

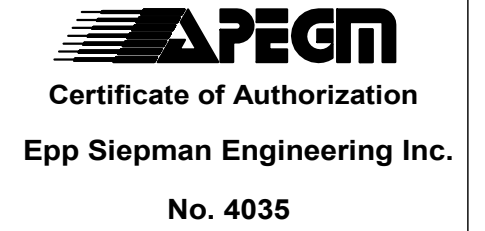
EQUIPMENT CONNECTION SCHEDULE

NO.	DESCRIPTION	LOAD			VOLT	PH	CIRCUIT	CONDUIT & WIRE SIZE	STARTER	CONTROL DEVICE	DISCONNECT	NOTES	NO.	DESCRIPTION	LOAD			VOLT	PH	CIRCUIT	CONDUIT & WIRE SIZE	STARTER	CONTROL DEVICE	DISCONNECT	NOTES	
		HP	A	W											HP	A	W									
AHU-1-CP	AHU-1 CONTROL PANEL		12 A		600 V	3	SMDB-1-18	21(3/4")C-3#12, #12 GND	PKG	DIGITAL CONTROL	DDC DIV. 23	NFS	MD-1	MOTORISED DAMPER		60 A		10 W	120 V	1	ME-19	21(3/4")C-2#12, #12 GND	---	DIGITAL CONTROL	DDC DIV. 23	NFS
AHU-1-RF	AUDITORIUM AHU RETURN FAN	5 HP			600 V	3	SMDB-1-7	21(3/4")C-3#12, #12 GND	MAG	DIV. 26	DIGITAL CONTROL	DDC DIV. 23	NFS	MD-2	MOTORISED DAMPER			10 W	120 V	1	ME-20	21(3/4")C-2#12, #12 GND	---	DIGITAL CONTROL	DDC DIV. 23	NFS
AHU-1-SF	AUDITORIUM AHU SUPPLY FAN	10 HP			600 V	3	SMDB-1-6	21(3/4")C-3#12, #12 GND	MAG	DIV. 26	DIGITAL CONTROL	DDC DIV. 23	NFS	MD-3	MOTORISED DAMPER			10 W	120 V	1	ME-20	21(3/4")C-2#12, #12 GND	---	DIGITAL CONTROL	DDC DIV. 23	NFS
AHU-2-CP	AHU-2 CONTROL PANEL		12 A		600 V	3	SMDB-1-19	21(3/4")C-3#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS	MD-4	MOTORISED DAMPER			10 W	120 V	1	ME-20	21(3/4")C-2#12, #12 GND	---	DIGITAL CONTROL	DDC DIV. 23	NFS
AHU-2-RF	LOBBY AHU RETURN FAN	5 HP			600 V	3	SMDB-1-9	21(3/4")C-3#12, #12 GND	MAG	DIV. 26	DIGITAL CONTROL	DDC DIV. 23	NFS	MD-5	MOTORISED DAMPER			10 W	120 V	1	ME-20	21(3/4")C-2#12, #12 GND	---	DIGITAL CONTROL	DDC DIV. 23	NFS
AHU-2-SF	LOBBY AHU SUPPLY FAN	10 HP			600 V	3	SMDB-1-8	21(3/4")C-3#12, #12 GND	MAG	DIV. 26	DIGITAL CONTROL	DDC DIV. 23	NFS	MD-6	MOTORISED DAMPER			10 W	120 V	1	ME-20	21(3/4")C-2#12, #12 GND	---	DIGITAL CONTROL	DDC DIV. 23	NFS
AHU-3-CP	AHU-3 CONTROL PANEL		12 A		600 V	3	SMDB-1-20	21(3/4")C-3#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS	MD-7	MOTORISED DAMPER			10 W	120 V	1	ME-19	21(3/4")C-2#12, #12 GND	---	DIGITAL CONTROL	DDC DIV. 23	NFS
AHU-3-RF	BASMENT AHU RETURN FAN	3/4 HP			600 V	3	SMDB-1-11	21(3/4")C-3#12, #12 GND	MAG	DIV. 26	DIGITAL CONTROL	DDC DIV. 23	NFS	MD-8	MOTORISED DAMPER			10 W	120 V	1	ME-19	21(3/4")C-2#12, #12 GND	---	DIGITAL CONTROL	DDC DIV. 23	NFS
AHU-3-SF	BASMENT AHU SUPPLY FAN	1 1/2 HP			600 V	3	SMDB-1-10	21(3/4")C-3#12, #12 GND	MAG	DIV. 26	DIGITAL CONTROL	DDC DIV. 23	NFS	MD-9	MOTORISED DAMPER			10 W	120 V	1	ME-19	21(3/4")C-2#12, #12 GND	---	DIGITAL CONTROL	DDC DIV. 23	NFS
AHU-5-RF	FITNESS ROOM AHU RETURN FAN	3 HP			600 V	3	SMDB-1-13	21(3/4")C-3#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS	MD-10	MOTORISED DAMPER			10 W	120 V	1	ME-19	21(3/4")C-2#12, #12 GND	---	DIGITAL CONTROL	DDC DIV. 23	NFS
AHU-5-SF	FITNESS ROOM AHU SUPPLY FAN	5 HP			600 V	3	SMDB-1-12	21(3/4")C-3#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS	MD-11	MOTORISED DAMPER			10 W	120 V	1	ME-19	21(3/4")C-2#12, #12 GND	---	DIGITAL CONTROL	DDC DIV. 23	NFS
B-1	BOILER		45.3 A		120 V	1	ME-4	27(1")C-2#6, #8 GND	---	---	DIGITAL CONTROL	DDC DIV. 23	NFS	MD-12	MOTORISED DAMPER			10 W	120 V	1	ME-20	21(3/4")C-2#12, #12 GND	---	DIGITAL CONTROL	DDC DIV. 23	NFS
B-2	BOILER		45.3 A		120 V	1	ME-5	27(1")C-2#6, #8 GND	---	---	DIGITAL CONTROL	DDC DIV. 23	NFS	ML	MATERIAL LIFT		60 A	208 V	3	K2-1.3.5	27(1")C-3#4, #8 GND	---	DIGITAL CONTROL	DDC DIV. 23	NFS	
B-3	BOILER		45.3 A		120 V	1	ME-6	27(1")C-2#6, #8 GND	---	---	DIGITAL CONTROL	DDC DIV. 23	NFS	P-1	HEATING PRIMARY PUMP	2 HP		600 V	3	M100-1.2.3	21(3/4")C-3#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS
B-4	DOMESTIC HOT WATER BOILER		15.1 A		120 V	1	ME-7	21(3/4")C-3#12, #12 GND	---	---	DIGITAL CONTROL	DDC DIV. 23	NFS	P-2	HEATING PRIMARY PUMP	2 HP		600 V	3	M100-4.5.6	21(3/4")C-3#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS
CH-1	CHILLER		55.1 A		600 V	3	MDB-1-6	27(1")C-3#4, #8 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS	P-3	HEATING SECONDARY PUMP	1		208 V	1	J-6.7	21(3/4")C-3#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS
CH-2	CHILLER		55.1 A		600 V	3	MDB-1-1	27(1")C-3#4, #8 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS	P-4	HEATING SECONDARY PUMP	1		208 V	1	J-8.9	21(3/4")C-3#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS
CH-3	CHILLER		55.1 A		600 V	3	MDB-1-8	27(1")C-3#4, #8 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS	P-5	GLYCOL PUMP	2		208 V	3	J-10,11,12	21(3/4")C-3#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS
DHU-1	POOL DEHUMIDIFICATION UNIT		43.6 A		600 V	3	SMDB-1-3	21(3/4")C-3#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS	P-6	GLYCOL PUMP	2		208 V	3	J-13,14,15	21(3/4")C-3#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS
DHU-1-CP	DHU-1 CONTROL PANEL		12 A		600 V	3	SMDB-1-22	21(3/4")C-3#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS	P-7	CHILLED WATER PUMP	5 HP		600 V	3	M100-22.23.24	21(3/4")C-3#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS
ERV-1-CP	ERV-1 CONTROL PANEL		12 A		600 V	3	SMDB-1-4	21(3/4")C-3#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS	P-8	CHILLED WATER PUMP	5 HP		600 V	3	M100-25.26.27	21(3/4")C-3#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS
ERV-1-RF	ENERGY RECOVERY UNIT RETURN FAN	5 HP			600 V	3	SMDB-1-17	21(3/4")C-3#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS	P-9	CONDENSER PUMP	5 HP		600 V	3	M100-28.29.30	21(3/4")C-3#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS
ERV-1-SF	ENERGY RECOVERY UNIT SUPPLY FAN	5 HP			600 V	3	SMDB-1-16	21(3/4")C-3#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS	P-10	CONDENSER PUMP	5 HP		600 V	3	M100-31.32.33	21(3/4")C-3#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS
EX_EF-1	EXISTING ARENA EXHAUST FAN		8 A		600 V	3	PP-1-25.26.27	21(3/4")C-3#12, #12 GND	---	---	EXISTING	---	EXISTING	P-11	AHU-1 COIL PUMP	1		208 V	1	J-16.17	21(3/4")C-2#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS
EX_EF-2	EXISTING ARENA EXHAUST FAN		8 A		600 V	3	PP-1-25.26.27	21(3/4")C-3#12, #12 GND	---	---	EXISTING	---	EXISTING	P-12	AHU-2 COIL PUMP	1		208 V	1	J-18.19	21(3/4")C-2#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS
EX_EF-3	EXISTING ARENA EXHAUST FAN		8 A		600 V	3	PP-1-25.26.27	21(3/4")C-3#12, #12 GND	---	---	EXISTING	---	EXISTING	P-13	AHU-3 COIL PUMP	1		208 V	1	J-20.21	21(3/4")C-2#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS
FC-1	Fancoil Unit	6.5 A			120 V	1	H-5	21(3/4")C-2#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS	P-14	AHU-4 COIL PUMP	1		208 V	1	J-22.23	21(3/4")C-2#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS
FC-2	Fancoil Unit	6.5 A			120 V	1	H-4	21(3/4")C-2#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS	P-15	DHU-1 COIL PUMP	1		208 V	1	J-30.31	21(3/4")C-2#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS
FC-3	Fancoil Unit	6.5 A			120 V	1	G-8	21(3/4")C-2#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS	P-16	PUMP	5 HP		600 V	3	SMDB-1-23	21(3/4")C-3#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS
FC-4	Fancoil Unit	6.5 A			120 V	1	G-21	21(3/4")C-2#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS	P-17	PUMP	5 HP		600 V	3	SMDB-1-24	21(3/4")C-3#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS
FC-5	Fancoil Unit	6.5 A			120 V	1	P-5	21(3/4")C-2#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS	P-18	PUMP	1		600 V	3	M100-58.59.60	21(3/4")C-3#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS
FF	Force Flow Heater				208 V	1		21(3/4")C-2#10, #10 GND	---	---	---	---	P-19	PUMP	1		208 V	1	J-26.27	21(3/4")C-2#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS	
FLC-1F	FLUID COOLER FAN	7 1/2 HP			600 V	3	SMDB-1-5	21(3/4")C-3#12, #12 GND	MAG	DIV. 26	DIGITAL CONTROL	DDC DIV. 23	NFS	P-20	PUMP	1		208 V	1	J-24.25	21(3/4")C-2#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS
FLC-1H	FLUID COOLER HEATER				600 V	3	SMDB-3-4	21(3/4")C-3#12, #12 GND	---	---	DIGITAL CONTROL	DDC DIV. 23	NFS	P-21	PUMP	1		208 V	1	J-28.29	21(3/4")C-2#12, #12 GND	PKG	---	DIGITAL CONTROL	DDC DIV. 23	NFS
FLC-1P	FLUID COOLER PUMP	5 HP			600 V	3	SMDB-3-3	21(3/4")C-3#12, #12 GND	MAG	DIV. 26	DIGITAL CONTROL	DDC DIV. 23	NFS	UH-1	UNIT HEATER		5 A	120 V	1	ME-2	21(3/4")C-2#12, #12 GND	---	---	DIGITAL CONTROL	DDC DIV. 23	SIMPLEX RCPT
FLC-HT	FLUID COOLER DRAIN HEAT TRACE		15 A		120 V	1	P-8	21(3/4")C-2#12, #12 GND	---	---	DIGITAL CONTROL	DDC DIV. 23	NFS	WF-1	WATER FOUNTAIN			120 V	1	G-11	21(3/4")C-2#12, #12 GND	---	---	DIGITAL CONTROL	DDC DIV. 23	NFS

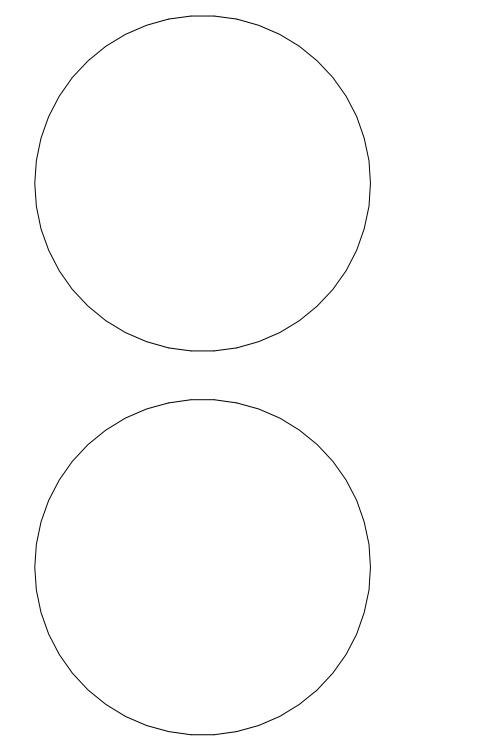
STARTER TYPES: FVNR FULL VOLTAGE NON-REVERSING FVR FULL VOLTAGE REVERSING 2-SPD TWO SPEED VFD VARIABLE FREQUENCY DRIVE RVS REDUCED VOLTAGE PKG PACKAGED UNIT	STARTER OPTIONS: MAG MAGNETIC MAN MANUAL HOA HAND-OFF-AUTO SWITCH RP RED (RUN) PILOT LIGHT GP GREEN (POWER) PILOT LIGHT O/O ON-OFF SELECTOR SWITCH SS STOP-START PUSHBUTTONS	COMBINATION DISCONNECT TYPES: FS FUSED SWITCH NFS NON-FUSED SWITCH MCP MOTOR CIRCUIT PROTECTOR CB CIRCUIT BREAKER	ABBREVIATIONS: EC ELECTRICAL CONTRACTOR MC MECHANICAL CONTRACTOR AS AQUASTAT DCP DUPLEX CONTROLLER GC GENERAL CONTRACTOR HS HUMIDISTAT NT INTERLOCKED (WITH)	SC SPEED CONTROL TC TIME CLOCK TS THERMOSTAT OWN OWNER
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- GENERAL NOTES:**
- CIRCUITING IS REPRESENTATIONAL ONLY. CONFIRM CIRCUITING ARRANGEMENTS ON SITE WITH EXISTING CONDITIONS.
 - WIRING BETWEEN VSDS AND MOTORS SHALL BE RATED FOR VSD USE.
 - INPUT AND OUTPUT CONDUCTORS TO AND FROM VFD'S SHALL BE INSTALLED IN SEPARATE RACEWAYS, INDEPENDENT FROM ANY OTHER CONDUCTORS, AND SHALL NOT PASS THRU ANY COMMON WIREWAY OR RACEWAY.
 - ALL MAGNETIC STARTERS SHALL BE EQUIPPED WITH RED (RUN), GREEN (POWER) AND YELLOW (TRIP) PILOT (INDICATOR) LIGHTS.

- NOTES:**
- WIRE AND CONNECT THERMOSTAT CONTROL AS SUPPLIED BY MECHANICAL.
 - CONNECT TO ASSOCIATED TYPICAL SUITE PANEL CW 40A/2P BREAKER. (ex. used on multi-unit residential buildings only, otherwise, you will show circuiting on the plans)
 - CONNECT TO TYPICAL SUITE BATHROOM POWER & LIGHTING CIRCUIT. (ex. used on multi-unit residential buildings only, otherwise, you will show circuiting on the plans)
 - PROVIDE A DUCT MOUNTED SMOKE DETECTOR WITHIN THE MAIN SUPPLY AIR DUCT OF MUA UNITS. DETECTORS SHALL BE WIRED TO CANULIC SS24 STANDARDS AND TO MANUFACTURER'S RECOMMENDATIONS. COORDINATE INSTALLATION WITH MECHANICAL. PROVIDE ADDITIONAL DETECTORS WITHIN BRANCH DUCTS AS REQUIRED TO SUIT INSTALLATION STANDARDS. CONNECT SMOKE DETECTOR(S) TO THE FIRE ALARM SYSTEM AS A SEPARATE ZONE. MUA UNITS SHALL SHUT DOWN ON FIRE ALARM SIGNAL. (ex. used for equipment that re-circulate air to more than one zone etc.)
 - PROVIDE SHUT-DOWN ON FIRE ALARM SIGNAL. PROVIDE HOA CONTROL AT FACP AND REMOTE ANNUNCIATOR. (ex. Used for MUA supplying more than one fire alarm zone)
 - FEEDERS SHALL BE EITHER M CABLE, WIRE IN CONDUIT ENCASED IN MINIMUM 50mm (2") CONCRETE, OR WIRE IN CONDUIT INSTALLED WITHIN A FIRE RATED SHAFT. (ex. Used for life safety equipment such as pressurization fans in high-rise applications)
 - FAN TO START ON FIRE ALARM. PROVIDE HOA CONTROL AT CACF. INTERLOCK WITH DOOR RELEASE. (ex. Used for stairwell pressurization systems in high-rise applications)
 - CONFIRM LOCATION OF VFD WITH MECHANICAL DRAWINGS. (ex. Need to indicate location of VFD on plans, as there is a significant cost on load-side wiring)
 - WIRE & CONNECT SUMP PUMPS TO SUMP PUMP CONTROL PANEL CW ALL ASSOCIATED CONTROLS AND REMOTE ALARM PANEL
 - FED FROM CORRESPONDING OUTDOOR UNIT. (ex. split air conditioning systems where the indoor unit is fed directly from the outdoor unit)
 - INTERLOCK WITH CORRESPONDING INDOOR UNIT. (ex. fan coils or furnaces with remote condensing units - residential type)
 - INTERLOCK WITH MOTORIZED DAMPERS. (ex. exhaust fans in parkades where dampers are 120V)
 - WIRE AND CONNECT LINE-SIDE AND LOAD-SIDE OF LOOSE VFD AS SUPPLIED BY MECHANICAL. CONFIRM TERMINATION POINTS TO MECHANICAL UNIT WITH EQUIPMENT SHOP DRAWINGS. ALLOW FOR LOAD-SIDE CONNECTION DIRECTLY TO EQUIPMENT MOTOR. CONFIRM FIELD WIRING VS. FACTORY WIRING WITH EQUIPMENT SHOP DRAWINGS. (ex. Daikin Vision Units)
 - WIRE AND CONNECT FACTORY SUPPLIED RECEPTACLES, LIGHTING AND LIGHTING CONTROLS. CONFIRM FIELD WIRING VS. FACTORY WIRING WITH EQUIPMENT SHOP DRAWINGS. (ex. Daikin Vision Units)
 - WIRE AND CONNECT LOW-WATER CUTOFF AND RELIEF VALVE BACK TO BOILER TERMINAL BLOCK. CONFIRM FIELD WIRING VS. FACTORY WIRING WITH EQUIPMENT SHOP DRAWINGS. (ex. Gas boilers)
 - WIRE AND CONNECT CONDENSATE PUMP CW 120V/15A DEDICATED CIRCUIT. (ex. Fan Coils, Furnaces, etc. Coordinate with mechanical)



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Project
ST. JAMES CIVIC CENTRE

Drawing
ELECTRICAL SCHEDULES

Drawn By: JA Review By: MP
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