CLICK TO JUMP TO INDEX

208Y/120V 3-Phase 4-Wire POWER PANEL Name: DP

Mains: 800A Main molded case breaker
Trim: Surface Door: Yes
Branch OCP: Molded case breaker
Neutral: S/N
Ground bar: As required for service entrance equipment

Min Sym IC: 65000
Fed from: UTILITY
Provide UL SE Label
Feeder: Note 1

CIR	DESCRIPTION	TRIP	POLES	PHASE LOADS A	B	C	CONDUITS	PHASES	NEUTRAL	GROUND	WIRE TYPE
1	ELEVATOR	150	3	8983	8983	8982	(1)1-1/2"	3#1/0	-	#6	THWN Copper
2	ELEV CAB & LTS	20	1	628	---	---	1/2"	1#12	#12	#12	THWN Copper
3	LR2	150	3	2316	3940	3100	(1)1-1/2"	3#1/0	1/0	#6	THWN Copper
4	LTS ELEV PIT	20	1	---	11	---	1/2"	1#12	#12	#12	THWN Copper
5	Space only	400	3	---	---	---	-				
6	LTS 119,120	20	1	1061	---	---	1/2"	1#12	#12	#12	THWN Copper
7	Space only	400	3	---	---	---	-				
8	LTS 122,123,124	20	1	---	952	---	1/2"	1#12	#12	#12	THWN Copper
9	LTS 109,110,111	20	1	---	---	1077	1/2"	1#12	#12	#12	THWN Copper
10	LTS 201	20	1	828	---	---	1/2"	1#12	#12	#12	THWN Copper
11	LTS 115,116,128	20	1	---	1335	---	1/2"	1#12	#12	#12	THWN Copper
12	LTS 201	20	1	---	---	1024	1/2"	1#12	#12	#12	THWN Copper
13	LTS 115,116,128	20	1	1418	---	---	1/2"	1#12	#12	#12	THWN Copper
14	LTS 201	20	1	---	905	---	1/2"	1#12	#12	#12	THWN Copper
15	Space only	400	3	---	---	---	-				
16	EXTERIOR LTS	20	1	---	---	1162	1/2"	1#10	#10	#10	THWN Copper
17	Space only	400	3	---	---	---	-				
18	Space only	400	3	---	---	---	-				
19	LR1	225	3	19476	25216	24160	(1)2-1/2"	3#4/0	4/0	#4	THWN Copper
20	LM	300	3	33787	33448	34112	(1) 3"	3#350kcm	350kcm	#4	THWN Copper
	Phase load totals			68497	74790	73617					

Notes for DP:

1 Feeder is (3) 3" - 4#350kcmil THWN Copper
2 Provide Shunt trip - circuit 1

208Y/120V 3-Phase 4-Wire LIGHTING PANEL Name: LR1 Section 1

Mains: 225A MLO
Trim: Surface Door: Yes
Neutral: S/N
Ground bar: Yes
Provide 225A feed-thru lugs

Min Sym IC: 65000
Fed from: DP
Feeder: Note 1

CIR	DESCRIPTION	CONDUIT	PHASE	NEUT	GND	TRIP	POLES	PHASE LOADS A	B	C	POLES	TRIP	CONDUIT	PHASE	NEUT	GND	DESCRIPTION	CIR
1	REC 115,116,129	Note 2	#12	#12	#12	20	1	720										
								600			1	20	Note 2	#12	#12	#12	REC 124	2
3	FACP	Note 2	#12	#12	#12	20	1		600									
									600		1	20	Note 2	#12	#12	#12	REC 124	4
5	REC ELEV PIT	Note 2	#12	#12	#12	20	1			180								
										1200	1	20	Note 2	#12	#12	#12	MDF POWER	6
7	MDF POWER	Note 2	#12	#12	#12	20	1	1200										
								720			1	20	Note 2	#12	#12	#12	REC 123	8
9	MDF POWER	Note 2	#12	#12	#12	20	1		1200									
									720		1	20	Note 2	#12	#12	#12	REC 118,121	10
11	REC 124	Note 2	#12	#12	#12	20	1			600								
										1080	1	20	Note 2	#12	#12	#12	REC 120	12
13	REC 101	Note 2	#12	#12	#12	20	1	1260										
								900			1	20	Note 2	#12	#12	#12	REC 104	14
15	REC 101,102,103	Note 2	#12	#12	#12	20	1		900									
									1080		1	20	Note 2	#12	#12	#12	REC 105	16
17	REC 104	Note 2	#12	#12	#12	20	1			900								
										1080	1	20	Note 2	#12	#12	#12	REC 106	18
19	REC 107	Note 2	#12	#12	#12	20	1	1080										
								1080			1	20	Note 2	#12	#12	#12	REC 110	20
21	REC 108	Note 2	#12	#12	#12	20	1		1080									
									1260		1	20	Note 2	#12	#12	#12	REC 111	22
23	REC 109	Note 2	#12	#12	#12	20	1			1080								
										1080	1	20	Note 2	#12	#12	#12	REC 125	24
25	REC 126	Note 2	#12	#12	#12	20	1	720										
								180			1	20	Note 2	#12	#12	#12	REC 127	26
27	COPIER	Note 2	#12	#12	#12	20	1		1200									
									180		1	20	Note 2	#12	#12	#12	REC 127	28
29	COPIER	Note 2	#12	#12	#12	20	1			1200								
										180	1	20	Note 2	#12	#12	#12	REC 127	30
31	REC 127	Note 2	#12	#12	#12	20	1	180										
								600			1	20	Note 2	#12	#12	#12	PROJECTOR	32
33	REC 127	Note 2	#12	#12	#12	20	1		180									
									600		1	20	Note 2	#12	#12	#12	PROJECTOR	34
35	REC 113	Note 2	#12	#12	#12	20	1			540								
										900	1	20	Note 2	#12	#12	#12	REC 122	36
37	REC 122	Note 2	#12	#12	#12	20	1	720										
								540			1	20	Note 2	#12	#12	#12	REC 128	38
39	REC 128	Note 2	#12	#12	#12	20	1		720									
									180		1	20	Note 2	#12	#12	#12	REC MACH ROOM	40
41	REC 128	Note 2	#12	#12	#12	20	1			540								
										720	1	20	Note 2	#12	#12	#12	REC 201	42

Refer to LR1 - Section 2 for notes

208Y/120V 3-Phase 4-Wire LIGHTING PANEL Name: LR1 Section 2

Mains: 225A MLO
Trim: Surface Door: Yes
Neutral: S/N
Ground bar: Yes

Min Sym IC: 65000
Fed from: Section 1

CIR	DESCRIPTION	CONDUIT	PHASE	NEUT	GND	TRIP	POLES	PHASE LOADS A	B	C	POLES	TRIP	CONDUIT	PHASE	NEUT	GND	DESCRIPTION	CIR
43	REC 204,205,206	Note 2	#12	#12	#12	20	1	540										
								1500			2	20	1/2"	#10	#10	#10	ICE MAKER	44
45	REC 203	Note 2	#12	#12	#12	20	1		1080									
									1500		-			#10			-	46
47	REC 202	Note 2	#12	#12	#12	20	1			180								
										360	1	20	Note 2	#12	#12	#12	REC 202	48
49	REC 202	Note 2	#12	#12	#12	20	1	360										
								360			1	20	Note 2	#12	#12	#12	REC 202	50
51	RANGE	3/4"	#8	#8	#10	50	2		4000									
									1200		1	20	Note 2	#12	#12	#12	REFRIGERATOR	52
53	-		#8				-			4000								
										360	1	20	Note 2	#12	#12	#12	REC 202	54
55	(Shunt trip)	-					-	---										
								540			1	20	Note 2	#12	#12	#12	REC 119	56
57	DRINK COOLER	Note 2	#12	#12	#12	20	1		1200									
									540		1	20	Note 2	#12	#12	#12	REC 117	58
59	DRINK COOLER	Note 2	#12	#12	#12	20	1			1200								
										720	1	20	Note 2	#12	#12	#12	REC 201	60
61	REC 201	Note 2	#12	#12	#12	20	1	540										
								1200			1	20	Note 2	#12	#12	#12	MSSC POWER	[illegible]
63	REC 201	Note 2	#12	#12	#12	20	1		540									
									540		1	20	Note 2	#12	#12	#12	REC 20[illegible]	64
65	MSSC POWER	Note 2	#12	#12	#12	20	1			1200								
										540	1	20	Note 2	#12	#12	#12	REC 201	66
67	PROJECTOR SCREEN	Note 2	#12	#12	#12	20	1	1176										
								540			1	20	Note 2	#12	#12	#12	BOARDROOM TV'S	[illegible]
69	PROJECTOR SCREEN	Note 2	#12	#12	#12	20	1		1176									
									180		1	20	Note 2	[illegible]	[illegible]	#12	REC 122	70
71	BSSC POWER	Note 2	#12	#12	#12	20	1			1200								
										360	1	20	Note [illegible]	#12	[illegible]	[illegible]	REC 122	72
73	REC 122	Note 2	#12	#12	#12	20	1	180										
								600			1	20	Note [illegible]	#12	#12	[illegible]	SECURITY PANEL	74
75	COPIER	Note 2	#12	#12	#12	20	1		600									
									720		1	20	Note 2	[illegible]	#12	#12	REC POKE-THRU	76
77	COPIER	Note 2	#12	#12	#12	20	1			600								
										720	1	20	Note 2	#12	[illegible]	[illegible]	REC POKE-THRU	78
79	REC POKE-THRU	Note 2	#12	#12	#12	20	1	720										
								720			1	20	Note 2	#12	#12	[illegible]	REC POKE-THRU	80
81	REC POKE-THRU	Note 2	#12	#12	#12	20	1		720									
									720		1	20	Note 2	#12	#12	#12	REC POKE-THRU	82
83	REC POKE-THRU	Note 2	#12	#12	#12	20	1			720								
										720	1	20	Note 2	#12	#12	#12	REC POKE-THRU	84
	Phase load totals							A 19476	B 25216	C 24160								

Notes for LR1:

1 Feeder is (1) 2-1/2" - 4#4/0 + #4 GND THWN Copper
2 A maximum of 3 phases, 1 neutral and 1 ground may be combined per conduit without derating
3 Use breaker suitable for 75C conductors for circuit 51
4 Provide GFCI - circuits 52 57 59
5 Provide Shunt trip - circuit 51

208Y/120V 3-Phase 4-Wire LIGHTING PANEL Name: LM

Mains: 400A MLO
Trim: Surface Door: Yes
Neutral: S/N
Ground bar: Yes

Min Sym IC: 65000
Fed from: DP
Feeder: Note 1

CIR	DESCRIPTION	CONDUIT	PHASE	NEUT	GND	TRIP	POLES	PHASE LOADS A	B	C	POLES	TRIP	CONDUIT	PHASE	NEUT	GND	DESCRIPTION	CIR
1	EWH	1/2"	#10	-	#10	30	2	2250										
								702			2	15	1/2"	#12	-	#12	VRFC-101,102,103	2
3	-		#10				-		2250									
									702		-			#12			-	4
5	CIRC PUMP	Note 2	#12	#12	#12	15	1			528								
										2000	2	30	1/2"	#10	-	#10	EH-1	6
7	VRFC-117	1/2"	#12	-	#12	15	2	354										
								2000			-			#10			-	8
9	-		#12				-		354									
									9607		3	100	1"	#3	-	#8	VRHP-100	10
11	VRFC-109,110,111	1/2"	#12	-	#12	15	2			608								
										9607	-			#3			-	12
13	-		#12				-	607										
								9607			-			#3			-	14
15	VRHP-200	1"	#3	-	#8	100	3		9607									
									303		2	15	1/2"	#12	-	#12	VRFC-203,204	16
17	-		#3				-			9607								
										302	-			#12			-	18
19	-		#3				-	9607										
								1061			2	15	1/2"	#12	-	#12	VRFC-201	20
21	VRFC-202	1/2"	#12	-	#12	15	2		1061									
									1061		-			#12			-	22
23	-		#12				-			1061								
										1248	2	20	1/2"	#12	-	#12	MHP/MAHU-1	24
25	OIL SMART PANEL	Note 2	#12	#12	#12	20	1	600										
								1248			-			#12			-	26
27	EH-3	1/2"	#10	-	#10	30	2		2000									
									2000		2	30	1/2"	#10	-	#10	EH-2	28
29	-		#10				-			2000								
										2000	-			#10			-	30
31	ERU-1	3/4"	#8	-	#10	50	3	3903										
								600			1	20	Note 2	#12	#12	#12	HVAC CTRL PANEL	32
33	-		#8				-		3903									
									600		1	20	Note 2	#12	#12	#12	HVAC CTRL PANEL	34
35	-		#8				-			3903								
										1248	2	20	1/2"	#12	-	#12	MHP/MAHU-2	36
37	Space only	-				--	1	---										
								1248			-			#12			-	38
39	Space only	-				--	1		---									
									---		1	--	-				Space only	40
41	Space only	-				--	1			---								
										---	1	--	-				Space only	42
	Phase load totals							A 33787	B 33448	C 34112								

Notes for LM:

1 Feeder is (1) 3" - 4#350kcmil + #4 GND THWN Copper
2 A maximum of 3 phases, 1 neutral and 1 ground may be combined per conduit without derating
3 Use breaker suitable for 75C conductors for circuits 10 15 31

208Y/120V 3-Phase 4-Wire LIGHTING PANEL Name: LR2

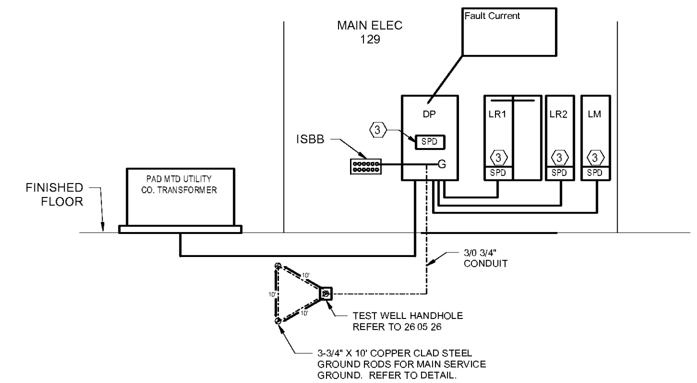
Mains: 225A MLO
Trim: Surface Door: Yes
Neutral: S/N
Ground bar: Yes

Min Sym IC: 65000
Fed from: DP
Feeder: Note 1

CIR	DESCRIPTION	CONDUIT	PHASE	NEUT	GND	TRIP	POLES	PHASE LOADS A	B	C	POLES	TRIP	CONDUIT	PHASE	NEUT	GND	DESCRIPTION	CIR
1	REC 117	Note 2	#12	#12	#12	20	1	360										
								540			1	20	Note 2	#12	#12	#12	REC 119	2
3	REC 117	Note 2	#12	#12	#12	20	1		180									
									360		1	20	Note 2	#12	#12	#12	REC 119	4
5	REC 117	Note 2	#12	#12	#12	20	1			360								
										180	1	20	Note 2	#12	#12	#12	REC 119	6
7	REC 126	Note 2	#12	#12	#12	20	1	720										
								696			1	20	Note 2	#12	#12	#12	HOOD LTS/FAN	8
9	EDF'S	Note 2	#12	#12	#12	20	1		1200									
									2200		1	30	1/2"	#10	#10	#10	REC DATA 124	10
11	POKETHRU 201	Note 2	#12	#12	#12	20	1			360								
										2200	1	30	1/2"	#10	#10	#10	REC DATA 124	12
13	SPARE	-				20	1	---										
								---			1	20	-				SPARE	14
15	SPARE	-				20	1		---									
									---		1	20	-				SPARE	16
17	SPARE	-				20	1			---								
										---	1	20	-				SPARE	18
19	SPARE	-				20	1	---										
								---			1	20	-				SPARE	20
21	SPARE	-				20	1		---									
									---		1	20	-				SPARE	22
23	Space only	-				--	1			---								
										---	1	--	-				Space only	24
25	Space only	-				--	1	---										
								---			1	--	-				Space only	26
27	Space only	-				--	1		---									
									---		1	--	-				Space only	28
29	Space only	-				--	1			---								
										---	1	--	-				Space only	30
31	Space only	-				--	1	---										
								---			1	--	-				Space only	32
33	Space only	-				--	1		---									
									---		1	--	-				Space only	34
35	Space only	-				--	1			---								
										---	1	--	-				Space only	36
37	Space only	-				--	1	---										
								---			1	--	-				Space only	38
39	Space only	-				--	1		---									
									---		1	--	-				Space only	40
41	Space only	-				--	1			---								
										---	1	--	-				Space only	42
	Phase load totals							A 2316	B 3940	C 3100								

Notes for LR2:

1 Feeder is (1) 1-1/2" - 4#1/0 + #6 GND THWN Copper
2 A maximum of 3 phases, 1 neutral and 1 ground may be combined per conduit without derating
3 Provide GFCI - circuit 9



1 ELECTRICAL RISER DIAGRAM
NO SCALE

ELECTRICAL RISER DIAGRAM NOTES:

1. REFER TO DISTRIBUTION PANEL AND PANELBOARD SCHEDULES FOR CONDUIT AND CONDUCTOR SIZES.

2. REFER TO SITE PLAN AND 1/8" SCALE DRAWINGS FOR LOCATIONS OF PANELS.

3. SURGE PROTECTIVE DEVICE (SPD) PER SECTION 262413 AND/OR 262416. SPD SHALL INSTALLED BY AND SHIPPED FROM THE PANELBOARD AND/OR SWITCHBOARD MANUFACTURER'S FACTORY.

4. PER NEC ARTICLE 110.24, PROVIDE BLACK PHENOLIC NAMEPLATE WITH WHITE LETTERING WITH MAXIMUM AVAILABLE FAULT CURRENT AND THE DATE IT WAS CALCULATED AND PERMANENTLY AFFIX TO SERVICE ENTRANCE EQUIPMENT. REFER TO SPECIFICATION SECTIONS 260553 FOR DETAILS.

PANEL SCHEDULES THIS SHEET:

DP	LR1(1)	X	X
LM	LR1(2)	X	
	LR2		

NOTE:
ON PANELBOARD DIRECTORIES, CONTRACTOR SHALL ADD SUFFICIENT TEXT TO EACH CIRCUIT DESCRIPTION SO AS TO DIFFERENTIATE EACH CIRCUIT FROM ALL OTHERS, IN COMPLIANCE WITH 2014 NEC ARTICLE 408

SA&E PROJECT NUMBER	01-615-057
BID PACKAGE / PHASING	BP-1
ISSUED FOR CONSTRUCTION	10/15/2019

REVISIONS

R #	Doc #	Date

Southern A&E LLC
7951 Troon Circle
Austell, Ga 30168
(770) 819-7777
architects & engineers

ADD ALTERNATE #1
BOARD OF EDUCATION OFFICE FOR:

HEARD COUNTY SCHOOLS

4647 PEA RIDGE ROAD, FRANKLIN, GA 30217

HEARD COUNTY SCHOOL SYSTEM
FRANKLIN, GEORGIA

RISER DIAGRAMS & PANELBOARD SCHEDULES

STATE OF GEORGIA GREGORY SCHIMMOEL(?) CERTIFICATE NO. RA010616 REGISTERED ARCHITECT

GEORGIA REGISTERED No. 27857 PROFESSIONAL ENGINEER FRANK E. CAMPO, JR.

DRAWING NUMBER

E601

ORIGINAL SHEET SIZE: ARCH E1 (30" X 42")