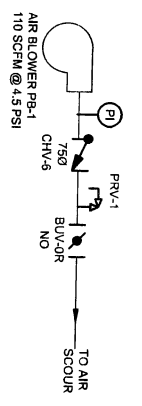
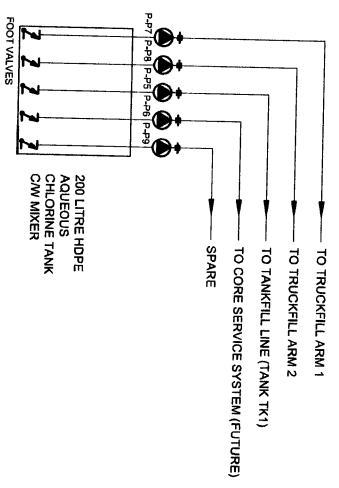
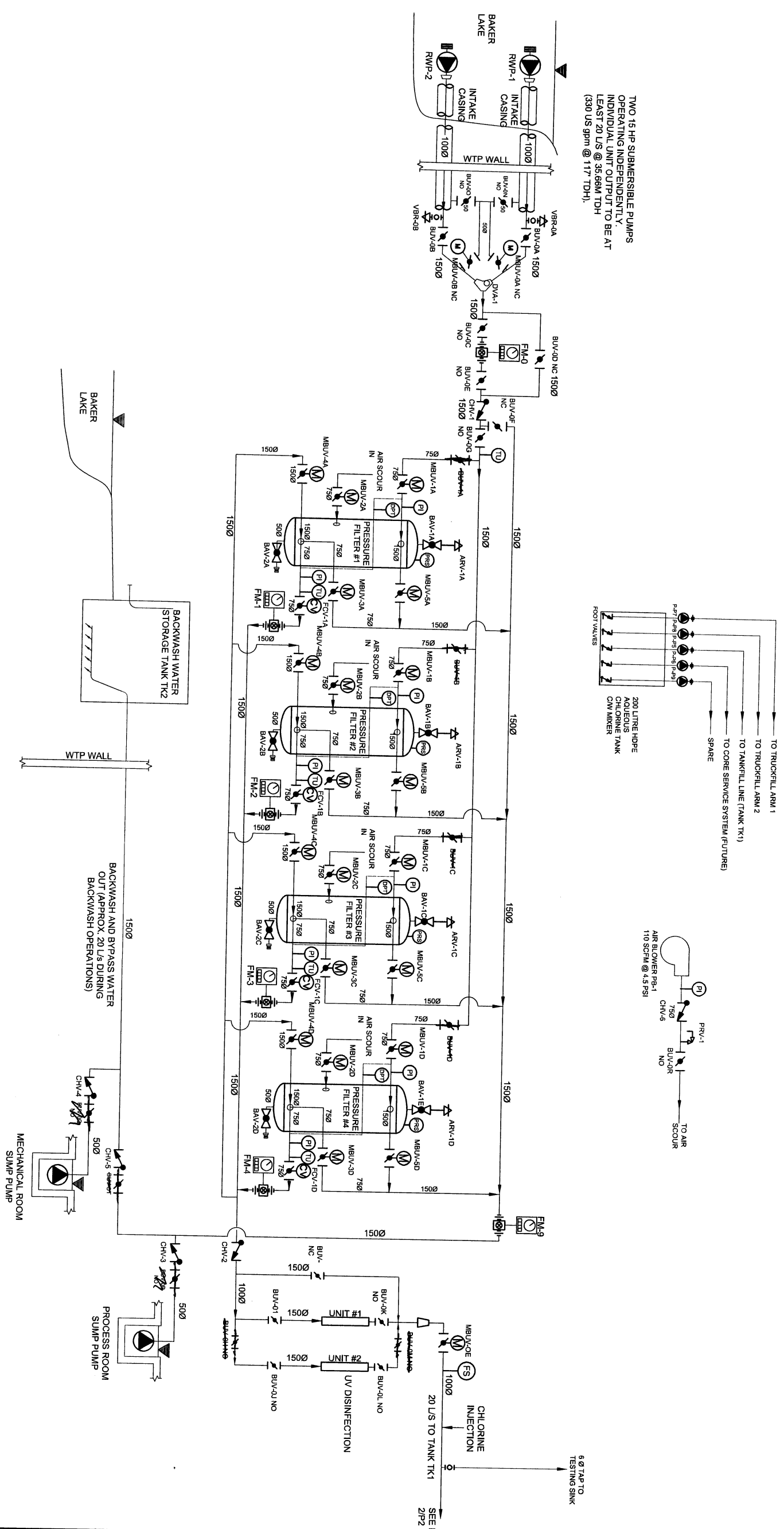


TWO 15 HP SUBMERSIBLE PUMPS
OPERATING INDEPENDENTLY.
INDIVIDUAL UNIT OUTPUT TO BE AT
LEAST 20 US @ 35.66M TDH
(330 US gpm @ 117 TDH).



01	ISSUED FOR CONSTRUCTION	2011/06/11
02	ISSUED FOR TENDER	2011/06/28
03	100% SUBMISSION	2008/09/13
04	75% SUBMISSION	2008/09/28
05	50% SUBMISSION	2008/02/26
06	ISSUED FOR REVIEW	2007/12
07	REVISION DESCRIPTION	DATE ISSUED

PERMIT TO PRACTICE
FSC ARCHITECTS & ENGINEERS
Signature: *[Signature]*
Date: 12 SEP 2011
PERMIT NUMBER: P0467
The Association of Professional Engineers and Geoscientists of the Northwest Territories

REGISTERED PROFESSIONAL ENGINEER
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ARCHITECTS & ENGINEERS
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PROJECT TITLE: NEW WATER PUMP/CHLORINATION FACILITY AND INTAKE STRUCTURE
LOCATION: BAKER LAKE, NU

DATE: 2007-06-50

SCALE: NTS

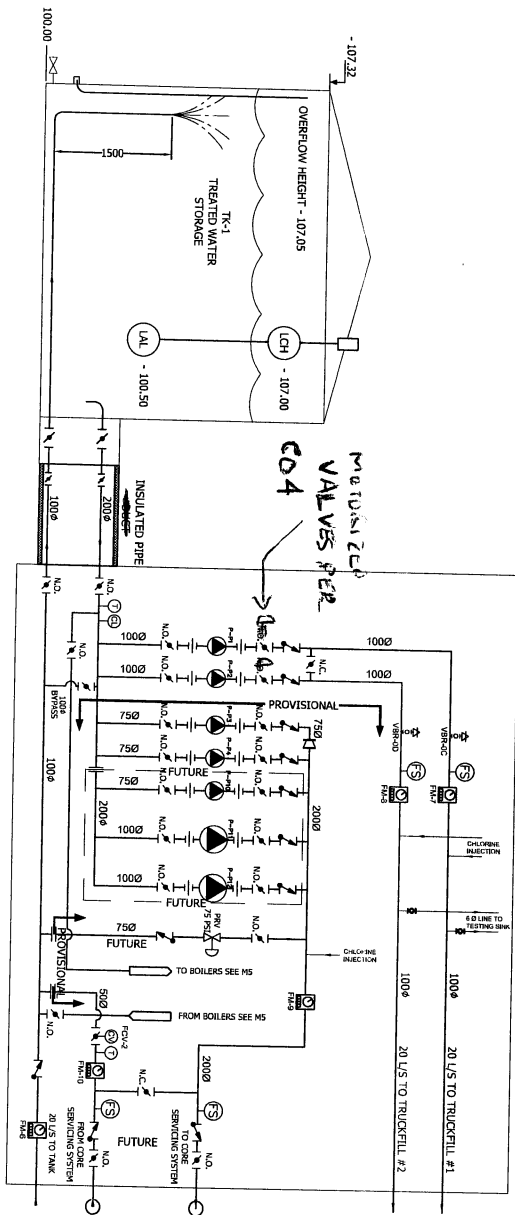
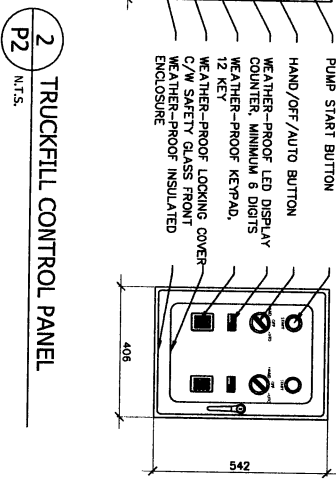
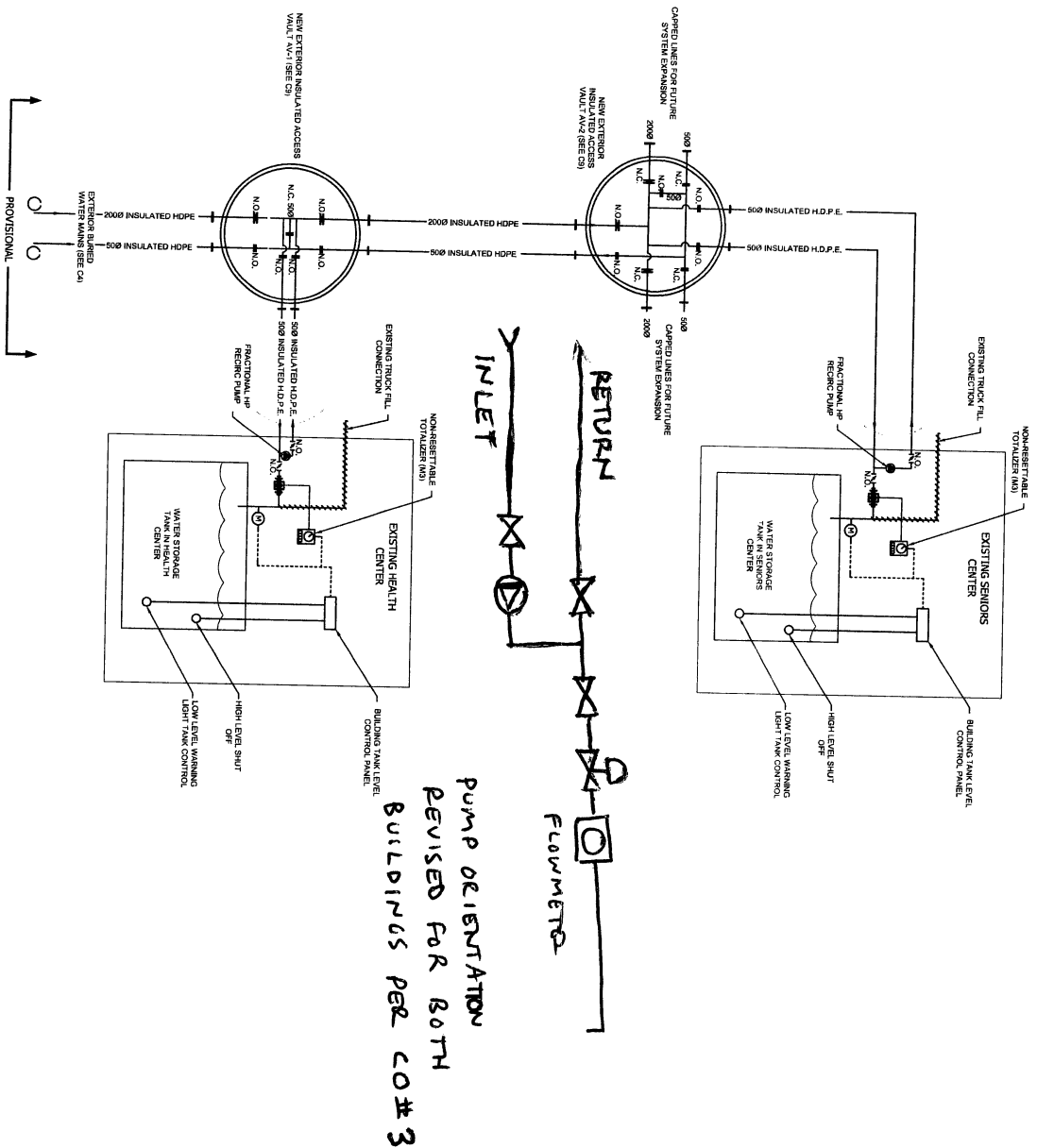
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CHECKER: WO

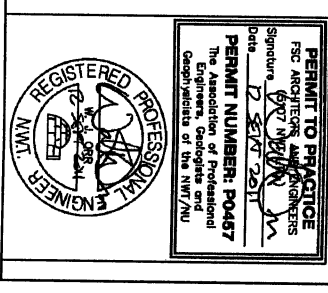
DATE: 07-30-23

PROJECT NO: 2007-0650

P1

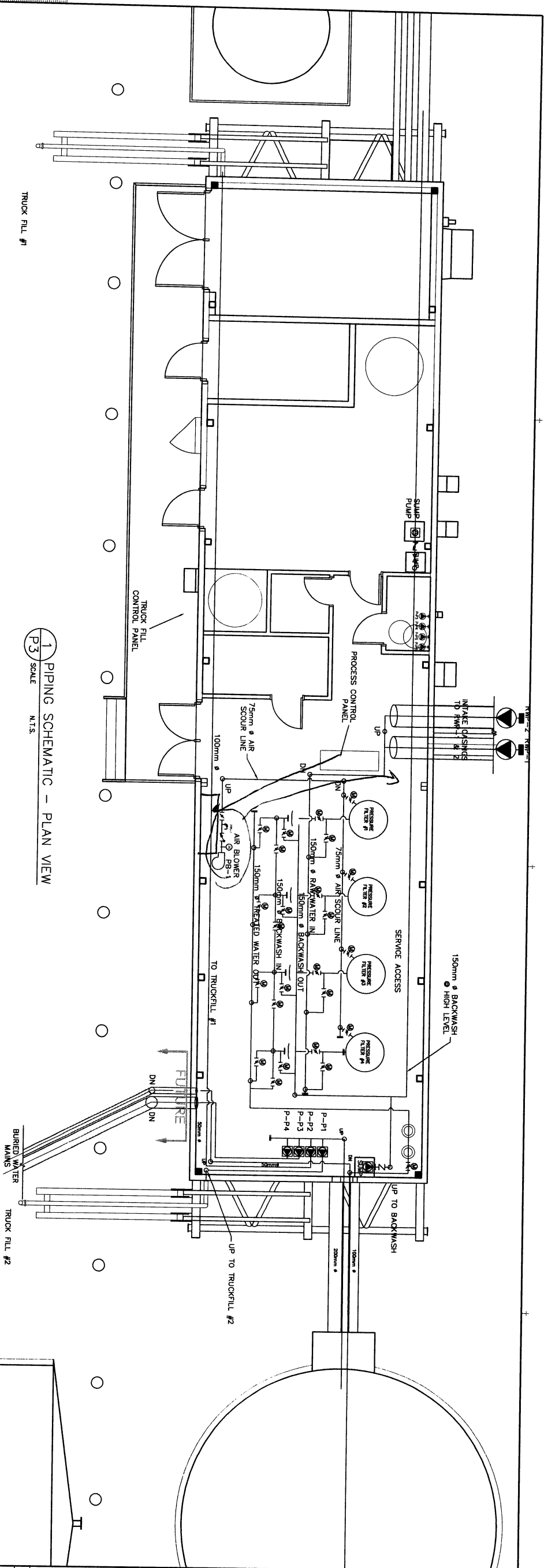


1 UTLIDOR AND TANK SCHEMATIC
P2 N.T.S.

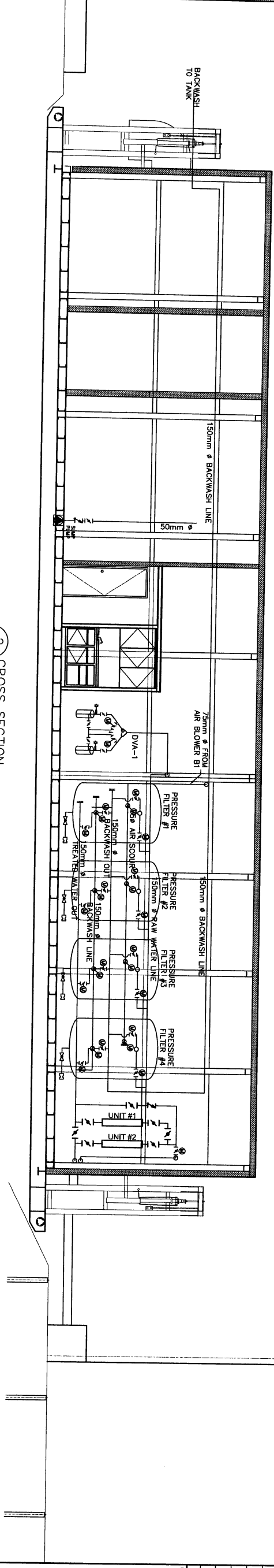


NEW WATER PUMP/CHLORINATION FACILITY AND INTAKE STRUCTURE
UTLIDOR SCHEMATIC DIAGRAM
P2

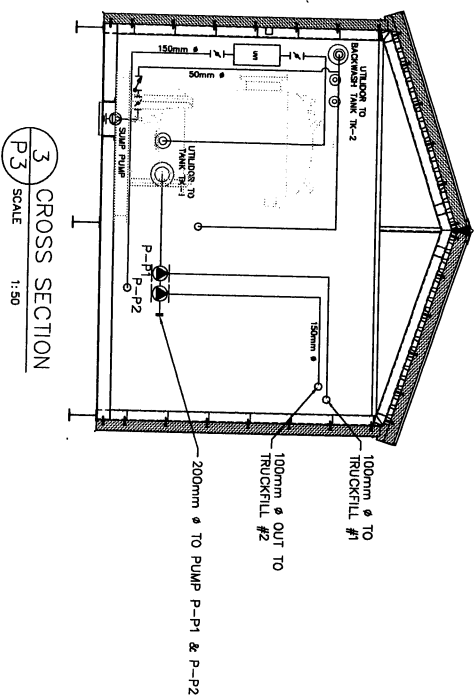
DATE: 05/05/14
BY: [Signature]
CHECKED BY: [Signature]
DATE: 07-30-23
2007-0650
P2



1 PIPING SCHEMATIC - PLAN VIEW
P3 SCALE N.T.S.



2 CROSS SECTION
P3 SCALE 1:50



3 CROSS SECTION
P3 SCALE 1:50



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06	ISSUED FOR CONSTRUCTION	20110611
04	ISSUED FOR TENDER	20110325
03	100% SUBMISSION	20080613
02	75% SUBMISSION	20080326
01	50% SUBMISSION	20080326
00	ISSUED FOR REVIEW	200712
NO.	REVISION DESCRIPTION	DATE ISSUED

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Date: 12 SEP 2011
PERMIT NUMBER: P0467
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NEW WATER PUMP/CHLORINATION FACILITY AND INTAKE STRUCTURE

PIPING SCHEMATIC AND CROSS SECTION

Scale: 1:50
Date: 07-30-23
Project No: 2007-0650

[Handwritten Signature]

BAKER LAKE WATER TREATMENT UPGRADE PROCESS PUMPS AND VALVES				BAKER LAKE WATER TREATMENT UPGRADE METERS AND OTHER EQUIPMENT			
TAG NO.	NO. OFF	LOCATION	SIZE (mm)	DESCRIPTION	TAG NO.	NO. OFF	LOCATION
RWP-1,2	2	END OF INTAKE LINE		SUBMERSIBLE PUMPS, 15 HP 208V, 3PH; 20 US @ 35.7 m TDH, OUTFLOW PIPING 100 DIA.	FM-0	1	RAW WATER INLET LINE
VBR-0A, B, C, D	4	RAW WATER INLET LINE AND TRUCK FILL LINES	25	VACUUM BREAKER VALVES	FM-1, 2, 3, 4	1	FILTER OUTLET FLOW METER
MBUV-0A, B	2	RAW WATER INLET LINE	100	MOTORIZED BUTTERFLY VALVE FOR INTAKE CASING BACKWASH, VALVE AS BUY-0A, ROTORK IOT ACTUATOR	FM-5	1	BACKWASH WATER OUTPUT FLOW METER
BUY-0N, O	2	MANUAL CONTROL OF INTAKE CASING BACKWASH	50	BUTTERFLY VALVE, VALVE DESCRIPTION AS BUY-0A	FM-6	1	TREATED WATER FLOW METER TO TANK TK1
DVA-1	1	RAW WATER INLET LINE	150	TECK TAYLOR "Y" DIVERTER VALVE	FM-7, 8	1	TREATED WATER FLOW METER TO TRUCKFILL 1 AND 2
BUY-0A, 0B	2	RAW WATER PUMP SHUT OFF VALVES	150	BUTTERFLY VALVE, CAST IRON ASTM A126 CLASS B BODY, EPDM FOOD GRADE SEAT, DUCTILE IRON NYLON COATED SEAT, 316 SS SHAFT, FLAT FACE FLANGES DRILL TO ANSI B16.1 CLASS125 STANDARDS, KEYSTONE OR BETTER	FM-9	1	UTILIDOR LINE FLOW METER
CHV-1, 2, 3	3	RAW WATER INLET LINE	150	AWWA FLANGED CHECK VALVES	CHV-1A, B, C	3	RAW WATER INLET LINE
BUY-0C, D, E, F, G	3	RAW WATER INLET LINE	150	BUTTERFLY VALVE, DESCRIPTION AS BUY-0A	BUY-0C, D, E, F, G	3	RAW WATER INLET LINE
BUY-0C, D, E, F, G	5	FIELD ISOLATION OF FILTER RAW WATER PIPING	150	BUTTERFLY VALVE, DESCRIPTION AS BUY-0A	P-81	1	AIR BLOWER FOR FILTER AIR PURGE
BUY-0H, I, J, K, L, M	6	FIELD ISOLATION OF TREATED WATER PIPING COMPONENTS	150	BUTTERFLY VALVE, DESCRIPTION AS BUY-0A	P-P1	1	TRUCKFILL PUMP 1
BUY-0P, Q	2	SHUT OFF VALVE FOR SUMP PUMPS OUTLET	50	BUTTERFLY VALVE, DESCRIPTION AS BUY-0A	P-P2	1	TRUCKFILL PUMP 2
CHV-3, 4	3	CHECK VALVE FOR SUMP PUMPS OUTLET	50	AWWA FLANGED CHECK VALVES	P-P5, 6, 7, 8, 9	5	CHLORINATION PUMP
BUY-0R	1	SHUT OFF VALVE FOR AIR SCOUR LINE	50	BUTTERFLY VALVE, VALVE DESCRIPTION AS BUY-0A	P-M1	1	CHLORINE MIXING MOTOR
CHV-5	1	CHECK VALVE FOR AIR SCOUR LINE	50	AWWA FLANGED CHECK VALVES		1	STORED IN BUILDING
BAV-1A, B, C, D	4	TOP OF EACH FILTER	25	FLOW TEK SERIES SS1 150 PSI WORKING PRESSURE	UV-1	1	UV DISINFECTION
ARV-1A, B, C, D	4	TOP OF EACH FILTER	25	AIR RELEASE VALVE - CAST IRON BODY SS INTERNAL	UV-2	1	UV DISINFECTION
BAV-2A, B, C, D	4	FILTER DRAIN	50	BALL VALVE SAME AS BAV-1A AND COMPLETE WITH KAM LOK HOSE FITTING	P-P3	1	UTILIDOR PUMP 1
MBUV-0A, B	4	INTAKE CASING RAW WATER FLUSH VALVE	50	MOTORIZED BUTTERFLY VALVE, VALVE DESCRIPTION AS BUY-0A, ROTORK IOT ACTUATOR	P-P4	1	UTILIDOR PUMP 2
MBUV-1A, B, C, D	4	FILTER - RAW WATER INLET	75	MOTORIZED BUTTERFLY VALVE, VALVE DESCRIPTION AS BUY-0A, ROTORK IOT ACTUATOR, CONTROLLED BY FILTER CONTROL PANEL	CV-2	1	FLOW CONTROL VALVE FOR UTILIDOR SYSTEM
FCV-1A, B, C, D	4	FILTER OUTLET FLOW CONTROL	75	FLOW CONTROL, MODULATING MOTORIZED BUTTERFLY VALVE, VALVE AS MBUV-1A, ROTORK IOT ACTUATOR, CONTROLLED BY FILTER CONTROL PANEL	FM-10	1	UTILIDOR RETURN LINE FLOW METER
MBUV-2A, B, C, D	4	AIR SCOUR INLET VALVE	75	MOTORIZED BUTTERFLY VALVE, VALVE AS MBUV-1A, ROTORK IOT ACTUATOR	FS		
MBUV-3A, B, C, D	4	FILTER TO WASTE LINE	75	MOTORIZED BUTTERFLY VALVE, VALVE AS MBUV-1A, ROTORK IOT ACTUATOR, CONTROLLED BY FILTER CONTROL PANEL	T		
MBUV-4A, B, C, D	4	FILTER - BACKWASH WATER INLET LINE	150	MOTORIZED BUTTERFLY VALVE, VALVE AS MBUV-1A, ROTORK IOT ACTUATOR, CONTROLLED BY FILTER CONTROL PANEL			
MBUV-5A, B, C, D	4	FILTER - BACKWASH WATER INLET LINE	150	MOTORIZED BUTTERFLY VALVE, VALVE AS MBUV-1A, ROTORK IOT ACTUATOR, CONTROLLED BY FILTER CONTROL PANEL			



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05	ISSUED FOR CONSTRUCTION	2011/09/11
04	ISSUED FOR TENDER	2011/03/25
03	100% SUBMISSION	2008/09/13
02	75% SUBMISSION	2008/02/28
01	50% SUBMISSION	2008/02/28
00	ISSUED FOR REVIEW	2007/12
NO.	REVISION DESCRIPTION	DATE ISSUED

PERMIT TO PRACTICE
FSC ARCHITECTS & ENGINEERS
Signature: [Signature]
Date: 12 SEP 2011
PERMIT NUMBER: P0457
The Association of Professional Engineers, Geologists and Geophysicists of the NWT/NY



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NEW WATER PUMP/CHLORINATION FACILITY AND INTAKE STRUCTURE

EQUIPMENT USE TABLE

ITEM NO.	QTY	UNIT	DESCRIPTION
05 / 06	1	NIS	TEMPERATURE SENSOR WITH SS HEX HEAD PIPE PLUG WITH CLOSED END TUBE OPERATING RANGE -5°C TO +10°C ACCURACY 0.1°C, SPECTRUM OR EQUAL
07	1	WO	MC DONNELL MILLER TS 4-3
08	1	WO	TEMPERATURE SENSOR WITH SS HEX HEAD PIPE PLUG WITH CLOSED END TUBE OPERATING RANGE -5°C TO +10°C ACCURACY 0.1°C, SPECTRUM OR EQUAL