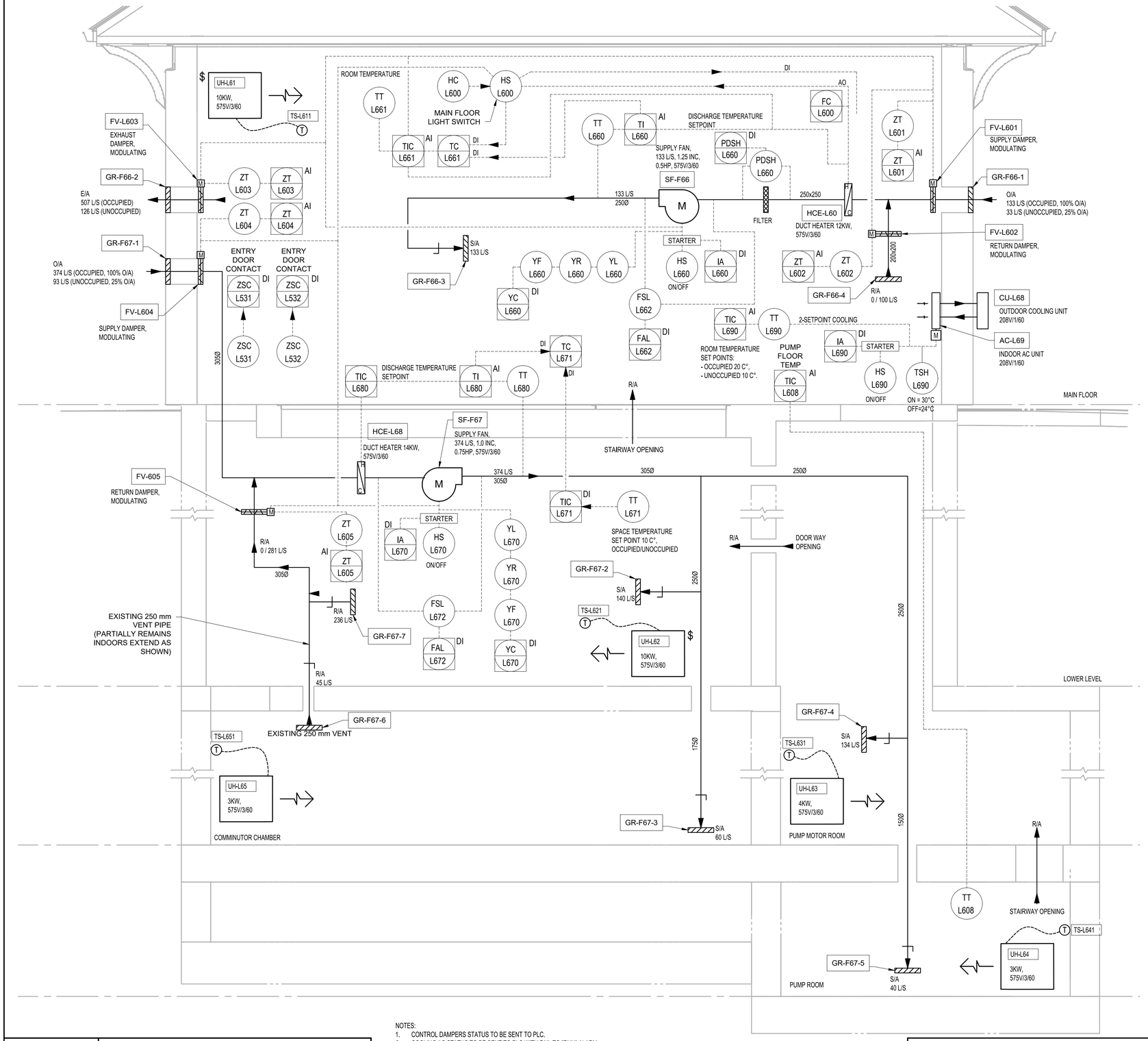

PLUMBING SYMBOL LEGEND

	GATE VALVE
	BALL VALVE
	CHECK VALVE
	BACKFLOW PREVENTER
	STRAINER
M	FLOW METER
	UNION
S	SOLENOID VALVE
FS	FLOW SWITCH
	PRESSURE REDUCING VALVE
	HOSE BIBB
DCW	DOMESTIC COLD WATER

HVAC SYMBOL LEGEND

	FLOW DIRECTION
M	MOTORIZE DAMPER
H C	DUCT HEATER
C	CONTROLLER
T	THERMOSTAT
M	MOTORIZED ACTUATOR
M	FAN
$	SWITCH
	BALANCING DAMPER
S/A	SUPPLY AIR
R/A	RETURN AIR
E/A	EXHAUST AIR
O/A	OUTSIDE AIR
SF	SUPPLY FAN
EF	EXHAUST FAN
SL	SUPPLY LOUVER
SG	SUPPLY GRILLE
RG	RETURN GRILLE
AFF	ABOVE FINISHED FLOOR
AI	ANALOG INPUT
DI	DISCRETE INPUT
AO	ANALOG OUTPUT
DO	DISCRETE OUTPUT
AFF	ABOVE FINISHED FLOOR/LANDING

HVAC SYMBOL LEGEND

ZT L600	DAMPER ACTUATOR POSITION
ZT	DAMPER POSITION INPUT POINT
HS L608	CONTROL SWITCH (HAND SWITCH)
HC L600	HAND CONTROL
FC L608	FLOW CONTROL
PDSH L600	DIFFERENTIAL PRESSURE SENSOR
PDSH L608	DIFFERENTIAL PRESSURE INPUT POINT
TT L600	TEMPERATURE TRANSMITTER
TI L608	TEMPERATURE INDICATOR
IA L608	CURRENT ALARM (EQUIPMENT OVERLOAD)
TIC L608	TEMPERATURE INDICATION CONTROLLER
TC L671	TEMPERATURE CONTROLLER
FSL L662	FLOW SWITCH LOW
FAL L662	FLOW ALARM LOW
TSH L690	TEMPERATURE SWITCH HIGH
YL L660	STATUS LEVEL
YR L660	STATUS RUN
YF L660	STATUS FAULT
YC L660	STATUS CONTROL INPUT
ZSC L531	POSITION CONTROL SWITCH
ZSC L531	POSITION CONTROL INPUT
	AIR FILTER

NOTES:
1. CONTROL DAMPERS STATUS TO BE SENT TO PLC.
2. COOLING AC STATUS TO BE SENT TO PLC WITH FAIL TO "RUN" ALARM.
3. NEW HVAC SHALL HAVE ITS OWN CONTROLLER SYSTEM SEPARATE FROM PLC PANEL.
4. THE SPACE TEMPERATURE TRANSMITTERS TO BE CONNECTED TO PLC PANEL.
5. THE SPACE TEMPERATURE CONTROLS SHALL HAVE HIGH & LOW TEMPERATURE ALARM, CONNECTED TO PLC PANEL.

DRAWING NUMBER	REFERENCE DRAWINGS
1-0178L-M0005	MECHANICAL PLAN LAYOUT AND SECTIONS HVAC AND PLUMBING
1-0178L-M0006	MECHANICAL DETAILS AND GENERAL NOTES HVAC AND PLUMBING
1-0178L-M0010	MECHANICAL EQUIPMENT SCHEDULES HVAC AND PLUMBING
1-0178L-M0011	MECHANICAL EQUIPMENT SCHEDULES HVAC AND PLUMBING

NOT FOR CONSTRUCTION

ISSUED FOR TENDER

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
Dillon Consulting Limited (MB)
No. 1789 Date: 21.07.2023

NO.	REVISIONS	DATE	DESIGN	CHECK
0	ISSUED FOR TENDER	2023/07/20	SA	BLM

DILLON CONSULTING

DESIGNED BY: SA	CHECKED BY: BLM
DRAWN BY: HL	APPROVED BY: BLM
SCALE: NTS	RELEASED FOR CONSTRUCTION BY:
DATE: JUL. 2023	DATE:
CONSULTANT NO.: 22-3229	

ENGINEER'S SEAL
PROVINCE OF MANITOBA
J. AFANASEV
Member
32647
REGISTERED PROFESSIONAL ENGINEER
21.07.2023
Rev. 0

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

RIVERBEND LIFT PUMPING STATION
2023 UPGRADES
PROCESS AND INSTRUMENTATION DIAGRAM
HVAC SYSTEM FLOW

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0178L-P0001	001	0	A1

223229-10-P&ID-CON_PD2.dwg

A1 SIZE - 594mm x 841mm

DILLON CONSULTING LIMITED 1558 WILLSON PLACE, WINNIPEG, MANITOBA, R3T 0Y4, PHONE (204) 453-2301, FAX (204) 452-4412

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