

SUBMITTALS table with columns for NO., DATE, and DESCRIPTION.

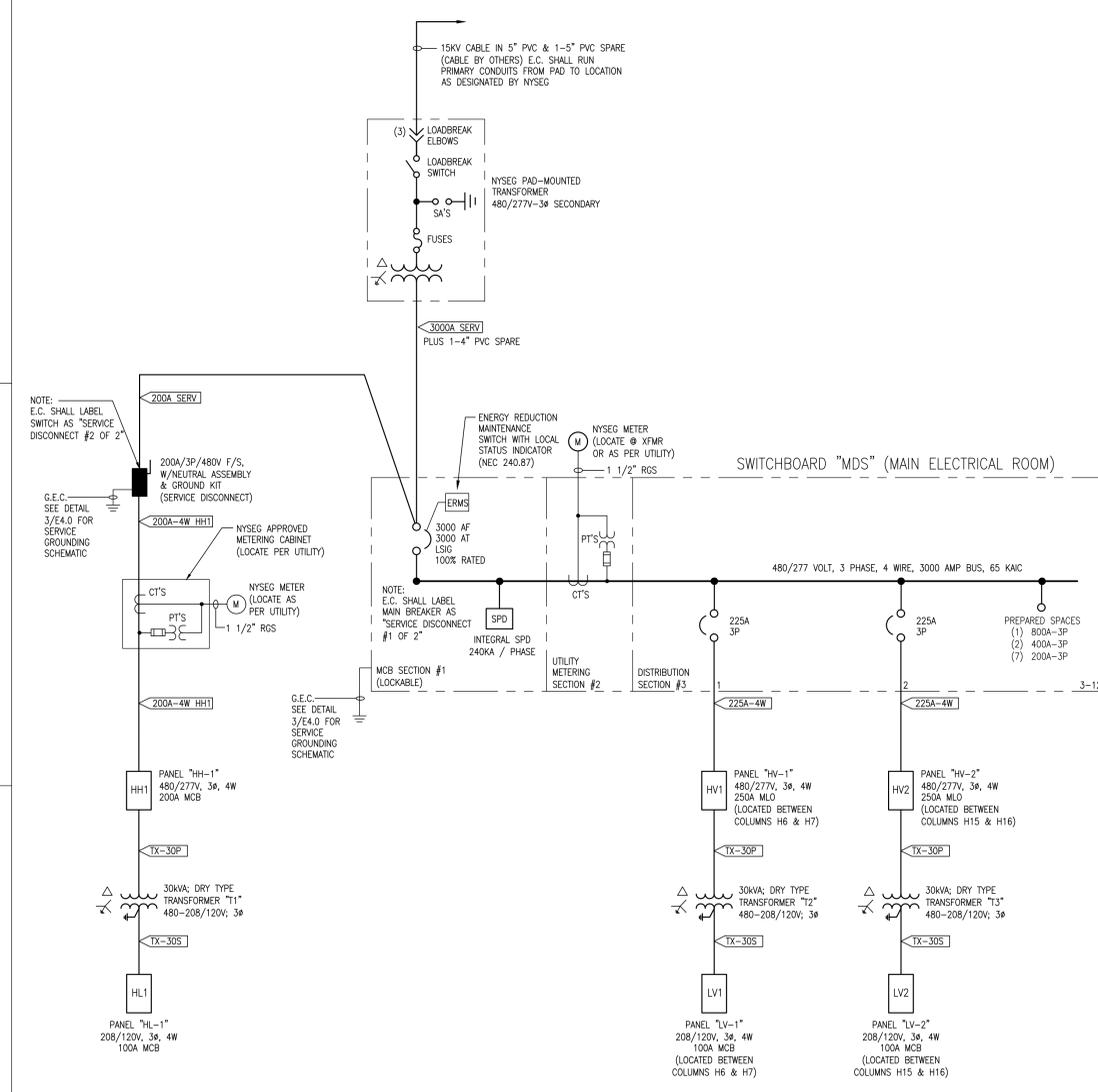
DRY TYPE TRANSFORMER FEEDER SCHEDULE table with columns: FEEDER TAG, NUMBER OF RACEWAYS, SIZE OF RACEWAY, TYPE OF RACEWAY, QUANTITY AND SIZE OF CU CONDUCTORS PER CONDUIT, PRIMARY BREAKER, SECONDARY BREAKER, PRIMARY DISCONNECT IF TX IS NOT IN THE SAME ROOM AS THE PRIMARY BREAKER.

- NOTES: 1. ALL CONDUCTORS INDICATED ABOVE ARE COPPER THHN/THWN-2. 2. THIS SCHEDULE ONLY APPLIES TO 480-208/120 VOLT STEP DOWN DRY TYPE TRANSFORMERS. 3. THIS SCHEDULE DOES NOT ACCOUNT FOR VOLTAGE DROP. E.C. SHALL ADJUST IF REQUIRED.

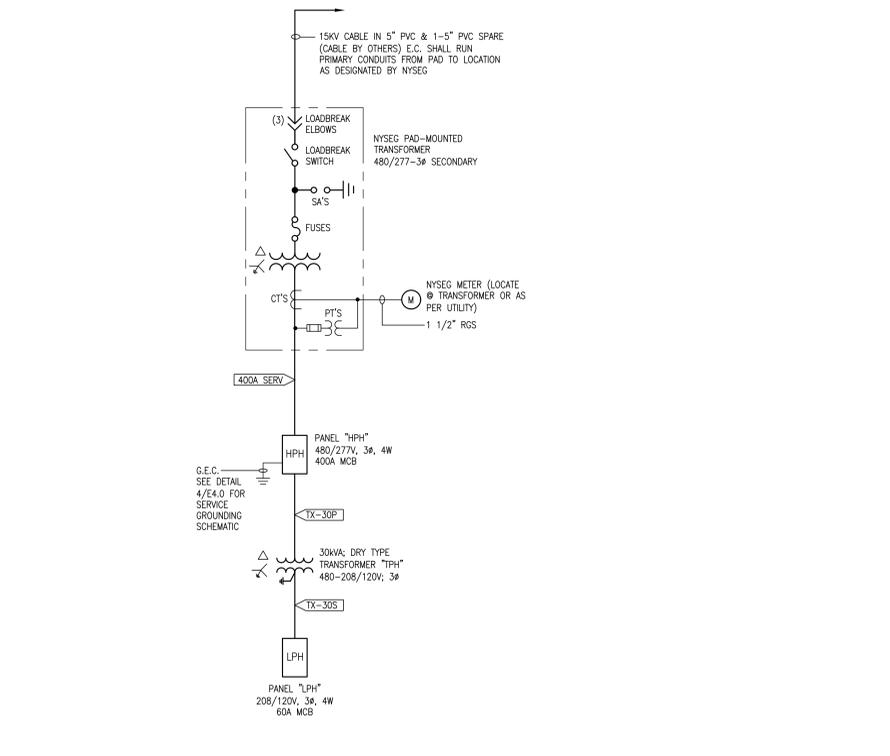
FEEDER SCHEDULE table with columns: FEEDER TAG, NUMBER OF CONDUITS, SIZE OF CONDUITS, QUANTITY AND SIZE OF CONDUCTORS PER CONDUIT.

ELECTRICAL SERVICE LOAD SUMMARY table with columns: DESCRIPTION, CONNECTED LOAD (KVA), MULTIPLIER, N.E.C. LOAD (KVA).

NOTE: CODE LOAD CALCULATED AT 125% FOR CONTINUOUS LOAD AND 100% FOR NON-CONTINUOUS LOADS EXCEPT AS NOTED BELOW. RECEPT/MISC: 100% OF 10KVA PLUS 50% OF REMAINDER. (NEC 220.44). INTERIOR LIGHTING: 125% OF EITHER THE ACTUAL LIGHTING LOAD OR AS PER NEC TABLE 220.12 (WHICHEVER IS GREATER). A/C AND ELECTRIC HEAT: THE LARGER TO THE TWO LOADS (NEC 220.60). FIXED ELECTRIC SPACE HEATING: 125% (NEC 424.3). SIGNS: THE LARGER TO 1200VA PER SIGN OR THE ACTUAL LOAD (NEC 220.14(F)).



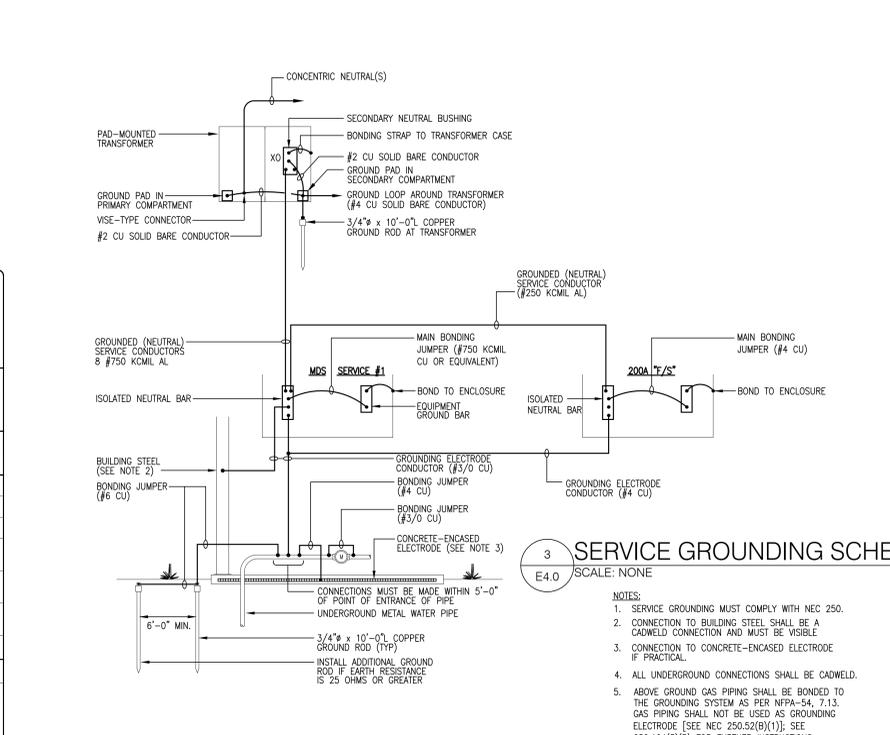
1 ELECTRICAL ONE LINE DIAGRAM - WAREHOUSE
E4.0 SCALE: NONE



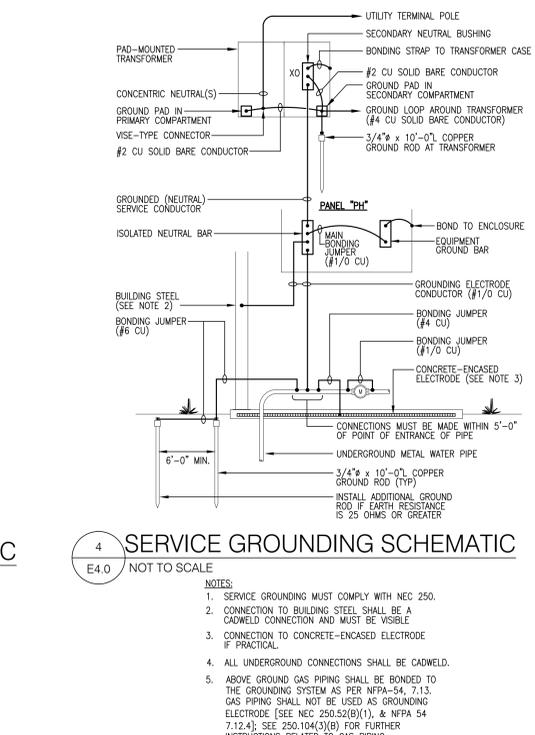
2 ELECTRICAL ONE LINE DIAGRAM - PUMP HOUSE
E4.0 SCALE: NONE

NEC TABLE 250.66 GROUNDING ELECTRODE CONDUCTOR FOR AC SYSTEMS table with columns for size of largest ungrounded service-entrance conductor and size of grounding electrode conductor.

- ONE LINE DIAGRAM NOTES: 1. ALL EQUIPMENT & WIRING IS NEW AND BY E.C. UNLESS SPECIFICALLY NOTED OTHERWISE. 2. EXACT LOCATION OF UTILITY TRANSFORMER & METER MUST BE APPROVED BY UTILITY AND GC AND/OR CONSTRUCTION MANAGER AND OWNERS PROJECT MANAGER. 3. UTILITY TRANSFORMER ELBOWS AND TERMINATIONS MAY BE FURNISHED & INSTALLED BY E.C. (COORDINATE WITH UTILITY). PROVIDE 200A, (15) KV CLASS 3ø LOADBREAK ELBOW CONNECTOR: ELASTIMOLD OR COOPER POWER SYSTEMS WITH CONCENTRIC NEUTRAL JACKET SEAL & TEST POINT. CONNECTOR MUST BE APPROVED BY UTILITY AND THIS ENGINEER. PROVIDE SECONDARY TERMINATIONS TO UTILITY SPACE TERMINALS USING UTILITY APPROVED DOUBLE BARREL COMPRESSION TYPE LUGS. BURNDY OR EQUAL. LUGS MUST BE APPROVED BY UTILITY. 4. VERIFY CUSTOMER VS. UTILITY RESPONSIBILITIES. 5. VERIFY NAMEPLATE RATING OF HVAC EQUIPMENT PRIOR TO ORDERING BREAKERS, DISCONNECTS, CABLES, AND PRIOR TO ROUGH-IN. 6. A POWER SYSTEMS STUDY (SHORT CIRCUIT, COORDINATION, ARC FLASH) HAS NOT BEEN PERFORMED FOR THIS PROJECT. SHORT CIRCUIT CALCULATIONS HAVE BEEN ESTIMATED BASED ON UTILITY EXPECTED TRANSFORMER SIZE & LOCATION AND BASED ON AN INFINITE PRIMARY BUS AND TYPICAL UTILITY TRANSFORMER IMPEDANCE VALUES (CONSERVATIVE APPROACH). 7. CONFIRM SERVICE ENTRANCE CONDUIT AND CONDUCTOR QUANTITIES AND SIZES WITH THE LOCAL UTILITY PRIOR TO START OF WORK. INCREASE QUANTITIES AND SIZES AS REQUIRED TO MEET LOCAL UTILITY SERVICE AND INSTALLATION REGULATIONS. 8. CONFIRM COLD SEQUENCE METERING VERSUS HOT SEQUENCE METERING WITH THE LOCAL UTILITY PRIOR TO START OF CONSTRUCTION. 9. EACH DISCONNECTING MEANS SHALL BE MARKED TO INDICATE ITS PURPOSE PER 2017 NEC 110.22. 10. FIELD MARK SERVICE EQUIPMENT WITH THE MAXIMUM AVAILABLE FAULT CURRENT PER 2017 NEC 110.24. COORDINATE WITH UTILITY COMPANY TO DETERMINE MAXIMUM AVAILABLE FAULT CURRENT AT TRANSFORMER. 11. GROUND FAULT CIRCUIT BREAKER(S) SHALL BE PERFORMANCE TESTED IN ACCORDANCE WITH 2017 NEC, SECTION 230.95 (C). THIS TEST SHALL BE CONDUCTED BY A QUALIFIED PERSON(S) USING A TEST PROCESS OF PRIMARY CURRENT INJECTION, IN ACCORDANCE WITH INSTRUCTIONS THAT SHALL BE PROVIDED WITH THE EQUIPMENT. A WRITTEN RECORD OF TESTS MUST BE SENT TO OWNER/ENGINEER AND THE AUTHORITY HAVING JURISDICTION. 12. ALL BREAKERS/LUGS/TERMINATIONS SHALL BE RATED FOR COPPER AND ALUMINUM CONDUCTORS. 13. ALL SERVICE ENTRANCE CONDUITS SHALL BE SEALED IN ACCORDANCE WITH NEC 230.8 AND NEC 300.5 (G). THE CONTRACTOR SHALL SEAL THE CONDUITS AT THE TRANSFORMER (WHERE PAD MOUNTED IN LIEU OF VAULT MOUNTED) AND AT THE POINT THAT THE SERVICE CONDUITS STUB UP INTO THE BUILDING. UL LISTED SEALING BUSHINGS OR DUCT SEAL SHALL BE USED. ALL SPARE/UNUSED RACEWAYS SHALL ALSO BE PROPERLY SEALED/CAPPED.



3 SERVICE GROUNDING SCHEMATIC
E4.0 SCALE: NONE



4 SERVICE GROUNDING SCHEMATIC
E4.0 NOT TO SCALE