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CAMELOT ESTATES SEWER  
DISTRICT OF CAMDEN COUNTY

CAMDEN COUNTY, MISSOURI

ELECTRICAL PLAN  
Designed by RCS  
Created by RCS  
Project #: 210387  
File: 210387-CAMELOT DETAILS

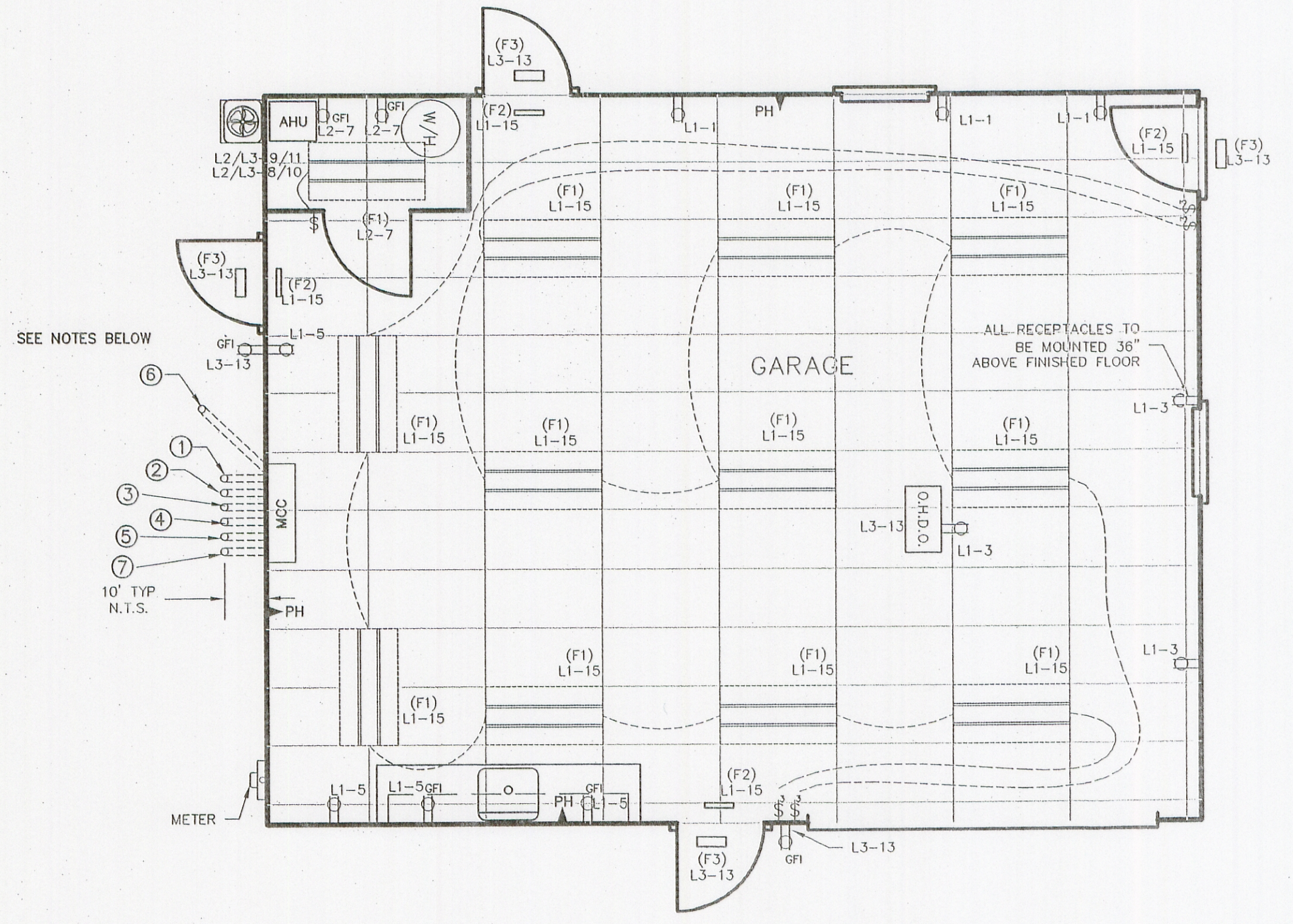
**GENERAL ELECTRICAL NOTES:**  
VERIFY ELECTRICAL SERVICE REQUIREMENTS WITH SET ELECTRIC COOPERATIVE. (480V/3ø/4W/600 AMP)  
'MCC' PANEL FURNISHED BY PUMP SUPPLIER.  
'RVP' FURNISHED BY RETURN ACTIVATED SLUDGE PUMP SUPPLIER.  
'GP' FURNISHED BY GENERATOR EQUIPMENT SUPPLIER.  
'SSB' FURNISHED BY SLUDGE STORAGE BASIN AERATOR SUPPLIER.  
ALL OTHER JUNCTION BOXES AND PANELS FURNISHED BY CONTRACTOR.

**ELECTRIC RISER DIAGRAM LEGEND**

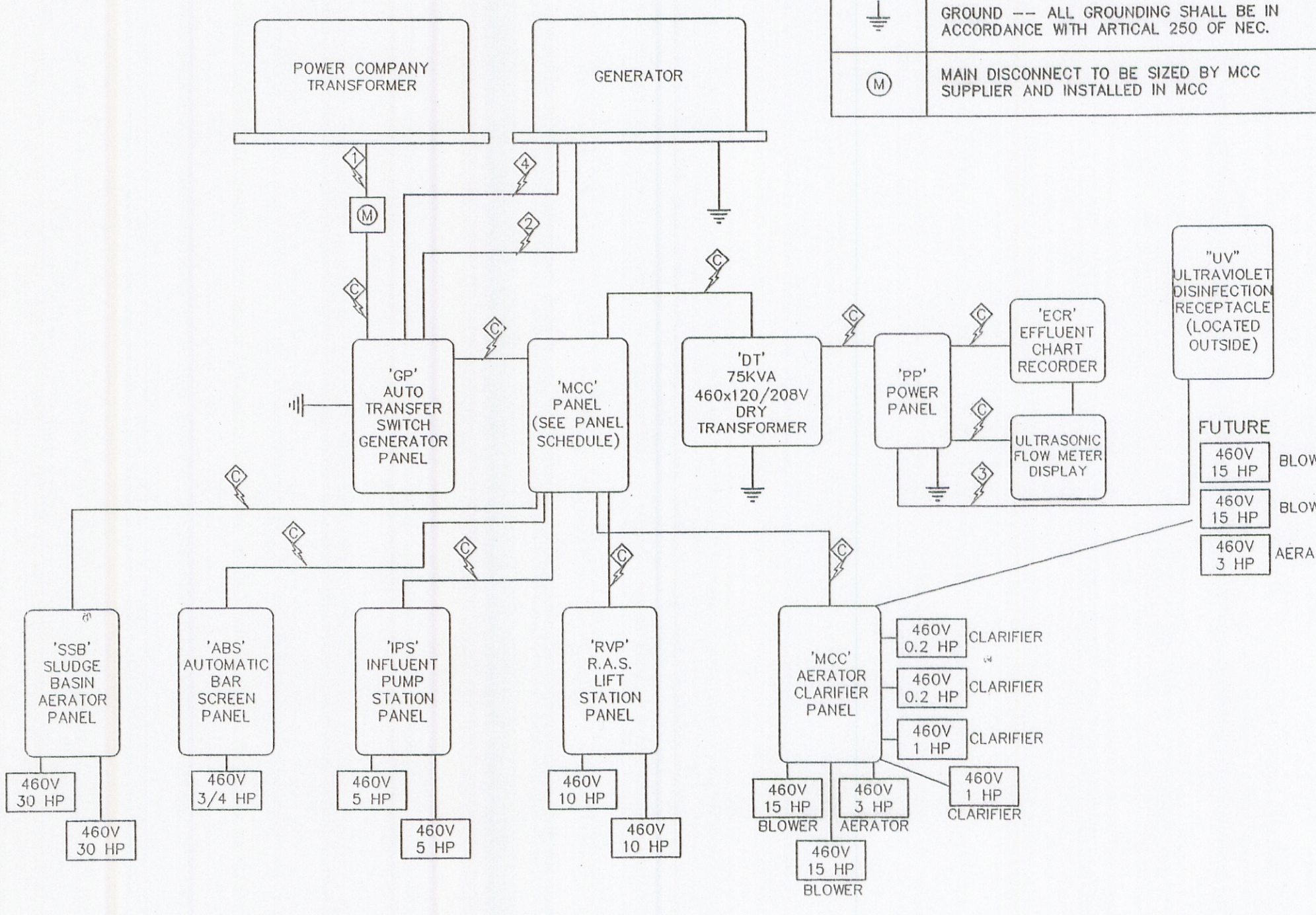
SYMBOL	DESCRIPTION
⚡	3 - #500 KCMIL THHN 1 - #1/0 THHN NEUTRAL IN 3" SCH 40 PVC CONDUIT
⚡	RGS CONDUIT FOR GENERATOR CONTROL WIRING. VERIFY CONDUIT SIZE REQ. WITH GENERATOR MFT.
⚡	2 - #6 THHN 1 - #6 THHN EGC IN 1" SCH 40 PVC CONDUIT
⚡	3 - #500 KCMIL THHN 1 - #3 THHN EGC IN 3" SCH 40 PVC CONDUIT
⚡	CONNECTED BY BUS CONTROL CENTER MANUFACTURER AND SUBMITTED TO ENGINEER FOR APPROVAL.
⚡	GROUND --- ALL GROUNDING SHALL BE IN ACCORDANCE WITH ARTICLE 250 OF NEC.
(M)	MAIN DISCONNECT TO BE SIZED BY MCC SUPPLIER AND INSTALLED IN MCC

**MOTOR CONTROL CENTER 'MCC'**  
480V/277/3ø

CIR. NO.	CIRCUIT DESCRIPTION	BRK.	BRK.	CIRCUIT DESCRIPTION	CIR. NO.
1	MCC --- AERATOR CLARIFIER PANEL			MCP --- INFLUENT PUMP STATION	2
3	MCC --- AERATOR CLARIFIER PANEL	150A/3P	30A/3P	MCP --- INFLUENT PUMP STATION	4
5	MCC --- AERATOR CLARIFIER PANEL			MCP --- INFLUENT PUMP STATION	6
7	DT --- DRY TRANSFORMER			ABS --- AUTOMATIC BAR SCREEN	8
9	DT --- DRY TRANSFORMER	100A/3P	15A/3P	ABS --- AUTOMATIC BAR SCREEN	10
11	DT --- DRY TRANSFORMER			ABS --- AUTOMATIC BAR SCREEN	12
13	RAS/WAS --- STATION PANEL			SPACE	14
15	RAS/WAS --- STATION PANEL	60A/3P		SPACE	16
17	RAS/WAS --- STATION PANEL			SPACE	18
19	SSB --- SLUDGE BASIN #1 AERATORS			SPACE	20
21	SSB --- SLUDGE BASIN #1 AERATORS	80A/3P		SPACE	22
23	SSB --- SLUDGE BASIN #1 AERATORS			SPACE	24
25	SSB --- SLUDGE BASIN #2 AERATORS			SPACE	26
27	SSB --- SLUDGE BASIN #2 AERATORS	80A/3P		SPACE	28
29	SSB --- SLUDGE BASIN #2 AERATORS			SPACE	30



**ELECTRICAL PLAN**  
SCALE: 1/4" = 1'



**ELECTRICAL RISER DIAGRAM**  
SCALE: N.T.S.

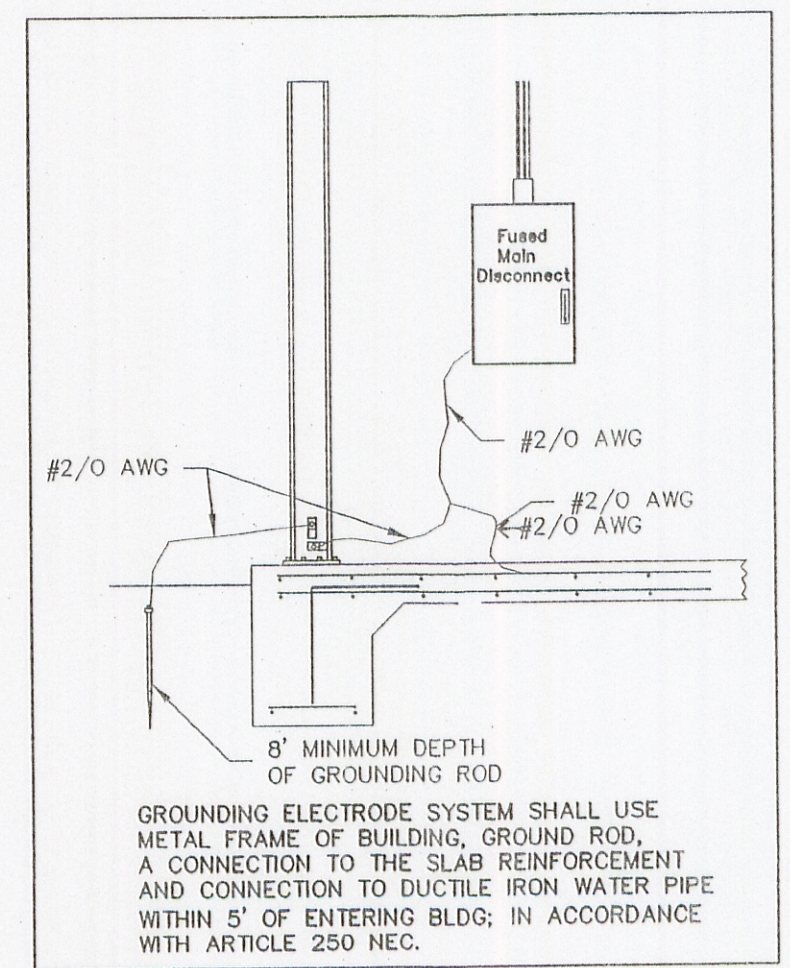
NOTE: ALL PANELS SHOWN BELOW SHALL BE INSTALLED IN A SINGLE MOTOR CONTROL CENTER (MCC). SEE SPECIFICATION 16.480 PLANT CONTROLS.

**POWER PANEL 'PP'**  
208/120V/3ø/4W-150A MAIN BREAKER, SURFACE MOUNTED SQUARE 'D' BOLT IN BREAKER TYPE PANEL INTERIOR BOX, TRIM & DOOR, PROVIDE EQUIPMENT GROUND ASSEMBLY

CIR. NO.	CIRCUIT DESCRIPTION	L1	L2	L3	BRK.	BRK.	L3	L2	L1	CIRCUIT DESCRIPTION	CIR. NO.
1	GARAGE AREA --- RECEPTACLES #1	2400W			20A/1P	15A/1P			100W	ULTRASONIC FLOW METER & EFFLUENT CHART RECORDER	2
3	GARAGE AREA --- RECEPTACLES #2	2400W			20A/1P	20A/1P		2000W		WATER HEATER	4
5	GARAGE AREA --- RECEPTACLES #3	2400W			20A/1P	70A/2P		5687W		AHU (CIRCUIT #1)	6
7	AHU ROOM --- LIGHTING, AND RECEPTACLE.		2400W		20A/1P		5687W			AHU (CIRCUIT #1)	8
9	CONDENSER		2880W			30A/1P			2100W	ULTRAVIOLET DISINFECT ON	10
11	CONDENSER			2880W	40A/2P					SPACE	12
13	EXTERIOR RECEPTACLES, EXTERIOR LIGHTING, AND OVERHEAD DOOR OPENER.			2400W	20A/1P					SPACE	14
15	GARAGE AREA --- INTERIOR LIGHTING & EXIT LAMP			1520W	20A/1P					SPACE	16
17	SPACE									SPACE	18
19	SPACE									SPACE	20
21	SPACE									SPACE	22
23	SPACE									SPACE	24
25	SPACE									SPACE	26
27	SPACE									SPACE	28
29	SPACE									SPACE	30
SUB-TOTAL		8720W	5280W	6800W			5687W	5787W	4200W	SUB-TOTAL	
TOTAL WATTS L1: 11,400W		TOTAL WATTS L2: 11,067W		TOTAL WATTS L3: 12,187W							

**ELECTRIC PLAN SCHEDULE**

SYMBOL	QTY.	DESCRIPTION
(F1)	12	METALUX 2'x4' FLOURESCENT RECESSED FIXTURE, MODEL #2G440A120VLE3, 4-34 WATT LAMPS, 1.46 AMPS/FIXTURE, 100% ACRYLIC PRISMATIC LENS (NO. 12 PATTERN), GRID MOUNT, 120V BALLAST.
(F2)	4	DUAL-LITE EXIT LIGHT MODEL #KSRG-1F, 2-5 WATT, 120V, TWIN TUBE FLOURESCENT LAMPS.
(F3)	4	HUBBELL EXTERIOR WALL MOUNT LIGHT MODEL #NRG307PC, 70 WATT HPS W/ PHOTO-ELECTRIC CELL.
(W/H)	1	VANGAARD 10 GALLON COMPACT WATER HEATER, GRAINGER STOCK #6E730, 2000 WATT, 120V, 90F - 150F.
\$	1	SINGLE POLE, SINGLE THROW, TWO CONNECTION LIGHT SWITCH.
\$3	4	SINGLE POLE, SINGLE THROW, THREE CONNECTION, LIGHT SWITCH.
⊖	10	HUBBLE DUPLEX RECEPTACLE MODEL #HBL5352L, 20 AMP, 125V, NEMA 5-20R OR EQUAL.
⊖GFI	6	HUBBLE GROUND FAULT CIRCUIT INTERRUPTER DUPLEX RECEPTACLE MODEL #GFS352A, 20 AMP, 125V, NEMA 5-20R OR EQUAL.
PH	3	TELEPHONE RECEPTACLE.
O.H.D.O.	1	TELETRON OVERHEAD DOOR OPENER, MODEL #RD10-6, 375 WATTS, 3 BUTTON CONTROL.



**ELECTRICAL GROUNDING DIAGRAM**  
SCALE: N.T.S.

- 1 RGS CONDUIT UNDER FOUNDATION TO RAS/WAS.
- 2 RGS CONDUIT UNDER FOUNDATION TO SSB.
- 3 RGS CONDUIT UNDER FOUNDATION TO FUTURE AERATOR.
- 4 RGS CONDUIT UNDER FOUNDATION TO AERATORS/ CLARIFIERS/BLOWERS.
- 5 RGS CONDUIT UNDER FOUNDATION TO EFFLUENT DISCHARGE & UV STRUCTURE.
- 6 RGS CONDUIT UNDER FOUNDATION TO GENERATOR PAD.
- 7 RGS CONDUIT UNDER FOUNDATION FOR ELECTRIC METER.

NOTE:  
PVC CONDUIT MAY BE USED BELOW GRADE ONLY.