



To: Bijaya Adhikari, PhD From: Arlen Foster, P. Eng.

IWB

File: 144902412 08-16 Date: October 22, 2018

Reference: 144902412 Paulatuk Water Treatment Plant Modifications - Additional Info

As per the request from the Inuvialuit Water Board, we provide the following summary and attached drawings to indicate the work that is proposed at the Hamlet's water treatment plant.

Stantec

Existing intake casings will remain. The existing submersible pumps will be removed and replace with the same ones providing a maximum truckfill flowrate of 1,000 L/m. No in-water works of the intake line will take place.

Disconnection of the intake from the existing building will take place at the flanged connection and the new prefabricated building will be connected at the flanged connection.

The new process system will have water withdrawn from the lake as current practice and then be prescreened with dual mesh basket strainers (0.5mm perforations) before heading to flocculation and membrane filtration prior to truck loading. Disinfection will be provided by Chlorine / Sodium Hypochlorite addition.

Stantec Architecture Ltd.

Arlen Foster P. Eng.

Associate

Phone: (867) 920-2882 Fax: (867) 920-4319 arlen.foster@stantec.com

Attachment: Issued for Construction Drawings

C.



Government of the Northwest Territories DESIGN-BUILD ISSUED FOR CONSTRUCTION DRAWINGS Paulatuk

SUBMISSION DATE: Friday, Sept 14, 2018

SUBMITTED BY:



IN ASSOCIATION WITH:

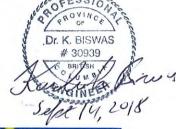


AWC Water Solutions Ltd. #104 – 19074 22 Ave. Surrey, British Columbia V3Z 3S6

Main Contact: John Sainas, P.Eng. - VP Sales

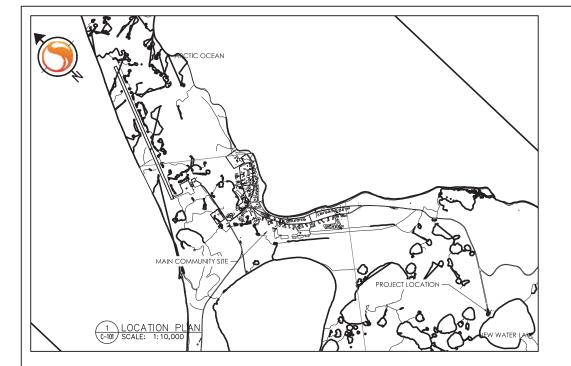
Telephone: 778 558 5994 Email: johns@awcwater.com







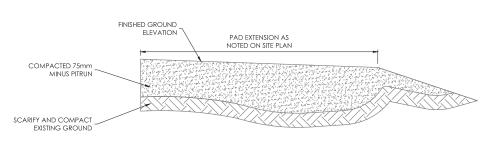




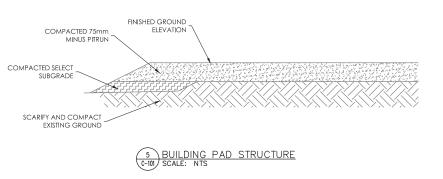


3 PHOTO #01 EXISTING WTP
C-101 SCALE: NTS





4 TURN AROUND STRUCTURE
C-101 SCALE: NTS





STANTEC ARCHITECTURE LTD.

4910 53rd St Yellowknife, NT, Canada X1A 2P4 Tel. 867.920.2882 www.stantec.com

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HORIZONTAL DATUM NOTE

Legend

── FLOW ARROW

Notes

С	ISSUED FOR CONSTRUCTION	NL	AF	18.09.11
В	ISSUED FOR 100% REVIEW	NL	AF	18.07.13
Α	ISSUED FOR 70% REVIEW	JD	AF	18.03.13
Issu	led	By	Appd.	YY.MM.DD

Permit-Seal





Client/Project

GOVERNMENT OF THE **NORTHWEST TERRITORIES**

BUNDLED WATER TREATMENT PLANT

Paulatuk, NT

SITE PLAN

Project No.	Scale	
144902412	AS NOTED	
Drawing No.	Sheet	Revision
C-101	1 of 3	C/

FLOW HIGH - FLOW ALARM LOW - FLOW ALARM FLOW CONTROL VALVE FLOW ELEMENT (PRIMARY ELEMENT WITHOUT TRANSMITTER) FLOW SIGHT GLASS FLOW INDICATOR FLOW INDICATING CONTROLLER FLOW INDICATING TRANSMITTER FLOW RESTRICTION ORIFICE FOS FLOW TOTALIZER SWITCH (PREDETERMINING COUNTER) FQI FLOW TOTALIZING INDICATOR FLOW RECORDER FLOW RECORDING CONTROLLER (FSH) FLOW SWITCH - HIGH SET POINT FSL FLOW SWITCH - LOW SET POINT FLOW TRANSMITTER FLOW STRAIGHTENING VANES FLOW SOLENOID VALVE FLOW SIGNAL CONVERTER (CURRENT FLOW SIGNAL INTEGRATER FLOW SQUARE ROOT EXTRACTOR FLOW SIGNAL SUMMATION FLOW SWITCH

	LEVEL
LAH	LEVEL ALARM - HIGH
LAHH	LEVEL ALARM - VERY HIGH
LAL	LEVEL ALARM - LOW
LALL	LEVEL ALARM - VERY LOW
CC	LEVEL CONTROLLER
LCV	LEVEL CONTROL VALVE
LG	LEVEL GAUGE GLASS
LI	LEVEL INDICATOR
LIC	LEVEL INDICATING CONTROLLER
LR	LEVEL RECORDER
LSH	LEVEL SWITCH - HIGH SET POINT
LSL	LEVEL SWITCH - LOW SET POINT
LY	LEVEL - LOW SELECT RELAY
LY	LEVEL - HIGH SELECT RELAY
LT	LEVEL TRANSMITTER
LY	LEVEL SOLENOID VALVE
LY I/P	LEVEL SIGNAL CONVERTER (CURRENT INPUT / PNEUMATIC OUTPUT)
LIS	LEVEL INDICATING SWITCH
LX 10KΩ	LEVEL POTENTIOMETER 10,000 OHMS RESISTANCE
LS	LEVEL SWITCH

PRESSURE PRESSURE ALARM - HIGH PRESSURE ALARM - VERY HIGH PRESSURE ALARM - LOW PALL PRESSURE ALARM - VERY LOW PRESSURE CONTROLLER PCV (RD) PRESSURE CONTROL VALVE (REFER TO LEGEND) PDSA PRESSURE DIFFERENTIAL SWITCH -PDSL PRESSURE DIFFERENTIAL SWITCH -PDT PRESSURE DIFFERENTIAL TRANSMITTE PRESSURE INDICATOR PRESSURE INDICATING CONTROLLER PRESSURE INDICATING TRANSMITTER PRESSURE TEST POINT PRESSURE RECORDER PRESSURE RECORDING CONTROLLER PRESSURE SWITCH PRESSURE RUPTURE DISK PRESSURE SWITCH - HIGH SET POIN PRESSURE SWITCH - LOW SET POINT PRESSURE DIFFERENTIAL INDICATOR PRESSURE TRANSMITTER

HIGH		
LOW ER		
LOW		
ER		
1.2		
NT		

TAH	TEMPERATURE ALARM - HIGH SET POINT
TAL	TEMPERATURE ALARM - LOW SET POINT
TCV	TEMPERATURE CONTROL VALVE
TE	TEMPERATURE ELEMENT (PRIMARY ELEMENT WITHOUT TRANSMITTER)
TI	TEMPERATURE INDICATOR
TIC	TEMPERATURE INDICATING CONTROLLER
TJI	MULTIPOINT TEMPERATURE INDICATOR (SCANNING TEMPERATURE INDICATOR)
TJR	MULTIPOINT TEMPERATURE RECORDER (SCANNING TEMPERATURE RECORDER)
TP	TEMPERATURE TEST POINT
TR	TEMPERATURE RECORDER
TRC	TEMPERATURE RECORDING CONTROLLER
TSH	TEMPERATURE SWITCH - HIGH SET POINT
TSL	TEMPERATURE SWITCH - LOW SET POINT
TS	TEMPERATURE SWITCH
П	TEMPERATURE TRANSMITTER
TW	THERMOWELL (WITHOUT THERMOCOUPLE)
TZ	TEMPERATURE FINAL CONTROL ELEMENT (DAMPER OPERATOR FOR LOUVERS)

TEMPERATURE



;
١

(CI)	CONDUCTIVITY	INDICATOR

CR)	CONDUCTIVITY	RECORDER	
/			

1	 and the same	
/		
_/		

CONDUCTIVITY SWITCH - HIGH SET POINT

(CSL))	CONDUCTIVITY	SWITCH	-	LOW	SET	POIN

(HC)	HAND CC	NTROLLER	?
	(MANUAL	LOADING	STATIO

HIC	HAND INDICATING CONTROLL
	(MANUAL LOADING STATION WITH OUTPUT GAUGE)
\sim	WITH OUTPUT GAUGE)
(1)	

JS)	MANUAL	SELECTOR	SWITC
1			

5)	HAND	SWITC
1		

(KC)	TIME	SEQUENCING	PROGRAMME
	3,0412	DEGOENOMO	11100111111111

(QS)	EVENT	SWITC

(SC)	SPEED	CONTROL	(SCR	DRIV

00	LOSS	OF	POWER	SWITCH

WEIGHT RECORDER

VIBRATION SWITCH

/			

XAH	VIBRATION	ALARM	-	HIGH	SET	POINT

YS	TORQUE	SWITCH	

YAH	TORQUE	ALARM	4	HIGH	SET	POINT

-			
NAUL)			
∧vnn/	TODOUE	ALADMA MEDICALINA	200

LIMIT SWITCH

AE PH	ANALYZING	
	(REFER TO	LEGEND)

ANALYZING TRANSMITTER

AAH TUR ANALYZING ALARM - HIGH SET POINT

(KS) TIMER OR COUNTER

	REVISIO	MC			
REV	DESCRIPTION	BY	CHK'D	APP'D	DATE
(-)	100% SUBMITTAL	RT	KB	JY	JUL-13-2018

NOTE

PRESSURE SOLENOID VALVE

PRESSURE SIGNAL CONVERTER

(CURRENT INPUT / PNEUMATIC

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DRAWN	RT
DESIGN	KB
CHECKED	KB
APPROVED	JY
DATE	2016-12-14
SCALE	NTS

GN	WT3-PA	AUL	ATU	K W	TP	
	(Ref.	#10	338)			
	AWC	UF	WT	P		
SY	MBOLS	8	LEG	END	S	
	SHEET	1	OF	8		

LICENSEE

SHEET 1 OF 8

NTS DRAWING NO. 10338-P-02-00 REV -

	PRIMARY LOCATION ***NORMALLY ACCESSIBLE TO OPERATOR	FIELD MOUNTED	AUXILIARY LOCATION ***NORMALLY ACCESSIBLE TO OPERATOR
DISCRETE INSTRUMENTS	1. * IP1**	2.	3.
SHARED DISPLAY SHARED CONTROL	4.	5.	6.
COMPUTER FUNCTION	7.	8.	9.
PROGRAMMABLE LOGIC CONTROL	10.	11.	12.

- SYMBOL SIZE MAY VARY ACCORDING TO THE USER'S NEEDS AND THE TYPE OF DOCUMENT. A SUGGESTED SQUARE AND CIRCLE SIZE FOR LARGER DIAGRAMS IS SHOWN ABOVE. CONSISTENCY IS RECOMMENDED.
 ABBREVIATION OF THE USER'S CHOICE SUCH AS IPI (INSTRUMENT PANEL #1), ICZ (INSTRUMENT CONSOLE #2), CC3 (COMPUTER CONOLE #3), ECT., MAY BE USED WHEN IT IS NECESSARY TO SPECIFY INSTRUMENT OR FUNCTION LOCATION.
- *** NORMALLY INACCESSIBLE OR BEHIND-THE-PANEL DEVICES OR FUNCTIONS MAY BE DEPICTED BY USING THE SAME SYMBOLS BUT WITH DASHED HORIZONTAL



CONNECTION TO PROCESS, MECHANICAL LINK, OR INSTRUMENT SUPPLY THE FOLLOWING ABBREVIATIONS DENOTE TYPES OF POWER SUPPLY AIR SUPPLY (PLANT AIR, HEADER SUPPLY REGULATED eg ADJUSTED TO 552 kPa) FILTERED AIR SUPPLY (REGULATED eg ADJUSTED TO 138 kPa) ELECTRIC SUPPLY GAS SUPPLY STEAM SUPPLY 1 PSI = 6.894 kPa(2) / UNDEFINED SIGNAL (3) -11-11 PNEUMATIC SIGNAL ** ELECTRICAL SIGNAL HYDRAULIC SIGNAL

(6) X X CAPILLARY TUBING (FILLED SYSTEM) (7) ____ ELECTROMAGNETIC OR SONIC SIGNAL *** (GUIDED) (8) \sim \sim ELECTROMAGNETIC OR SONIC SIGNAL *** (NOT GUIDED) (9)_____ INTERNAL SYSTEM LINK (SOFTWARE OR DATA LINK) (10) ____ MECHANICAL LINK

PRESSURE CONTROL VALVE LEGEND

SUSTAINING RD REDUCING RELIEVING SURGE ANTICIPATING VACUUM RELIEF RATE OF FLOW

ANALYZING ELEMENT / ALARM LEGEND

TUR TURBIDITY DISSOLVED OXYGEN CON CONDUCTIVITY ETC

OPTIONAL BINARY (ON-OFF) SYMBOLS

(11) X X PNEUMATIC BINARY SIGNAL

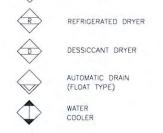
ELECTRIC BINARY SIGNAL

NOTE: 'OR' MEANS USER'S CHOICE. CONSISTENCY IS RECOMMENDED.
THE FOLLOWING ABBREVIATIONS ARE SUGGESTED TO DENOTE THE TYPES OF POWER
SUPPLY. THESE DESIGNATIONS MAY ALSO BE APPLIED TO PURGE FLUID SUPPLIES.

AS - AIR SUPPLY
IA - INSTRUMENT AIR
PA - PLANT AIR
ES - ELECTRICAL SUPPLY
GS - GAS SUPPLY HS - HYDRAULIC SUPPLY NS - NITROGEN SUPPLY SS - STEAM SUPPLY WS - WATER SUPPLY

- *THE SUPPLY LEVEL MAY BE ADDED TO THE INSTRUMENT SUPPLY LINE, E.G., AS-100, A 100-PSIG AIR SUPPLY; ES-24DC, A 24 VOLT DIRECT CURRENT POWER SUPPLY.

 **THE PNEUMATIC SIGNAL SYMBOL APPLIES TO A SIGNAL USING ANY GAS AS THE MEDIUM. IF A GAS OTHER THAN AIR IS USED, THE GAS MAY BE IDENTIFIED BY A NOTE ON THE SIGNAL SYMBOL OR OTHERWISE.
- *** ELECTROMAGNETIC PHENOMENA INCLUDE HEAT, RADIO WAVES, NUCLEAR RADIATION,



COMBINATION REGULATOR

COMBINATION LINE FILTER

REGULATOR, LUBRICATOR

LINE FILTER

PRE FILTER





REV	DESCRIPTION	BY	CHK'D	APP'D	DATE
	100% SUBMITTAL	RT	КВ	JY	JUL-13-2018

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	DESIGN	KB	
	CHECKED	КВ	
	APPROVED	JY	S
	DATE	2016-12-14	
	SCALE	NTS	DRAWING NO.

GNWT3-PAULATUK WTP (Ref. #10338) AWC UF WTP SYMBOLS & LEGENDS SHEET 2 OF 8

REV -

10338-P-02-00

EQUIPMENT SYMBOLS

	PIPE MATERIAL CODE	SYMBOL	EQUIPMENT
CODE	PIPE MATERIAL AND RATING	AT BFP BLO BSSP BST BTP	AIR TANK BACKFLOW PREVENTOR BLOWER BACKWASH WATER SUPPLY PUMP BASKET STRAINER BACKWASH TRANSER PUMP
ST40	STEEL PIPE, ANSI 150 POUND FLANGE RATING, 40°C TEMP, 1900 kPa MAX. DESIGN PRESSURE	BWP COMP CO ENG	BACKWASH WATER WASTE PUMP AIR COMPRESSOR CLEAN OUT ENGINE
GSP	GALVANIZED STEEL PIPE, ANSI 150 # FLANGE RATING, 40° C TEMP, 1875 kPo MAX. DESIGN PRESSURE	ESH FD FEX	EMERGENCY SHOWER UNIT FLOOR DRAIN FIRE EXTINGUISHER FILTER (WATER) HOSE BIBB
PVC40	PVC PIPE, SCH 40-80, 40° C TEMP	FIL HB HR HWT LSP	HOSE BIBB HOSE REEL HOT WATER HEATER/TANK LIME SOLUTION PUMP
PVC80	PVC-DWV, 80° C TEMP	MH	MOTOR (ELECTRIC)
TUBE	PLASTIC FLEXIBLE TUBING	MIX P PP	MIXER PUMP (UNSPECIFIED SERVICE) PROPORTIONING PUMP
CI	C.IDWV PIPE, 60' C TEMP	RP RWP SIL	RECYCLE PUMP RAW WATER PUMP SILENCER (MUFFLER)
COPK	TYPE K COPPER PIPE, 100° C TEMP	SP SHT TEP	SUMP PUMP SEWAGE HOLDING TANK TRUCK FILL PUMP
COPL	TYPE L COPPER PIPE, 100° C TEMP	VB VFD	VALVE BOX VARIABLE FREQUENCY DRIVE
D1	DUCTILE IRON CLASS 52		
	PIPE TREATMENT CODE	AHU D DM EF F	AIR HANDLING UNIT DAMPER MOTOR EXHAUST FAN FAN FURNACE
	DESCRIPTION	FX L	FIRE EXTINGUISHER LOUVRE
CODE	DESCRIPTION	MAU	MAKEUP AIR UNIT
CODE		SF	SUPPLY AIR FAN
	CEMENT MORTAR LINING		
A		SF	SUPPLY AIR FAN
A B	CEMENT MORTAR LINING EXTERNAL COAL TAR ENAMEL & DENSO TAPE WRAP	SF	SUPPLY AIR FAN
A B C	CEMENT MORTAR LINING EXTERNAL COAL TAR ENAMEL & DENSO TAPE WRAP -	SF	SUPPLY AIR FAN
A B C D	CEMENT MORTAR LINING EXTERNAL COAL TAR ENAMEL & DENSO TAPE WRAP INTERNAL EPOXY LINING	SF	SUPPLY AIR FAN
A B C D	CEMENT MORTAR LINING EXTERNAL COAL TAR ENAMEL & DENSO TAPE WRAP INTERNAL EPOXY LINING	SF	SUPPLY AIR FAN

COMMODITY SYMBOLS

SYMBOL	COMMODITY
ALS AS AWS BWS BWW	ALUM SOLUTION AIR SCOUR AIR WASH SUPPLY (AIR) BACKWASH SUPPLY (WATER) BACKWASH WASTE (WATER)
CIRC	RELIEF CIRCULATION WATER CLARIFIER WATER
CWW	COOLING WASTE WATER
DCW	DOMESTIC COLD WATER
DHW DR	DOMESTIC HOT WATER DRAIN
FA	FILTER AID
FTW	FILTER TO WASTE
FW	FILTERED WATER
DHW	DOMESTIC HOT WATER
HWS	HEATING (HOT) WATER SUPPLY
IA LS	INSTRUMENT AIR (INSTRUMENT AIR SUPPLY) LIME SOLUTION
NGM	NATURAL GAS (MEDIUM PRESSURE)
OV	OVERFLOW
POLY	POLYMER (LIQUID)
PRL	POTASSIUM PERMANGANATE SOLUTION PRESSURE RELIEF LINE
PSW	PLANT SERVICE WATER
PW	POTABLE WATER (TOTALLY TREATED, SAFE FOR HUMANS)
REC RW	RECIRCULATION LINE
RWS	RAW WATER (PRIOR TO ANY TREATMENT) RRCYCLW WATER SUPPLY
SAM	SAMPLE LINE
SAS	SODA ASH SOLUTION
SW TW	SANITARY WASTE (PLUMBING) TREATED WATER (FIRST STAGES OF TREATMENT)
WW	WASTE WATER
VE	VENT

PIPE CONVERSION CHART

NOMINAL IMPERIAL DESIGNATION SIZE IN INCHES	NOMINAL METRIC DESIGNATION SIZE IN MILLIMETRES	NOMINAL IMPERIAL DESIGNATION SIZE IN INCHES	NOMINAL METRIC DESIGNATION SIZE IN MILLIMETRES
1/8 1/4 3/8 1/2 3/4 1 1 1/4 1 1/2 2 2 1/2 3 4 5 6 8	6 8 10 15 20 25 32 40 50 65 80 100 125 150 200 250 300	14 15 16 18 20 24 30 36 42 48 54 60 66 72 78 84	350 375 400 450 500 600 750 900 1050 1200 1350 1500 1650 1800 1950 2100

NOTE: PIPE SIZE FROM 2" THROUGH TO 60" — CONVERSION BASED ON CSA STANDARD Z245.1
PIPE SIZE 2" AND SMALLER — CONVERSION BASED ON EUROPEAN ISO STANDARD OTHER PIPE SIZES ARE U.S. CONVERSIONS TO THE METRIC SYSTEM

EQUIPMENT IDENTIFICATION

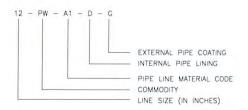
SEQUENCE NUMBER

EQUIPMENT SYMBOL

VALVE IDENTIFICATION

SEQUENCE NUMBER - VALVE SYMBOL

LINE IDENTIFICATION





	REVISION	NS			
REV	DESCRIPTION	BY	CHK'D	APP'D	DATE
-	100% SUBMITTAL	RT	KB	JY	JUL-13-2018

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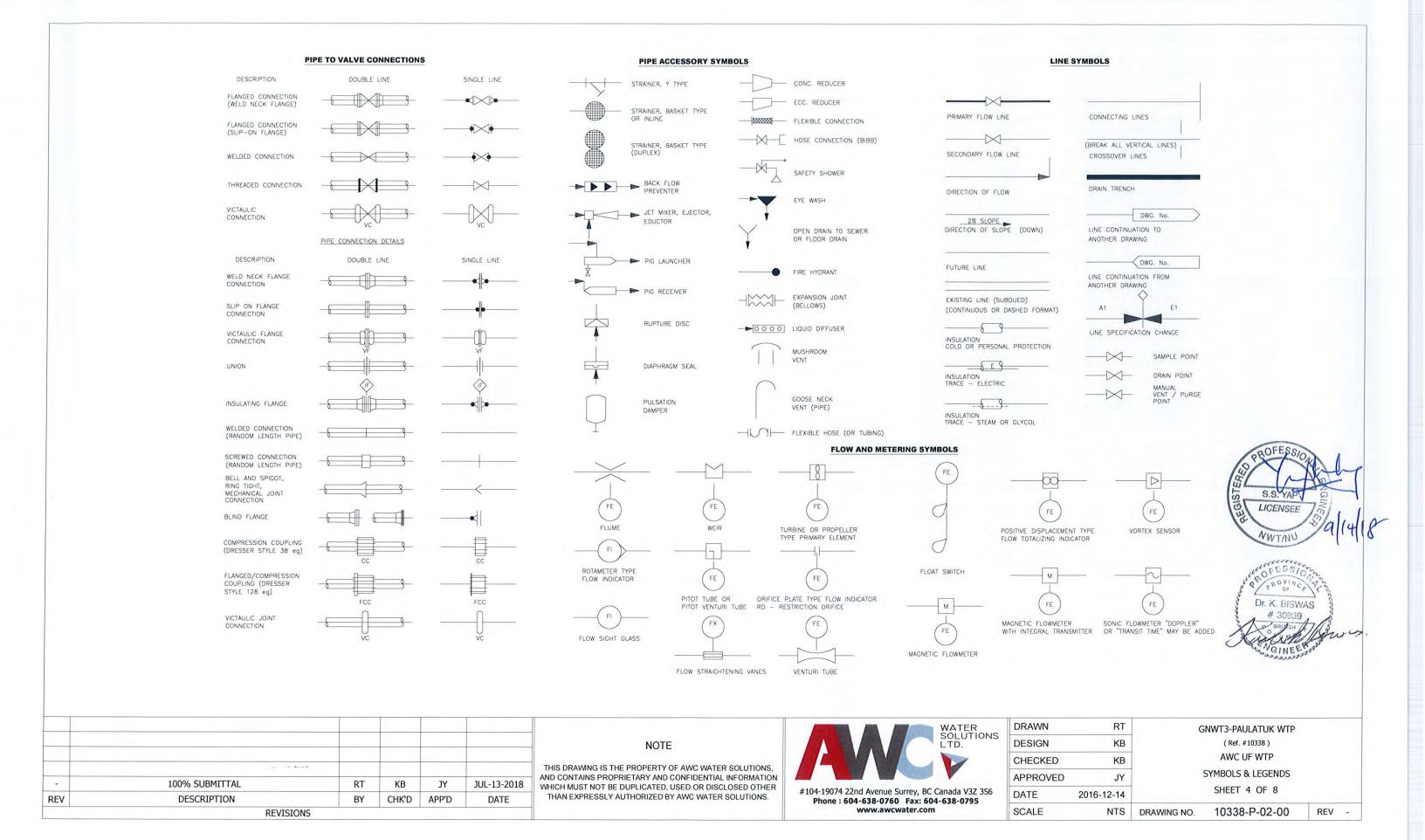


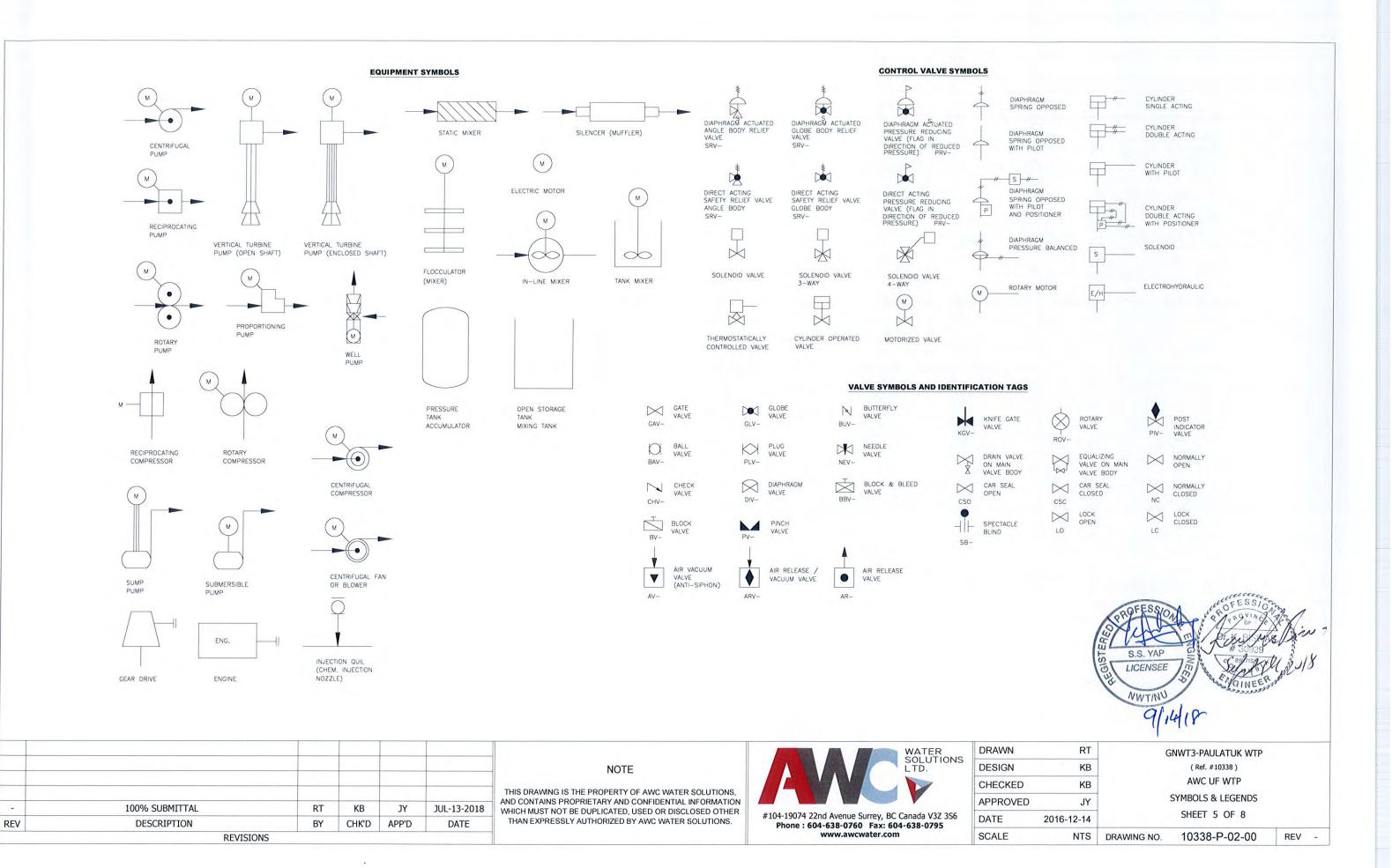
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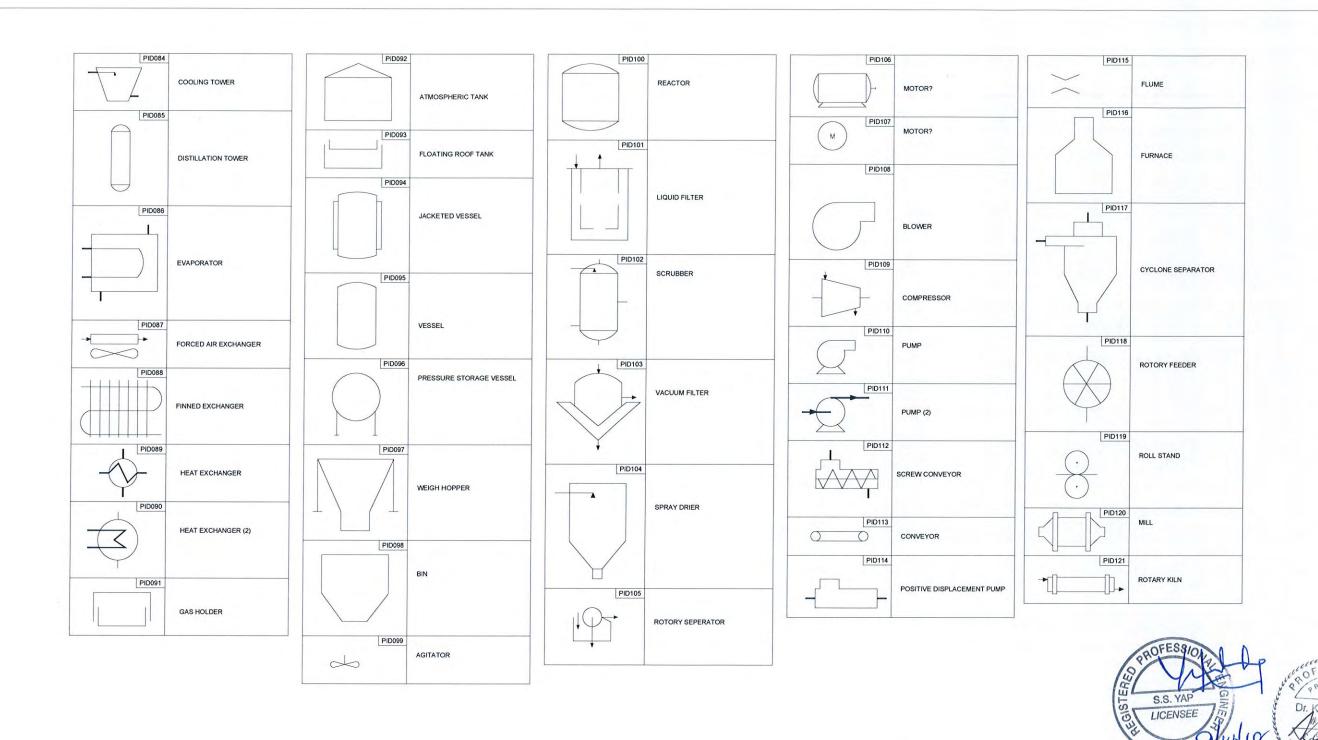
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CHECKED	KB	
APPROVED	JY	
DATE	2016-12-14	
SCALE	NTS	7

GNWT3-PAULATUK WTP	
(Ref. #10338)	
AWC UF WTP	
SYMBOLS & LEGENDS	
SHEET 3 OF 8	

10338-P-02-00 REV -NTS DRAWING NO.





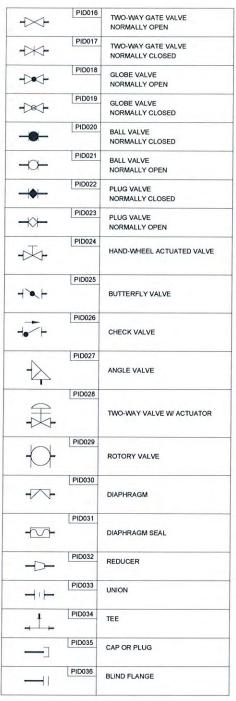


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	APPROVED	JY	
	DATE	2016-12-14	
	SCALE	NTS	DRAWING NO.

	GNWT3-PAULATUK WTP	~	
	(Ref. #10338)		
	AWC UF WTP		
	SYMBOLS & LEGENDS		
	SHEET 6 OF 8		
NO.	10338-P-02-00	REV	



	PID037	
		TWO-WAY VALVE W/ DIAPHRAGM ACTUATOR
->>-		W/ DIAPHRAGM ACTUATOR
	PID038	Kinakoza —
\rightarrow		TWO-WAY VALVE FAIL-CLOSED
->>-		
1	PID039	TWO-WAY VALVE
		FAIL-OPEN
~	PID040	
- 		THREE-WAY VALVE
1	PID041	
		THREE-WAY VALVE
		FAIL TO PATH INDICATED BY ARROW
	PID042	
-121-		FOUR-WAY VALVE
RIV	PID043	
-X-		FOUR-WAY VALVE FAIL TO PATHS INDICATED
		BY ARROWS
	PID044	5.000 N. 1000
1		PRESSURE RELIEF OR SAFETY VALVE
-		
	PID045	
N		VACUUM RELIEF VALVE
	PID046	
		PRESSURE REGULATOR
		, HESSEL NESSELVION
	PID047	
		PRESSURE REGULATOR (2)
-		(-/

PID048	HAND WHEEL
PID049	SPRING, WEIGHT OR PILOT FOR SAFETY/RELIEF VALVE
PID050	DIAPHRAGM ACTUATOR
PID051	DIAPHRAGM SPRING OPERATED OR UNSPECIFIED ACTUATOR
PID052	SOLENOID
X PID053	UNSPECIFIED ACTUATOR (INSERT S=SOLENOID, D=DIGITAL, P=PILOT)
PID054	DIAPHRAGM PRESSURE-BALANCED
PID055	SPRING-OPPOSED SINGLE-ACTING CYLINDER ACTUATOR
PID056	SPRING-OPPOSED DOUBLE-ACTING CYLINDER ACTUATOR
### PID057	CYLINDER WITH POSITIONER AND OVERRIDING PILOT VALVE
PIDO58	ACTUATOR WITH ATTACHED ELECTROPNEUMATIC CONVERTER
TYPE PIDO59	ACTUATOR WITH ATTACHED ELECTROPNEUMATIC CONVERTER
PID060	RESET FOR LATCH-TYPE ACTUATOR

PID062	SONIC FLOWMETER
-~-	INCL. TRANSIT TIME OR DOPPLER
PID063	SONIC FLOWMETER
PID064	
─ Ы	TARGET FLOWMETER
PID065	
-181-	TURBINE FLOWMETER
PID066	
*	MAGNETIC FLOWMETER
- M -	
PID067	
TYPE LOOP#	VARIABLE AREA FLOW INDICATO
TYPE PID068	
LOOP#	VARIABLE AREA FLOW INDICATOR (2)
PID069	
-	AVERAGING PILOT TUBE
PID070	
11	PILOT TUBE, SINGLE PORT
PID071	POSITIVE DISPLACEMENT
<u> </u>	FLOW TOTALIZING INDICATOR

PID072	
***	DAMPER OR LOUVER
PID073	RUPTURE DISK PRESSURE RELIEF
PID074	RUPTURE DISK VACUUM RELIEF
PID075	WER
PID076	RESTRICTION ORIFACE PLATE
PID077	RESTRICTION ORIFACE DRILLED IN VALVE
PID078	FLOW NOZZLE
PID079	FLOW STRAIGHTENING VANE
PID080	VENTURI TUBE
PID081	ORIFACE PLATE WITH QUICK-CHANGE FITTING
PID082	INLINE MIXER
PID083	PURGE OR FLUSHING DEVICE



DESCRIPTION	BY	CHK'D	APP'D	DATE
100% SUBMITTAL	RT	KB	JY	JUL-13-2018
		52 CONTROL OF SEC. 940 VIII VIII VIII VIII VIII VIII VIII VI	112	

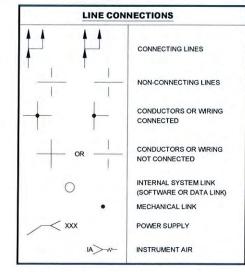


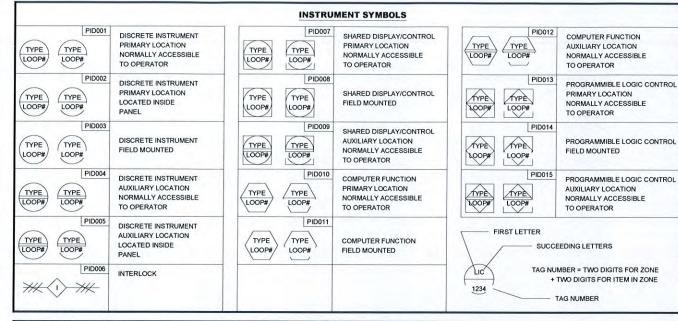
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SCALE	NTS	DRAWING NO.

	GNWT3-PAULATUK WTP		
	(Ref. #10338)		
	AWC UF WTP		
	SYMBOLS & LEGENDS		
	SHEET 7 OF 8		
).	10338-P-02-00	REV	_

		ISA NAMI	NG NOMENCLATURE		
	FIRST LETTE	R	SUC	CEEDING LETTERS	
ME	EASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
Α	ANALYSIS		ALARM		
В	COMBUSTION, BURNER FLAME		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
С	USER'S CHOICE [CONDUCTIVITY (ELECTRICAL)]			CONTROL	
D	USER'S CHOICE [DENSITY (MASS) OR SPECIFIC GRAVITY]	DIFERRERENTIAL			
E	VOLTAGE (EMF)		SENSOR (PRIMARY ELEMENT)		
F	FLOWRATE	RATIO (FRACTION)			
G	USER'S CHOICE [GAGING (DIMENSIONAL)]		GLASS, VIEWING DEVICE		
Н	HAND (MANUALLY INITIATED)				HIGH
1	CURRENT (ELECTRICAL)		INDICATE		
J	POWER	SCAN			
K	TIME OR TIME SCHEDULE	TIME RATE OF CHANGE		CONTROL STATION	
L	LEVEL		LIGHT (PILOT)		LOW
м	USER'S CHOICE (MOTOR OR MOISTURE)	MOMENTARY			MIDDLE, INTERMEDIATE
N	USER'S CHOICE		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
0	USER'S CHOICE		ORIFICE (RESTRICTION)		
P	PRESSURE OR VACUUM		POINT (TEST) CONNECTION		
Q	QUANTITY OR EVENT	INEGRATE OR TOTALIZE			
R	RADIATION (RADIOACTIVITY)		RECORD OR PRINT		
s	SPEED OR FREQUENCY	SAFETY		swтcн	
Т	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION
v	VIBRATION, MECHANICAL ANALYSIS			VALVE, DAMPER OR LOUVER	
w	WEIGHT, FORCE (TORQUE)		WELL		
Х	UNCLASSIFIED	X AXIS	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED
Y	EVENT, STATE OR PRESENCE (USER'S CHOICE)	Y AXIS		RELAY, COMPUTE OR CONVERT	
z	POSITION, DIMENSION	Z AXIS	POSITION	DRIVE, ACTUATOR OR UNCLASSIFIED FINAL CONTROL ELEMENT	

	LINE LEGEND
	EQUIPMENT OR FIELD PANEL DEMARKATION
	WATER LINE
	FUTURE LINE
L	HYD_SIGNAL
/ /	UNDEFINED SIGNAL
× ×	PNEUMATIC SIGNAL (BINARY)
11 11	PNEUMATIC SIGNAL (ANALOG)
X	CAPILLARY TUBE
1	ELECTRIC SIGNAL (DIGITAL)
** **	ELECTRIC SIGNAL (BINARY)
11 11	ELECTRIC SIGNAL (ANALOG)
$\overline{}$	ELECTROMAGNETIC OR SONIC SIGNAL





	COMMON COMPONENT ABBREVIATIONS				
AE/AIT	CHLORINE, pH OR TURBIDITY ELEMENT, LOCAL INDICATOR & TRANSMITTER	PDB	POWER DISTRIBUTION BLOCK		
ATS	AUTOMATIC TRANSFER SWITCH	PDS	PRESSURE DIFFERENTIAL SWITCH		
C	CAPACITOR	PIS	PRESSURE INDICATING SWITCH		
СВ	CIRCUIT BREAKER	PLC	PROGRAMMABLE LOGIC CONTROLLER		
CE/CIT	CONDUCTIVITY ELEMENT, LOCAL INDICATOR & TRANSMITTER	PM	POWER/PHASE MONITOR		
CR	CONTROL RELAY	PS	PRESSURE SWITCH		
ETM	ELAPSED TIME METER	PSH	PRESSURE SWITCH HIGH		
FE	FLOWELEMENT	PSL	PRESSURE SWITCH LOW		
FE/FIT	FLOW ELEMENT, LOCAL INDICATOR & TRANSMITTER	R	RESISTOR		
FE/FT	FLOW ELEMENT & TRANSMITTER	RCP	RECEPTICAL (I.E. GENERATOR PLUG OR OUTLET)		
FU	FUSE	SS	SOFT START		
HMI	HUMAN-MACHINE INTERFACE (I.E. PANELVIEW)	T	TERMINAL		
HS	HAND SWITCH (MULITPOSITION)	ТВ	TERMINAL BLOCK		
HTR	HEATER	TE/TIT	TEMPERATURE ELEMENT, LOCAL INDICATOR & TRANSMITTER		
HV	HAND OPERATED VALVE	TMR	TIMER/CLOCK		
ISB	INTRINSIC SAFE BARRIER (ANALOG)	TR	TIME DELAY RELAY		
ISR	INTRINSIC SAFE RELAY	TX	TRANSFORMER		
L	INDUCTOR	UPS	UNINTERRUPTABLE POWER SUPPLY		
LE/LIT	LEVEL ELEMENT, LOCAL INDICATOR & TRANSMITTER	VFD	VARIABLE FREQUENCY DRIVE		
LP	LIGHTING PANEL	XCV	CHECK VALVE		
LPC	LINE POWER CONDITIONER	XFILT	FILTER		
LR	LINE REACTOR OR CHOKE	XTANK	TANK		
LS	LEVEL SWITCH	YL	LIGHT, NON-CONTROL (I.E. FLOURSCENT LIGHT)		
LSH	LEVEL SWITCH HIGH	YV	SOLENOID VALVE (ON/OFF CONTROL)		
LSL	LEVEL SWITCH LOW	YZC	CONTROL VALVE (4 - 20 mA)		
M	MOTOR				
MS	MOTOR STARTER OR HP RATED CONTACTOR	NOTE:			
MTS	MANUAL TRANSFER SWITCH	"ELEMEN"	TS" OUPUT A MILLIVOLT OR MILLIAMP SIGNAL		
РВ	PUSHBUTTON	"TRANSMI	ITTERS" OUTPUT A 4 - 20 MA SIGNAL		



	REVISIO	NS			
REV	DESCRIPTION	BY	CHK'D	APP'D	DATE
	100% SUBMITTAL	RT	KB	JY	JUL-13-2018

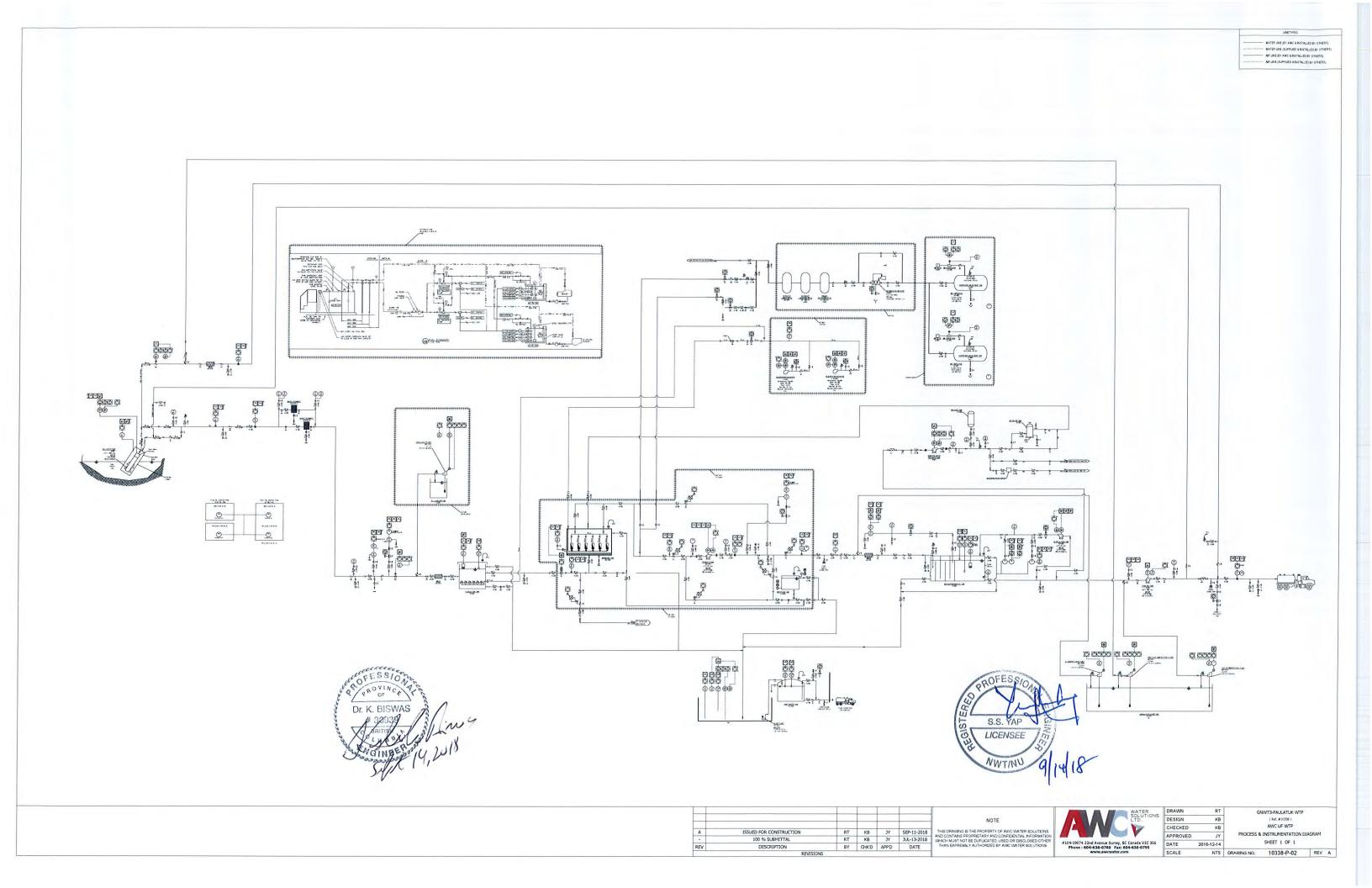
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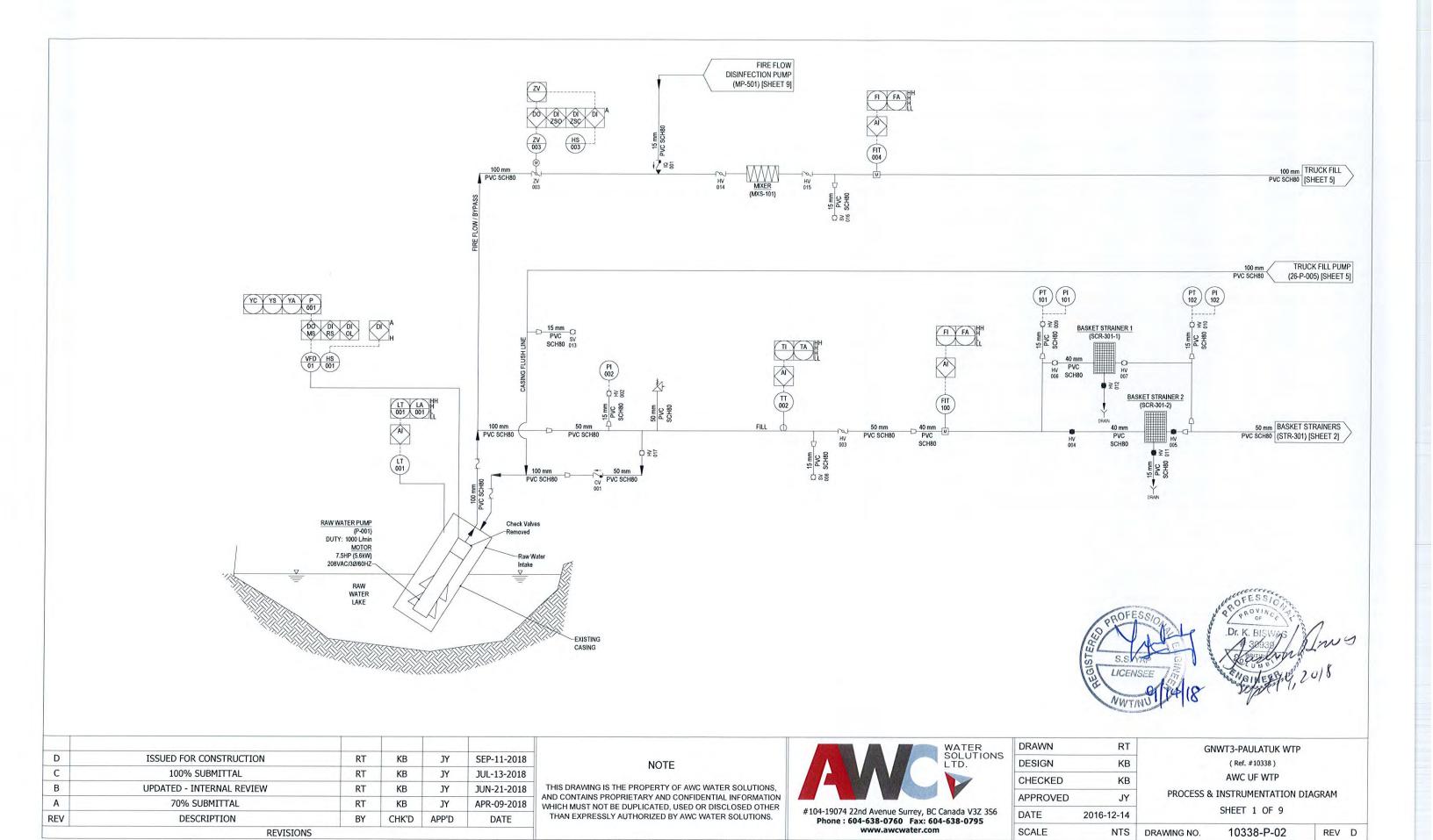


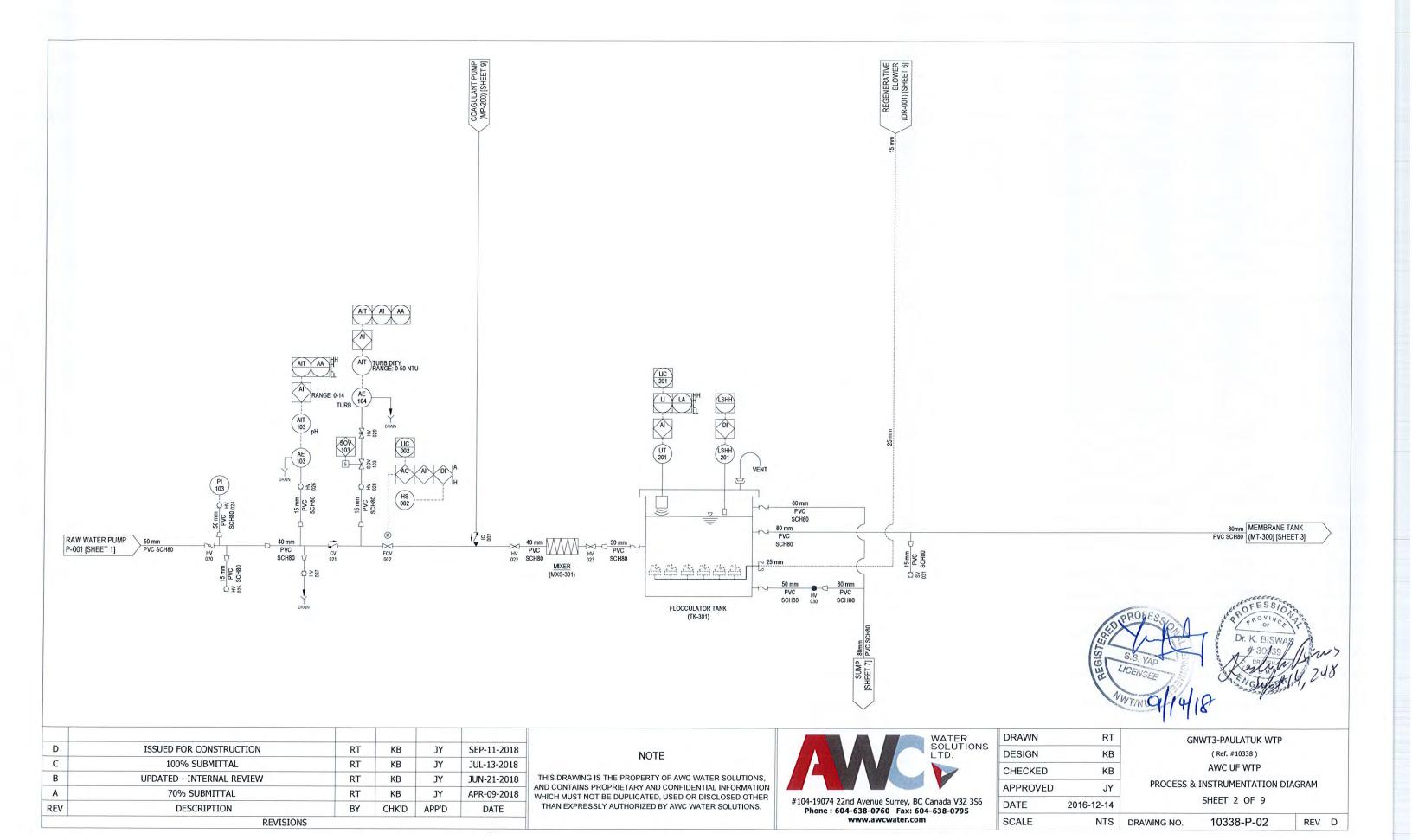
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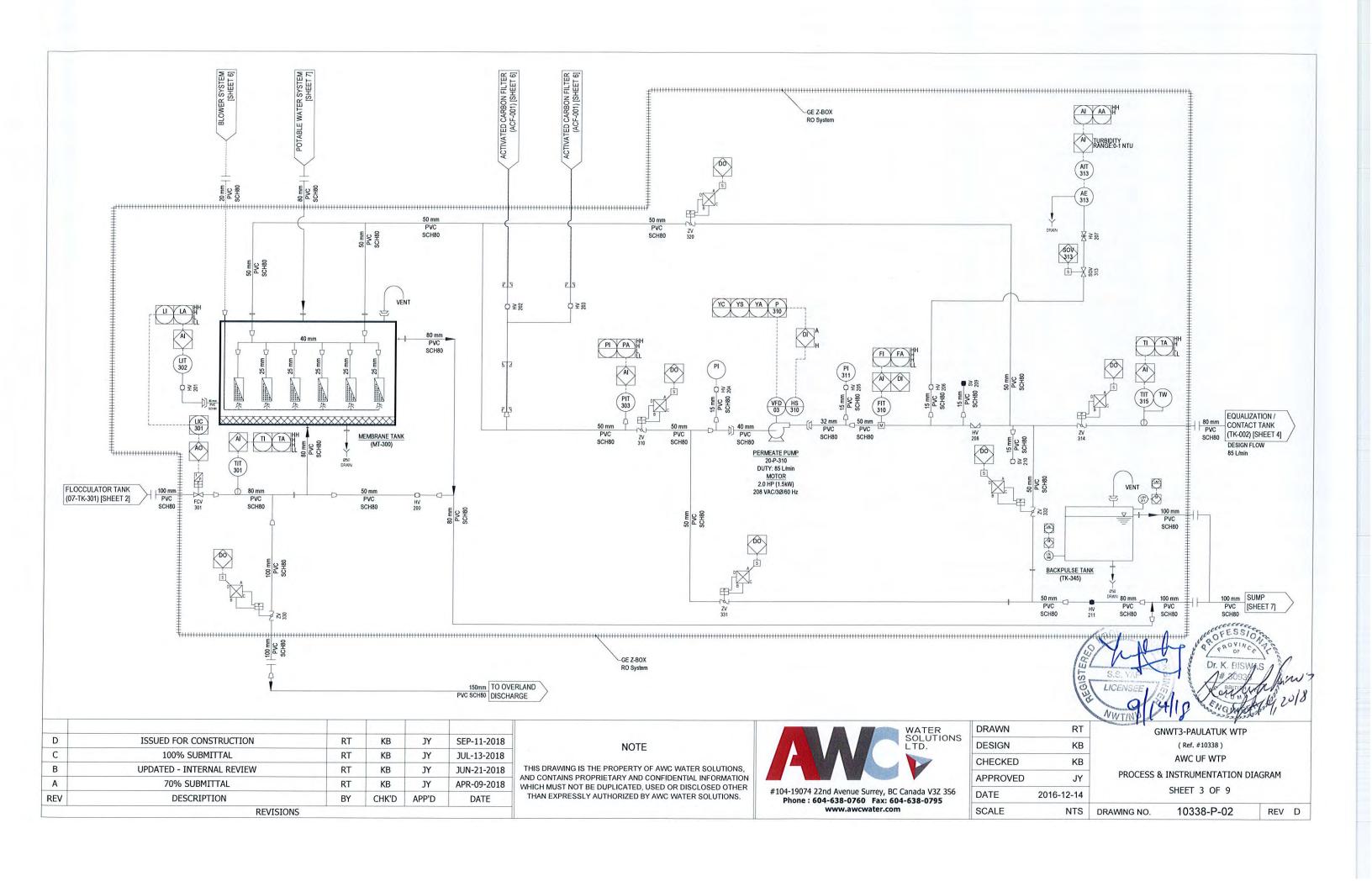
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	DATE	2016-12-14	
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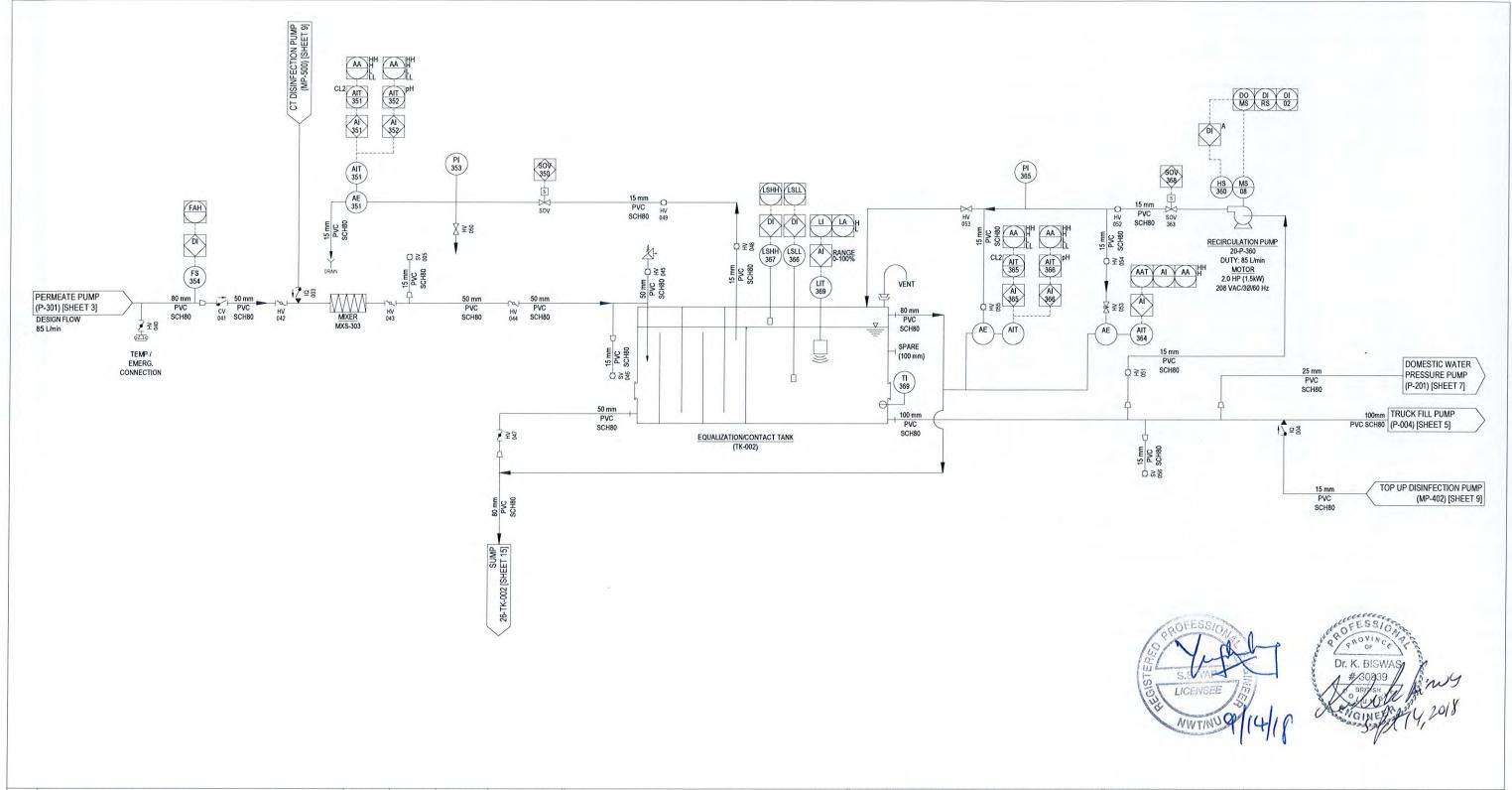
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	AWC UF WTP		
	SYMBOLS & LEGENDS		
	SHEET 8 OF 8		
DRAWING NO.	10338-P-02-00	REV	_







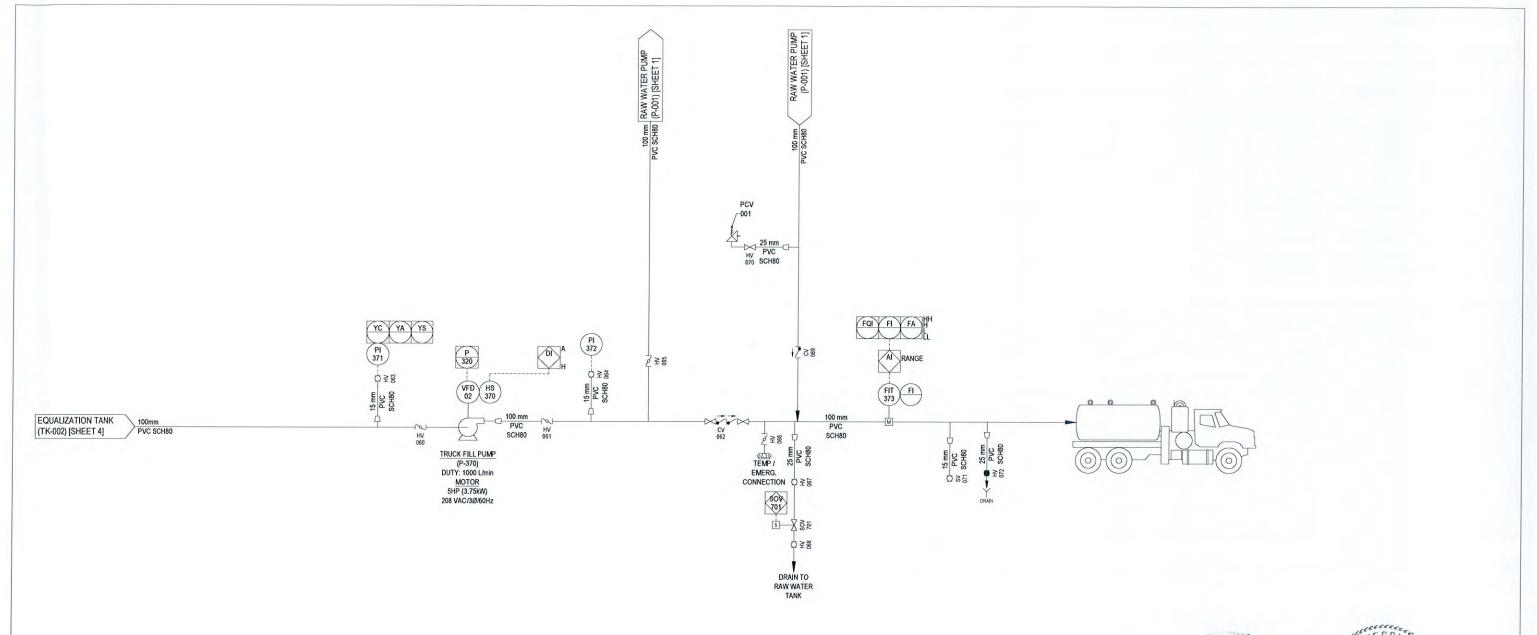




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В	UPDATED - INTERNAL REVIEW	RT	KB	JY	JUN-21-2018
Α	70% SUBMITTAL	RT	KB	JY	APR-09-2018
REV	DESCRIPTION	BY	CHK'D	APP'D	DATE
	REVISIONS	;			1



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APPROVED	JY			IAGRAM
DATE	2016-12-14		SHEET 4 OF 9	
SCALE	NTS	DRAWING NO.	10338-P-02	REV D



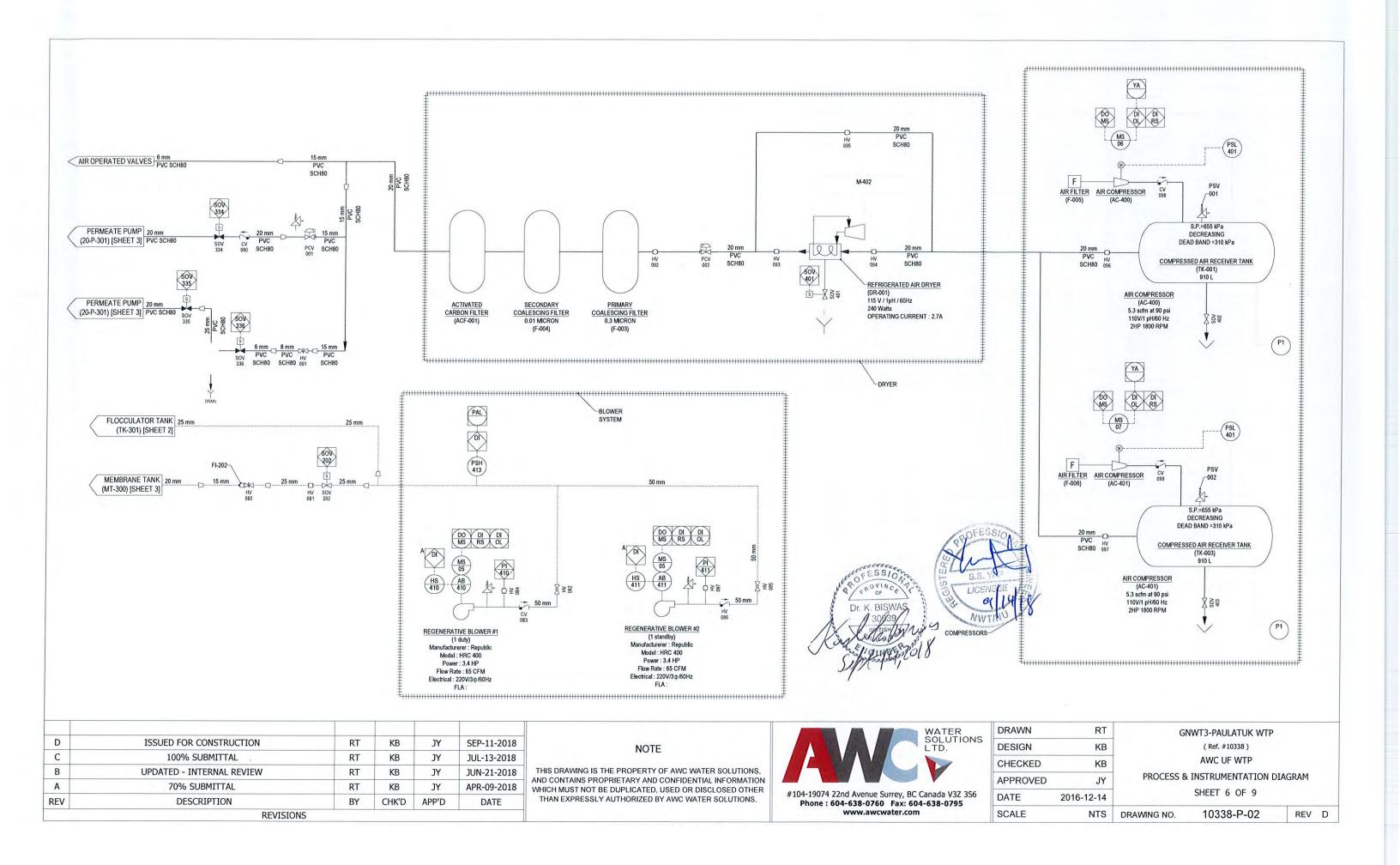


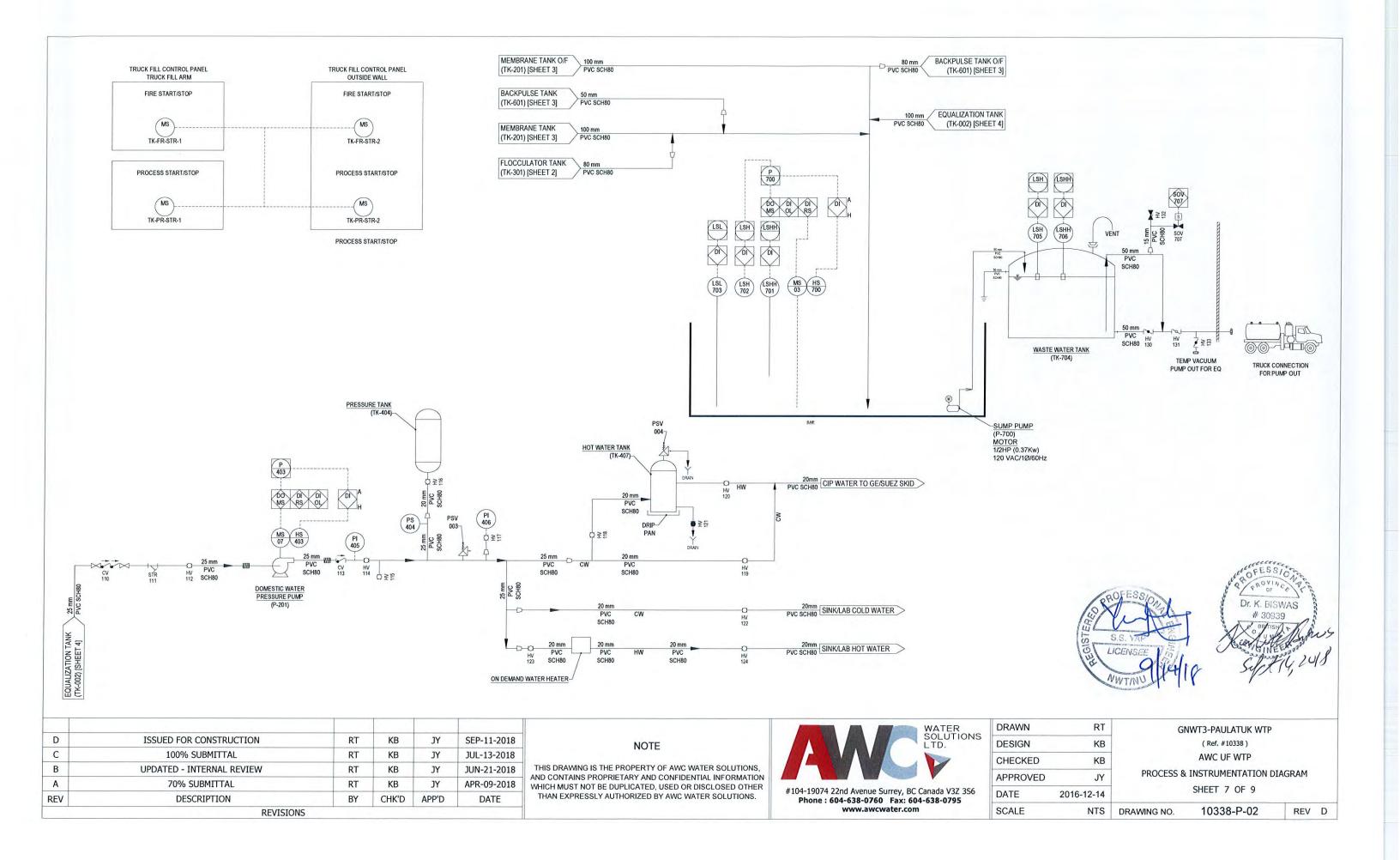
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В	UPDATED - INTERNAL REVIEW	RT	KB	JY	JUN-21-2018
С	100% SUBMITTAL	RT	KB	JY	JUL-13-2018
D	ISSUED FOR CONSTRUCTION	RT	KB	JY	SEP-11-2018
D	ISSUED FOR CONSTRUCTION	DT	KB	1V	CED_11

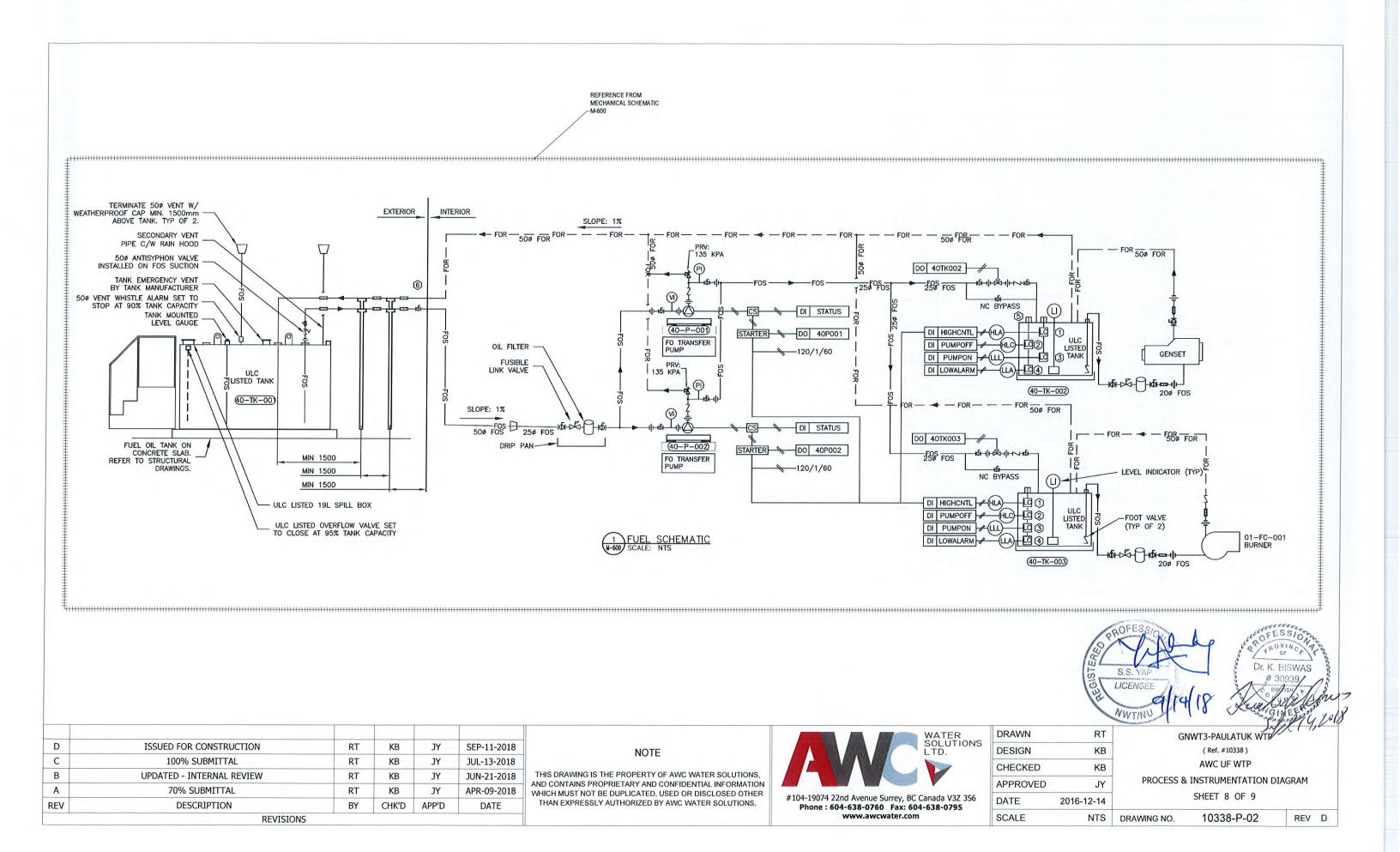


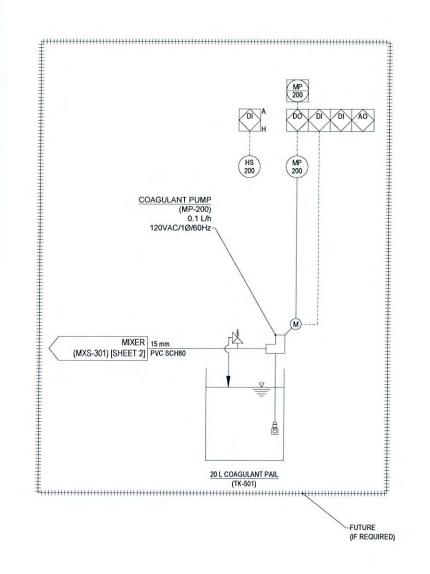
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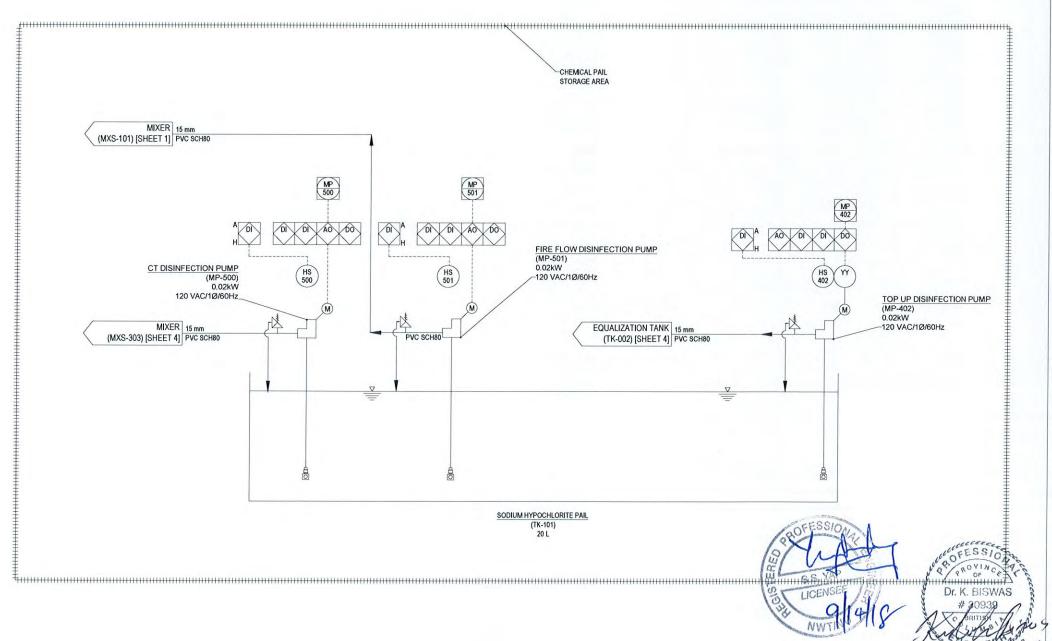
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PROCESS 8	k INSTRUMENTATION D	IAGRAM
	SHEET 5 OF 9	
RAWING NO.	10338-P-02	REV D









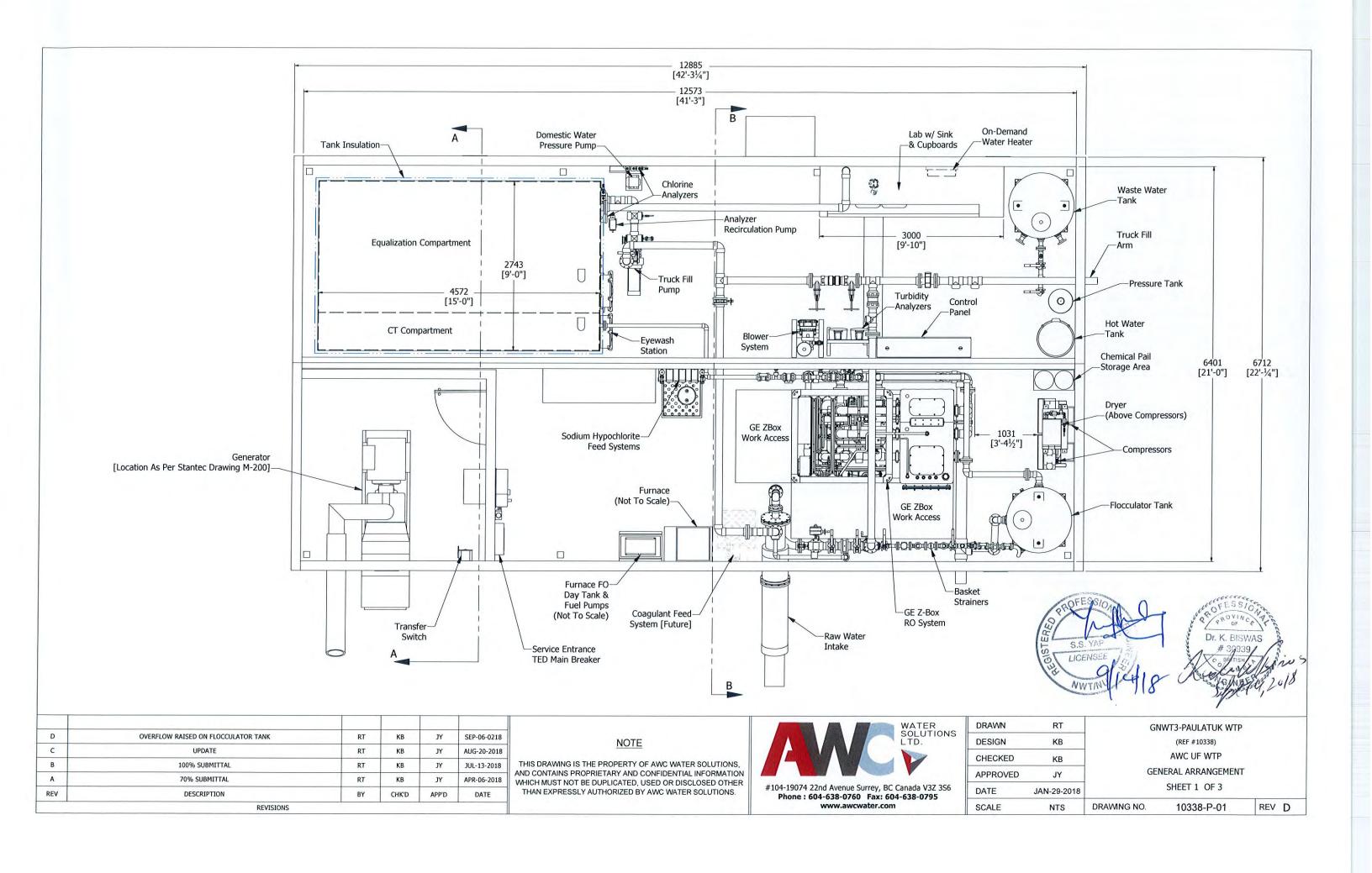


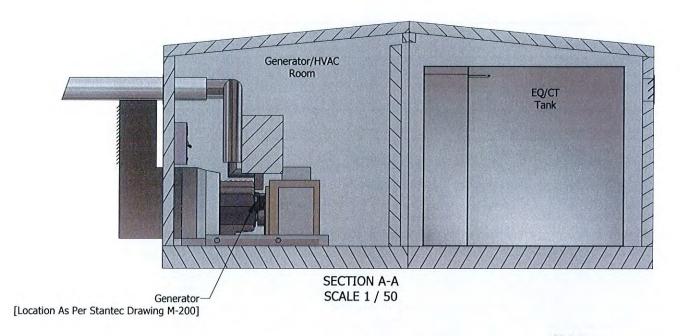
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С	100% SUBMITTAL	RT	KB	JY	JUL-13-2018
В	UPDATED - INTERNAL REVIEW	RT	KB	JY	JUN-21-2018
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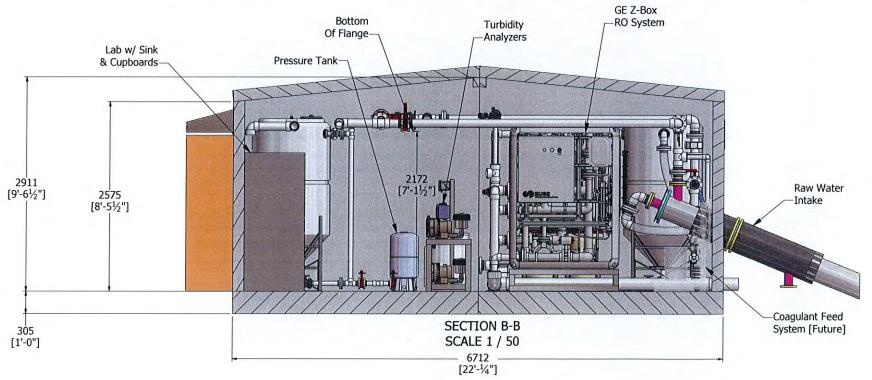


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GN	WT3-PAULATUK WTP	- SIL	1
	(Ref. #10338)	/	
	AWC UF WTP		
PROCESS &	INSTRUMENTATION D	IAGRAM	
	SHEET 9 OF 9		
RAWING NO.	10338-P-02	REV	





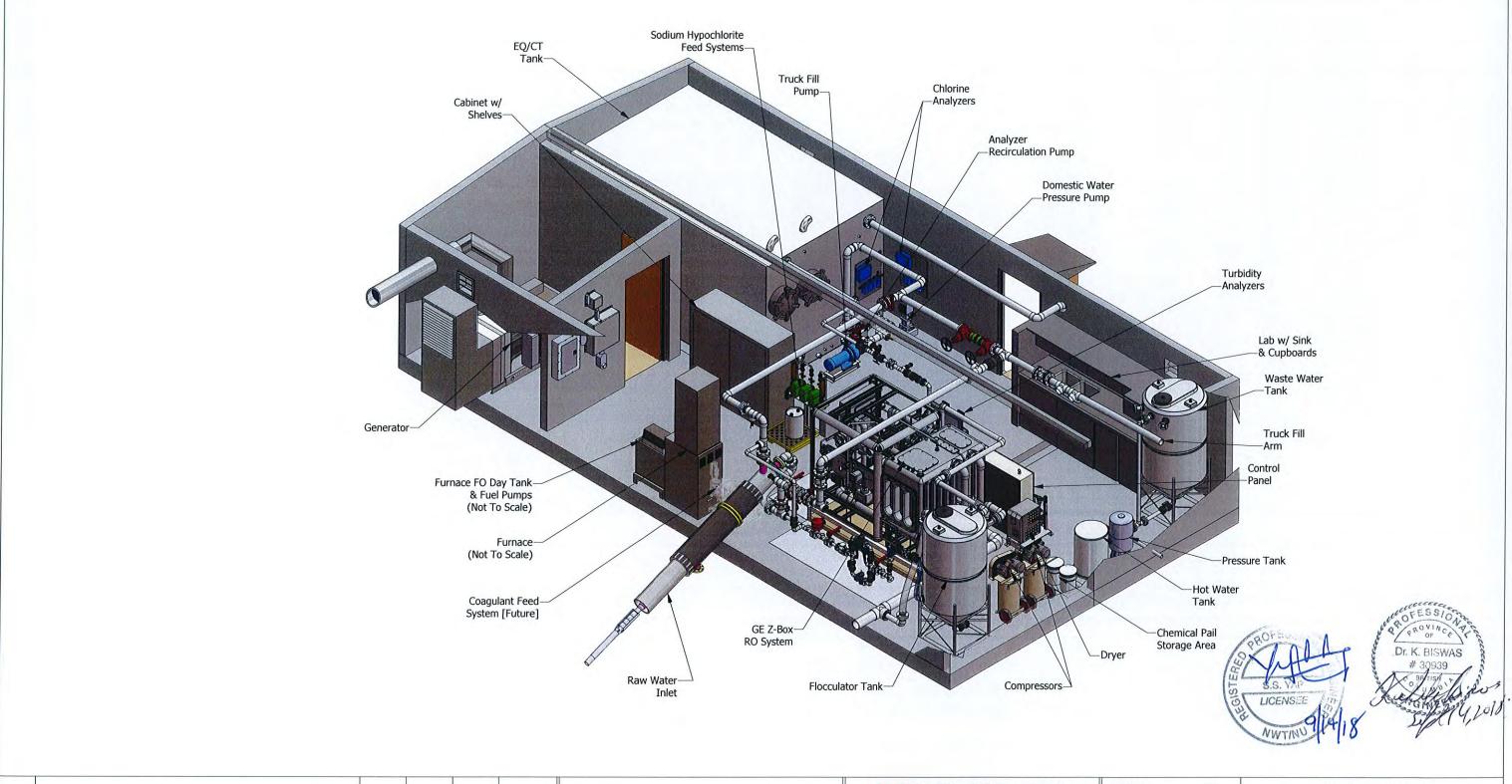




D	OVERFLOW RAISED ON FLOCCULATOR TANK	RT	КВ	JY	SEP-06-0218
С	UPDATE	RT	КВ	JY	AUG-20-2018
В	100% SUBMITTAL	RT	КВ	JY	JUL-13-2018
A	70% SUBMITTAL	RT	КВ	JY	APR-06-2018
REV	DESCRIPTION	BY	CHK'D	APP'D	DATE
	REVISIONS				



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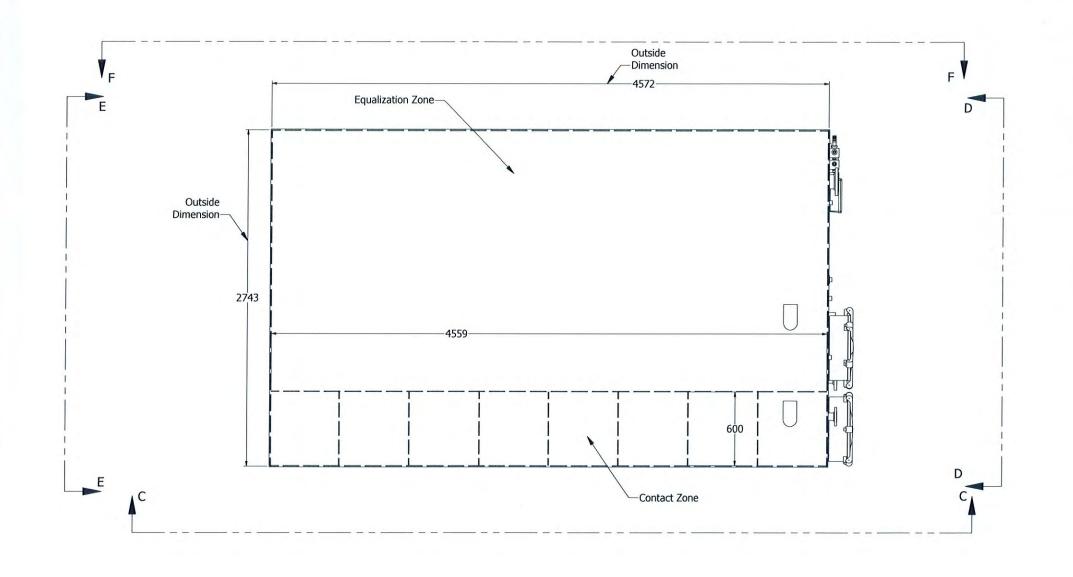


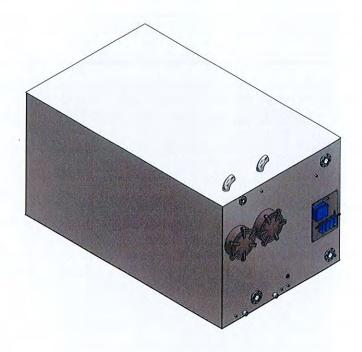
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С	UPDATE	RT	КВ	JY	AUG-20-2018
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A	70% SUBMITTAL	RT	КВ	JY	APR-06-2018
REV	DESCRIPTION	BY	CHK'D	APP'D	DATE



SCALE	NTS	DRAWING
DATE	JAN-29-2018	
APPROVED	JY	
CHECKED	КВ	
DESIGN	КВ	
DRAWN	RT	

GN	WT3-PAULATUK WTP	
	(REF #10338)	
	AWC UF WTP	
GE	NERAL ARRANGEMENT	Г
	SHEET 3 OF 3	
S NO.	10338-P-01	REV D







NOTES

All Material To Be Aluminum Unless Noted Otherwise.

All Walls To Be 6 Thick Unless Noted Otherwise.

All Flanges To Be 150# Flat Faced-Slip On Unless Noted Otherwise.

	REVISIONS				
REV	DESCRIPTION	ВУ	CHK'D	APP'D	DATE
-	100% SUBMITTAL	RT	КВ	JY	JUL-13-2018

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554444	
DRAWN	RT
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CHECKED	КВ
APPROVED	JY
DATE	DEC-08-2016
SCALE	NTS

GNWT3-PAULATUK WTP

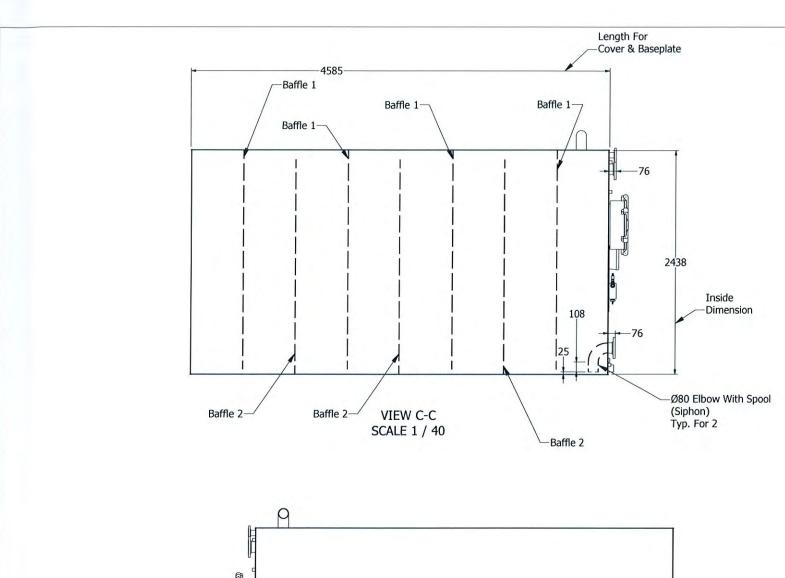
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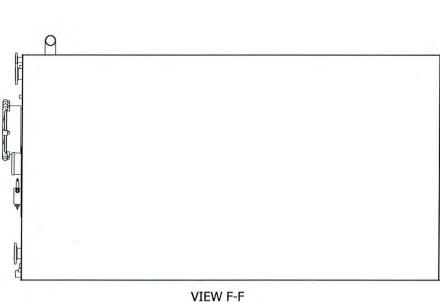
AWC UF WTP

CONTACT/EQUALIZATION TANK

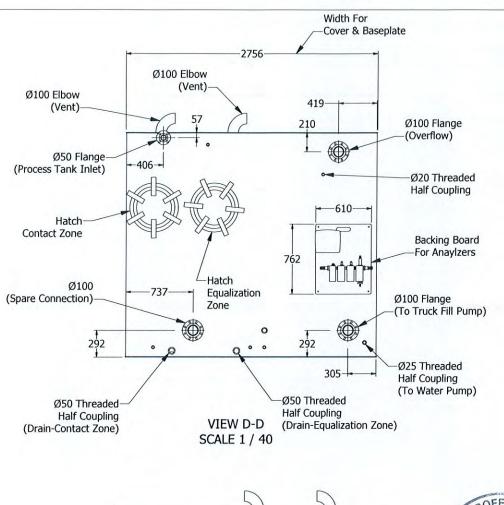
SHEET 1 OF 2

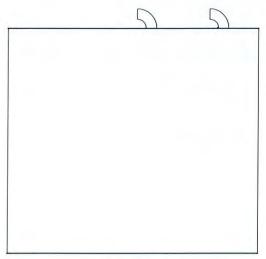
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SCALE 1 / 40







VIEW E-E SCALE 1 / 40

SCALE

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		100% SUBMITTAL	RT	КВ	JY	JUL-13-2018
			1			

NOTE

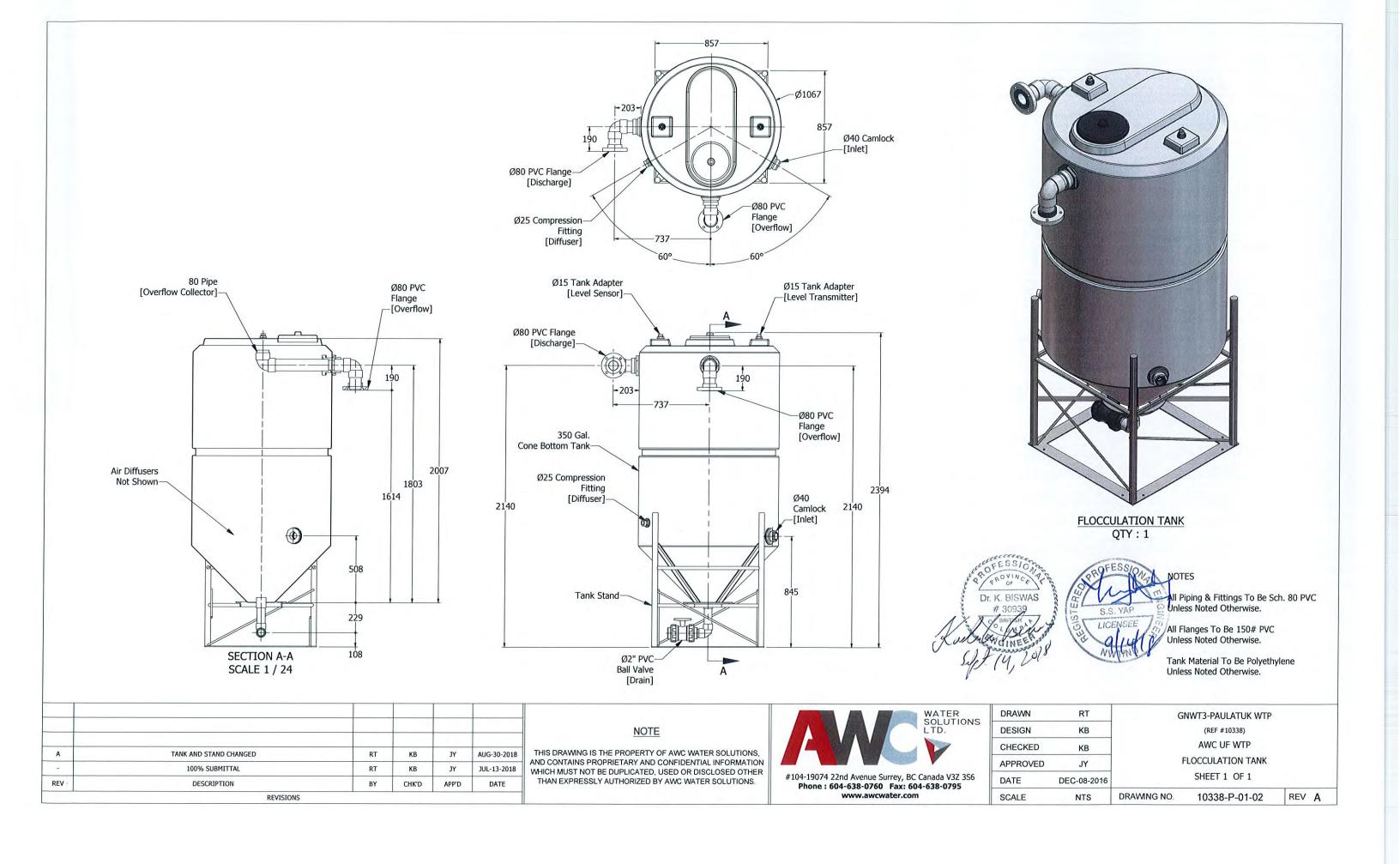
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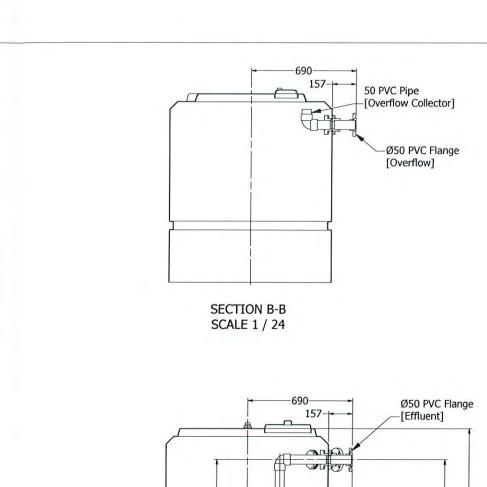


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DESIGN	КВ
CHECKED	КВ
APPROVED	JY
DATE	DEC-08-2016

NTS

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		(REF #10338)	
1		AWC UF WTP	
1	CONT	ACT/EQUALIZATION TA	NK
		SHEET 2 OF 2	
	DRAWING NO.	10338-P-01-01	REV -





1597

Ø50 PVC Pipe

[Effluent Siphon]

229

108

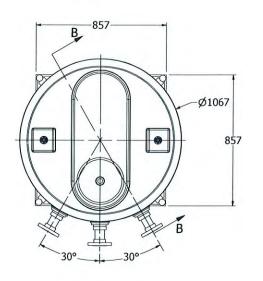
-Ø2" PVC

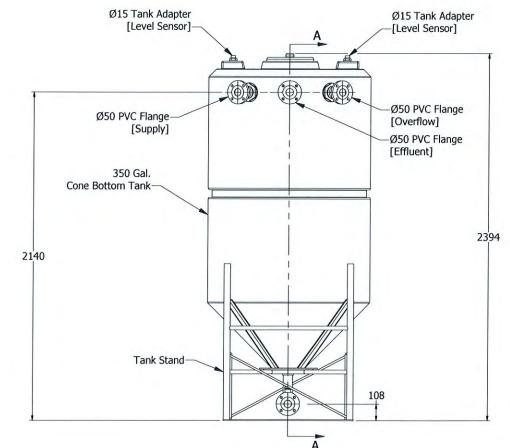
[Drain]

Ball Valve

2007 1803

337







WASTE WATER HOLDING TANK QTY: 1





NOTES

All Piping & Fittings To Be Sch. 80 PVC Unless Noted Otherwise.

All Flanges To Be 150# PVC Unless Noted Otherwise.

Tank Material To Be Polyethylene Unless Noted Otherwise.

REV	DESCRIPTION	BY	CHK'D	APP'D	DATE
(a) [1]	100% SUBMITTAL	RT	КВ	JY	JUL-13-2018
A	TANK AND STAND CHANGED	RT	КВ	JY	AUG-30-2018

SECTION A-A

SCALE 1 / 24

NOTE

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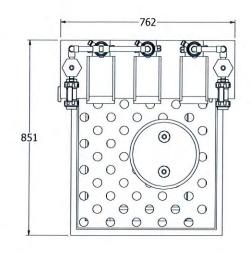
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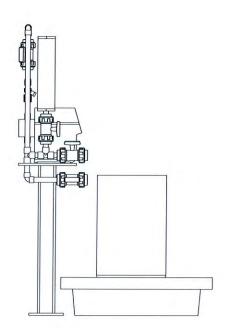
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CHECKED	КВ	
APPROVED	JY	WAS
DATE	DEC-08-2016	
SCALE	NTS	DRAWING NO.

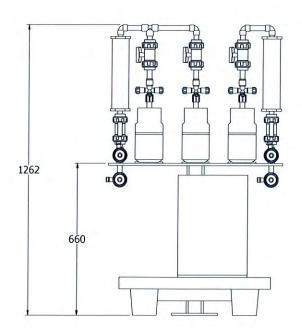
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	(REF #10338)	
	AWC UF WTP	
	WASTE WATER HOLDING TANK	
	SHEET 1 OF 1	
_		

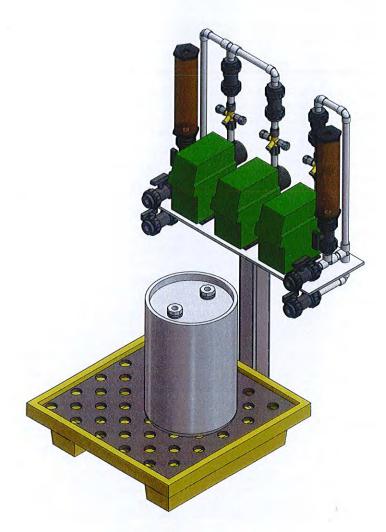
10338-P-01-03

REV A









 $\frac{\text{SODIUM HYPOCHLORITE CHEMICAL SYSTEMS}}{\text{QTY}:1}$



	REVISIONS	*			
REV	DESCRIPTION	BY	CHK'D	APP'D	DATE
•	100% SUBMITTAL	RT	КВ	JY	JUL-13-2018

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DRAWN	RT	
DESIGN	КВ	
CHECKED	КВ	
APPROVED	JY	СН
DATE	JAN-29-2018	
SCALE	NTS	DRAWING NO.

GNWT3-PAULATUK WTP
(REF #10338)
AWC UF WTP
CHEMICAL DOSING SYSTEMS
SHEET 1 OF 1

10338-P-01-05

REV -