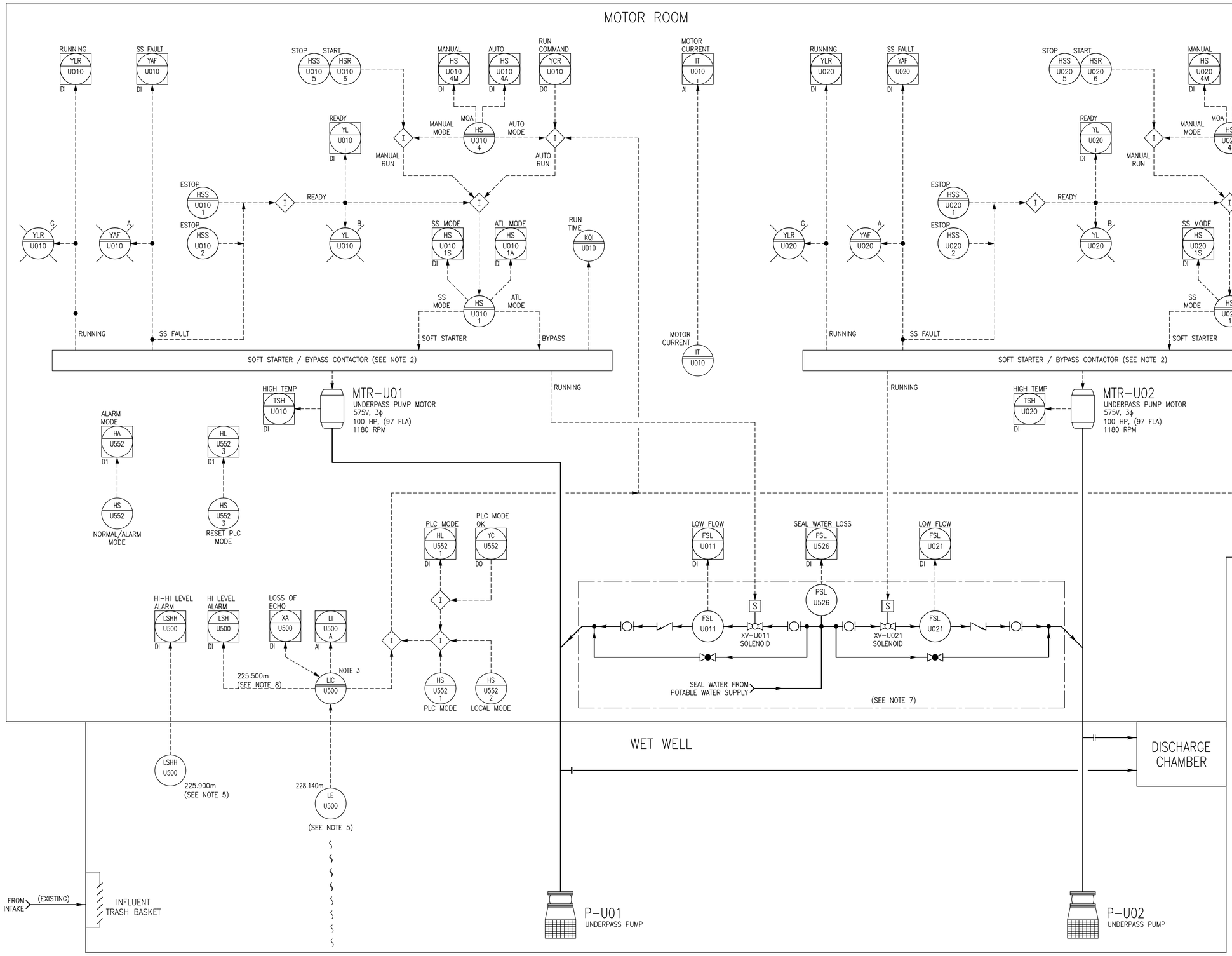

KEY OPERATING ELEVATIONS

DESCRIPTION		GEODETIC ELEVATION	REFERENCE ELEVATION	NOTES
WET WELL TRANSDUCER HEAD ELEVATION		228.151 m	7.557 m	
HIGH WET WELL ALARM LEVEL		225.500 m	4.906 m	
DUTY 1	START	224.500 m	3.906 m	SEE NOTE 6
	STOP	223.300 m	2.706 m	
DUTY 2	START	225.100 m	4.506 m	SEE NOTE 6
	STOP	223.300 m	2.706 m	
WET WELL BOTTOM		220.594 m	0.000 m	

NOTES:

1. ALL EQUIPMENT, INSTRUMENTS AND PIPING SHOWN ON THIS DRAWING ARE NEW AND ARE TO BE PROVIDED BY THE CONTRACTOR UNLESS MARKED AS EXISTING.
2. MOTORS CAN BE STARTED BY SOFT STARTER OR ACROSS-THE-LINE
3. THE LEVEL CONTROLLER IS ENABLED WHEN THERE IS A PLC FAILURE.
4. PLC FUNCTION BLOCKS WITH THE SAME IDENTIFIER ARE IMPLEMENTED AS ONE SINGLE FUNCTION BLOCK WITHIN THE PLC PROGRAM.
5. COORDINATE WITH THE CONTRACT ADMINISTRATOR FOR ELEVATION OF SWITCH AND MARK FINAL ELEVATION ON AS-BUILT DRAWINGS.
6. DUTY 1 AND DUTY 2 PUMP CONTROL SETPOINTS ARE ROTATED BETWEEN ALL TWO UNDERPASS PUMPS BASED ON THE PUMP THAT HAS BEEN OFF THE LONGEST.
7. MECHANICAL PIPING AND COMPONENTS IS INDICATIVE ONLY AND NOT TO BE USED FOR CONSTRUCTION PURPOSES. REFER TO MECHANICAL DRAWINGS FOR EXACT CONSTRUCTION INSTALLATION DETAILS.
8. HIGH LEVEL WET WELL ALARM IS BASED ON THE STATUS OF LIC-U500 RELAY 5.

LEGEND:

DEVICE DESCRIPTORS:

A	AMBER
ACL	ACROSS-THE-LINE
AI	ANALOG INPUT
AO	ANALOG OUTPUT
B	BLUE
DI	DISCRETE INPUT
DO	DISCRETE OUTPUT
G	GREEN
MOA	MANUAL/OFF/AUTO
R	RED
SS	SOFT START

FUNCTIONAL IDENTIFIERS:

HS	HAND SWITCH
HSR	HAND SWITCH START
HSS	HAND SWITCH STOP OR ESTOP
IT	CURRENT TRANSMITTER
KQI	MOTOR RUN TIME
LIC	LEVEL INDICATING CONTROLLER
LIT	LEVEL INDICATING TRANSMITTER
LSH	LEVEL SWITCH HIGH
PSL	PRESSURE SWITCH LOW
YAF	ALARM LIGHT
YL	STATUS LIGHT
YLR	RUNNING STATUS LIGHT

APEGM Certificate of Authorization
SNC-Lavalin Inc.
No. 4489

NO.	REVISIONS	DATE	DESIGN	CHECK
00	ISSUED FOR CONSTRUCTION	2021/03/22	KS	BC

SNC·LAVALIN

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DESIGNED BY: K. SAPIAK	CHECKED BY: B. CLEVEN
DRAWN BY: K. SAPIAK	APPROVED BY: B. CLEVEN
SCALE: N.T.S.	ISSUED FOR CONSTRUCTION BY: K. ZUREK
DATE: 2020/08/05	DATE: 2021/03/22
CONSULTANT NO.:	

ENGINEER'S SEAL
PROVINCE OF MANITOBA
K. K. SAPIAK
Member
33615
REGISTERED PROFESSIONAL ENGINEER
2021-03-24

Winnipeg
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

KEEWATIN UNDERPASS PUMPING STATION
2021 UPGRADES
PROCESS & INSTRUMENTATION DIAGRAM
UNDERPASS PUMPING

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0304U-P0002	001	00	A1

1-0304U-P0002-001-PA.dwg

A1 SIZE - 594mm x 841mm

LAST SAVE: 2021/03/24 - 11:11am
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