EQUIPMENT SCHEDULE

EQUIPMENT																																	
						POWER REQUIREMENTS					SUPPLY PANEL					CABLE				STARTER				LOCAL DISC.				CONTROL				
TAG	SUPPLIED	INSTALLED	CONNECTED	DESCRIPTION	LOCATION	HP	KW	FLA	VOLTAGE	PHASE	PANEL NAME	OCP				NUMBER OF RUNS	NUMBER OF WIRES	WIRE SIZE (COPPER)	CONDUIT SIZE	SIZE	TYPE	SUPPLIED	INSTALLED	CONNECTED	TYPE	SUPPLIED	INSTALLED	CONNECTED	TYPE	SUPPLIED	INSTALLED	CONNECTED	NOTES
												BREAKER	DISCONNECT SWITCH	TIME-DELAY FUSE	POLES																	
B-1	M	M	E	BOILER 1	MECHANICAL ROOM	.	.	12	208	1	PM-1	20	.	.	2	1	2	12	16mm	.	.	.	.	.	NFD	E	E	E	DDC	M	M	M	1
B-2	M	M	E	BOILER 2	MECHANICAL ROOM	.	.	5	120	1	PM-1	15	.	.	1	1	2	12	16mm	.	.	.	.	.	NFD	E	E	E	DDC	M	M	M	1
B-3	M	M	E	BOILER 3	MECHANICAL ROOM	.	.	17	120	1	PM-1	30	.	.	1	1	2	10	16mm	.	.	.	.	.	NFD	E	E	E	DDC	M	M	M	1
B-4	M	M	E	BOILER 4	MECHANICAL ROOM	.	.	17	120	1	PM-1	30	.	.	1	1	2	10	16mm	.	.	.	.	.	NFD	E	E	E	DDC	M	M	M	1
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
PU-1	M	M	E	SYSTEM CIRCULATION PUMP	MECHANICAL ROOM	7.5	.	.	208	3	PM-1	60	.	.	3	1	3	8	21mm	.	VFD	E	E	E	.	.	.	.	PS	M	M	E	1;2;5;6
PU-2	M	M	E	SYSTEM CIRCULATION PUMP (100% BACKUP)	MECHANICAL ROOM	7.5	.	.	208	3	PM-1	60	.	.	3	1	3	8	21mm	.	VFD	E	E	E	.	.	.	.	PS	M	M	E	1;2;5;6
PU-3	M	M	E	SYSTEM CIRCULATION PUMP	MECHANICAL ROOM	7.5	.	.	208	3	PM-1	60	.	.	3	1	3	8	21mm	.	VFD	E	E	E	.	.	.	.	PS	M	M	E	1;2;5;6
PU-4	M	M	E	SYSTEM CIRCULATION PUMP (100% BACKUP)	MECHANICAL ROOM	7.5	.	.	208	3	PM-1	60	.	.	3	1	3	8	21mm	.	VFD	E	E	E	.	.	.	.	PS	M	M	E	1;2;5;6
PU-5	M	M	E	BOILER CIRC PUMP	MECHANICAL ROOM	1.5	.	.	208	3	MCC-1	.	.	15	3	1	3	12	16mm	1	FVNR	E	E	E	NFD	E	E	E	DDC	M	M	M	1;3
PU-6	M	M	E	BOILER CIRC PUMP	MECHANICAL ROOM	0.75	.	.	208	3	MCC-1	.	.	15	3	1	3	12	16mm	1	FVNR	E	E	E	NFD	E	E	E	DDC	M	M	M	1;3
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
WMU-1	M	M	E	WATER MAKEUP UNIT	MECHANICAL ROOM	.	0.05	.	115	1	PM-1	15	.	.	1	1	2	12	16mm	.	.	.	.	.	.	.	.	.	PS	M	M	M	1;9
WMU-2	M	M	E	WATER MAKEUP UNIT	MECHANICAL ROOM	.	0.05	.	115	1	PM-1	15	.	.	1	1	2	12	16mm	.	.	.	.	.	.	.	.	.	PS	M	M	M	1;9
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EQUIPMENT SCHEDULE LEGEND

O	OWNER
E	ELECTRICAL CONTRACTOR
M	MECHANICAL CONTRACTOR
LVT	LOW VOLTAGE THERMOSTAT
LT	LINE VOLTAGE THERMOSTAT
RAT	REVERSE ACTING THERMOSTAT
HTS	HUMIDITY TIMER SWITCH
VS	VARIABLE SPEED SWITCH
LS	LINE VOLTAGE SWITCH
COS	CO/VG GAS SENSOR
FS	FLOAT SWITCH
PS	PRESSURE SWITCH
HOA	HAND/OFF/AUTO SWITCH
TC	TIME CLOCK
VFD	VARIABLE FREQUENCY DRIVE
MAG	MAGNETIC STARTER
MAN	MANUAL STARTER
DDC	DIRECT DIGITAL CONTROL
FD	FUSED DISCONNECT
NFD	NON-FUSED DISCONNECT
ECP	EQUIPMENT CONTROL PANEL
FVNR	FULL VOLTAGE NON-REVERSING
PB	PUSHBUTTON

NOTES:

1. REFER TO THE MECHANICAL DRAWINGS FOR LOCATION OF ALL MECHANICAL EQUIPMENT.
2. REFER TO PANEL SCHEDULES FOR CIRCUIT NUMBERS.
3. CONTRACTOR TO RE-USE THE EXISTING STARTERS WITHIN MCC-1 TO FEED THE NEW EQUIPMENT. CONTRACTOR TO PROVIDE ALL NEW FUSING AND PARTS AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
4. PROGRAMMABLE RELAY 'R3' IS TO BE HELD CLOSED FOR NORMAL OPERATION AND SHALL OPEN ON FAULT OR LOSS OF POWER.
5. REFER TO THE MECHANICAL DRAWINGS AND SPECIFICATIONS FOR A FULL SEQUENCE OF OPERATION AND CONTROL FOR THE TWO PUMP SYSTEMS. THE CONTRACTOR IS RESPONSIBLE FOR ALL PROGRAMMING, JUMPERS AND ADDITIONAL EQUIPMENT TO PROVIDE A COMPLETE AND FULL OPERATION SYSTEM TO CERTIFY THE REQUIRED SEQUENCE OF OPERATION IS MET.
6. PROVIDE AN AQUAVAR #CPC20241 OR APPROVED EQUIVALENT IN ACCORDANCE TO B6.
7. PROVIDE 120V POWER FROM PANEL PM-1 FOR ALL CONTROL PANELS AS REQUIRED. CONTRACTOR TO COORDINATE WITH THE CONTROLS SUBCONTRACTOR FOR EXACT QUANTITY.
8. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR CONNECTION OF COMMUNICATION LINK AND SETTING OF DIP SWITCHES.
9. EQUIPMENT IS COMPLETE WITH A PLUG TYPE CONNECTION. CONTRACTOR TO PROVIDE A RECEPTACLE TO MATCH. RECEPTACLE TO BE MOUNTED ON THE UNISTRUT FRAME.
10. CONTRACTOR TO EXTEND BACK TO THE FACILITY METASYS CONTROL PANEL LOCATED ON EAST WALL OF MECHANICAL ROOM.

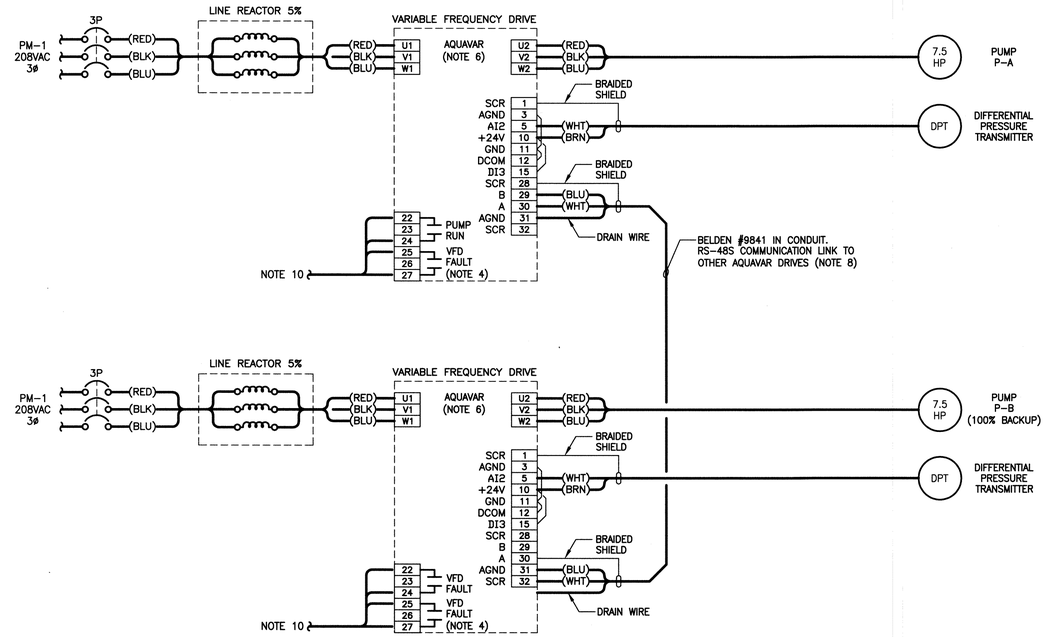
SUPPLY: 208V 3Ø 4W
MAINS AMPACITY: 225
INCOMING: ☐ BREAKER ■ LUGS
MAIN BREAKER REQUIRED: ☐ YES ■ NO
MAIN BREAKER AMPS:
BUS MATERIAL: ■ COPPER ☐ ALUMINUM
BUS AND BREAKER RATING: 25kA

NAME PLATE:

PANEL ' PM – 1 '

LOCATION: MECHANICAL ROOM ON COLUMN
MOUNTING: ■ SURFACE ☐ FLUSH
MANUFACTURER:
MODEL NO:
BREAKER: ☐ PLUG-IN ■ BOLT-ON
TVSS: ☐ YES ■ NO
SERVICE ENTRANCE RATED: ☐ YES ■ NO

REV	CCT		VA	P	BKR	A	B	C	BKR	P	VA		CCT	REV
	1												2	
B	3	SYSTEM CIRCULATION PUMP PU-1	8718	3	60	•			60	3	8718	SYSTEM CIRCULATION PUMP PU-3	4	B
	5						•						6	
	7					•							8	
B	9	SYSTEM CIRCULATIONP UMP (100% BACKUP) PU-2	8718	3	60		•		60	3	8718	SYSTEM CIRCULATION PUMP (100% BACKUP) PU-4	10	B
	11							•					12	
B	13	BOILER B-1	2496	2	20	•			15	1	50	WATER MAKEUP UNIT WMU-1	14	B
	15							•	15	1	50	WATER MAKEUP UNIT WMU-2	16	B
B	17	BOILER B-2	624	1	15		•						18	
B	19	BOILER B-3	2064	1	30	•			25	3	5000	UV CONTROL PANEL UVCP-1	20	B
B	21	BOILER B-4	2064	1	30		•						22	
B	23		–	–	–			•	–	–	–		24	B
B	25		–	–	–	•			–	–	–		26	B
B	27		–	–	–		•		–	–	–		28	B
B	29		–	–	–			•	–	–	–		30	B
B	31		–	–	–	•			–	–	–		32	B
B	33		–	–	–		•		–	–	–		34	B
B	35	SPARE	–	1	15			•	20	1	–	SPARE	36	B
B	37	SPARE	–	1	15	•			20	1	–	SPARE	38	B
B	39	SPARE	–	1	15		•		15	1	–	SPARE	40	B
B	41	SPARE	–	1	15			•	15	1	–	SPARE	42	B
			LOAD 'A'			LOAD 'B'			LOAD 'C'					
			16,653			16,653			16,653					



(A) TYPICAL VFD SYSTEM WIRING SCHEMATIC

SCALE: NTS

APEGM
Certificate of Authorization
KGS Group
No. 245

NO.	REVISIONS	DATE	BY
1	RE-ISSUED FOR TENDER	12/03/01	CPS
0	ISSUED FOR TENDER	12/02/24	CPS

B.M. .
ELEV. .

KGS GROUP
CONSULTING ENGINEERS & PROJECT MANAGERS
WINNIPEG (204) 896-1209
THUNDER BAY (807) 345-2233

DESIGNED BY CLS | CHECKED BY
DRAWN BY GCN | APPROVED BY
HOR. SCALE: AS SHOWN
VERTICAL: .
RELEASED FOR CONSTRUCTION:
DATE . | DATE

ENGINEER'S SEAL
THE ORIGINAL ISSUE REV. 0 WAS STAMPED, DATED AND SIGNED
BY C.P. SURGEONER
ON 12/02/24 Y/M/D

CONSULTANT DRAWING NO.
E04

Winnipeg
THE CITY OF WINNIPEG
PLANNING, PROPERTY & DEVELOPMENT

PROJECT TITLE
ST. JAMES CENTENNIAL POOL
644 PARKDALE STREET
BID OPPORTUNITY: 45-2012
UPGRADE HYDRONIC HEATING SYSTEM

MECHANICAL EQUIPMENT SCHEDULE, PANEL SCHEDULE AND VFD SCHEMATIC

SHEET 004 OF 004
COMPUTER FILE NAME 11-0107-32-E04
CITY DRAWING NUMBER

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