

T-Mobile

SITE NAME: COLT HIGHWAY RELO

SITE ID: CT11934A

190 COLT HIGHWAY
FARMINGTON, CT 06032

T-MOBILE A/L TEMPLATE (PROVIDED BY RFDS)

67E5A998E_1xAIR+1OP+1QP

T-MOBILE RAN TEMPLATE (PROVIDED BY RFDS)

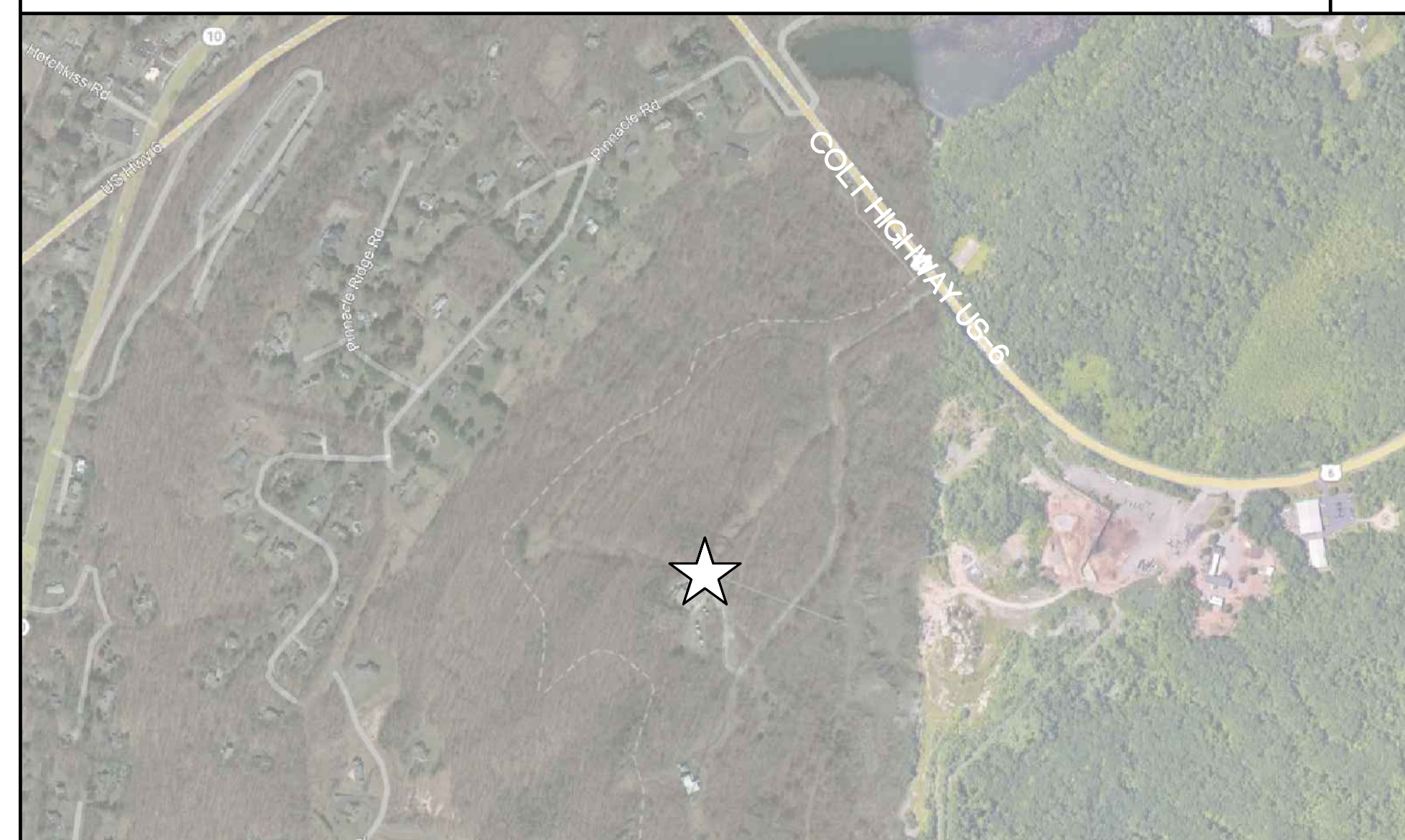
67E5D998E

GENERAL NOTES

- ALL WORK SHALL BE IN ACCORDANCE WITH THE 2021 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2022 CONNECTICUT SUPPLEMENT, INCLUDING THE TIA/EIA-222 REVISION "H" "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND SUPPORTING STRUCTURES." 2022 CONNECTICUT FIRE SAFETY CODE, NATIONAL ELECTRICAL CODE AND LOCAL CODES.
- SHOULD ANY FIELD CONDITIONS PRECLUDE COMPLIANCE WITH THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND SHALL NOT PROCEED WITH ANY AFFECTED WORK.
- CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS IN THE CONTRACT DOCUMENT SET. CONTRACTOR SHALL COORDINATE ALL WORK SHOWN IN THE SET OF DRAWINGS. THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF DRAWINGS TO ALL SUBCONTRACTORS AND ALL RELATED PARTIES. THE SUBCONTRACTORS SHALL EXAMINE ALL THE DRAWINGS AND SPECIFICATIONS FOR THE INFORMATION THAT AFFECTS THEIR WORK.
- BEFORE BEGINNING THE WORK, THE CONTRACTOR IS RESPONSIBLE FOR MAKING SUCH INVESTIGATIONS CONCERNING PHYSICAL CONDITIONS (SURFACE AND SUBSURFACE) AT OR CONTIGUOUS TO THE SITE, WHICH MAY AFFECT PERFORMANCE AND COST OF THE WORK.
- ALL DIMENSIONS, ELEVATIONS, AND OTHER REFERENCES TO EXISTING STRUCTURES, SURFACE, AND SUBSURFACE CONDITIONS ARE APPROXIMATE. NO GUARANTEE IS MADE FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. THE CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS, ELEVATIONS AND ANGLES WITH EXISTING CONDITIONS AND WITH ARCHITECTURAL AND SITE DRAWINGS BEFORE PROCEEDING WITH ANY WORK.
- AS THE WORK PROGRESSES, THE CONTRACTOR SHALL NOTIFY THE OWNER OF ANY CONDITIONS WHICH ARE IN CONFLICT OR OTHERWISE NOT CONSISTENT WITH THE CONSTRUCTION DOCUMENTS, AND SHALL NOT PROCEED WITH SUCH WORK UNTIL THE CONFLICT IS SATISFACTORILY RESOLVED.
- CONTRACTOR SHALL PROVIDE A COMPLETE BUILD-OUT WITH ALL FINISHES, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS AND PROVIDE ALL ITEMS AS SHOWN OR INDICATED ON THE DRAWINGS OR IN THE WRITTEN SPECIFICATIONS.
- CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR AND EQUIPMENT TO COMPLETE THE WORK AND FURNISH A COMPLETED JOB ALL IN ACCORDANCE WITH LOCAL AND STATE GOVERNING AUTHORITIES AND OTHER AUTHORITIES HAVING LAWFUL JURISDICTION OVER THE WORK.
- CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND ALL INSPECTIONS REQUIRED AND SHALL ALSO PAY FEES REQUIRED FOR THE GENERAL CONSTRUCTION, PLUMBING, ELECTRICAL, AND HVAC. PERMITS SHALL BE PAID FOR BY THE RESPECTIVE SUBCONTRACTORS.
- CONTRACTOR SHALL MAINTAIN A CURRENT SET OF DRAWINGS AND SPECIFICATIONS ON SITE AT ALL TIMES AND INSURE DISTRIBUTION OF NEW DRAWINGS TO SUBCONTRACTORS AND OTHER RELEVANT PARTIES AS SOON AS THEY ARE MADE AVAILABLE. ALL OLD DRAWINGS SHALL BE MARKED VOID AND REMOVED FROM THE CONTRACT AREA. THE CONTRACTOR SHALL FURNISH AN "AS-BUILT" SET OF DRAWINGS TO OWNER UPON COMPLETION OF PROJECT.
- LOCATION OF EQUIPMENT AND WORK SUPPLIED BY OTHERS THAT IS DIAGRAMMATICALLY INDICATED ON THE DRAWINGS, SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL DETERMINE LOCATIONS AND DIMENSIONS SUBJECT TO STRUCTURAL CONDITIONS AND WORK OF THE SUBCONTRACTORS.
- THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE AND TO ENSURE THE SAFETY OF THE EXISTING STRUCTURES AND ITS COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACING, UNDERPINNING, ETC. THAT MAY BE NECESSARY.
- ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUB-CONTRACTORS FOR ANY CONDITION PER THE MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR CONSTRUCTION MANAGER.
- DRAWINGS INDICATE THE MINIMUM STANDARDS, BUT IF ANY WORK SHOULD BE INDICATED TO BE SUBSTANDARD TO ANY ORDINANCES, LAWS, CODES, RULES, OR REGULATIONS BEARING ON THE WORK, THE CONTRACTOR SHALL INCLUDE IN HIS WORK AND SHALL EXECUTE THE WORK CORRECTLY IN ACCORDANCE WITH SUCH ORDINANCES, LAWS, CODES, RULES OR REGULATIONS WITH NO INCREASE IN COSTS.
- ALL UTILITY WORK SHALL BE IN ACCORDANCE WITH LOCAL UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS.
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- ANY AND ALL ERRORS, DISCREPANCIES, AND 'MISSED' ITEMS ARE TO BE BROUGHT TO THE ATTENTION OF THE T-MOBILE CONSTRUCTION MANAGER DURING THE BIDDING PROCESS BY THE CONTRACTOR. ALL THESE ITEMS ARE TO BE INCLUDED IN THE BID. NO 'EXTRA' WILL BE ALLOWED FOR MISSED ITEMS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE SAFETY FROM THE TIME THE JOB IS AWARDED UNTIL ALL WORK IS COMPLETE AND ACCEPTED BY THE OWNER.
- CONTRACTOR TO REVIEW ALL SHOP DRAWINGS AND SUBMIT COPY TO ENGINEER FOR APPROVAL. DRAWINGS MUST BEAR THE CHECKER'S INITIALS BEFORE SUBMITTING TO THE CONSTRUCTION MANAGER FOR REVIEW.
- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES AND EXISTING CONDITIONS AT THE SITE, PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY WORK IN THE CONTRACT AREA.
- COORDINATION, LAYOUT, FURNISHING AND INSTALLATION OF CONDUITS AND ALL APPURTENANCES REQUIRED FOR PROPER INSTALLATION OF ELECTRICAL AND TELECOMMUNICATION SERVICE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND CONFIRMED WITH THE PROJECT MANAGER AND OWNER PRIOR TO THE COMMENCEMENT OF ANY WORK
- ALL DAMAGE CAUSED TO ANY EXISTING STRUCTURE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE HELD LIABLE FOR ALL REPAIRS REQUIRED FOR EXISTING STRUCTURES IF DAMAGED DURING CONSTRUCTION ACTIVITIES.
- THE CONTRACTOR SHALL CONTACT 'CALL BEFORE YOU DIG' AT LEAST 48 HOURS PRIOR TO ANY EXCAVATIONS AT 1-800-922-4455. ALL UTILITIES SHALL BE IDENTIFIED AND CLEARLY MARKED. CONTRACTOR SHALL MAINTAIN AND PROTECT MARKED UTILITIES THROUGHOUT PROJECT COMPLETION.
- CONTRACTOR SHALL COMPLY WITH THE OWNER'S ENVIRONMENTAL ENGINEER ON ALL METHODS AND PROVISIONS FOR ALL EXCAVATION ACTIVITIES INCLUDING SOIL DISPOSAL. ALL BACKFILL MATERIALS TO BE PROVIDED BY THE CONTRACTOR.
- THE COUNTY/CITY/TOWN MAY MAKE PERIODIC FIELD INSPECTIONS TO ENSURE COMPLIANCE WITH THE DESIGN PLANS, SPECIFICATIONS, AND CONTRACT DOCUMENTS.
- THE COUNTY/CITY/TOWN MUST BE NOTIFIED (2) WORKING DAYS PRIOR TO CONCEALMENT/BURIAL OF ANY SYSTEM OR MATERIAL THAT WILL PREVENT THE DIRECT INSPECTION OF MATERIALS, METHODS OR WORKMANSHIP. EXAMPLES OF THESE PROCESSES ARE BACKFILLING A GROUND RING OR TOWER FOUNDATION, POURING TOWER FOUNDATIONS, BURYING GROUND RODS, PLATES OR GRIDS, ETC. THE CONTRACTOR MAY PROCEED WITH THE SCHEDULED PROCESS (2) WORKING DAYS AFTER PROVIDING NOTICE UNLESS NOTIFIED OTHERWISE BY THE COUNTY/CITY/TOWN.
- PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR SHALL VISIT THE 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 ENGINEER ON RECORD, PRIOR TO THE COMMENCEMENT OF ANY WORK.

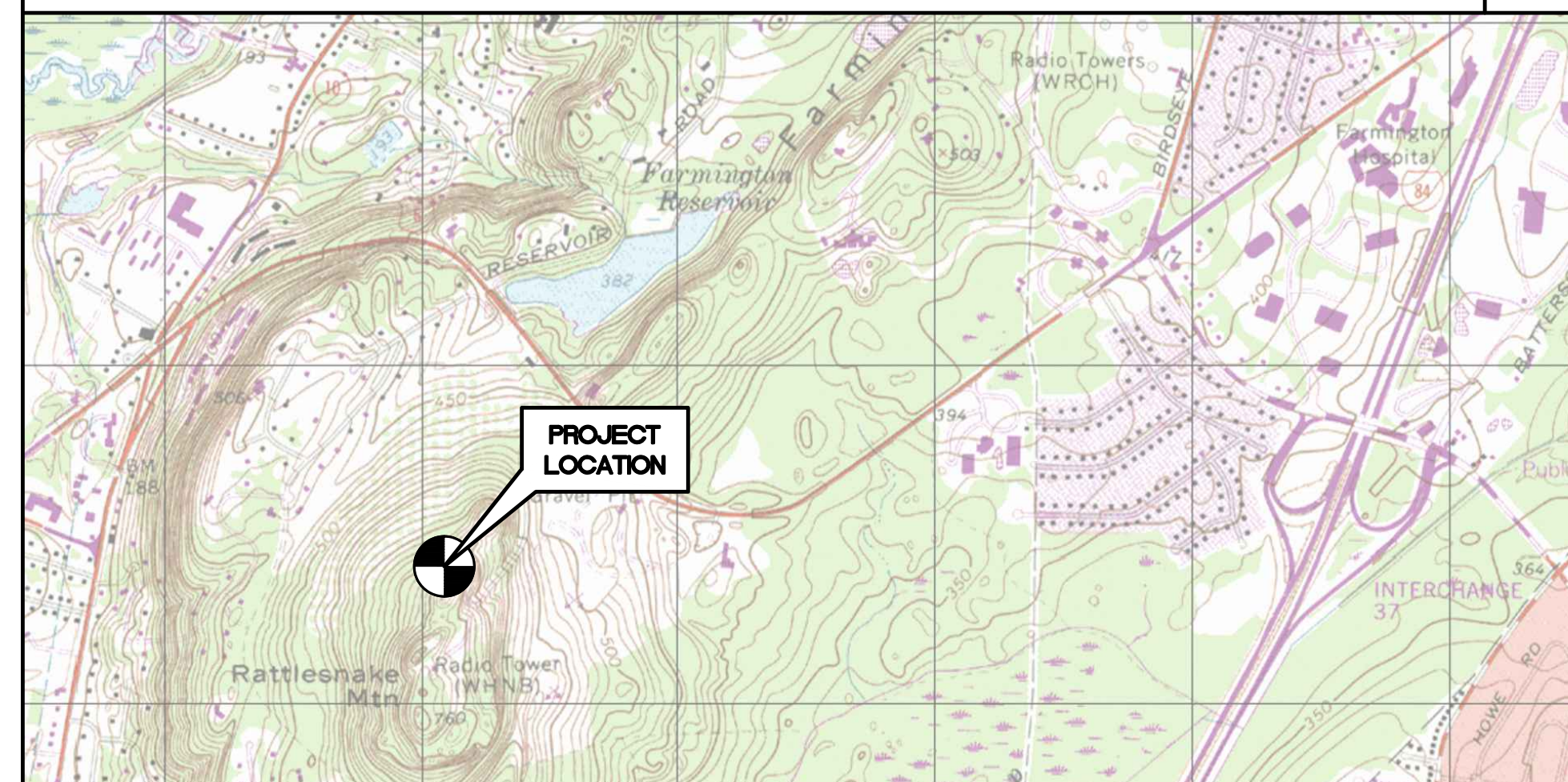
SITE LOCATION MAP

N.T.S.



VICINITY MAP

N.T.S.



SITE COORDINATES AND GROUND ELEVATION ARE REFERENCED FROM GOOGLE EARTH.

SITE COORDINATES: LATITUDE: 41° 42' 13.13" N
LONGITUDE: 72° 49' 54.29" W
GROUND ELEVATION: ±710' AMSL



PROJECT SUMMARY

THE PROPOSED SCOPE OF WORK CONSISTS OF A MODIFICATION TO THE EXISTING UNMANNED TELECOMMUNICATIONS FACILITY INCLUDING THE FOLLOWING:

- INSTALL (3) PROPOSED T-MOBILE ANTENNAS PER SECTOR. TOTAL OF (9)
- INSTALL (2) PROPOSED T-MOBILE RRU's PER SECTOR. TOTAL OF (6)
- INSTALL (3) ANTENNA SECTOR FRAMES (SITEPRO P/N: VFA12)
- INSTALL (1) PROPOSED TELCO BOX
- INSTALL (1) PROPOSED 200A PANEL
- INSTALL (1) ERICSSON 19" RACK
- INSTALL (1) POWER 6230 UNIT ATOP PROPOSED 6230 BATTERY RACK
- INSTALL STEP-DOWN 45KVA TRANSFORMER
- INSTALL SUB-METER AT MAIN PANEL
- INSTALL PROPOSED T-MOBILE POWER & FIBER UTILITIES

PROJECT INFORMATION

SITE NAME: COLT HIGHWAY RELO
 SITE ID: CT11934A
 SITE ADDRESS: 190 COLT HIGHWAY
 FARMINGTON, CT 06032
 APPLICANT: T-MOBILE NORTHEAST, LLC
 35 GRIFFIN ROAD SOUTH
 BLOOMFIELD, CT. 06002
 CONTACT PERSON: MATT BANDLE
 NORTHEAST SITE SOLUTIONS
 (508) 642-8801
 ENGINEER OF RECORD: CENTEK ENGINEERING, INC.
 63-2 NORTH BRANFORD ROAD
 BRANFORD, CT. 06405
 CARLO F. CENTORE, PE
 (203) 488-0580 EXT. 122
 SITE COORDINATES: LATITUDE: 41°-42'-13.13" N
 LONGITUDE: 72°-49'-54.29" W
 GROUND ELEVATION: ±710' AMSL
 SITE COORDINATES AND GROUND ELEVATION REFERENCED FROM GOOGLE EARTH PRO.

SHEET INDEX

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| C-4 | TYPICAL EQUIPMENT DETAILS | 2 |
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| | | | | | | | |
|---|-----|----------|-----|------|----------|------------|-------------|
| CONSTRUCTION DRAWINGS - REVISED ELECTRICAL DESIGN | TJR | 04/22/24 | TKG | DATE | DRAWN BY | CHECKED BY | DESCRIPTION |
| CONSTRUCTION DRAWINGS - ANTENNA RAD CENTER CHANGE | TJR | 10/17/23 | BSP | REV. | | | |
| CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION | TJR | 09/10/23 | LGL | | | | |
| CONSTRUCTION DRAWINGS - REVISED PER CLIENT COMMENTS | TJR | 07/24/23 | LGL | | | | |
| CONSTRUCTION DRAWINGS - ISSUED FOR CLIENT REVIEW | TJR | 07/03/23 | LGL | | | | |

PROFESSIONAL ENGINEER SEAL

T-Mobile

NSS

CENTEK engineering
 Centek on Solutions
 (203) 488-0580
 (203) 488-8387 Fax
 63-2 North Branford Road
 Branford, CT 06405
 www.CentekEng.com

T-MOBILE NORTHEAST LLC
 SITE NAME: COLT HIGHWAY RELO
 SITE ID: CT11934A
 190 COLT HIGHWAY
 FARMINGTON, CT 06032

DATE: 06/2/23
 SCALE: AS NOTED
 JOB NO. 23002.04

TITLE SHEET

T-1
 SHEET NO. 1 OF 11

NOTES AND SPECIFICATIONS:

DESIGN BASIS:

GOVERNING CODE: 2021 INTERNATIONAL BUILDING (IBC) AS MODIFIED BY THE 2022 CONNECTICUT STATE BUILDING CODE.

- DESIGN CRITERIA:
 - RISK CATEGORY II (BASED ON IBC TABLE 1604.5)
 - NOMINAL DESIGN SPEED: 97 MPH (Vasd) (EXPOSURE C/ IMPORTANCE FACTOR 1.0 BASED ON ASCE 7-16).

SITE NOTES

- THE CONTRACTOR SHALL CALL UTILITIES PRIOR TO THE START OF CONSTRUCTION.
- ACTIVE EXISTING UTILITIES, WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY, PRIOR TO PROCEEDING, SHOULD ANY UNCOVERED EXISTING UTILITY PRECLUDE COMPLETION OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- THE AREAS OF THE COMPOUND DISTURBED BY THE WORK SHALL BE RETURNED TO THEIR ORIGINAL CONDITION.
- CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
- IF ANY FIELD CONDITIONS EXIST WHICH PRECLUDE COMPLIANCE WITH THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND SHALL PROCEED WITH AFFECTED WORK AFTER CONFLICT IS SATISFACTORILY RESOLVED.

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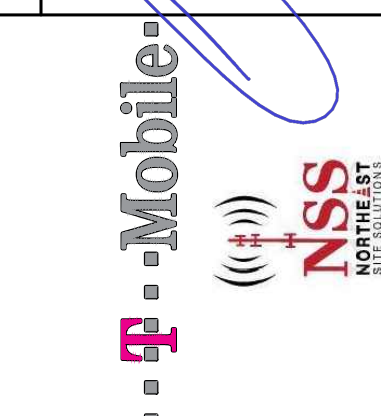
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ANTENNA/APPURTENANCE SCHEDULE

| SECTOR | EXISTING/PROPOSED | ANTENNA | SIZE (INCHES) (L x W x D) | ANTENNA Ø HEIGHT | AZIMUTH | (E/P) RRU (QTY) | (E/P) TMA (QTY) | (QTY) PROPOSED HYBRID/COAX |
|--------|-------------------|----------------------------|------------------------------|---------------------|---------|----------------------------|-----------------|-------------------------------|
| A1 | PROPOSED | COMMSCOPE (W-65A-R1) | 54.7 x 12.1 x 4.6 | 160' | 60° | (P) RADIO 4460 B25+B66 (1) | | (1) 6x12 HYBRID CABLE (±350') |
| A2 | PROPOSED | RFS (APXVAALL24_43-U_NA20) | 95.9 x 24 x 8.7 | 160' | 60° | (P) RADIO 4480 B71+B85 (1) | | |
| A3 | PROPOSED | ERICSSON (AIR6419 B41) | 34.5 x 20 x 8 | 160' | 60° | | | |
| B1 | PROPOSED | COMMSCOPE (W-65A-R1) | 54.7 x 12.1 x 4.6 | 160' | 180° | (P) RADIO 4460 B25+B66 (1) | | (1) 6x12 HYBRID CABLE (±350') |
| B2 | PROPOSED | RFS (APXVAALL24_43-U_NA20) | 95.9 x 24 x 8.7 | 160' | 180° | (P) RADIO 4480 B71+B85 (1) | | |
| B3 | PROPOSED | ERICSSON (AIR6419 B41) | 34.5 x 20 x 8 | 160' | 180° | | | |
| C1 | PROPOSED | COMMSCOPE (W-65A-R1) | 54.7 x 12.1 x 4.6 | 160' | 300° | (P) RADIO 4460 B25+B66 (1) | | (1) 6x12 HYBRID CABLE (±350') |
| C2 | PROPOSED | RFS (APXVAALL24_43-U_NA20) | 95.9 x 24 x 8.7 | 160' | 300° | (P) RADIO 4480 B71+B85 (1) | | |
| C3 | PROPOSED | ERICSSON (AIR6419 B41) | 34.5 x 20 x 8 | 160' | 300° | | | |

NOTE:
ALL HYBRID/COAX LENGTHS TO BE MEASURED
AND VERIFIED IN FIELD BEFORE ORDERING

PROFESSIONAL ENGINEER SEAL



CENTEK engineering
Centered on Solutions™
[203] 488-0580
[203] 488-8387 Fax
632 North Branford Road
Branford, CT 06405
www.CentekEng.com

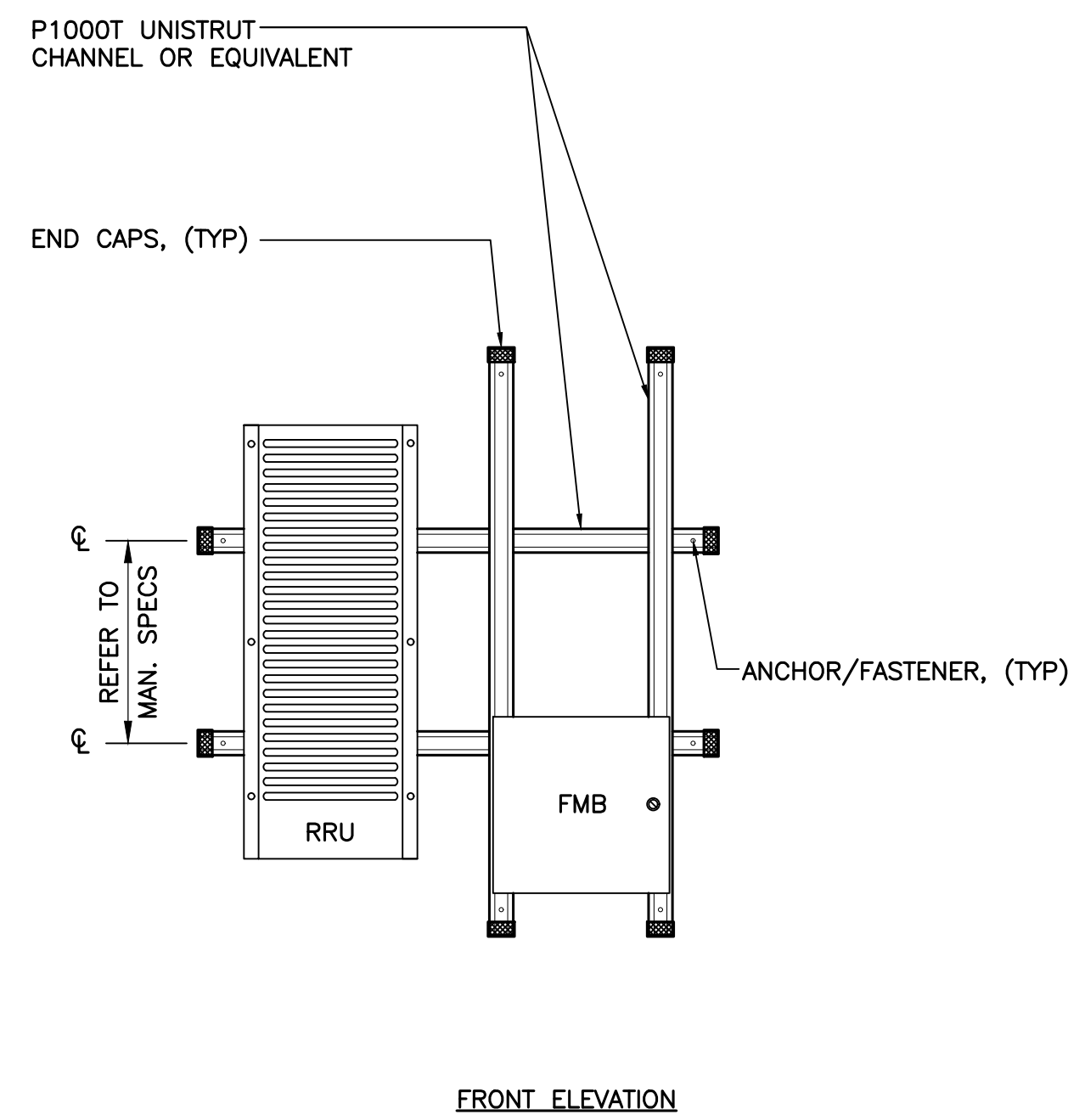
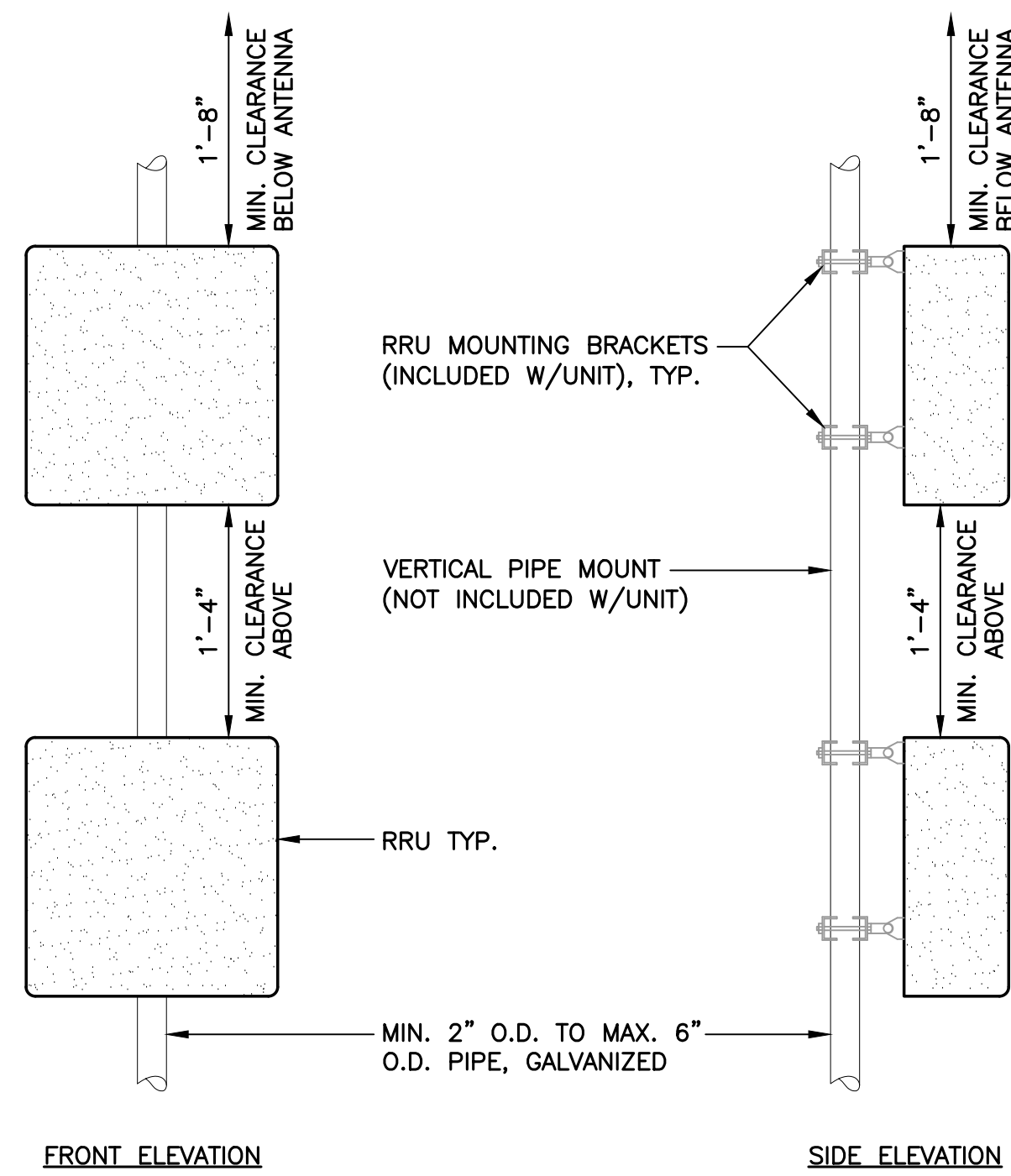
T-MOBILE NORTHEAST LLC
SITE NAME: COLT HIGHWAY RELO
SITE ID: CTT1934A
190 COLT HIGHWAY
FARMINGTON, CT 06032

DATE: 06/2/23
SCALE: AS NOTED
JOB NO. 23002.04

SPECIFICATIONS,
NOTES, AND
ANT. SCHEDULE

N-1
SHEET NO. 2 OF 11

| REV. | DATE | DRAWN BY | CHECKED BY | DESCRIPTION |
|------|----------|----------|------------|--|
| 2 | 04/22/24 | TGK | TJR | CONSTRUCTION DRAWINGS -- REVISED ELECTRICAL DESIGN |
| 1 | 10/17/23 | BSP | TJR | CONSTRUCTION DRAWINGS -- ANTENNA RAD CENTER CHANGE |
| 0 | 09/10/23 | LGL | TJR | CONSTRUCTION DRAWINGS -- ISSUED FOR CONSTRUCTION |
| B | 07/24/23 | LGL | TJR | CONSTRUCTION DRAWINGS -- REVISED PER CLIENT COMMENTS |
| A | 07/03/23 | LGL | TJR | CONSTRUCTION DRAWINGS -- ISSUED FOR CLIENT REVIEW |



| ALPHA/BETA/GAMMA ANTENNA | | |
|--|-------------------------|-----------|
| EQUIPMENT | DIMENSIONS | WEIGHT |
| MAKE: ERICSSON MODEL: AIR6419 B41 | 34.5"L x 20"W x 8"D | ±41 LBS. |
| MAKE: COMMSCOPE MODEL: VV-65A-R1 | 54.7"L x 12.1"W x 4.6"D | ±73 LBS. |
| MAKE: RFS MODEL: APXVAALL24_43-U-NA20 | 95.9"L x 24"W x 8.7"D | ±128 LBS. |

NOTES:
1. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION WITH T-MOBILE CONSTRUCTION MANAGER PRIOR TO ORDERING.

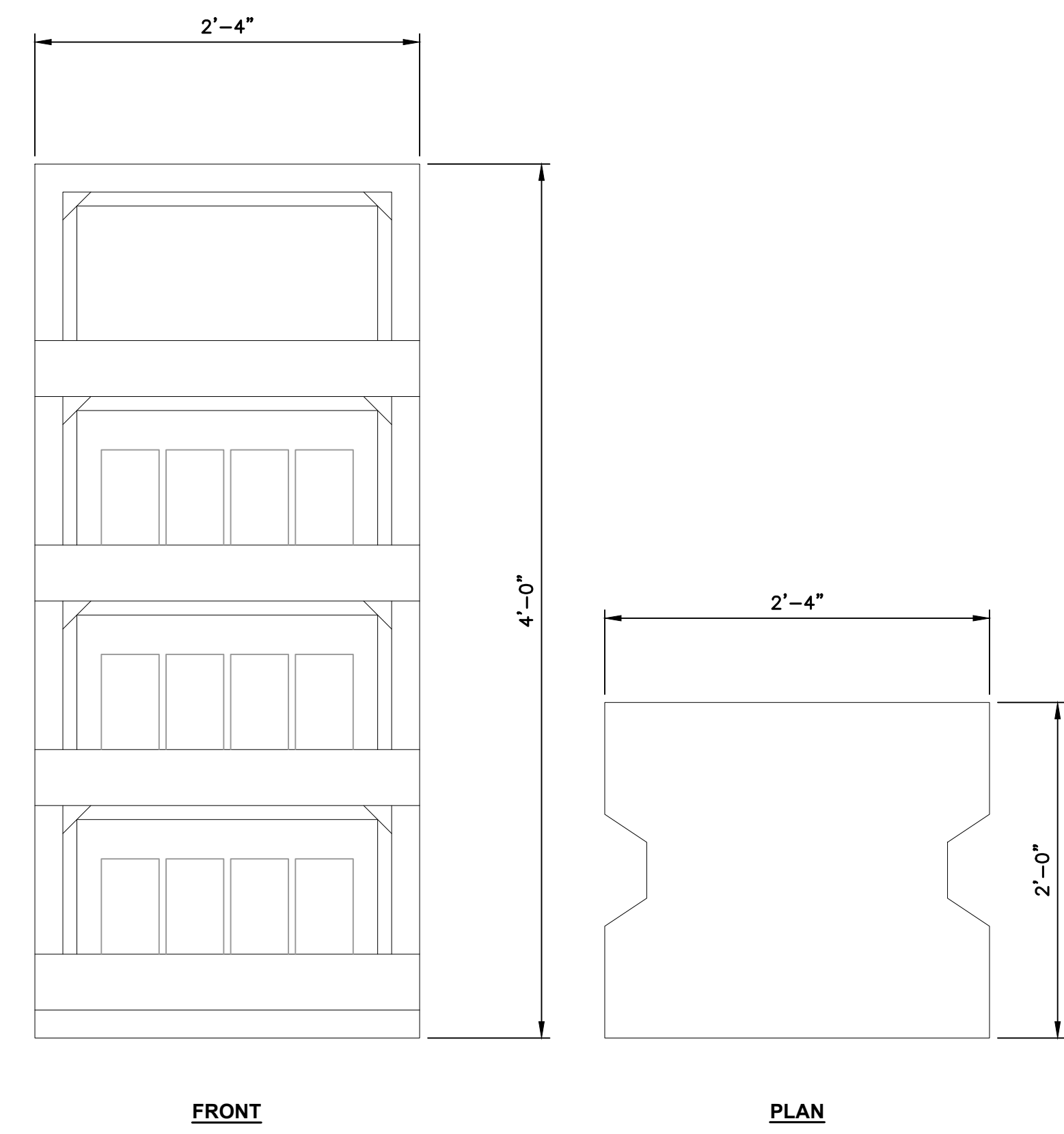


| 45 KVA STEP-DOWN TRANSFORMER | | | | | |
|-------------------------------------|--------------------------------|-----------|-----|--------------------|----------|
| EQUIPMENT | VOLTAGE | ENCLOSURE | KVA | DIMENSIONS | WEIGHT |
| MAKE: SQUARE D MODEL: EXN45T3HCU | 208V SECONDARY 480V PRIMARY | NEMA-1 | 45 | 26"L x 26"W x 30"H | ±399 LBS |

- NOTES: (PIPE MOUNTING)**
- T-MOBILE SHALL SUPPLY RRU, AND RRU POLE-MOUNTING BRACKET. CONTRACTOR SHALL SUPPLY POLE/PIPE AND INSTALL ALL MOUNTING HARDWARE INCLUDING ERICSSON RRU POLE-MOUNTING BRACKET.
 - NO PAINTING OF THE RRU OR SOLAR SHIELD IS ALLOWED.

- NOTES: (UNISTRUT MOUNTING)**
- INSTALL A MINIMUM OF (2) ANCHORS PER UNISTRUT (± 16°/c MIN).
 - MOUNT RRU TO UNISTRUT WITH 3/8"Ø UNISTRUT BOLTING HARDWARE AND SPRING NUTS. TYPICAL FOUR PER BRACKET.
 - NO PAINTING OF THE RRU OR SOLAR SHIELD IS ALLOWED.

1 TYPICAL RRU MOUNTING DETAILS
C-3 SCALE: NOT TO SCALE



| 6230 BATTERY RACK | | |
|--|-------------------------|------------|
| EQUIPMENT | DIMENSIONS | WEIGHT |
| MAKE: ERICSSON MODEL: POWER 6230 BATTERY RACK | 63.0"H x 28.0"W x 24."D | ±1980 LBS. |

4 POWER 6230 BATTERY RACK
C-3 SCALE: NOT TO SCALE

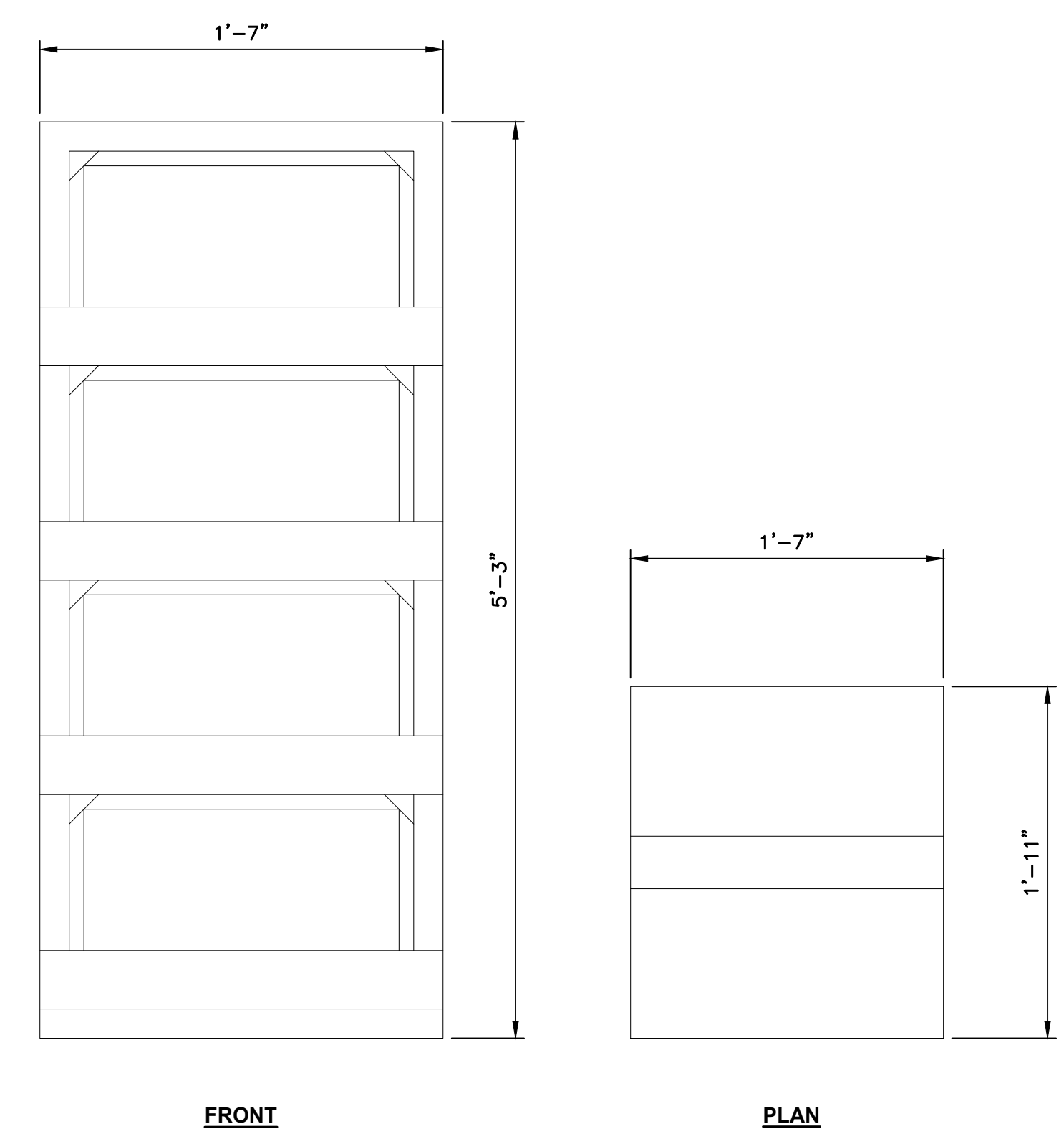
2 PROPOSED ANTENNA DETAIL
C-3 SCALE: NOT TO SCALE



| POWER ENCLOSURE | | |
|-------------------------------------|--------------------------|--------|
| EQUIPMENT | DIMENSIONS | WEIGHT |
| MAKE: ERICSSON MODEL: POWER 6230 | 14.0"H x 19.0"W x 16.0"D | 53 LBS |

5 6230 POWER CABINET DETAIL
C-3 SCALE: NOT TO SCALE

3 PROPOSED TRANSFORMER DETAIL
C-3 SCALE: NOT TO SCALE



| ERICSSON 19" RACK | | |
|-----------------------------------|--------------------------|-----------|
| EQUIPMENT | DIMENSIONS | WEIGHT |
| MAKE: ERICSSON MODEL: 19" RACK | 63.0"H x 19.0"W x 23.0"D | ±200 LBS. |

6 ERICSSON 19" RACK
C-3 SCALE: NOT TO SCALE

| REV. | DATE | DRAWN BY | CHECKED BY | DESCRIPTION |
|------|----------|----------|------------|---|
| 2 | 04/22/24 | TJK | TJK | CONSTRUCTION DRAWINGS — REVISED ELECTRICAL DESIGN |
| 1 | 10/17/23 | BSP | TJK | CONSTRUCTION DRAWINGS — ANTENNA RAD CENTER CHANGE |
| 0 | 09/10/23 | LGL | TJK | CONSTRUCTION DRAWINGS — ISSUED FOR CONSTRUCTION |
| B | 07/24/23 | LGL | TJK | CONSTRUCTION DRAWINGS — REVISED PER CLIENT COMMENTS |
| A | 07/03/23 | LGL | TJK | CONSTRUCTION DRAWINGS — ISSUED FOR CLIENT REVIEW |

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SITE NAME: COLT HIGHWAY RELO
SITE ID: CT1934A
190 COLT HIGHWAY
FARMINGTON, CT 06032



RADIO 4460 B25+B66

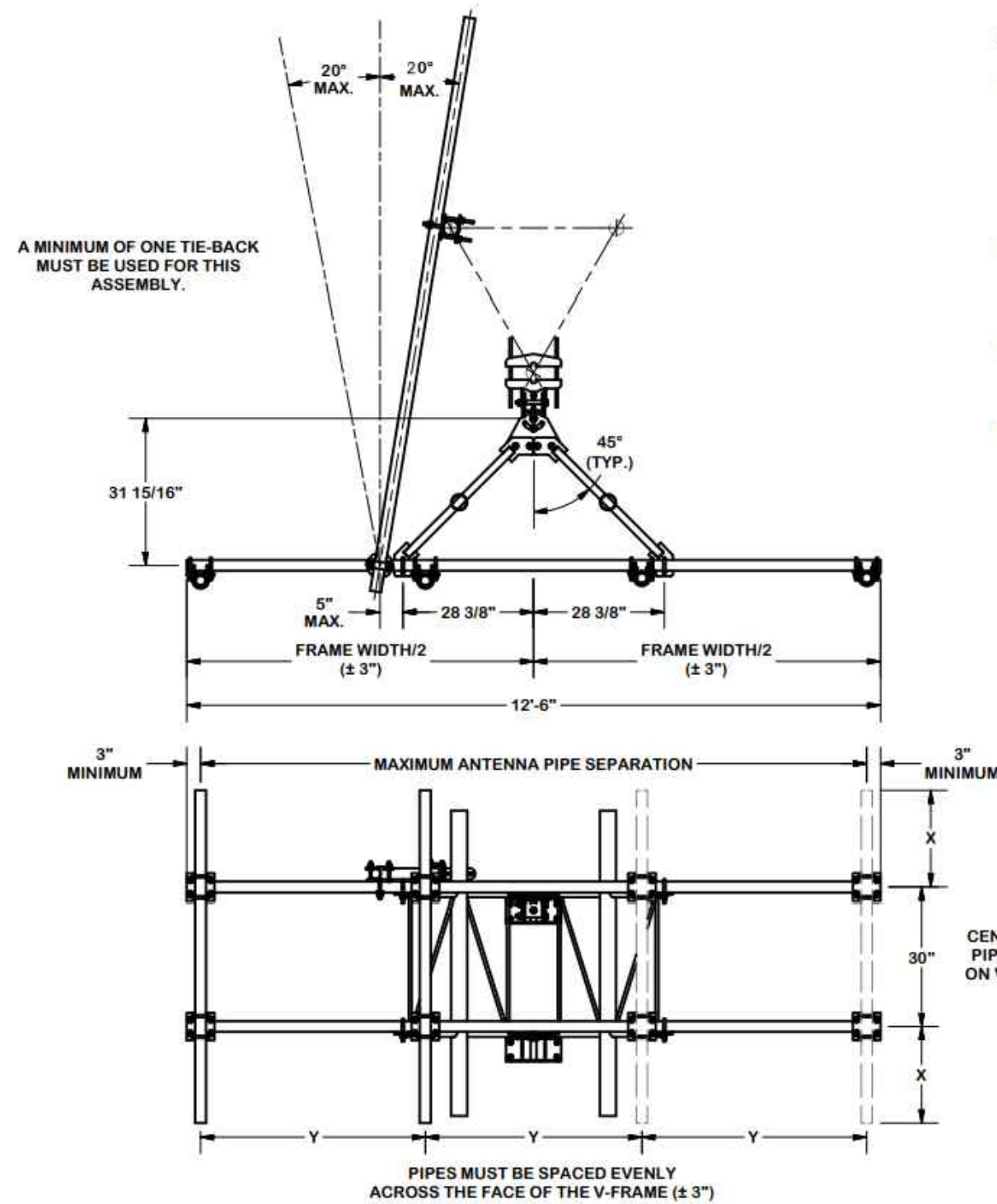


RADIO 4480 B71+B85

| RRU (REMOTE RADIO UNIT) | | | |
|--|--------------------------|-----------|---|
| EQUIPMENT | DIMENSIONS | WEIGHT | CLEARANCES |
| MAKE: ERICSSON MODEL: RADIO 4460 B25+B66 | 19.6"L x 15.7"W x 12.1"D | ±109 LBS. | BEHIND ANT.: 8" MIN. BELOW ANT.: 20" MIN. BELOW RRU: 16" MIN. |
| MAKE: ERICSSON MODEL: RADIO 4480 B71+B85 | 21.8"L x 15.7"W x 7.5"D | ±84 LBS. | BEHIND ANT.: 8" MIN. BELOW ANT.: 20" MIN. BELOW RRU: 16" MIN. |

NOTES:
1. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION WITH T-MOBILE CONSTRUCTION MANAGER PRIOR TO ORDERING.

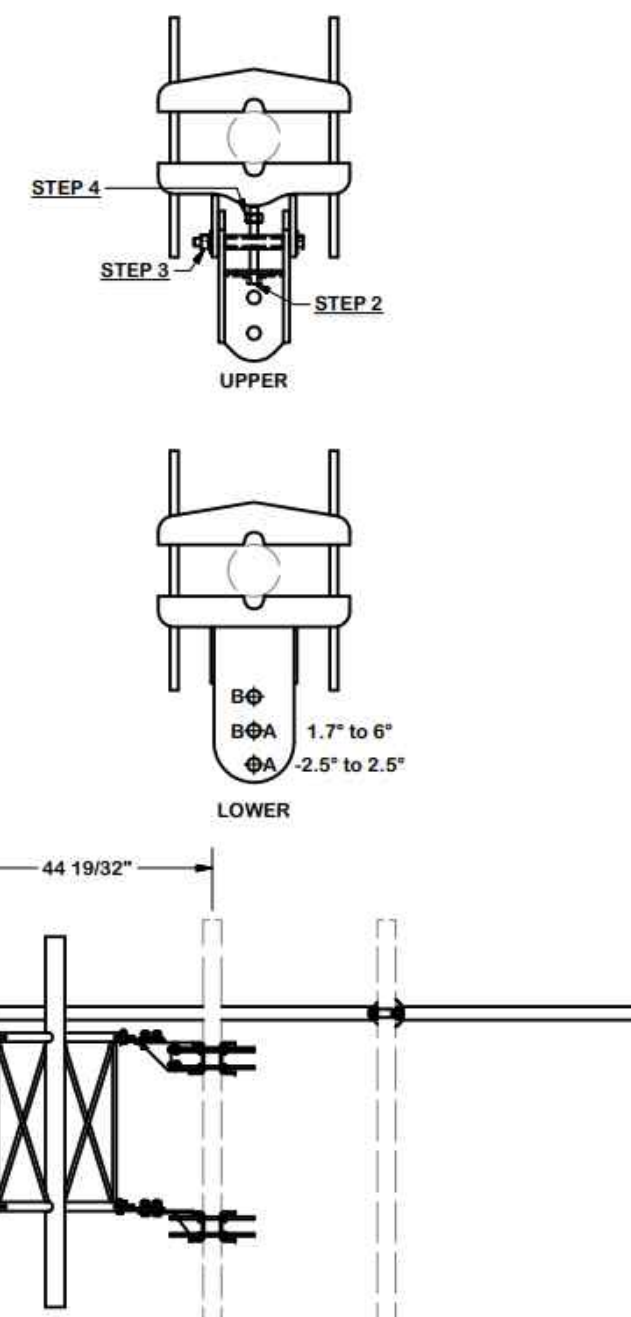
1 PROPOSED RRU DETAIL
C-4 SCALE: NOT TO SCALE



2 PROPOSED SECTOR FRAME DETAIL
C-4 SITEPRO P/N: VFA12

ANGLE CALIBRATING PROCEDURE:

- MEASURE TOWER TAPER AND PICK LOWER BRACKET HOLE:
 - HOLE A = -2.5" TO 2.5"
 - HOLE B = 1.7" TO 6"
- USE CALIBRATING BOLT TO ADJUST FRAME TO DESIRED TAPER
- TORQUE LOCKING BOLTS TO 50 FT.-LBS.
- ADVANCE LOCKING NUT TO POSITIONING PLATE, THEN TIGHTEN.



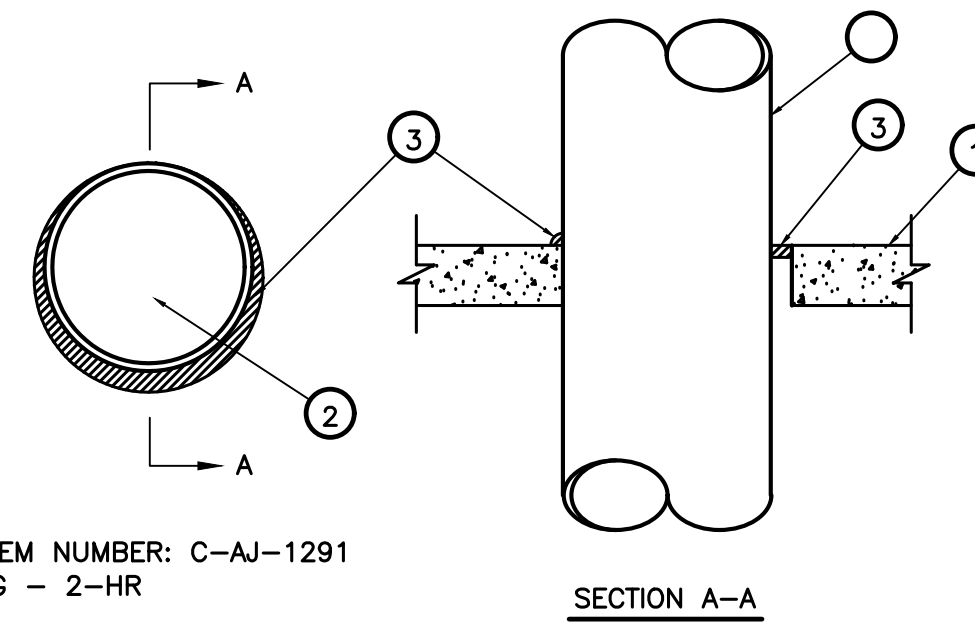
| PIPE OR CONDUIT | ANNULAR SPACE IN. | MIN. FILL MATERIAL THICKNESS | F RATING HR |
|-----------------|-------------------|------------------------------|-------------|
| PIPE | 3/4" | 1 1/4" | 2 |
| CONDUIT | 3/4" | 3/4" | 1 |

ONE 2"Ø METALLIC PIPE OR CONDUIT TO BE CENTERED WITHIN FIRESTOP SYSTEM. PIPE SHALL BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL/FLOOR ASSEMBLY

FILL VOID WITH CAULK, FLUSH WITH BOTH SURFACES OF WALL (SEE TABLE) SEALANT: TREMCO INC, TREMSTOP-WBM

UL SYSTEM NUMBER: WL1051
F RATING - 1 & 2 HR.

3 PIPE AND CONDUIT PENETRATION DETAIL IN GYPSUM WALLBOARD
C-4 SCALE: NOT TO SCALE



UL SYSTEM NUMBER: C-AJ-1291
F RATING - 2-HR

5 METAL PIPE THROUGH CONCRETE FLOOR/ WALL OR BLOCK WALL
C-4 SCALE: NOT TO SCALE

NOTES:

- FLOOR OR WALL ASSEMBLY - MIN 2-1/2 IN. THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS*. MAX DIAM OF OPENING IS 30-7/8 IN. SEE CONCRETE BLOCKS (CAZT) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.
 - STEEL FLOOR UNIT/FLOOR ASSEMBLY (NOT SHOWN) - AS AN ALTERNATE TO ITEM 1, THE FLOOR ASSEMBLY MAY CONSIST OF A FLUTED STEEL FLOOR UNIT/ CONCRETE FLOOR ASSEMBLY. THE FLOOR ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL FLOOR CEILING DESIGN IN THE FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
 - CONCRETE - MIN 2-1/2 IN. THICK REINFORCED LIGHTWEIGHT ON NORMAL WEIGHT (100-150 PCF) CONCRETE, AS MEASURED FROM THE TOP PLANE OF THE FLOOR UNITS.
 - STEEL FLOOR AND FORM UNITS* - COMPOSITE OR NON-COMPOSITE 1-1/2 TO 3 IN. DEEP FLUTED GALV STEEL UNITS AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. MAX DIAM OF OPENING IS 30-7/8 IN.
- THROUGH-PENETRANT - ONE METALLIC PIPE OR CONDUIT TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND PERIPHERY OF THE OPENING SHALL BE MIN 0 IN. TO MAX 7/8 IN. PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES OR CONDUITS MAY BE USED:
 - STEEL PIPE NOM 30 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
 - IRON PIPE NOM 30 IN. DIAM (OR SMALLER) CAST OR DUCTILE IRON PIPE.
 - COPPER PIPE NOM 6 IN. DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
 - COPPER TUBING NOM 6 IN. DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
 - CONDUIT NOM 6 IN. DIAM (OR SMALLER) STEEL CONDUIT.
 - CONDUIT NOM 4 IN. DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING (EMT).
- FILL VOID OR CAVITY MATERIAL* - SEALANT - MIN 1/2 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH TOP SURFACE OF FLOOR OR WITH BOTH SURFACES OF WALL AT THE POINT CONTACT LOCATION BETWEEN PIPE AND CONCRETE. A MIN 1/4 IN. DIAM BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE CONCRETE/PIPE INTERFACE ON THE TOP SURFACE OF FLOOR AND ON BOTH SURFACES OF WALL.

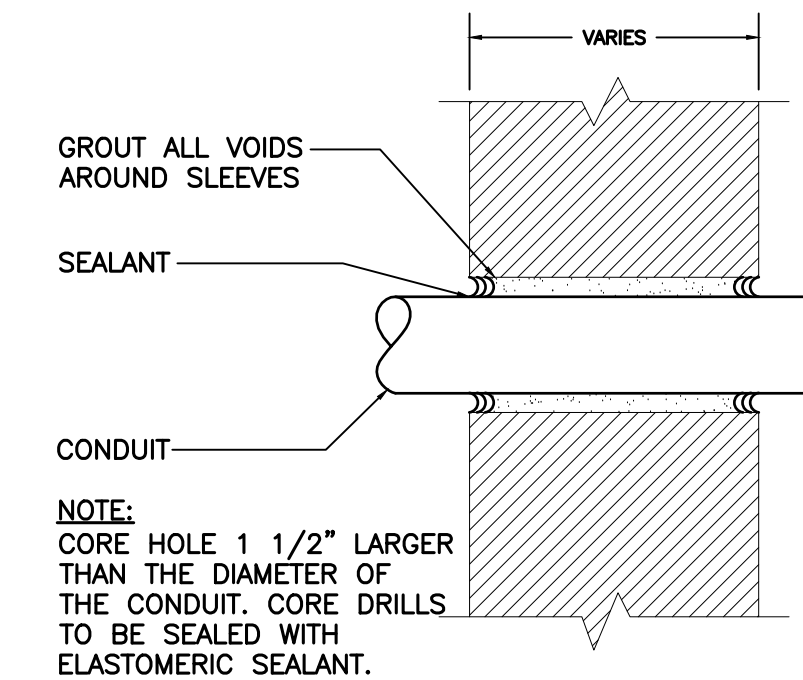
| MAX. DIA. OF THROUGH PENETRANT | NOMINAL ANNULAR SPACE IN. | FILL MATERIAL TYPE |
|--------------------------------|---------------------------|--------------------|
| 1" | 1/2" | FSP 1100 PUTTY |
| 2" | 1" | FS 1900 SEALANT |

ONE 2"Ø SCHEDULE 40 PVC PIPE TO BE CENTERED WITHIN FIRESTOP SYSTEM. PIPE SHALL BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL/FLOOR ASSEMBLY

SEALANT, MIN. OF 1 1/4" THICK, FLUSH WITH BOTH SURFACES OF WALL FOR 2 HR. ASSEMBLY, 5/8" THICK FOR 1 HR. ASSEMBLY. A 5/8" CROWN AROUND CONDUIT WITH A 1" MIN. LAP AROUND OPENING SEALANT: INTERNAT'L PROTECTIVE COATINGS CORP-FSP 110 PUTTY OR FS1900 SEALANT

UL SYSTEM NUMBER: WL2038
F RATING - 1 & 2 HR.

4 PVC CONDUIT PENETRATION DETAIL IN GYPSUM WALLBOARD
C-4 SCALE: NOT TO SCALE



6 PIPE AND CONDUIT PENETRATION DETAIL IN NON-RATED PARTITION
C-4 SCALE: NOT TO SCALE

| FLOOR OR WALL | MIN. THICK. | MAX. PIPE THICK. | MIN. ANNULAR SPACE | MAX. ANNULAR SPACE | MIN. FILL MAT. THICK. | MIN. FORM. THICK. | MIN. MAT. THICK. | F RATING |
|---------------|-------------|------------------|--------------------|--------------------|-----------------------|-------------------|------------------|----------|
| F | 3 3/4" | 1 1/2" | 3/8" | 2 1/8" | 1" | 1" | 2 3/4" | 2 |
| F | 3 3/4" | 6" | 3/8" | 3/4" | 1" | 1" | 2 3/4" | 2 |
| F | 3 3/4" | 6" | 3/8" | 1" | 2" | 1" | 1 3/4" | 2 |
| F | 4 1/2" | 1 1/2" | 3/8" | 2 1/8" | 1" | 1" | 3 1/2" | 3 |
| F | 4 1/2" | 6" | 3/8" | 3/4" | 1" | 1" | 3 1/2" | 3 |
| F | 4 1/2" | 6" | 3/8" | 1" | 2" | 1" | 2 1/2" | 3 |
| W | 5 1/2" | 1 1/2" | 3/8" | 2 1/8" | 1" | 1" | 3 1/2" | 3 |
| W | 5 1/2" | 6" | 3/8" | 3/4" | 1" | 1" | 3 1/2" | 3 |
| W | 6 1/2" | 1 1/2" | 3/8" | 2 1/8" | 2" | 2" | 2 1/2" | 3 |
| W | 6 1/2" | 6" | 3/8" | 1" | 2" | 2" | 2 1/2" | 3 |

THROUGH PENETRANTS ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL.

FORMING MATERIAL SHALL BE A MIN. OF 1 1/2" THICK OF MIN. 4,0 PCF MINERAL WOOL BATT INSULATION FIRMLY PACKED IN OPENING, USG INTERIORS-TYPE SAF

THICKNESS OF SEALANT APPLIED FLUSH W/THE TOP SURFACE OF BOTH SIDES OF FLOOR/WALL (SEE TABLE), USG INTERIORS-TYPE SS

UL SYSTEM NUMBER: CAJ1020
F RATING - 3 HR.

7 PIPE AND CONDUIT PENETRATION DETAIL IN CONCRETE OR MASONRY
C-4 SCALE: NOT TO SCALE

| | | | |
|---|-----|----------|-------------|
| CONSTRUCTION DRAWINGS - REVISED ELECTRICAL DESIGN | TJR | DATE | DESCRIPTION |
| CONSTRUCTION DRAWINGS - ANTENNA RAD CENTER CHANGE | TJR | 04/22/24 | TGK |
| CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION | TJR | 10/17/23 | BSP |
| CONSTRUCTION DRAWINGS - REVISED PER CLIENT COMMENTS | TJR | 09/10/23 | LGL |
| CONSTRUCTION DRAWINGS - REVISED PER CLIENT COMMENTS | TJR | 07/24/23 | LGL |
| CONSTRUCTION DRAWINGS - ISSUED FOR CLIENT REVIEW | TJR | 07/03/23 | LGL |
| | | REV. | DATE |
| | | BY | CHECKED BY |
| | | DATE | DESCRIPTION |

PROFESSIONAL ENGINEER SEAL

CONSTRUCTION DRAWINGS - REVISED ELECTRICAL DESIGN

CONSTRUCTION DRAWINGS - ANTENNA RAD CENTER CHANGE

CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION

CONSTRUCTION DRAWINGS - REVISED PER CLIENT COMMENTS

CONSTRUCTION DRAWINGS - REVISED PER CLIENT COMMENTS

CONSTRUCTION DRAWINGS - ISSUED FOR CLIENT REVIEW

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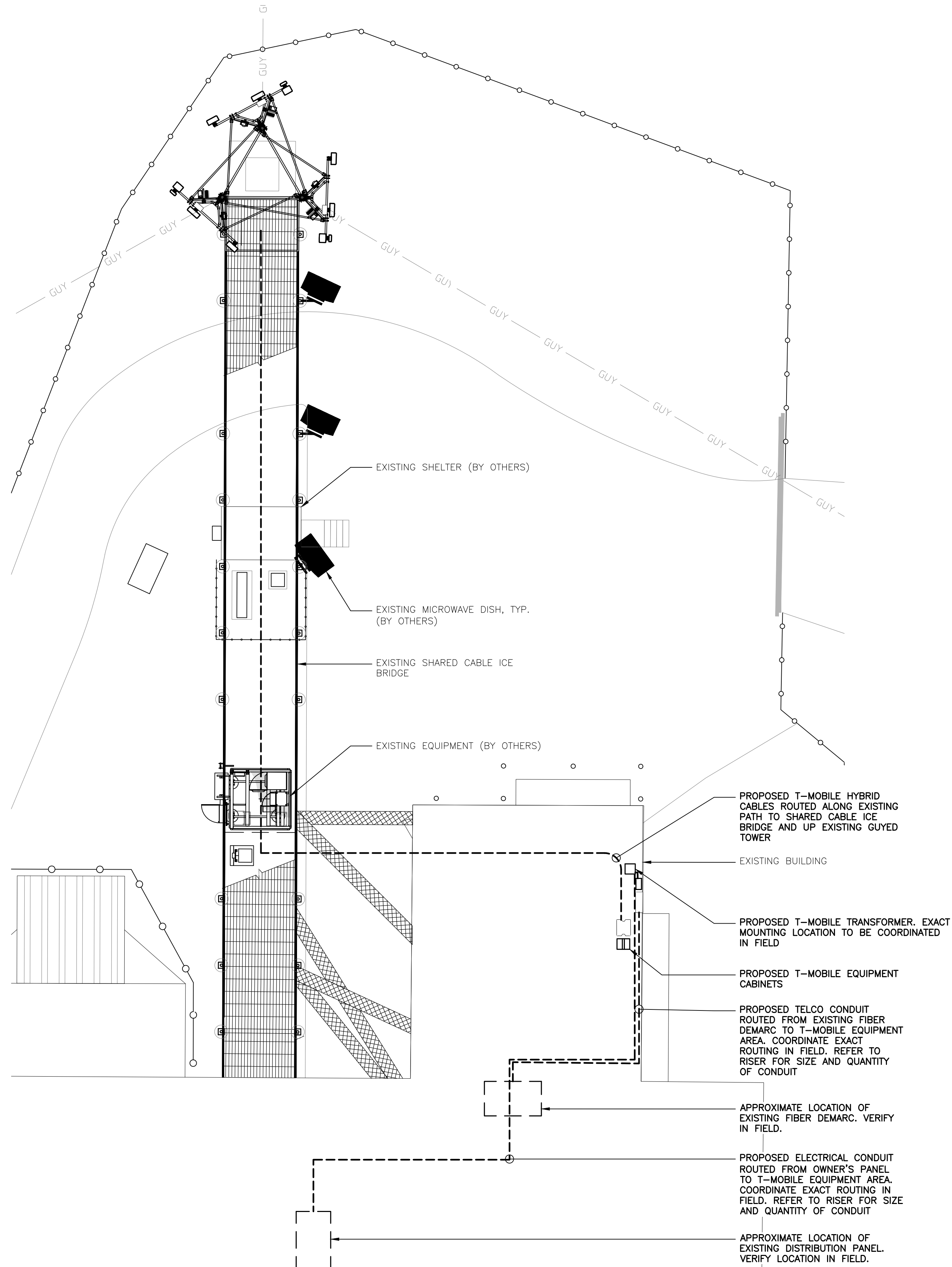
SITE NAME: COLT HIGHWAY RELO
SITE ID: CT1934A
190 COLT HIGHWAY
FARMINGTON, CT 06032

DATE: 06/2/23
SCALE: AS NOTED
JOB NO. 23002.04

TYPICAL EQUIPMENT DETAILS

C-4

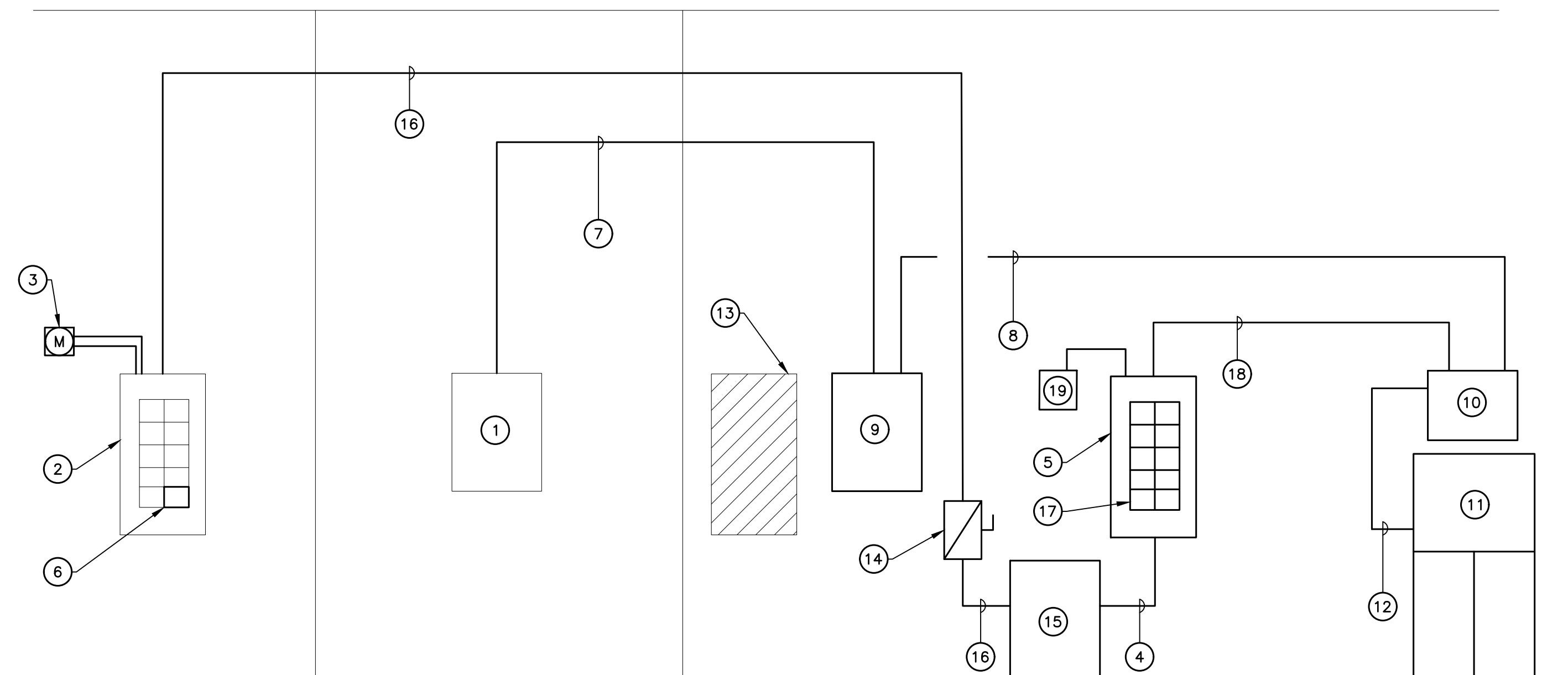
SHEET NO. 6 OF 11



1 **ELECTRICAL CONDUIT ROUTING PLAN**
E-1 SCALE: 1" = 10'

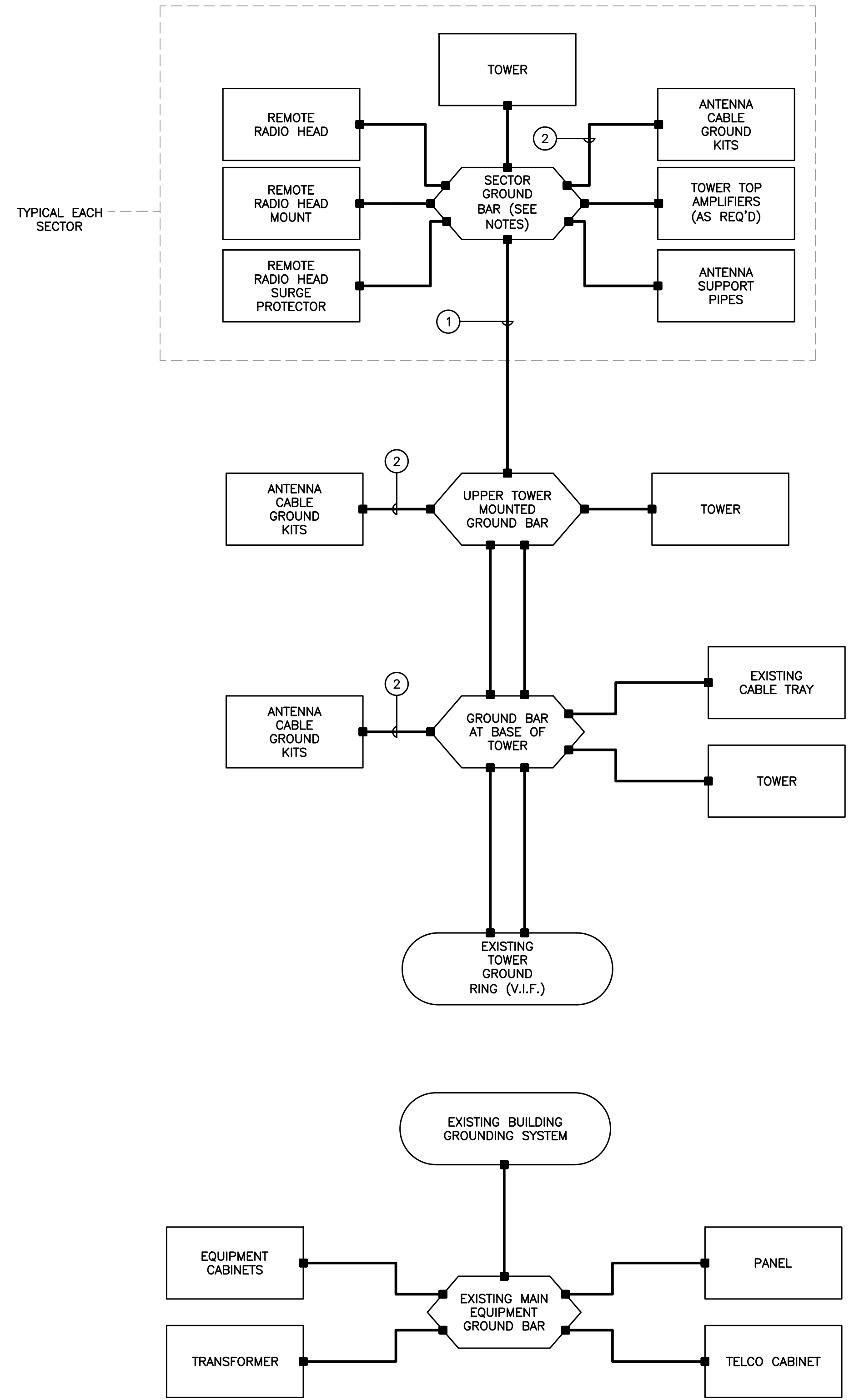
RISER DIAGRAM NOTES

- 1 EXISTING FIBER DEMARC LOCATED IN FIBER/TELEPHONE ROOM ADJACENT TO FRONT SUITE.
- 2 EXISTING 225A, 480V, THREE PHASE PANEL LOCATED IN REAR SUITE MECHANICAL ROOM TO REMAIN. PRIOR TO START OF CONSTRUCTION, CONTRACTOR TO VERIFY EXISTING AVAILABLE ELECTRICAL CAPACITY.
- 3 NEW 100A, 480V, THREE PHASE, SUBMETER WITH ASSOCIATED WIRING AND CIRCUIT BREAKER. COORDINATE MOUNTING LOCATION WITH CONSTRUCTION MANAGER.
- 4 (4) 3/0 AWG, (1) #6 AWG GROUND, 2" CONDUIT. MAX LENGTH NOT TO EXCEED 10'.
- 5 NEW 200A, 208Y/120V, 3P, 4W, 65 KAIC, 150A MCB, 42 POSITION, PANEL WITH DOOR-IN-DOOR HINGED FRAME, BOLT-ON BREAKERS, METAL DIRECTORY FRAME WITH GLASS/PLASTIC WINDOW, LAMINATED ENGRAVED BAKELITE NAMEPLATE, COPPER EQUIPMENT GROUND KIT, INSULATED COPPER SOLID NEUTRAL BAR. COORDINATE MOUNTING LOCATION WITH CONSTRUCTION MANAGER.
- 6 NEW 100A/3P SHUNT TRIP CIRCUIT BREAKER TO SERVE NEW TRANSFORMER.
- 7 2" CONDUIT WITH FIBER TELCO CABLES ROUTED FROM EXISTING TELCO DEMARC TO TELCO BOX IN EQUIPMENT AREA. PROVIDE FINAL TELCO CONNECTIONS AS SPECIFIED BY MANUFACTURER AND TELEPHONE SERVICE PROVIDER. VERIFY DEMARC LOCATION IN FIELD.
- 8 TELCO CONDUITS AND CONDUCTORS ROUTED TO EQUIPMENT CABINET PER MANUFACTURERS SPECIFICATIONS.
- 9 3 X 3 X 1 HOFFMAN BOX
- 10 NEW T-MOBILE EQUIPMENT RACK
- 11 NEW T-MOBILE BATTERY CABINET
- 12 DC CONDUIT AND CONDUCTORS FOR BATTERY CABINET CONNECTION PER MANUFACTURERS SPECIFICATIONS.
- 13 EXISTING 100A SPRINT PANEL TO BE REMOVED.
- 14 NEW 100A, 480V FUSED DISCONNECT WITH (3) 100A FUSES.
- 15 NEW 45KVA, 480V DELTA PRIMARY, 208V WYE SECONDARY, THREE PHASE STEP DOWN TRANSFORMER.
- 16 (3) #1 AWG, (1) #8 AWG GROUND, 1-1/2" CONDUIT.
- 17 NEW (9) 25A/2P CIRCUIT BREAKER TO SERVE NEW EQUIPMENT
- 18 (3) #10 AWG, (1) #10 AWG GROUND, 3/4" CONDUIT. TOTAL OF (9)
- 19 RAYCAP AM2080-V-07 (OR APPROVED EQUAL) SURGE PROTECTOR. INSTALL WIRING AND CIRCUIT BREAKER AS SPECIFIED BY MANUFACTURER



2 **ELECTRICAL POWER RISER DIAGRAM**
E-1 SCALE: NOT TO SCALE

| | | | | | | | | | |
|---|--|--|--|--|--|--|--|---------------------------------|--|
| | | | | | | | | | |
| PROFESSIONAL ENGINEER SEAL | | | | | | | | | |
| T-MOBILE NORTHEAST LLC SITE NAME: COLT HIGHWAY RELO SITE ID: CT1934A 190 COLT HIGHWAY FARMINGTON, CT 06032 | | (203) 488-0580 (203) 488-8587 Fax 632 North Branford Road Branford, CT 06405 www.CentekEng.com | | DATE: 06/2/23 SCALE: AS NOTED JOB NO. 23002.04 | | ELECTRICAL RISER DIAGRAM AND CONDUIT ROUTING | | E-1 SHEET NO. 7 OF 11 | |



1 ELECTRICAL CONDUIT ROUTING PLAN
E-2 SCALE: NO TO SCALE

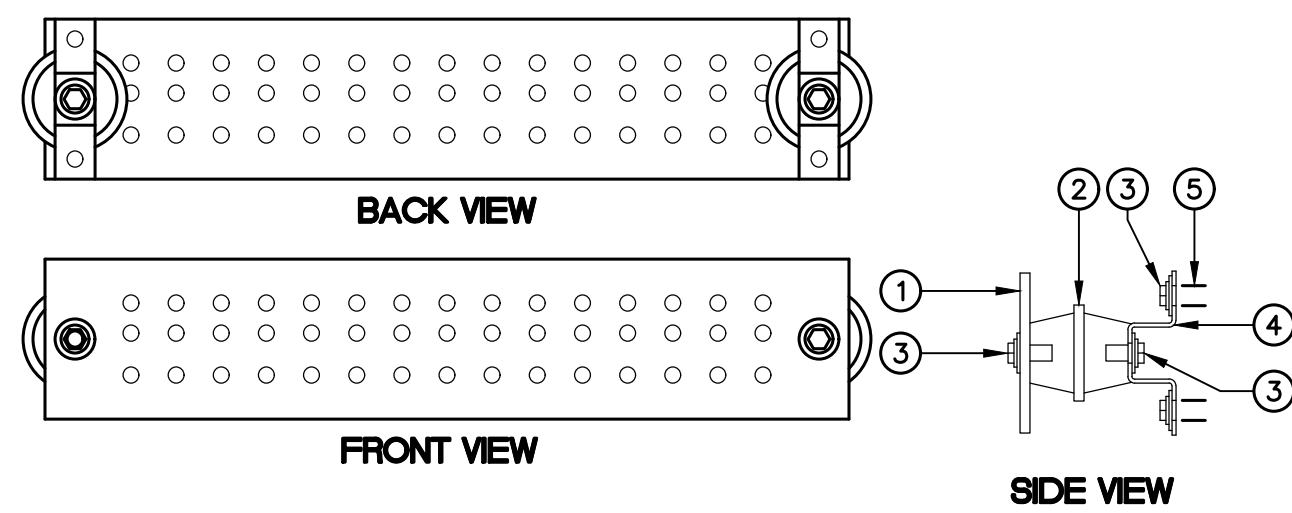
- ### GROUNDING SCHEMATIC NOTES
- ① #2/0 GREEN INSULATED
 - ② #6 AWG
- GENERAL NOTES:**
1. ALL SURGE SUPPRESSION EQUIPMENT SHALL BE BONDED TO GROUND PER MANUFACTURER'S SPECIFICATIONS.
 2. UNLESS OTHERWISE NOTED OR REQUIRED BY CODE, GROUND CONDUCTORS SHOWN SHALL BE #2 AWG (SOLID TINNED BCW - EXTERIOR; STRANDED GREEN INSULATED - INTERIOR).
 3. BOND CABLE TRAY AND ICE BRIDGE SECTIONS TOGETHER WITH #6 AWG STRANDED GREEN INSULATED JUMPERS.
 4. ALL SECTOR GROUND BARS SHALL BE BONDED TOGETHER WITH #2 AWG SOLID TINNED BCW.
 5. BOND ALL EQUIPMENT CABINETS AND BATTERY CABINETS TO GROUND PER MANUFACTURER'S SPECIFICATIONS.
 6. ALL BONDS TO TOWER SHALL BE MADE IN STRICT ACCORDANCE WITH SPECIFICATIONS OF TOWER MANUFACTURER OR STRUCTURAL ENGINEER.
 7. REFER TO GROUNDING PLAN FOR LOCATION OF GROUNDING DEVICES.
 8. REFER TO ALL ELECTRICAL AND GROUNDING DETAILS.
 9. COORDINATE ALL TOWER MOUNTED EQUIPMENT WITH OWNER.
 10. ALL TOWER MOUNTED AMPLIFIERS AND ASSOCIATED EQUIPMENT SHALL BE BONDED TO THE SECTOR GROUND BAR PER MANUFACTURER'S SPECIFICATIONS.
 11. ALL GROUNDING SHALL BE IN ACCORDANCE WITH NEC AND OWNER'S REQUIREMENTS.
 12. COORDINATE WITH TOWER OWNER BEFORE INSTALLING ANY GROUNDING ELEMENTS ON TOWER OR BONDING TO EXISTING TOWER GROUND RING. DO NOT CADWELD TO TOWER.

| | | | | | | |
|---|----------|----------|------------|-------------|------|------|
| | | | | | | |
| CONSTRUCTION DRAWINGS — REVISED ELECTRICAL DESIGN | TJR | TJR | TJR | TJR | TJR | TJR |
| CONSTRUCTION DRAWINGS — ANTENNA RAD CENTER CHANGE | TJR | TJR | TJR | TJR | TJR | TJR |
| CONSTRUCTION DRAWINGS — ISSUED FOR CONSTRUCTION | TJR | TJR | TJR | TJR | TJR | TJR |
| CONSTRUCTION DRAWINGS — REVISED PER CLIENT COMMENTS | TJR | TJR | TJR | TJR | TJR | TJR |
| CONSTRUCTION DRAWINGS — ISSUED FOR CLIENT REVIEW | TJR | TJR | TJR | TJR | TJR | TJR |
| REV. | DATE | DRAWN BY | CHECKED BY | DESCRIPTION | REV. | DATE |
| 2 | 04/22/24 | TGR | TGR | TGR | TGR | TGR |
| 1 | 10/17/23 | TGR | TGR | TGR | TGR | TGR |
| 0 | 09/10/23 | TGR | TGR | TGR | TGR | TGR |
| B | 07/24/23 | TGR | TGR | TGR | TGR | TGR |
| A | 06/20/23 | TGR | TGR | TGR | TGR | TGR |

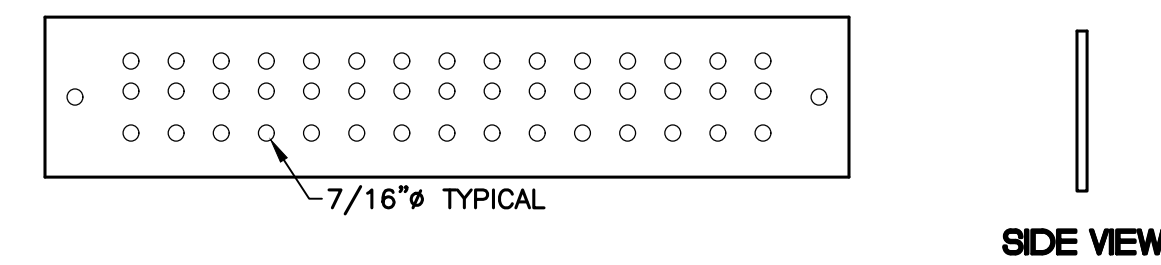
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T-MOBILE NORTHEAST LLC
SITE NAME: COLT HIGHWAY RELO
SITE ID: CT1934A
190 COLT HIGHWAY
FARMINGTON, CT 06032

| | |
|------------------------------|----------|
| DATE: | 06/2/23 |
| SCALE: | AS NOTED |
| JOB NO. | 23002.04 |
| ELECTRICAL SCHEMATIC DIAGRAM | |
| E-2 | |
| SHEET NO. 8 OF 11 | |

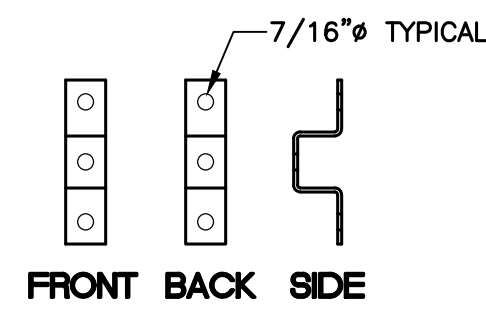


TYPICAL GROUND BAR ASSEMBLY
SCALE: 1/8" = 1'-0"



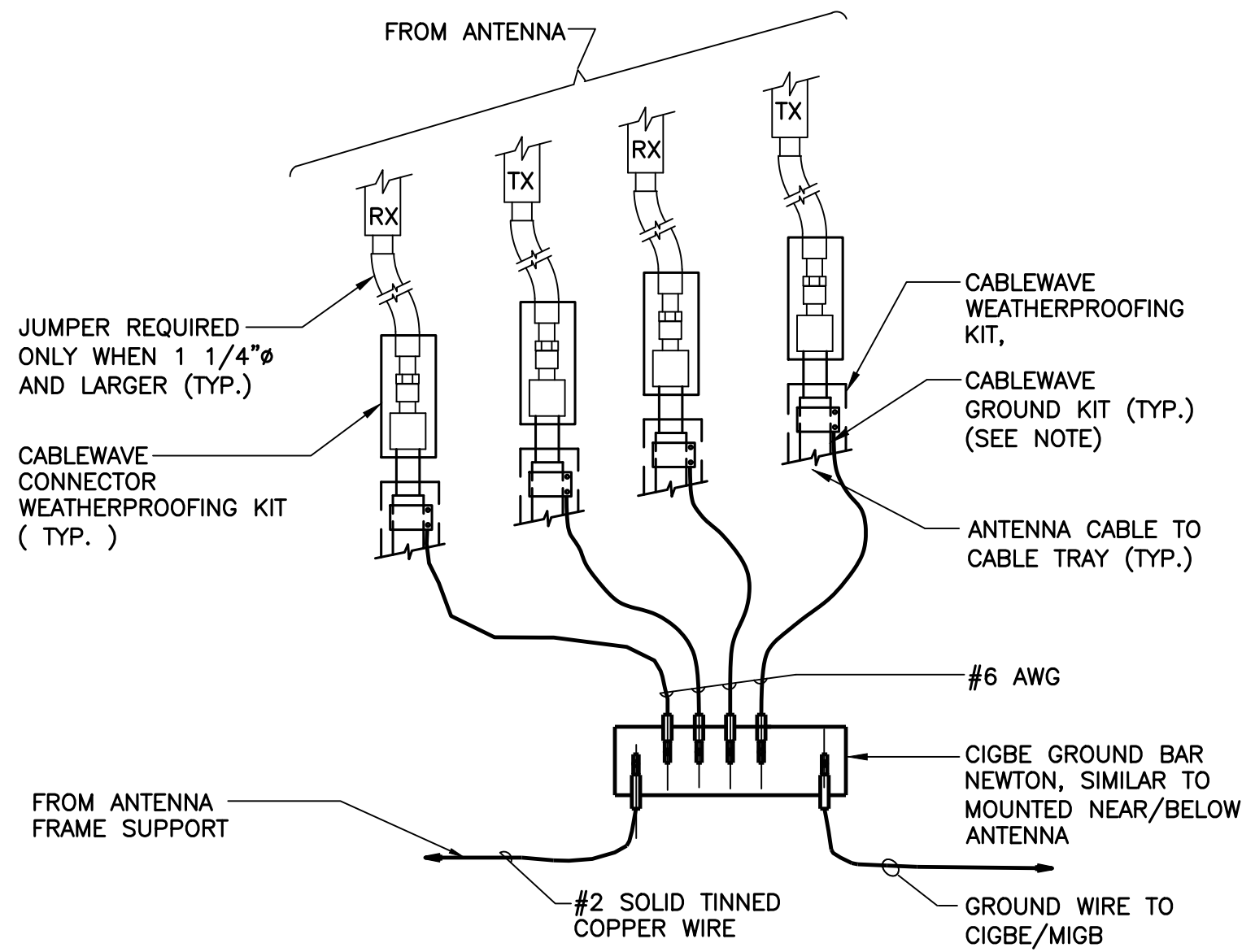
TYPICAL GROUND BAR - DIMENSIONS
SCALE: 1/8" = 1'-0"

- NOTES**
- HIGH CONDUCTIVITY TINNED COPPER BAR 1'-8"Lx4"Wx1/4"D.
 - RED COLORED STANDOFF INSULATOR PLASTIC #1872-1A.
 - STAINLESS STEEL TRUSS SPANNER MACHINE SCREWS, SPLIT LOCKWASHER AND FLAT WASHER.
 - 1"Wx1/8"T STAINLESS STEEL TYPE 304 BRACKET.
 - STAINLESS STEEL TYPE 304 HARDWARE - 3/8" EXPANSION BOLT FOR CONCRETE.



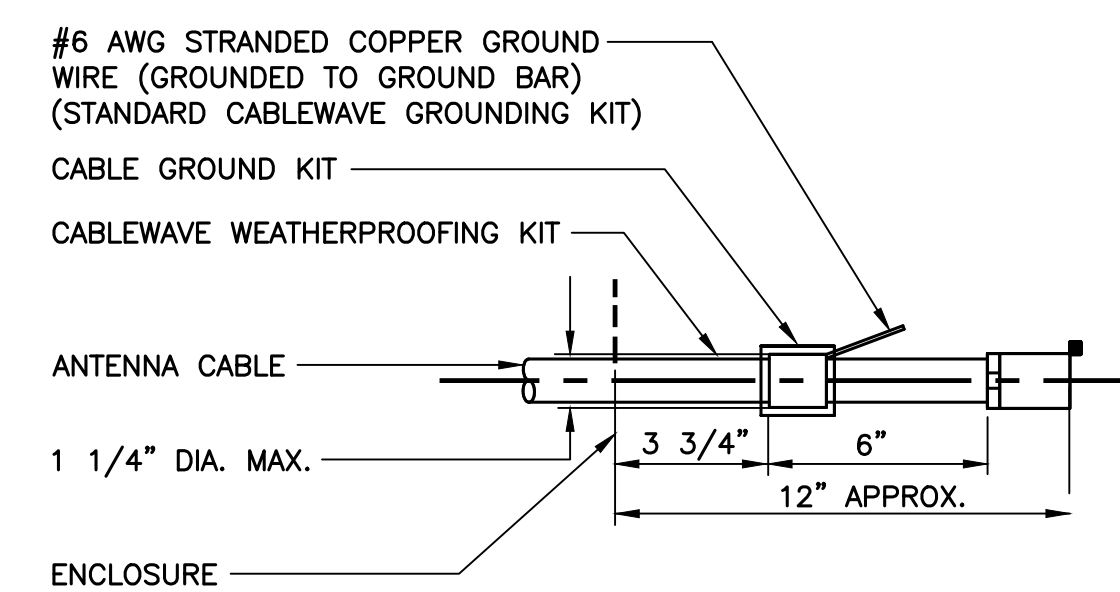
BRACKET FOR GROUND BAR - DIMENSIONS
SCALE: 1/8" = 1'-0"

1 MASTER/EQUIPMENT GROUND BAR DETAILS
E-4 NOT TO SCALE



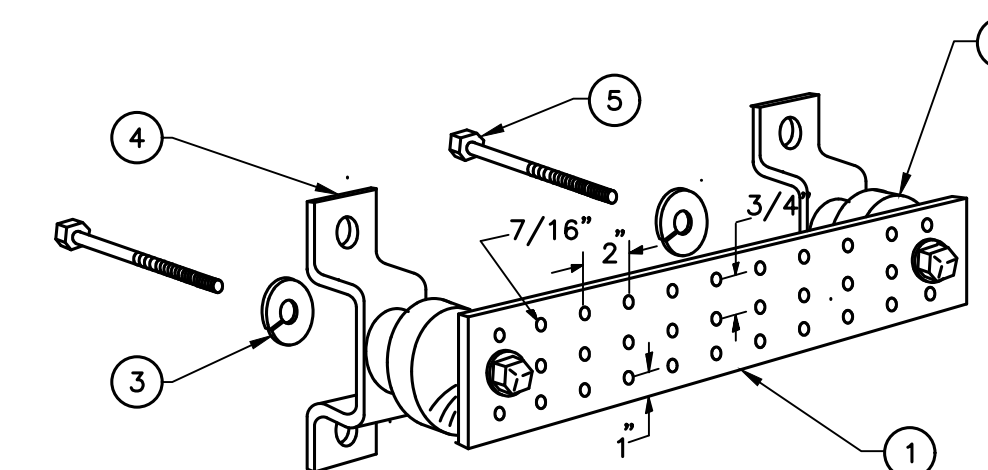
- NOTES**
- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO CIGBE

2 CONNECTION OF GROUND WIRES TO GROUND BAR
E-4 NOT TO SCALE



- NOTES**
- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.

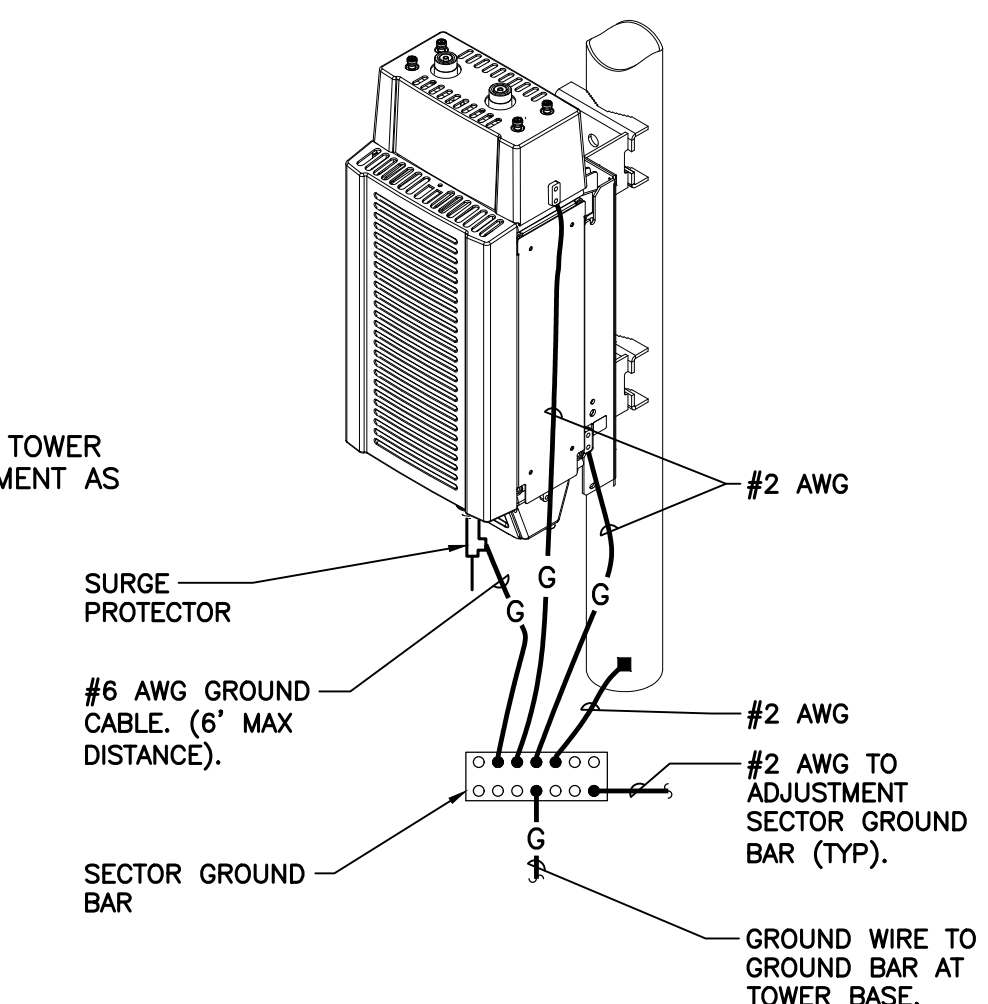
3 ANTENNA CABLE GROUNDING DETAIL
E-4 NOT TO SCALE



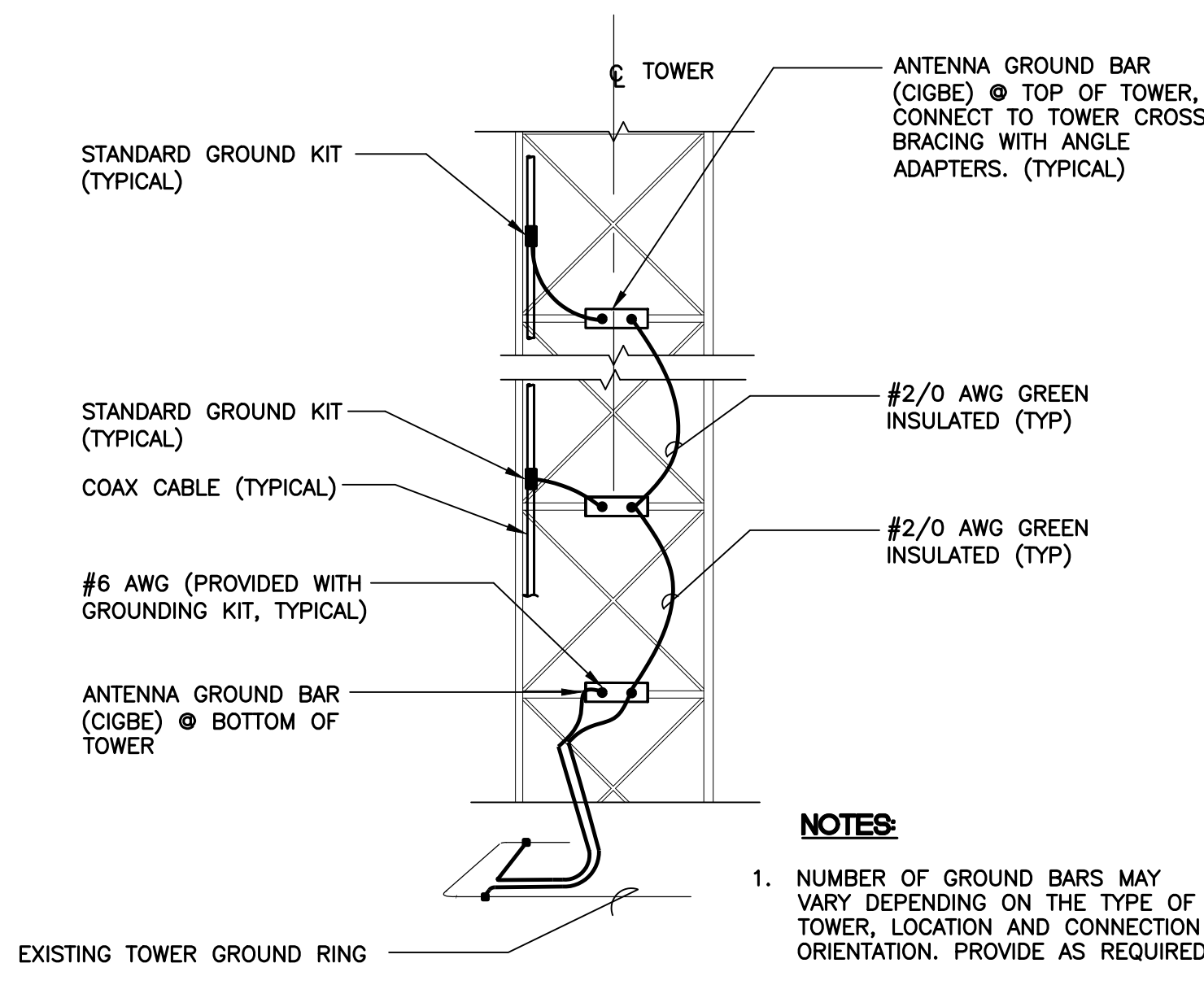
- NOTES**
- TINNED COPPER GROUND BAR, 1/4" x 4" x 20", NEWTON INSTRUMENT CO. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION.
 - INSULATORS, NEWTON INSTRUMENT CAT. NO. 3061-4.
 - 5/8" LOCK WASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015-8.
 - WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT. NO. A-6056.
 - 5/8-11 x 1" STAINLESS STEEL TRUSS SPANNER MACHINE SCREWS.

7 GROUND BAR DETAIL
E-4 NOT TO SCALE

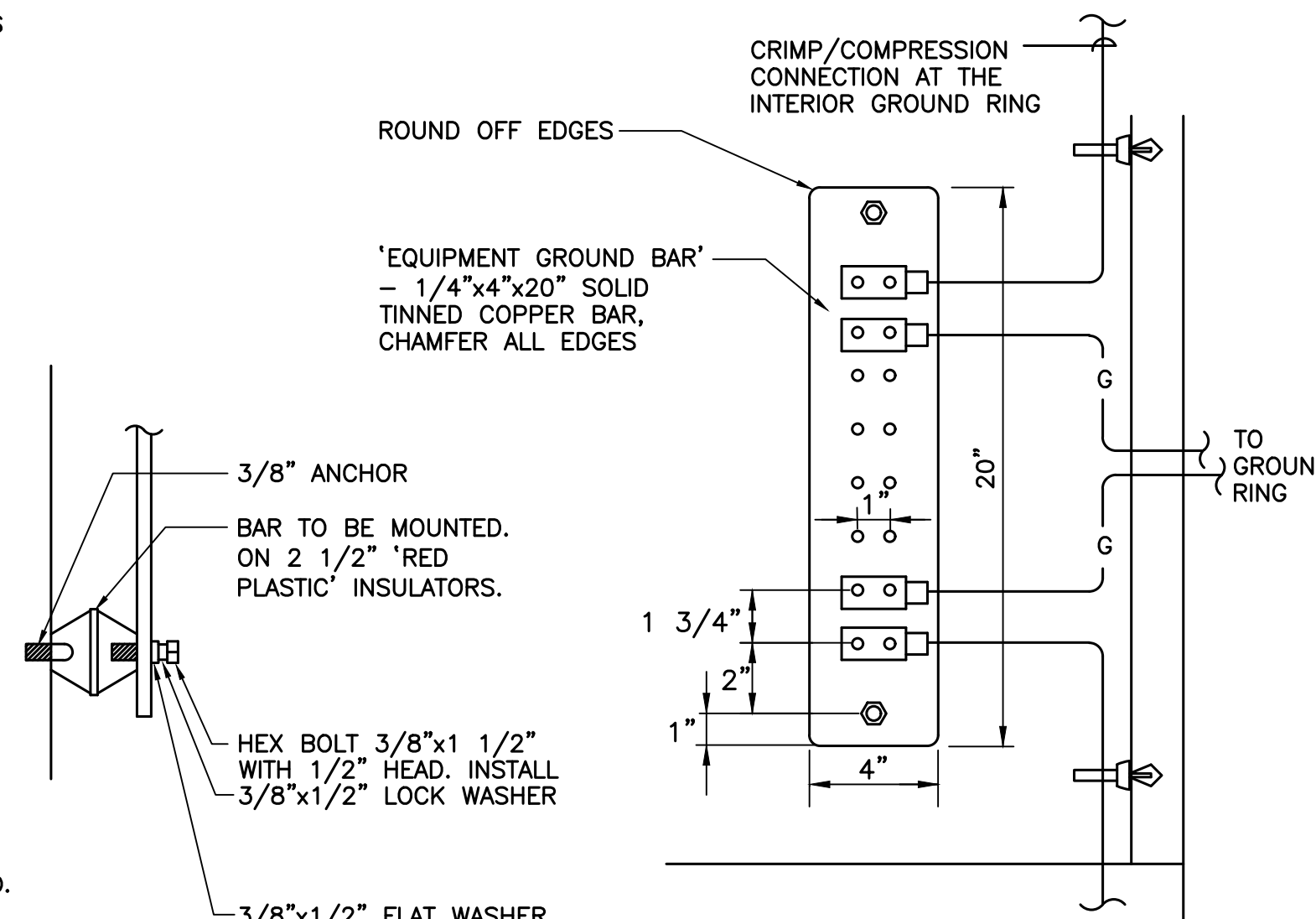
- EACH RRH CABINET SHALL BE GROUND IN THE FOLLOWING MANNER:
- AT TOP OF THE CABINET
 - AT RIGHT SIDE OF THE CABINET.



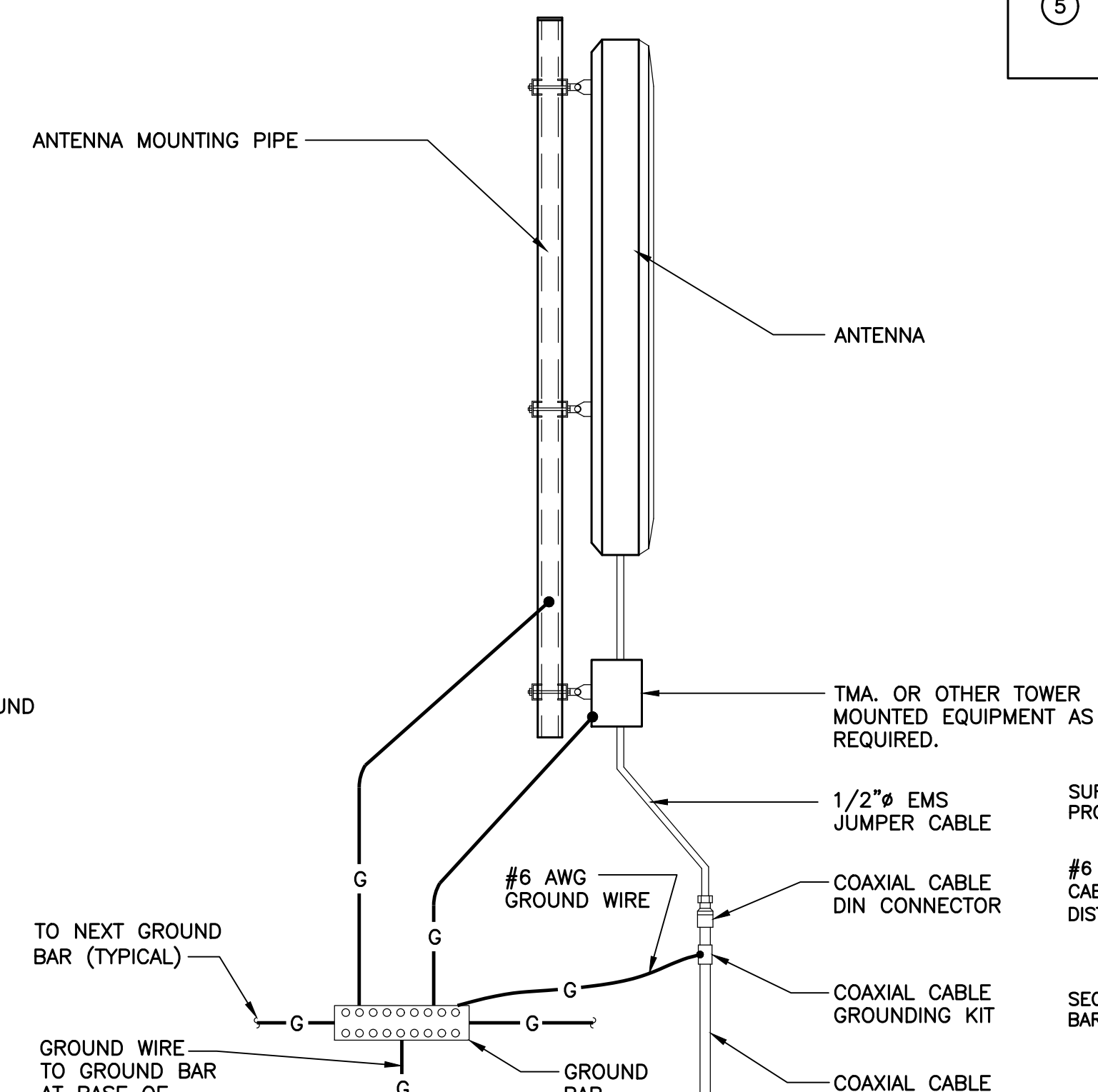
8 RRH POLE MOUNT GROUNDING
E-4 NOT TO SCALE



4 ANTENNA CABLE GROUNDING - LATTICE TOWER
E-4 NOT TO SCALE



5 EQUIPMENT GROUND BAR DETAIL
E-4 NOT TO SCALE



6 TYPICAL ANTENNA GROUNDING DETAIL
E-4 NOT TO SCALE

| | | | |
|---|-----|----------|-------------|
| CONSTRUCTION DRAWINGS - REVISED ELECTRICAL DESIGN | TJR | DATE | DESCRIPTION |
| CONSTRUCTION DRAWINGS - ANTENNA RAD CENTER CHANGE | TJR | 04/22/24 | TKR |
| CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION | TJR | 10/17/23 | TKR |
| CONSTRUCTION DRAWINGS - REVISED PER CLIENT COMMENTS | TJR | 09/10/23 | TKR |
| CONSTRUCTION DRAWINGS - ISSUED FOR CLIENT REVIEW | TJR | 07/24/23 | TKR |
| CONSTRUCTION DRAWINGS - ISSUED FOR CLIENT REVIEW | TJR | 06/20/23 | TKR |

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T-MOBILE NORTHEAST LLC
SITE NAME: COLT HIGHWAY RELO
SITE ID: CT1934A
190 COLT HIGHWAY
FARMINGTON, CT 06032

DATE: 06/2/23
SCALE: AS NOTED
JOB NO. 23002.04

TYPICAL GROUNDING DETAILS

E-4

SHEET NO. 10 OF 11

ELECTRICAL SPECIFICATIONS

SECTION 16010

1.01. SCOPE OF WORK

A. WORK SHALL INCLUDE ALL LABOR, EQUIPMENT AND SERVICES REQUIRED TO COMPLETE (MAKE READY FOR OPERATION) ALL THE ELECTRICAL WORK INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:

- 1. INSTALL 100A, 480V, 3P, ELECTRIC SERVICE WITH SUBMETER AND STEP DOWN TRANSFORMER FOR OWNER AND ASSOCIATED DISTRIBUTION EQUIPMENT.
- 2. NEW SITE TELEPHONE SERVICE AS SPECIFIED BY TELEPHONE COMPANY.
- 3. CELLULAR GROUNDING SYSTEMS, CONSISTING OF ANTENNA GROUNDING, INTERIOR GROUNDING RING, GROUND BARS, ETC.
- 4. FIELD MEASURE EXISTING ELECTRICAL SERVICES TO CONFIRM AVAILABLE EXISTING POWER.

1.02. GENERAL REQUIREMENTS

- A. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE MADE IN STRICT ACCORDANCE WITH ALL LOCAL, STATE AND NATIONAL CODES AND REGULATIONS WHICH MAY APPLY AND NOTHING IN THE DRAWINGS OR SPECIFICATIONS SHALL BE INTERPRETED AS AN INFRINGEMENT OF SUCH CODES OR REGULATIONS.
- B. THE ELECTRICAL CONTRACTOR IS TO BE RESPONSIBLE FOR THE COMPLETE INSTALLATION AND COORDINATION OF THE ENTIRE ELECTRICAL SERVICE. ALL ACTIVITIES TO BE COORDINATED THROUGH OWNERS REPRESENTATIVE, DESIGN ENGINEER AND OTHER AUTHORITIES HAVING JURISDICTION OF TRADES.
- C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND PAY ALL FEES THAT MAY BE REQUIRED FOR THE ELECTRICAL WORK AND FOR SCHEDULING OF ALL INSPECTIONS THAT MAY BE REQUIRED BY THE LOCAL AUTHORITY.
- D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE BUILDING OWNER FOR NEW AND/OR DEMOLITION WORK INVOLVED.
- E. ENTIRE ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH OWNER'S SPECIFICATIONS, AND REQUIREMENTS OF ALL LOCAL AUTHORITIES HAVING JURISDICTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH APPROPRIATE INDIVIDUALS TO OBTAIN ALL SUCH SPECIFICATIONS AND REQUIREMENTS, NOTHING CONTAINED IN, OR OMITTED FROM, THESE DOCUMENTS SHALL RELIEVE CONTRACTOR FROM THIS OBLIGATION.
- F. NO MATERIAL OTHER THAN THAT CONTAINED IN THE "LATEST LIST OF ELECTRICAL FITTINGS" APPROVED BY THE UNDERWRITERS' LABORATORIES, SHALL BE USED IN ANY PART OF THE WORK. ALL MATERIAL FOR WHICH LABEL SERVICE HAS BEEN ESTABLISHED SHALL BEAR THE U.L. LABEL.
- G. THE CONTRACTOR SHALL GUARANTEE ALL NEW WORK FOR A PERIOD OF ONE YEAR FROM THE ACCEPTANCE DATE BY THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING WARRANTIES FROM ALL EQUIPMENT MANUFACTURERS FOR SUBMISSION TO THE OWNER.
- H. DRAWINGS INDICATE GENERAL ARRANGEMENT OF WORK INCLUDED IN CONTRACT. CONTRACTOR SHALL, WITHOUT EXTRA CHARGE, MAKE MODIFICATIONS TO THE LAYOUT OF THE WORK TO PREVENT CONFLICT WITH WORK OF OTHER TRADES AND FOR THE PROPER INSTALLATION OF WORK. CHECK ALL DRAWINGS AND VISIT JOB SITE TO VERIFY SPACE AND TYPE OF EXISTING CONDITIONS IN WHICH WORK WILL BE DONE, PRIOR TO SUBMITAL OF BID.
- I. THE ELECTRICAL CONTRACTOR SHALL SUPPLY THREE (3) COMPLETE SETS OF APPROVED DRAWINGS, ENGINEERING DATA SHEETS, MAINTENANCE AND OPERATING INSTRUCTION MANUALS FOR ALL SYSTEMS AND THEIR RESPECTIVE EQUIPMENT. THESE MANUALS SHALL BE INSERTED IN VINYL COVERED 3-RING BINDERS AND TURNED OVER TO OWNER'S REPRESENTATIVE ONE (1) WEEK PRIOR TO FINAL PUNCH LIST.
- J. ALL WORK SHALL BE INSTALLED IN A NEAT AND WORKMAN LIKE MANNER AND WILL BE SUBJECT TO THE APPROVAL OF THE OWNER'S REPRESENTATIVE.
- K. ALL EQUIPMENT AND MATERIALS TO BE INSTALLED SHALL BE NEW, UNLESS OTHERWISE NOTED.
- L. BEFORE FINAL PAYMENT, THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF PRINTS (AS-BUILTS), LEGIBLY MARKED IN RED PENCIL TO SHOW ALL CHANGES FROM THE ORIGINAL PLANS.
- M. PROVIDE TEMPORARY POWER AND LIGHTING IN WORK AREAS AS REQUIRED.
- N. SHOP DRAWINGS:
 - 1. CONTRACTOR SHALL SUBMIT SIX (6) COPIES OF SHOP DRAWINGS ON ALL EQUIPMENT AND MATERIALS PROPOSED FOR USE ON THIS PROJECT, GIVING ALL DETAILS, WHICH INCLUDE DIMENSIONS, CAPACITIES, ETC.
 - 2. CONTRACTOR SHALL SUBMIT SIX (6) COPIES OF ALL TEST REPORTS CALLED FOR IN THE SPECIFICATIONS AND DRAWINGS.

SECTION 16111

1.01. CONDUIT

- A. MINIMUM CONDUIT SIZE FOR BRANCH CIRCUITS, LOW VOLTAGE CONTROL AND ALARM CIRCUITS SHALL BE 3/4". CONDUITS SHALL BE PROPERLY FASTENED AS REQUIRED BY THE N.E.C.
- B. THE INTERIOR OF RACEWAYS/ ENCLOSURES INSTALLED UNDERGROUND SHALL BE CONSIDERED TO BE WET LOCATION, INSULATED CONDUCTORS SHALL BE LISTED FOR USE IN WET LOCATIONS. PROVIDE WEATHERPROOF CONSTRUCTION IN WET LOCATIONS.
- C. CONDUIT INSTALLED UNDERGROUND SHALL BE INSTALLED TO MEET MINIMUM COVER REQUIREMENTS OF TABLE 300.5.
- D. PROVIDE RIGID GALVANIZED STEEL CONDUIT (RMC) FOR THE FIRST 10 FOOT SECTION WHEN LEAVING A BUILDING OR SECTIONS PASSING THROUGH FLOOR SLABS
- E. ONLY LISTED PVC CONDUIT AND FITTINGS ARE PERMITTED FOR THE INSTALLATION OF ELECTRICAL CONDUCTORS, SUITABLE FOR UNDERGROUND APPLICATIONS.

CONDUIT SCHEDULE SECTION 16111

| CONDUIT TYPE | NEC REFERENCE | APPLICATION | MIN. BURIAL DEPTH PER NEC TABLE 300.5 ^{1,2,3} |
|--------------------------|----------------------------|---|--|
| EMT | ARTICLE 358 | INTERIOR CIRCUITING, EQUIPMENT ROOMS, SHELTERS | N/A |
| RMC, RIGID GALV. STEEL | ARTICLE 344, 300.5, 300.50 | ALL INTERIOR/ EXTERIOR CIRCUITING, ALL UNDERGROUND INSTALLATIONS. | 6 INCHES |
| PVC, SCHEDULE 40 | ARTICLE 352, 300.5, 300.50 | INTERIOR/ EXTERIOR CIRCUITING AND GROUNDING SYSTEMS, UNDERGROUND INSTALLATIONS, WHERE NOT SUBJECT TO PHYSICAL DAMAGE. | 18 INCHES |
| PVC, SCHEDULE 80 | ARTICLE 352, 300.5, 300.50 | INTERIOR/ EXTERIOR CIRCUITING AND GROUNDING SYSTEMS, UNDERGROUND INSTALLATIONS, WHERE SUBJECT TO PHYSICAL DAMAGE. | 18 INCHES |
| LIQUID TIGHT FLEX. METAL | ARTICLE 350 | SHORT LENGTHS (MAX. 3FT.) WIRING TO VIBRATING EQUIPMENT IN WET LOCATIONS. | N/A |
| FLEX. METAL | ARTICLE 348 | SHORT LENGTHS (MAX. 3FT.) WIRING TO VIBRATING EQUIPMENT IN WET LOCATIONS. | N/A |

¹ PHYSICAL DAMAGE IS SUBJECT TO THE AUTHORITY HAVING JURISDICTION.
² UNDERGROUND CONDUIT INSTALLED UNDER ROADS, HIGHWAYS, DRIVEWAYS, PARKING LOTS SHALL HAVE MINIMUM DEPTH OF 24".
³ WHERE SOLID ROCK PREVENTS COMPLIANCE WITH MINIMUM COVER DEPTHS, WIRING SHALL BE INSTALLED IN PERMITTED RACEWAY FOR DIRECT BURIAL. THE RACEWAY SHALL BE COVERED BY A MINIMUM OF 2" OF CONCRETE EXTENDING DOWN TO ROCK.

SECTION 16123

1.01. CONDUCTORS

- A. ALL CONDUCTORS SHALL BE TYPE THWN (INT. APPLICATION) AND XHHW (EXT. APPLICATION), 75 DEGREE C, 600 VOLT INSULATION, SOFT ANNEALED STRANDED COPPER. #10 AWG AND SMALLER SHALL BE SPLICED USING ACCEPTABLE SOLDERLESS PRESSURE CONNECTORS. #8 AWG AND LARGER SHALL BE SPLICED USING COMPRESSION SPLIT-BOLT TYPE CONNECTORS. #12 AWG SHALL BE THE MINIMUM SIZE CONDUCTOR FOR LINE VOLTAGE BRANCH CIRCUITS. REFER TO PANEL SCHEDULE FOR BRANCH CIRCUIT CONDUCTOR SIZE(S). CONDUCTORS SHALL BE COLOR CODED FOR CONSISTENT PHASE IDENTIFICATION:

| | | |
|------|------------------|--------------------------|
| LINE | 120/208/240V | 277/480V |
| A | BLACK | BROWN |
| B | RED | ORANGE |
| C | BLUE | YELLOW |
| N | CONTINUOUS WHITE | GREY |
| G | CONTINUOUS GREEN | GREEN WITH YELLOW STRIPE |
- B. MINIMUM BENDING RADIUS FOR CONDUCTORS SHALL BE 12 TIMES THE LARGEST DIAMETER OF BRANCH CIRCUIT CONDUCTOR.

SECTION 16130

1.01. BOXES

- A. FURNISH AND INSTALL OUTLET BOXES FOR ALL DEVICES, SWITCHES, RECEPTACLES, ETC.. BOXES TO BE ZINC COATED STEEL.
- B. FURNISH AND INSTALL PULL BOXES IN MAIN FEEDERS RUNS WHERE REQUIRED. PULL BOXES SHALL BE GALVANIZED STEEL WITH SCREW REMOVABLE COVERS, SIZE AND QUANTITY AS REQUIRED. PROVIDE WEATHERPROOF CONSTRUCTION IN WET LOCATIONS.

SECTION 16140

1.01. WIRING DEVICES

- A. THE FOLLOWING LIST IS PROVIDED TO CONVEY THE QUALITY AND RATING OF WIRING DEVICES WHICH ARE TO BE INSTALLED. A COMPLETE LIST OF ALL DEVICES MUST BE SUBMITTED BEFORE INSTALLATION FOR APPROVAL.
 - 1. 15 MINUTE TIMER SWITCH - INTERMATIC #FF15M (INTERIOR LIGHTS)
 - 2. DUPLEX RECEPTACLE - P&S #2095 (GFCI) SPECIFICATION GRADE
 - 3. SINGLE POLE SWITCH - P&S #CSB20AC2 (20A-120V HARD USE) SPECIFICATION GRADE
 - 4. DUPLEX RECEPTACLE - P&S #5362 (20A-120V HARD USE) SPECIFICATION GRADE
- B. PLATES - ALL PLATES USED SHALL BE CORROSION RESISTANT TYPE 304 STAINLESS STEEL. PLATES SHALL BE FROM SAME MANUFACTURER AS SWITCHES AND RECEPTACLES. PROVIDE WEATHERPROOF HOUSING FOR DEVICES LOCATED IN WET LOCATIONS.
- C. OTHER MANUFACTURERS OF THE SWITCHES, RECEPTACLES AND PLATES MAY BE SUBMITTED FOR APPROVAL BY THE ENGINEER.

SECTION 16170

1.01. DISCONNECT SWITCHES

- A. FUSIBLE AND NON-FUSIBLE, 600V, HEAVY DUTY DISCONNECT SWITCHES SHALL BE AS MANUFACTURED BY SQUARE "D". PROVIDE FUSES AS CALLED FOR ON THE CONTRACT DRAWINGS. AMPERE RATING SHALL BE CONSISTENT WITH LOAD BEING SERVED. DISCONNECT SWITCH COVER SHALL BE MECHANICALLY INTERLOCKED TO PREVENT COVER FROM OPENING WHEN THE SWITCH IS IN THE "ON" POSITION. EXTERIOR APPLICATIONS SHALL BE NEMA 3R CONSTRUCTION WITH PADLOCK FEATURE.

SECTION 16190

1.01. SEISMIC RESTRAINT

- A. ALL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH ZONE 2 SEISMIC REQUIREMENTS.

SECTION 16195

1.01. LABELING AND IDENTIFICATION NOMENCLATURE FOR ELECTRICAL EQUIPMENT

- A. CONTRACTOR SHALL FURNISH AND INSTALL NON-METALLIC ENGRAVED BACK-LIT NAMEPLATES ON ALL PANELS AND MAJOR ITEMS OF ELECTRICAL EQUIPMENT.
- B. LETTERS TO BE WHITE ON BLACK BACKGROUND WITH LETTERS 1-1/2 INCH HIGH WITH 1/4 INCH MARGIN.
- C. IDENTIFICATION NOMENCLATURE SHALL BE IN ACCORDANCE WITH OWNER'S STANDARDS.

SECTION 16450

1.01. GROUNDING

- A. ALL NON-CURRENT CARRYING PARTS OF THE ELECTRICAL AND TELEPHONE CONDUIT SYSTEMS SHALL BE MECHANICALLY AND ELECTRICALLY CONNECTED TO PROVIDE AN INDEPENDENT RETURN PATH TO THE EQUIPMENT GROUNDING SOURCES.
- B. GROUNDING SYSTEM WILL BE IN ACCORDANCE WITH THE LATEST ACCEPTABLE EDITION OF THE NATIONAL ELECTRICAL CODE AND REQUIREMENTS PER LOCAL INSPECTOR HAVING JURISDICTION.
- C. GROUNDING OF PANELBOARDS:
 - 1. PANELBOARD SHALL BE GROUNDED BY TERMINATING THE PANELBOARD FEEDER'S EQUIPMENT GROUND CONDUCTOR TO THE EQUIPMENT GROUND BAR KIT(S) LUGGED TO THE CABINET. ENSURE THAT THE SURFACE BETWEEN THE KIT AND CABINET ARE BARE METAL TO BARE METAL. PRIME AND PAINT OVER TO PREVENT CORROSION.
 - 2. CONDUIT(S) TERMINATING INTO THE PANELBOARD SHALL HAVE GROUNDING TYPE BUSHINGS. THE BUSHINGS SHALL BE BONDED TOGETHER WITH BARE #10 AWG COPPER CONDUCTOR WHICH IN TURN IS TERMINATED INTO THE PANELBOARD'S EQUIPMENT GROUND BAR KIT(S).
- D. EQUIPMENT GROUNDING CONDUCTOR:
 - 1. EACH EQUIPMENT GROUND CONDUCTOR SHALL BE SIZED IN ACCORDANCE WITH THE N.E.C. ARTICLE 250-122.
 - 2. THE MINIMUM SIZE OF EQUIPMENT GROUND CONDUCTOR SHALL BE #12 AWG COPPER.
 - 3. EACH FEEDER OR BRANCH CIRCUIT SHALL HAVE EQUIPMENT GROUND CONDUCTOR(S) INSTALLED IN THE SAME RACEWAY(S).
- E. CELLULAR GROUNDING SYSTEM:

CONTRACTOR SHALL PROVIDE A CELLULAR GROUNDING SYSTEM WITH THE MAXIMUM AC RESISTANCE TO GROUND OF 10 OHM BETWEEN ANY POINT ON THE GROUNDING SYSTEM AS MEASURED BY 3-POINT GROUNDING TEST. (REFER TO SECTION 16960).

PROVIDE THE CELLULAR GROUNDING SYSTEM AS SPECIFIED ON DRAWINGS, INCLUDING, BUT NOT LIMITED TO:

 - 1. GROUND BARS
 - 2. INTERIOR GROUND RING
 - 3. EXTERIOR GROUNDING (WHERE REQUIRED DUE TO MEASURED AC RESISTANCE GREATER THAN SPECIFIED).
 - 4. ANTENNA GROUND CONNECTIONS AND PLATES.
- F. CONTRACTOR, AFTER COMPLETION OF THE COMPLETE GROUNDING SYSTEM BUT PRIOR TO CONCEALMENT/BURIAL OF SAME, SHALL NOTIFY OWNER'S PROJECT ENGINEER WHO WILL HAVE A DESIGN ENGINEER VISIT SITE AND MAKE A VISUAL INSPECTION OF THE GROUNDING GRID AND CONNECTIONS OF THE SYSTEM.
- G. ALL EQUIPMENT SHALL BE BONDED TO GROUND AS REQUIRED BY N.E.C., MFG. SPECIFICATIONS, AND OWNER'S SPECIFICATIONS.

SECTION 16470

1.01. DISTRIBUTION EQUIPMENT

- A. REFER TO CONTRACT DRAWINGS FOR DETAILS AND SCHEDULES.

SECTION 16477

1.01. FUSES

- A. FUSES SHALL BE NONRENEWABLE TYPE AS MANUFACTURED BY "BUSSMAN" OR APPROVED EQUAL. FUSES RATED TO 1/10 AMPERE UP TO 600 AMPERES SHALL BE EQUIVALENT TO BUSSMAN TYPE LPN-RK (250V) UL CLASS RK1, LOW PEAK, DUAL ELEMENT, TIME-DELAY FUSES. FUSES SHALL HAVE SEPARATE SHORT CIRCUIT AND OVERLOAD ELEMENTS AND HAVE AN INTERRUPTING RATING OF 200 KAIC. UPON COMPLETION OF WORK, PROVIDE ONE SPARE SET OF FUSES FOR EACH TYPE INSTALLED.

SECTION 16960

1.01. TESTS BY INDEPENDENT ELECTRICAL TESTING FIRM

- A. CONTRACTOR SHALL RETAIN THE SERVICES OF A LOCAL INDEPENDENT ELECTRICAL TESTING FIRM (WITH MINIMUM 5 YEARS COMMERCIAL EXPERIENCE IN THE ELECTRICAL TESTING INDUSTRY) AS SPECIFIED BY OWNER TO PERFORM:
 - TEST 1: THERMAL OVERLOAD AND MAGNETIC TRIP TEST, AND CABLE INSULATION TEST FOR ALL CIRCUIT BREAKERS RATED 100 AMPS OR GREATER.
 - TEST 2: RESISTANCE TO GROUND TEST ON THE CELLULAR GROUNDING SYSTEM.
- THE TESTING FIRM SHALL INCLUDE THE FOLLOWING INFORMATION WITH THE REPORT:
 - 1. TESTING PROCEDURE INCLUDING THE MAKE AND MODEL OF TEST EQUIPMENT.
 - 2. CERTIFICATION OF TESTING EQUIPMENT CALIBRATION WITHIN SIX (6) MONTHS OF DATE OF TESTING. INCLUDE CERTIFICATION LAB ADDRESS AND TELEPHONE NUMBER.
 - 3. GRAPHICAL DESCRIPTION OF TESTING METHOD ACTUALLY IMPLEMENTED.
- B. THESE TESTS SHALL BE PERFORMED IN THE PRESENCE AND TO THE SATISFACTION OF OWNER'S CONSTRUCTION REPRESENTATIVE. TESTING DATA SHALL BE INITIALED AND DATED BY THE CONSTRUCTION REPRESENTATIVE AND INCLUDED WITH THE WRITTEN REPORT/ANALYSIS.
- C. THE CONTRACTOR SHALL FORWARD SIX (6) COPIES OF THE INDEPENDENT ELECTRICAL TESTING FIRM'S REPORT/ANALYSIS TO ENGINEER A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO THE JOB TURNOVER.
- D. CONTRACTOR TO PROVIDE A MINIMUM OF ONE (1) WEEK NOTICE TO OWNER AND ENGINEER FOR ALL TESTS REQUIRING WITNESSING.

SECTION 16961

1.01. TESTS BY CONTRACTOR

- A. ALL TESTS AS REQUIRED UPON COMPLETION OF WORK, SHALL BE MADE BY THIS CONTRACTOR. THESE SHALL BE CONTINUITY AND INSULATION TESTS; TEST TO DETERMINE THE QUALITY OF MATERIALS, ETC. AND SHALL BE MADE IN ACCORDANCE WITH N.E.C. RECOMMENDATIONS. ALL FEEDERS AND BRANCH CIRCUIT WIRING (EXCEPT CLASS 2 SIGNAL CIRCUITS) MUST BE TESTED FREE FROM SHORT CIRCUIT AND GROUND FAULT CONDITIONS AT 500V IN A REASONABLY DRY AMBIENT OF APPROXIMATELY 70 DEGREES F.
- B. CONTRACTOR SHALL PERFORM LOAD PHASE BALANCING TESTS. CIRCUITS SHALL BE SO CONNECTED TO THE PANELBOARDS SUCH THAT THE NEW LOAD IS DISTRIBUTED AS EQUALLY AS POSSIBLE BETWEEN EACH LOAD AND NEUTRAL. 10% SHALL BE CONSIDERED AS A REASONABLE AND ACCEPTABLE ALLOWANCE. BRANCH CIRCUITS SHALL BE BALANCED ON THEIR OWN PANELBOARDS; FEEDER LOADS SHALL, IN TURN, BE BALANCED ON THE SERVICE EQUIPMENT. REASONABLE LOAD TEST SHALL BE ARRANGED TO VERIFY LOAD BALANCE IF REQUESTED BY THE ENGINEER.
- C. ALL TESTS, UPON REQUEST, SHALL BE REPEATED IN THE PRESENCE OF OWNER'S REPRESENTATIVE. ALL TESTS SHALL BE DOCUMENTED AND TURNED OVER TO OWNER. OWNER SHALL HAVE THE AUTHORITY TO STOP ANY OF THE WORK NOT BEING PROPERLY INSTALLED. ALL SUCH DETECTED WORK SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL EXPENSE TO THE OWNER AND THE TESTS SHALL BE REPEATED.

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DATE: 06/2/23
SCALE: AS NOTED
JOB NO. 23002.04

ELECTRICAL SPECIFICATIONS

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