



ELECTRICAL ONE-LINE DIAGRAM
SCALE: N.T.S.

FEEDER SCHEDULE (CU)							
DESIG.	FUSE OR CIRCUIT BREAKER AMP RATING# POLES	NUMBER OF PARALLEL SETS	NUMBER OF CONDUCTORS	CONDUCTORS	EQUIP. GRD.	CONDUIT	FEEDER SIZE
1			3				
2	153	1	4	12 AWG	12 AWG	3/4"	
3			3				
4	203	1	4	12 AWG	12 AWG	3/4"	
5			3				
6	303	1	4	10 AWG	10 AWG	3/4"	
7			3				
8	403	1	4	8 AWG	10 AWG	3/4"	
9			3				
10	503	1	4	6 AWG	10 AWG	1-1/4"	
11			3				
12	603	1	4	4 AWG	10 AWG	1-1/4"	
13			3				
14	703	1	4	4 AWG	8 AWG	1-1/4"	
15			3				
16	803	1	4	3 AWG	8 AWG	1-1/4"	
17			3				
18	903	1	4	2 AWG	8 AWG	1-1/2"	
19			3				
20	1003	1	4	1 AWG	8 AWG	2"	
21			3				
22	1253	1	4	10 AWG (AL)	6 AWG (CU)	2"	
23			3				
24	1503	1	4	20 AWG (AL)	6 AWG (CU)**	2"	
25			3				
26	1753	1	4	30 AWG (AL)	6 AWG (CU)	2"	

Branch Panel: F2

Location: _____
Supply From: F1
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10K
Mains Type: MLO
Mains Rating: 100 A
MCB Rating: 100 A

Notes:
PROVIDE TYPE WRITTEN DIRECTORY SPECIFYING LOAD AND LOCATION

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT	
F2-1	Receptacle Storage	20 A	1	200 VA	200 VA			1	20 A	Receptacle Storage	F2-2
F2-3	Receptacle TC1	20 A	1		600 VA	400 VA		1	30 A	Receptacle	F2-4
F2-5	Receptacle TC1	20 A	1		1000...	600 VA		1	20 A	Receptacle TC2	F2-6
F2-7	Receptacle TC2	20 A	1	600 VA	400 VA			1	30 A	Receptacle TC2	F2-8
F2-9	Receptacle Mech. Room	20 A	1		800 VA	400 VA		1	20 A	Receptacle Records	F2-10
F2-11	Receptacle Records	20 A	1			600 VA	600 VA	1	20 A	Receptacle Imaging	F2-12
F2-13	Receptacle Records	20 A	1	400 VA	400 VA			1	20 A	Receptacle Imaging	F2-14
F2-15	Receptacle OP #1,2	20 A	1		400 VA	400 VA		1	20 A	Receptacle OP #3,4	F2-16
F2-17	Receptacle TV OP#7	20 A	1			600 VA	800 VA	1	20 A	Receptacle Column	F2-18
F2-19	Receptacle Floor Box OP #1	30 A	1	400 VA	400 VA			1	30 A	Receptacle Floor Box OP #2	F2-20
F2-21	Receptacle Floor Box OP #3	30 A	1		400 VA	400 VA		1	30 A	Receptacle Floor Box OP #4	F2-22
F2-23	Receptacle Floor Box OP #5	20 A	1			400 VA	400 VA	1	30 A	Receptacle Floor Box OP #24	F2-24
F2-25	Receptacle Floor Box OP #7	30 A	1	400 VA	800 VA			1	20 A	Receptacle OP #7	F2-26
F2-27	Receptacle Dr. Office	20 A	1		600 VA	400 VA		1	20 A	Receptacle T.C. 3	F2-28
F2-29	Receptacle T.C. 3	20 A	1			1000...	600 VA	1	20 A	Receptacle On Deck	F2-30
F2-31	Receptacle Ortho Bay	20 A	1	400 VA	600 VA			1	20 A	Receptacle Ortho Bay	F2-32
F2-33	Receptacle Sterilization	20 A	1		400 VA	600 VA		1	20 A	Receptacle Sterilization/Storage	F2-34
F2-35	Receptacle Hall	20 A	1			600 VA	800 VA	1	20 A	Receptacle Waiting Room	F2-36
F2-37	Receptacle Waiting Room	20 A	1	600 VA	400 VA			1	20 A	Receptacle Waiting Room	F2-38
F2-39	Receptacle Reception	20 A	1		600 VA	600 VA		1	20 A	Receptacle Reception	F2-40
F2-41	Receptacle Reception	20 A	1			600 VA	600 VA	1	20 A	Receptacle Private Office	F2-42
F2-43	Receptacle Breakroom	20 A	1	600 VA	200 VA			1	20 A	Receptacle	F2-44
F2-45	Receptacle Sound System	20 A	1		360 VA	960 VA		1	20 A	Lighting	F2-46
F2-47	Lighting	20 A	1			960 VA	960 VA	1	20 A	Lighting	F2-48
F2-49	Air compressor	20 A	1	1000...	1920...			1	30 A	Vacuum	F2-50
F2-51	Water shutoff	20 A	1		400 VA	200 VA		1	20 A	Irrigation pump	F2-52
F2-53											F2-54
Total Load:				9920 VA	8920 VA	11120 VA					
Total Amps:				84 A	74 A	94 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
HVAC	2920 VA	100.00%	2920 VA	
Lighting	2880 VA	100.00%	2880 VA	Total Conn. Load: 29960 VA
Power	1560 VA	100.00%	1560 VA	Total Est. Demand: 23660 VA
				Total Conn. Current: 83 A
				Total Est. Demand Current: 66 A

Notes:
PROVIDE 60 CIRCUIT PANEL WITH (5) SPARE 20A CIRCUITS.

Branch Panel: F1

Location: _____
Supply From: _____
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10K
Mains Type: MCB
Mains Rating: 400 A
MCB Rating: 400 A

Notes:
PROVIDE TYPE WRITTEN DIRECTORY SPECIFYING LOAD AND LOCATION

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT	
F1-1	CU-1	40 A	3	2173...	2467...			3	40 A	AHU-2	F1-2
F1-3	--	--	--		2173...	2467...		--	--	--	F1-4
F1-5	--	--	--		2173...	2467...		--	--	--	F1-6
F1-7	CU-2	40 A	3	2173...	400 VA			1	20 A	Receptacle Exterior	F1-8
F1-9	--	--	--		2173...	400 VA		1	20 A	Receptacle Sinks	F1-10
F1-11	--	--	--		2173...	981 VA		1	20 A	Other	F1-12
F1-13	AHU-1	40 A	3	2467...	200 VA			1	20 A	Receptacle Refig. Break Room	F1-14
F1-15	--	--	--		2467...	200 VA		1	20 A	Receptacle Breakroom	F1-16
F1-17	--	--	--			2467...	200 VA	1	20 A	Receptacle Breakroom	F1-18
F1-19	Receptacle Breakroom	20 A	1	200 VA	200 VA			1	20 A	Receptacle Breakroom	F1-20
F1-21	Receptacle Waiting Room	20 A	1		200 VA	450 VA		1	20 A	Lighting	F1-22
F1-23	Receptacle Hall	20 A	1			800 VA	180 VA	1	20 A	Receptacle Water Fountain	F1-24
F1-25	Receptacle CU Convenience	20 A	1	200 VA	200 VA			1	20 A	Receptacle Sink	F1-26
F1-27	Lighting	20 A	1		429 VA	1137...		1	20 A	Lighting	F1-28
F1-29	Lighting	20 A	1			698 VA	1232...	1	20 A	Lighting	F1-30
F1-31	Lighting	20 A	1	520 VA	198 VA			1	20 A	Lighting	F1-32
F1-33	Lighting Exit lights	20 A	1		50 VA	663 VA		1	20 A	Lighting	F1-34
F1-35	Water Heater	50 A	3			2767...	670 VA	1	20 A	Recirc. Pump	F1-36
F1-37	--	--	--		2767...	9920...		3	100 A	PANEL F2	F1-38
F1-39	--	--	--		2767...	8877...		--	--	--	F1-40
F1-41	XRAY MACHINE	30 A	2		0 VA	400 VA		1	20 A	Exhaust fan	F1-42
F1-43	--	--	--					1	20 A	Water Heater	F1-44
F1-45	--	--	--			2767...		3	50 A	Water Heater	F1-46
F1-47	--	--	--				2767...	--	--	--	F1-48
F1-49	spd	30 A	3	0 VA	2767...			--	--	--	F1-50
F1-51	--	--	--			0 VA	100 VA	1	20 A	XRAY MACHINE	F1-52
F1-53	--	--	--				0 VA	--	--	--	F1-54
Total Load:				27251 VA	27319 VA	31114 VA					
Total Amps:				227 A	228 A	259 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
HVAC	48030 VA	100.00%	48030 VA	
Lighting	6053 VA	100.00%	6053 VA	Total Conn. Load: 85832 VA
Other	3600 VA	100.00%	3600 VA	Total Est. Demand: 78142 VA
Power	2160 VA	100.00%	2160 VA	Total Conn. Current: 238 A
				Total Est. Demand Current: 217 A

Notes:
PROVIDE 60 CIRCUIT PANEL WITH (5) SPARE 20A CIRCUITS.

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER	MODEL NUMBER	VOLTAGE	REQUIRED LAMPS			REMARKS
					NUM.	TYPE	VA	
F1	TROFFER, INDIRECT, LED, 2'X4', WHITE FINISH.	H.E. WILLIAMS	IQ68-35-50-90-4.4	120 V		LED	14 VA	PROVIDE POWER SUPPLY AND MOUNT OUTSIDE OF SHOWER LOCATION.
F2	TROFFER, LED, 2'X4', ACRYLIC LENS, WHITE FINISH.	H.E. WILLIAMS	LT-24-L43/840-AF-DIM-UNV	120 V	3	LED	40 VA	CONFIRM MOUNTING STYLE BEFORE ORDERING FIXTURES.
F4	DOWNLIGHT, LED, 6"DIA.	H.E. WILLIAMS	L60-L11/840-CS-DIM-120	120 V	1	LED	20 VA	CENTERED ABOVE TRANSACTION COUNTER IN SOFFIT ABOVE FRONT DESK.
F5	DOWNLIGHT, LED, 2 LAMP, 6"DIA, WHITE FINISH.	H.E. WILLIAMS	L60-L15/840-CS-DIM-120	120 V	2	LED	20 VA	
F6	DOWNLIGHT, LED, 6"DIA, WHITE FINISH.	H.E. WILLIAMS	L60-L15/840-CS-EM/7W-DIM-120	120 V	2	LED	20 VA	PROVIDE 600 LUMEN EMERGENCY BALLAST.
F7	UNDERCABINET, LED, 1'X4', BLACK FINISH, ELECTRONIC BALLAST.	H.E. WILLIAMS	1SF-4-L24/835-AF12125-DIM-UNV-WRS/120	120 V	1	LED	29 VA	PROVIDE INTEGRAL ROCKER SWITCH.
F8	SURFACE MOUNT ABOVE MIRROR LIGHT FIXTURE, LED, FROSTED LENSE, SATIN NICKEL FINISH.	H.E. WILLIAMS	WMA-4-L65/840-AF-DIM-UNV	120 V	3	LED	81 VA	MOUNTED 6"-8" O.C. AFF IN TOILET ROOMS AND AT TOOTH BRUSHING.
F9	UNDERCABINET, LED, 1'X4', BLACK FINISH, ELECTRONIC BALLAST.	H.E. WILLIAMS	1SF-4-L24/835-AF12125-DRV-UNV-WRS/120	120 V	1	LED	29 VA	
F11	WALL SCONCE, SURFACE MOUNTED, FROSTED LEN, SATIN NICKEL FINISH.	ARCHITECT TO SELECT.	TBD	120 V	1	LED	50 VA	VERIFY MOUNTING HEIGHT WITH ARCHITECT.
F14	RECESSED MEDICAL LIGHT PROVIDED BY OWNER, INSTALLED BY CONTRACTOR.	ALGER	TBD	120 V	2	100 W	480 VA	
SW7	SCONCE, FLUORESCENT, WALL MOUNTED, 1 LAMP, ELECTRONIC BALLAST.	ARCHITECT TO SELECT.	TBD	120 V	2	LED	33 VA	UL LISTED WET LOCATIONS. ALL EXTERIOR LIGHTS WILL BE CONTROLLED VIA ROOF MOUNTED PHOTOCELL AND ASTRONOMICAL TIMECLOCK OVERRIDE.
X	EXIT SIGN, EDGELIT, LED, GREEN LETTERS GLASS, NI-CAD BATTERY, INTEGRAL TEST SWITCH AND INDICATOR LIGHT.	H.E. WILLIAMS	EXIT/EL-SF-R-CP-AN-AC	120 V	1	LED	4 VA	PROVIDE NUMBER OF FACES AND DIRECTIONAL ARROWS AS INDICATED. MOUNT EXIT SIGN BELOW BULKHEAD AND ANY OBSTRUCTIONS SO EXIT SIGN IS COMPLETELY VISIBLE FROM LINE OF SIGHT..

NOTES:

- ALL FLUORESCENT FIXTURES SHALL USE PROGRAMMED START ELECTRONIC BALLASTS, UNLESS OTHERWISE NOTED. ALL BALLASTS SHALL BE HIGH EFFICIENCY TYPE BF 0.88 MINIMUM. PROVIDE UNIVERSAL VOLTAGE BALLAST ON ALL NON-DIMMABLE FLUORESCENT FIXTURES.
- REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF LIGHT FIXTURES. COORDINATE TYPE OF CEILING FOR EACH FIXTURE WITH ARCHITECTURAL REFLECTED CEILING PLANS AND PROVIDE FIXTURE TRIM AS REQUIRED.
- PROVIDE ALL REQUIRED HARDWARE TO MOUNT FIXTURES PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- ALL ACRYLIC LENSED FIXTURES SHALL HAVE A LENS THICKNESS OF .125 INCHES MINIMUM.
- IF THERE IS A DISCREPANCY BETWEEN A FIXTURE DESCRIPTION AND THE CATALOG NUMBER LISTED, THE FIXTURE DESCRIPTION SHALL DICTATE.
- ALL EXIT SIGNS AND FIXTURES WITH INTEGRAL BATTERY SHALL HAVE INTEGRAL TEST SWITCH AND LED INDICATOR LIGHT.
- CONTRACTOR SHALL VERIFY LAMP COLOR WITH OWNER PRIOR TO ORDERING LAMPS.
- LOW-MERCURY LAMPS: COMPLY WITH EPA'S TOXICITY CHARACTERISTIC LEACHING PROCEDURE TEST; SHALL YIELD LESS THAN 0.2 MG OF MERCURY PER LITER WHEN TESTED ACCORDING TO NEMA LL 1.
- PROVIDE LAMP AND BALLAST INFORMATION DATA CUT SHEETS THAT INCLUDE ALL TECHNICAL INFORMATION AS PART OF SHOP DRAWINGS.

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