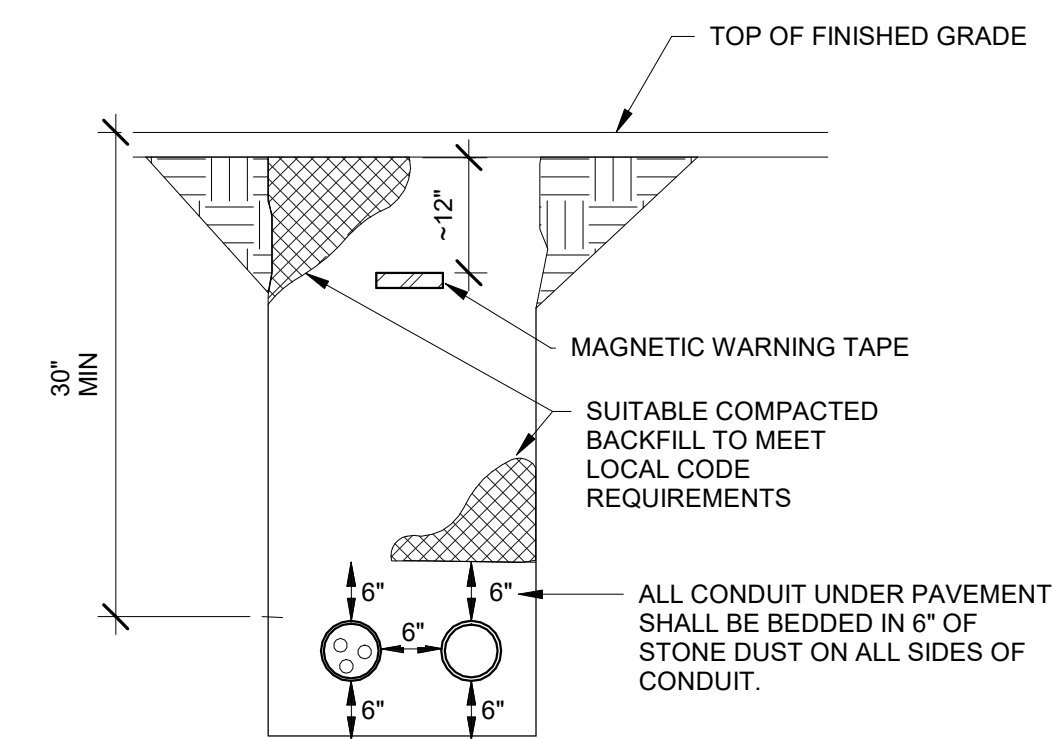
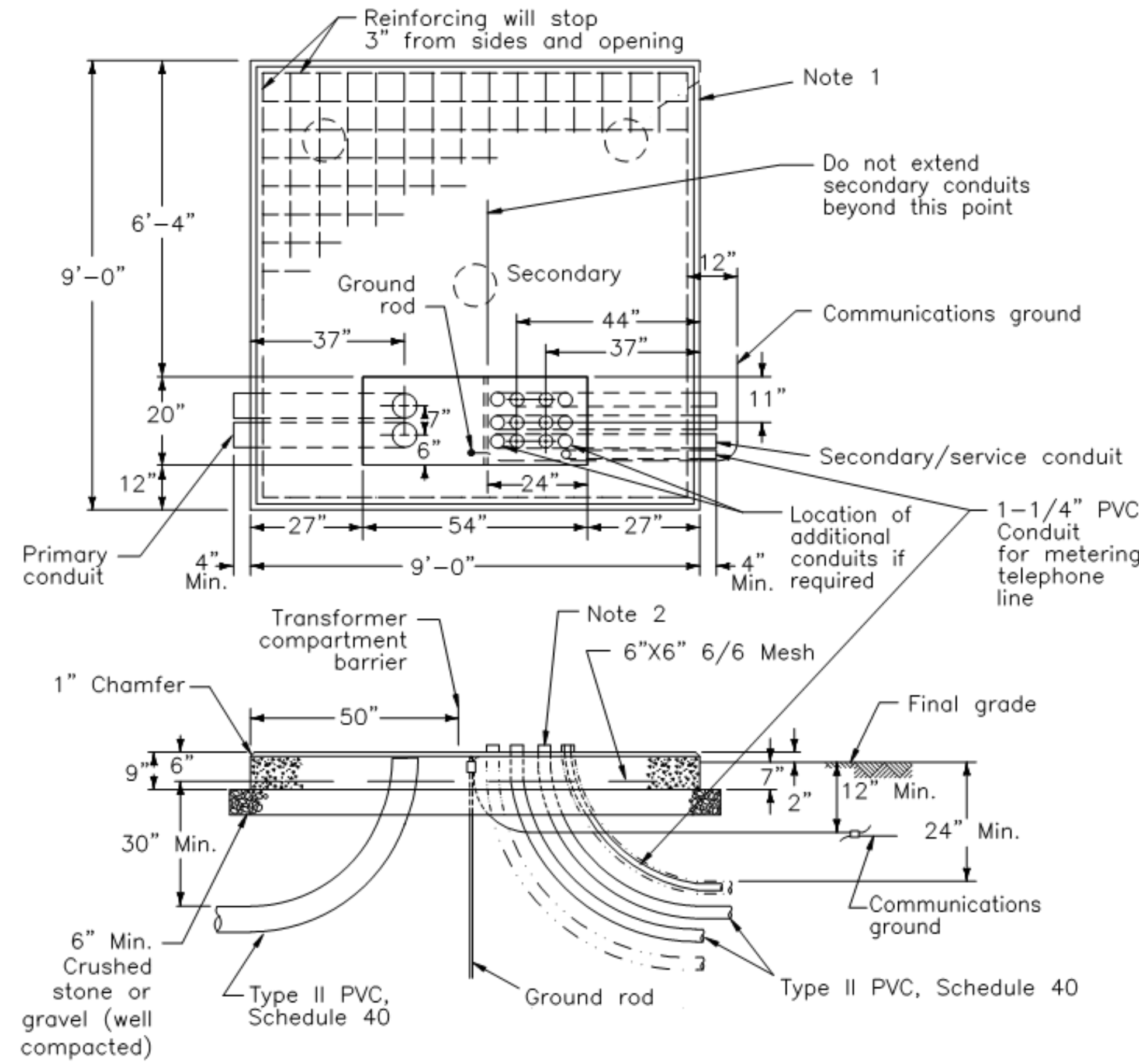


SECONDARY SERVICE DUCT BANK DETAIL
NO SCALE

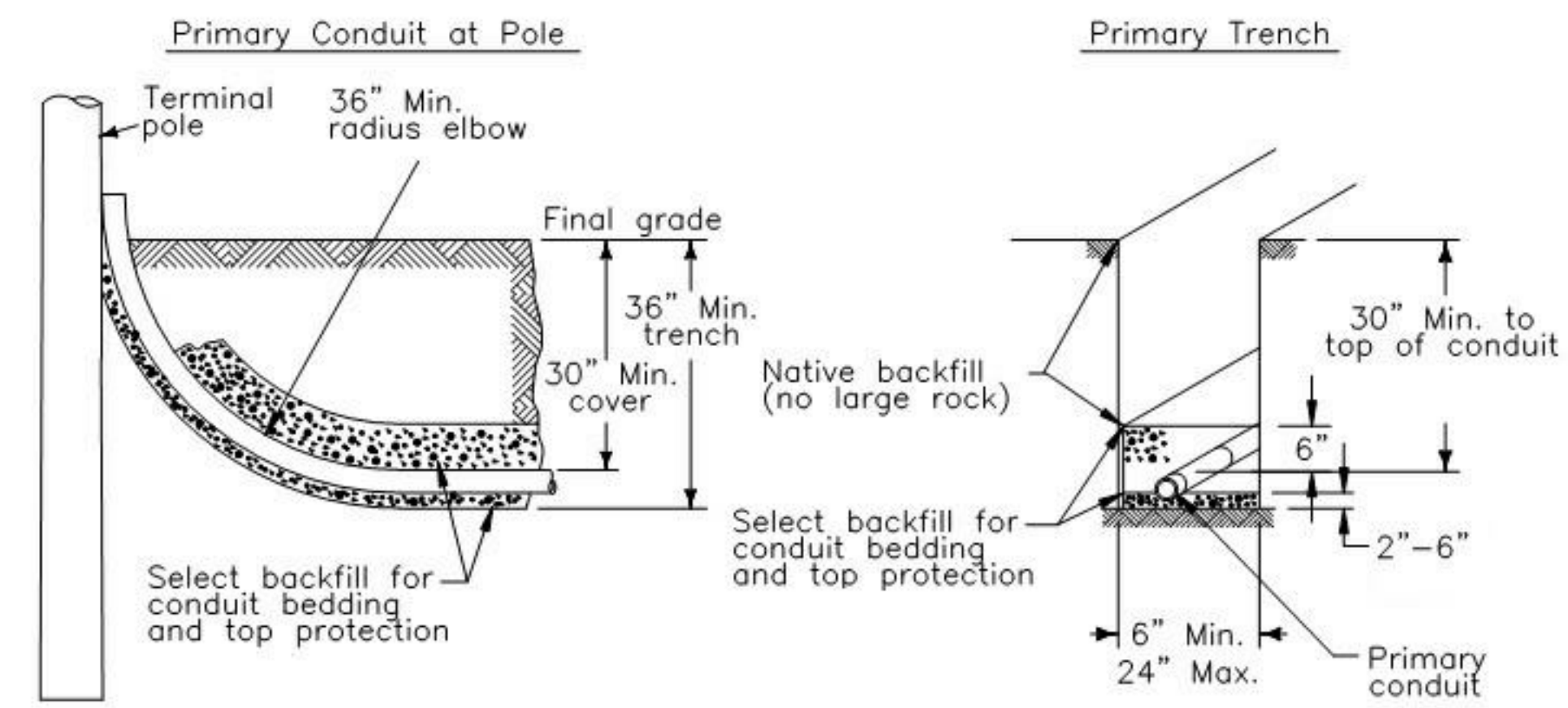


PRIMARY SERVICE DUCT BANK DETAIL
NO SCALE



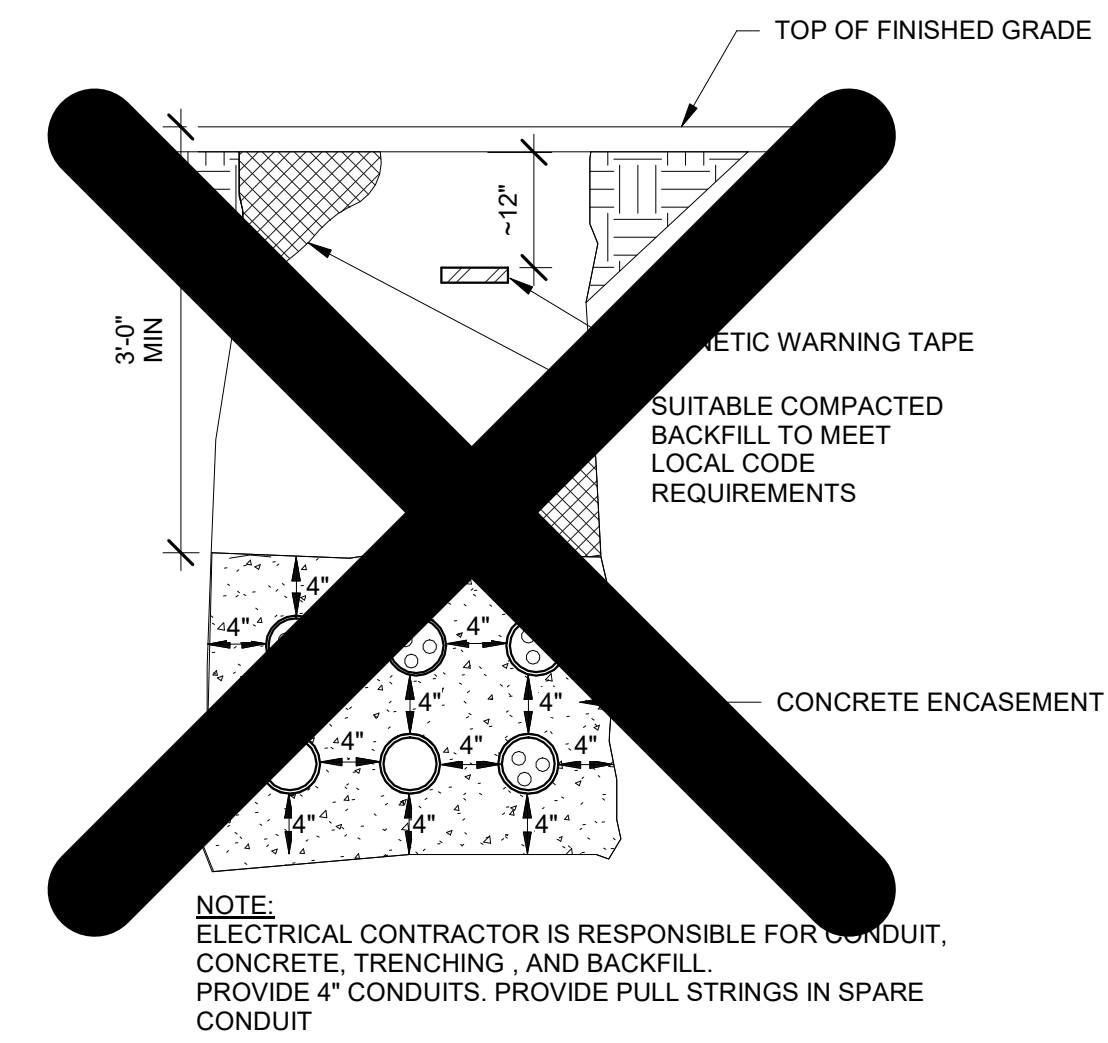
- NOTES:
1. CONCRETE PAD MOUNTED TRANSFORMER.
 2. SECONDARY CONDUITS SHALL NOT EXTEND MORE THAN 2 INCHES (MAXIMUM) ABOVE THE TOP OF FOUNDATION. PRIMARY CONDUITS SHALL BE CUT OFF 2 INCHES BELOW THE TOP OF FOUNDATION TO ALLOW FOR TERMINATING THE CABLES.
 3. CONTRACTOR SHALL PROVIDE (1) 5/8" DIAMETER X 6' GROUND ROD, GROUNDING CONNECTIONS, AND #6 AWG COPPER COMMUNICATIONS GROUND WIRE (MINIMUM LENGTH OF WIRE REQUIRED - 7'-1/2').
 4. EXTEND 1-1/4" CONDUIT TO LOCATION AT BUILDING WHERE TELEPHONE LINE SERVICE CAN BE MADE AVAILABLE AT THE TELEPHONE DEMARCATION POINT.
 5. CONTRACTOR SHALL CONTACT THE COMPANY PRIOR TO BEGINNING WORK TO DISCUSS THE DETAILS OF TRANSFORMER FOUNDATION POSITION AND ORIENTATION, WORKING CLEARANCES, BARRIER PROTECTION, CONSTRUCTION SPECIFICATIONS, AND INSPECTION PROCEDURES. THE CUSTOMER IS RESPONSIBLE FOR INSTALLING, OWNING, AND MAINTAINING THE TRANSFORMER FOUNDATION. THE CONTRACTOR SHALL PROVIDE A CLEAR AND FIRM APPROACH TO THE TRANSFORMER FOUNDATION AND KEEP THE AREA ABOVE THE TRANSFORMER CLEAR OF OBSTRUCTIONS THAT MAY BLOCK THE USE OF COMPANY VEHICLES (E.G., CRANE ACCESS TO THE TRANSFORMER).
 6. INSTALL ALL CONDUITS BEFORE PLACING PAD. CONDUITS SHOULD NOT BE PLACED UNDER SECTIONS OF PAD SUPPORTING TRANSFORMER SO THAT ORIGINAL GROUND WILL NOT BE DISTURBED.
 7. CONDUIT SHALL BE RIGID TYPE II PVC, SCHEDULE 40 PVC.
 8. BACKFILL SHALL BE CLEAN GRANULAR SOIL, FREE OF LARGE STONES AND PERISHABLE MATERIAL. ALL BACKFILL SHALL BE SPREAD AND COMPACTED IN MAXIMUM LAYERS OF 8 INCHES.
 9. THOROUGHLY COMPACT BASE CRUSHED STONE OR GRAVEL.
 10. CONCRETE PAD MAY BE POURED-IN-PLACE OR MAY BE PRECAST (4000 MIN. PSI CONCRETE).
 11. TO PREVENT WATER MIGRATION FROM CONCRETE WHEN POURING, PLACE WATERPROOF MEMBRANE ON CRUSHED STONE OR GRAVEL BEFORE POURING CONCRETE.
 12. REINFORCING WIRE MESH SHALL CONFORM TO ASTM DESIGNATION A185.
 13. CEMENT TO BE 1 OR 1-A, AND MEETING ASTM DESIGNATIONS C-150 AND C-175 RESPECTIVELY.
 14. POURED PAD CONCRETE TO DEVELOP MINIMUM 4000 PSI AT 28 DAYS AGE, CONTAIN MINIMUM OF 5.5 BAGS OF CEMENT PER CUBIC YARD AND MAXIMUM OF 6 GALLONS OF WATER PER 94-POUND BAG OF CEMENT, AND CONFORM TO ASTM DESIGNATION C-94. FOURTEEN (14) DAYS MINIMUM DRYING TIME BEFORE TRANSFORMER IS SET. THE VOLUME OF CONCRETE IS APPROXIMATELY 1.7 CUBIC YARDS.
 15. SEAL ALL OPENINGS AROUND CONDUITS WITH GROUT; CAP ALL SPARE CONDUITS TO PREVENT ENTRY OF RODENTS AND ANIMALS INTO TRANSFORMER COMPARTMENT.
 16. IF CONDUIT EXTENDS INTO BUILDING, IT SHALL BE SEALED (PER NEC) AT BUILDING END TO PREVENT GAS FROM ENTERING BUILDING THROUGH THE CONDUIT.
 17. WHERE DAMAGE TO TRANSFORMER BY VEHICLES IS POSSIBLE, TRANSFORMER SHALL BE PROTECTED BY APPROPRIATE BARRIERS.
 18. COMMUNICATION GROUND - THE NEC REQUIRES BONDING OF ALL COMMUNICATIONS EQUIPMENT (TELEPHONE, CATV, ETC.) THAT ARE WITHIN SIX (6) FEET OF THE PAD-MOUNTED TRANSFORMER. THE WIRE FOR BONDING COMMUNICATIONS EQUIPMENT SHALL BE MINIMUM #6 AWG SOLID COPPER WIRE THAT IS ATTACHED DIRECTLY TO GROUND ROD, RUNS UNDERNEATH THE CONCRETE PAD, EXTENDS 12 INCHES BEYOND THE EDGE OF THE PAD, AND FINALLY RUNS ALONGSIDE THE PAD FOUNDATION.
 19. IN AREAS WHERE SETTLING MAY OCCUR, INSTALL THREE (3) CONCRETE PIERS, 8-INCH MINIMUM DIAMETER, 36 INCHES DEEP, IN A TRIANGULAR CONFIGURATION UNDER FOUNDATION. CONTRACTOR SHALL CONTACT THE COMPANY FOR DETAILS.

CONCRETE FLAT-PAD FOUNDATION PAD-MOUNTED TRANSFORMER
NO SCALE

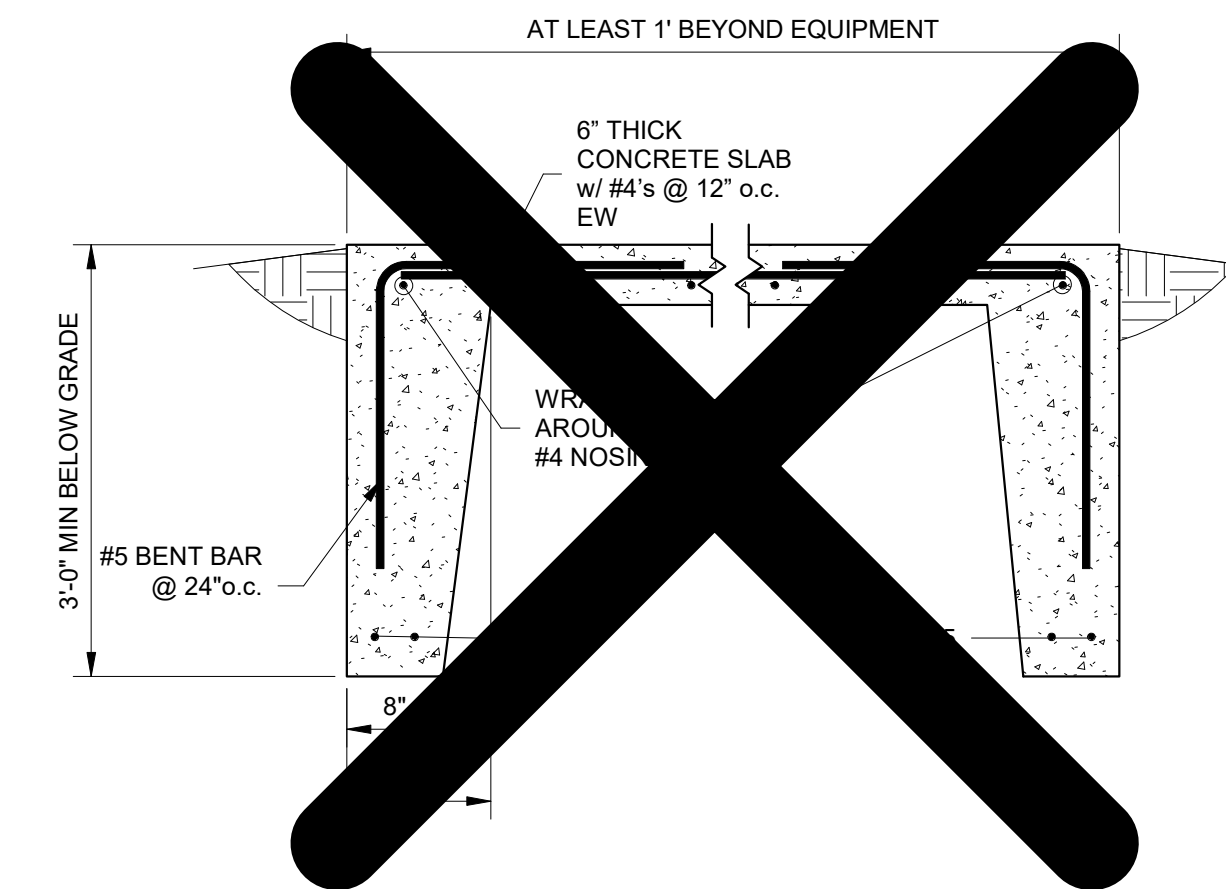


- NOTES:
1. USE 5" SCHEDULE 40 CONDUIT.
 2. COORDINATE THE INSTALLATION OF ALL OTHER BURIED UTILITIES THAT ARE IN THE VICINITY, WILL OCCUPY THE TRENCH, OR CROSS THE TRENCH. MINIMUM CLEARANCES INCLUDE (BUT NOT LIMITED TO):
A. FUEL LINES - 4'
B. TELEPHONE & CATV - 1' SEPARATION (HORIZONTAL OR VERTICAL)
 3. THE BOTTOM OF THE TRENCH SHALL BE RELATIVELY SMOOTH, UNDISTURBED EARTH, WELL-TAMPED EARTH, OR SAND, WHICH IS FREE FROM ROCK, CINDERS, OR SHARP OBJECTS.
 4. THE CONTRACTOR SHALL BACKFILL AROUND ALL CABLES AND CONDUITS WITH SIX (6) INCHES OF APPROVED BACKFILL. APPROVED BACKFILL SHALL BE GRADED SAND, STONE DUST, LIMESTONE DUST, ROCK-FREE (1/4 INCH OR LESS DIAMETER STONES) EARTH, OR TOPSOIL. MATERIALS THAT "SET UP" SUCH AS FLY ASH, CULMS, AND FOUNDRY WASTE ARE NOT ACCEPTABLE. THE REMAINDER OF THE TRENCH SHALL BE BACKFILLED WITH NATIVE SOIL AND NOT CONTAIN LARGE ROCKS (GREATER THAN 4 INCH) OR ROCKS WITH SHARP EDGES. AN ADDITIONAL SIX (6) INCHES OF MOUNDING BACKFILL IS RECOMMENDED TO ALLOW FOR SETTLING.
 5. COORDINATE ALL UTILITY REQUIREMENTS WITH UTILITY PRIOR TO COMMENCING WORK. THIS INCLUDES NOTIFICATION PERIODS AND ANY REQUIREMENTS FOR INSPECTION.

TYPICAL TRENCHING DETAILS FOR INSTALLATION OF PRIMARY CONDUITS
NO SCALE

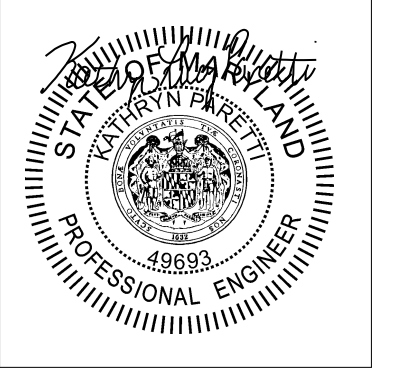


GENERATOR DUCT BANK DETAIL
NO SCALE



GENERATOR PAD DETAIL
NO SCALE

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 49983, Expiration Date: 2020-07-24.



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REVISIONS

MM-DD-YY	NAME	DESCRIPTION OF CHANGES

CRABTREE ROHRBAUGH & ASSOCIATES - ARCHITECTS
100 WEST ROAD, SUITE 402, TOWSON MD 21204 410-528-0272
MECHANICSBURG, PENNSYLVANIA CHARLOTTEVILLE, VIRGINIA WHITE SULPHUR SPRINGS, WEST VIRGINIA



SITE ELECTRICAL DETAILS
PLOT SCALE: As Indicated
FILENAME:
DATE: July 15, 2019

PROPOSED NEW
WASHINGTON COUNTY PUBLIC SAFETY TRAINING CENTER
WASHINGTON COUNTY PROJECT NO. 28-266
18350 PUBLIC SAFETY PLACE
HAGERSTOWN, MD 21740

PROJECT 3089
E0.6