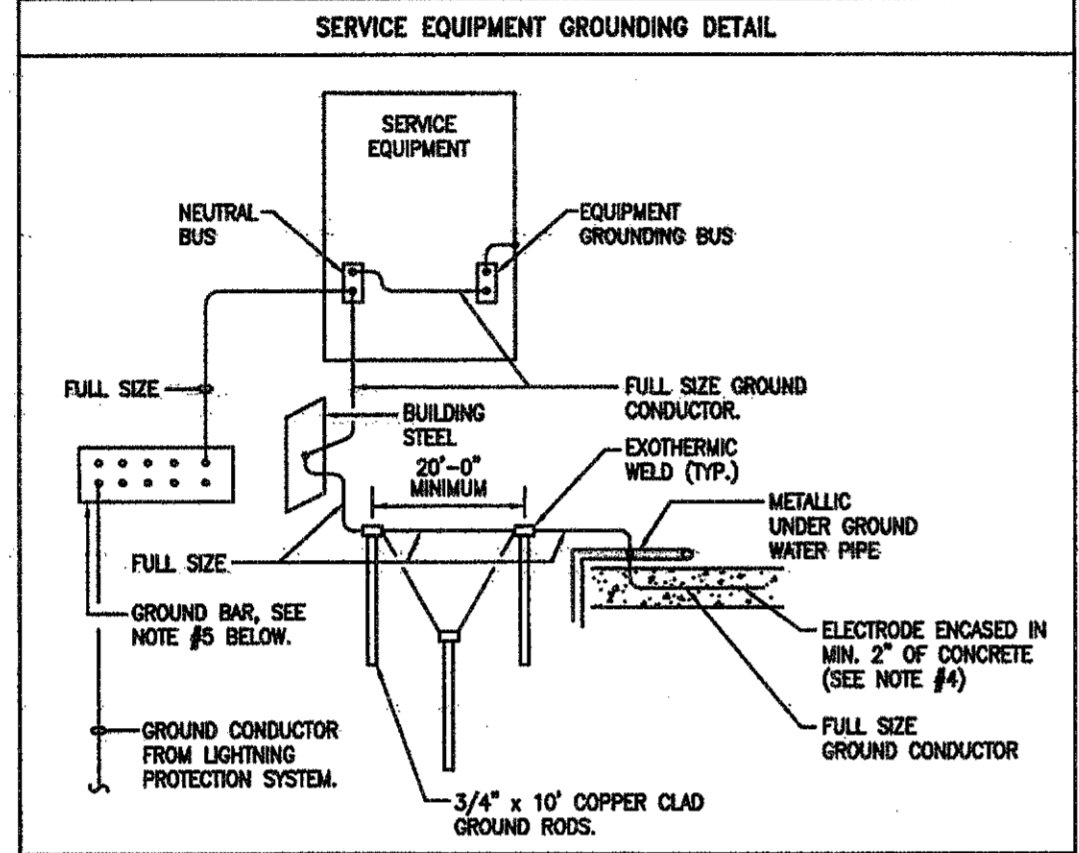
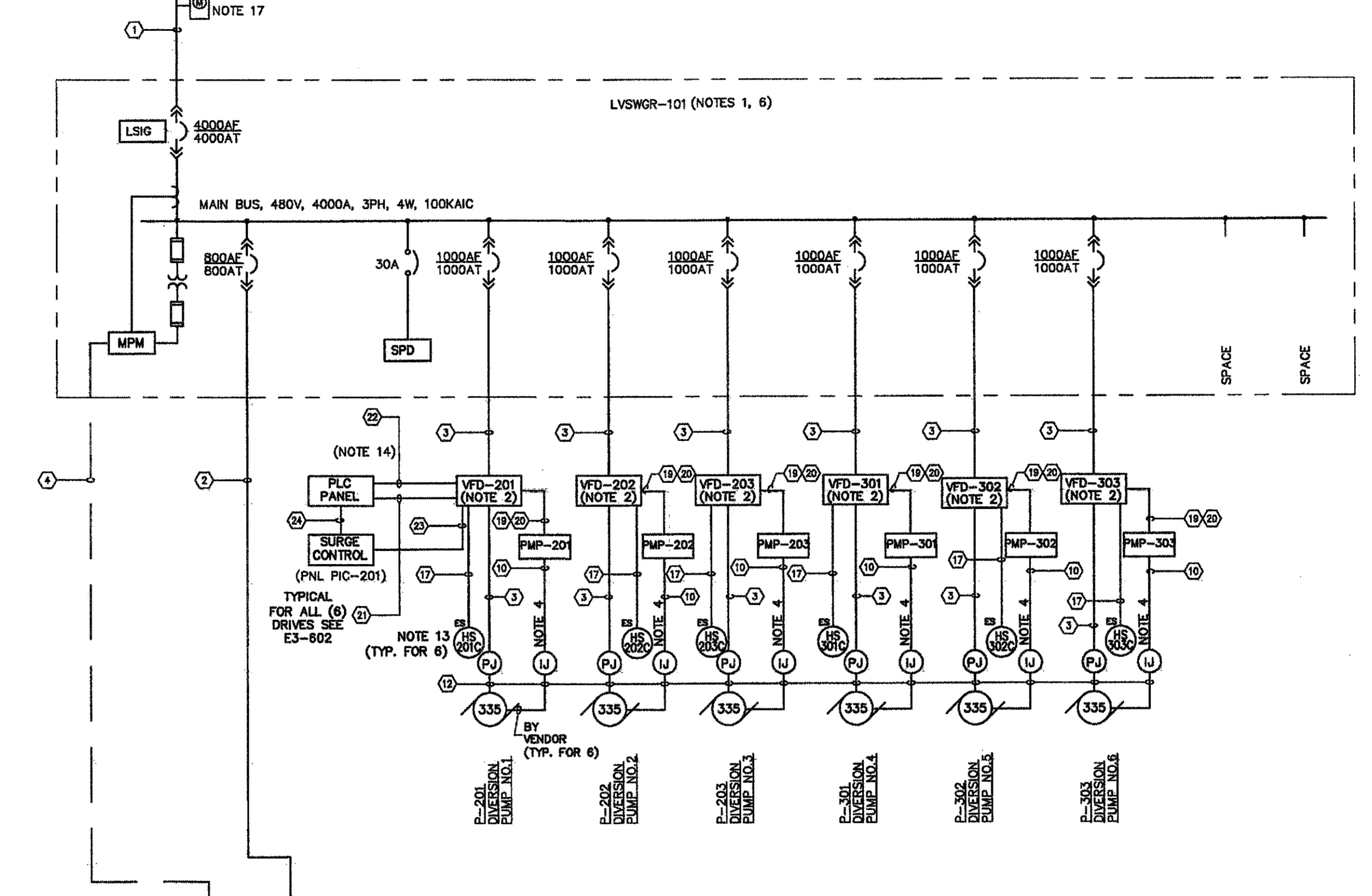
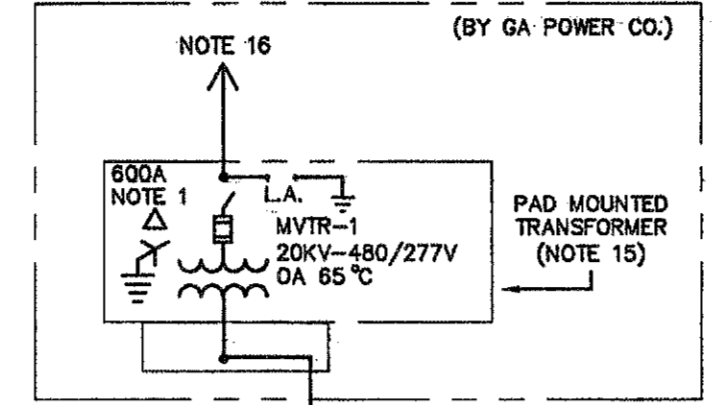


NO.	TRANSFORMER SCHEDULE
PTR-101A	45 KVA, DRY-TYPE, NEMA 1
PTR-101B	45 KVA, DRY-TYPE, NEMA 1
PTR-101C	45 KVA, DRY-TYPE, NEMA 1

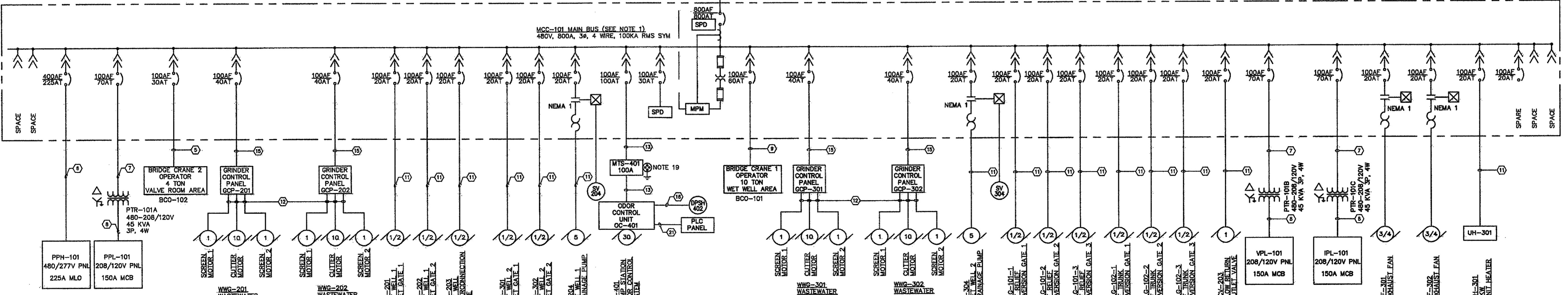
CONDUCTORS/CONDUITS SCHEDULE	
①	9 SETS 4 #750kcmil, 4" C. EACH
②	3 SETS 4 #350kcmil, 1 1/2" O.D. G. IN 3" C. EACH
③	3 SETS 3 #400kcmil, 1 3/4" O.D. G. IN 3" C. EACH
④	CAT86 CABLE - 3/4" C.
⑤	3#10, 1#100. - 3/4" C.
⑥	3 #4/0, 1 #4 G. IN 2 1/2" C.
⑦	3 #4, 1 #8 G. IN 1 1/2" C.
⑧	4 #1/0, 1 #6 G. IN 2" C.
⑨	3 #4, 1 #8 G. IN 1 1/2" C.
⑩	25/C #18 SHIELDED IN 2" C. OLFLEX #190CY OR APPROVED EQUAL
⑪	3 #12, 1 #12 G. IN 1" C.
⑫	CABLE BY MANUFACTURER (SEE NOTE 18).
⑬	3#1 & #60. - 2" C.
⑭	4 #8, 1 #10 G. IN 1" C.
⑮	3 #8, 1 #10 G. IN 1" C.
⑯	3 #14, IN 3/4" C.
⑰	2 #14 IN 3/4" C.
⑱	NOT USED
⑲	8 #14 IN 3/4" C.
⑳	2 - 2/C #16SH IN 1" C.
㉑	12 #14 IN 1" C.
㉒	2-2#16SH IN 1" C.
㉓	8#14 - 3/4" C.
㉔	4#14 - 3/4" C.
㉕	
㉖	



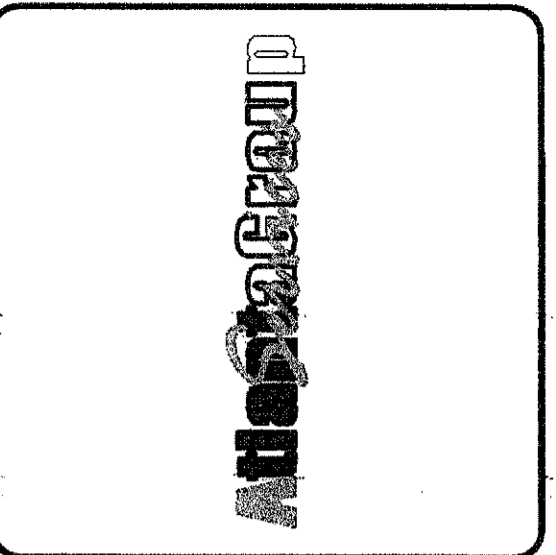
- NOTES:
- FULL SIZE GROUND MEANS THAT GROUND CONDUCTOR SIZE SHALL BE AS SHOWN ON SERVICE EQUIPMENT AT THE SINGLE LINE DIAGRAM.
 - AFTER GROUNDING SYSTEM IS INSTALLED, GROUND RESISTANCE SHALL BE MEASURED TO ASSURE THAT GROUND VALUE OF 1 OHM MAXIMUM RESISTANCE IS ACHIEVED. IF NOT, ADDITIONAL GROUNDING SHALL BE PROVIDED TO MEET THE SPECIFIED VALUE.
 - ALL CONNECTIONS TO GROUND RODS SHALL BE EXOTHERMIC WELD CONNECTIONS.
 - GROUND CONDUCTOR SHALL BE LOCATED WITHIN OR NEAR BOTTOM OF CONCRETE FOUNDATION OR FOOTING THAT IS IN DIRECT CONTACT WITH THE EARTH AND SHALL CONSIST OF AT LEAST 20 FEET OF ONE OR MORE STEEL REINFORCING BARS OR RODS OF NOT LESS THAN 1/2 INCH DIAMETER OR OF AT LEAST 20'-0" OF BARE COPPER CONDUCTOR.
 - COPPER GROUND BAR 6" H. x 24" L. x 1/4" THICK WITH A MINIMUM OF 12 HOLES AND C/U/L LUGS FOR CONDUCTORS UP TO #4/0 STRANDED. GROUND BAR SHALL BE MOUNTED ON STANDOFFS AT 18" A.F.F. GROUND BAR SHALL BE FURNISHED, INSTALLED AND WIRED BY THE ELECTRICAL CONTRACTOR.



- NOTES:
- SWITCHGEAR SHALL BE SERVICE ENTRANCE RATED, BOTTOM ENTRY.
 - POWER AND SIGNAL CONDUCTORS FOR VFD'S AND PUMPS SHALL BE IN SEPARATE CONDUITS AND SEPARATED WITHIN THE CABINETS TO ENSURE NO ELECTRONIC INTERFERENCE.
 - INTERFACE TO PQM SYSTEM IS REQUIRED.
 - CONTROL WIRING SHALL BE FURNISHED AS REQUIRED PER MANUFACTURER'S DRAWINGS.
 - SAFETY SWITCHES AT MOTOR LOADS ARE NOT PROVIDED ASSUMING THAT "LOCKOUT TAGOUT" PROCEDURES WILL BE IMPLEMENTED AS A REQUIREMENT BY PLANT OPERATION AND MAINTENANCE.
 - ALL BREAKERS SHALL HAVE A MINIMUM OF 100KAC.
 - ALL VFD'S, CONTROL PANELS AND OTHER MOTOR CONTROL APPARATUS LOCATED REMOTELY FROM THE MOTOR CONTROL CENTER SHALL HAVE ITS OWN DISCONNECTING MEANS.
 - PROVIDE INTEGRAL SOLID STATE MOTOR WINDING HEATER CONTROL OPTION (UTILIZING MOTOR PHASE CONDUCTORS AS MOTOR SPACE HEATER).
 - NOT USED.
 - PROVIDE EMPTY CONDUIT STUB-UP, PULL STRING, CAP, AND MARK FOR FUTURE FOR ALL FUTURE EQUIPMENT.
 - NOT USED.
 - LOCAL CONTROL STATIONS AND LOCAL CONTROL PANELS SHALL BE WIRED TO NEAREST LOCAL REMOTE INPUT/OUTPUT (RIO) CABINET.
 - LOCAL E-STOP PUSHBUTTON TO BE MOUNTED ON THE FRONT OF EACH SUBMERSIBLE PUMPS POWER JUNCTION BOX AND ROUTE BACK TO THE DRIVE IN A SEPARATE CONTROL CONDUIT.
 - WIRING FOR VFD'S FOR EACH PUMP SHALL HAVE FEED BACK AND CONTROL SIGNALS WIRED BACK TO THE PLC PANEL IN ADDITION TO THE NORMAL START/STOP AND STATUS CONTACTS SHOWN ON THE MOTOR ELEMENTARIES.
 - MEDIUM VOLTAGE TRANSFORMER SHALL BE SIZED AND PROVIDED BY GEORGIA POWER COMPANY (GAPCO). CONTRACTOR SHALL COORDINATE ALL WORK WITH GAPCO AND PROVIDE CONDUITS AND CONDUCTORS FOR SERVICE LATERAL FROM LVSWR-101 TO THE SECONDARY SIDE OF THIS MEDIUM VOLTAGE TRANSFORMER.
 - GAPCO WILL PROVIDE THE MAIN SERVICE FROM A NEARBY 20KV OVERHEAD CIRCUIT.
 - PROVIDE C.T.'S, METER, AND ENCLOSURE ADJACENT TO TRANSFORMER UNLESS PROVIDED BY UTILITY. COORDINATE FINAL WORK WITH UTILITY.
 - CONTRACTOR TO SIZE CONDUITS PER NEC FOR ALL VENDOR SUPPLIED CABLES.
 - MANUAL TRANSFER SWITCH MTS-501 WITH GROUNDED QUICK DISCONNECT FOR PORTABLE GENERATOR.



SINGLE LINE DIAGRAM



PEACHTREE CREEK SOUTH FORK RELIEF STORAGE AND PUMPING STATION

DEPARTMENT OF WATERSHED MANAGEMENT

CITY OF ATLANTA

REV	DATE	REVISION DESCRIPTION
1	10/28/12	100 PERCENT BID PACKAGE

THIS LINE IS ONE INCH LONG WHEN PLOTTED FULL SCALE

THIS DRAWING MUST BE USED IN CONDUCTION WITH THE APPLICABLE OR GOVERNING TECHNICAL SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS.

PROJECT NO: FC-6260

DATE: OCTOBER 2012

RESP PROF: KCV DESIGNER: AWP CHECKER: WFR

SHEET TITLE

ELECTRICAL

03 - DIVERSION FACILITY PUMP STATION

SINGLE LINE DIAGRAM

NO. E3-101 REV. 0