TYPE CLARIFICATION LEGEND:

HH – HIGH HIGH ALARM
H – HIGH ALARM
L – LOW ALARM

NOTES:

1. WASTEWATER PUMPS WILL BE EQUIPPED WITH BEARING TEMPERATURE AND VIBRATION SENSORS (PUMP DRIVE END AND MOTOR NON–DRIVE END BEARINGS ONLY).
2. REDUCING ELBOW SUPPLIED BY THE PUMP MANUFACTURER
3. SUMP PUMP SHALL BE OPERATED WITH A VERTICAL MECHANICAL FLOAT SWITCH (VMF).
4. LEVELS ARE RELATIVE TO THE WET WELL INVERT ELEVATION.
5. PUMP HAS MOTOR (NON–DRIVE END) BEARING AND PUMP (DRIVE END) BEARING VIBRATION LOCKOUTS WIRED INTO THE READY CIRCUIT. THE VIBRATION LOCKOUTS ARE DISABLED AT THIS TIME.

NO.	DRAWING NUMBER	REFERENCE DRAWING TITLE
10		
9		
8		
7		
6		
5		
4		
3		
2		
1	1–0162L–P0001–001	PROCESS AND INSTRUMENTATION DIAGRAM – SHEET 1

REFERENCE DRAWINGS

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
KGS Group
No. 245

B.M.
ELEV.

NO.	REVISIONS	DATE (YYYY-MM-DD)	BY
0	ISSUED FOR CONSTRUCTION	2023 03 24	

KGS GROUP

DESIGNED BY	K. RADTKE	CHECKED BY	
DRAWN BY	R. PERALTA	APPROVED BY	
SCALE: HORIZONTAL	AS SHOWN	RELEASED FOR CONSTRUCTION	
VERTICAL			
DATE	2022 07 19	DATE	

PLOT DATE: 2023 03 24

ENGINEER'S SEAL
PROVINCE OF MANITOBA
J.V. SMITH
2023-03-24
REGISTERED PROFESSIONAL ENGINEER

CONSULTANT DRAWING NUMBER
22–0107–004_P01.02

BID OPPORTUNITY: 864-2022

Winnipeg

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENGINEERING DIVISION

METCALFE LIFT PUMPING STATION
2022 UPGRADES
PROCESS
WASTEWATER PUMPING
PROCESS AND INSTRUMENTATION DIAGRAM

CITY DRAWING NUMBER 1–0162L–P0001–002
SHEET 85 OF 109

FILE PATH: P:\Projects\2022\22-0107-004\Dwg\Process\P&ID\
FILE NAME: 1-0162L-P0001-002.dwg