



F

E

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F

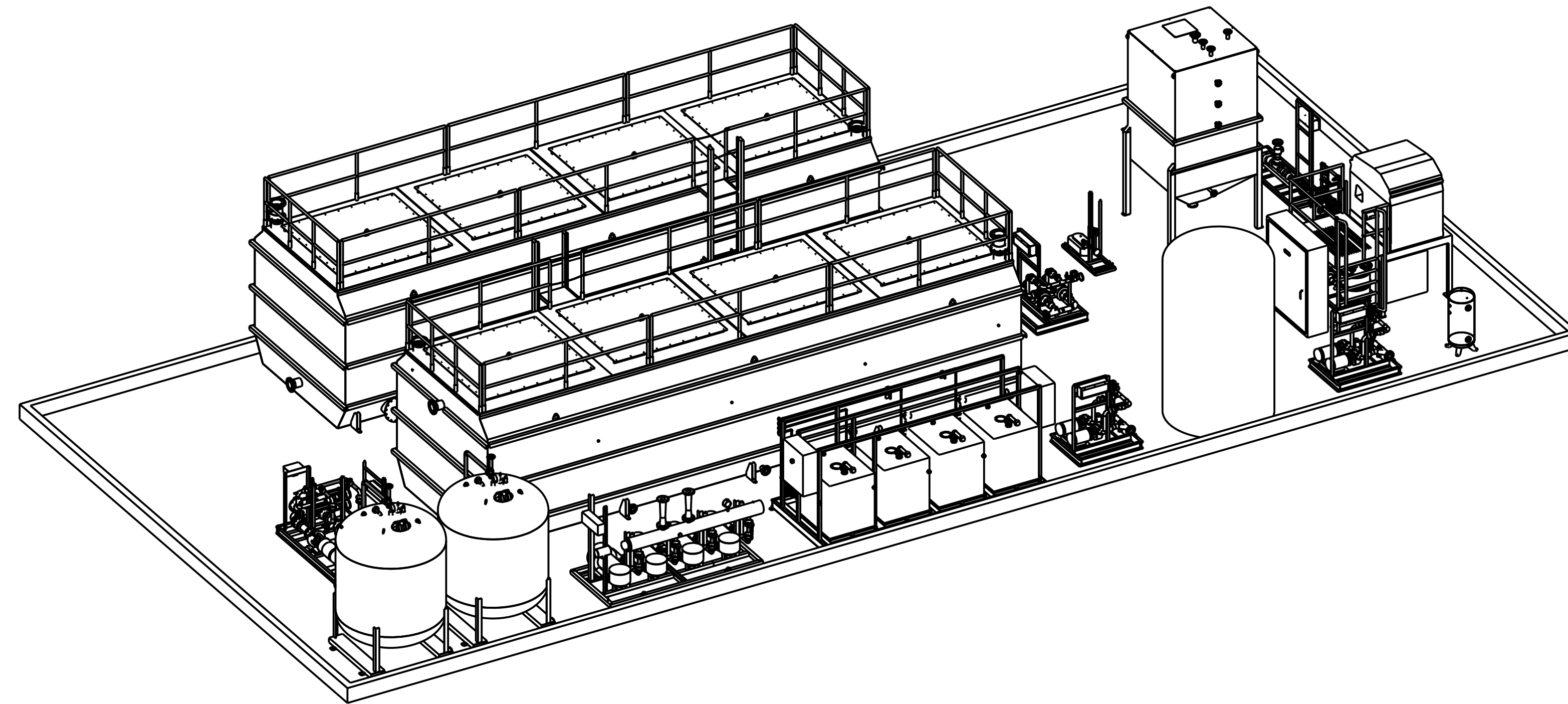
E

D

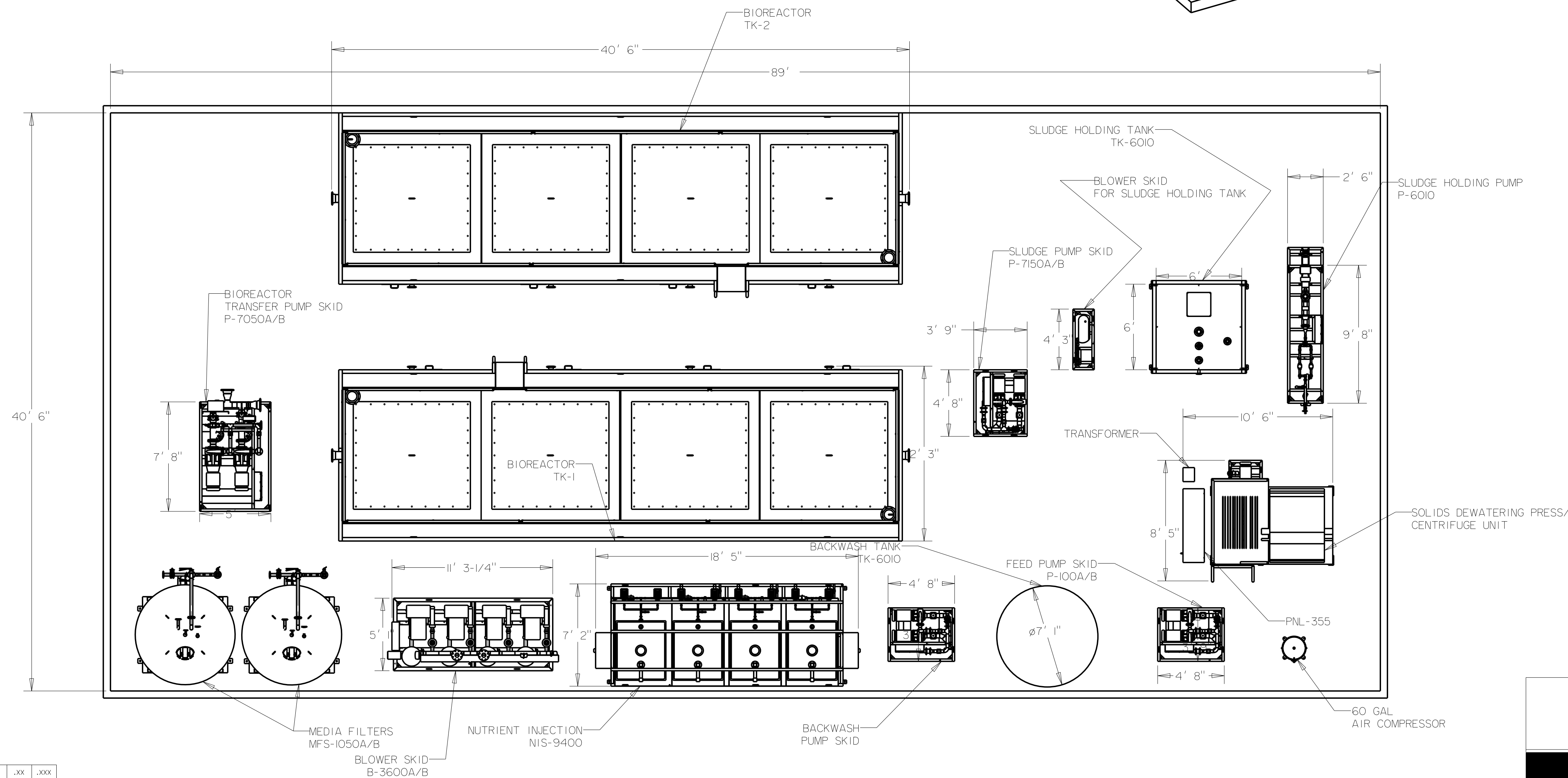
C

B

A



ISOMETRIC VIEW



PLAN VIEW

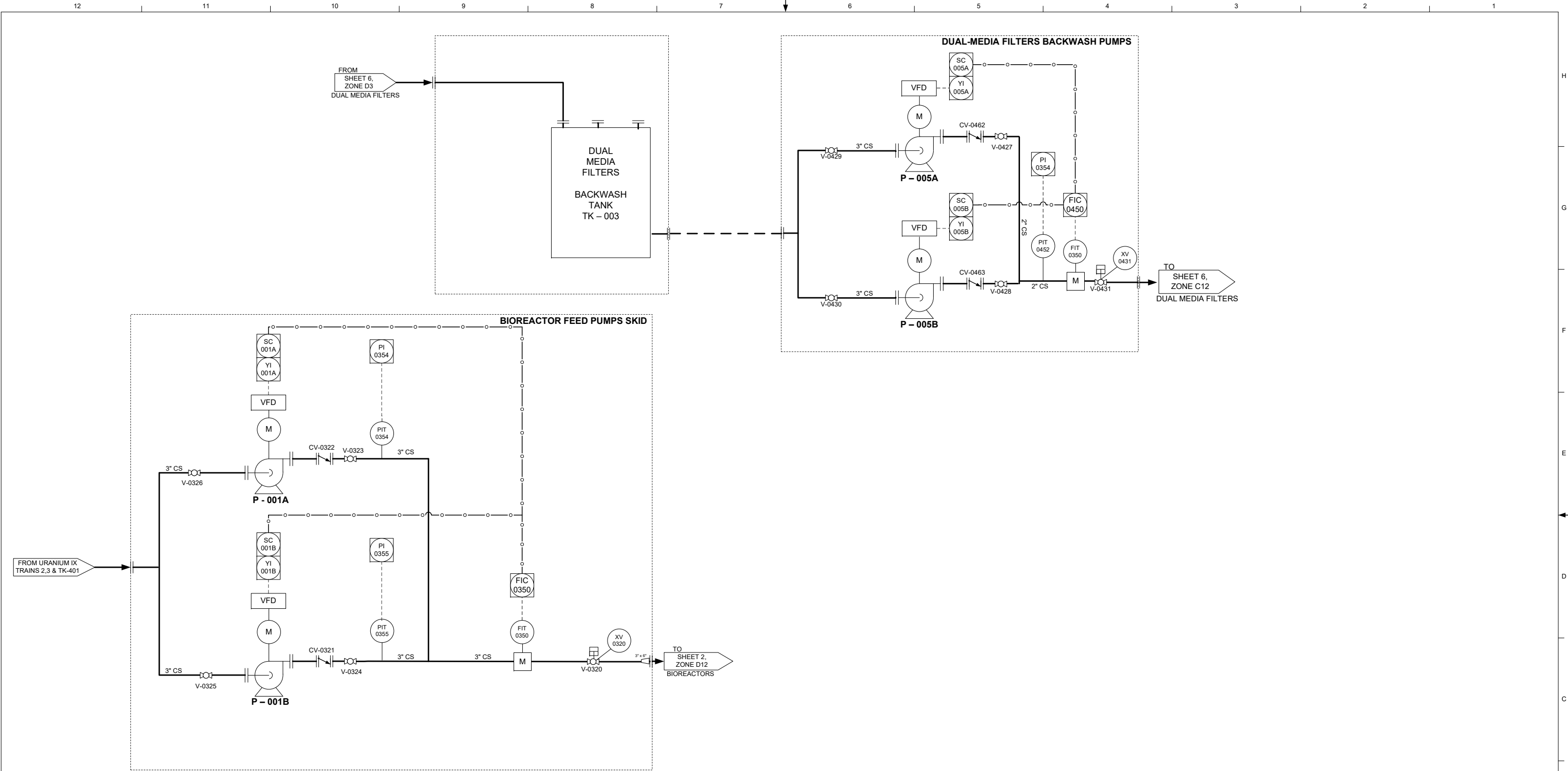
	.X	.XX	.XXX
LINEAR TOLERANCE	±/B	±	±
ANGULAR TOLERANCE	±/O	±	±
MATERIAL	AS SPEC'D		
SURFACE FINISH	N/A		
SURFACE TREAT	N/A		

B	08/10/15	FOR REVIEW	RD	VG	RB	SP	JOB NO.	I504	SIZE	D	DRAWING NUMBER	REV.	B
REV.	DATE	DESCRIPTION	DRW BY	CHK BY	ENG	APP BY	FILE ID.	IH3000001-I504-D.DWG	SCALE	: NA	WT.	N/A	SHEET 1 OF 1
							DIMENSIONS IN "mm (INCHES)" UNLESS SPECIFIED						

CUSTOMER/PROJECT  
CIMARRON



NITRATE TREATMENT TRAIN-2  
GENERAL ARRANGEMENT



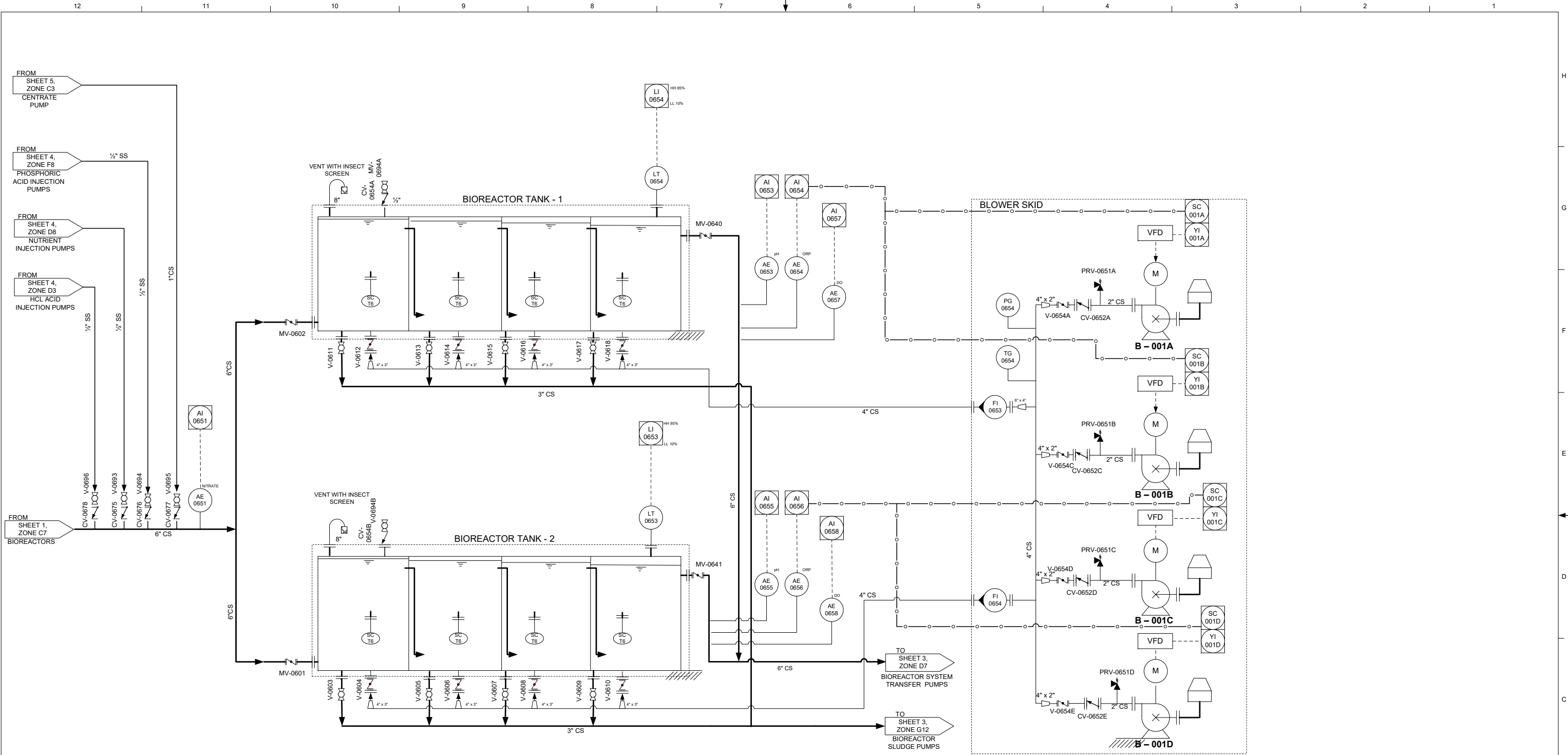
ITEM NUMBER		P – 001 A/B	P – 005 A/B	TK – 003
SERVICE		BIOREACTOR FEED PUMPS	DUAL-MEDIA FILTERS BW PUMPS	DUAL-MEDIA FILTERS BW TANK
PRESSURE (PSIG)	DESIGN	20	20	ATM
	WORKING	15	15	ATM
TEMPERATURE (°F)	DESIGN	104	104	100
	WORKING	AMBIENT	AMBIENT	AMBIENT
FLOW RATE (GPM)	DESIGN	125	400	
	WORKING	125	360	
MATERIAL		CARBON STEEL	CARBON STEEL	POLY-ETHYLENE
VOLUME (m³)		N/A	N/A	5000
RATED POWER (HP)		5	15	N/A
DESCRIPTION/TYPE		HORIZONTAL CENTRIFUGAL	HORIZONTAL CENTRIFUGAL	
SUCTION PRESSURE (PSIG)	DESIGN			
	WORKING			

C	8/14/15	FOR REVIEW	VG	TB	SP
B	8/14/15	FOR REVIEW	VG	TB	SP
A	7/17/15	FOR REVIEW	VG		
REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY	CERTIFIED BY

AVANTECH JOB NO.		15-04	SIZE	AVANTECH DRAWING NUMBER	REV.
FILE ID.		1H200-1504-D	D	KUR-ENV/01-001-DWG-P921	C
DIMENSIONS IN INCHES UNLESS SPECIFIED			SCALE:	WT.:	SHEET 1 OF 6



NITRATE TREATMENT TRAIN-2  
PIPING & INSTRUMENTATION DIAGRAM



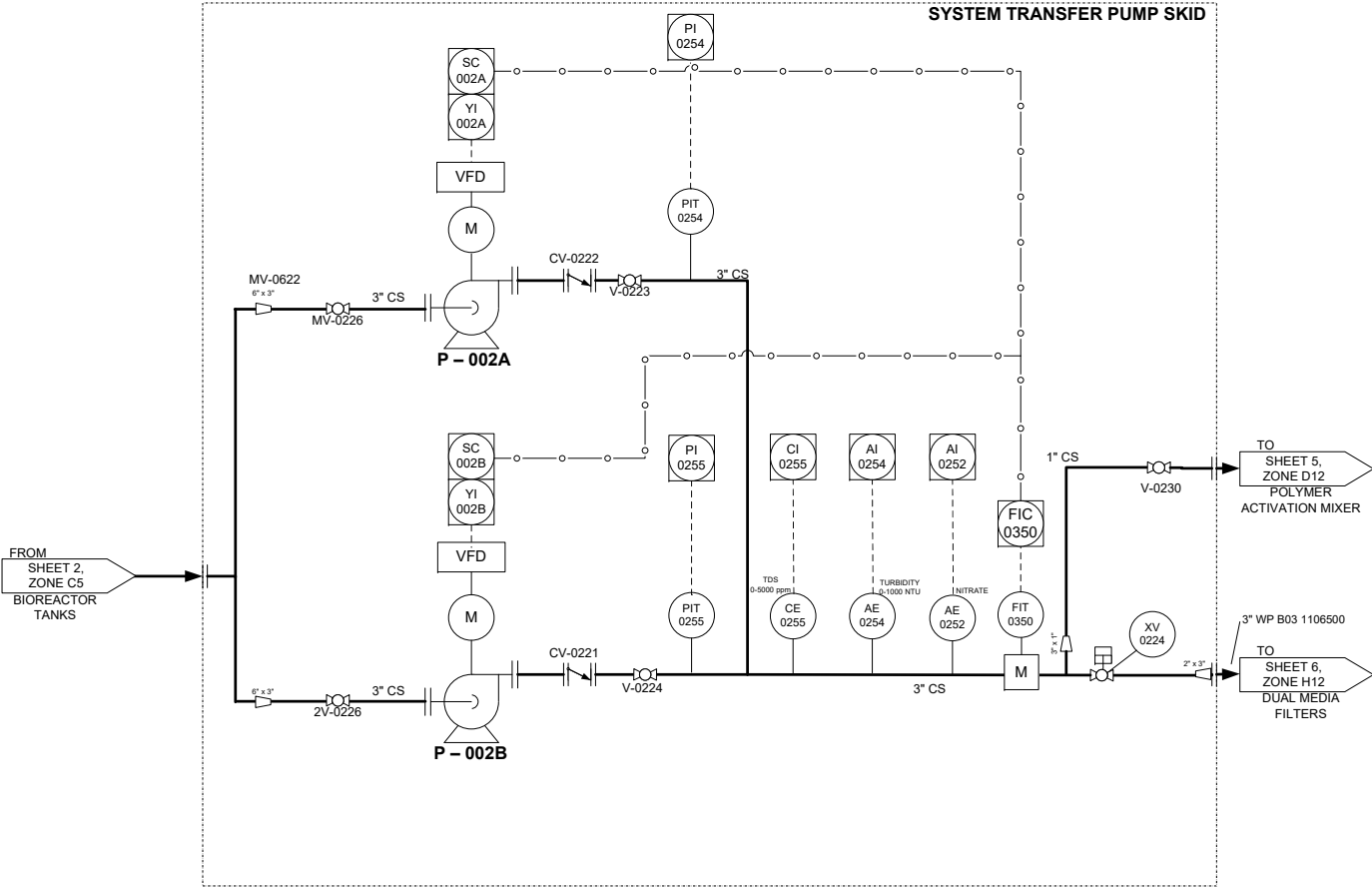
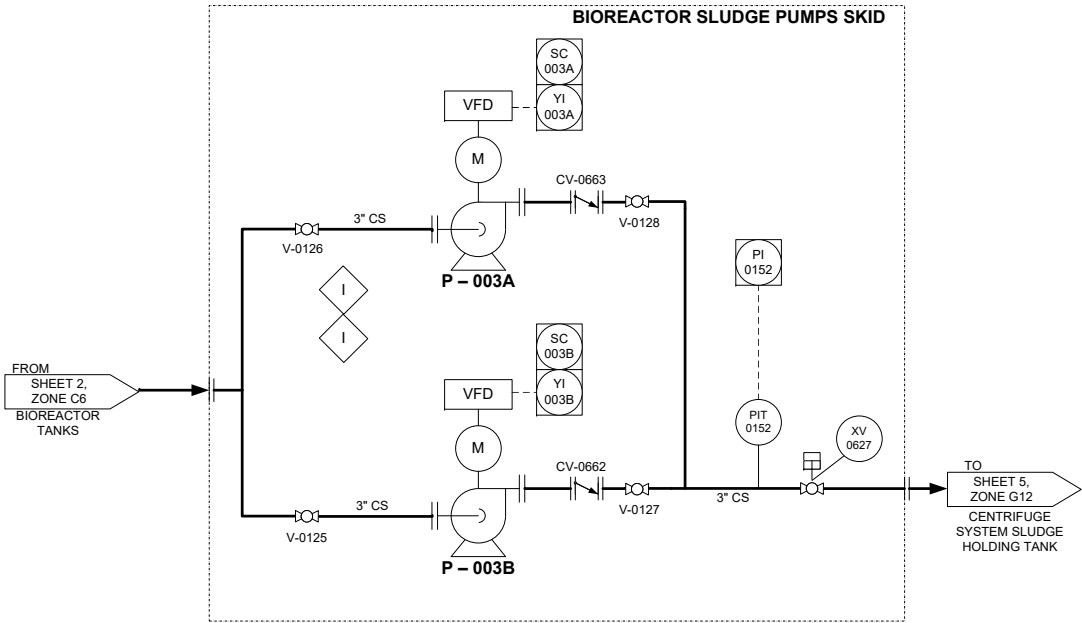
ITEM NUMBER		11-T 0654 A/B	B - 001A/C/D/E
SERVICE		BIOREACTOR TANKS	BLOWERS
PRESSURE (PSIG)	DESIGN	ATM	6.5
	WORKING	ATM	5
TEMPERATURE (°F)	DESIGN	104	104
	WORKING	AMBIENT	AMBIENT
FLOW RATE (CFM)	DESIGN	15	100
	WORKING	10.5	
MATERIAL		COATED CARBON STEEL	
VOLUME (GALLON)		33000	N/A
RATED POWER (HP)		N/A	10
DESCRIPTION/TYPE		ICB BIOREACTORS	POSITIVE DISPLACEMENT

C	8/14/15	FOR REVIEW	VG	TB	SP
B	8/14/15	FOR REVIEW	VG	TB	SP
A	7/17/15	FOR REVIEW	VG		
REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY	CERTIFIED BY

AVANTECH JOB NO. 15-04		SIZE	AVANTECH DRAWING NUMBER	REV.
FILE ID: 1H200-1504-D		D	KUR-ENV/01-001-DWG-P921	C
DIMENSIONS IN INCHES UNLESS SPECIFIED		SCALE:	WT:	SHEET 2 OF 6



NITRATE TREATMENT TRAIN-2  
PIPING & INSTRUMENTATION DIAGRAM



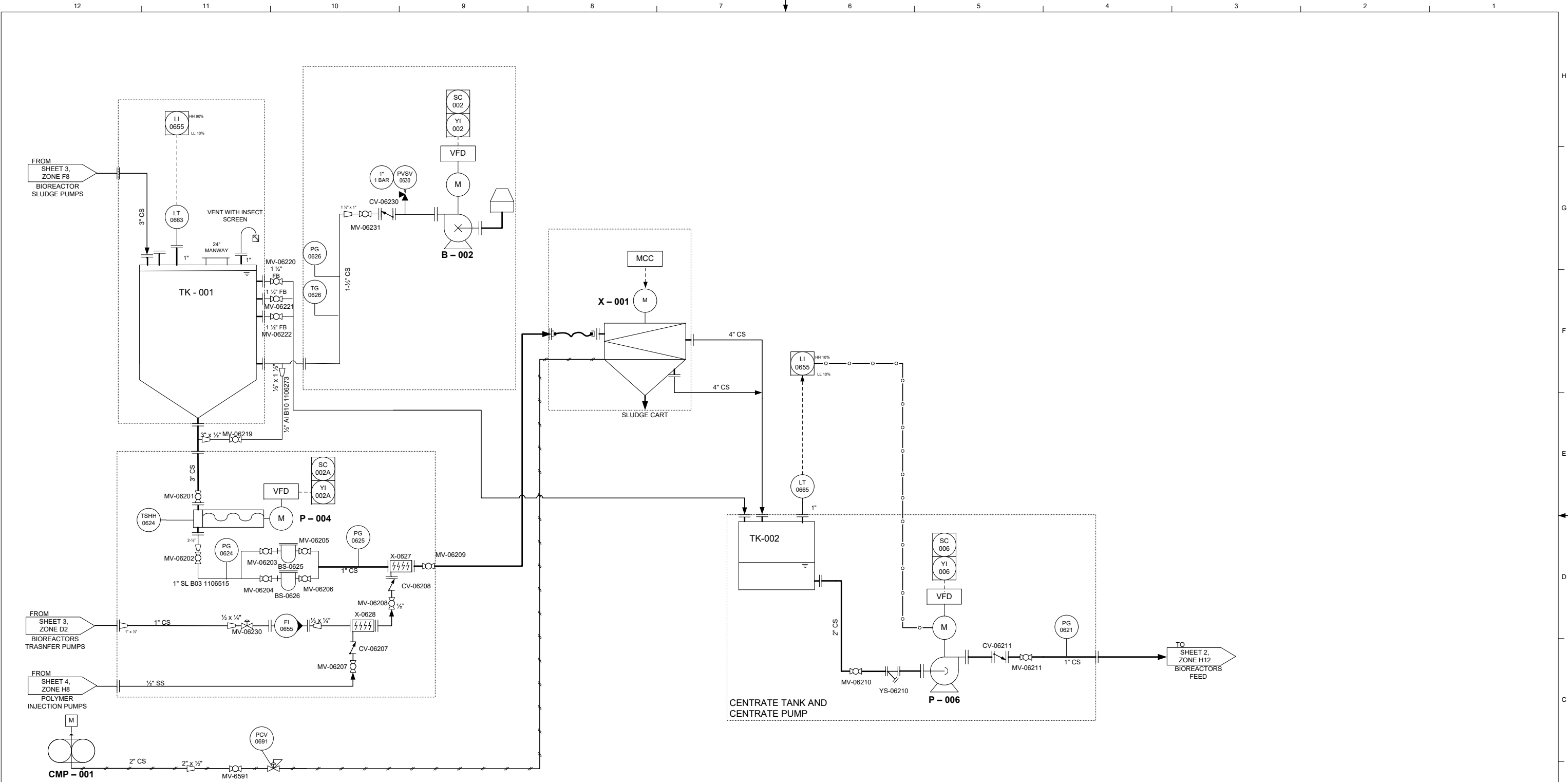
ITEM NUMBER		P – 002 A/B	P – 003 A/B
SERVICE		SYSTEM TRANSFER PUMPS	BIOREACTOR SLUDGE PUMPS
PRESSURE (PSIG)	DESIGN	40	20
	WORKING	30	20
TEMPERATURE (°F)	DESIGN	104	104
	WORKING	AMBIENT	AMBIENT
FLOW RATE (GPM)	DESIGN	125	30
	WORKING	125	30
MATERIAL		CARBON STEEL	CARBON STEEL
VOLUME (GALLON)		N/A	N/A
RATED POWER (HP)		7 1/2	5
DESCRIPTION/TYPE		HORIZONTAL CENTRIFUGAL	HORIZONTAL CENTRIFUGAL
SUCTION PRESSURE (PSIG)	DESIGN		
	WORKING		

B	8/14/15	FOR REVIEW	VG	TB	SP
A	7/17/15	FOR REVIEW	VG		
REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY	CERTIFIED BY

[REDACTED]	
AVANTECH JOB NO.	15-04
FILE ID.	1H200-1504-D
DIMENSIONS IN INCHES UNLESS SPECIFIED	

NITRATE TREATMENT TRAIN-2 PIPING & INSTRUMENTATION DIAGRAM	
SIZE	AVANTECH DRAWING NUMBER
D	KUR-ENV/01-001-DWG-P921
SCALE:	
SHEET	3 OF 6





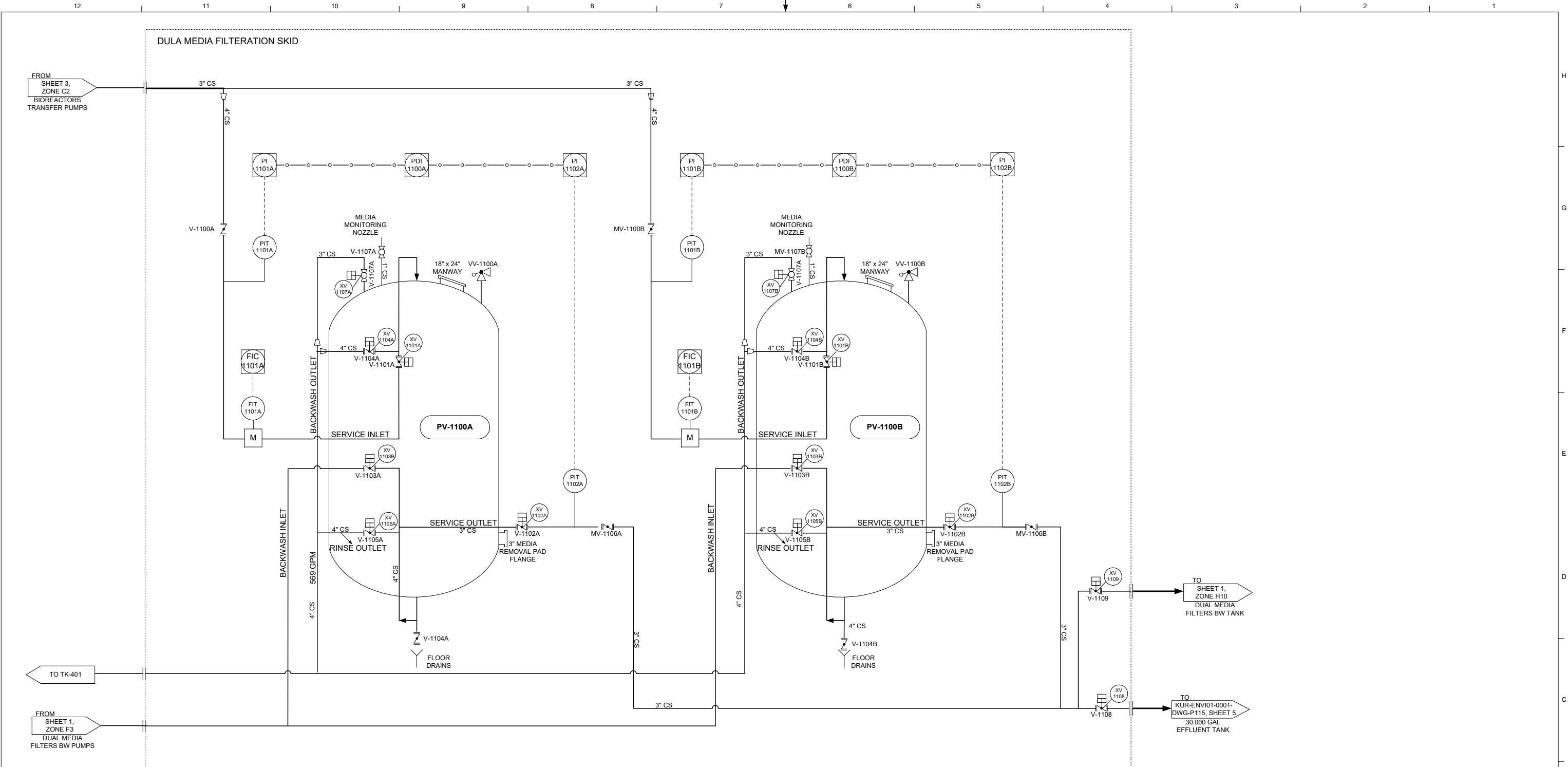
ITEM NUMBER		TK - 001	P - 004	X - 001	TK-002	P - 006	B-002
SERVICE		SLUDGE HOLDING TANK	CENTRIFUGE FEED PUMP	CENTRIFUGE	CENTRATE AND DECANT TANK	CENTRATE RECYCLE PUMP	SLUDGE AREATION BLOWER
PRESSURE (PSIG)	DESIGN	ATM	45	ATM	ATM	30	8
	WORKING	ATM	30	ATM	ATM	5	6
TEMPERATURE (°F)	DESIGN	104	104	104	104	104	104
	WORKING	AMBIENT	AMBIENT	AMBIENT	AMBIENT	AMBIENT	AMBIENT
FLOW RATE (GPM / CFM)	DESIGN		5	1.0		10	42
	WORKING		3	0.07		7	100
MATERIAL		COATED CARBON STEEL	COATED CARBON STEEL	CARBON STEEL/ALUMINIUM	STAINLESS STEEL	COATED CARBON STEEL	COATED CARBON STEEL
VOLUME (GALLON)		2500	N/A	.06	55	N/A	N/A
RATED POWER (HP)		N/A	3	15	N/A	3	10
DESCRIPTION/TYPE		SLUDGE HOLDING TANK	PROGRESSIVE CAVITY	VERTICAL CENTRIFUGE	CENTRATE AND DECANT TANK	HORIZONTAL CENTRIFUGAL	ROTARY VANE BLOWER
PRESSURE (PSIG )	DESIGN	N/A					
	WORKING	N/A					

C	8/14/15	FOR REVIEW	VG	TB	SP
B	8/14/15	FOR REVIEW	VG	TB	SP
A	7/17/15	FOR REVIEW	VG		
REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY	CERTIFIED BY

AVANTECH JOB NO.		15-04
FILE ID:		1H200-1504-D
DIMENSIONS IN INCHES UNLESS SPECIFIED		

NITRATE TREATMENT TRAIN-2 PIPING & INSTRUMENTATION DIAGRAM	
SIZE	AVANTECH DRAWING NUMBER
D	KUR-ENV/01-001-DWG-P921
SCALE:	WT:
SHEET	5 OF 6





ITEM NUMBER		PV – 1100 A/B
SERVICE		DULA MEDIA VESSELS
PRESSURE (PSIG)	DESIGN	100
	WORKING	40
TEMPERATURE (°F)	DESIGN	100
	WORKING	AMBIENT
FLOW RATE GPM	DESIGN	125
	WORKING	125
MATERIAL		CARBON STEEL
DIAMTER (FT)		7
RATED POWER (HP)		N/A
DESCRIPTION/TYPE		PRESSURE VESSEL
SUCTION PRESSURE (PSIG)	DESIGN	N/A
	WORKING	N/A

C	8/14/15	FOR REVIEW	VG	TB	SP
B	8/14/15	FOR REVIEW	VG	TB	SP
A	7/17/15	FOR REVIEW	VG		
REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY	CERTIFIED BY

[REDACTED]		NITRATE TREATMENT TRAIN-2 PIPING & INSTRUMENTATION DIAGRAM	
AVANTECH JOB NO. 15-04		SIZE D	REV. C
FILE ID. 1H200-1504-D		AVANTECH DRAWING NUMBER KUR-ENV101-001-DWG-P921	
DIMENSIONS IN INCHES UNLESS SPECIFIED		SCALE: [REDACTED]	SHEET 6 OF 6

