

- NOTES:**
- TENDERING OF THESE DOCUMENTS IS DONE UNDER THE MUTUAL UNDERSTANDING THAT ALL CONTRACTORS ARE EXPERIENCED AND LICENSED IN THE WORKS BEING PROVIDED AND THAT ALL COMPONENTS OF A FULLY FUNCTIONING SYSTEM WILL BE INCLUDED WHETHER SHOWN OR NOT SHOWN BUT IMPLIED FOR A COMPLETE SYSTEM.
  - ALL DETAILS SHOWN ARE SCHEMATIC BY NATURE AND ARE TO BE USED FOR SCOPE OF WORK PURPOSES ONLY. COORDINATE WITH ALL TRADES AND MANUFACTURERS BEST PRACTICES AND DIRECTIONS.
  - CONTRACTOR TO COORDINATE EXACT LENGTH OF SECONDARY RUNS ON SITE AND PROVIDE CONDUCTORS TO SUIT. CONTRACTOR TO PROVIDE CONDUCTOR SIZES C/W LENGTH OF RUN TO ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
  - ELECTRICAL SCOPE OF WORK: THE CONTRACTOR IS ASSUMED TO BE OF MASTER ELECTRICIAN EXPERIENCE AND SHALL PROVIDE ANY APPLICABLE SINGLE LINE DIAGRAMS, PANEL SCHEDULES AND CIRCUIT PLAN DESIGNS REQUIRED TO PROVIDE A COMPLETE AND FUNCTIONING ELECTRICAL SYSTEM. THIS PRICE SHALL BE INCLUDED IN THE CONTRACTORS BASE BID PRICE. NO CLAIM FOR EXTRA PAYMENT WILL BE ALLOWED FOR FAILURE TO INCLUDE THIS COST INTO THE BASE BID. BIDDERS SHALL ACCEPT SOLE RESPONSIBILITY FOR ANY ERROR OR NEGLECT IN PRICING THE ABOVE ITEMS IN THERE BID.
  - COORDINATE ALL INCOMING SERVICES WITH LIGHTING POLES, CONDUITS, GAS AND SITE SERVICES AS PER RELATED CIVIL DRAWINGS TO BE ACQUIRED BY CONTRACTOR.
  - REFER TO DRAWING SL-1 FOR SITE LIGHTING SCHEDULE AND DETAILS. COORDINATE ALL INCOMING SERVICES WITH LIGHTING POLES, CONDUITS, GAS AND SITE SERVICES AS PER RELATED CIVIL DRAWINGS TO BE ACQUIRED BY CONTRACTOR.
  - CONFIRM THE FOLLOWING INSTRUCTIONS WITH LOCAL AUTHORITY PRIOR TO COMMENCEMENT OF WORK.
  - THE ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL A PRECAST CONCRETE FOUNDATION, BASE AND LID EQUAL TO BROOKLIN CONCRETE PRODUCTS CAT.NOS. BCP 114, BCP 114B AND BCP 11416. THE BASE SHALL BE INSTALLED ON A 150mm BED OF 19mm CLEAR GRAVEL SET ON LEVEL UNDISTURBED OR COMPACTED EARTH. THE GRAVEL BED SHALL EXTEND 150mm BEYOND THE EDGES OF THE PRECAST CONCRETE BASE. THE SURFACE AREA AROUND THE TOP OF THE PRECAST CONCRETE FOUNDATION SHALL BE RESTORED TO THE ORIGINAL SITE CONDITION.
  - A CONTINUOUS LENGTH OF 2/0 AWG STRANDED COPPER GROUND WIRE SHALL BE INSTALLED A MINIMUM OF 400mm BELOW GRADE AROUND THE PRECAST CONCRETE FOUNDATION AND CONNECT TO FOUR (4) 19mm X 300mm GALVANIZED STEEL GROUND RODS BY FIVE (5) BUNRDY CAT. NO. GRC3426 GROUND ROD CONNECTORS. TWO (2) 10"-0" COILS OF 2/0 AWG GROUND WIRE SHALL BE LEFT ABOVE THE PRECAST CONCRETE LID FOR CONNECTION TO THE PADMOUNT TRANSFORMER.
  - ELECTRICAL CONTRACTOR TO PROVIDE ALL GROUNDING, CABLE LUGS, ETC. TRANSFORMER AND FINAL CONNECTIONS BY LOCAL UTILITY

**SERVICE SIZE CALCULATIONS:**

<b>BUILDING 1</b>	
<b>ESTIMATED BUILDING DEMAND</b>	
INDUSTRIAL SPACE (2,722.36m²x25W/m²)	68,059W
ROOFTOP UNITS (26A, 208V, 3PH, 9.4kW, QTY=10)	94,000W
MISCELLANEOUS	50,000W
<b>TOTAL ESTIMATED DEMAND</b>	<b>212,059W</b>
SERVICE SIZE = 589A @ 120/208V 3ø	
OR	
1000A @ 80% (800A FUSED MAIN)	
<b>BUILDING 2</b>	
<b>ESTIMATED BUILDING DEMAND</b>	
INDUSTRIAL SPACE (2,794.24m²x25W/m²)	69,856W
ROOFTOP UNITS (26A, 208V, 3PH, 9.4kW, QTY=9)	84,600W
MISCELLANEOUS	50,000W
<b>TOTAL ESTIMATED DEMAND</b>	<b>568,456W</b>
SERVICE SIZE = 568A @ 120/208V 3ø	
OR	
1000A @ 80% (800A FUSED MAIN)	

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4. REVISED AS PER 1ST SUBMISSION COMMENTS	FEB 2025
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2. ISSUED FOR COORDINATION	MAY 2024
1. ISSUED FOR COORDINATION	MARCH 2024
NO. SUBMISSION	DATE

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**SITE ELECTRICAL  
SERVICING PLAN**



SCALE: 1:300	
DESIGNED BY:	F.K./L.J.D.
CHECKED BY:	G.V.W.O.
PROJECT NO.:	123081
DRAWING NO.:	SE-1

**TELECOMMUNICATIONS SERVICE NOTES:**

- A MINIMUM SEPERATION FROM POWER CONDUITS OF NOT LESS THAN 100mm OF CONCRETE (2500 P-S-I) OR 300mm OF WELL TAPPED EARTH IS REQUIRED.
- PULL ROPE MUST BE PROVIDED FOR ALL CONDUIT RUNS AND THE ENDS OF CONDUITS MUST BE CLEARLY MARKED (STAKED) AT THE PROPERTY LINE.

**FAULT CURRENT CALCULATION**

ASSUMING A SYSTEM X/R RATIO OF 3.8 ON THE 13.8KV LINE AND A 300KVA UTILITY TRANSFORMER (XZ = 3.2), A 3-PHASE FAULT ON THE MAIN SWITCHBOARD AS PER ANSI C-37, IS ESTIMATED TO BE 17.4KA. THE MAIN DISCONNECT SHALL BE SIZED ACCORDINGLY. THE 800A MAIN BREAKER SHALL BE BRACED FOR NO LESS THAN 50.1KA.

**GENERAL REQUIREMENTS FOR SITE ELECTRICAL WORK**

- ALL EQUIPMENT MUST BE APPROVED BY AN ACCREDITED APPROVAL AGENCY, OR ACCEPTED THROUGH FIELD EVALUATION OR BY AN INSPECTOR UNDER THE PROVISION OF RULE 2-024 OF THE CURRENT ONTARIO ELECTRICAL SAFETY CODE.
- AT EACH DISTRIBUTION POINT, CIRCUIT BREAKERS, FUSES AND SWITCHES SHALL BE MARKED, ADJACENT THERETO, IN A CONSPICUOUS AND LEGIBLE MANNER TO INDICATE CLEARLY WHICH INSTALLATION OR PORTION OF INSTALLATION THEY PROTECT OR CONTROL AND THE MAXIMUM RATING OF OVERCURRENT DEVICE THAT IS COORD.TED. RULE 2-100(3).
- RACEWAYS ENTERING A BUILDING AND FORMING PART OF AN UNDERGROUND SERVICE SHALL BE SEALED AND SHALL:  
A) ENTER THE BUILDING ABOVE GROUND WHERE PRACTICABLE; OR  
B) BE SUITABLY DRAINED; OR  
C) BE INSTALLED IN SUCH A WAY THAT MOISTURE AND GAS WILL NOT ENTER THE BUILDING. RULE 6-300(6).
- WHERE WARNING TAPE IS USED TO COMPLY WITH RULE 12-012(11) AS SHOWN ON DRAWING SE-1, THE TAPE MUST BE BURIED APPROXIMATELY HALFWAY BETWEEN THE INSTALLATION AND GRADE LEVEL, COVERING THE WIDTH OF THE RACEWAYS OR CABLES INSTALLED.
- A MINIMUM WORKING SPACE OF 1m WITH SECURE FOOTING SHALL BE PROVIDED AND MAINTAINED ABOUT ELECTRICAL EQUIPMENT SUCH AS SWITCHBOARDS, PANELBOARDS, CONTROL PANELS, AND MOTOR CONTROL CENTRES WHICH ARE ENCLOSED IN METAL. RULE 2-308.
- ALL OVERCURRENT PROTECTION SHALL BE CAPABLE OF INTERRUPTING THE AVAILABLE FAULT CURRENT. RULE 14-012.
- EVERY PANELBOARD SHALL BE PROTECTED ON THE SUPPLY SIDE BY OVERCURRENT DEVICES HAVING A RATING NOT GREATER THAN THAT OF PANELBOARD. RULE 14-606(1)
- THE RATING OR SETTING OF OVERCURRENT DEVICES SHALL NOT EXCEED THE ALLOWABLE APACITY OF THE CONDUCTORS THAT THEY PROTECT. RULE 14-104.
- RULE 14-102 REQUIRES GROUND FAULT PROTECTION ON GROUNDED CIRCUITS MORE THAN 150 VOLTS TO GROUND AND 1000 AMPERES OR MORE. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR AND SWITCHGEAR MANUFACTURER TO CO-ORDINATE THE GROUND FAULT SENSING METHOD WITH EACH PARTICULAR GROUNDING ARRANGEMENT.



GENERAL REQUIREMENTS FOR ELECTRICAL WORK

- SCOPE OF WORK
  - CONFORM TO ALL DRAWINGS RELATED TO THIS PROJECT.
  - COMPLY WITH THE REQUIREMENTS OF THE CURRENT EDITION OF THE O.E.S.C., ALL OTHER APPLICABLE CODES, REGULATIONS, BY-LAWS AND OFFICIAL STANDARDS ACCORDING TO THE REQUIREMENTS AND INTERPRETATIONS OF THE AUTHORITIES HAVING JURISDICTION. THESE CODES AND STANDARDS CONSTITUTE AN INTEGRAL PART OF THESE SPECIFICATIONS. IN CASE OF CONFLICT, THE CODES TAKE PRECEDENCE OVER THE CONTRACT DOCUMENTS.
- EXAMINATION OF SITE AND INFORMATION
  - EACH SUBCONTRACTOR, BEFORE TENDERING, SHALL EXAMINE THE SITE, THE ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS AND THEY SHALL FAMILIARIZE THEMSELVES WITH THE BUILDING CONSTRUCTION AND FINISH IN ORDER THAT THEIR TENDER MAY INCLUDE EVERYTHING NECESSARY FOR THE PROPER COMPLETION OF THE WORK.
  - IT SHALL BE THIS SUBCONTRACTOR'S RESPONSIBILITY THAT MATERIAL AND EQUIPMENT BE BROUGHT INTO THE BUILDING IN SUCH ASSEMBLIES AND SIZES AS TO ENTER INTO THE SPACE WHERE THEY ARE TO BE LOCATED AND TO BE SMALL ENOUGH TO BE HOISTED INTO THE BUILDING WITHOUT DIFFICULTY. ANY CUTTING, PATCHING, ETC., INVOLVED IN GETTING LARGE ASSEMBLIES INTO PLACE, SHALL BE THE RESPONSIBILITY OF THE SUBCONTRACTOR.
- RELATIONSHIP TO OTHER TRADES
  - THIS SUBCONTRACTOR SHALL CONFER WITH ALL OTHER CONTRACTORS INSTALLING EQUIPMENT, PIPING, OTHER WORK, FOUNDATIONS, ETC., WHICH MAY AFFECT THEIR INSTALLATION, AND THEY SHALL ARRANGE THEIR EQUIPMENT, PIPING, ETC., IN PROPER RELATION WITH OTHER APPARATUS, AND WITH THE BUILDING CONSTRUCTION. THIS SUBCONTRACTOR SHALL ALSO CONFIRM THE ELECTRICAL CHARACTERISTICS OF THE PROJECT AND ORDER EQUIPMENT ACCORDINGLY.
  - SPECIAL CARE SHALL BE TAKEN IN THE INSTALLATION OF ALL WORK, TO SEE THAT THEY ALL COME WITHIN THE LIMITS ESTABLISHED BY THE FINISH LINES OF ALL WALLS, FLOORS, CEILINGS, ETC.

- THIS SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR AND OTHER SUBCONTRACTORS WHO ARE CONCERNED, OF ALL OPENINGS, FOUNDATION WORK, HANGERS, INSERTS, ANCHORS, OR OTHER PROVISIONS NECESSARY IN THEIR WORK FOR THE INSTALLATION OF THE SUBCONTRACTORS WORK, AND THEY SHALL FURNISH ALL INFORMATION AND NECESSARY MATERIALS IN AMPLE TIME SO THAT PROPER PROVISIONS CAN BE MADE FOR SAME, AND SHALL SUPPLY AND CORRECTLY AND ACCURATELY PLACE ALL INSERTS, SLEEVES, ANCHORS, ETC.
- THIS SUBCONTRACTOR WILL RENDER THEIR RESPONSIBILITY FOR THE COST OF CUTTING OPENINGS, INSTALLING HANGERS AND OTHER PROVISIONS AT A LATER DATE, AND THE SUBSEQUENT PATCHING, ETC., THEREBY REQUIRED.
- NO CUTTING SHALL BE DONE WITHOUT PERMISSION. ALL SUCH WORK SHALL BE DONE BY TRADES-PERSONS SKILLED IN AND CERTIFIED FOR THIS PARTICULAR TRADE.
- SHOP DRAWINGS
  - EACH SUBCONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ARCHITECT FOR REVIEW OF MATERIAL, EQUIPMENT, AND APPARATUS BEING PROVIDED BY THEM, THESE SHALL SHOW IN DETAIL THE DESIGN AND CONSTRUCTION AND PERFORMANCE OF ALL APPARATUS, ETC.
  - THE ENGINEER'S REVIEW OF SHOP DRAWINGS AND MANUFACTURER'S SPECIFICATIONS OF ANY EQUIPMENT IS GENERAL AND IS NOT INTENDED TO SERVE AS A FINAL CHECK AND IT SHALL NOT RELIEVE THE SUBCONTRACTOR OF THE RESPONSIBILITY FOR ERRORS OR OF THE NECESSITY OF CHECKING THE DRAWINGS THEMSELVES, OR OF FURNISHING ANY OF THE MATERIALS AND PERFORMING THE WORK REQUIRED BY THE DRAWINGS AND SPECIFICATIONS TO THE FULL INTENT OF THIS SPECIFICATION.
  - BEFORE SUBMISSION, THIS SUBCONTRACTOR SHALL CHECK ALL SHOP DRAWINGS FOR ACCURACY OF DETAILS, DIMENSIONS, ETC. AND SHALL BE SATISFIED THAT THE DRAWINGS ARE CORRECT AND THAT THE EQUIPMENT WILL FIT PROPERLY IN THE ALLOTTED SPACE. THE SHOP DRAWINGS SHALL BE STAMPED BY THIS

- SUBCONTRACTOR WITH THE WORD 'REVIEWED', THE DATE OF APPROVAL, AND THE FIRM'S NAME PRIOR TO SUBMISSION.
- REQUIREMENTS OF INSPECTION DEPARTMENTS
    - ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL LAWS AND REGULATIONS OF ALL AUTHORITIES HAVING JURISDICTION IN EACH CASE, PARTICULARLY ALL AFFECTED DEPARTMENTS OF THE MUNICIPALITY AND PROVINCE. ELECTRICAL EQUIPMENT SUPPLIED MUST CONFORM TO THE REGULATIONS OF CSA AND THE LOCAL UTILITY. ANYTHING NECESSARY TO MAKE THE WORK COMPLY WITH THESE REQUIREMENTS SHALL BE PROVIDED BY THIS SUBCONTRACTOR WITHOUT ADDITIONAL COST TO THE OWNERS IF IT REASONABLY COULD HAVE BEEN FORESEEN WHEN TENDERING.
    - EACH SUBCONTRACTOR SHALL PREPARE DRAWINGS IN ADDITION TO ENGINEER'S DRAWINGS AS MAY BE REQUIRED BY VARIOUS INSPECTION DEPARTMENTS HAVING JURISDICTION, AND OBTAIN THEIR APPROVAL BEFORE PROCEEDING WITH THE WORK.
    - IN THE EVENT THAT THE INSPECTION DEPARTMENT'S REQUEST DEVIATES FROM THE ENGINEER'S LAYOUT, THE SUBCONTRACTOR SHALL CONSULT ENGINEER BEFORE PROCEEDING WITH THE SAME. IT SHALL BE NOTED THAT ENGINEER'S DRAWINGS ARE GENERALLY ACCEPTABLE TO INSPECTION DEPARTMENTS AND MINOR SUPPLEMENTS NEED ONLY BE MADE BY SUBCONTRACTORS.
  - CERTIFICATES, PERMITS, FEES
    - SUBCONTRACTORS SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL REQUIRED PERMITS AND PAY ALL FEES INCLUDING PAYMENT FOR STREET CONNECTIONS TO STORM, SANITARY, WATER AND GAS IN ORDER THAT THE WORK HEREIN SPECIFIED MAY BE CARRIED OUT AND THEY SHALL FURNISH ANY CERTIFICATES NEEDED AS EVIDENCE THAT THE WORK INSTALLED CONFORMS WITH THE LAWS AND REGULATIONS OF THE MUNICIPALITY AND PROVINCE.
  - GUARANTEE
    - THIS SUBCONTRACTOR SHALL GUARANTEE ALL MATERIAL AND WORKMANSHIP USED IN THE WORK TO BE IN STRICT ACCORDANCE WITH THE SPECIFICATIONS, OF BEST QUALITY AND TYPE OBTAINABLE TO GIVE FIRST-CLASS CONSTRUCTION AND

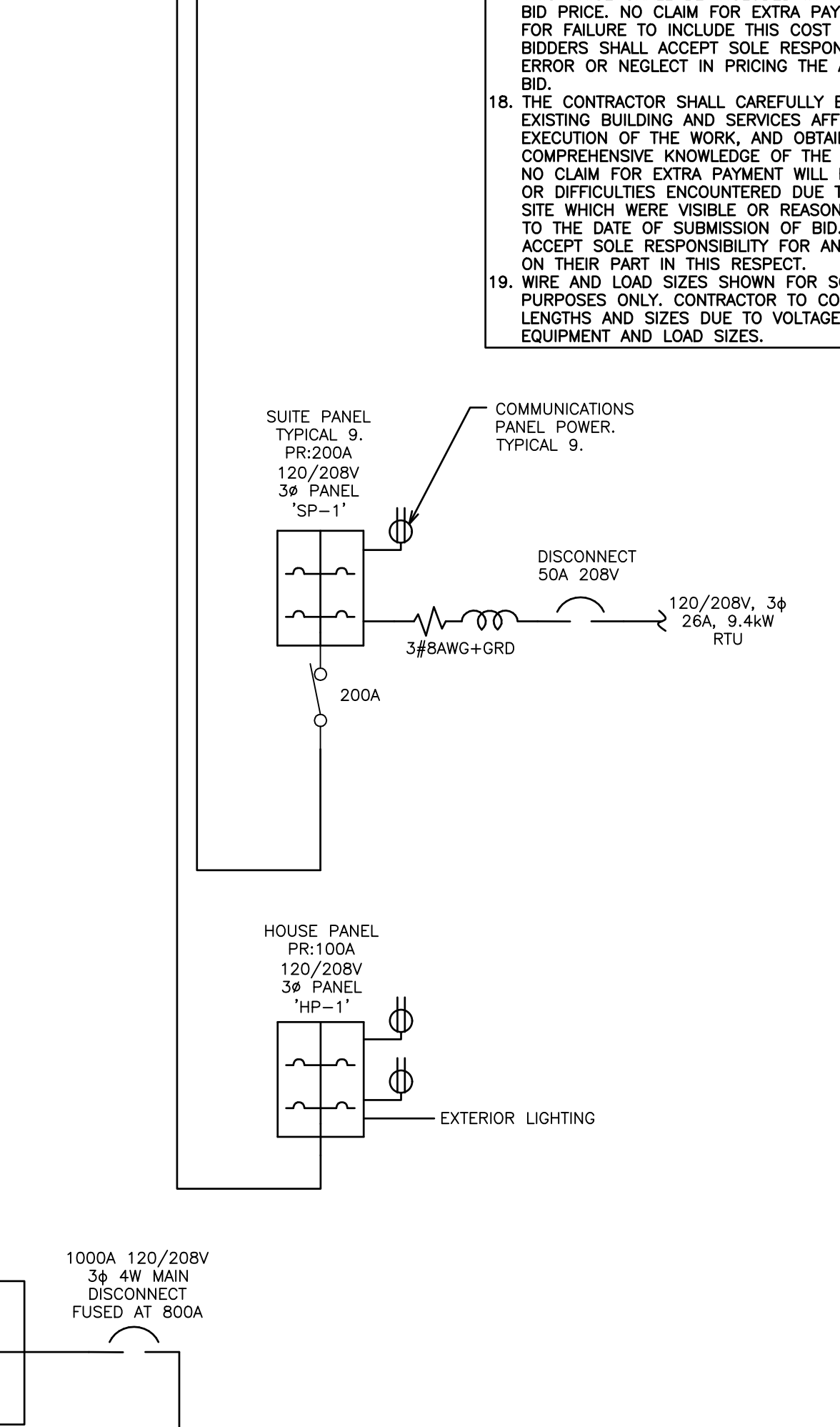
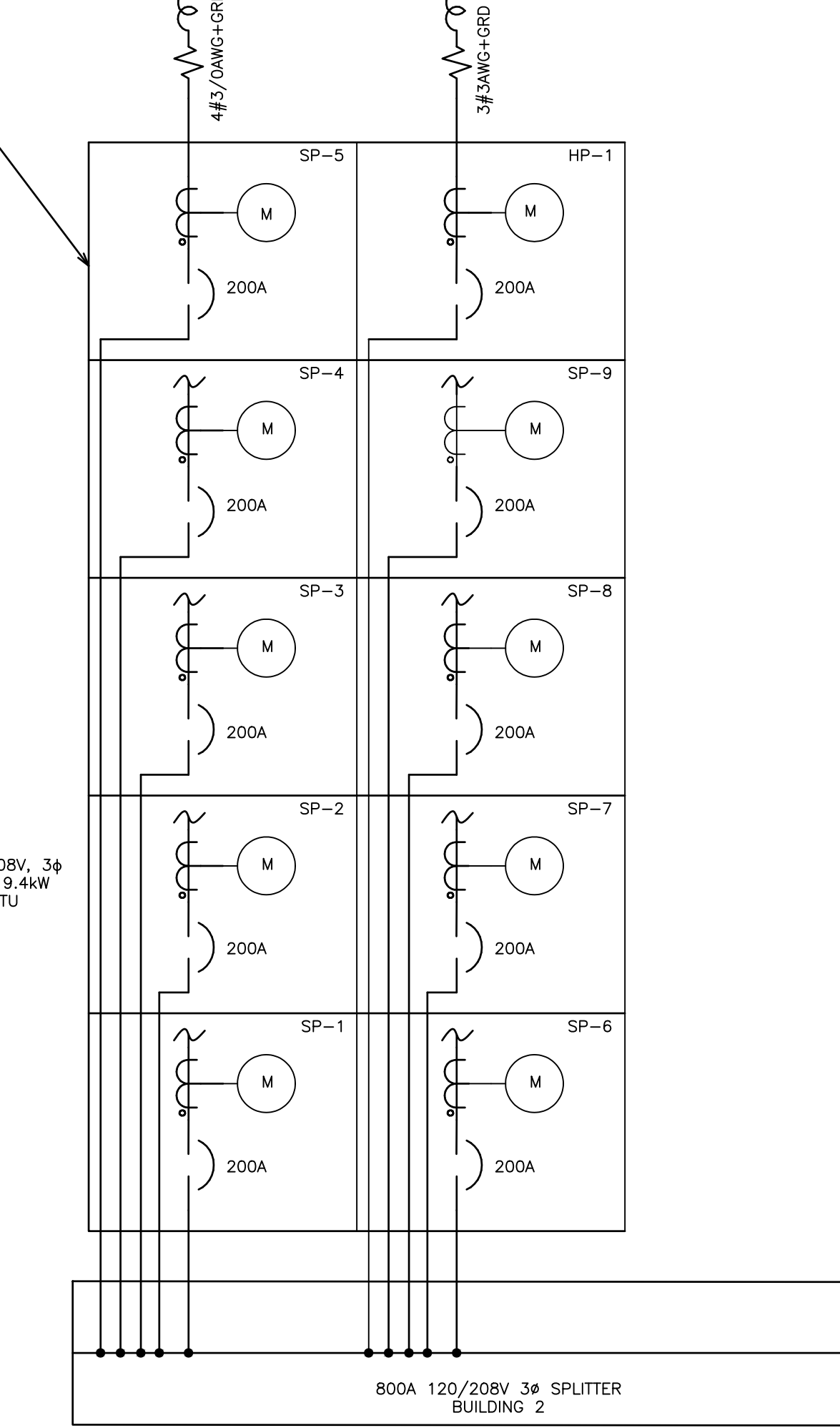
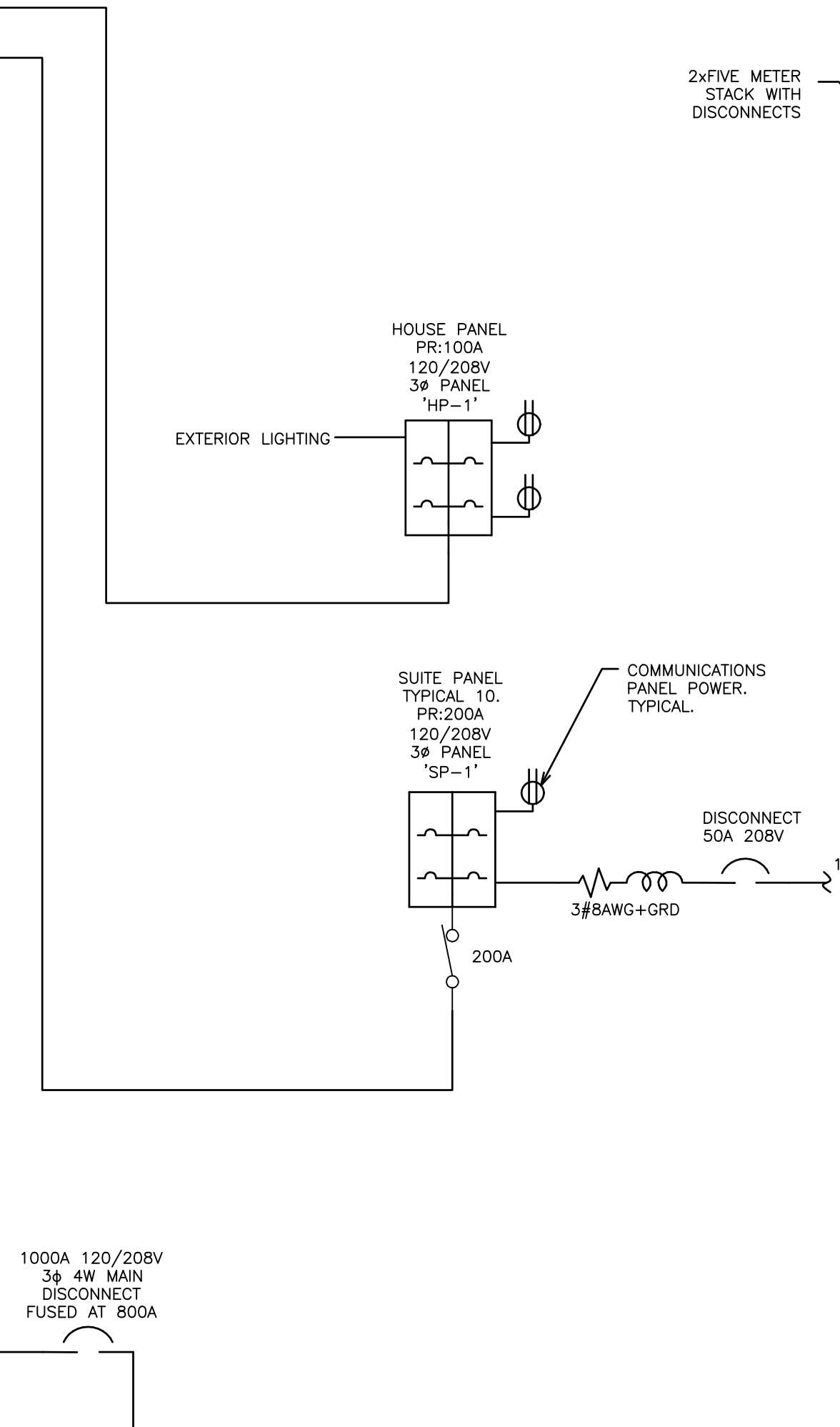
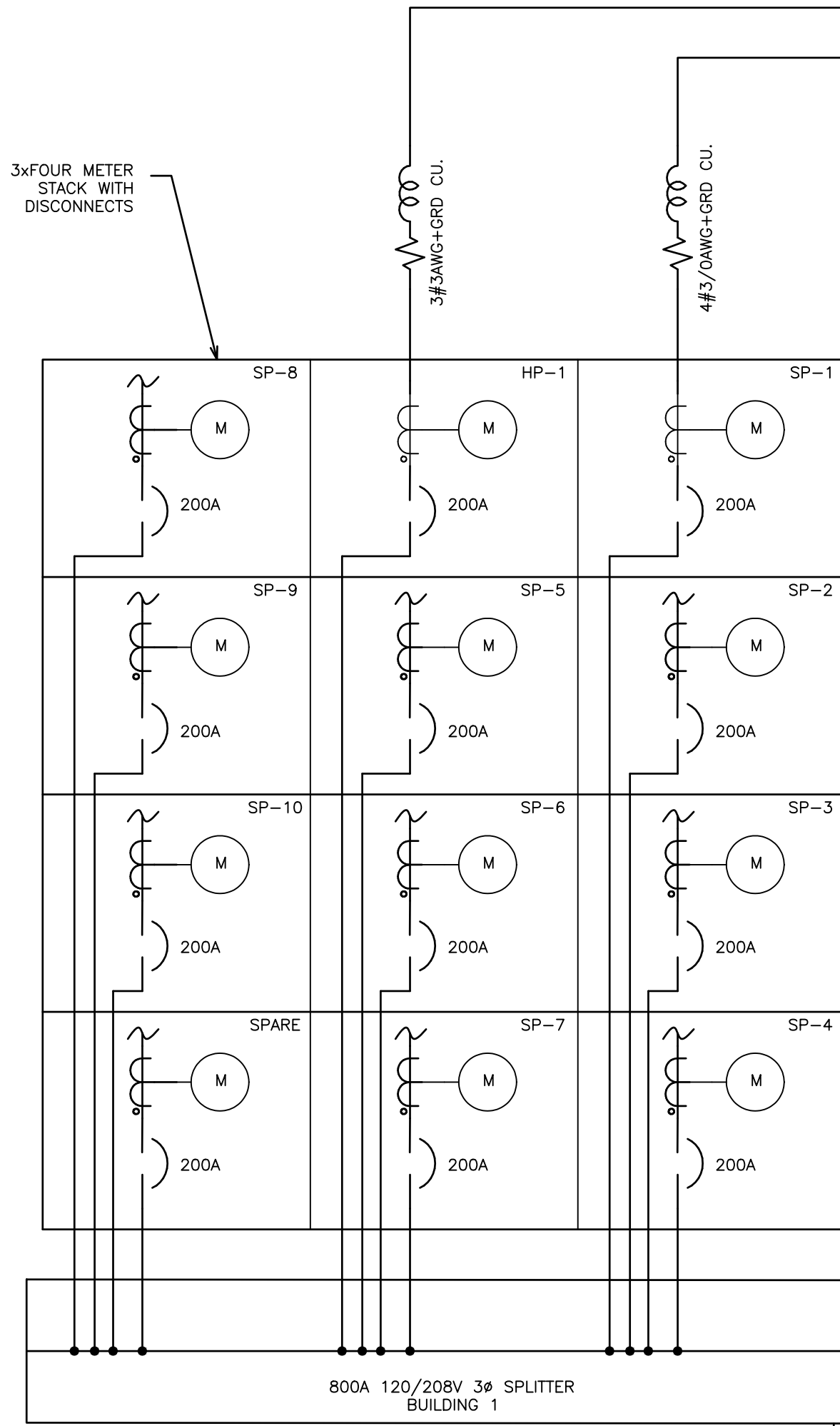
- PROPER EFFICIENT OPERATION, AND FREE FROM ANY DEFECTS. ANY SUCH DEFECTS WHICH MAY APPEAR IN ANY OF THE WORK WITHIN ONE YEAR AFTER WRITTEN ACCEPTANCE OF THEIR WORK, SHALL BE REPAIRED AND REPLACED BY THIS SUBCONTRACTOR WITHOUT ADDITIONAL EXPENSE TO THE OWNER, WHERE SUCH DEFECTS OCCUR, THIS SUBCONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL COSTS INCURRED IN MAKING THE DEFECTIVE WORK GOOD. THIS SHALL NOT OBSOLETE ANY LONGER WARRANTIES ON SPECIFIC ITEMS OF EQUIPMENT.
- ALL INJURIES TO ADJACENT WORK, PARTICULARLY PLASTER, WOOD FINISHES OR OTHER MATERIALS, OR DAMAGE TO OTHER EQUIPMENT, CAUSED BY SUCH DEFECTS OF THIS SUBCONTRACTOR'S WORK OR BY SUBSEQUENT REPLACEMENT AND REPAIR, SHALL BE MADE GOOD AT THE EXPENSE OF THIS SUBCONTRACTOR. ALL REPAIR WORK SHALL BE DONE BY TRADES RESPONSIBLE FOR THE ORIGINAL WORK.
  - DRAWINGS
    - THE DRAWINGS SHOW THE APPROXIMATE LOCATION FOR SPECIAL APPARATUS AND THE MATERIALS THROUGHOUT THE BUILDING. THE ARRANGEMENT SHOWN ON THE DRAWING IS MORE OR LESS DIAGRAMMATIC AND AS SUCH APPROXIMATE ONLY, AND MAY BE ALTERED, AS APPROVED BY THE ENGINEER, TO MEET REQUIREMENTS OF THE APPARATUS, ETC., AND OF THE BUILDING. EACH SUBCONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL MEASUREMENTS FOR THEIR WORK THROUGHOUT, AND THEY SHALL ARRANGE THEIR PIPING, WIRING AND APPARATUS TO CONFORM TO THE ARCHITECTURAL AND STRUCTURAL DETAILS IN A SATISFACTORY MANNER AND SHALL CO-OPERATE WITH OTHER CONTRACTORS TO ENSURE THAT WORK SHALL MEET ALL REQUIREMENTS OF DIVERSE CONTRACTS.
    - THE SUBCONTRACTOR IS PARTICULARLY CAUTIONED THAT SMALL SCALE ENGINEER'S PLANS MUST BE SUPPLEMENTED BY THEIR OWN DETAILED DRAWINGS WHERE NECESSARY FOR PROPER CO-ORDINATION OF THE WORK.
    - ITEMS SHOWN ON THE DRAWINGS BUT NOT SPECIFIED OR SPECIFIED BUT NOT SHOWN SHALL BE INCLUDED.
    - ITEMS OBVIOUSLY REQUIRED TO PROVIDE A COMPLETE WORKING SYSTEM BUT NOT SPECIFIED NOR SHOWN SHALL BE INCLUDED.

- RESPONSIBILITY AND LIABILITY
  - EACH SUBCONTRACTOR SHALL SUPERVISE THE LAYING OUT OF THEIR WORK AND SHALL ARRANGE IT IN CO-OPERATION WITH OTHER WHO MAY BE WORKING ON THE PREMISES WHILE THE WORK OF THIS CONTRACT IS IN PROGRESS. THEY SHALL PROTECT FINISHED AND UNFINISHED WORK OF THIS CONTRACT AND/OR WORK OF OTHERS ON THE PREMISES UNTIL THE COMPLETED WORK HAS BEEN ACCEPTED.
  - THE SUBCONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR INCONSISTENCIES FOUND IN THE DRAWINGS OR SPECIFICATIONS BEFORE SUBMITTING THEIR TENDER. THEY SHALL ABIDE BY DECISIONS GIVEN TO THEM IN WRITING WITH REGARD TO SAME. EACH SUBCONTRACTOR IS CAUTIONED THAT THE WORK AS SHOWN IS INTENDED TO BE COMPLETE IN ALL RESPECTS AND THAT FAILURE ON THEIR PART TO NOTIFY THE ENGINEER OF ANY DISCREPANCIES WILL NOT RELIEVE THEM OF THE RESPONSIBILITY OF COMPLETING THE WORK AS INTENDED AT THE CONTRACT PRICE.
- CLEAN-UP
  - DURING THE COURSE OF CONSTRUCTION, EACH SUBCONTRACTOR SHALL KEEP THEIR WORK TIDY AND NOT ALLOW AN ACCUMULATION OF DEBRIS RESULTING FROM THEIR WORK.
  - UPON COMPLETION OF THEIR WORK THEY SHALL LEAVE THE PREMISES IN A BROOM-CLEAN CONDITION.
- PROTECTION
  - SUBCONTRACTORS ARE TO PROTECT THEIR WORK FROM CONSTRUCTION DIRT OR DAMAGE FROM ANY CAUSE. SECURELY PLUG AND CAP ALL OPENINGS IN PIPE, EQUIPMENT AND FITTINGS TO PREVENT OBSTRUCTIONS.
- ELECTRICAL WIRING AND CONTROLS
  - ALL POWER WIRING FOR MECHANICAL EQUIPMENT SHALL BE DONE BY THE ELECTRICAL DIVISION. THE MECHANICAL TRADE INVOLVED SHALL PROVIDE STARTERS, THERMOSTATS, VALVES, CONTROL TRANSFORMERS, RELAYS, ETC. ALL CONTROL WIRING SHALL BE DONE BY THE MECHANICAL CONTRACTOR, UNLESS OTHERWISE NOTED ELSEWHERE IN THIS SPECIFICATION.

NOTES:

- CONTRACTOR TO CONFIRM ALL CONDUCTOR LENGTHS AND SIZES DUE TO VOLTAGE DROP AND FINAL ELECTRICAL LOADING PRIOR TO COMMENCEMENT OF WORK.
- ELECTRICAL CONTRACTOR TO PREPARE AND SUBMIT ELECTRICAL ROOM AND MECHANICAL ROOMS LAYOUT SHOP DRAWING INDICATING ALL ELECTRICAL EQUIPMENT & MOUNTING HEIGHTS TO ENSURE SPACE REQUIREMENTS ARE ADAPTED. REPORT ANY CONFLICTS TO ENGINEER PRIOR TO ORDERING EQUIPMENT. ALL CLEARANCES MUST COMPLY WITH LOCAL HYDRO REQUIREMENTS AND ELECTRICAL SAFETY AUTHORITIES. THE SERVICE CABLE AMPACITY IS 202 AMPERES BASED ON DIAGRAM D11 DETAIL 4 AND TABLE D11A IN 2024 O.E.S.C..
- WIRE SIZE BASED ON ALLOWABLE AMPACITIES FOR RW90 COPPER CONDUCTORS.
- CONDUCTOR LENGTHS AND SIZING BY ELECTRICAL CONTRACTOR BASED ON VOLTAGE DROP AND FINAL ELECTRICAL LOADING.
- CONTRACTOR IS RESPONSIBLE FOR SIZING, CONFIRMING AND SUPPLYING ALL OVERCURRENT PROTECTION DEVICES (O.C.P.D.) BASED ON FINAL ELECTRICAL LOADING, IN ACCORDANCE WITH THE 2024 O.E.S.C., ESA REQUIREMENTS AND MANUFACTURER RECOMMENDATIONS.
- CONTRACTOR TO INCLUDE FOR AND PROVIDE LOCKABLE DISCONNECTS AND LOCK-ON DEVICES WHERE REQUIRED BY 2024 O.E.S.C. AND ELECTRICAL SAFETY AUTHORITY (ESA).
- ALL DISCONNECT MOUNTING LOCATIONS TO BE DETERMINED BY CONTRACTOR ON-SITE WITH OWNER PRIOR TO INSTALLATION.
- CONTRACTOR TO COORDINATE EXTERIOR LIGHTING WITH SITE LIGHTING PLAN. THE EXTERIOR LIGHTING INTO NEAREST AVAILABLE PANEL.
- CONTRACTOR TO PROVIDE ADDITIONAL BREAKER PANELS AS REQUIRED.
- CONTRACTOR TO CONFIRM ALL CONDUCTOR LENGTHS AND SIZES DUE TO VOLTAGE DROP AND ELECTRICAL LOADING PRIOR TO ORDERING AND INSTALLATION OF MATERIALS.
- TYPICAL:
  - ALL DETAILS SHOWN ARE SCHEMATIC BY NATURE AND ARE TO BE USED FOR SCOPE OF WORK PURPOSES ONLY. COORDINATE WITH ALL TRADES AND MANUFACTURERS BEST PRACTICES AND DIRECTIONS.
  - ALL WIRES SPECIFIED FOR 90°C RATED INSULATION.
- ELECTRICAL SCOPE OF WORK: THE CONTRACTOR IS ASSUMED TO BE OF MASTER ELECTRICIAN EXPERIENCE AND SHALL PROVIDE ANY APPLICABLE SINGLE LINE DIAGRAMS, PANEL SCHEDULES AND CIRCUIT PLAN DESIGNS REQUIRED TO PROVIDE A COMPLETE AND FUNCTIONING ELECTRICAL SYSTEM. THIS PRICE SHALL BE INCLUDED IN THE CONTRACTORS BASE BID PRICE. NO CLAIM FOR EXTRA PAYMENT WILL BE ALLOWED FOR FAILURE TO INCLUDE THIS COST INTO THE BASE BID. BIDDERS SHALL ACCEPT SOLE RESPONSIBILITY FOR ANY ERROR OR NEGLECT IN PRICING THE ABOVE ITEMS IN THERE BID.
- THE CONTRACTOR SHALL CAREFULLY EXAMINE THE SITE AND EXISTING BUILDING AND SERVICES AFFECTING THE PROPER EXECUTION OF THE WORK, AND OBTAIN A CLEAR AND COMPREHENSIVE KNOWLEDGE OF THE EXISTING CONDITIONS. NO CLAIM FOR EXTRA PAYMENT WILL BE ALLOWED FOR WORK OR DIFFICULTIES ENCOUNTERED DUE TO CONDITIONS OF THE SITE WHICH WERE VISIBLE OR REASONABLY INFERRABLE, PRIOR TO THE DATE OF SUBMISSION OF BID. BIDDERS SHALL ACCEPT SOLE RESPONSIBILITY FOR ANY ERROR OR NEGLECT ON THEIR PART IN THIS RESPECT.
- WIRE AND LOAD SIZES SHOWN FOR SCOPE OF WORK PURPOSES ONLY. CONTRACTOR TO CONFIRM ALL CONDUCTOR LENGTHS AND SIZES DUE TO VOLTAGE DROP, FINAL EQUIPMENT AND LOAD SIZES.

SINGLE LINE DIAGRAM LEGEND	
	TRANSFORMER
	GENERATOR
	AUTOMATIC TRANSFER SWITCH (ATS)
	UTILITY CONNECTION
	GROUND
	DISCONNECT
	FUSED DISCONNECT
	CONDUCTOR
	MOTOR
	CONTINUATION
	FUSE
	PANELBOARD
	PANELBOARD WITH FUSIBLE SWITCH
PR:	PANELBOARD RATING
SR:	SWITCH RATING
FR:	FUSE RATING
	CONDUCTOR INSIDE DUCTBANK
	WYE METERING POINT INSTALLED PER WYE STANDARDS
	METER
	4x4 METERING CABINET



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725 LAKE ROAD, CLARINGTON, ONTARIO

SITE ELECTRICAL  
SINGLE LINE DIAGRAM

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SCALE:	1:300
DESIGNED BY:	F.K./L.J.D
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