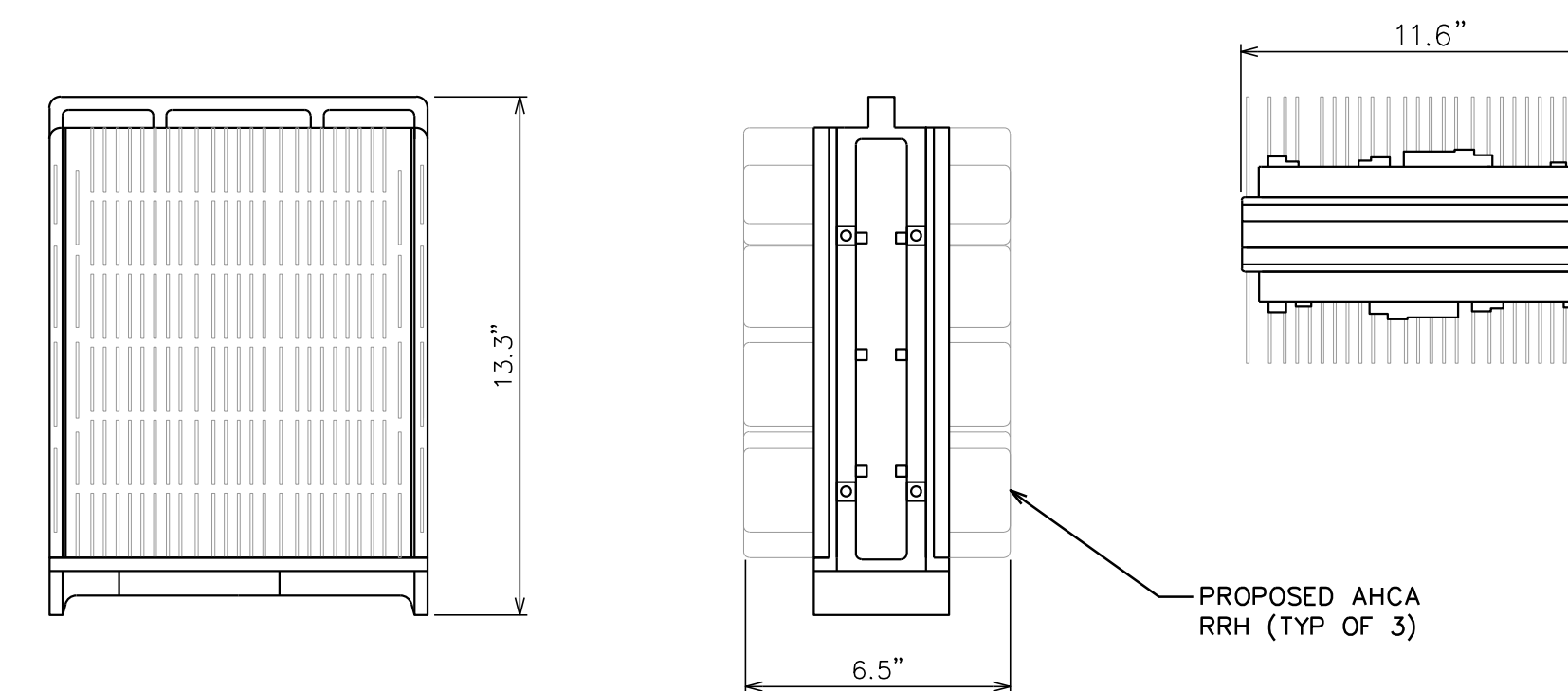
**TOP**



**FRONT**

**SIDE**

**TOP**



**PROPOSED AHLBA RRH DETAIL**

SCALE: N.T.S.

**PROPOSED AHFIB RRH DETAIL**

SCALE: N.T.S.

**PROPOSED AHCA RRH DETAIL**

SCALE: N.T.S.



161 INVERNESS DR W, 2ND FLOOR  
ENGLEWOOD, CO 80112



19100 VON KARMAN AVE  
SUITE 200  
IRVINE, CA 92612



TOWER ENGINEERING PROFESSIONALS  
4710 E ELWOOD ST, STE 9  
PHOENIX, AZ 85040  
OFFICE: (480) 285-0036  
www.tepgroup.net

**AT&T SITE ID: COL02205**  
**AT&T FA CODE: 15312479**  
**AT&T PACE #: MRUTH042458**  
**ATC #: 370609**  
**WIDEFIELD HIGH SCHOOL II**

**527 WIDEFIELD DRIVE**  
**COLORADO SPRINGS,**  
**CO 80911**  
**(EL PASO COUNTY)**  
**EXISTING 119'-0"**  
**MONOPOLE TOWER**  
**NSB - LTE - 1C/2C/3C/4C/**  
**5G NR 1SR**

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	QA
A	11-23-20	KT	PRELIMINARY	EGG
B	12-14-20	SDD	90% CONSTRUCTION	EGG
C	02-18-21	CAK	90% CONSTRUCTION	EGG
O	04-23-21	GV	100% CONSTRUCTION	EGG

**SEAL:**



April 23, 2021

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 TITLE:**

**EQUIPMENT DETAILS**

**SHEET NUMBER:**

**C-4**

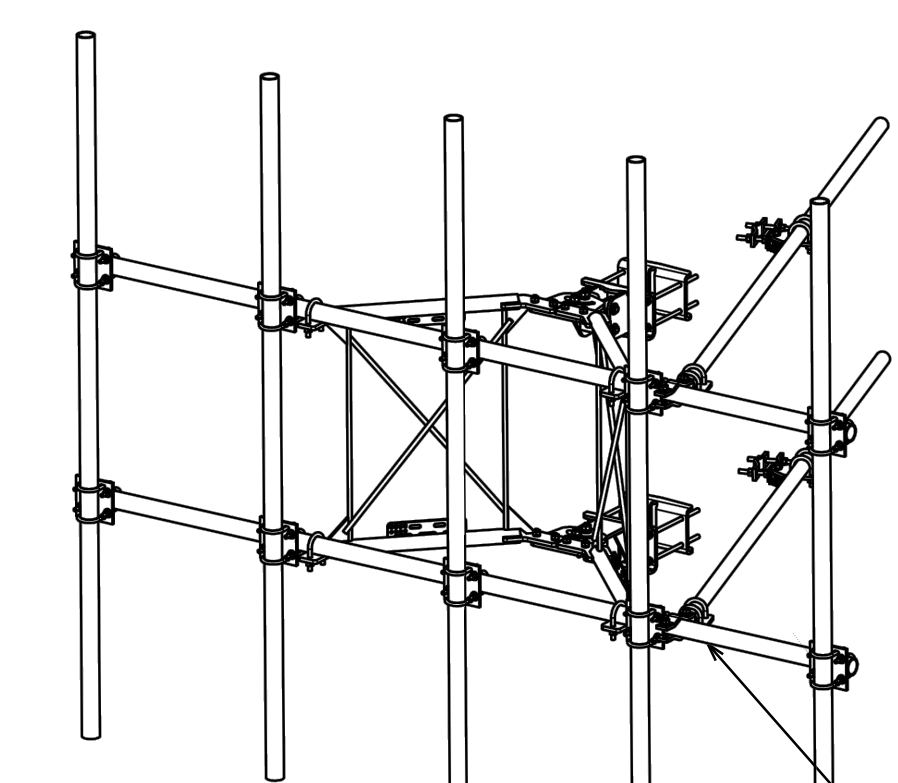
**REVISION:**

**0**

**TEP #:**

177861.243634

NOTE:  
SECTOR FRAME TO ONLY  
HAVE 4 PIPES EACH.



ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	2	X-VFAW	SUPPORT ARM		21.41	142.51
2	1	X-HDCAMTBW	CLAMP WELDMENT FOR BCAM-HD		33.89	33.89
3	1	X-HDCAMTBW	MULTI-HOLE TAPER PLATE WELDMENT		33.24	33.24
4	1	X-HDCAMSS	ANGLE ADJUSTMENT WELDMENT FOR BCAM-HD		16.39	16.39
5	2	X-VFAPIA4	VFA-HD PIVOT PLATE	12 in	15.88	31.77
6	2	X-HDCBPA	BENT BACKING PLATE	13 in	19.90	39.81
7	4	X-SPTB	SLIDING PIPE TIE BACK PLATE	5 1/2 in	5.87	23.48
8	1	X-HDCAMSP	POSITIONING PLATE WELDMENT FOR BCAM-HD		2.58	2.58
9	4	X-TBCA	TIE BACK CLIP ANGLE		2.91	9.92
10	10	SCX2	CROSSOVER PLATE	7 in	4.80	47.95
11	4	MCP	CLAMP HALF 1/2" THICK, 11.56" LONG	12 1/16 in	1.59	14.37
12	8	DCP	1/2" THICK, 5-3/4" CENTER TO CENTER CLAMP HALF	8 1/8 in	2.36	18.90
13	2	P212E	2-3/8" X 120" (2" BCR, 40) GALVANIZED PIPE	128 in	40.75	81.50
14	2	P3015G	2-7/8" X 150" (2-1/2" BCR, 40) GALVANIZED PIPE	150 in	75.94	151.87
15	4	A34212	3/4" X 2-1/2" UNC HEX BOLT (A325)	2 1/2 in	0.48	1.92
16	4	G34FW	3/4" HDG USS FLATWASHER		0.06	0.24
17	4	G34LW	3/4" HDG LOCKWASHER		0.04	0.17
18	4	G34NUT	3/4" HDG HEAVY 2H HEX NUT		0.21	0.85
19	8	G58R-18	5/8" X 18" THREADED ROD (HDG.)		1.57	12.54
20	4	G58R-12	5/8" X 12" THREADED ROD (HDG.)		1.05	4.18
21	4	G58R-8	5/8" X 8" THREADED ROD (HDG.)		0.70	2.79
22	4	X-HDCB390	5/8" X 3" X 5-1/4" X 2-1/2" U-BOLT (HDG.)		1.15	4.60
23	8	X-HDCB258	5/8" X 2-5/8" X 4-1/2" X 2" U-BOLT (HDG.)		1.00	8.00
24	2	G5807	5/8" X 7" HDG HEX BOLT GRS FULL THREAD	7 in	0.79	1.41
25	1	G5806	5/8" X 6" HDG HEX BOLT GRS FULL THREAD	6 in	0.62	0.62
26	8	G5804	5/8" X 4" HDG HEX BOLT GRS		0.44	3.55
27	4	G5802	5/8" X 2" HDG HEX BOLT GRS		0.27	1.08
28	8	A58214	5/8" X 3-1/4" HDG HEX BOLT	2 1/4 in	0.31	2.50
29	25	G58FW	5/8" HDG USS FLATWASHER	1 1/8 in	0.07	1.76
30	86	G58LW	5/8" HDG LOCKWASHER		0.03	1.72
31	71	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	9.22
32	48	X-HDCB390	1/2" X 3" X 3" X 2" GALV U-BOLT		0.74	35.45
33	20	X-HDCB1212	1/2" X 2-1/2" X 4-1/2" X 2" GALV U-BOLT		0.66	13.13
34	80	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	2.73
35	80	G12LW	1/2" HDG LOCKWASHER	1 1/8 in	0.01	1.11
36	80	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	5.73
37	5	P3015E	2-7/8" X 120" (2-1/2" BCR, 40) GALVANIZED PIPE	120 in	58.07	290.33
					TOTAL WT. #	1055.41

PROPOSED SITEPRO SECTOR FRAME MOUNT  
(P/N: VFA12-WLL-30120) BY AT&T

**TOLERANCE NOTES**

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:  
DIMENSIONS: ±0.005"  
DRILLED AND GAS CUT HOLES: ±0.007"  
LASER CUT EDGES AND HOLES: ±0.010"  
ALL OTHER MACHINING: ±0.007"  
ALL OTHER ASSEMBLY: ±0.007"

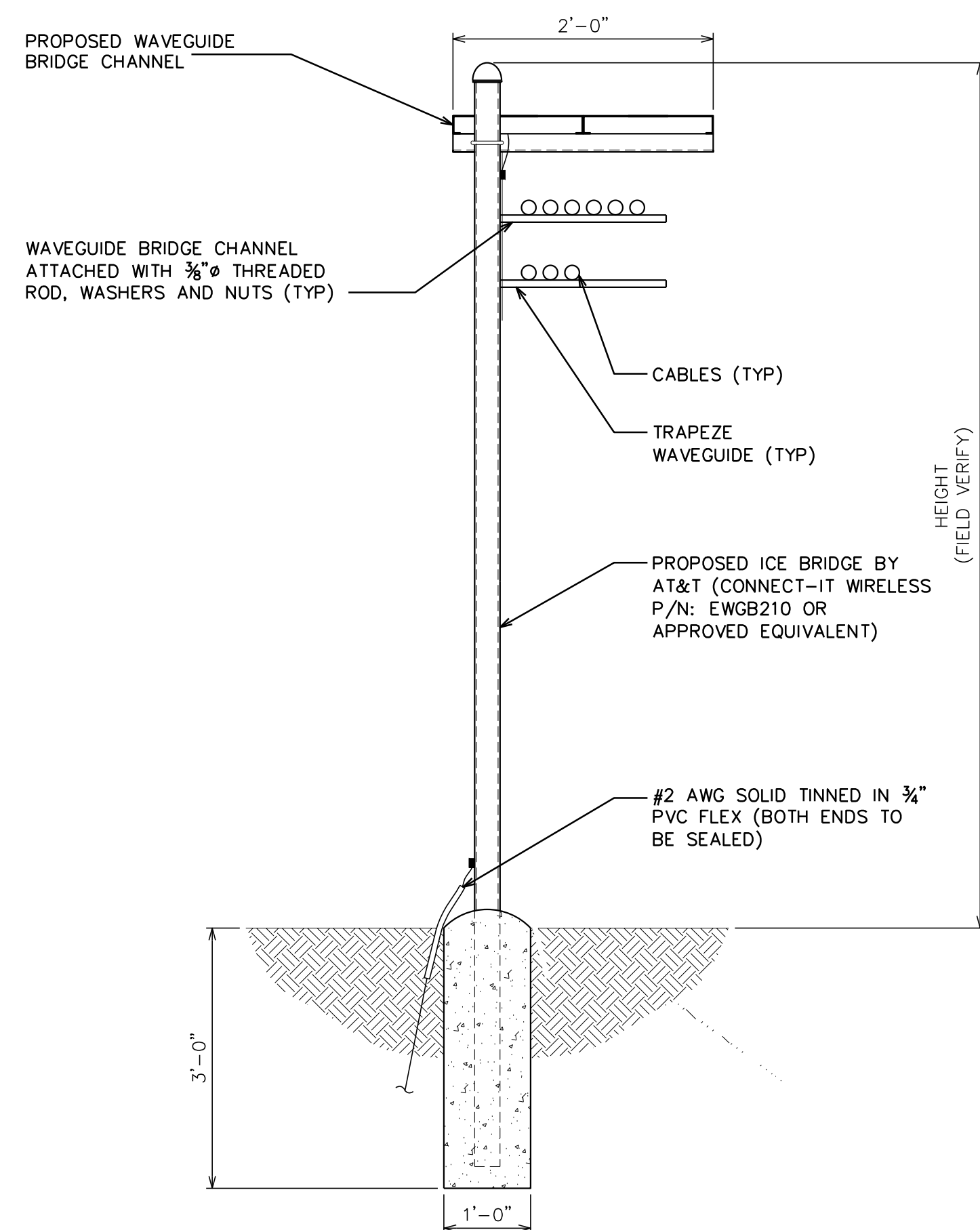
DESCRIPTION	1/2" HEAVY DUTY V-FRAME ASSEMBLY W/ 2 8TFF ARMS & MOUNT PIPES	DATE	1/25/2017	CHECKED BY	BMC	DATE	5/3/2018
DESIGNED BY	SP1	DATE	1/25/2017	CHECKED BY	BMC	DATE	5/3/2018
REVISED BY	02	DESCRIPTION	CUSTOMER	DATE	5/3/2018	BY	BMC



VFA12-WLL-30120

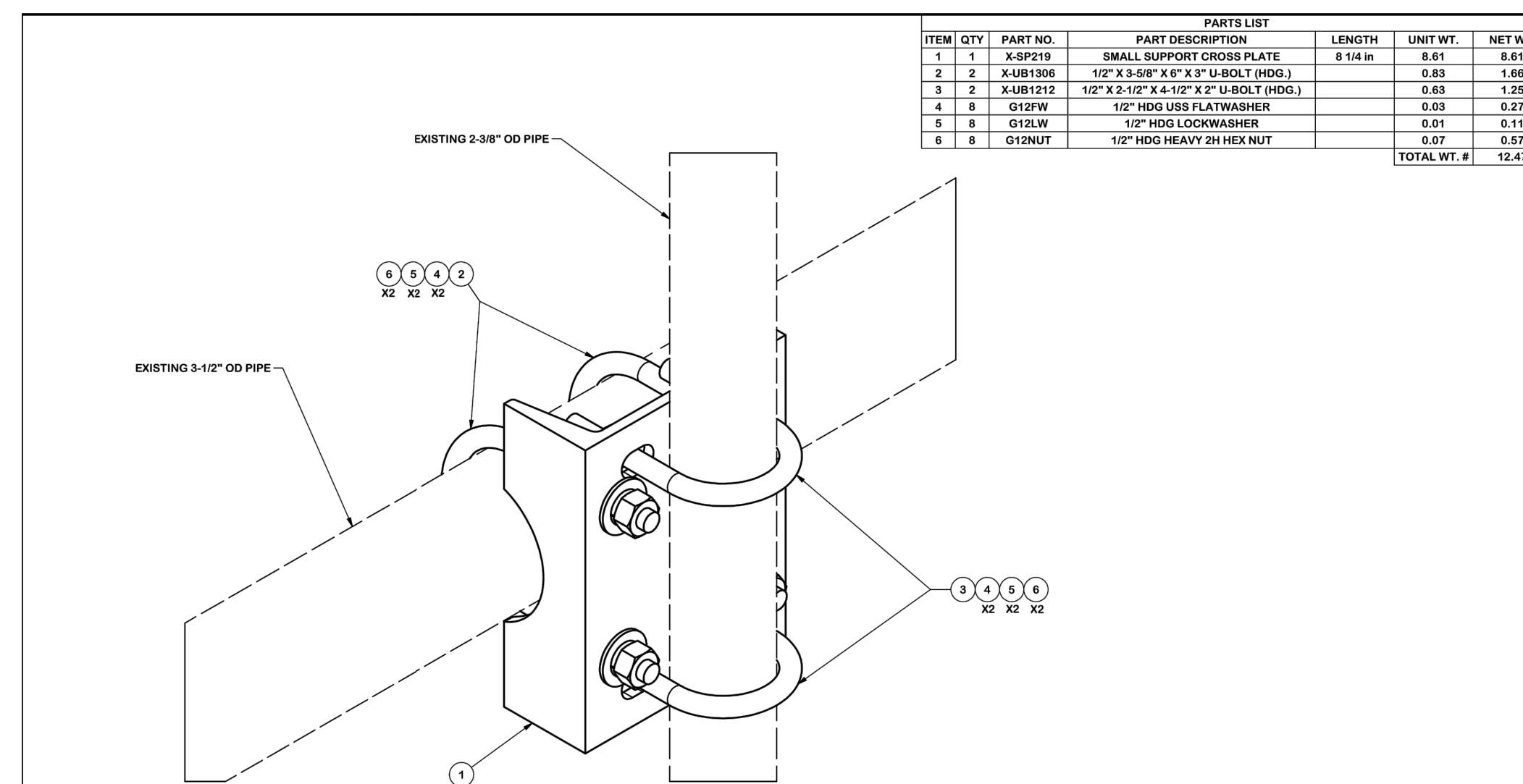
**PROPOSED V-FRAME MOUNT DETAIL**

SCALE: N.T.S.



**PROPOSED ICE BRIDGE DETAIL**

SCALE: N.T.S.



**TOLERANCE NOTES**

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:  
DIMENSIONS: ±0.005"  
DRILLED AND GAS CUT HOLES: ±0.007"  
LASER CUT EDGES AND HOLES: ±0.010"  
ALL OTHER MACHINING: ±0.007"  
ALL OTHER ASSEMBLY: ±0.007"

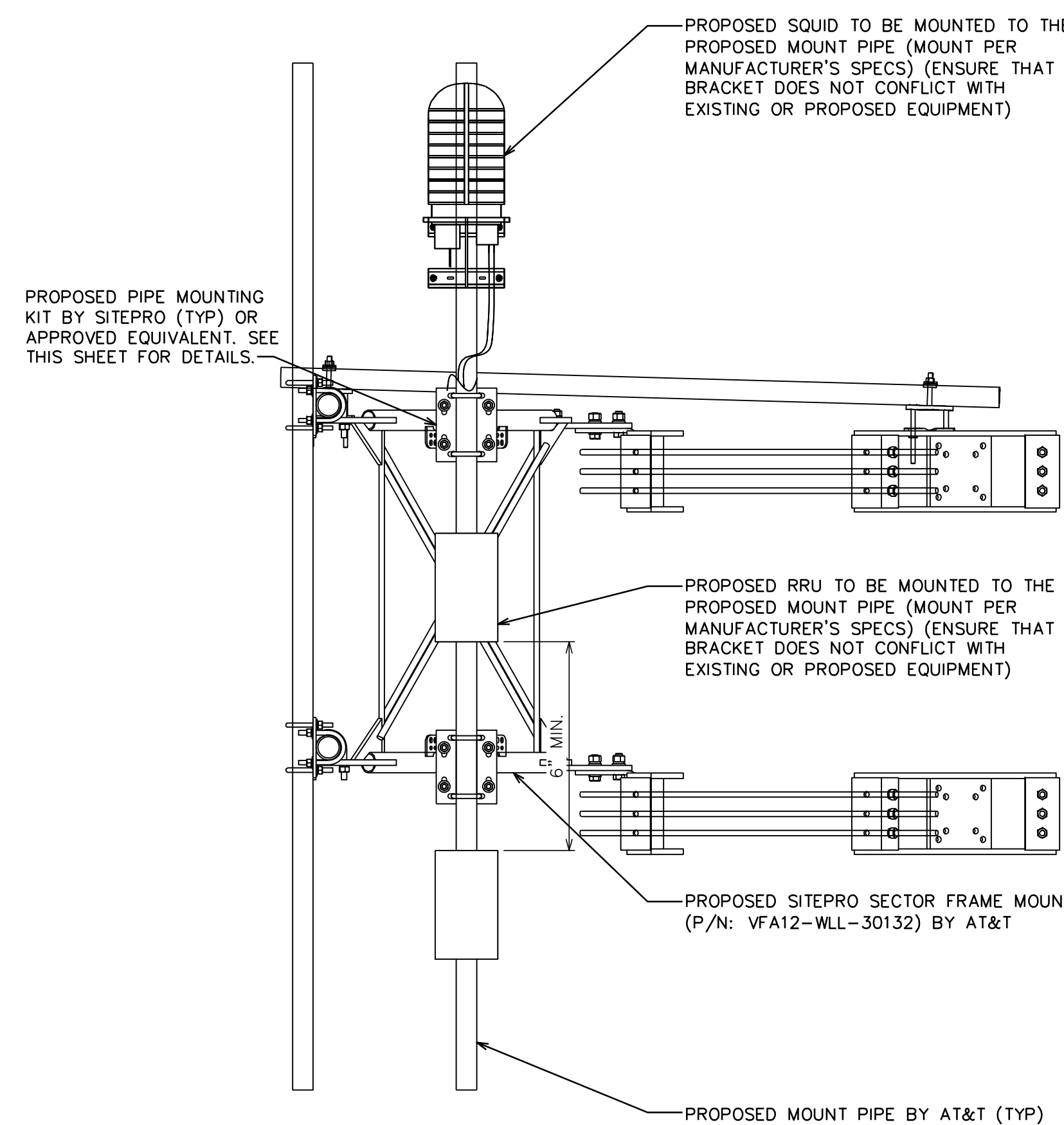
DESCRIPTION	PIPE MOUNT KIT	DATE	6/26/2012	CHECKED BY	CEK	DATE	1/23/2013
DESIGNED BY	KCB	DATE	6/26/2012	CHECKED BY	CEK	DATE	1/23/2013
REVISED BY	01	DESCRIPTION	CUSTOMER	DATE	1/23/2013	BY	CEK



SP219

**PROPOSED H-FRAME DETAIL**

SCALE: N.T.S.



161 INVERNESS DR W, 2ND FLOOR  
ENGLEWOOD, CO 80112



19100 VON KARMAN AVE  
SUITE 200  
IRVINE, CA 92612

**TOWER ENGINEERING PROFESSIONALS**  
4710 E ELWOOD ST, STE 9  
PHOENIX, AZ 85040  
OFFICE: (480) 285-0036  
www.tepgroup.net

**AT&T SITE ID: COL02205**  
**AT&T FA CODE: 15312479**  
**AT&T PACE #: MRUTH042458**  
**ATC #: 370609**

**WIDEFIELD HIGH SCHOOL II**  
**527 WIDEFIELD DRIVE**  
**COLORADO SPRINGS,**  
**CO 80911**  
**(EL PASO COUNTY)**  
**EXISTING 119'-0"**  
**MONOPOLE TOWER**  
**NSB - LTE - 1C/2C/3C/4C/**  
**5G NR 1SR**

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	QA
A	11-23-20	KT	PRELIMINARY	EGG
B	12-14-20	SDD	90% CONSTRUCTION	EGG
C	02-18-21	CAK	90% CONSTRUCTION	EGG
O	04-23-21	GV	100% CONSTRUCTION	EGG

**SEAL:**



April 23, 2021

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 TITLE:**  
**EQUIPMENT DETAILS**

**SHEET NUMBER:**  
**C-5**

**REVISION:**  
**0**

**TEP #:** 177861.243634

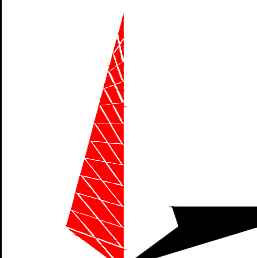




161 INVERNESS DR W, 2ND FLOOR  
ENGLEWOOD, CO 80112



**AMERICAN TOWER**  
19100 VON KARMAN AVE  
SUITE 200  
IRVINE, CA 92612



**TOWER ENGINEERING PROFESSIONALS**  
4710 E ELWOOD ST, STE 9  
PHOENIX, AZ 85040  
OFFICE: (480) 285-0036  
www.tepgroup.net

**AT&T SITE ID: COL02205**  
**AT&T FA CODE: 15312479**  
**AT&T PACE #: MRUTH042458**  
**ATC #: 370609**  
**WIDEFIELD HIGH SCHOOL II**

**527 WIDEFIELD DRIVE**  
**COLORADO SPRINGS,**  
**CO 80911**  
**(EL PASO COUNTY)**  
**EXISTING 119'-0"**  
**MONOPOLE TOWER**  
**NSB - LTE - 1C/2C/3C/4C/**  
**5G NR 1SR**

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	QA
A	11-23-20	KT	PRELIMINARY	EGG
B	12-14-20	SDD	90% CONSTRUCTION	EGG
C	02-18-21	CAK	90% CONSTRUCTION	EGG
O	04-23-21	GV	100% CONSTRUCTION	EGG

**SEAL:**



April 23, 2021

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 TITLE:**

**WIC SHELTER DETAILS**

**SHEET NUMBER:**

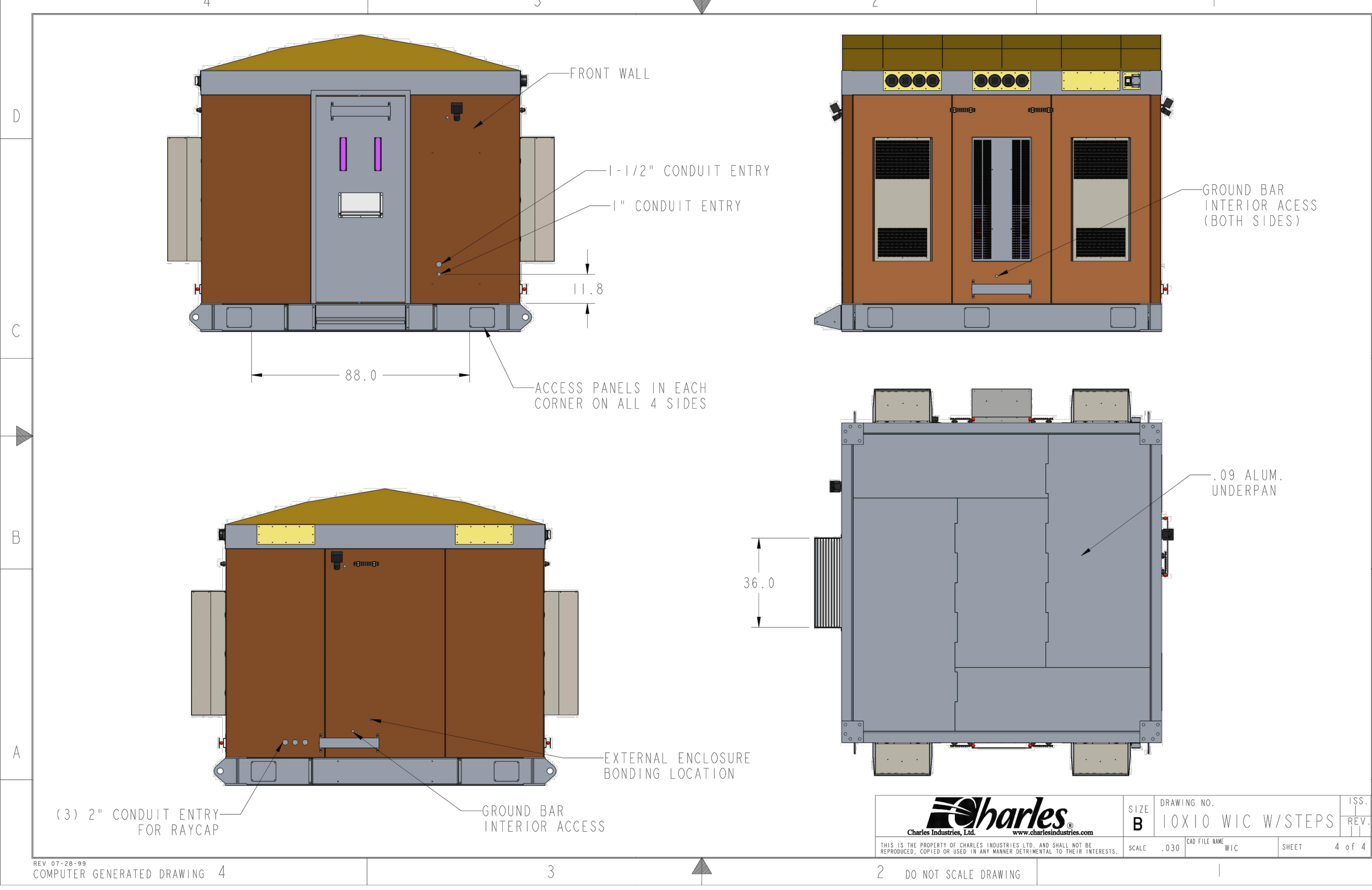
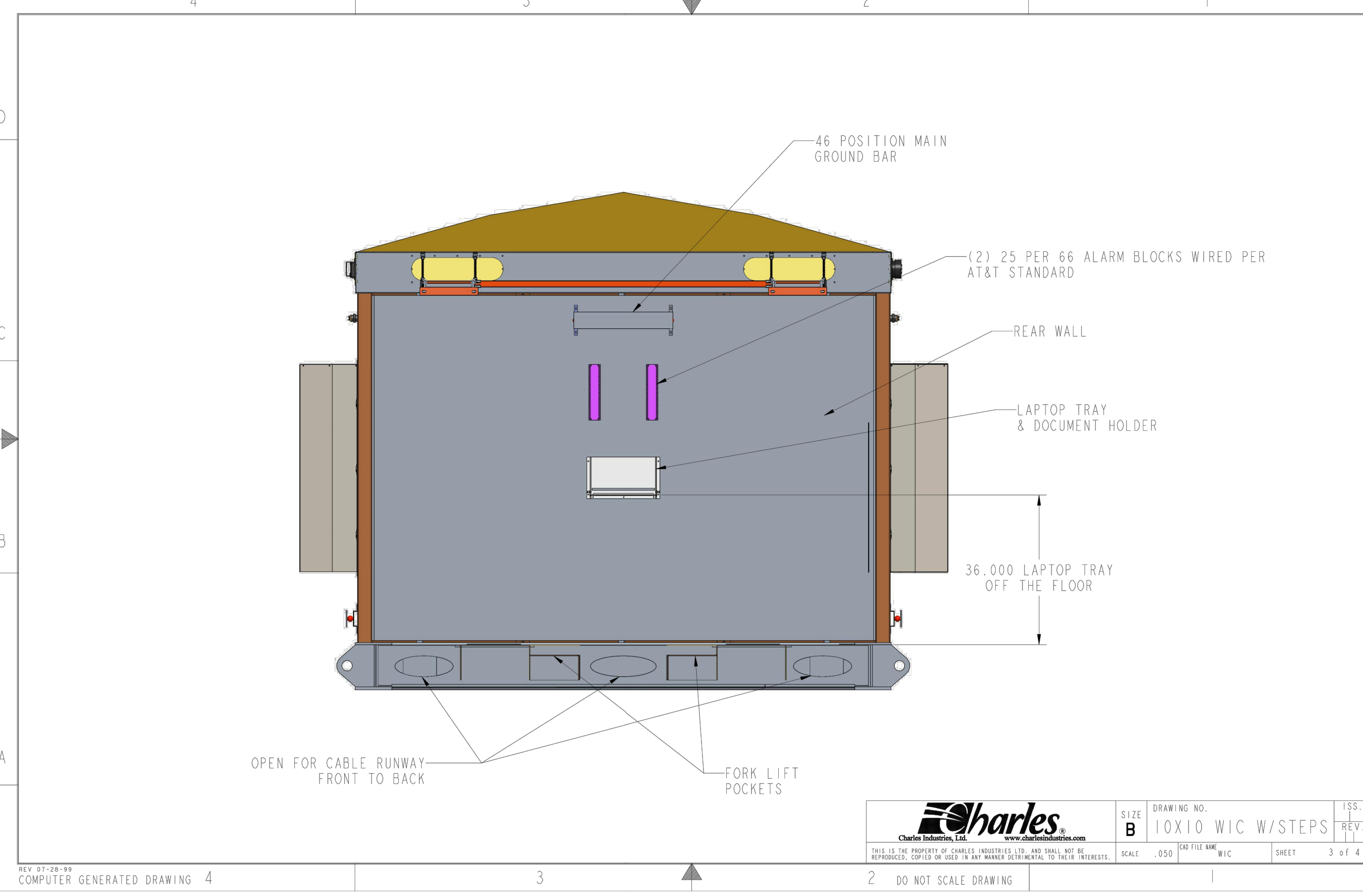
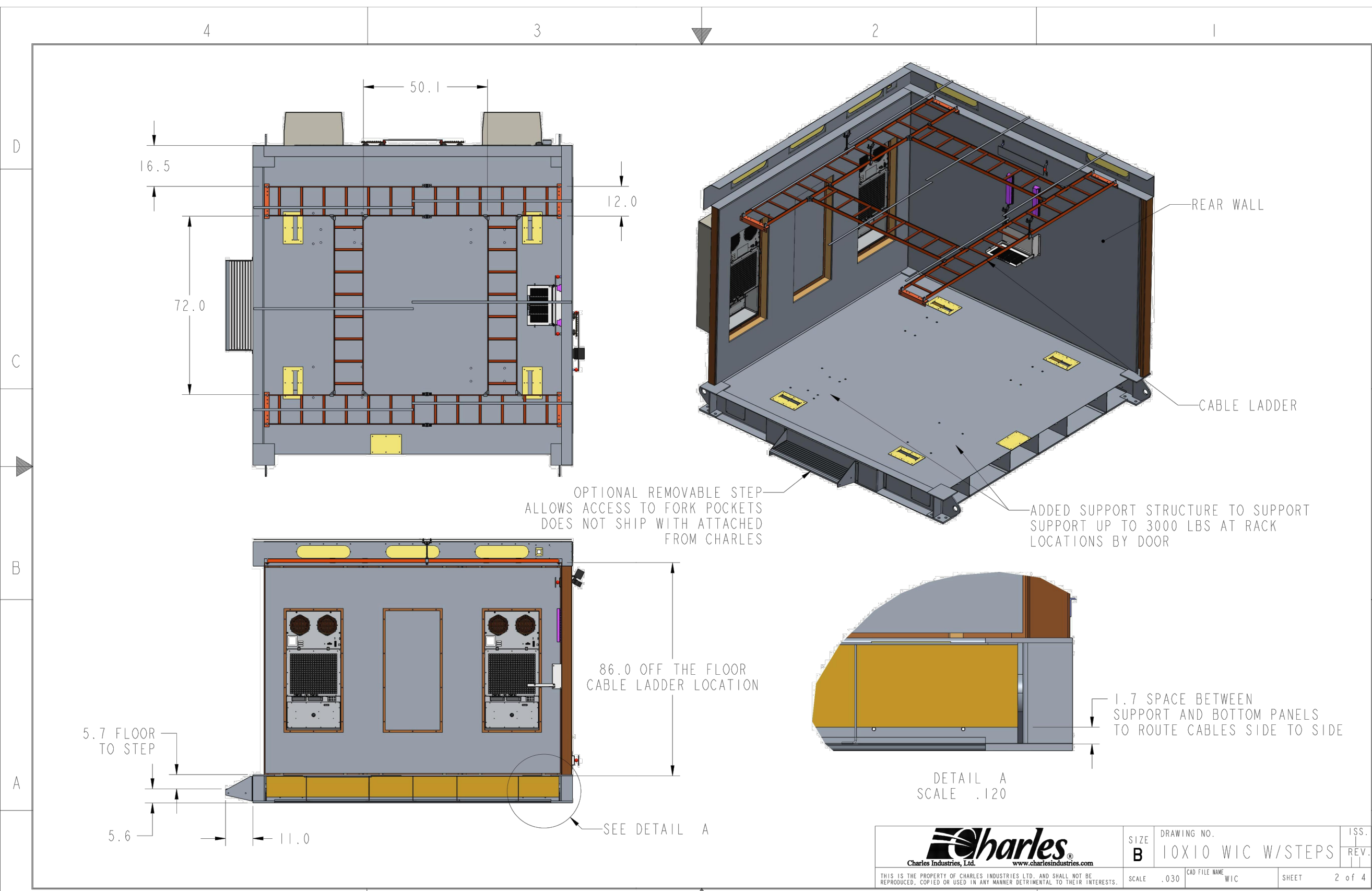
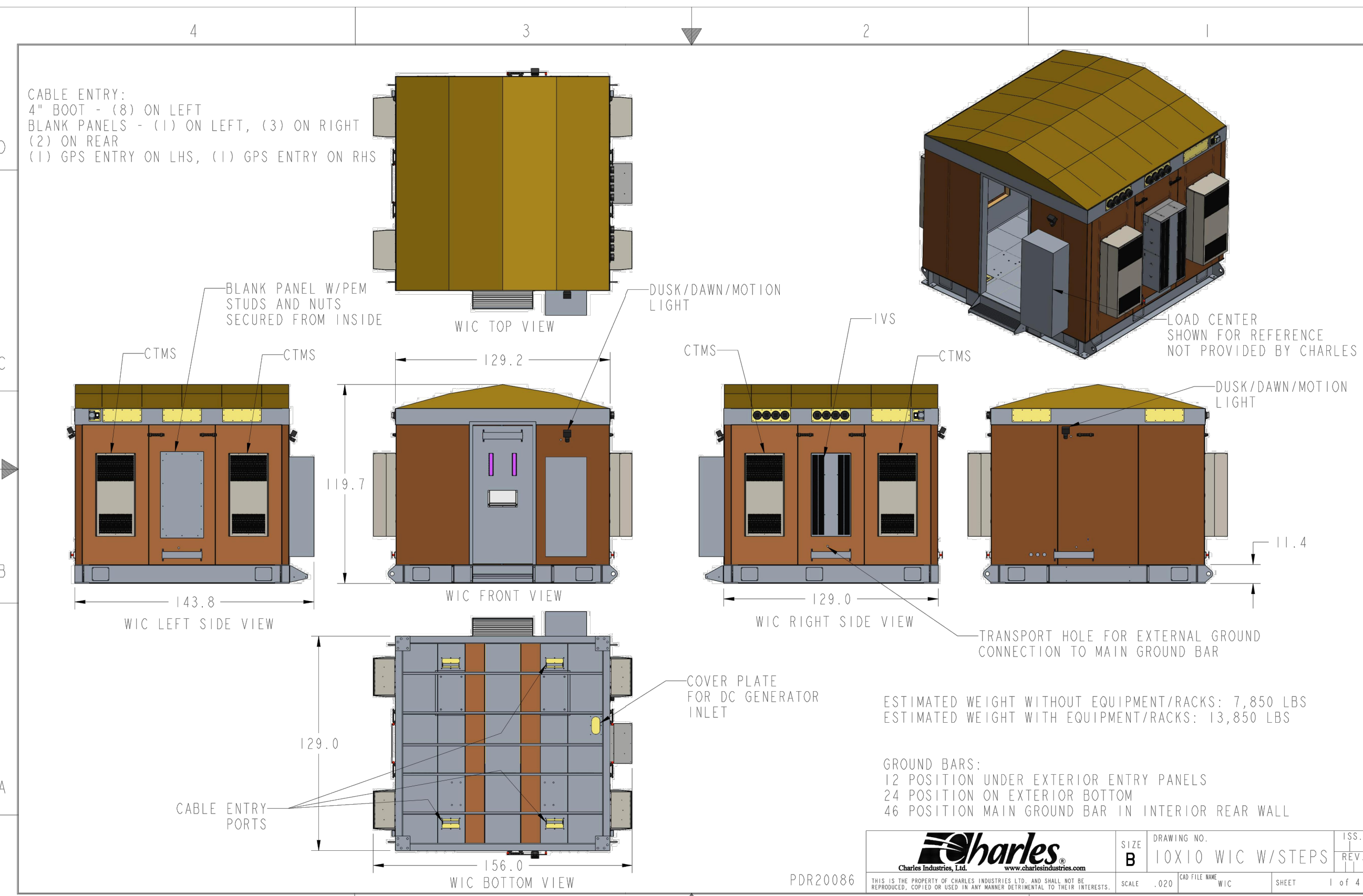
**C-6**

**REVISION:**

**0**

**TEP #:**

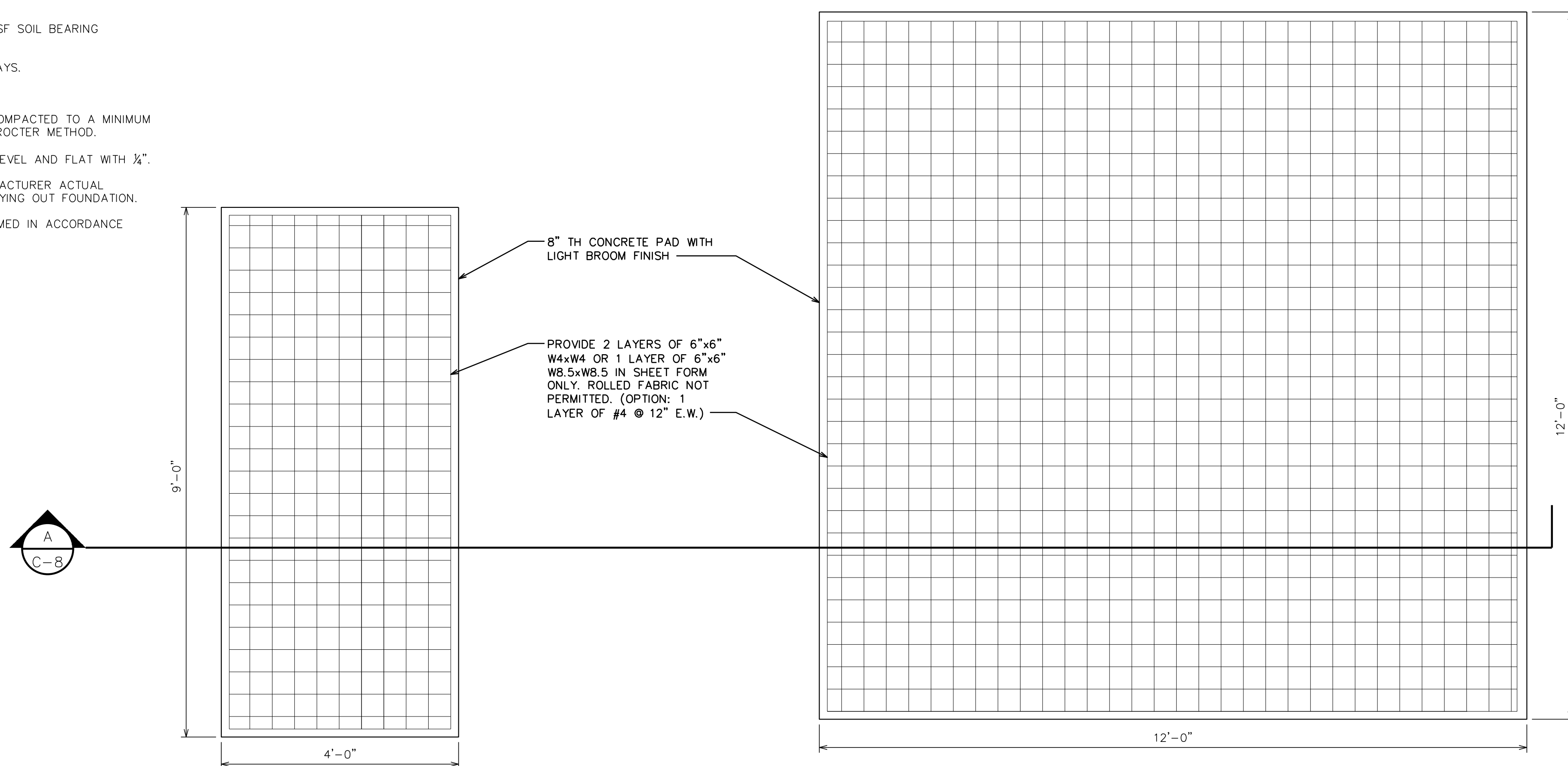
177861.243634





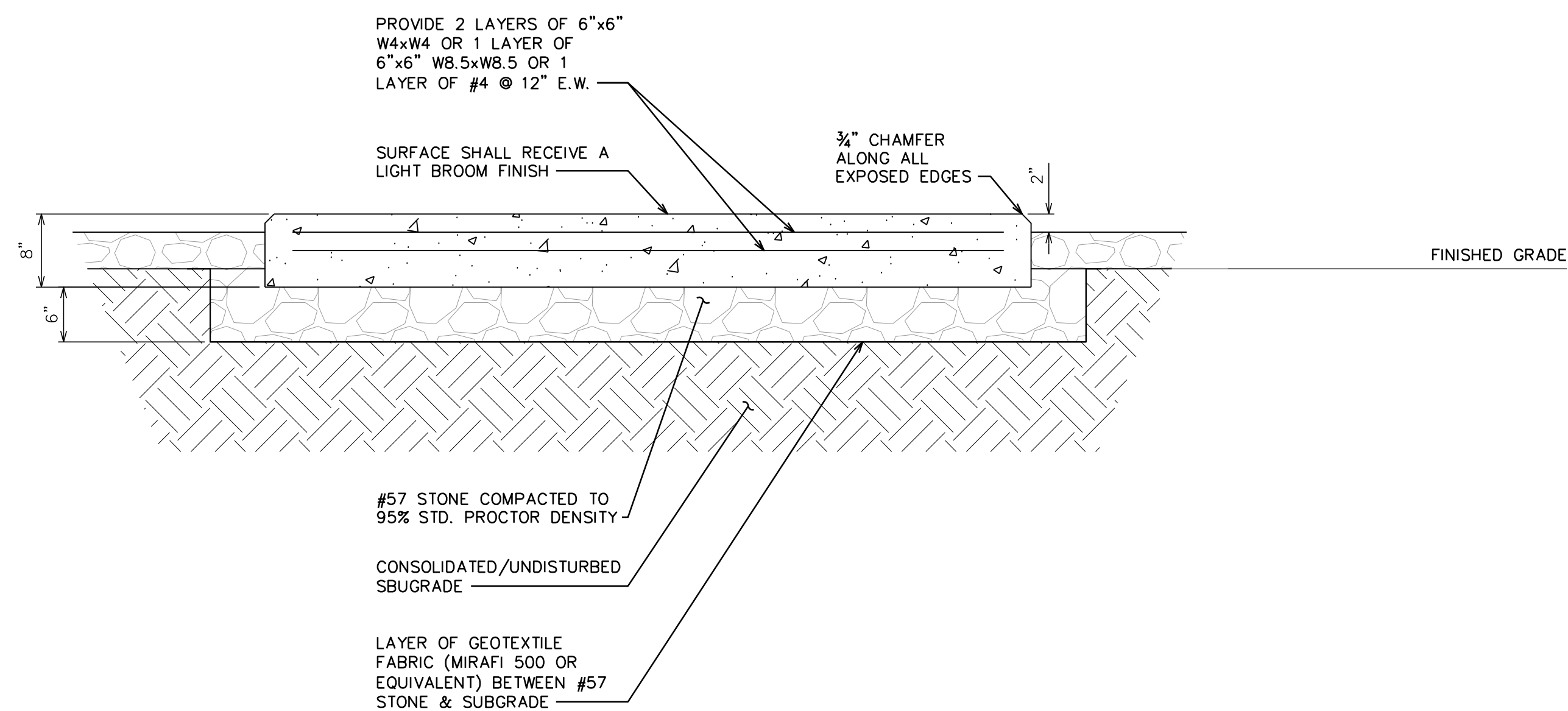
**FOUNDATION NOTES:**

1. FOUNDATION DESIGN BASED ON 2,000 PSF SOIL BEARING CAPACITY.
2. CONCRETE SHALL BE 4,000 PSI @ 28 DAYS.
3. REINFORCING STEEL Fy = 60,000 PSI.
4. ALL BACKFILL SHALL BE THOROUGHLY COMPACTED TO A MINIMUM OF 95% DENSITY USING THE MODIFIED PROCTER METHOD.
5. SURFACE OF FINISHED SLAB SHALL BE LEVEL AND FLAT WITH 1/4".
6. CONTRACTOR SHALL VERIFY WITH MANUFACTURER ACTUAL DIMENSIONS OF EQUIPMENT PRIOR TO LAYING OUT FOUNDATION.
7. ALL CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE WITH ACI 318-11.



**WIC & GENERATOR FOUNDATION PLAN**

SCALE: N.T.S



**PAD SECTION**

SCALE: N.T.S



161 INVERNESS DR W, 2ND FLOOR  
ENGLEWOOD, CO 80112



19100 VON KARMAN AVE  
SUITE 200  
IRVINE, CA 92612



4710 E ELWOOD ST, STE 9  
PHOENIX, AZ 85040  
OFFICE: (480) 285-0036  
www.tepgroup.net

**AT&T SITE ID: COL02205**  
**AT&T FA CODE: 15312479**  
**AT&T PACE #: MRUTH042458**  
**ATC #: 370609**  
**WIDEFIELD HIGH SCHOOL II**

**527 WIDEFIELD DRIVE**  
**COLORADO SPRINGS,**  
**CO 80911**  
**(EL PASO COUNTY)**  
**EXISTING 119'-0"**  
**MONOPOLE TOWER**  
**NSB - LTE - 1C/2C/3C/4C/**  
**5G NR 1SR**

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	QA
A	11-23-20	KT	PRELIMINARY	EGG
B	12-14-20	SDD	90% CONSTRUCTION	EGG
C	02-18-21	CAK	90% CONSTRUCTION	EGG
O	04-23-21	GV	100% CONSTRUCTION	EGG

**SEAL:**



April 23, 2021

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 TITLE:**

**FOUNDATION DETAILS**

**SHEET NUMBER:**

**C-8**

**REVISION:**

**0**

**TEP #:**

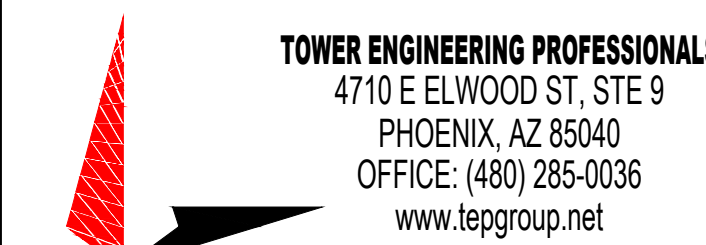
177861.243634



161 INVERNESS DR W, 2ND FLOOR  
ENGLEWOOD, CO 80112



19100 VON KARMAN AVE  
SUITE 200  
IRVINE, CA 92612



TOWER ENGINEERING PROFESSIONALS  
4710 E ELWOOD ST, STE 9  
PHOENIX, AZ 85040  
OFFICE: (480) 285-0036  
www.tepgroup.net

AT&T SITE ID: COL02205  
AT&T FA CODE: 15312479  
AT&T PACE #: MRUTH042458  
ATC #: 370609  
WIDEFIELD HIGH SCHOOL II

527 WIDEFIELD DRIVE  
COLORADO SPRINGS,  
CO 80911  
(EL PASO COUNTY)  
EXISTING 119'-0"  
MONOPOLE TOWER  
NSB - LTE - 1C/2C/3C/4C/  
5G NR 1SR

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	QA
A	11-23-20	KT	PRELIMINARY	EGG
B	12-14-20	SDD	90% CONSTRUCTION	EGG
C	02-18-21	CAK	90% CONSTRUCTION	EGG
O	04-23-21	GV	100% CONSTRUCTION	EGG

SEAL:



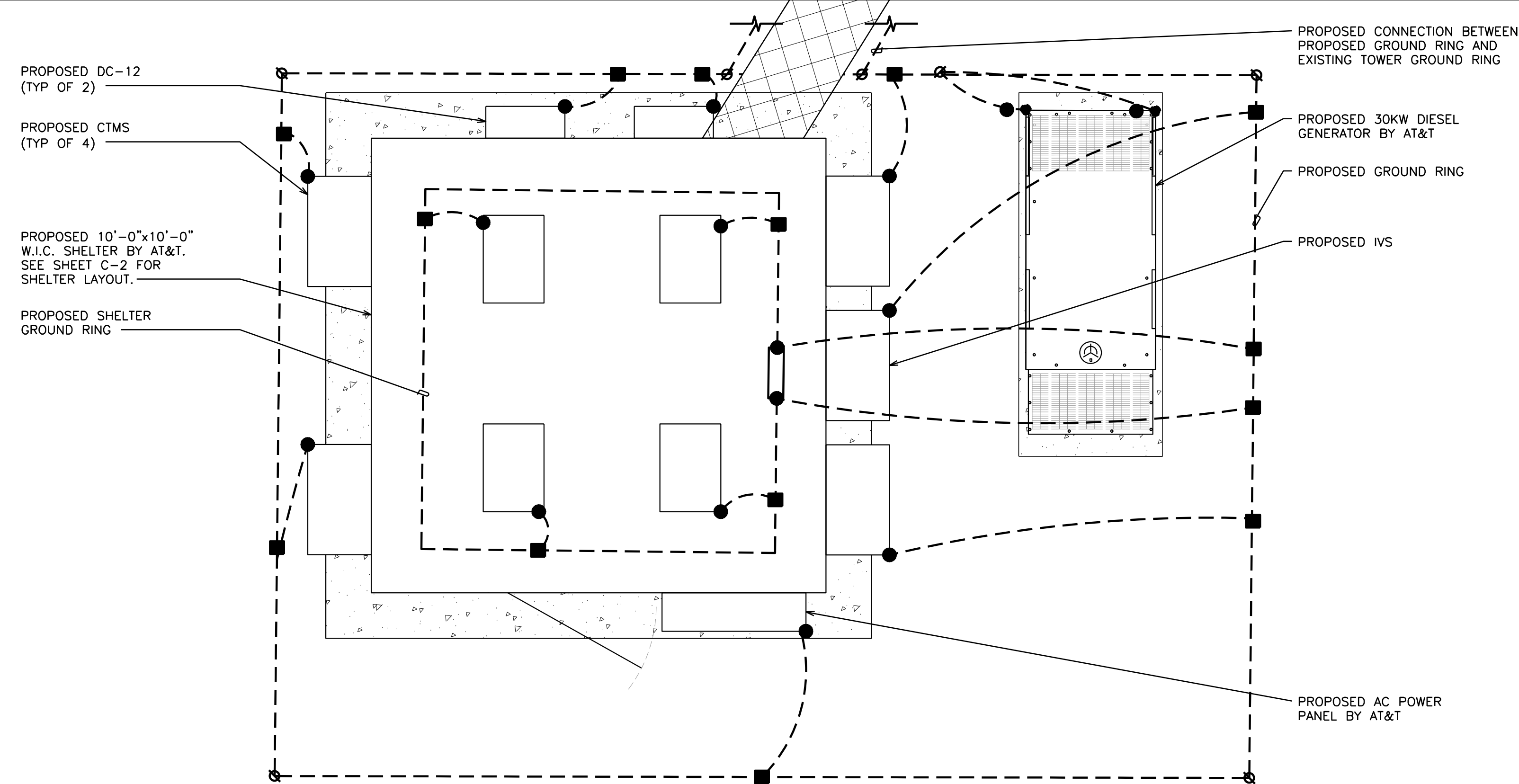
April 23, 2021

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 TITLE:  
**ELECTRICAL PANEL &  
GROUNDING PLANS**

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

TEP #: 177861.243634



LEGEND

■	EXOTHERMIC CONNECTION
●	MECHANICAL CONNECTION
▭	ANTENNA GROUND BAR
▭	MASTER GROUND BAR

EQUIPMENT GROUNDING PLAN

SCALE: 1/2" = 1'-0" (24x36)  
SCALE: 3/4" = 1'-0" (11x17)  
SCALE IN FEET

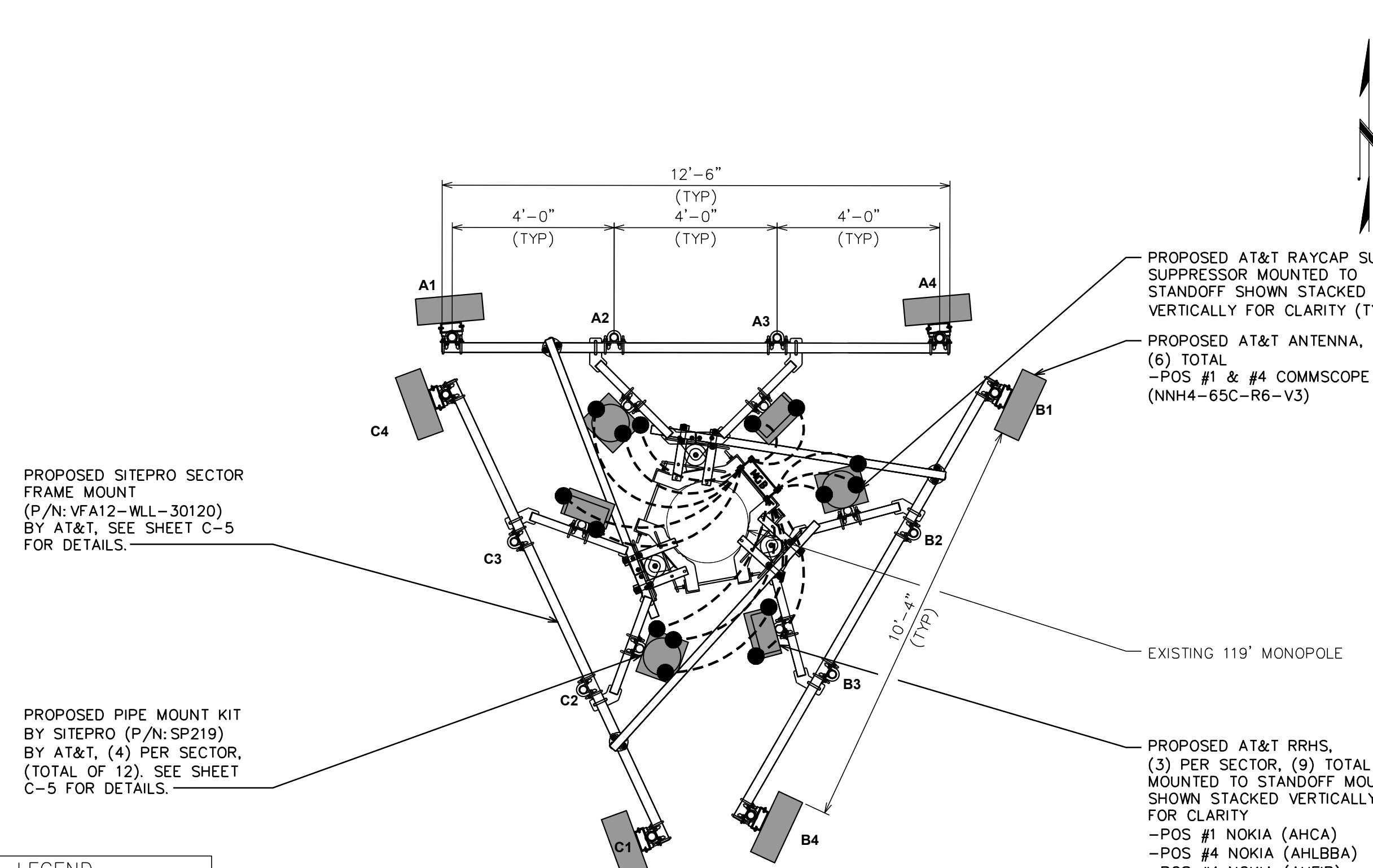
NOTE:

PROPOSED PANEL SCHEDULE VALUES  
WERE CALCULATED BASED ON MAXIMUM  
PULL FROM EACH CONNECTED  
BREAKER. ACTUAL VALUES WILL VARY  
BASED ON SITE CONDITIONS.

PROPOSED PANEL SCHEDULE											
120/240 VOLTS 1 PHASE				3 WIRE SURFACE MOUNTED				225A, 2 POLE MAIN BREAKER			
NO.	LOAD SERVED	ØA VA	ØB VA	AMP/ POLE	L1	L2	AMP/ POLE	ØA VA	ØB VA	LOAD SERVED	NO.
1	RECTIFIERS #1 & #2	2880	-	30/2	5760	-	30/2	2880	-	RECTIFIERS #3 & 4	2
3		-	2880	-	-	5760	-	-	2880		4
5	RECTIFIERS #5 & 6	2880	-	30/2	2880	-	30/2	0	-	SPARE/OFF	6
7		-	2880	-	-	2880	-	-	0		8
9	SPARE/OFF	0	-	30/2	0	-	30/2	0	-	SPARE/OFF	10
11		-	0	-	-	0	-	-	0		12
13	SPARE/OFF	0	-	30/2	0	-	30/2	0	-	SPARE/OFF	14
15		-	0	-	-	0	-	-	0		16
17	SPARE/OFF	0	-	30/2	0	-	30/2	0	-	SPARE/OFF	18
19		-	0	-	-	0	-	-	0		20
21	SPARE/OFF	0	-	30/2	0	-	30/2	0	-	SPARE/OFF	22
23		-	0	-	-	0	-	-	0		24
25	AC UNIT #1	1920	-	20/1	2570	-	20/1	650	-	GEN BATT CHARGER	26
27	BLANK	-	-	-	-	1000	20/1	-	1000	GEN BLOCK HEATER	28
29	BLANK	-	-	-	0	-	-	-	-	BLANK	30
31	BLANK	-	-	-	0	-	-	-	-	BLANK	32
33	BLANK	-	-	-	0	-	-	-	-	BLANK	34
35	BLANK	-	-	-	0	-	-	-	-	BLANK	36
37	BLANK	-	-	-	0	-	-	-	-	BLANK	38
39	BLANK	-	-	-	0	-	-	-	-	BLANK	40
PHASE TOTALS (VA)					11210	9640					
CURRENT PER PHASE (A)					94	81					
PEAK TOTAL (VA)					11210	94	PEAK TOTAL (A)				
125% DEMAND (VA)					14013	117.5	125% DEMAND (A)				

PROPOSED A/C PANEL

SCALE: N.T.S.



LEGEND

■	EXOTHERMIC CONNECTION
●	MECHANICAL CONNECTION
▭	ANTENNA GROUND BAR
▭	MASTER GROUND BAR

ANTENNA GROUNDING PLAN

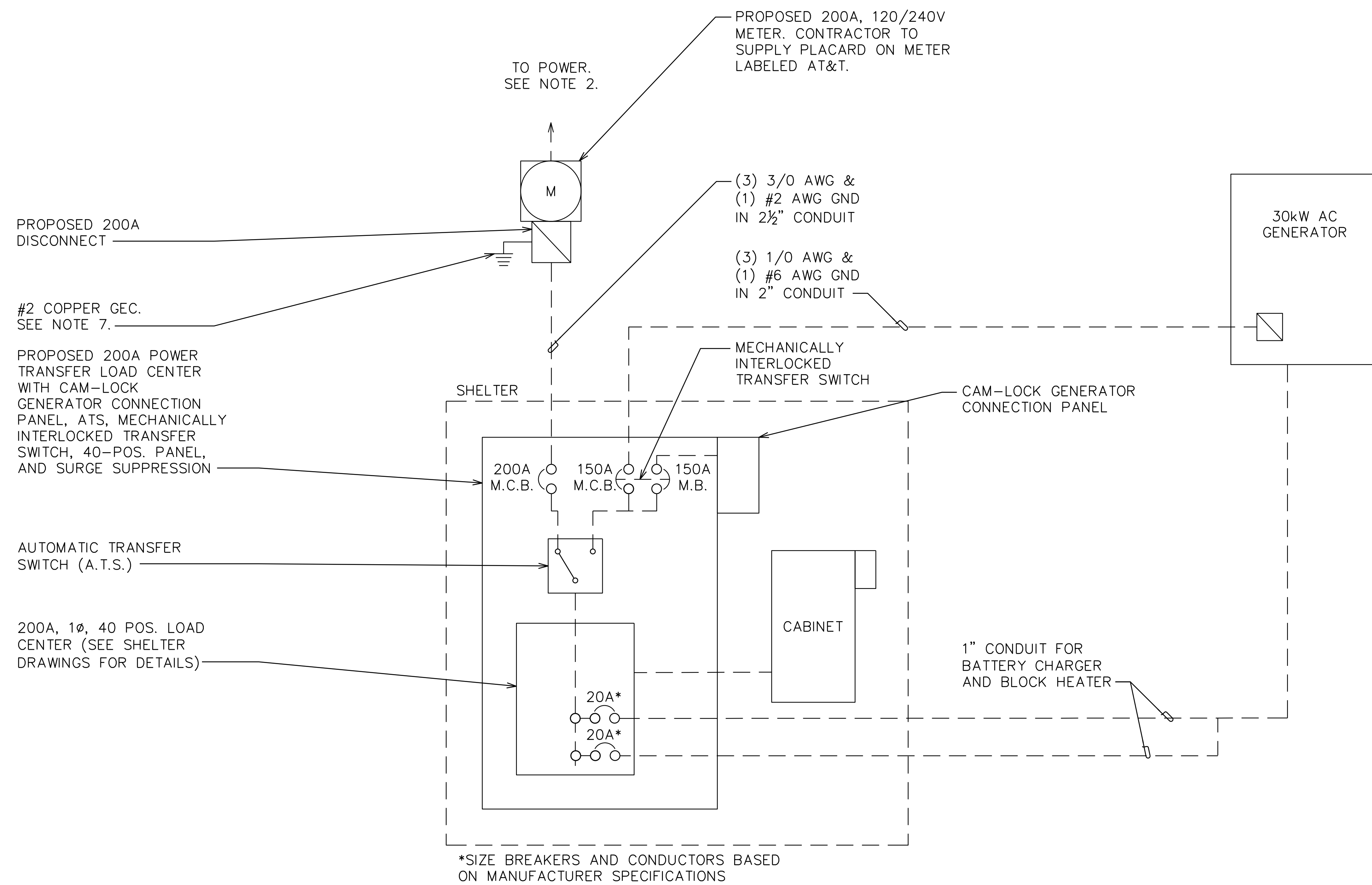
SCALE: 3/8" = 1'-0" (24x36)  
SCALE: 1/2" = 1'-0" (11x17)  
SCALE IN FEET

**GENERAL NOTES:**

1. CONTRACTOR SHALL VERIFY AVAILABLE FAULT CURRENT WITH POWER COMPANY AND ENSURE ALL ELECTRICAL EQUIPMENT IS SUITABLE FOR AVAILABLE FAULT CURRENT.
2. CONTRACTOR SHALL COORDINATE UTILITY SERVICES WITH LOCAL UTILITY COMPANIES. VERIFY ALL REQUIREMENTS WITH UTILITY COMPANY STANDARDS.
3. ONE-LINE DIAGRAM IS FOR SCHEMATIC PURPOSES ONLY AND IS NOT INDICATIVE OF THE ACTUAL EQUIPMENT LAYOUT.
4. CONTRACTOR SHALL LABEL METER SOCKET WITH SERVICE OWNER NAMEPLATE WITH 1/2" HEIGHT MINIMUM LETTERS.
5. ALL EQUIPMENT WILL HAVE A MINIMUM AIC OF 10 KA. CONTRACTOR TO DETERMINE AVAILABLE FAULT CURRENT BEFORE ENERGIZING EQUIPMENT. THE AMOUNT OF AVAILABLE FAULT CURRENT SHALL BE MARKED ON THE SERVICE EQUIPMENT PER NEC 110.24.
6. CONTRACTOR WILL NOTIFY UTILITY COMPANY OF CHANGES IN ELECTRICAL LOAD.

**ONE-LINE DIAGRAM NOTES:**

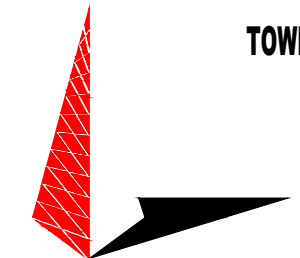
1. ELECTRICAL SERVICE SHALL BE 200A, 120/240V, 1Ø, 3W.
2. FOR COMPLETE INTERNAL WIRING AND ARRANGEMENT, REFER TO VENDOR PRINTS PROVIDED BY EQUIPMENT MANUFACTURER.



161 INVERNESS DR W, 2ND FLOOR  
ENGLEWOOD, CO 80112



19100 VON KARMAN AVE  
SUITE 200  
IRVINE, CA 92612



TOWER ENGINEERING PROFESSIONALS  
4710 E ELWOOD ST, STE 9  
PHOENIX, AZ 85040  
OFFICE: (480) 285-0036  
www.tepgroup.net

**AT&T SITE ID: COL02205**  
**AT&T FA CODE: 15312479**  
**AT&T PACE #: MRUTH042458**  
**ATC #: 370609**  
**WIDEFIELD HIGH SCHOOL II**

**527 WIDEFIELD DRIVE**  
**COLORADO SPRINGS,**  
**CO 80911**  
**(EL PASO COUNTY)**  
**EXISTING 119'-0"**  
**MONOPOLE TOWER**  
**NSB - LTE - 1C/2C/3C/4C/**  
**5G NR 1SR**

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	QA
A	11-23-20	KT	PRELIMINARY	EGG
B	12-14-20	SDD	90% CONSTRUCTION	EGG
C	02-18-21	CAK	90% CONSTRUCTION	EGG
O	04-23-21	GV	100% CONSTRUCTION	EGG

**SEAL:**



April 23, 2021

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 TITLE:**

**ONE-LINE DIAGRAM**

**SHEET NUMBER:**

**E-2**

**REVISION:**

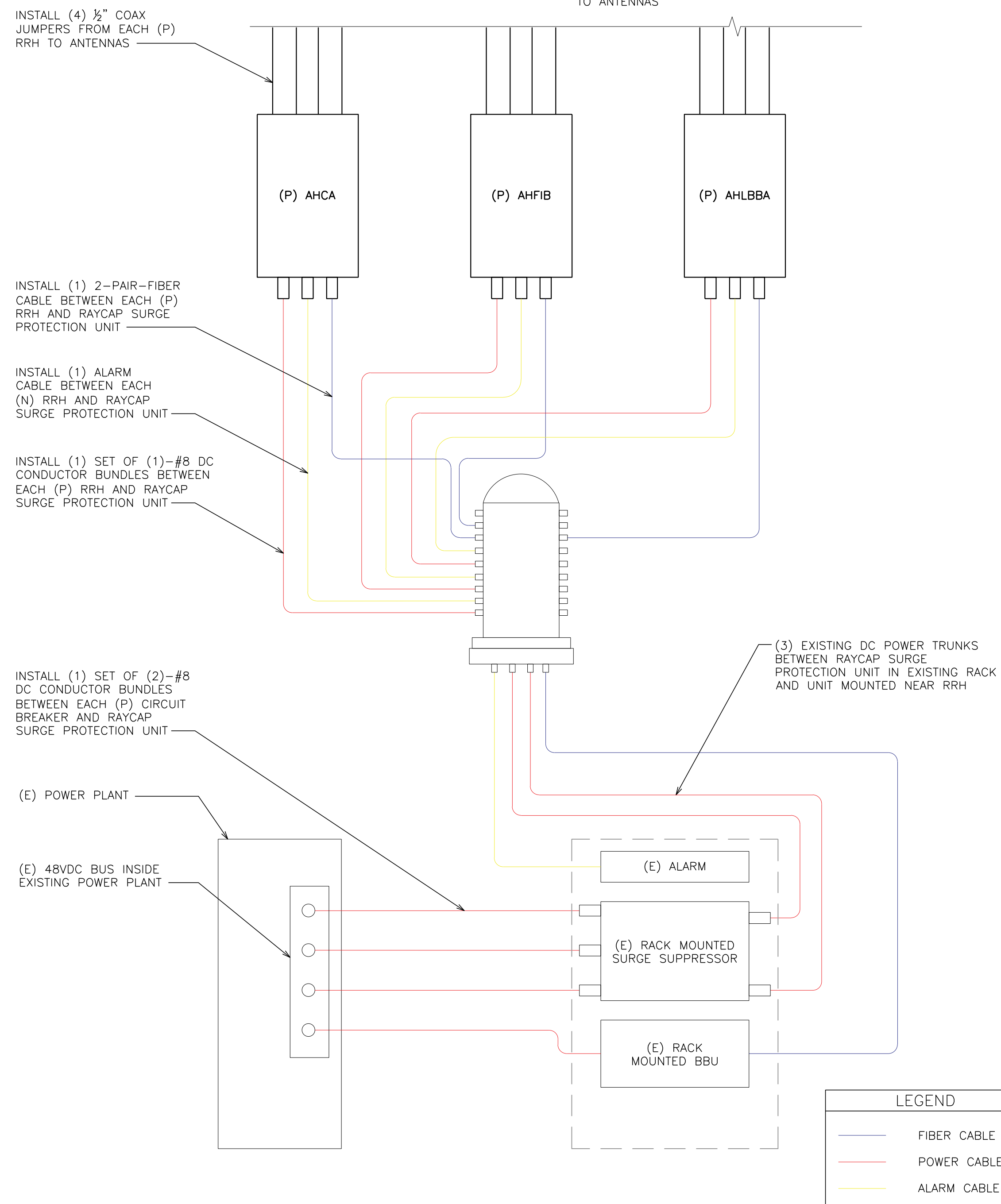
**0**

**TEP #:**

177861.243634

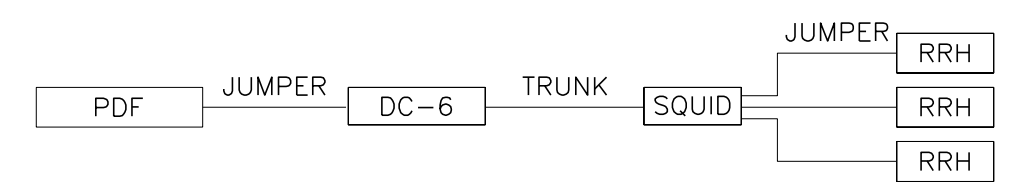
**ELECTRICAL AC/DC SINGLE LINE DIAGRAM**

SCALE: N.T.S.



**DC AND FIBER SYSTEM SCHEMATIC**

SCALE: N.T.S.

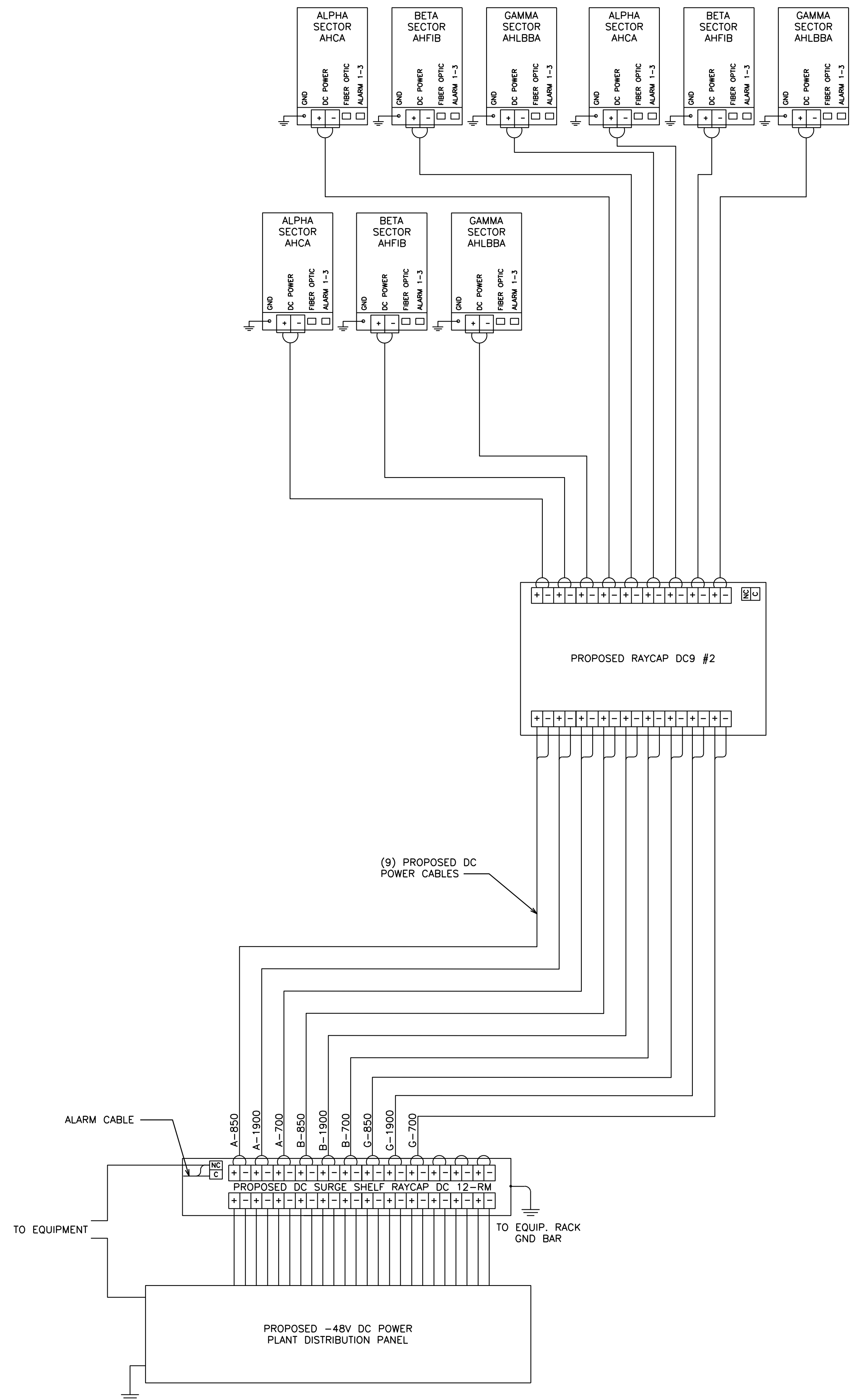


CABLE LENGTH TABLE						
SECTOR	PDF	DISTANCE & CABLE TYPE		DISTANCE & CABLE TYPE		TOTAL CABLE LENGTH
ALPHA	PDF	20'	#8 AWG	DC-6	145' (2) #8 AWG	180'
BETA		20'	#8 AWG	SQUID	15' #8 AWG	
GAMMA		20'	#8 AWG	RRH	15' #8 AWG	
						FINAL VOLTAGE
						40.6

CABLE COUNT	
QTY	CABLE TYPE
1	FIBER TRUNKS
3	DC TRUNKS

**LTE CONDUCTOR SIZES**

SCALE: N.T.S.



**DC WIRING DIAGRAM**

SCALE: N.T.S.

161 INVERNESS DR W, 2ND FLOOR  
ENGLEWOOD, CO 80112

19100 VON KARMAN AVE  
SUITE 200  
IRVINE, CA 92612

4710 E ELWOOD ST, STE 9  
PHOENIX, AZ 85040  
OFFICE: (480) 285-0036  
www.tepgroup.net

AT&T SITE ID: COL02205  
AT&T FA CODE: 15312479  
AT&T PACE #: MRUTH042458  
ATC #: 370609  
WIDEFIELD HIGH SCHOOL II

527 WIDEFIELD DRIVE  
COLORADO SPRINGS,  
CO 80911  
(EL PASO COUNTY)  
EXISTING 119'-0"  
MONOPOLE TOWER  
NSB - LTE - 1C/2C/3C/4C/  
5G NR 1SR

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	QA
A	11-23-20	KT	PRELIMINARY	EGG
B	12-14-20	SDD	90% CONSTRUCTION	EGG
C	02-18-21	CAK	90% CONSTRUCTION	EGG
O	04-23-21	GV	100% CONSTRUCTION	EGG

SEAL:

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 TITLE:  
**DC SYSTEM DETAILS**

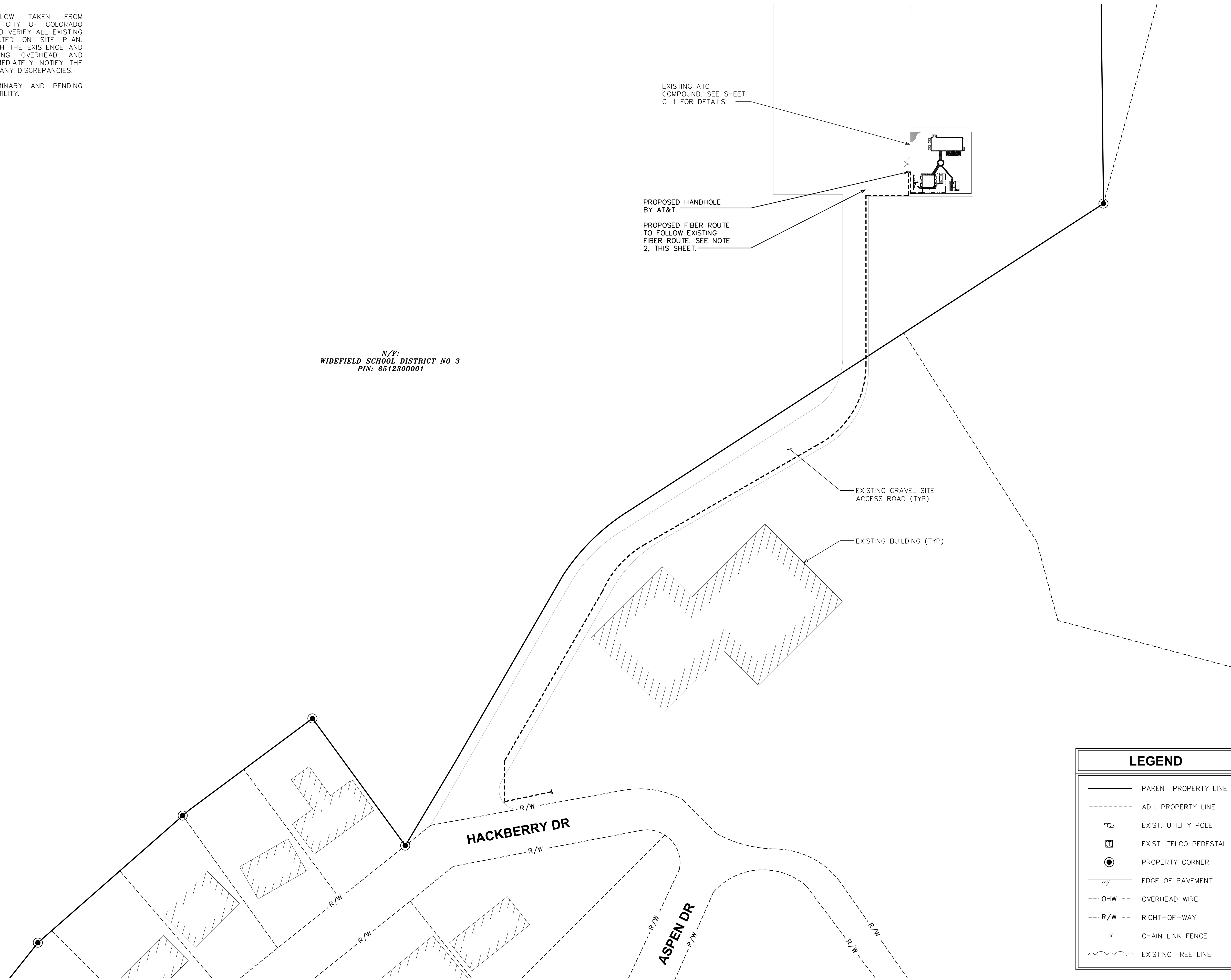
SHEET NUMBER:  
**E-3**

REVISION:  
**0**

TEP #: 177861.243634

**NOTES:**

1. SITE PLAN SHOWN BELOW TAKEN FROM INFORMATION PROVIDED BY CITY OF COLORADO SPRINGS GIS. CONTRACTOR TO VERIFY ALL EXISTING INFORMATION IS AS INDICATED ON SITE PLAN. CONTRACTOR IS TO ESTABLISH THE EXISTENCE AND LOCATION OF ALL EXISTING OVERHEAD AND UNDERGROUND UTILITIES. IMMEDIATELY NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES.
2. UTILITY ROUTING IS PRELIMINARY AND PENDING COORDINATION WITH LOCAL UTILITY.



N/F:  
WIDEFIELD SCHOOL DISTRICT NO 3  
PIN: 6512300001

LEGEND	
	PARENT PROPERTY LINE
	ADJ. PROPERTY LINE
	EXIST. UTILITY POLE
	EXIST. TELCO PEDESTAL
	PROPERTY CORNER
	EDGE OF PAVEMENT
	OHW --- OVERHEAD WIRE
	R/W --- RIGHT-OF-WAY
	CHAIN LINK FENCE
	EXISTING TREE LINE

161 INVERNESS DR W, 2ND FLOOR  
ENGLEWOOD, CO 80112

19100 VON KARMAN AVE  
SUITE 200  
IRVINE, CA 92612

4710 E ELWOOD ST, STE 9  
PHOENIX, AZ 85040  
OFFICE: (480) 285-0036  
www.tepgroup.net

**AT&T SITE ID: COL02205**  
**AT&T FA CODE: 15312479**  
**AT&T PACE #: MRUTH042458**  
**ATC #: 370609**  
**WIDEFIELD HIGH SCHOOL II**

**527 WIDEFIELD DRIVE**  
**COLORADO SPRINGS,**  
**CO 80911**  
**(EL PASO COUNTY)**  
**EXISTING 119'-0"**  
**MONOPOLE TOWER**  
**NSB - LTE - 1C/2C/3C/4C/**  
**5G NR 1SR**

ISSUED FOR:				
REV	DATE	DRWN	DESCRIPTION	QA
A	11-23-20	KT	PRELIMINARY	EGG
B	12-14-20	SDD	90% CONSTRUCTION	EGG
C	02-18-21	CAK	90% CONSTRUCTION	EGG
O	04-23-21	GV	100% CONSTRUCTION	EGG

**SEAL:**

April 23, 2021

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 TITLE:**  
**FIBER ROUTING PLAN**

**SHEET NUMBER:**  
**E-4**

**REVISION:**  
**0**

**TEP #:** 177861.243634

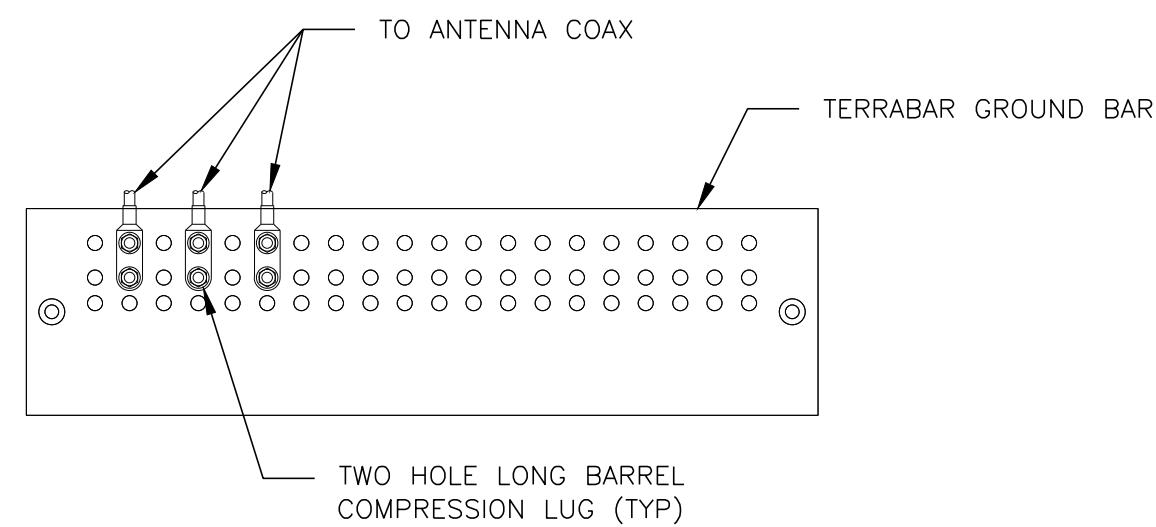
**FIBER ROUTING PLAN**  
SCALE: 1" = 40'

SCALE: 1" = 40' (24x36)  
SCALE: 1" = 80' (11x17)

SCALE IN FEET

**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 TOWER STEEL.

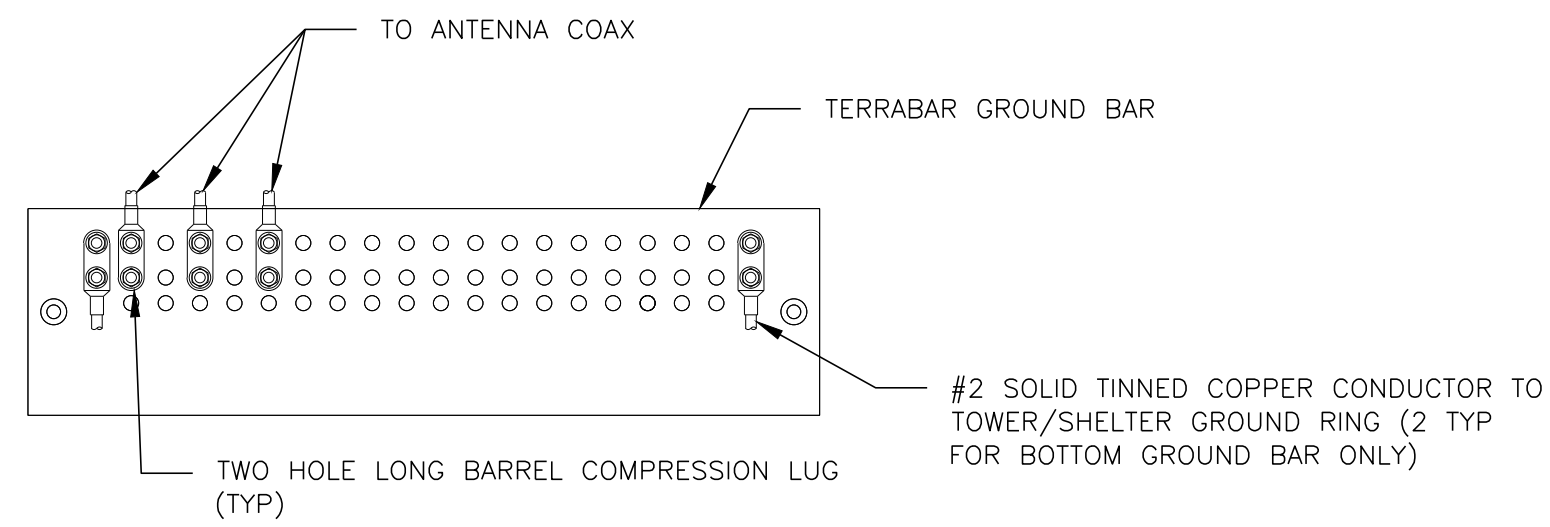


**ANTENNA GROUND BAR DETAIL**

SCALE: N.T.S.

**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. INSTALL GROUND BARS AT 75 FT. INTERVAL MAXIMUM.
4. GROUND BAR SHALL BE ISOLATED FROM BUILDING OR SHELTER.

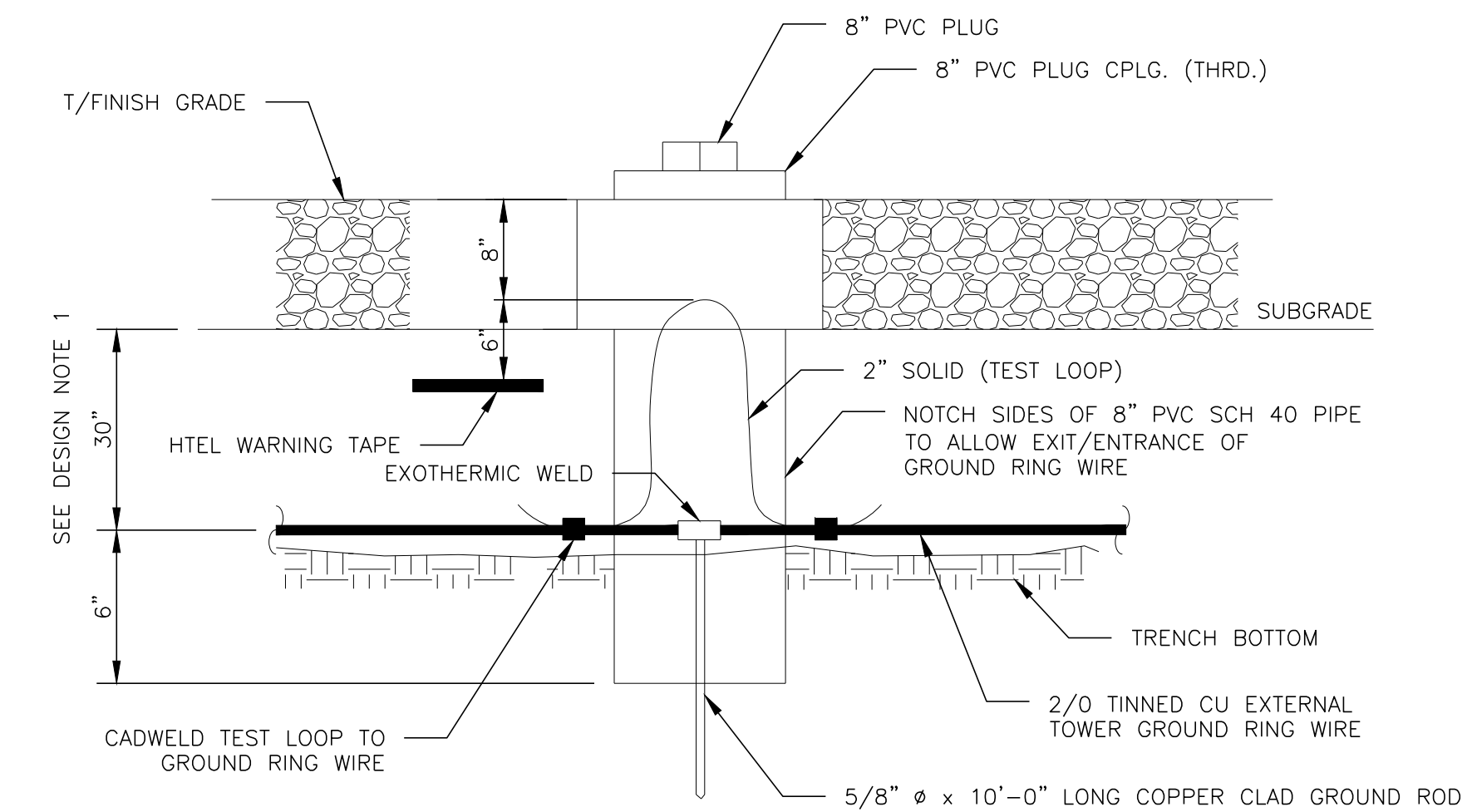


**TOWER/SHELTER GROUND BAR DETAIL**

SCALE: N.T.S.

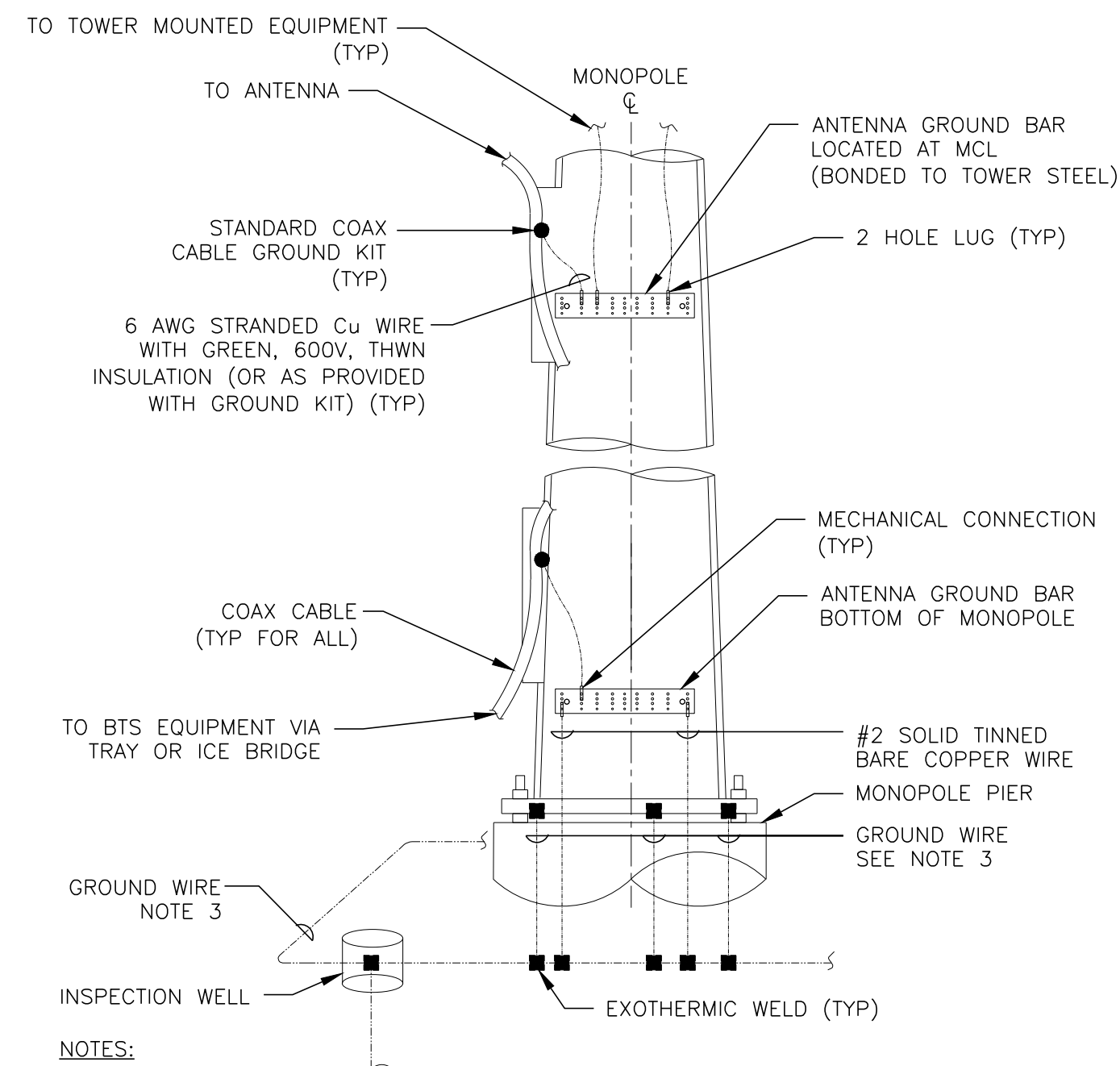
**NOTES:**

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)



**TEST WELL DETAIL**

SCALE: N.T.S.

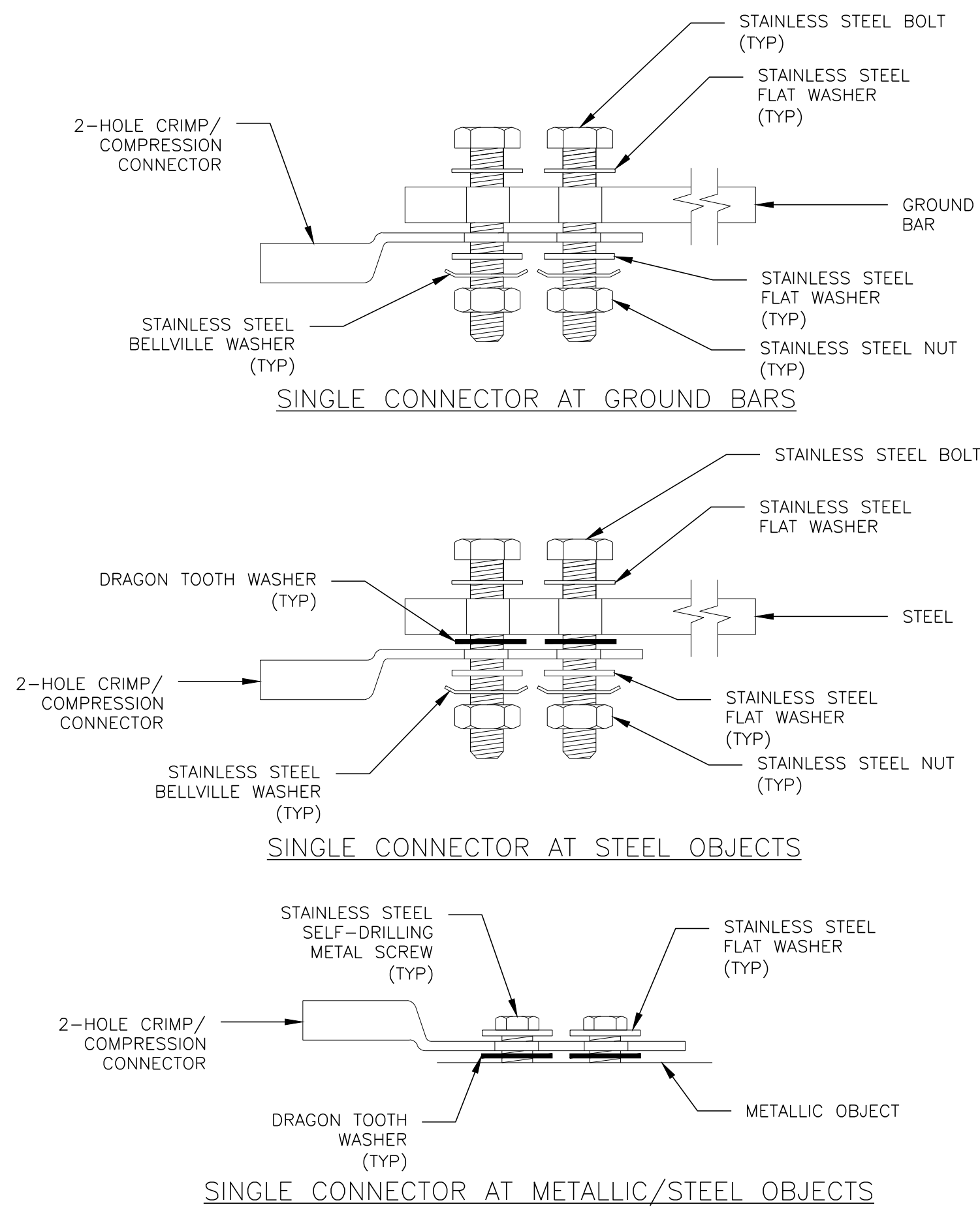


**NOTES:**

1. NUMBER OF GROUND BARS MAY VARY DEPENDING ON THE TYPE OF MONOPOLE, ANTENNA LOCATION AND CONNECTION ORIENTATION. COAXIAL CABLES EXCEEDING 200 FEET IN/ON THE POLE SHALL HAVE GROUND KITS AT THE MIDPOINT. PROVIDE AS REQUIRED.
2. ONLY MECHANICAL CONNECTIONS ARE ALLOWED TO BE MADE TO CROWN CASTLE TOWERS. ALL MECHANICAL CONNECTIONS SHALL BE TREATED WITH AN ANTI-OXIDANT COATING.
3. ALL TOWER GROUNDING SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF ANS/TIA 222 AND NFPA 780. FOR TOWERS BEING BUILT TO REV G OF THE STANDARD, THE WIRE SIZE OF THE BURIED GROUND RING AND CONNECTIONS BETWEEN THE TOWER AND THE BURIED GROUND RING SHALL BE 2/0 AWG. STRANDED IN ADDITION, THE MINIMUM LENGTH OF THE GROUND RODS SHALL BE INCREASED FROM 8 FEET TO 10 FEET.

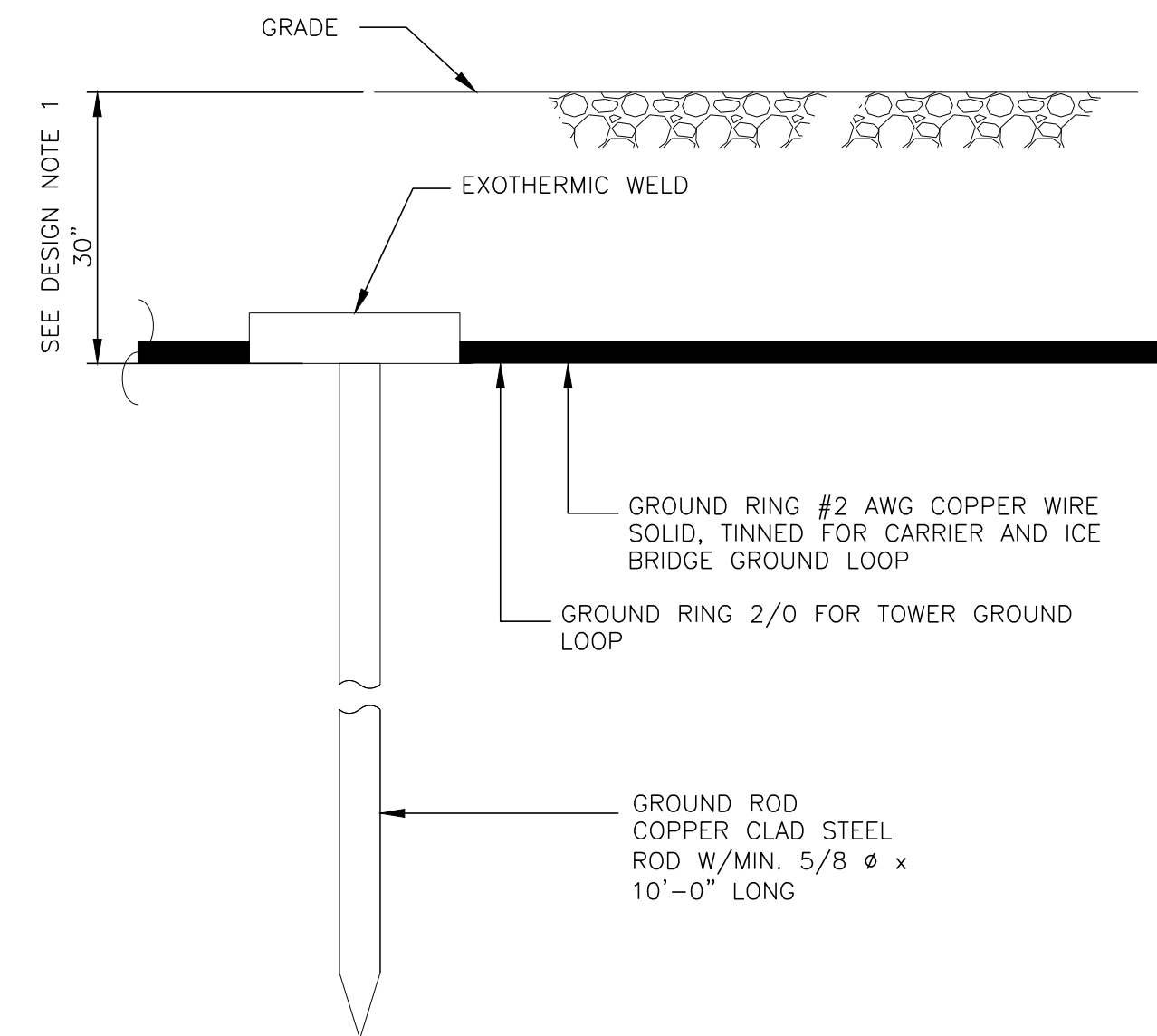
**TYPICAL ANTENNA CABLE GROUNDING**

SCALE: N.T.S.



**HARDWARE DETAIL FOR EXTERIOR CONNECTIONS**

SCALE: N.T.S.



**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)

**GROUND ROD**

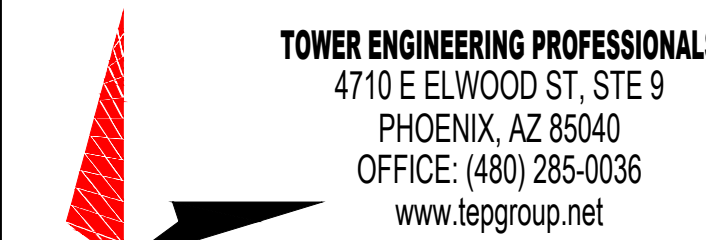
SCALE: N.T.S.



161 INVERNESS DR W, 2ND FLOOR  
ENGLEWOOD, CO 80112



19100 VON KARMAN AVE  
SUITE 200  
IRVINE, CA 92612



4710 E ELWOOD ST, STE 9  
PHOENIX, AZ 85040  
OFFICE: (480) 285-0036  
www.tepgroup.net

**AT&T SITE ID: COL02205**  
**AT&T FA CODE: 15312479**  
**AT&T PACE #: MRUTH042458**  
**ATC #: 370609**  
**WIDEFIELD HIGH SCHOOL II**

**527 WIDEFIELD DRIVE**  
**COLORADO SPRINGS,**  
**CO 80911**  
**(EL PASO COUNTY)**  
**EXISTING 119'-0"**  
**MONOPOLE TOWER**  
**NSB - LTE - 1C/2C/3C/4C/**  
**5G NR 1SR**

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	QA
A	11-23-20	KT	PRELIMINARY	EGG
B	12-14-20	SDD	90% CONSTRUCTION	EGG
C	02-18-21	CAK	90% CONSTRUCTION	EGG
O	04-23-21	GV	100% CONSTRUCTION	EGG

**SEAL:**



April 23, 2021

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 TITLE:**  
**GROUNDING DETAILS**

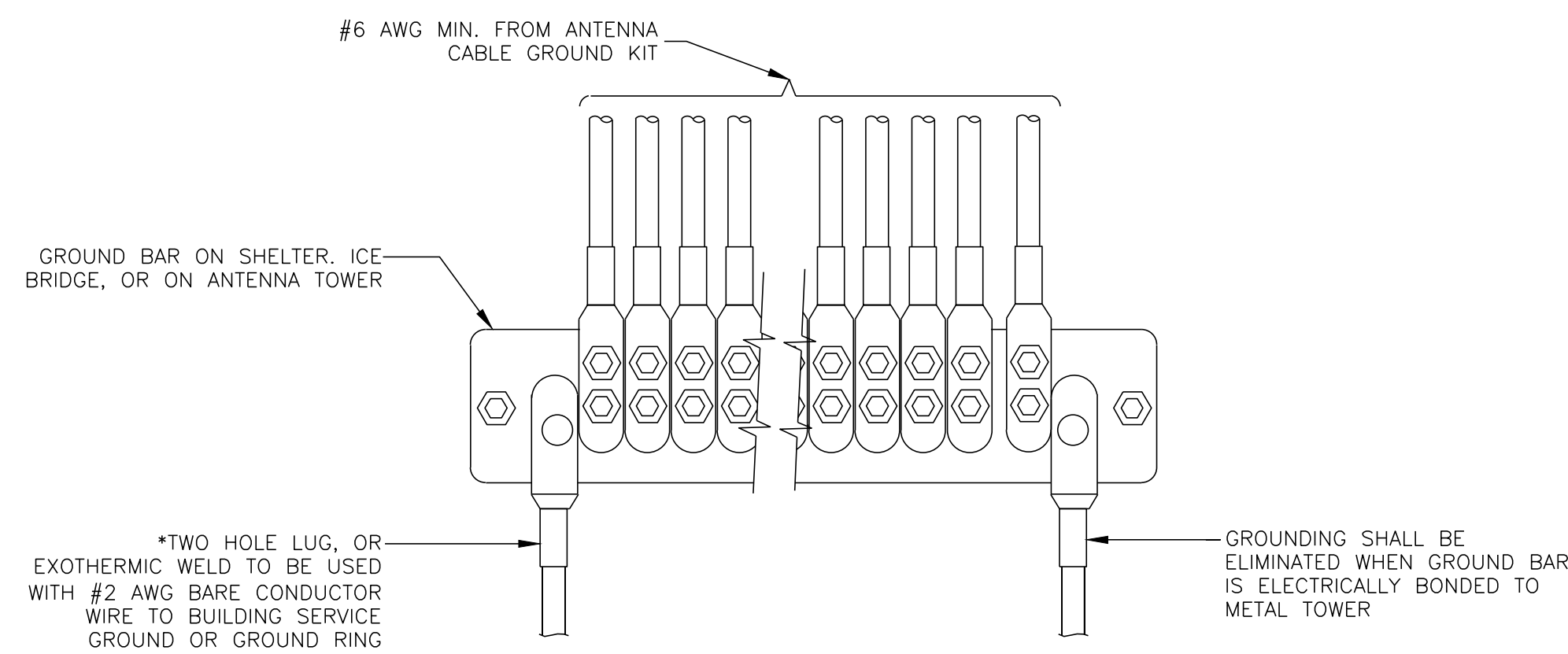
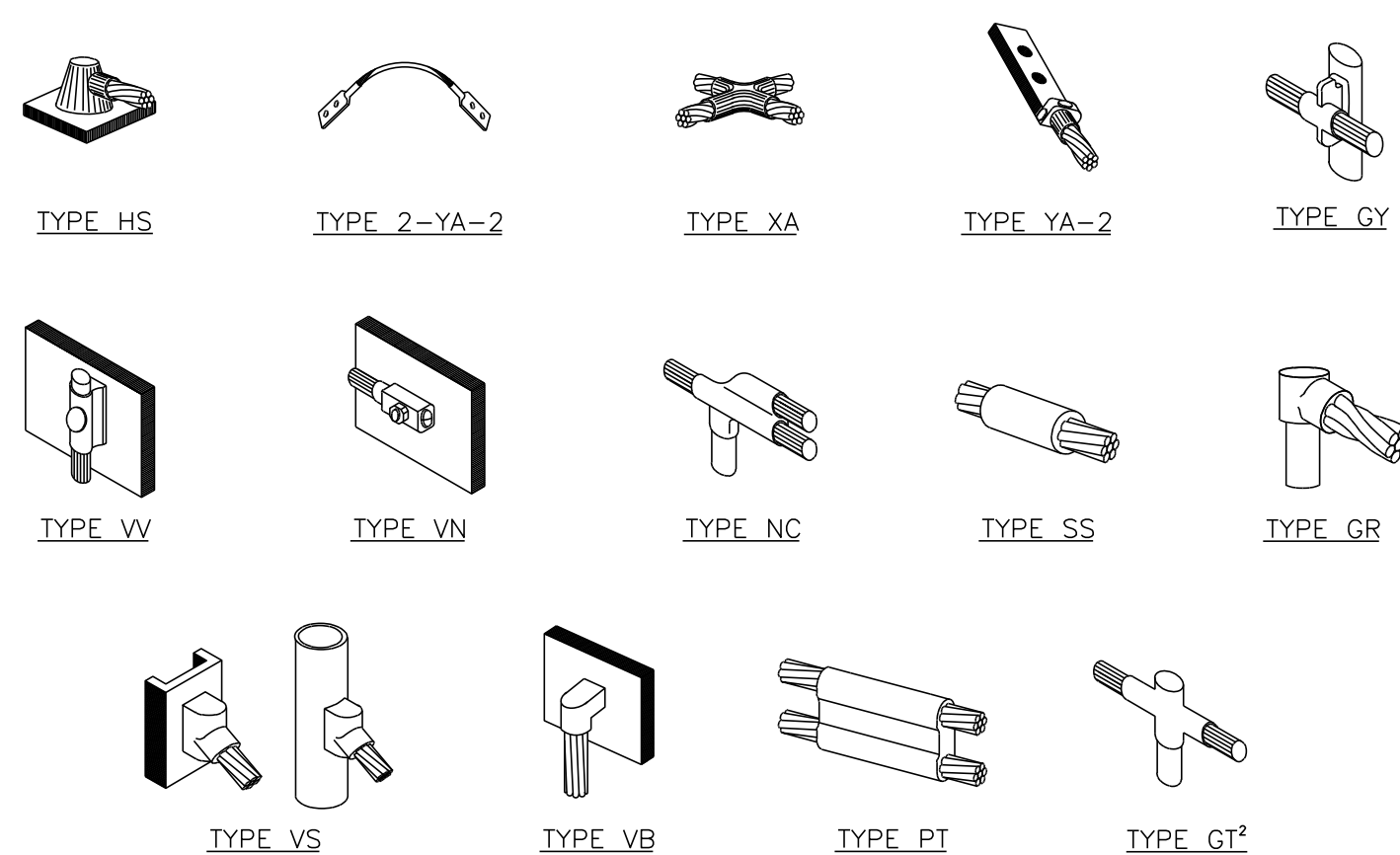
**SHEET NUMBER:** **G-1** **REVISION:** **0**

**TEP #:** 177861.243634



**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.

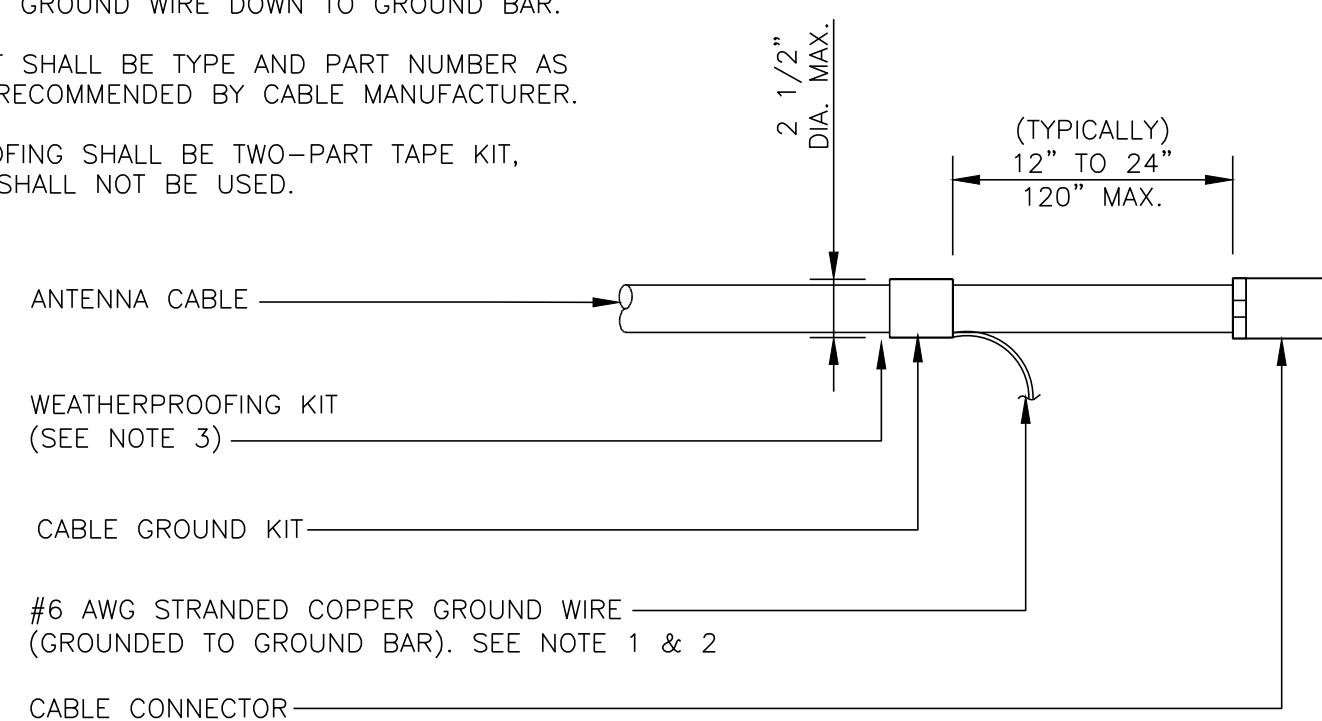


**GROUNDWIRE INSTALLATION**

SCALE: N.T.S.

**NOTES:**

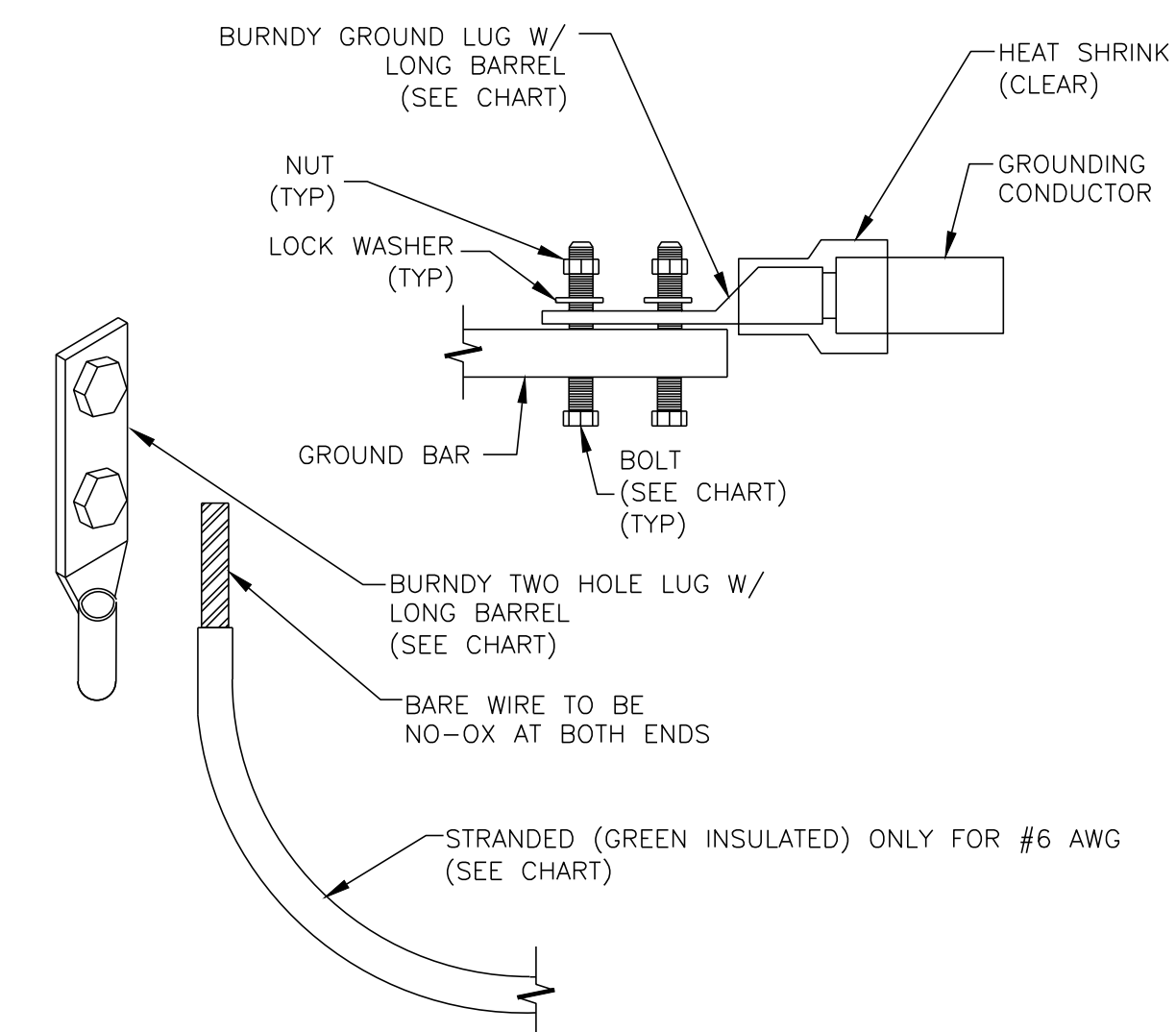
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.



**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.

WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 AWG GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG SOLID TINNED	YA3C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG STRANDED	YA2C-2TC38	3/8" - 16 NC S 2 BOLT
#2/0 AWG STRANDED	YA26-2TC38	3/8" - 16 NC S 2 BOLT
#4/0 AWG STRANDED	YA28-2N	1/2" - 16 NC S 2 BOLT

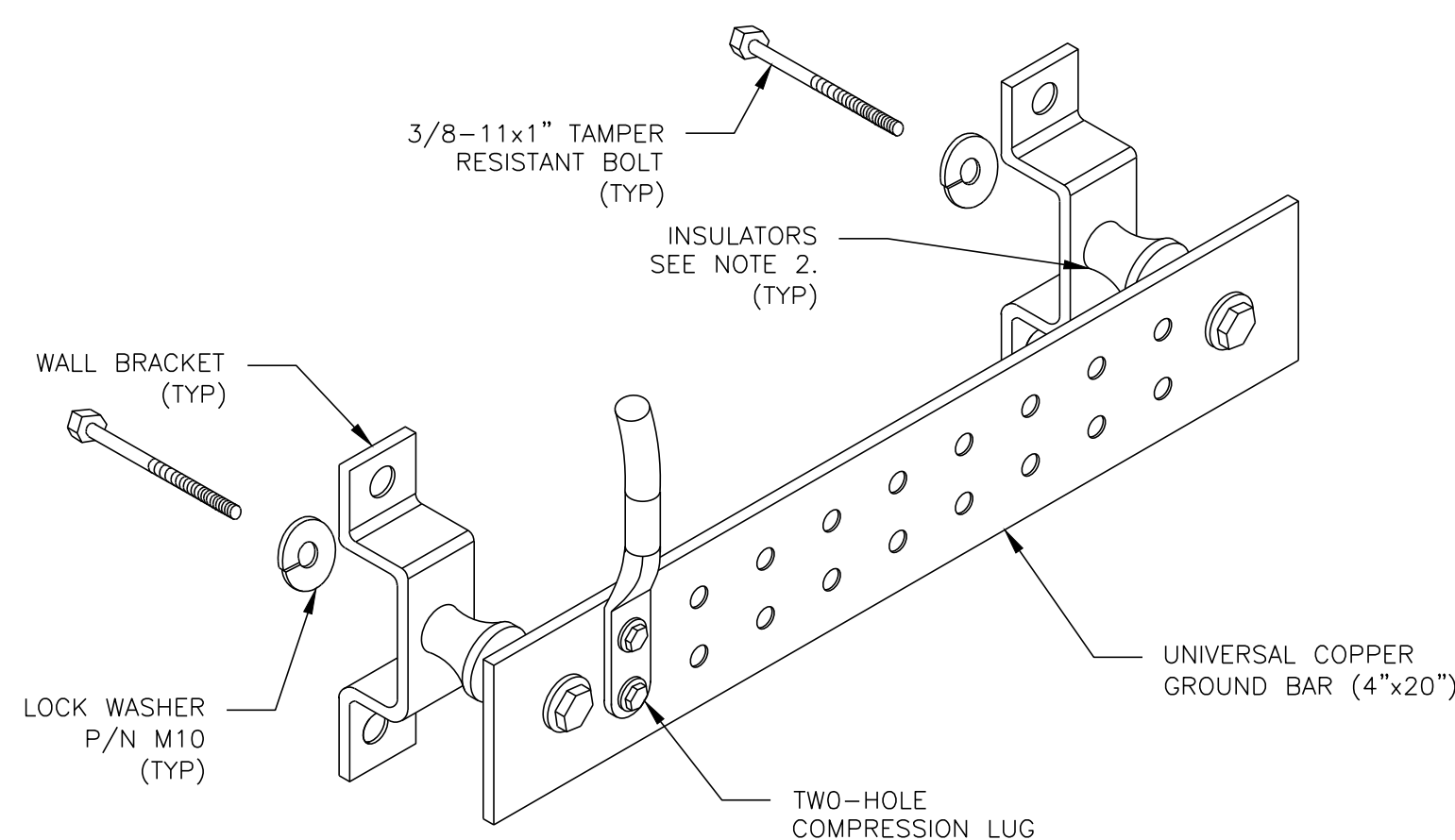


**CADWELD GROUNDING CONNECTIONS**

SCALE: N.T.S.

**NOTES:**

1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-ST0-10091. 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.



**GROUND BAR DETAIL**

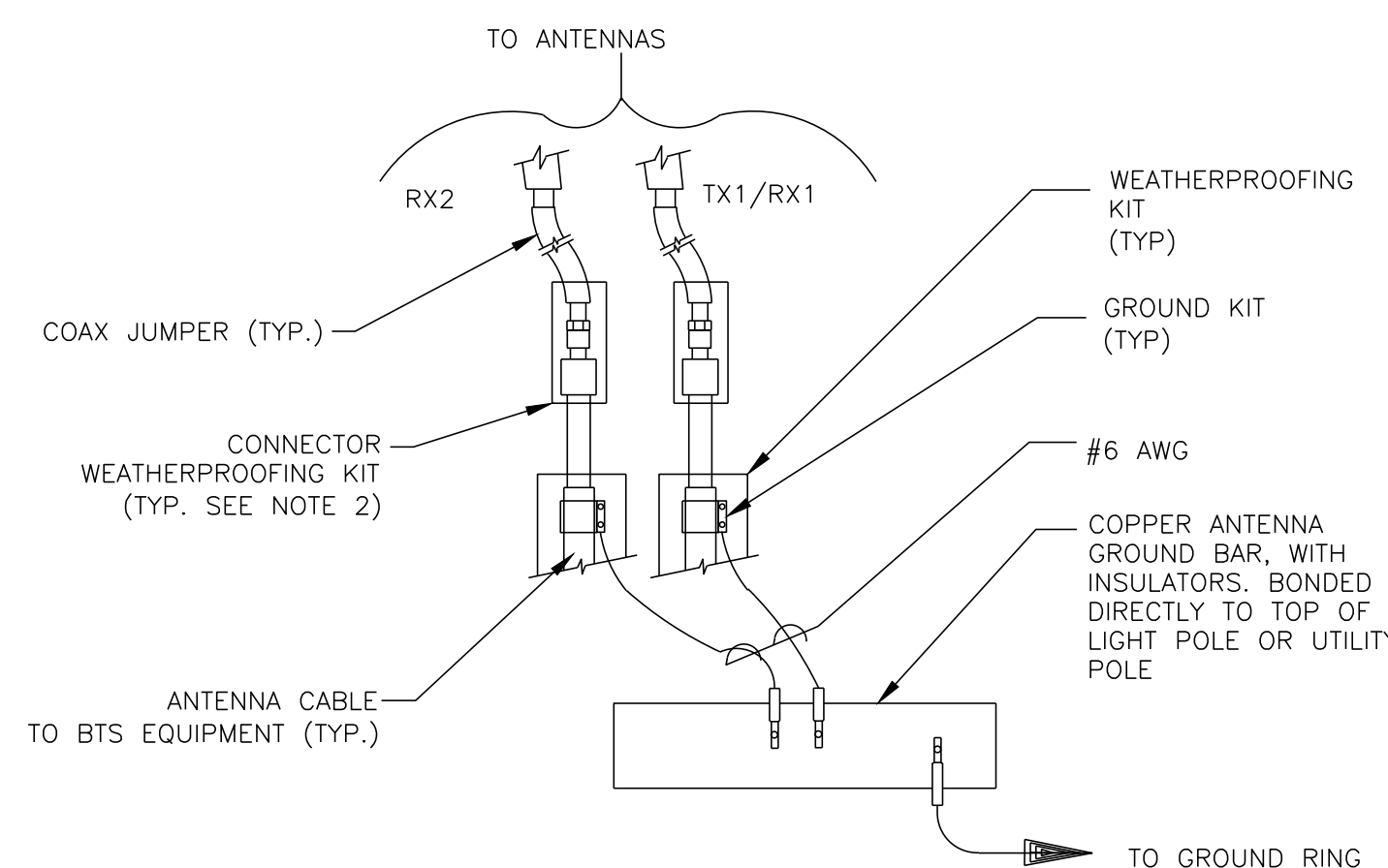
SCALE: N.T.S.

**CABLE GROUND KIT CONNECTION**

SCALE: N.T.S.

**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.

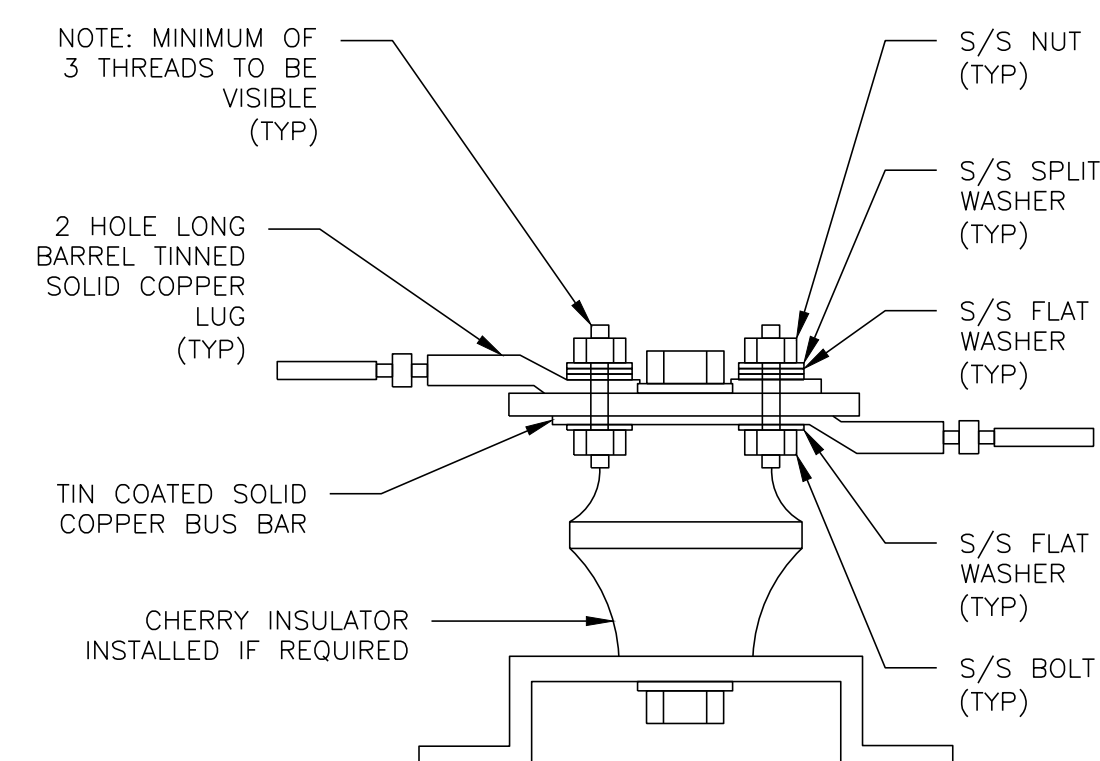


**GROUND CABLE CONNECTION**

SCALE: N.T.S.

**MECHANICAL LUG CONNECTION**

SCALE: N.T.S.



**LUG DETAIL**

SCALE: N.T.S.



161 INVERNESS DR W, 2ND FLOOR  
ENGLEWOOD, CO 80112



19100 VON KARMAN AVE  
SUITE 200  
IRVINE, CA 92612



4710 E ELWOOD ST, STE 9  
PHOENIX, AZ 85040  
OFFICE: (480) 285-0036  
www.tepgroup.net

**AT&T SITE ID: COL02205**  
**AT&T FA CODE: 15312479**  
**AT&T PACE #: MRUTH042458**  
**ATC #: 370609**

**WIDEFIELD HIGH SCHOOL II**

**527 WIDEFIELD DRIVE**  
**COLORADO SPRINGS,**  
**CO 80911**  
**(EL PASO COUNTY)**  
**EXISTING 119'-0"**  
**MONOPOLE TOWER**  
**NSB - LTE - 1C/2C/3C/4C/**  
**5G NR 1SR**

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	QA
A	11-23-20	KT	PRELIMINARY	EGG
B	12-14-20	SDD	90% CONSTRUCTION	EGG
C	02-18-21	CAK	90% CONSTRUCTION	EGG
O	04-23-21	GV	100% CONSTRUCTION	EGG

**SEAL:**



April 23, 2021

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 TITLE:**  
**GROUNDING DETAILS**

**SHEET NUMBER:**  
**G-2**

**REVISION:**  
**0**

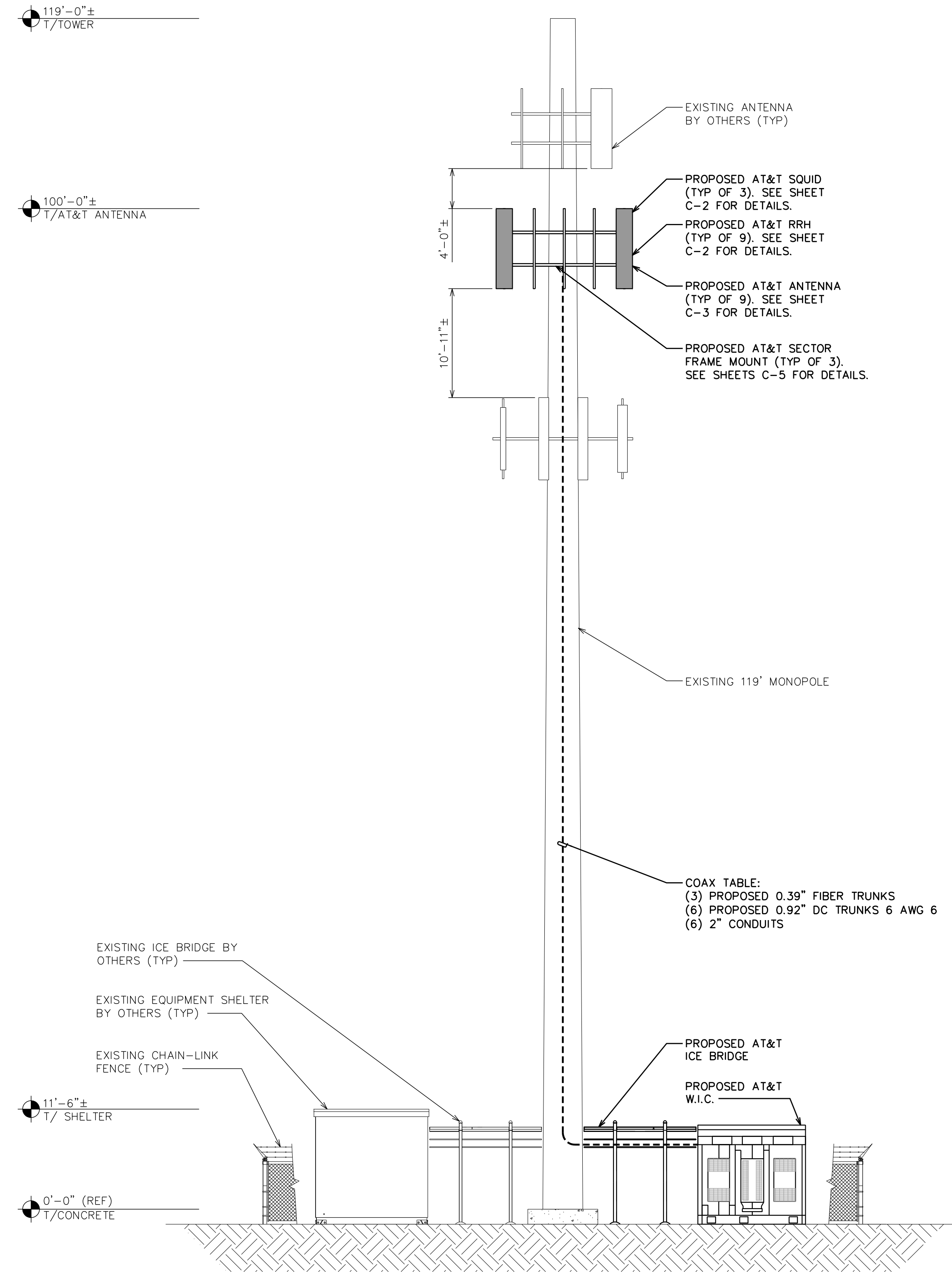
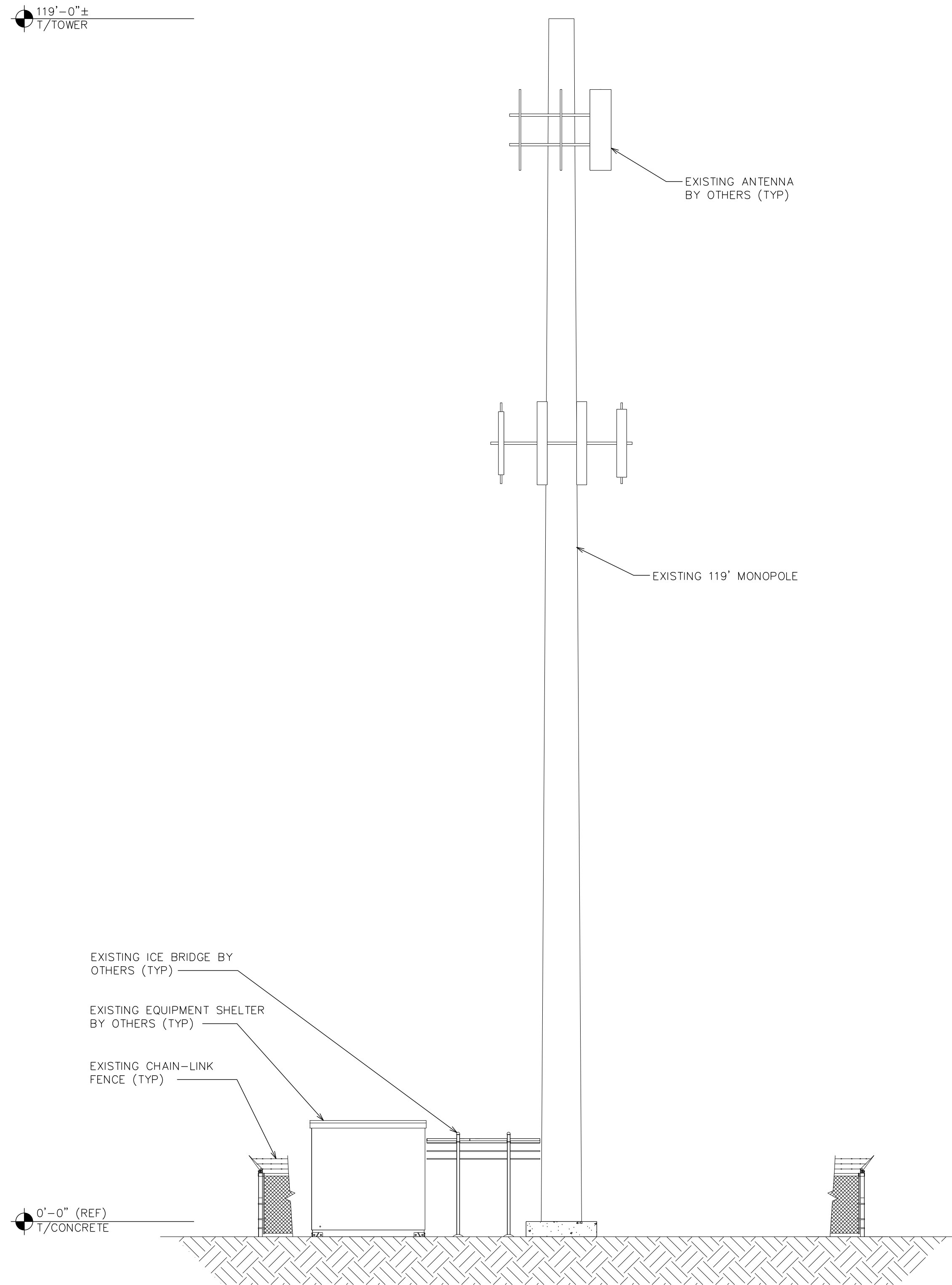
**TEP #:** 177861.243634

**NOTE:**

TOWER ELEVATION IS FOR SCHEMATIC PURPOSES ONLY. TEP DID NOT CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO ANTENNA HEIGHTS, ANTENNA AZIMUTHS, AND MOUNT CONFIGURATIONS.

**NOTES:**

1. PROPOSED CABLES TO BE ROUTED PER SPECIFICATIONS OF PASSING STRUCTURAL ANALYSIS.
2. TOWER ELEVATION IS FOR SCHEMATIC PURPOSES ONLY. TEP DID NOT CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO ANTENNA HEIGHTS, ANTENNA AZIMUTHS, AND MOUNT CONFIGURATIONS.
3. CONTRACTOR TO VERIFY PROPOSED LOADING WITH PASSING STRUCTURAL ANALYSIS PRIOR TO CONSTRUCTION. CONTRACTOR TO CONTACT AT&T OR AMERICAN TOWER CORPORATION IMMEDIATELY IN THE EVENT OF ANY DISCREPANCIES.



161 INVERNESS DR W, 2ND FLOOR  
ENGLEWOOD, CO 80112

19100 VON KARMAN AVE  
SUITE 200  
IRVINE, CA 92612

4710 E ELWOOD ST, STE 9  
PHOENIX, AZ 85040  
OFFICE: (480) 285-0036  
www.tepgroup.net

**AT&T SITE ID: COL02205**  
**AT&T FA CODE: 15312479**  
**AT&T PACE #: MRUTH042458**  
**ATC #: 370609**  
**WIDEFIELD HIGH SCHOOL II**

**523 WIDEFIELD ROAD**  
**COLORADO SPRINGS,**  
**CO 80911**  
**(EL PASO COUNTY)**  
**EXISTING 119'-0"**  
**MONOPOLE TOWER**  
**NSB - LTE - 1C/2C/3C/4C/**  
**5G NR 1SR**

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	QA
A	11-23-20	KT	PRELIMINARY	EGG
B	12-14-20	SDD	90% CONSTRUCTION	EGG
C	02-18-21	CAK	90% CONSTRUCTION	EGG

**SEAL:**

**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION

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 TITLE:**  
**EXISTING AND FINAL ELEVATIONS**

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

**TEP #:** 177861.243634

**EXISTING TOWER ELEVATION**

SCALE: 1/8" = 1'-0" (24x36)  
 SCALE: 1/6" = 1'-0" (11x17)

0 8 16  
SCALE IN FEET

**FINAL TOWER ELEVATION**

SCALE: 1/8" = 1'-0" (24x36)  
 SCALE: 1/6" = 1'-0" (11x17)

0 8 16  
SCALE IN FEET