

- HWSLT — EXISTING HEATING WATER SUPPLY LOW TEMP.
- HWSLT — NEW HEATING WATER SUPPLY LOW TEMP.
- HWRLT — EXISTING HEATING WATER RETURN LOW TEMP.
- HWRLT — NEW HEATING WATER RETURN LOW TEMP.
- HWSHT — EXISTING HEATING WATER SUPPLY HIGH TEMP.
- HWSHT — NEW HEATING WATER SUPPLY HIGH TEMP.
- HWRHT — EXISTING HEATING WATER RETURN HIGH TEMP.
- HWRHT — NEW EXISTING HEATING WATER RETURN HIGH TEMP.
- DCW — EXISTING DOMESTIC COLD WATER.
- DCW — NEW DOMESTIC COLD WATER.
- DHW — EXISTING DOMESTIC HOT WATER.
- DHW — NEW DOMESTIC HOT WATER.
- CP-# NEW PUMP c/w TAG
- ▽ VALVE ON RISER
- HEAT EXCHANGER

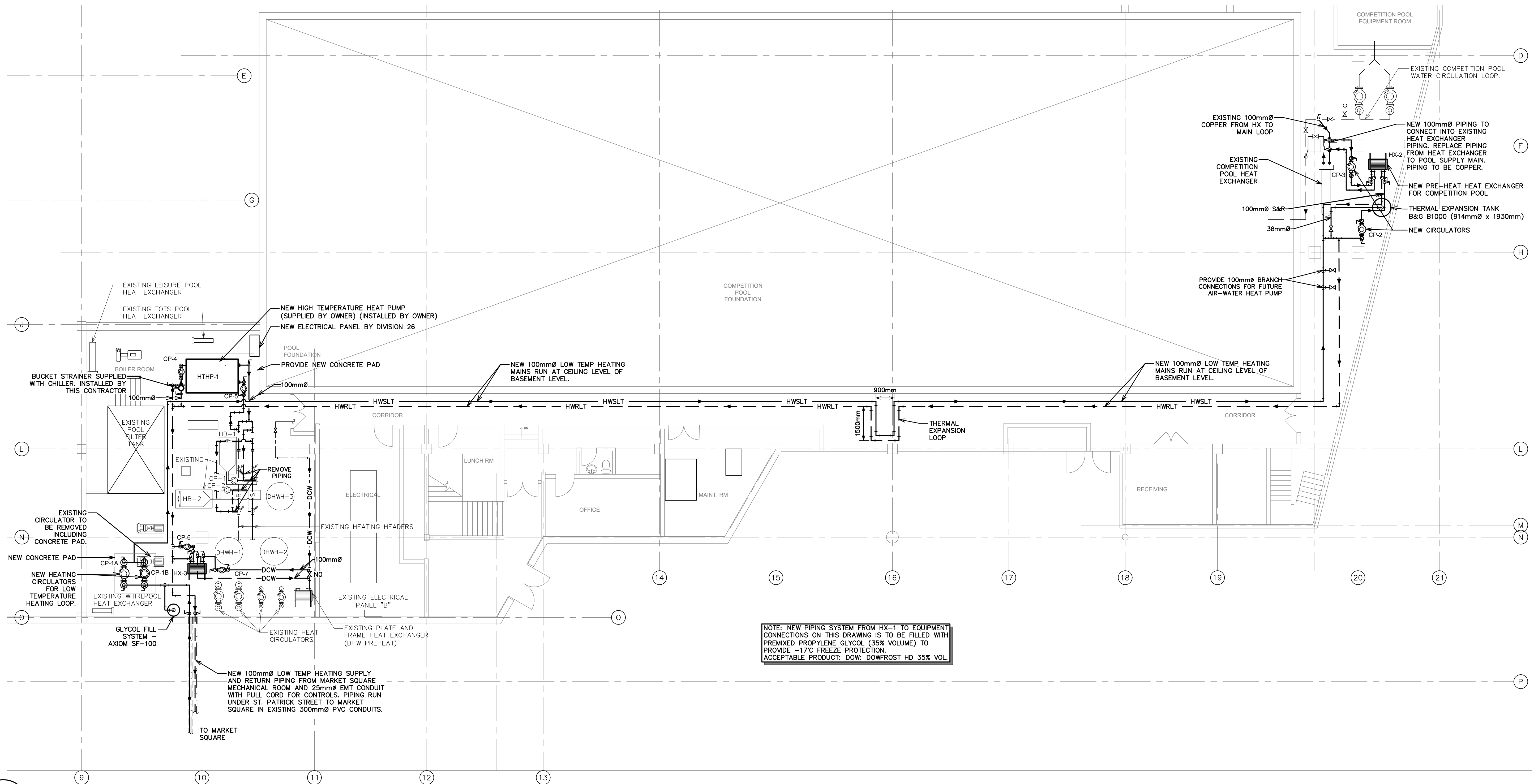
CONSULTANT:  
**M&W** Maricor  
 120 MILLENNIUM DRIVE, SUITE 201  
 QUISPAMIS, NB E2E 0C6  
 BUS: (506) 847-8285 FAX: (506) 848-2131  
 WWW.MCW.COM ENG. JOB NO. 1223012



**SAINT JOHN**

1  
M-1 SITE PLAN

2  
M-1 SYMBOL LEGEND



STAMP:



1	ISSUED FOR TENDER	2023/10/03	S.S.
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NO:	REVISIONS	DATE	INIT.
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PROJECT TITLE:  
**CANADA GAMES AQUATIC CENTER THERMAL INTERCONNECT TO MARKET SQUARE**

DRAWING TITLE:  
**CANADA GAMES AQUATIC CENTER BASEMENT LEVEL - MECHANICAL NEW WORK**

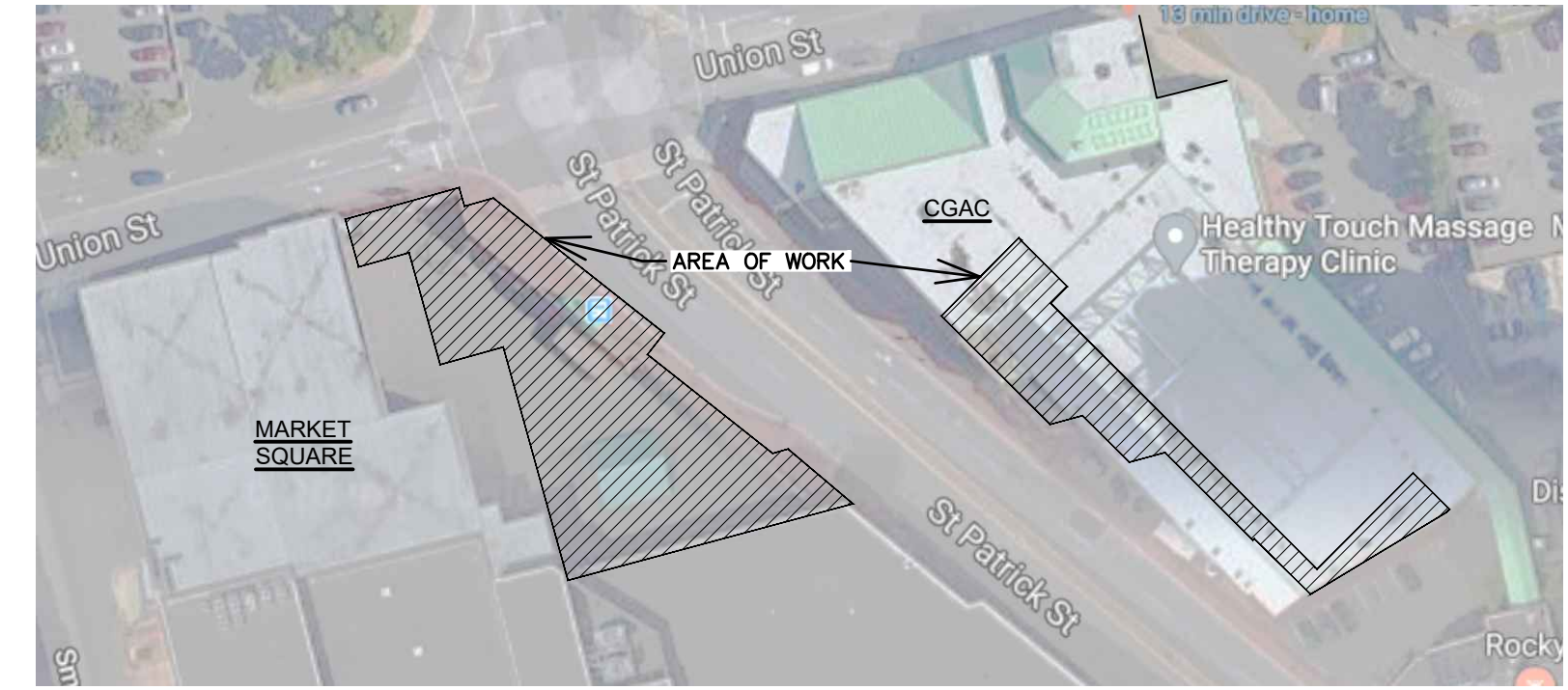
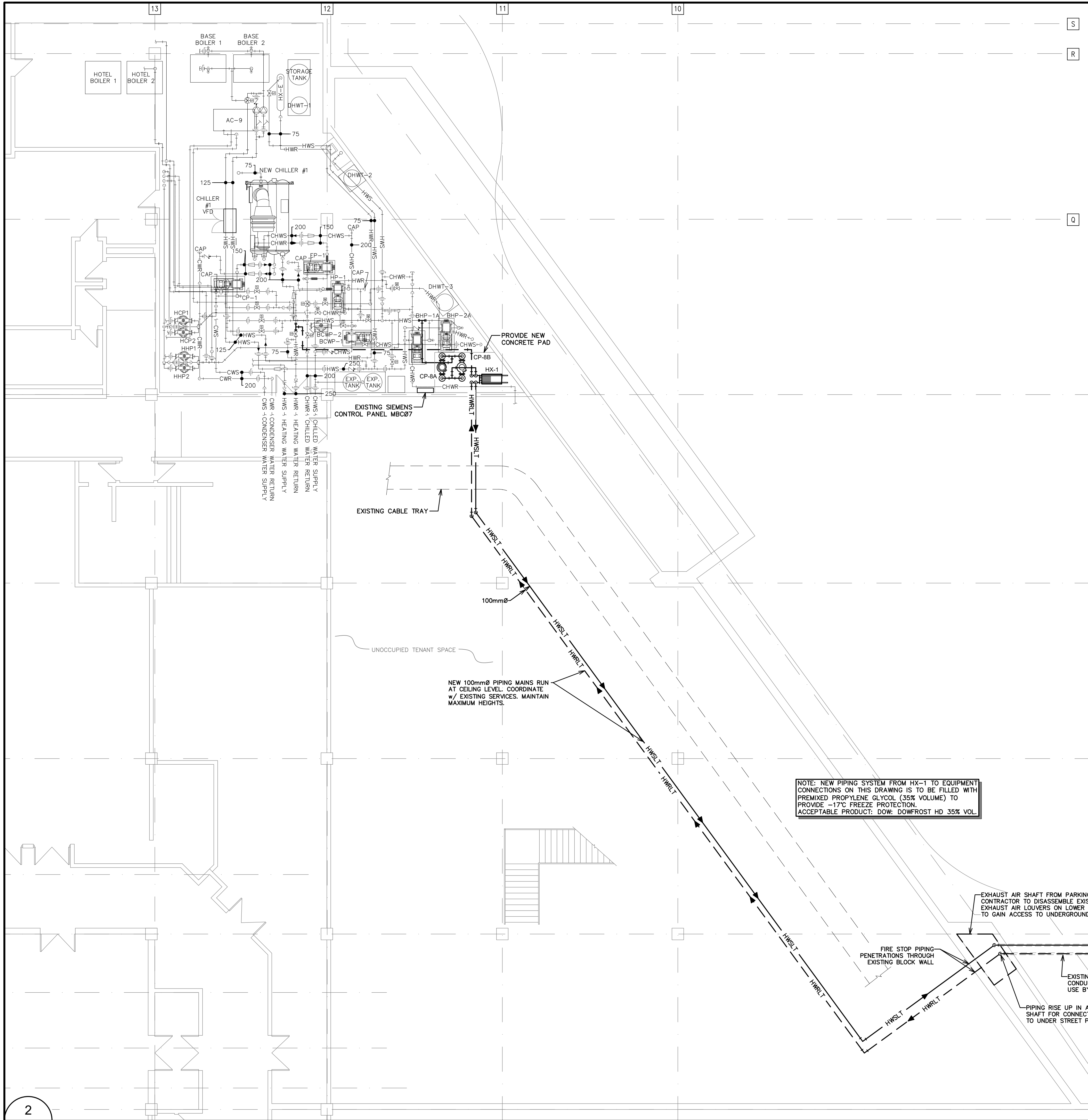
SCALE:	AS NOTED	DATE:	OCTOBER 2023
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DRAWN BY:	R.F.	DRAWING NO.:	<b>M-1</b>
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CHECKED BY:	S.R.E.
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3  
M-1 CANADA GAMES AQUATIC CENTER - BASEMENT LEVEL - MECHANICAL NEW WORK

SCALE: 1:100



1  
M-2 KEY PLAN

N.T.S.

2  
M-2 MARKET SQUARE LEVEL 8.4 MECHANICAL ROOM - MECHANICAL NEW WORK

SCALE: 1:100

CONSULTANT:

**M&W Maricor**  
 120 MILLENNIUM DRIVE, SUITE 201  
 QUISPAMIS, NB E2E 0G6  
 BUS: (506) 847-8285 FAX: (506) 848-2131  
 WWW.MCW.COM ENG. JOB NO. 1223012

**SAINT JOHN**

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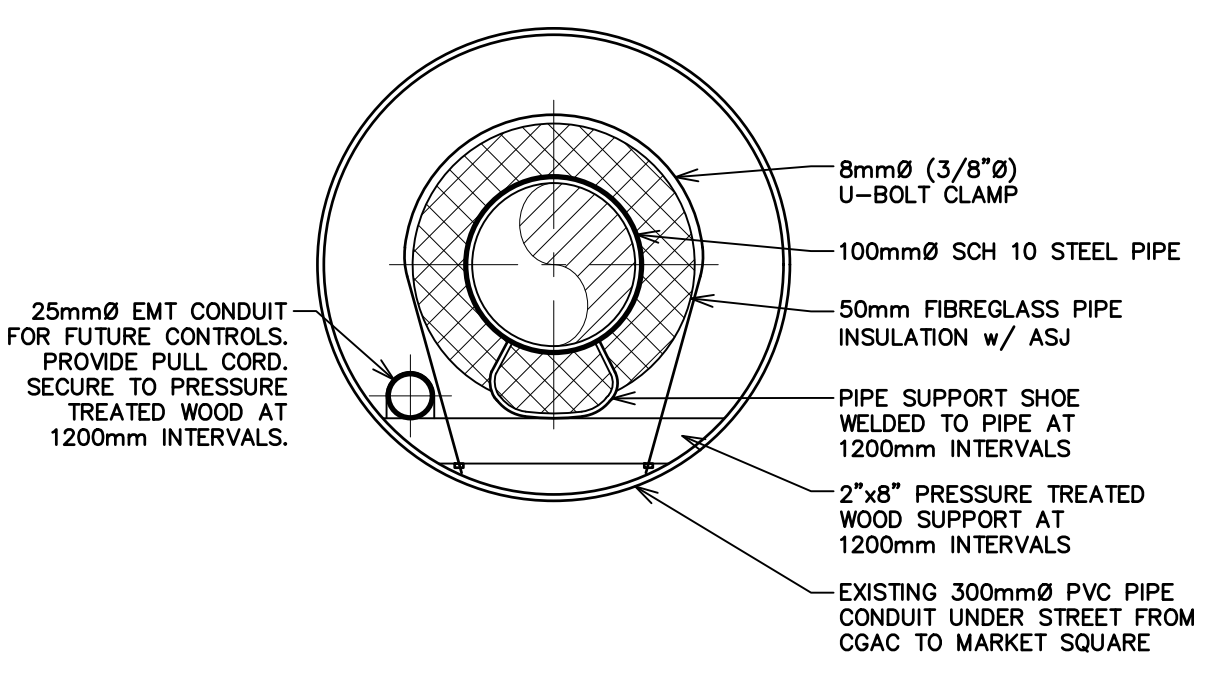
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NO:	REVISIONS	DATE	INIT.

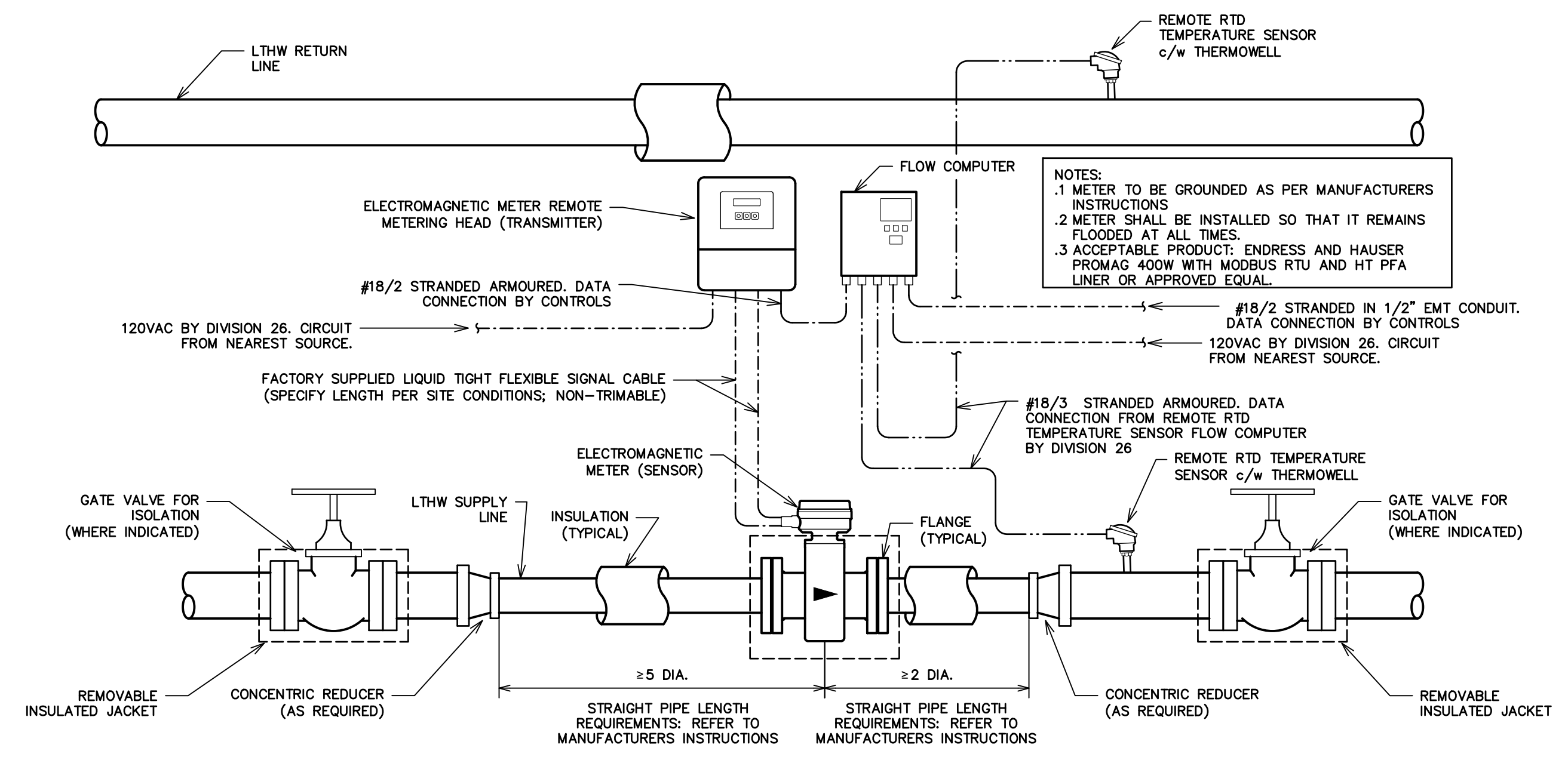
PROJECT TITLE:  
**CANADA GAMES AQUATIC CENTER THERMAL INTERCONNECT TO MARKET SQUARE**

DRAWING TITLE:  
**MARKET SQUARE LEVEL 8.4 MECHANICAL ROOM - MECHANICAL NEW WORK**

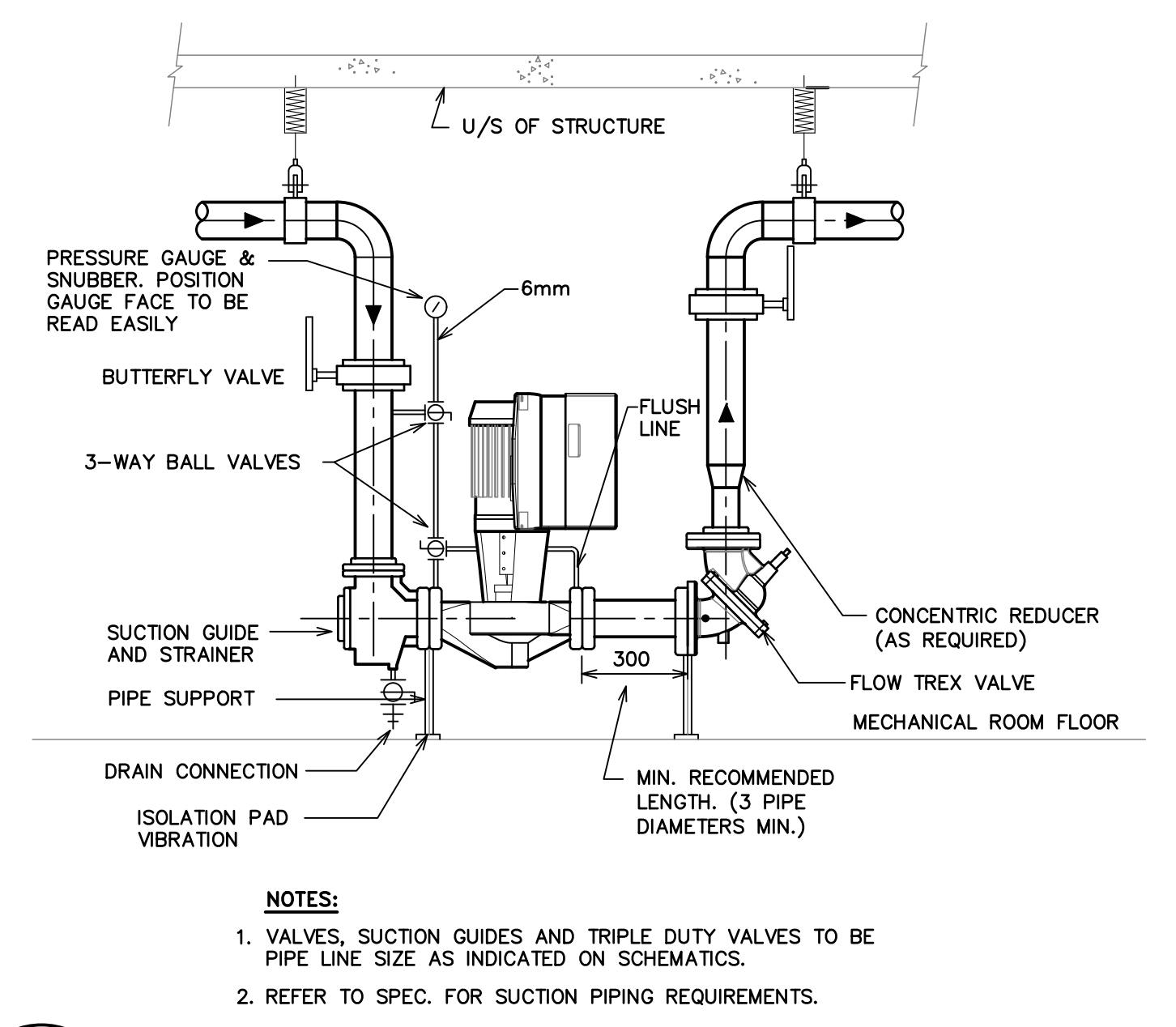
SCALE:	AS NOTED	DATE:	OCTOBER 2023
DRAWN BY:	R.F.	DRAWING NO.:	<b>M-2</b>
CHECKED BY:	S.R.E.		



1 M-3 UNDERGROUND PIPING DETAIL N.T.S.



2 M-3 ELECTROMAGNETIC LOW TEMPERATURE WATER METER INSTALLATION DETAIL N.T.S.

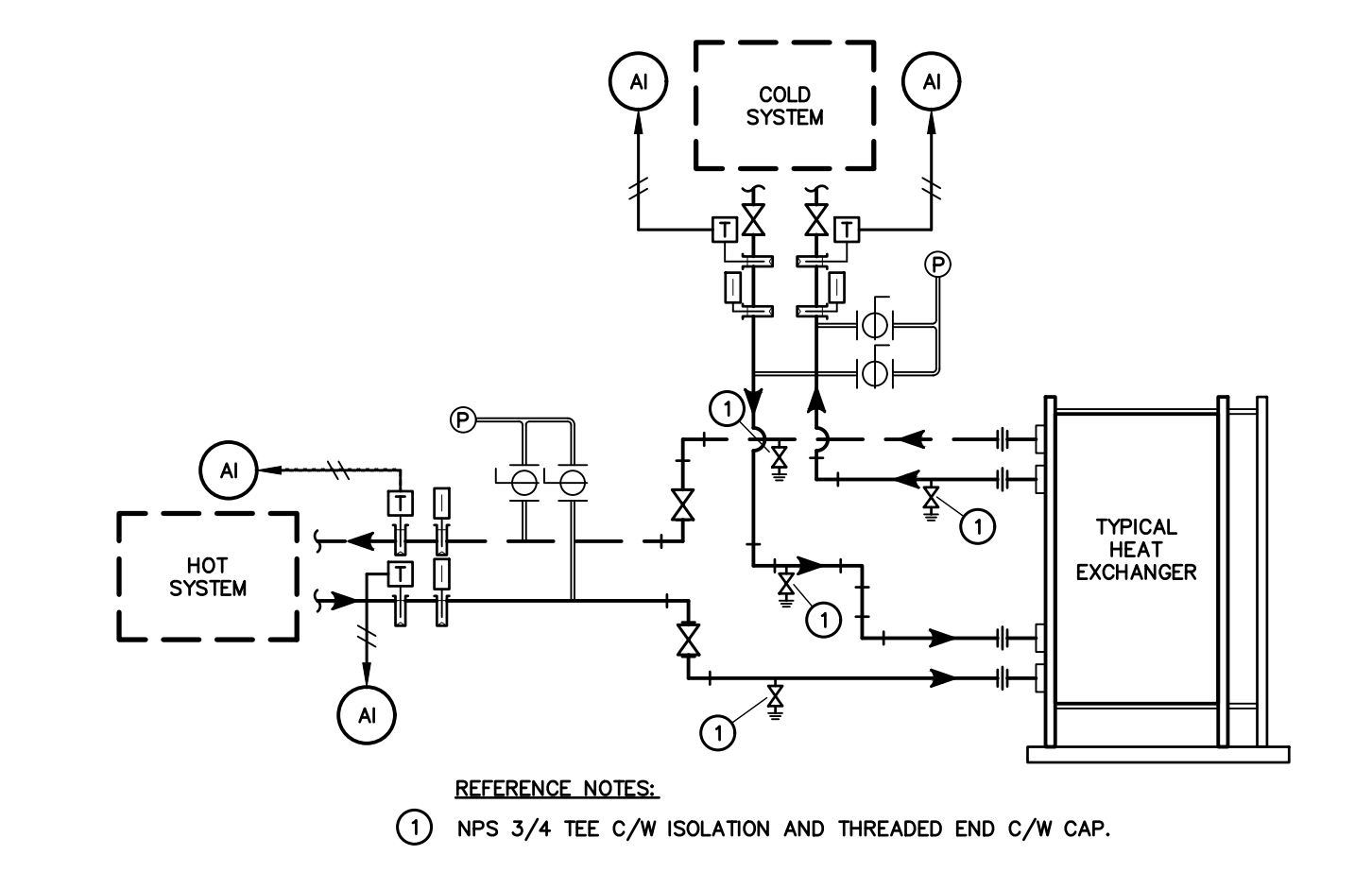


3 M-3 PUMP INSTALLATION DETAIL N.T.S.

CHILLER / HEAT PUMP SCHEDULE (SUPPLIED BY OWNER)																								
REF	LOCATION	DESCRIPTION	MANUFACTURER	MODEL	EVAPORATOR				CONDENSER				PERFORMANCE		ELECTRICAL			BREAKER	FEEDER	DISCONNECT	STARTER	PANEL	REMARKS	
					FLOW L/s	EW.T. °C	LWT. °C	PRESSURE DROP kPa	FLOW L/s	EW.T. °C	LWT. °C	PRESSURE DROP kPa	NOMINAL TONNAGE	EER KW/TON	MOP	MCA	VOLT							PHASE
HTHP	BOILER ROOM	HIGH TEMPERATURE HEAT PUMP	TANDEM	WHRX050DZY	16.66	23.9	18.3	21.4	24.0	68.3	73.9	25.5	3040T=120	1.58	250	218	575	3	-	-	-	-	-	1.

1. THIS CONTRACTOR RESPONSIBLE FOR RECEIPT OF EQUIPMENT FROM MANUFACTURER'S DELIVERY AGENT. CONTRACTOR TO CARRY COSTS FOR MOVING EQUIPMENT THROUGH BUILDING TO FINAL INSTALLATION LOCATION. EQUIPMENT WILL BE DELIVERED TO SITE AND DOES NOT NEED TO BE STORED OFF-SITE BY THIS CONTRACTOR FOR ANY PERIOD OF TIME.

4 M-3 CHILLER / HEAT PUMP SCHEDULE



5 M-3 HEAT EXCHANGER INSTALLATION DETAIL N.T.S.

HEAT EXCHANGER SCHEDULE (SUPPLIED BY OWNER)																						
EQUIP. No.	LOCATION	SERVICE	PRIMARY (HOT)					SECONDARY (COLD)					HEAT EXCH. KW	TYPE	NUMBER OF PLATES	PLATE MATERIAL	GASKET MATERIAL	MANUF.	MODEL #	NOTES		
			FLUID	FLOW L/S	P.D. kPa	E.W.T. °C	L.W.T. °C	WORKING PRESSURE kPa	FLUID	FLOW L/S	P.D. kPa	E.W.T. °C									L.W.T. °C	WORKING PRESSURE kPa
HX-1	MARKET SQUARE MECH. RM.	CGAC THERMAL INTERCONNECT	HEATING WATER	38.1	33	32	26.7	1034	30% PROP. GLYCOL	15.77	6.9	16.7	31.1	1034	880	PLATE AND FRAME	162	AISI 304	NBRH 5/302 F	ARMSTRONG	S46NG-150-162-1300	1.
HX-2	POOL EQUIPMENT ROOM (CGAC)	POOL WATER PRE-HEAT	30% PROP. GLYCOL	15.77	34	31.1	27.8	1034	POOL WATER	15.09	30.3	26.7	30.0	1034	209	PLATE AND FRAME	87 TKT96	Ti/19%	NBRH 5/302 F	ARMSTRONG	S46NG-150-87-1000	1.
HX-3	BOILER ROOM (CGAC)	DHW PRE-HEAT	30% PROP. GLYCOL	15.77	34	22.2	16.7	1034	DOMESTIC HOT WATER	7.53	8.1	10	21.1	1034	349.2	PLATE AND FRAME	61	AISI 316L	NBRH FDA 5/302 F	ARMSTRONG	S63-150-61-1000	1.

1. THIS CONTRACTOR RESPONSIBLE FOR RECEIPT OF EQUIPMENT FROM MANUFACTURER'S DELIVERY AGENT. CONTRACTOR TO CARRY COSTS FOR MOVING EQUIPMENT THROUGH BUILDING TO FINAL INSTALLATION LOCATION. EQUIPMENT WILL BE DELIVERED TO SITE AND DOES NOT NEED TO BE STORED OFF-SITE BY THIS CONTRACTOR FOR ANY PERIOD OF TIME.

6 M-3 HEAT EXCHANGER SCHEDULE

PUMP SCHEDULE (SUPPLIED BY OWNER)												
PUMP NO.	SERVICE	LOCATION	TYPE	MANUFACT.	FLUID	MODEL	FLOW L/S	HEAD kPa	MOTOR POWER	RPM	ELEC.	ACCESSORIES
CP-1A / CP-1B	LOW TEMP HEATING LOOP	CGAC BOILER ROOM	VERTICAL INLINE	ARMSTRONG	30% PROPYLENE GLYCOL	4300 2505-005.0	15.77	165	5.0 HP	2589	575/3/60	c/w SUCTION GUIDE, FLO-TREX VALVE AND VFD
CP-2	HX-2	POOL EQUIPMENT ROOM	VERTICAL INLINE	ARMSTRONG	30% PROPYLENE GLYCOL	4300 0305-003.0	15.77	60	3.0 HP	2168	575/3/60	c/w SUCTION GUIDE, FLO-TREX VALVE AND VFD
CP-3	POOL PRE-HEAT	POOL EQUIPMENT ROOM	VERTICAL INLINE	ARMSTRONG	WATER	4300 0305-003.0	15.14	45	3.0 HP	1950	575/3/60	c/w SUCTION GUIDE, FLO-TREX VALVE AND VFD
CP-4	HTHP (EVAP.)	CGAC BOILER ROOM	VERTICAL INLINE	ARMSTRONG	30% PROPYLENE GLYCOL	4300 0305-003.0	16.65	81	3.0 HP	2440	575/3/60	c/w SUCTION GUIDE, FLO-TREX VALVE AND VFD
CP-5	HTHP (COND.)	CGAC BOILER ROOM	VERTICAL INLINE	ARMSTRONG	WATER	4300 0305-003	24.0	66	3.0 HP	1060	575/3/60	c/w SUCTION GUIDE, FLO-TREX VALVE AND VFD
CP-6	HX-3	CGAC BOILER ROOM	VERTICAL INLINE	ARMSTRONG	30% PROPYLENE GLYCOL	4300 0408-005.0	15.77	80	5.0 HP	1477	575/3/60	c/w SUCTION GUIDE, FLO-TREX VALVE AND VFD
CP-7	DHW PRE-HEAT	CGAC BOILER ROOM	VERTICAL INLINE	ARMSTRONG	WATER	4300 2505-001.5	7.57	75	1.5 HP	2150	575/3/60	c/w SUCTION GUIDE, FLO-TREX VALVE AND VFD
CP-8A / CP-8B	MARKET SQUARE CHILLER RM HX-1	MARKET SQUARE CHILLER RM	BASE MOUNTED END SUCTION	ARMSTRONG	WATER	4200H 408-007.5	38.2	75	7.5 HP	1266	575/3/60	c/w SUCTION GUIDE, FLO-TREX VALVE AND VFD

NOTE: THIS CONTRACTOR RESPONSIBLE FOR RECEIPT OF EQUIPMENT FROM MANUFACTURER'S DELIVERY AGENT. CONTRACTOR TO CARRY COSTS FOR MOVING EQUIPMENT THROUGH BUILDING TO FINAL INSTALLATION LOCATION. EQUIPMENT WILL BE DELIVERED TO SITE AND DOES NOT NEED TO BE STORED OFF-SITE BY THIS CONTRACTOR FOR ANY PERIOD OF TIME.

7 M-3 PUMP SCHEDULE

CONSULTANT: M&W Maricor  
 120 MILLENNIUM DRIVE, SUITE 201  
 QUISPAMIS, NB E2E 0G6  
 BUS: (506) 847-6285 FAX: (506) 848-2131  
 WWW.MCW.COM ENG. JOB NO. 1223012



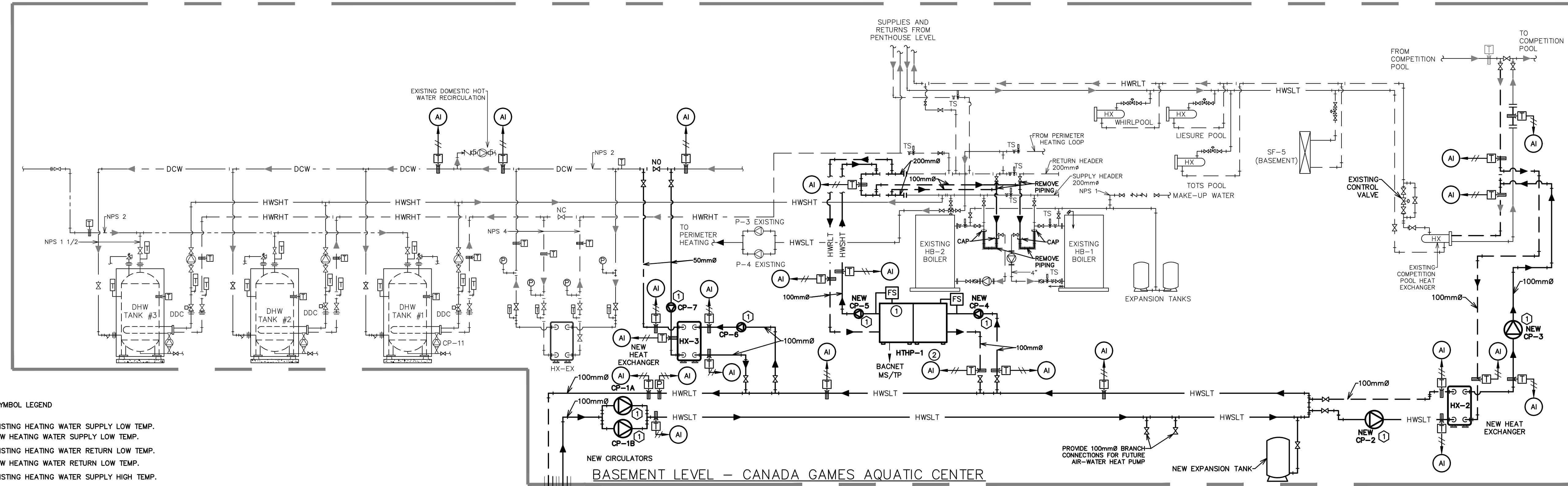
STAMP: REGISTERED PROFESSIONAL ENGINEER  
 M8103  
 GOURNEY A.G. SLOTT  
 09/04/2013  
 INGENIEUR BAA/BP/EE

1	ISSUED FOR TENDER	2023/10/03	S.S.
NO:	REVISIONS	DATE	INIT.

PROJECT TITLE: CANADA GAMES AQUATIC CENTER THERMAL INTERCONNECT TO MARKET SQUARE

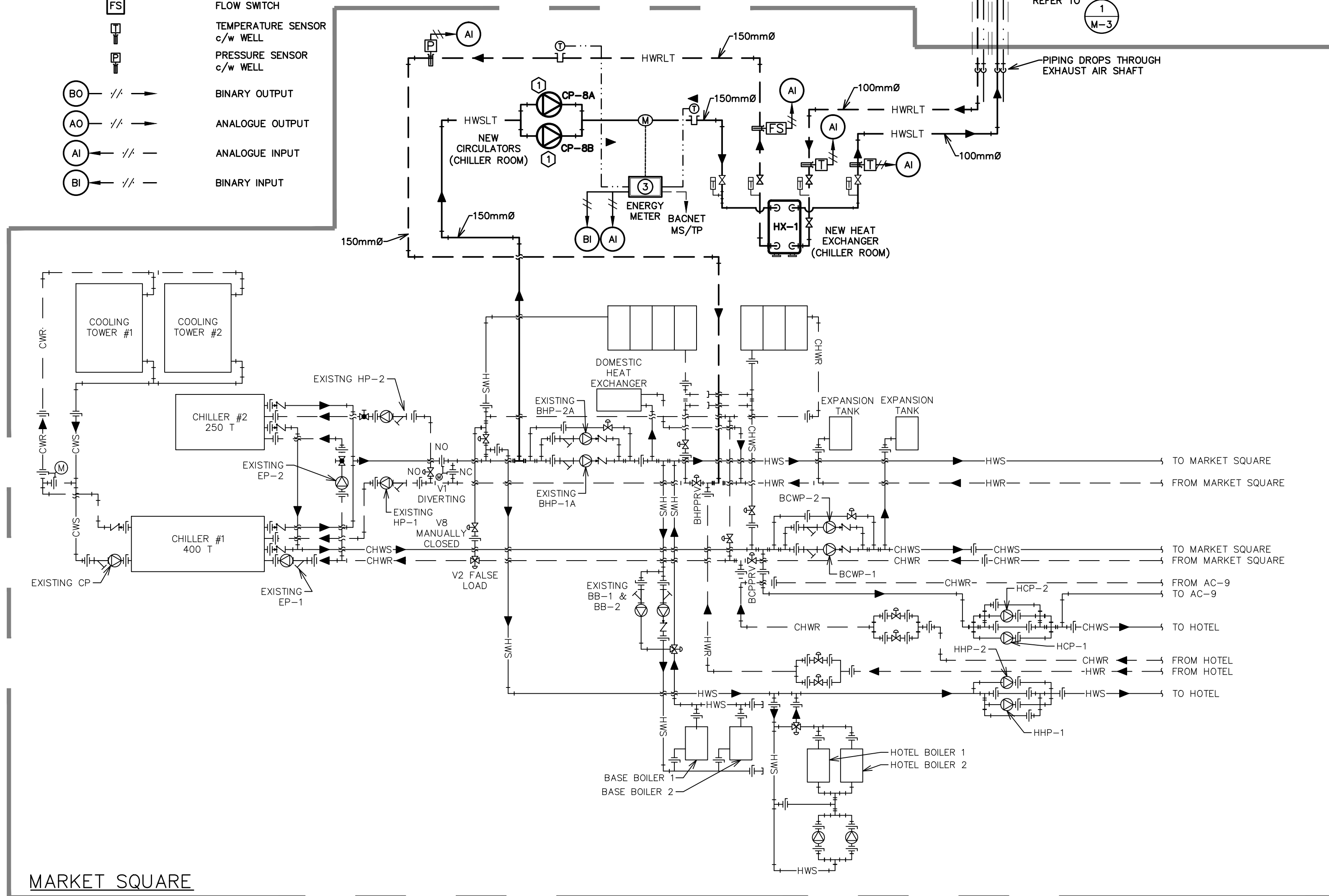
DRAWING TITLE: DETAILS AND SCHEDULES

SCALE: AS NOTED	DATE: OCTOBER 2023
DRAWN BY: R.F.	DRAWING NO: M-3
CHECKED BY: S.R.E.	N.T.S.



**FLOW SCHEMATIC SYMBOL LEGEND**

- HWSLT — EXISTING HEATING WATER SUPPLY LOW TEMP.
- HWSLT — NEW HEATING WATER SUPPLY LOW TEMP.
- HWRLT — EXISTING HEATING WATER RETURN LOW TEMP.
- HWRLT — NEW HEATING WATER RETURN LOW TEMP.
- HWSHT — EXISTING HEATING WATER SUPPLY HIGH TEMP.
- HWSHT — NEW HEATING WATER SUPPLY HIGH TEMP.
- HWRHT — EXISTING HEATING WATER RETURN HIGH TEMP.
- HWRHT — NEW HEATING WATER RETURN HIGH TEMP.
- DCW — EXISTING DOMESTIC COLD WATER.
- DCW — NEW DOMESTIC COLD WATER.
- DHW — EXISTING DOMESTIC HOT WATER.
- DHW — NEW DOMESTIC HOT WATER.
- CT — CURRENT TRANSDUCER
- FS — FLOW SWITCH
- TEMPERATURE SENSOR c/w WELL
- PRESSURE SENSOR c/w WELL
- BO — BINARY OUTPUT
- AO — ANALOGUE OUTPUT
- AI — ANALOGUE INPUT
- BI — BINARY INPUT



**1**  
**M-4** MARKET SQUARE & CANADA GAMES AQUATIC CENTER INTERCONNECT - PIPING SCHEMATIC

**2**  
**M-4** CONTROLS NOTES

**CONTROLS NOTES:**

- ① HTHP-1 EVAPORATOR & CONDENSER FLOW SWITCH PROVIDED BY CONTROLS CONTRACTOR & HARDWIRED TO CHILLER. MECHANICAL CONTRACTOR TO PROVIDE THERMAL WELLS.
- ② HTHP-1 SHALL BE TIED TO EXISTING BAS THROUGH DEDICATED Bacnet MS/TP NETWORK. CONTRACTOR SHALL PROVIDE SEPARATE MS/TP NETWORKS FOR HTHP-1 AND PUMP VFD'S.
- ③ NEW ENERGY (BTU) METER TO BE INSTALLED AS SHOWN. PROVIDE STRAIGHT PIPE LENGTH UPSTREAM OF TRANSDUCERS AND DOWNSTREAM OF TRANSDUCERS PER MANUFACTURER'S REQUIREMENTS. PLUMBING CONTRACTOR TO PURCHASE AND INSTALL ENERGY METER. CONTROLS CONTRACTOR TO PROVIDE INTEGRATION AND CONTROLS WIRE.
- ④ GENERAL NOTE: MECHANICAL CONTRACTOR TO PROVIDE THERMAL WELLS IN LOCATIONS AS SHOWN. CONTROLS CONTRACTOR TO PROVIDE DEVICES / SENSORS.

**1** DENOTES TYPICAL PUMP SCHEMATIC

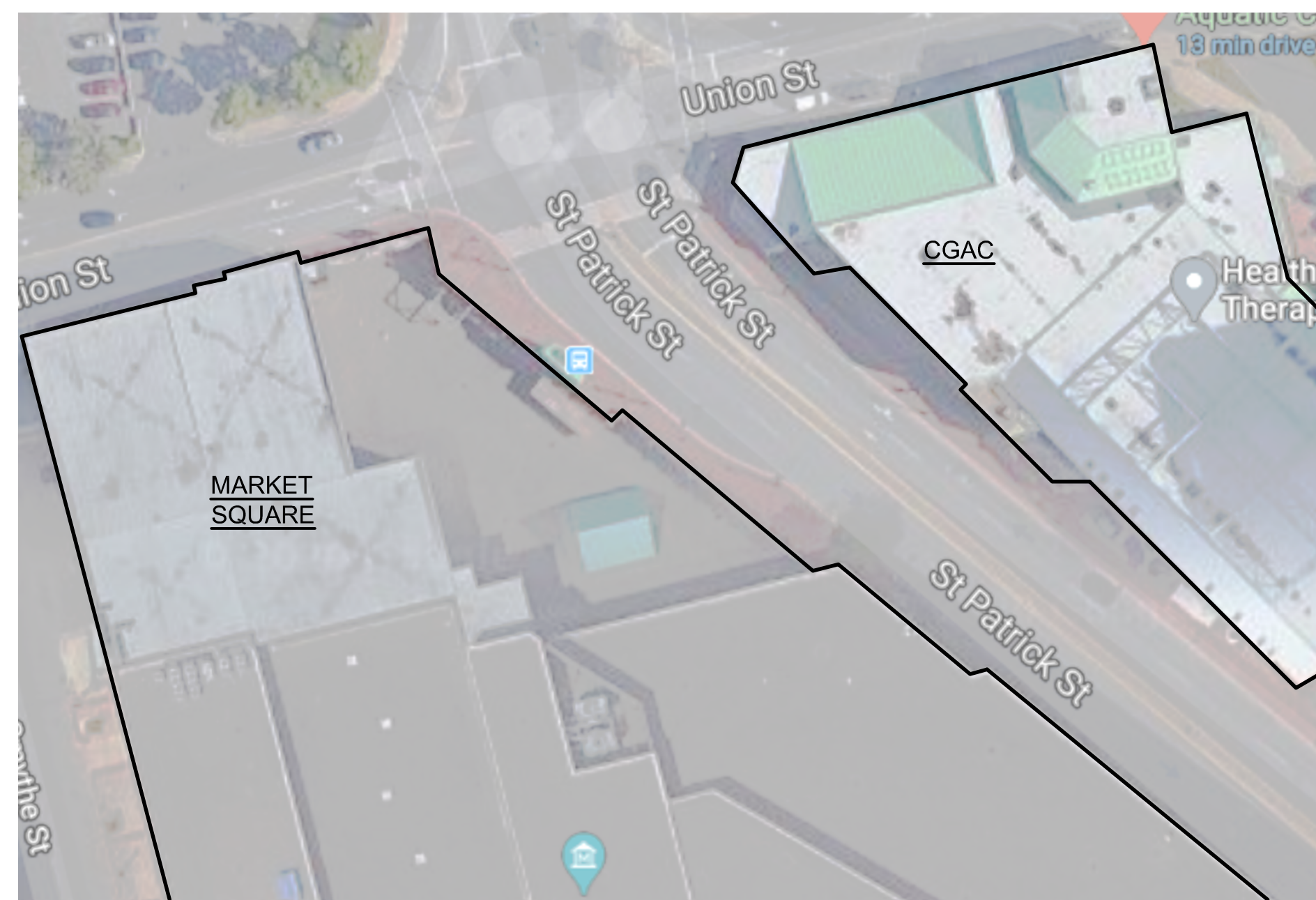
**3**  
**M-4** TYPICAL PUMP CONTROLS DETAIL

STAMP:

NO:	ISSUED FOR TENDER	DATE	2023/10/03	S.S.
NO:	REVISIONS	DATE	YYYY/MM/DD	INIT.
PROJECT TITLE: <b>CANADA GAMES AQUATIC CENTER THERMAL INTERCONNECT TO MARKET SQUARE</b>				
DRAWING TITLE: <b>SCHEMATIC</b>				
SCALE:	AS NOTED	DATE:	OCTOBER 2023	
DRAWN BY:	R.F.	DRAWING NO.:	<b>M-4</b>	
CHECKED BY:	S.R.E.			



**SAINT JOHN**



1

E-1 SITE PLAN

2

E-1 LEGEND

- EQUIPMENT CONNECTIONS AND CONTROLS**
- ⊕ 120/208V DIRECT CONNECTION
  - ⊕ 347/600V DIRECT CONNECTION C/W UNFUSED DISCONNECT SWITCH.
  - ⊕ MOTOR CONNECTION C/W UNFUSED DISCONNECT SWITCH.
  - ⊕ VARIABLE FREQUENCY DRIVE.
  - SURFACE MOUNTED ELECTRICAL PANEL
  - ⊕ FUSED DISCONNECT SWITCH
  - ⊕ JUNCTION BOX
- GENERAL POWER**
- ⊕ 5-20R, 20A, 120V T-SLOT U-GROUND DUPLEX RECEPTACLE - STANDARD MOUNTING HEIGHT
- MISCELLANEOUS**
- - - INDICATES CONDUIT.
  - ◇ ELECTRICAL DRAWING NOTES
  - ① MECHANICAL SCHEDULE NOTES
- ABBREVIATIONS**
- EX - INDICATES EXISTING DEVICE TO REMAIN
  - MCC - MOTOR CONTROL CENTRE
  - CP - CIRCULATOR PUMP (WHEN USED WITH MOTOR SYMBOL)
  - AFG - ABOVE FINISHED GRADE
  - EMT - ELECTRICAL METALLIC TUBING

**GENERAL NOTES:**

1. REFER TO MECHANICAL DRAWINGS (M-1, M-2, M-3) FOR MORE INFORMATION AND DETAILS ON NEW EQUIPMENT.

**SPECIFIC NOTES:**

- ◇ CONTRACTOR SHALL MAKE CONNECTION TO NEW PANEL 'DP2' FROM EXISTING JUNCTION BOX IN THE WALL. USE EXISTING WIRING AND REMOVE THE JUNCTION BOX.
- ◇ CONTRACTOR SHALL SUPPLY ALL THE NECESSARY HARDWARE TO CONNECT THE NEW BREAKER INTO THE EXISTING EATON TYPE 'PRL3' ELECTRICAL PANEL.
- ◇ CONTRACTOR SHALL SUPPLY ALL THE NECESSARY HARDWARE TO CONNECT THE NEW BREAKER INTO THE EXISTING SIEMENS TYPE 'P1' ELECTRICAL PANEL.

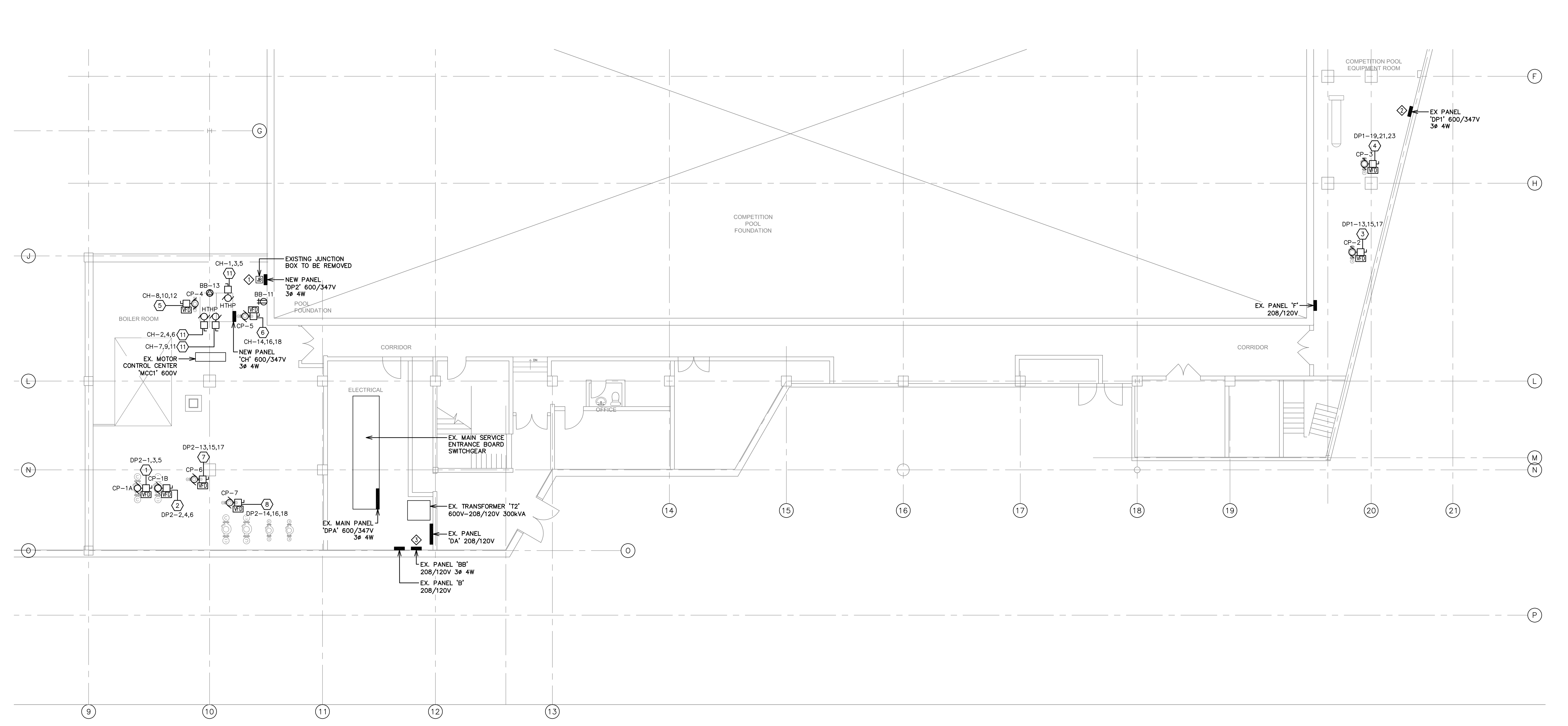
3

E-1 NOTES

N.T.S.

N.T.S.

N.T.S.



4

E-1 CANADA GAMES AQUATIC CENTER BASEMENT - ELECTRICAL NEW WORK

SCALE: 1:100

STAMP:



1	ISSUED FOR TENDER	2023/10/03	T.D.
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NO.	REVISIONS	DATE	INIT.

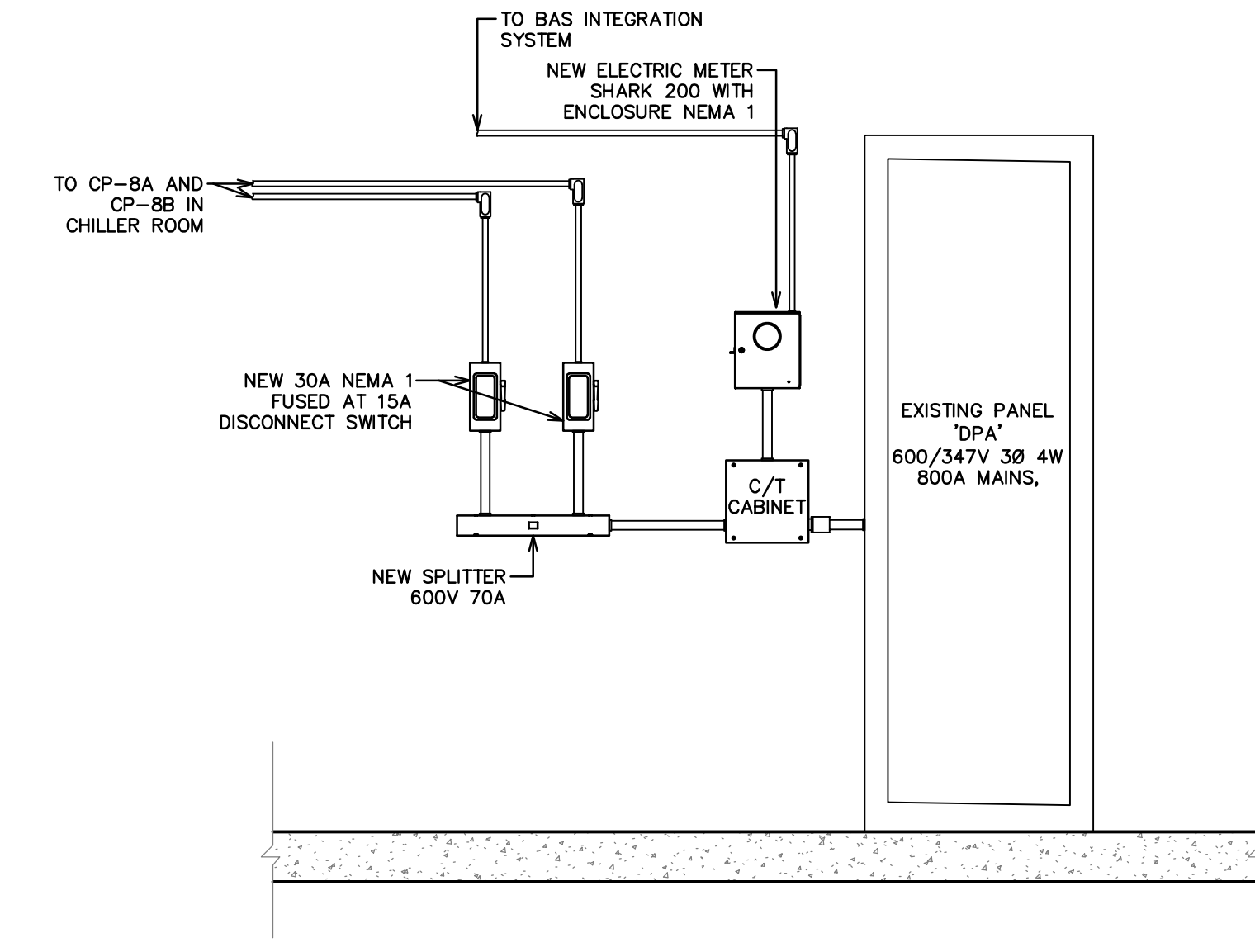
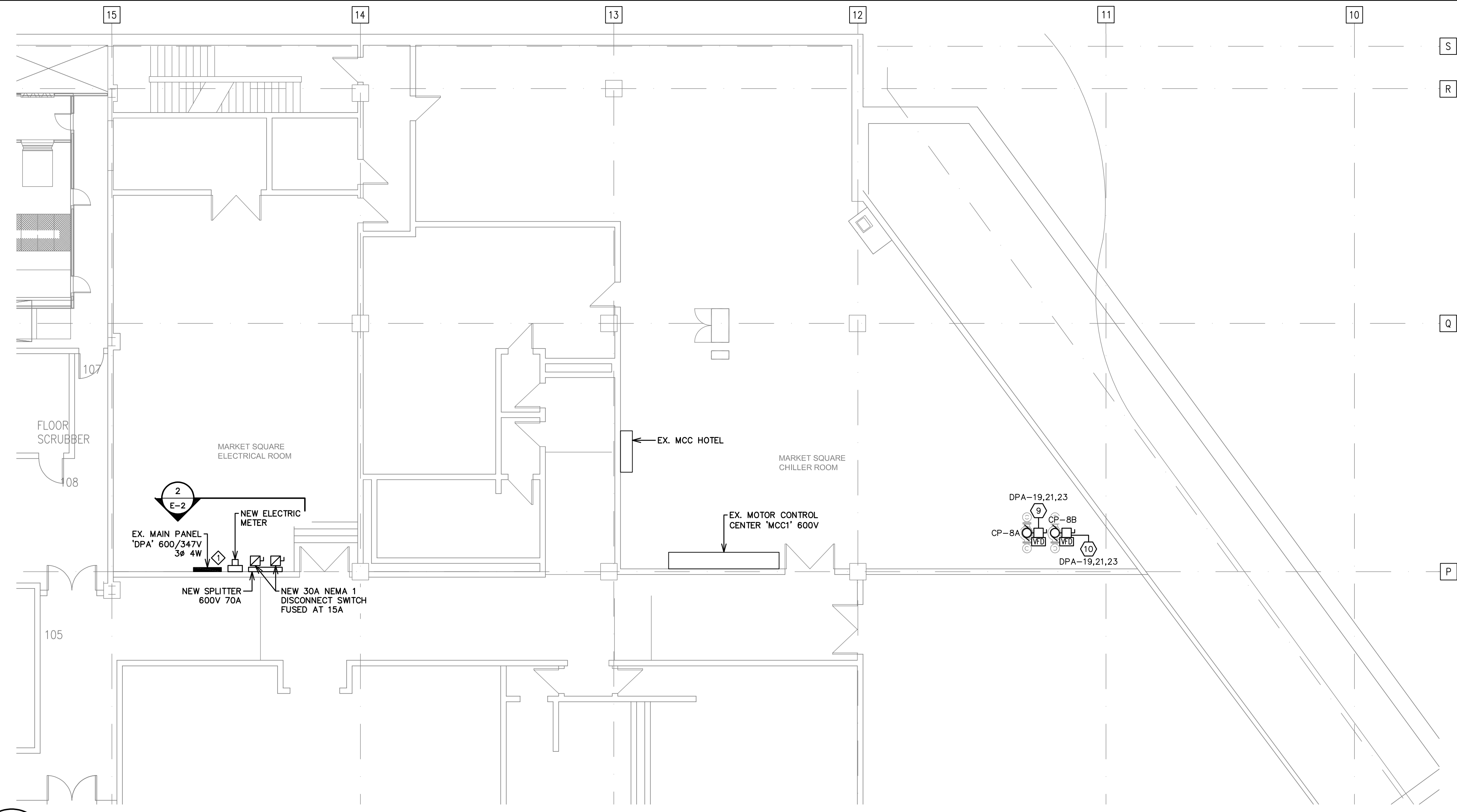
PROJECT TITLE:  
**CANADA GAMES AQUATIC CENTER THERMAL INTERCONNECT TO MARKET SQUARE**

DRAWING TITLE:  
**CANADA GAMES AQUATIC CENTER BASEMENT - ELECTRICAL NEW WORK**

SCALE:	AS NOTED	DATE:	OCTOBER 2023
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DRAWN BY:	J.A.T.	DRAWING NO.:	<b>E-1</b>
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CHECKED BY:	R.R.
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1 E-2 MARKET SQUARE LEVEL 8.4 - ELECTRICAL NEW WORK

2 E-2 METERING DETAIL

SCALE: 1:100

N.T.S.

MECHANICAL SCHEDULE												
NO.	ITEM	DESCRIPTION	LOCATION	LOAD	VOLTS	Ø	BREAKER	FEEDER	DISCONNECT	STARTER	PANEL	NOTES
1	CP-1A	HEATING CIRCULATOR PUMP FOR LOW TEMP.	CGAC BOILER ROOM	5.0HP	575	3	15A-3P	3#12 RW90 + 1#12 BOND IN 21mmC	30A NEMA 1	VFD	DP2	2
2	CP-1B	HEATING CIRCULATOR PUMP FOR LOW TEMP.	CGAC BOILER ROOM	5.0HP	575	3	15A-3P	3#12 RW90 + 1#12 BOND IN 21mmC	30A NEMA 1	VFD	DP2	2
3	CP-2	CIRCULATOR PUMP FOR HX-2	POOL EQUIPMENT ROOM	3.0HP	575	3	15A-3P	3#12 RW90 + 1#12 BOND IN 21mmC	30A NEMA 1	VFD	DP1	2
4	CP-3	PRE-HEAT CIRCULATOR PUMP	POOL EQUIPMENT ROOM	3.0HP	575	3	15A-3P	3#12 RW90 + 1#12 BOND IN 21mmC	30A NEMA 1	VFD	DP1	2
5	CP-4	CIRCULATOR PUMP FOR HTHP (EVAP.)	CGAC BOILER ROOM	3.0HP	575	3	15A-3P	3#12 RW90 + 1#12 BOND IN 21mmC	30A NEMA 1	VFD	CH	2
6	CP-5	CIRCULATOR PUMP FOR HTHP (COND.)	CGAC BOILER ROOM	5.0HP	575	3	15A-3P	3#12 RW90 + 1#12 BOND IN 21mmC	30A NEMA 1	VFD	CH	2
7	CP-6	CIRCULATOR PUMP FOR HX-3	CGAC BOILER ROOM	5.0HP	575	3	15A-3P	3#12 RW90 + 1#12 BOND IN 21mmC	30A NEMA 1	VFD	DP2	2
8	CP-7	DHW PRE-HEAT CIRCULATOR PUMP	CGAC BOILER ROOM	1.5HP	575	3	15A-3P	3#12 RW90 + 1#12 BOND IN 21mmC	30A NEMA 1	VFD	DP2	2
9	CP-8A	MARKET SQUARE CIRCULATOR PUMP FOR HX-1	MARKET SQUARE CHILLER RM	7.5HP	575	3	30A-3P FUSED SW	3#12 RW90 + 1#12 BOND IN 21mmC	30A NEMA 1	VFD	DPA	1,2,3
10	CP-8B	MARKET SQUARE CIRCULATOR PUMP FOR HX-1	MARKET SQUARE CHILLER RM	7.5HP	575	3	30A-3P FUSED SW	3#12 RW90 + 1#12 BOND IN 21mmC	30A NEMA 1	VFD	DPA	1,2,3
11	HTHP	HIGH TEMPERATURE HEAT PUMP	CGAC BOILER ROOM	186.2kW	575	3	3x(110A-3P)	3#2 RW90 + 1#6 BOND IN 41mmC	200A NEMA 1	INT	CH	-

**NOTES:**

- PANEL BOARD 'DPA' TO BE CONNECTED IS LOCATED IN THE ELECTRICAL ROOM OF MARKET SQUARE
- WIRING THROUGH VFD BY ELECTRICAL, CONTROLS BY MECHANICAL, DISCONNECTION OF THE MOTOR MUST BE THROUGH THE AUXILIARY CONTACTS INTERLOCKED WITH VFD.
- FUSES TO BE SIZED AT 15A. AND MOTOR RATED WITH TIME DELAY.

**STARTER LEGEND**

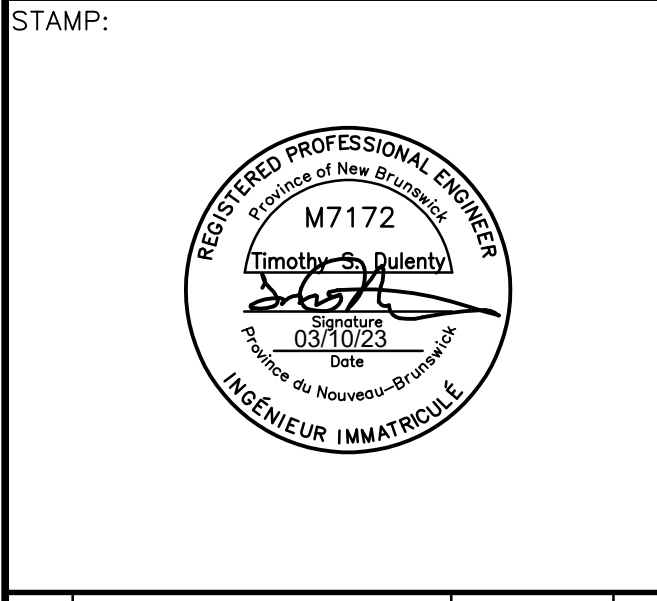
MS= MANUAL TYPE MOTOR STARTER c/w O/L PROTECTION  
 HOA= MAGNETIC STARTER C/W HAND/OFF/AUTO SELECTOR SWITCH  
 VFD= VARIABLE FREQUENCY DRIVE, SUPPLIED BY MECHANICAL CONTRACTOR, WIRED BY ELECTRICAL CONTRACTOR  
 INT= INTEGRAL TO UNIT

3 E-2 MECHANICAL EQUIPMENT SCHEDULE

4 E-2 NOTES

N.T.S.

CONSULTANT:  
**MCW** Maricor  
 120 MILLENNIUM DRIVE, SUITE 201  
 QUISPAMIS, NB E2E 0C6  
 BUS: (506) 847-8285 FAX: (506) 848-2131  
 WWW.MCW.COM ENG. JOB NO. 12-23-012



**GENERAL NOTES:**

- REFER TO MECHANICAL DRAWINGS (M-1, M-2, M-3) FOR MORE INFORMATION AND DETAILS ON NEW EQUIPMENT.

**SPECIFIC NOTES:**

- CONTRACTOR SHALL SUPPLY ALL THE NECESSARY HARDWARE TO CONNECT THE NEW BREAKER INTO THE EXISTING WESTINGHOUSE TYPE CDP ELECTRICAL PANEL.

NO.	ISSUED FOR TENDER	DATE	T.D.
1	ISSUED FOR TENDER	2023/10/03	T.D.

PROJECT TITLE:  
**CANADA GAMES AQUATIC CENTER THERMAL INTERCONNECT TO MARKET SQUARE**

DRAWING TITLE:  
**MARKET SQUARE LEVEL 8.4 ELECTRICAL NEW WORK**

SCALE:	DATE:
AS NOTED	OCTOBER 2023
DRAWN BY:	DRAWING NO.:
J.A.T.	<b>E-2</b>
CHECKED BY:	
R.R.	

PANEL VOLTAGE: 600				PANEL TYPE: I-LINE NEMA 1						CGAC NEW PANEL 'DP2'			
CCT	DESCRIPTION	WATTAGE			P	BRKR			WATTAGE			DESCRIPTION	CCT
		A	B	C		AMP	#	BRKR	AMP	A	B		
1		2113				A			2113			2	
3	NEW CIRCULATOR PUMP 'CP-1A'		2113		3	B	15	3		2113		4	
5				2113		C					2113	6	
7						A						8	
9	SPARE				3	B	15	3				10	
11						C						12	
13			2113			A			831			14	
15	NEW CIRCULATOR PUMP 'CP-6'		2113		3	B	15	3		831		16	
17				2113		C					831	18	
19			65540			A						20	
21	PANEL 'CH'		65540		3	B	250					22	
23				65540		C						24	
25						A						26	
27					B						28		
29					C						30		
PHASE LOADS		69766	69766	69766					2944	2944	2944		
TOTAL PHASE LOADS		72710						72710					
TOTAL CONNECTED LOAD		218130											
TOTAL AMPERAGE		210 AMPS											

PANEL VOLTAGE: 600				PANEL TYPE: NEMA 1						CGAC EXISTING PANEL 'DP1'			
CCT	DESCRIPTION	WATTAGE			P	BRKR			WATTAGE			DESCRIPTION	CCT
		A	B	C		AMP	#	BRKR	AMP	A	B		
1						A						2	
3	EXISTING LOAD				3	B	70	3				4	
5						C						6	
7						A						8	
9	EXISTING LOAD				3	B	70	3				10	
11						C						12	
*13			1351			A						14	
*15	NEW CIRCULATOR PUMP 'CP-2'		1351		3	B	20	3				16	
*17				1351		C						18	
*19			1351			A						20	
*21	NEW CIRCULATOR PUMP 'CP-3'		1351		3	B	15	3				22	
*23				1351		C						24	
25						A						26	
27					B						28		
29					C						30		
PHASE LOADS		2702	2702	2702					---	---	---		
TOTAL PHASE LOADS		2702						2702					
TOTAL CONNECTED LOAD		8106											
TOTAL AMPERAGE		8 AMPS											

\* DENOTES NEW BREAKER IN EXISTING PANEL

PANEL VOLTAGE: 600				PANEL TYPE: NF NEMA 1						CGAC NEW PANEL 'CH'			
CCT	DESCRIPTION	WATTAGE			P	BRKR			WATTAGE			DESCRIPTION	CCT
		A	B	C		AMP	#	BRKR	AMP	A	B		
1		20692				A			20692			2	
3	HTHP MODULE 1		20692		3	B	110	3		20692		4	
5				20692		C					20692	6	
7			20692			A			1351			8	
9	HTHP MODULE 2		20692		3	B	15	3		1351		10	
11				20692		C					1351	12	
13						A			2113			14	
15					B	15	3		2113		16		
17					C					2113	18		
19					A						20		
21					B						22		
23					C						24		
25					A						26		
27					B						28		
29					C						30		
PHASE LOADS		41384	41384	41384					24156	24156	24156		
TOTAL PHASE LOADS		65540						65540					
TOTAL CONNECTED LOAD		196620											
TOTAL AMPERAGE		189 AMPS											

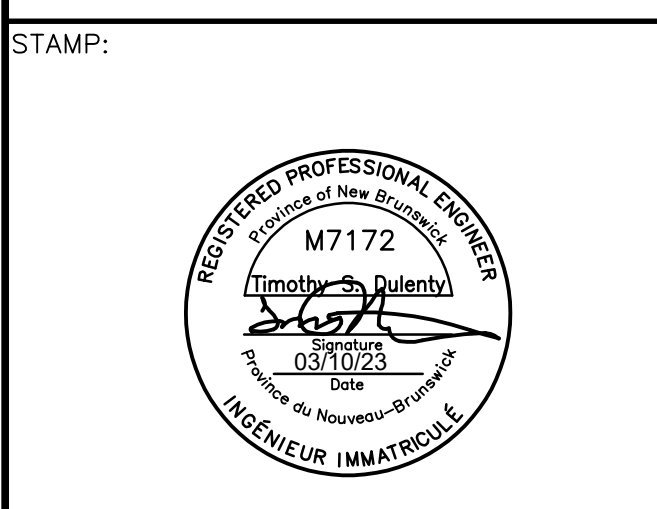
PANEL VOLTAGE: 600				PANEL TYPE: NEMA 1						MAEKET SQUARE EXISTING PANEL 'DPA'			
CCT	DESCRIPTION	WATTAGE			P	BRKR			WATTAGE			DESCRIPTION	CCT
		A	B	C		AMP	#	BRKR	AMP	A	B		
1						A						2	
3	EXISTING LOAD				3	B	70	3				4	
5						C						6	
7						A						8	
9	EXISTING LOAD				3	B	70	3				10	
11						C						12	
13						A						14	
15					B	20	3				16		
17					C						18		
*19		5976			A						20		
*21	NEW CIRCULATOR PUMPS 'CP-8A' AND 'CP-8B'		5976		3	B	30	3				22	
*23				5976		C						24	
25						A						26	
27					B						28		
29					C						30		
PHASE LOADS		5976	5976	5976					---	---	---		
TOTAL PHASE LOADS		5976						5976					
TOTAL CONNECTED LOAD		17928											
TOTAL AMPERAGE		17 AMPS											

\* DENOTES NEW BREAKER IN EXISTING PANEL

PANEL VOLTAGE: 208				PANEL TYPE: NEMA 1						CGAC EXISTING PANEL 'BB'			
CCT	DESCRIPTION	WATTAGE			P	BRKR			WATTAGE			DESCRIPTION	CCT
		A	B	C		AMPS	#	BRKR	AMPS	A	B		
1						A			488			2	
3	EXISTING UV LEISURE				3	B	15	3		488		4	
5						C					488	6	
7						A			488			8	
9	EX. ADULT CHLORINATOR				1	B	15	3		488		10	
* 11	NEW RECEPTACLE		250		1	C	20				488	12	
* 13	REMOTE MASTER CONTROL	200			1	A	15			488		14	
15						B	15	3		488		16	
17						C					488	18	
19					A	15	1		100			20	
21					B	15	1		100			22	
23					C	15	1		100			24	
25					A	15	1					26	
27					B	15	1					28	
29					C							30	
31					A							32	
33					B	20	3					34	
35					C							36	
37					A							38	
39					B							40	
41					C							42	
PHASE LOADS		---	---	250					1564	1564	1564		
TOTAL PHASE LOADS		1564						1814					
TOTAL CONNECTED LOAD		4942											
TOTAL AMPERAGE		13.7 AMPS											

\* DENOTES NEW BREAKER IN EXISTING PANEL

Type	Connected (kW)	Demand (kW)
EXISTING PICK DEMAND		367.2
ADDITIONAL LOAD	226.69	170.01
<b>Total Load (kW) =</b>		<b>537 kW</b>
<b>Service Entrance Voltage (V) =</b>		<b>600 V</b>
<b>Ampacity (A) =</b>		<b>518 A</b>



NO.	ISSUED FOR TENDER	DATE	T.D.
1	ISSUED FOR TENDER	2023/10/03	T.D.
NO.	REVISIONS	DATE	INIT.
		YYYY/MM/DD	

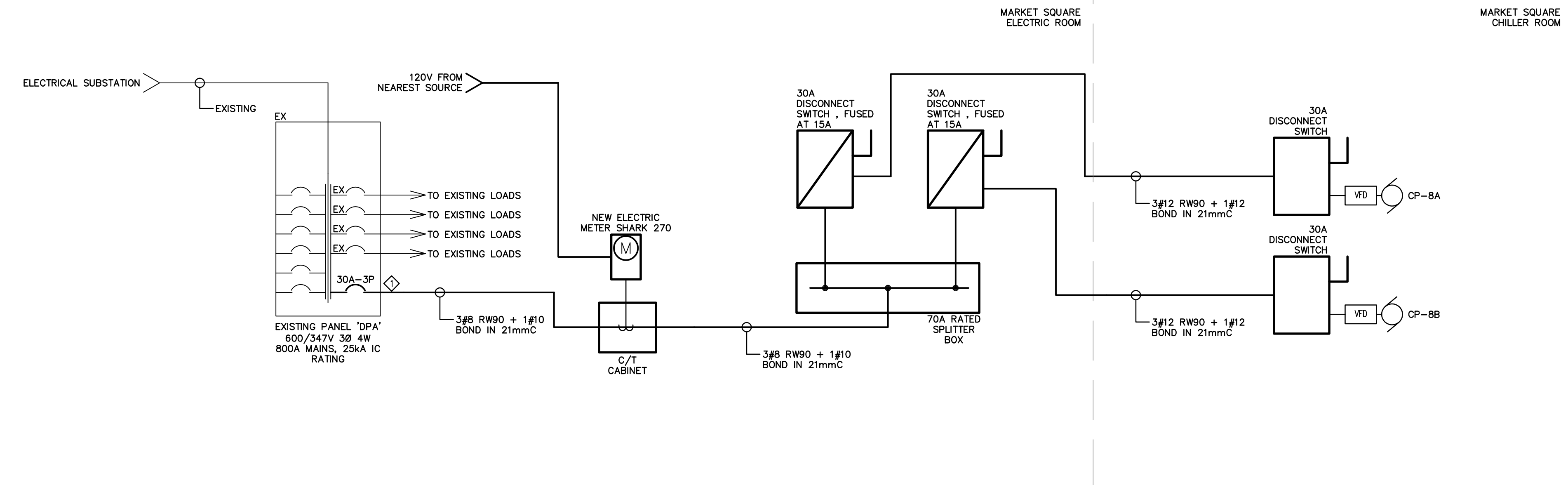
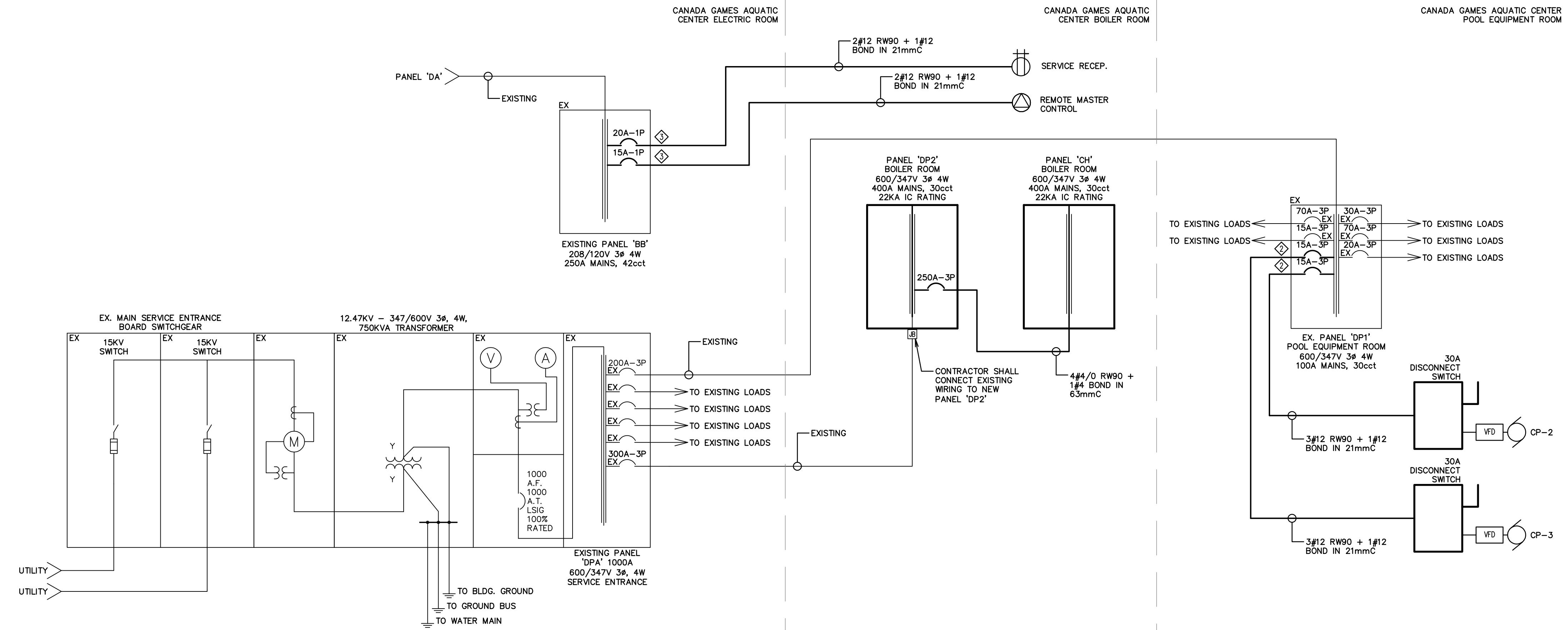
PROJECT TITLE:  
**CANADA GAMES AQUATIC CENTER THERMAL INTERCONNECT TO MARKET SQUARE**

DRAWING TITLE:  
**ELECTRIC PANEL SCHEDULES**

SCALE:	DATE:
AS NOTED	OCTOBER 2023
DRAWN BY:	DRAWING NO.:
J.A.T.	<b>E-3</b>
CHECKED BY:	
R.R.	



**SAINT JOHN**



STAMP:




1	ISSUED FOR TENDER	2023/10/03	T.D.
NO:	REVISIONS	DATE	INIT.

PROJECT TITLE:

**CANADA GAMES AQUATIC CENTER THERMAL INTERCONNECT TO MARKET SQUARE**

DRAWING TITLE:

**SINGLE LINE DIAGRAM**

SCALE:	AS NOTED	DATE:	OCTOBER 2023
DRAWN BY:	J.A.T.	DRAWING NO.:	<b>E-4</b>

CHECKED BY:	R.R.
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- GENERAL NOTES:**
- REFER TO MECHANICAL DRAWINGS (M-1, M-2, M-3) FOR MORE INFORMATION AND DETAILS ON NEW EQUIPMENT.
- SPECIFIC NOTES:**
- CONTRACTOR SHALL SUPPLY ALL THE NECESSARY HARDWARE TO CONNECT THE NEW BREAKER INTO THE EXISTING WESTINGHOUSE TYPE CDP ELECTRICAL PANEL.
  - CONTRACTOR SHALL SUPPLY ALL THE NECESSARY HARDWARE TO CONNECT THE NEW BREAKER INTO THE EXISTING EATON TYPE 'PRL3' ELECTRICAL PANEL.
  - CONTRACTOR SHALL SUPPLY ALL THE NECESSARY HARDWARE TO CONNECT THE NEW BREAKER INTO THE EXISTING SIEMENS TYPE 'P1' ELECTRICAL PANEL.