

**THE SAENGER  
THEATRE RENEWAL  
PROJECT**

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DATE:	No.:	ISSUE:
02.19.10	1	PERMIT SET
04.02.10	2	GMP CONTRACT SET

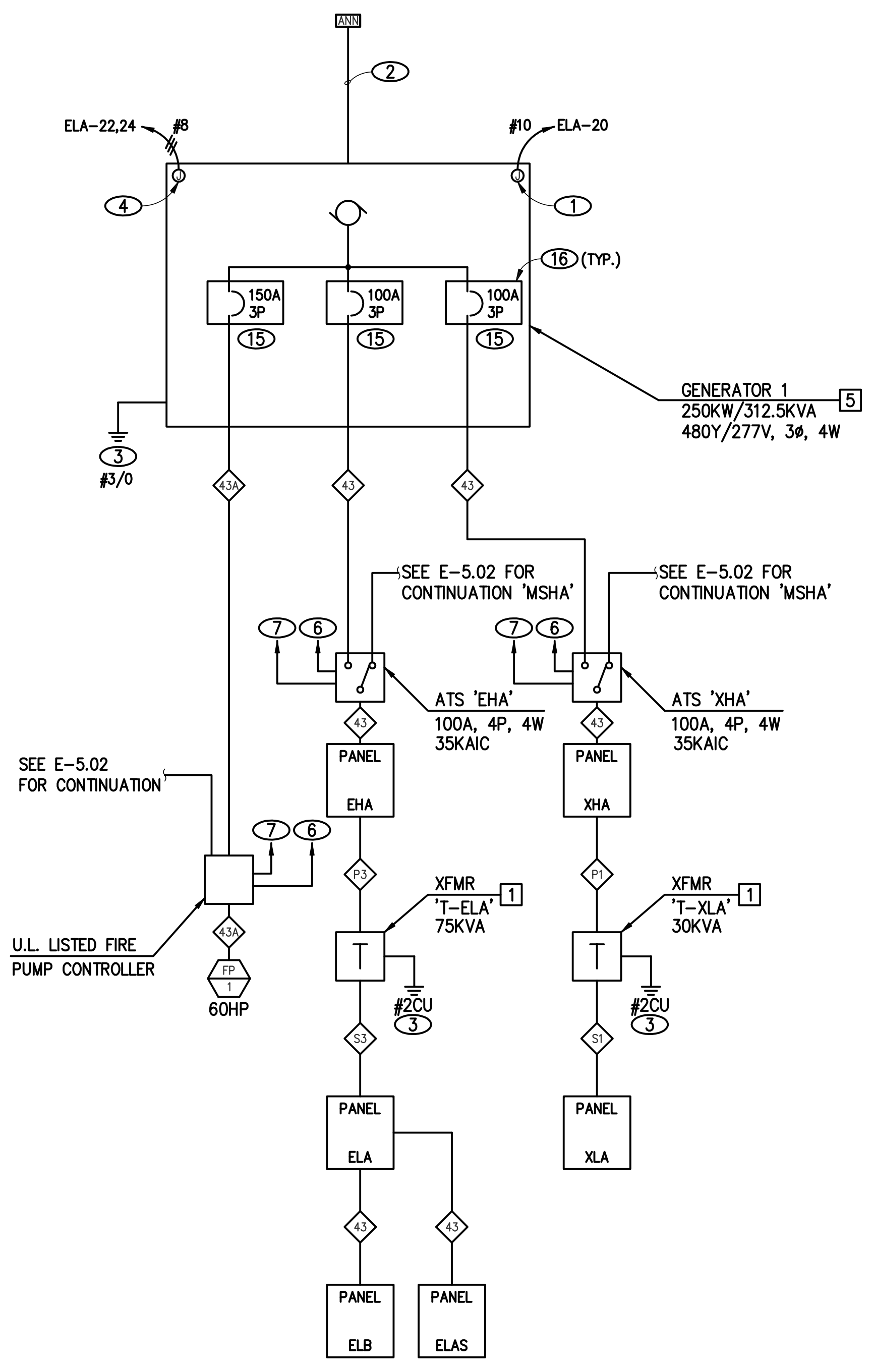
DATE:	No.:	REVISION:
11.11.10		CONTRACT SET

SHEET TITLE:  
**SINGLE LINE DIAGRAM  
AND LOAD  
CALCULATIONS**

**E-5.01**

**FAULT ANALYSIS SUMMARY**

BUS NAME	VOLTAGE L-L	AVAILABLE FAULT CURRENT			
		3 PHASE	X/R LINE/GRND	X/R	
ATS-EHA	480.	31967.4	1.2	11282.13	2.2
ATS-XHA	480.	31967.4	1.2	11282.13	2.2
CS-CW	208.	10122.7	2.2	8989.68	1.8
CS-GIP	208.	8478.5	1.2	6703.25	0.9
CS-SE1	208.	10122.7	2.2	8989.68	1.8
CS-SE2	208.	10122.7	2.2	8989.68	1.8
CS-SE3	208.	10122.7	2.2	8989.68	1.8
CS-SE4	208.	10122.7	2.2	8989.68	1.8
CS-SE5	208.	8478.5	1.2	6703.25	0.9
CS-SP1	208.	7542.3	1.1	5741.17	0.8
CS-SP2	208.	7542.3	1.1	5741.17	0.8
CSIG-AA	208.	3368.7	0.9	2564.80	0.7
CSIG-ASL	208.	3368.7	0.9	2564.80	0.7
CSIG-ASR	208.	3100.6	0.9	2300.90	0.7
DBHA	480.	47245.7	6.2	13094.64	8.0
DBHB	480.	43013.2	3.4	12663.13	5.2
DBLA	208.	10604.2	2.5	10938.53	2.5
DBLB	208.	11383.0	2.4	10652.50	2.0
DBLC	208.	12270.7	2.6	13007.63	2.6
DR1	208.	10830.5	2.3	10665.60	2.1
DR2	208.	10830.5	2.3	10665.60	2.1
DR3	208.	10830.5	2.3	10665.60	2.1
DR4	208.	10014.2	2.2	9890.59	1.9
DR5	208.	10014.2	2.2	9890.59	1.9
EHA	480.	27538.6	1.0	10497.84	1.8
ELA	208.	5420.8	0.8	5345.85	0.8
ELAS	208.	3167.2	0.6	2422.75	0.4
ELB	208.	3167.2	0.6	2422.75	0.4
ELEV SE1	480.	30008.3	1.7	10744.22	2.7
ENT. LA 13.8KV	13800.	10229.9	8.0	10152.10	8.0
ENT. LA 480V	480.	68161.0	7.3	70964.48	7.2
FIRE PUMP	480.	2851.7	7.8	2633.75	5.1
GEN	480.	2925.2	16.9	2769.40	17.9
H1A	480.	37805.3	2.7	11961.27	4.2
H3A	480.	25500.3	1.7	9783.91	2.4
H4A	480.	39383.5	2.9	12200.25	4.6
LA1A	208.	7299.0	1.5	6134.02	1.1
LA1B	208.	5457.8	1.2	4139.20	0.9
LA1C	208.	8698.6	1.8	7962.85	1.5
LA2A/S	208.	8307.6	1.7	7421.75	1.4
LA2C	208.	7945.7	1.6	6942.08	1.3
LA2D	208.	7945.7	1.6	6942.08	1.3
LA2TA	208.	7610.2	1.5	6515.29	1.2
LA2TB	208.	7610.2	1.5	6515.29	1.2
LA2TC	208.	7610.2	1.5	6515.29	1.2
LA3A	208.	8698.6	1.8	7962.85	1.5
LA4A	208.	9345.1	2.0	8911.01	1.7
LA4B/S	208.	9121.1	1.9	8575.02	1.6
LA4C	208.	9121.1	1.9	8575.02	1.6
LABA/S	208.	5206.1	1.1	3897.27	0.9
LAV1	208.	3681.4	1.0	2890.80	0.8
LAV2	208.	3681.4	1.0	2890.80	0.8
LB1A/S	208.	9927.0	1.9	8647.22	1.5
LB1B	208.	9927.0	1.9	8647.22	1.5
LB1TA/S	208.	9671.3	1.8	8320.40	1.4
LB3A	208.	9927.0	1.9	8647.22	1.5
LB3B	208.	9927.0	1.9	8647.22	1.5
LB4A	208.	9927.0	1.9	8647.22	1.5
LB4TA	208.	9927.0	1.9	8647.22	1.5
LB4TB	208.	9927.0	1.9	8647.22	1.5
MSHA	480.	50761.2	8.1	13548.00	9.8
XHA	480.	27538.6	1.0	10497.84	1.8
XLA	208.	5420.8	0.8	5345.85	0.8



**LOAD CALCULATION**

MAIN SWITCHBOARD 'MSHA'	
XFMR 'T-AV'	= 26 KVA
'ATS-EHA'	= 75 KVA
'ATS-XHA'	= 41 KVA
DISTR. BD. 'DBHA'	= 808 KVA
DISTR. BD. 'DBHB'	= 167 KVA
XFMR 'T-DBLB'	= 293 KVA
XFMR 'T-DBLA'	= 265 KVA
PANEL 'H1A/H3A'	= 75 KVA
PANEL 'H4A'	= 75 KVA
XFMR 'T-DBLC'	= 204 KVA
XFMR 'T-DR5'	= 225 KVA
ELEV. SE1	= 74 KVA
<b>TOTAL</b>	<b>= 2328 KVA/ 480V, 3PH = 2801 AMPS</b>

DISTRIBUTION BD. 'DBLC'	
DIMMER BD. 'DR1'	= 68 KVA
DIMMER BD. 'DR2'	= 68 KVA
DIMMER BD. 'DR3'	= 68 KVA
<b>TOTAL</b>	<b>= 204 KVA/ 208V, 3PH = 566 AMPS</b>

GENERATOR 1	
FIRE PUMP FP-1	= 64 KVA
'ATS-EHA'	= 75 KVA
'ATS-XHA'	= 41 KVA
<b>TOTAL</b>	<b>= 180 KVA/ 480V, 3PH = 438 AMPS</b>

DISTRIBUTION BD. 'DBHA'	
CH-1 THRU 5	= 304 KVA
CH-6 THRU 10	= 304 KVA
CU-1 THRU 5	= 72 KVA
CU-6 THRU 10	= 72 KVA
CWP-1	= 28 KVA
CWP-2	= 28 KVA
CWP-3 (STANDBY)	= - KVA
<b>TOTAL</b>	<b>= 808 KVA/ 480V, 3PH = 972 AMPS</b>

DISTRIBUTION BD. 'DBHB'	
AH-3S	= 28 KVA
AH-3R	= 18 KVA
AH-4S	= 28 KVA
AH-4R	= 18 KVA
HWP-1	= 12 KVA
HWP-2	= 12 KVA
AH-5S	= 18 KVA
AH-6S	= 18 KVA
AH-6R	= 12 KVA
EF-7	= 3 KVA
<b>TOTAL</b>	<b>= 167 KVA/ 480V, 3PH = 200 AMPS</b>

DISTRIBUTION BD. 'DBLA'	
PANEL 'LA2TA'	= 13 KVA
PANEL 'LA2TB'	= 12 KVA
PANEL 'LA2TC'	= 15 KVA
PANEL 'LABA'	= 20 KVA
PANEL 'LABB/LABBS'	= 25 KVA
PANEL 'LA1A'	= 5 KVA
PANEL 'LA1B'	= 8 KVA
PANEL 'LA1C'	= 21 KVA
PANEL 'LA2A/LA2AS'	= 35 KVA
PANEL 'LA2C'	= 17 KVA
PANEL 'LA2D'	= 8 KVA
PANEL 'LA3A'	= 19 KVA
PANEL 'LA3B'	= 13 KVA
PANEL 'LA4A'	= 16 KVA
PANEL 'LA4B/LA4BS'	= 26 KVA
PANEL 'LA4C'	= 12 KVA
<b>TOTAL</b>	<b>= 265 KVA/ 208V, 3PH = 736 AMPS</b>

DISTRIBUTION BD. 'DBLB'	
'CS-SE1'	= 12 KVA
'CS-SE2'	= 12 KVA
'CS-SE3'	= 12 KVA
'CS-SE4'	= 12 KVA
'CS-SE5'	= 12 KVA
'CS-GIP'	= 10 KVA
'CS-TRP'	= 10 KVA
'CS-CW'	= 10 KVA
PANEL 'LB1TA/LB1TAS'	= 37 KVA
PANEL 'LB4TA'	= 11 KVA
PANEL 'LB4TB'	= 25 KVA
PANEL 'LB1A/LB1AS'	= 56 KVA
PANEL 'LB1B'	= 36 KVA
PANEL 'LB3A'	= 27 KVA
PANEL 'LB3B'	= 6 KVA
PANEL 'LB4A'	= 5 KVA
<b>TOTAL</b>	<b>= 293 KVA/ 208V, 3PH = 813 AMPS</b>