

PANEL ID: PNL-AA			AMPS: 400A		VOLTS: 600/347V		PHASE: 3 Ø		WIRE: 4		SURF. MOUNT ☒ FLUSH MOUNT ☐		TOP FED ☒ BOT. FED ☐			
DESCRIPTION: 600 VAC DISTRIBUTION PANEL							LOCATION: ELECTRICAL ROOM									
MFG / MODEL: SIEMENS CDP-7							INTERRUPTING RATING: 18 kA									
MAIN BREAKER: N/A							INST. SETTINGS: N/A									
CCT.	DESCRIPTION	NOTE	WIRE (AWG)	BRKR AMPS	LOAD (VA)	A	B	C	LOAD (VA)	BRKR AMPS	WIRE (AWG)	NOTE	DESCRIPTION	CCT.		
1	UNIT HEATERS UH-M1, UH-M2		10	30	6666	•			6666	30	10		UNIT HEATER UN-M3, UN-M4	2		
3					6666	•			6666					4		
5					6666	•			6666					6		
7					SPARE	15			3333					8		
9	SPARE			15					3333	30	10		UNIT HEATER UN-M5	10		
11	SPARE			15					3333	125	1		CHLORINATOR EQUIP. ROOM WATER HEATER U-C534	12		
13	CHLORINATOR EQUIP. ROOM DUCT HEATER HCE-C620	12	15	3666	•			34000	14							
15				3666	•			34000	16							
17				3666	•			34000	18							
19	SPACE					•							SPACE	20		
21														22		
23														24		
25														26		
27	SPACE					•							SPACE	28		
29														30		
31														32		
33	SPACE					•							SPACE	34		
35														36		
37														38		
39	SPACE					•							SPACE	40		
41														42		
TOTAL CONNECTED LOAD:			163 kVA		PHASE A: 54.3 kVA		156.6 A		PHASE B: 54.3 kVA		156.6 A		PHASE C: 54.3 kVA		156.6 A	
NOTE LEGEND:																
AFCI ARC FAULT CIRCUIT INTERRUPTOR																
GFCI GROUND FAULT CIRCUIT INTERRUPTOR																
LKON LOCKED ON BREAKER																
LKOR RED LOCKED ON BREAKER																
NOTES:																

PANEL ID: PNL-BB				AMPS: 400A		VOLTS: 600/347V		PHASE: 3 Ø		WIRE: 4		SURF. MOUNT ☒ FLUSH MOUNT ☐		TOP FED ☒ BOT. FED ☐			
DESCRIPTION: 600 VAC DISTRIBUTION PANEL								LOCATION: ELECTRICAL ROOM									
MFG / MODEL: SIEMENS CDP-7								INTERRUPTING RATING: 18 kA									
MAIN BREAKER: N/A								INST. SETTINGS: N/A									
CCT.	DESCRIPTION	NOTE	WIRE (AWG)	BRKR AMPS	LOAD (VA)	A	B	C	LOAD (VA)	BRKR AMPS	WIRE (AWG)	NOTE	DESCRIPTION	CCT.			
1	MCC-R1 NORTH RESERVOIR ACCESS BUILDING		1/0	100	19800	•			4500	30	10		CL2 UNIT HEATERS UH-M8, UH-9A UH-M9B	2			
3					19800	•			4500					4			
5					19800	•			4500					6			
7					2200	•			19900					8			
9	PUMPING STATION CRANE CR-M1	1	10	30	2200	•			19900	50	1/0		SPL-Y1 LIFT STATION	10			
11					2200	•			19900					12			
13					1500	•			0					14			
15	CHLORINE ROOM CRANE CR-M2	1	12	20	1500	•			0	15	12	2	CIRCULATION PUMP	16			
17					1500	•			0					18			
19									6666	30	10		CL2 UNIT HEATERS U-M6, UH-M7	20			
21	SPARE		10	30					6666					22			
23									6666					24			
25	OVERHEAD DOOR OD-M597, OD-C597	1	12	15	400	•			5200	30	6	1	WELDING RECEPTACLE	26			
27								400	•							5200	28
29								400	•							5200	30
31																	
33	SPACE					•							SPACE	34			
35						•								36			
37						•								38			
39	SPACE					•							SPACE	40			
41						•								42			
TOTAL CONNECTED LOAD:			180.5 kVA		PHASE A:		60.2 kVA		173.4 A		NOTE LEGEND:						
					PHASE B:		60.2 kVA		173.4 A		AFCI ARC FAULT CIRCUIT INTERRUPTOR						
					PHASE C:		60.2 kVA		173.4 A		GFCI GROUND FAULT CIRCUIT INTERRUPTOR						
											LKON LOCKED ON BREAKER						
											LKOR RED LOCKED ON BREAKER						
NOTES:																	
1. LOAD (VA) IS ASSUMED																	
2. LOAD MAY BE ABANDONED																	

SPECIFIC NOTES:

- 1 PROVIDE NEW CIRCUIT BREAKERS AND ALL REQUIRED CABLING AND CONDUIT FROM SOURCE PANELBOARD TO NEW EQUIPMENT LOADS AHU-C601, AHU-C602, SCRB-C670, HCE-C620, AND U-C534. BREAKER MODEL AND KAIC RATINGS TO EXISTING BREAKER IN DISTRIBUTION. REFER TO ELECTRICAL SINGLE LINES FOR FOR ADDITIONAL DETAILS.
- 2 REPLACE EXISTING OVERHEAD DOORS WITH NEW OVERHEAD DOORS IN BOTH THE PUMPHOUSE AND THE CHLORINE TONNER STORAGE ROOM. CONTRACTOR TO REUSE EXISTING FEEDER BREAKER AND CABLING TO NEW LOAD DISCONNECT. REFER TO ELECTRICAL SINGLE LINES FOR FOR ADDITIONAL DETAILS.

DEMOLITION NOTES:

- A DEMOLISH EXISTING EEF-1 AND MOTOR STARTER PANEL MS-EEF-1. REMOVE ALL CONDUIT AND CABLING ASSOCIATED WITH POWER AND CONTROLS. SEAL ALL HOLES LEFT BY DEMOLITION. SEE DRAWING 1-0650M-E0044 FOR DEMOLITION DETAILS. RENAME BREAKER AS SPARE

NOTES:

1. THIS DRAWING SUPERCEDES PART OF DRAWING HURST 37.
2. THIS DRAWING IS BASED UPON EXISTING DOCUMENTATION.
3. PANELBOARD SCHEDULES UPDATED TO REFLECT CURRENT LOAD CONFIGURATIONS. CONTRACTOR TO PROVIDE UPDATED TYPEWRITTEN PANEL SCHEDULES ONCE CONSTRUCTION IS COMPLETED.

ENGINEERS
GEOSCIENTISTS
MANITOBA
Certificate of Authorization
AtkinsRéalis Canada Inc.
No. 4489

PANEL ID: PNL-EE				AMPS: 400A		VOLTS: 600/347V		PHASE: 3 Ø		WIRE: 4		SURF. MOUNT ☒ FLUSH MOUNT ☐		TOP FED ☒ BOT. FED ☐	
DESCRIPTION: 600 VAC DISTRIBUTION PANEL								LOCATION: ELECTRICAL ROOM							
MFG / MODEL: SIEMENS CDP-7								INTERRUPTING RATING: 18 kA							
MAIN BREAKER: N/A								INST. SETTINGS: N/A							
CCT.	DESCRIPTION	NOTE	WIRE (AWG)	BRKR AMPS	LOAD (VA)	A	B	C	LOAD (VA)	BRKR AMPS	WIRE (AWG)	NOTE	DESCRIPTION	CCT.	
1	EAST SUCTION HEADER VALVE ACTUATOR HSHV8		12	15	2096	•			889	15	12		DISCHARGE HEADER VALVE ACTUATOR HDHV11	2	
3					2096	•			889					4	
5					2096	•			889					6	
7	WEST SUCTION HEADER VALVE ACTUATOR HSHV10		12	15	2096	•			2096	15	12		MIDDLE DISCHARGE HEADER VALVE ACTUATOR HDHV12	8	
9					2096	•			2096					10	
11					2096	•			2096					12	
13	MIDDLE SUCTION HEADER VALVE ACTUATOR HSHV9		12	15	2096	•			889	15	12		WEST DISCHARGE HEADER VALVE ACTUATOR HDHV13	14	
15					2096	•			889					16	
17					2096	•			889					18	
19	EF-M6510 ROOF FAN		12	30	1200	•			1200	15	12		ROOF FAN EF-M6520	20	
21					1200	•			1200					22	
23					1200	•			1200					24	
25	AIR COMPRESSOR AC-M1, AC-M2		10	30	1793	•			500	15	12	1	BILGE PUMP EAST SP-M1	26	
27					1793	•			500					28	
29						•			500					30	
31	BILGE PUMP WEST SP-M2	1	12	15	500	•			1200	15	12		EF-M6530 ROOF FAN	32	
33						•			1200					34	
35						•			1200					36	
37	SPARE			15	1200	•			-				SPARE	38	
39						•			-					40	
41						•			-					42	
43	SPACE				1200	•			700	15	12		VALVE ACTUATOR HRV5	44	
45						•			700					46	
47						•			700					48	
49	SPACE					•							SPACE	50	
51						•								52	
53						•								54	
55	SPACE					•							SPACE	56	
57						•								58	
59						•								60	
61	SPACE					•							SPACE	62	
63						•								64	
65						•								66	
TOTAL CONNECTED LOAD:		51.8 kVA		PHASE A:		17.3 kVA		49.7 A		PHASE B:		17.3 kVA		49.7 A	
				PHASE C:		17.3 kVA		49.7 A							
NOTE LEGEND:															
AFCI ARC FAULT CIRCUIT INTERRUPTOR															
GFCI GROUND FAULT CIRCUIT INTERRUPTOR															
LKON LOCKED ON BREAKER															
LKOR RED LOCKED ON BREAKER															
NOTES:															
1. LOAD (VA) IS ASSUMED.															

PANEL ID: PNL-CC			AMPS: 400A		VOLTS: 600/347V		PHASE: 3 Ø		WIRE: 4		SURF. MOUNT ☒ FLUSH MOUNT ☐		TOP FED ☒ BOT. FED ☐			
DESCRIPTION: 600 VAC DISTRIBUTION PANEL							LOCATION: ELECTRICAL ROOM									
MFG / MODEL: SIEMENS CDP-7							INTERRUPTING RATING: 18 kA									
MAIN BREAKER: N/A							INST. SETTINGS: N/A									
CCT.	DESCRIPTION	NOTE	WIRE (AWG)	BRKR AMPS	LOAD (VA)	A	B	C	LOAD (VA)	BRKR AMPS	WIRE (AWG)	NOTE	DESCRIPTION	CCT.		
1						•	•	•						2		
3	SPACE					•	•	•					SPACE	4		
5						•	•	•						6		
7						•	•	•						8		
9	SPACE					•	•	•					SPACE	10		
11						•	•	•						12		
13						•	•	•						14		
15	SPACE					•	•	•					SPACE	16		
17						•	•	•						18		
19					40000	•	•	•						20		
21	AHU-C601		1/0	150	40000	•	•	•					SPACE	22		
23					40000	•	•	•						24		
25					33000	•	•	•	14410					26		
27	AHU-C602		3	100	33000	•	•	•	14410	90	3		CHLORINE SCRUBBER SCRB-C670	28		
29					33000	•	•	•	14410					30		
31						•	•	•						32		
33	SPARE			15		•	•	•		15			SPARE	34		
35						•	•	•						36		
37						•	•	•	27700					38		
39	SPARE			15		•	•	•	27700	100	2/0		PNL-R2 SOUTH RESERVOIR	40		
41						•	•	•	27700				PNL-Y3 VALVE HOUSE	42		
TOTAL CONNECTED LOAD: 345.3 KVA PHASE A: 115.1 KVA 331.7 A PHASE B: 115.1 KVA 331.7 A PHASE C: 115.1 KVA 331.7 A															NOTE LEGEND: AFCI ARC FAULT CIRCUIT INTERRUPTOR GFCI GROUND FAULT CIRCUIT INTERRUPTOR LKON LOCKED ON BREAKER LKOR RED LOCKED ON BREAKER	
NOTES:																