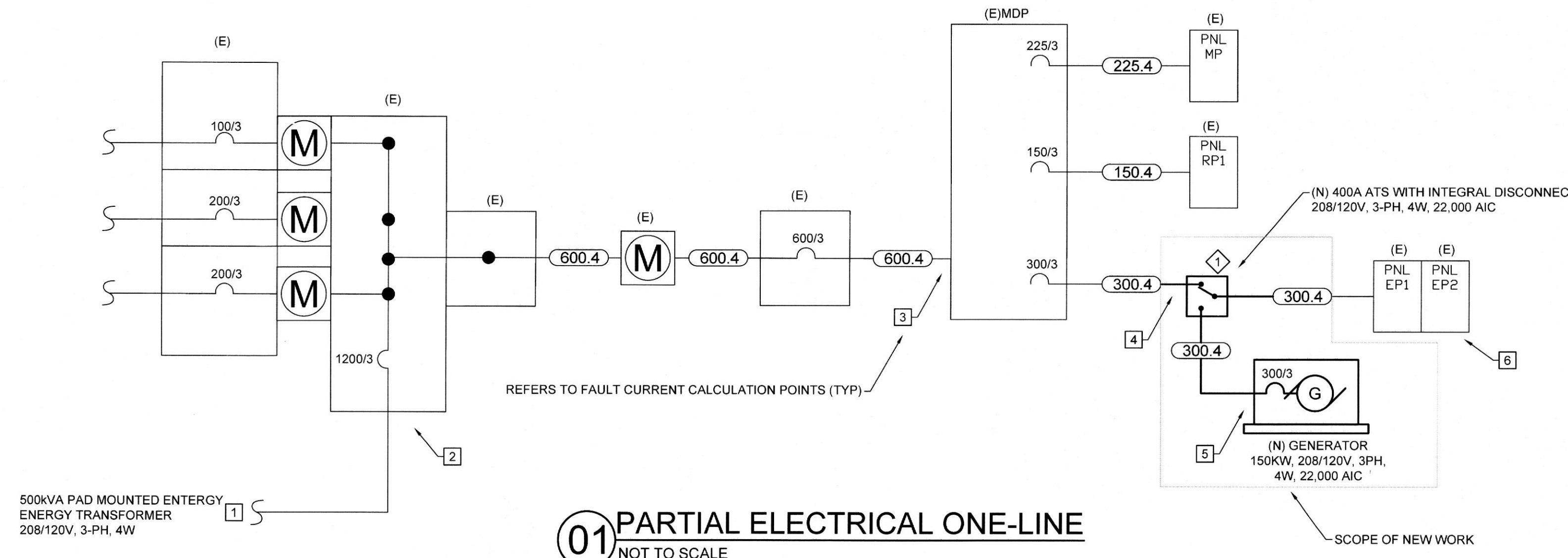


USE	SOFT	VOLTAGE	PHASE
Health Care Clinic	5430	208 / 120V	3 4W
<b>EXISTING &amp; NEW LOADS</b>			
<b>DESIGN INFO</b>		<b>LOAD</b>	
<b>NOTES AND CODE REFERENCES</b>			
LIGHTING			
INTERIOR LIGHTING	2.0 WSF	11.0 KVA	220.12 EX #2 2015 IECC
T220.12 LOAD	10.9 KVA		
ACTUAL +25% CONT	11.0 KVA		
EXTERIOR LIGHTING			
+25% CONTINUOUS		1.2 KVA	(CONNECTED LOAD)
		0.3 KVA	
HVAC			
ELECTRIC HEAT		112.1 KVA	220.80
COOLING			(NONCONCURRENT LOAD) 220.80
RECEPTACLES	21.8 KVA		(CONNECTED LOAD)
< 10KVA AT 100%	10.0 KVA	15.9 KVA	220.14(1) OFFICE 220.14(K)(1)OR(2)
REMAINDER AT 50%	5.9	15.9 KVA	220.14(1) (ACTUAL DEMAND)
MOTORS			
MTRS, PUMPS AND FANS		6.5 KVA	(ACTUAL LOAD)
LARGEST MOTOR +25%		7.0 KVA	
MISCELLANEOUS			
APPLIANCES		0.0 KVA	
EQUIPMENT		20.2 KVA	
KITCHEN (DF) 0.70		3.4 KVA	220.56
OTHER		0.0 KVA	
<b>TOTAL</b>		178.6 KVA	
REQUIRED CAPACITY	490 AMP		
EXISTING SERVICE CAPACITY	600 AMP		
SPARE CAPACITY	110 AMP		



**01 PARTIAL ELECTRICAL ONE-LINE**  
NOT TO SCALE

NOTE: LAYOUT OF EXISTING ELECTRICAL EQUIPMENT TAKEN FROM EXISTING DRAWINGS. ALL EQUIPMENT SHOWN ON ELECTRICAL ONE-LINE IN THIN LINES IS EXISTING. ALL EQUIPMENT SHOWN IN BOLD LINES IS NEW.

208Y/120V - 3 phase												
Fault Current Calculations												
Utility Transformer Secondary Bus Fault Current Value, A: IS C = If1 x 100 / %Ztransformer												
Maximum Available Fault Current (IAIC)												
ISCA = (I AIC x M) where M = 1 / (1 + f), and f = (V (Phase) x L x I AIC) / (C x n x E)												
* Conductor sizes 1/0, 2/0, 3/0, and 4/0 are designated as 101, 201, 301, and 401, respectively.												
Fault Point	Fault Location Description	Source (Fault Point)	Source I (SCA)	Voltage	Phase	Circuit Length (feet)	Conduit Type	Conductor Material	Conductor Size (AWG/KCMIL)	"C" Value	Fault Value	Fault Point
1	At Utility Transformer Secondary	1	42,703								42,703	1
2	At Main Distribution	2	38,220	208	3	30	NM	CU	4	350	38,220	2
3	At MDP	3	24,501	208	3	80	NM	CU	2	350	22,737	3
4	At ATS	4	20,743	208	3	35	M	CU	2	350	19,704	4
5	At Generator	4	20,743	208	3	70	M	CU	2	350	19,704	5
6	AT EP1 & EP2	4	20,743	208	3	5	M	CU	1	104	15,082	6

FEEDER SCHEDULE	
TAG	WIRE AND CONDUIT SIZE - 3Ø, 4W
150.4	(4-3/0 & 1-6GND)2"Ø
225.4	(4-4/0 & 1-4GND)2-1/2"Ø
300.4	2[(4-3/0 & 1-3GND)2"Ø]
600.4	2[(4-350KCMIL & 1-2/0)4"Ø]
600.4N	2[(4-350KCMIL)4"Ø]

ALL CONDUCTORS TO BE COPPER UNLESS OTHERWISE NOTED. FOR AMPACITIES GREATER THAN 100A ALUMINUM CONDUCTORS MAY BE SUBSTITUTED FOR COPPER CONDUCTORS. ELECTRICAL CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR RE-SIZING CONDUCTORS AND CONDUIT PER APPLICABLE NATIONAL ELECTRIC CODE ARTICLES.

**KEYED NOTES:**

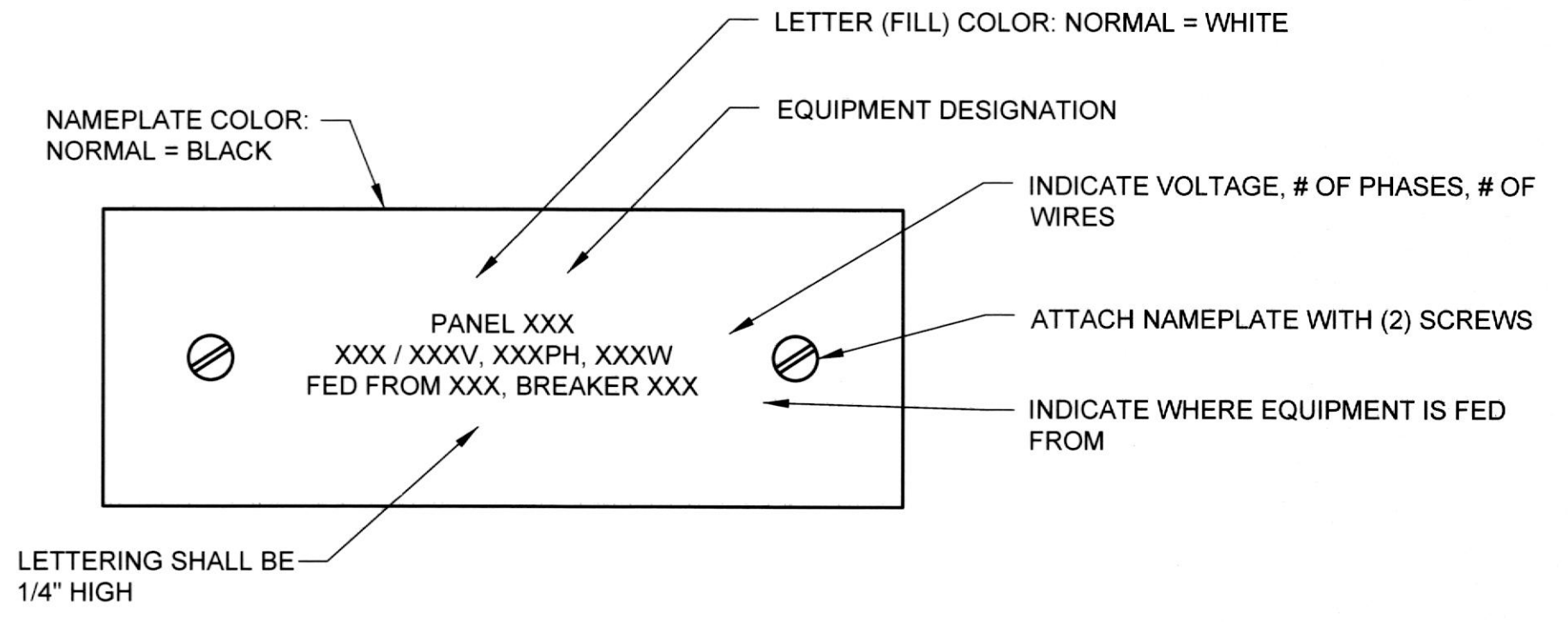
- PREVIOUS DRAWINGS DENOTE (2) 2" CONDUITS WITH PULL STRINGS ROUTED FROM BUILDING EXTERIOR TO ELECTRICAL CLOSET. FOR FUTURE ATS, WERE SLATED TO BE INSTALLED DURING PREVIOUS PHASE OF CONSTRUCTION. ELECTRICAL CONTRACTOR SHALL REWORK EXISTING FEEDERS AND CONDUITS FEEDING ELECTRICAL PANELS EP1 AND EP2 AND (2) 2" EXISTING CONDUITS FOR NEW GENERATOR AND ATS CONNECTIONS. COORDINATE GENERATOR CLEARANCES AND INSTALLATION REQUIREMENTS WITH MANUFACTURER'S SPECIFICATIONS.

**ONE-LINE DIAGRAM GENERAL NOTES:**

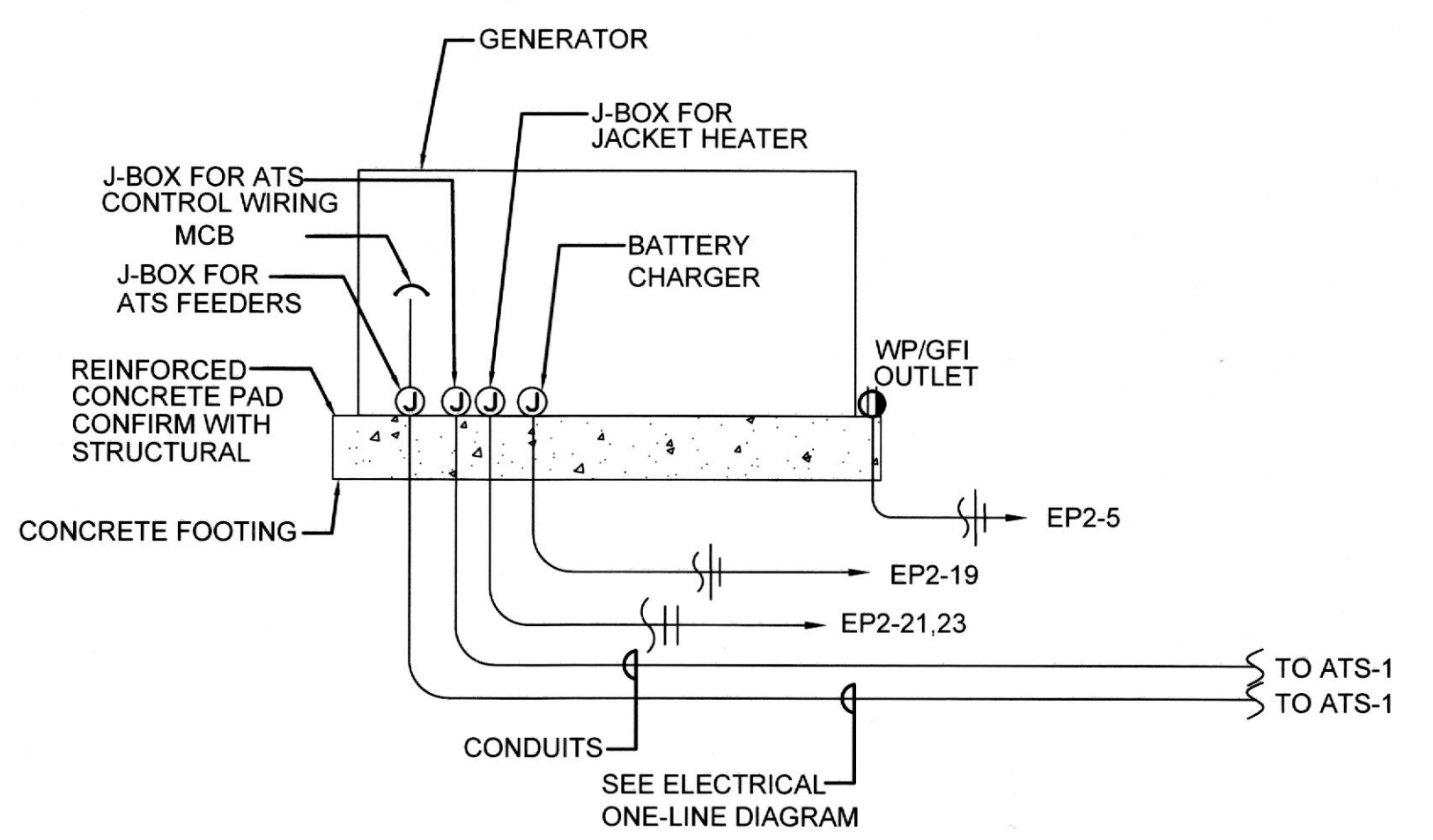
- A PERMANENTLY AFFIXED LABEL SHALL BE APPLIED WITH THE AVAILABLE FAULT CURRENT AT THE TIME OF THE CALCULATION. THE LABEL SHALL BE 2" X 3" IN SIZE AND SHALL BE BLUE LETTERING ON A CONTRASTING BACKGROUND. THIS LABEL SHALL ALSO INCLUDE THE DATE OF CALCULATION PER.
- AVAILABLE UTILITY AIC NOT AVAILABLE AT TIME OF THIS SUBMITTAL. STARTING UTILITY AIC ASSUMES WORST CASE IMPEDANCE OF 3.25% ON 500KVA PAD MOUNTED XFMR OF 42,703 AIC.
- SHORT CIRCUIT RATING CALCULATED USING POINT TO POINT METHOD
- CONDUIT TO BUILDINGS SHALL BE DIRECT BURIED 48" BELOW GRADE WITH WARNING TAPE. USE SCH 40 PVC BELOW GRADE AND RIGID GALVANIZED STEEL CONDUIT ABOVE GRADE, UNLESS NOTED OTHERWISE.
- ALL OUTDOOR ELECTRICAL EQUIPMENT TO BE MOUNTED IN GALVANIZED, WEATHERPROOF, NEMA 3R ENCLOSURES.
- SQUARE TAGS REFER TO FAULT CURRENT VALUES LOCATED ON THIS PAGE.

**GENERATOR SPECIFIC NOTES:**

- GENERATOR SIZING SPECIFIED USING GENERAC POWER DESIGN PRO SOFTWARE. ELECTRICAL CONTRACTOR SHALL CONFIRM ALTERNATOR AND GENERATOR SIZE WITH MANUFACTURER'S REPRESENTATIVE PRIOR TO BEGINNING ANY WORK.
- ELECTRICAL CONTRACTOR SHALL COORDINATE GENERATOR MANUFACTURER SELECTION WITH CLIENT PRIOR TO BEGINNING ANY WORK.
- ELECTRICAL CONTRACTOR SHALL COORDINATE ALL GENERATOR INSTALLATION REQUIREMENTS WITH MANUFACTURER'S SPECIFICATIONS PRIOR TO BEGINNING ANY WORK.
- GENERATOR IS SPECIFIED AS DIESEL GENERATOR CAPABLE OF 24 HOUR RUN TIME.
- GENERATOR ENCLOSURE TO BE WEATHER PROOF SOUND LEVEL 2 COMPLIANT.
- GENERATOR IS TO BE PROVIDED WITH BATTERY CHARGER AND COOLANT HEATER.
- GENERATOR SHALL BE PROVIDED WITH DOOR TAMPERING ALARMS SYSTEM.
- GENERATOR IS TO BE PROVIDED WITH REMOTE ALARM MONITORING PANEL.
- ELECTRICAL CONTRACTOR SHALL PROVIDE ADDITIONAL CONDUITS FOR CONTROLS: QUANTITY AND SIZE TO BE DETERMINED BY MANUFACTURER'S SPECIFICATIONS.
- CONTRACTOR TO INSTALL SOLAR POWERED SERVICE FLOOD LIGHTS AT GENERATOR. FLOOD LIGHT MODEL TO BE DESIGNER'S EDGE GRAINGER ITEM #38NH75, MANUFACTURER #L995, UNSPSC# 39111704. COORDINATE EXACT LOCATION(S) AND QUANTITIES WITH ARCHITECT AND CLIENT PRIOR TO BEGINNING ANY WORK.



**02 PANELBOARD NAMEPLATE DETAIL**  
NOT TO SCALE



**03 GENERATOR DETAIL**

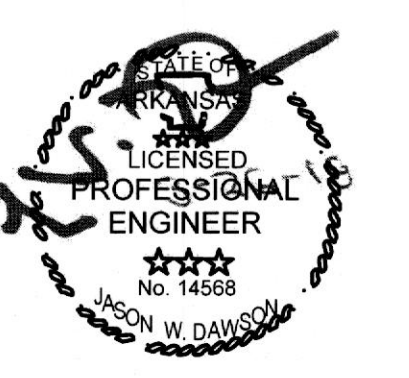
DATE: 03/26/2018  
JOB NO: 11247  
DRAWN: SM  
CHECKED: JF

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of Central Arkansas  
11771 Maumelle Blvd  
North Little Rock, AR 72113



REVISIONS	
ISSUE FOR CONSTRUCTION	3/26/18
'B' ISSUE DATE	
'C' ISSUE DATE	
'D' ISSUE DATE	
'E' ISSUE DATE	
'F' ISSUE DATE	

ELECTRICAL ONE-LINE,  
SCHEDULES & DETAILS

SHEET NUMBER

**E2.01**

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