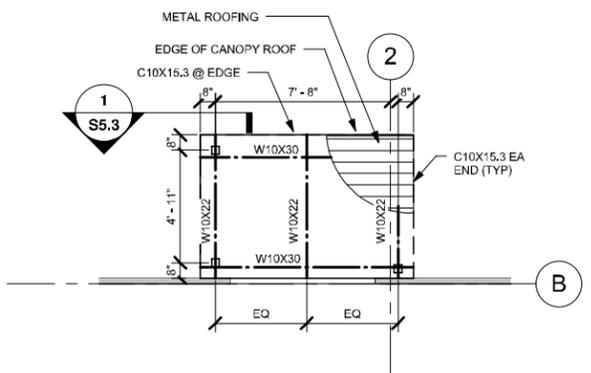
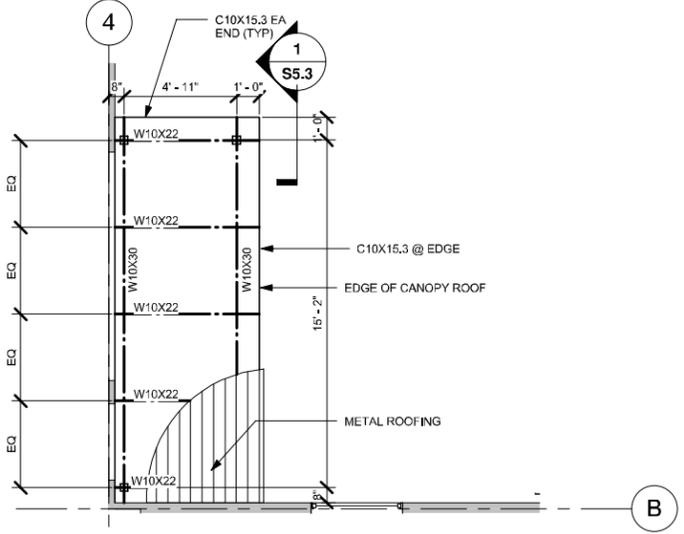


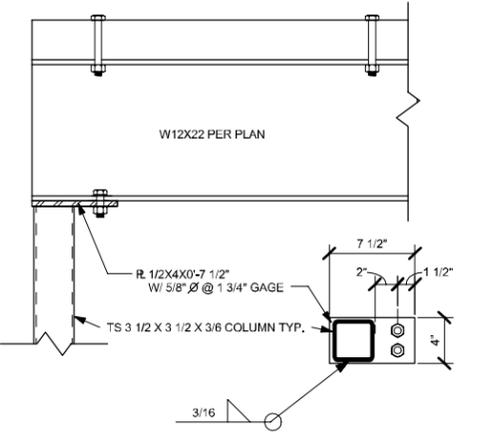
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 BY: Thomas Regan, P.E. *Thomas Regan* DATE: Sept 1, 2016



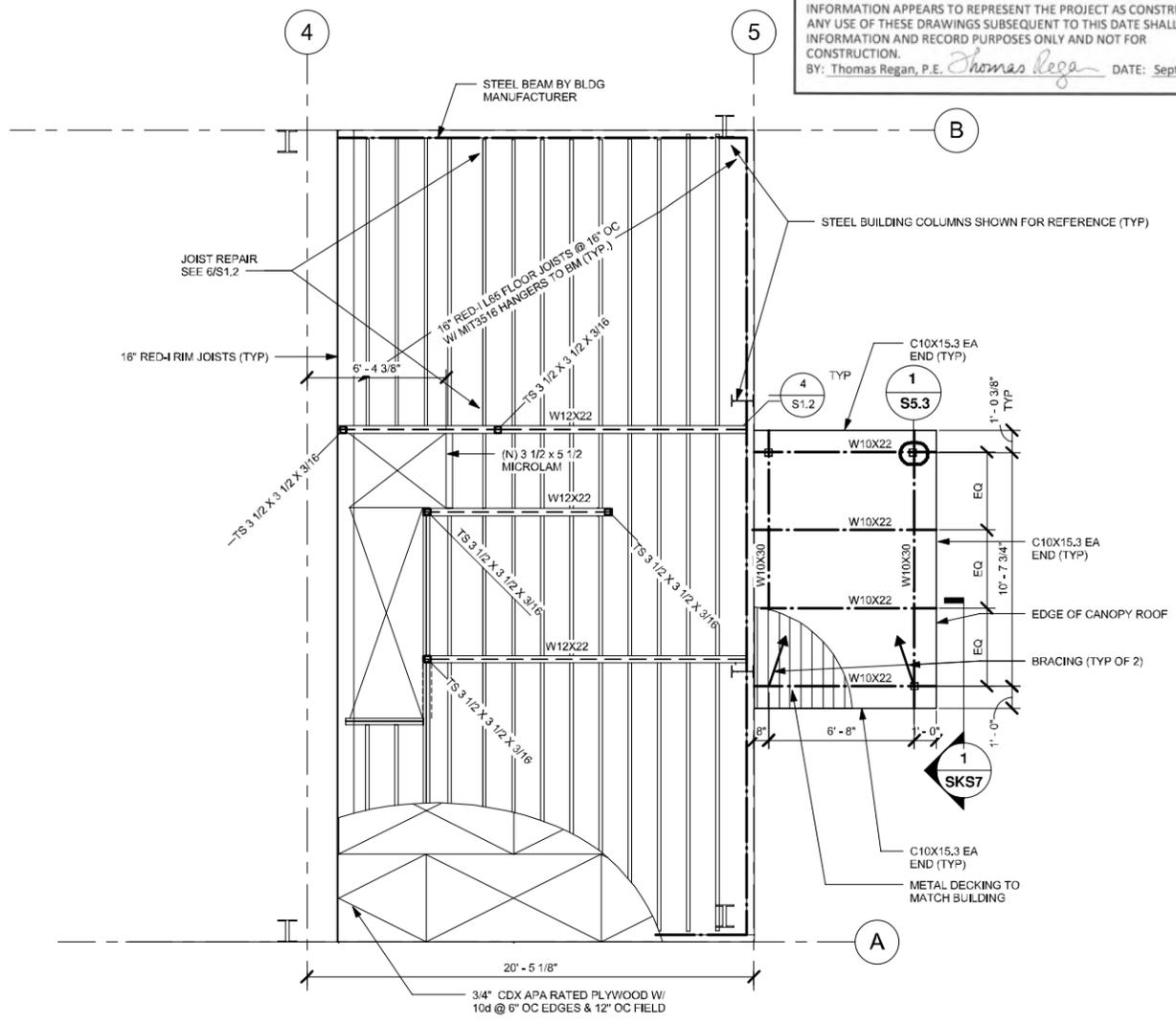
2 PROCESS BAY CANOPY FRAMING PLAN
 S1.2 1/4" = 1'-0"



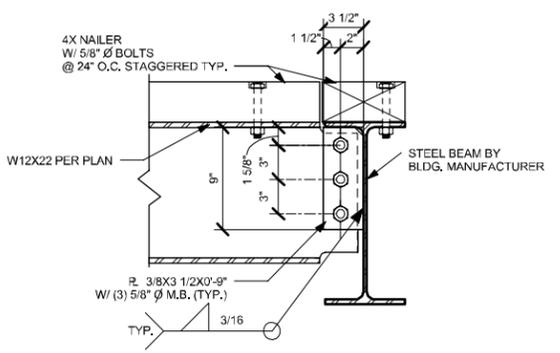
3 CHLORINE CANOPY FRAMING PLAN
 S1.2 1/4" = 1'-0"



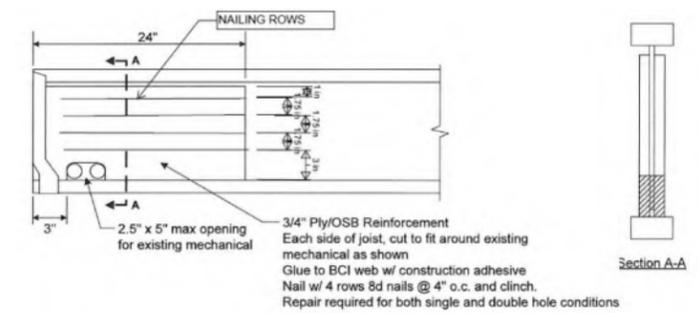
5 COLUMN TO BEAM CONNECTION
 S1.2 1 1/2" = 1'-0"



1 MEZZANINE FLOOR & ENTRY CANOPY FRAMING PLAN
 S1.2 1/4" = 1'-0"



4 CONNECTOR PLATE DETAIL
 S1.2 1 1/2" = 1'-0"



6 JOIST HOLE REINFORCEMENT DETAIL
 S1.2 1/2" = 1'-0"

Plotted by: 10/4/2016 11:25:18 AM
 Date/Time: 10/4/2016 11:25:18 AM
 Layout: S1.2
 Filename: P:\800-850-850 Unalaska\850-05 Unalaska\WTP Construction Support\Architecture\850-01 Unalaska WTP.rvt

NO	DATE	BY	REVISION
3	9/22/16	IRW	RECORD DRAWINGS
2	04/07/14	IRW	CONCRETE DOCUMENTS
1	12/02/13	IRW	ISSUED FOR BID

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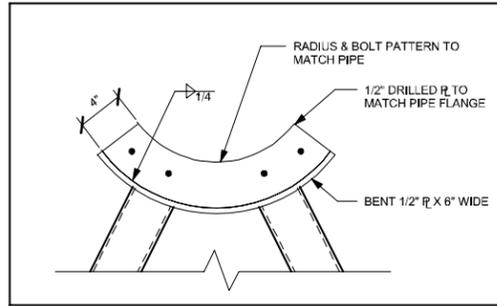
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PYRAMID WTP
UNALASKA, ALASKA
MEZZANINE FLOOR FRAMING PLAN
CANOPY ROOF FRAMING PLANS

SCALE: As indicated

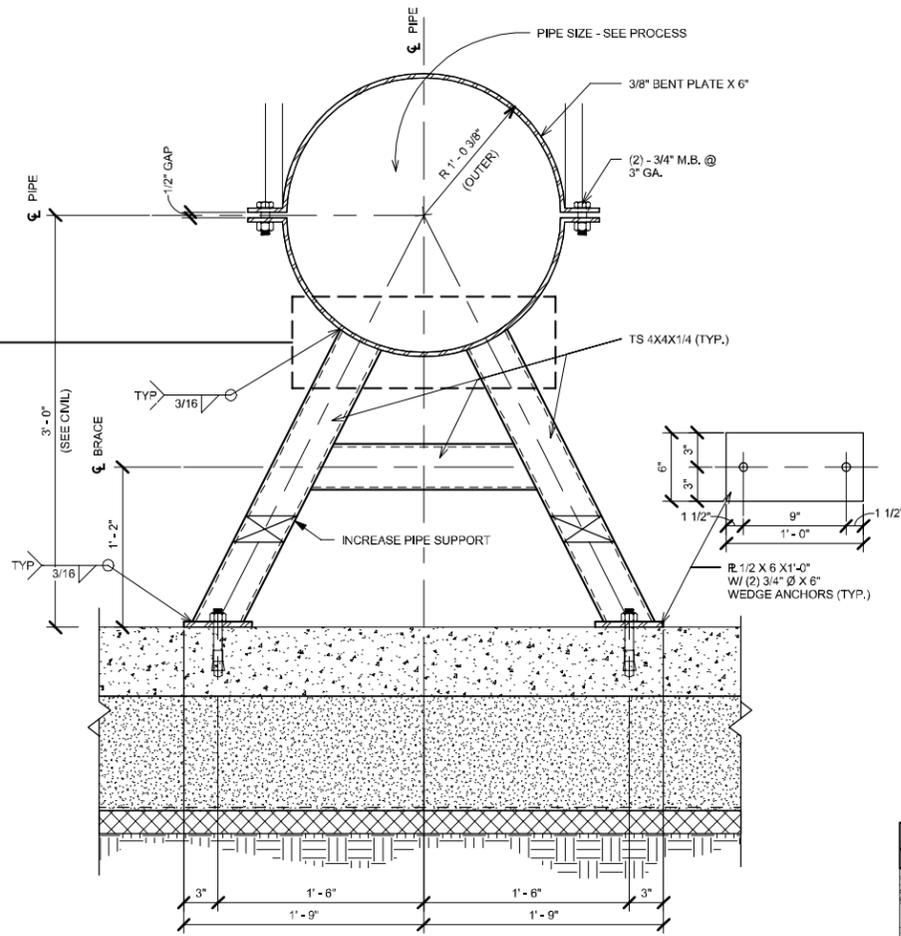
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DATE:	12/2/13
FILE NO.	850.05
SHEET NUMBER	S1.2 OF 6



CONDITION @ PIPE FLANGE SUPPORT

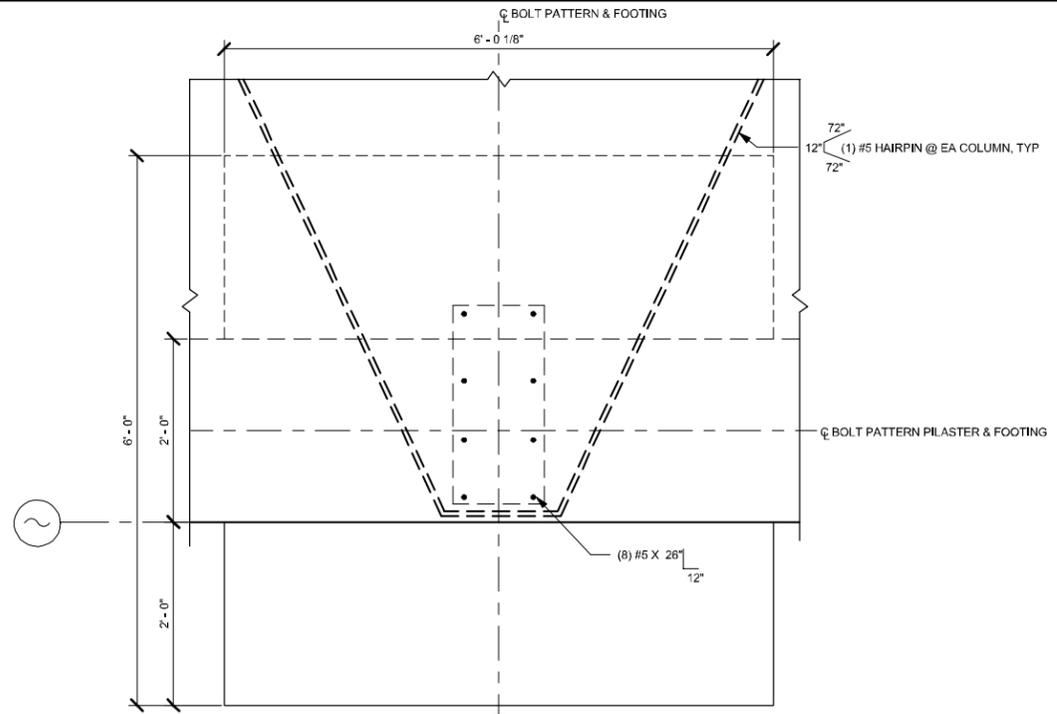
NOTE: SEE SKC4

NOTE: PIPE SUPPORTS IN THE PROCESS BAY TO BE STAINLESS STEEL



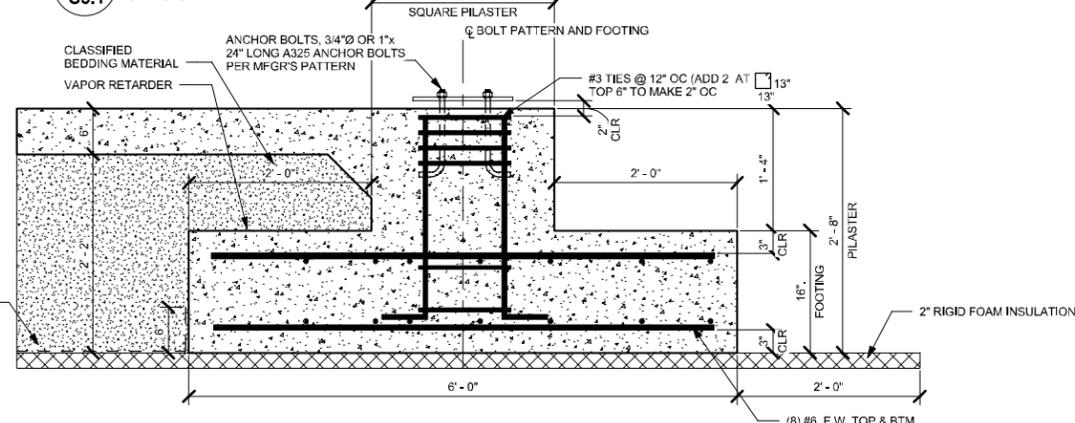
5 PIPE SUPPORT

S5.1 1 1/2" = 1'-0"



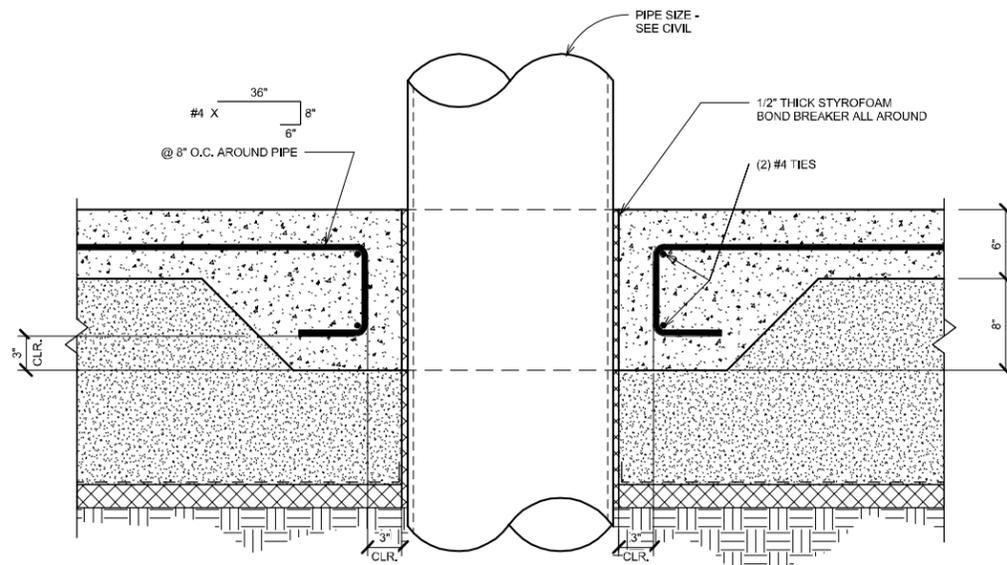
1 TYP PILASTER

S5.1 1" = 1'-0"



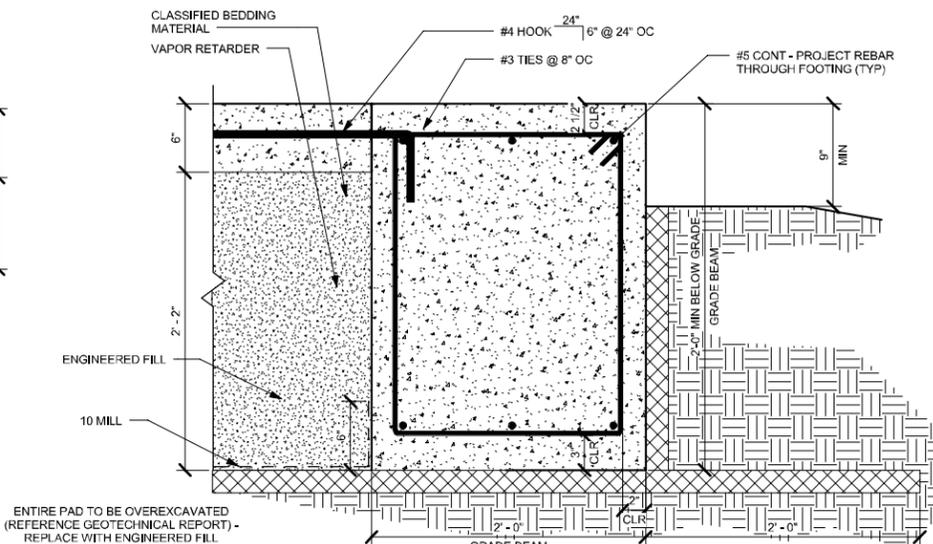
2 PILASTER SECTION

S5.1 1" = 1'-0"



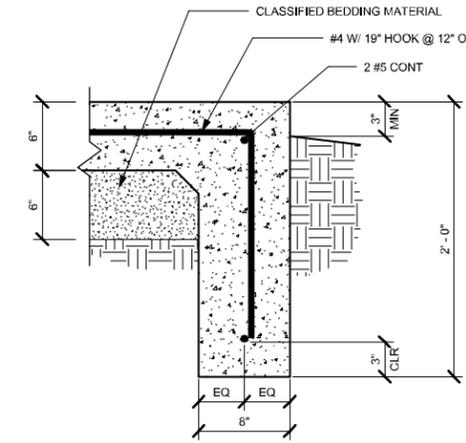
6 SLAB PIPE PENETRATIONS

S5.1 1 1/2" = 1'-0"



3 TYP GRADE BEAM

S5.1 1 1/2" = 1'-0"



4 TYP STOOP EDGE

S5.1 1 1/2" = 1'-0"

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BY: Thomas Regan, P.E. *Thomas Regan* DATE: Sept 1, 2016

Plotted By: 10/4/2016 11:25:21 AM
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Filename: P:\800-850\850 Unalaska\850.05 Pyramid WTP Construction Support\Architectural\850.01 Unalaska WTP.rvt

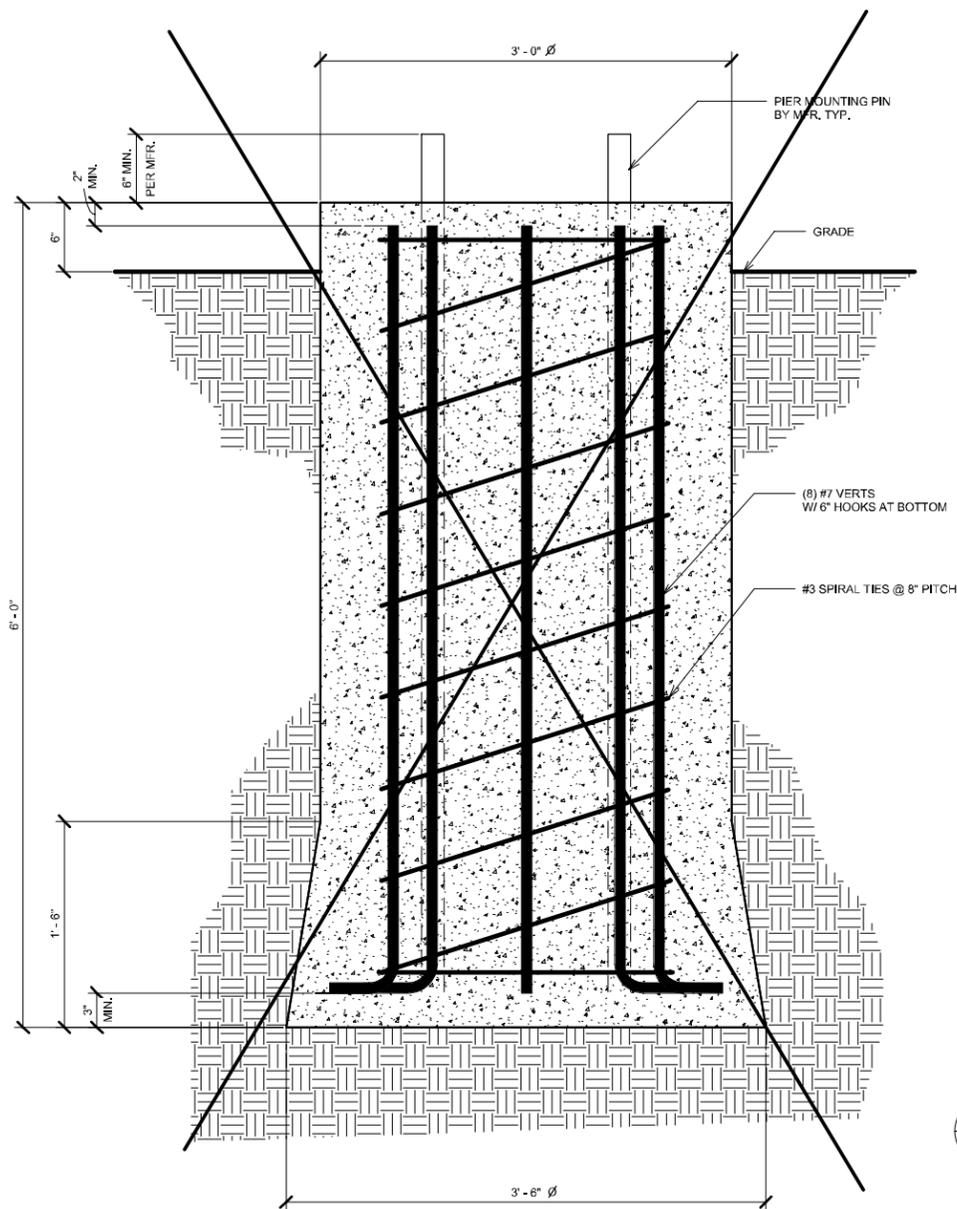
NO	DATE	BY	REVISION
3	9/22/16	RW	RECORD DRAWINGS
2	04/07/14	RW	CONTRACT DOCUMENTS
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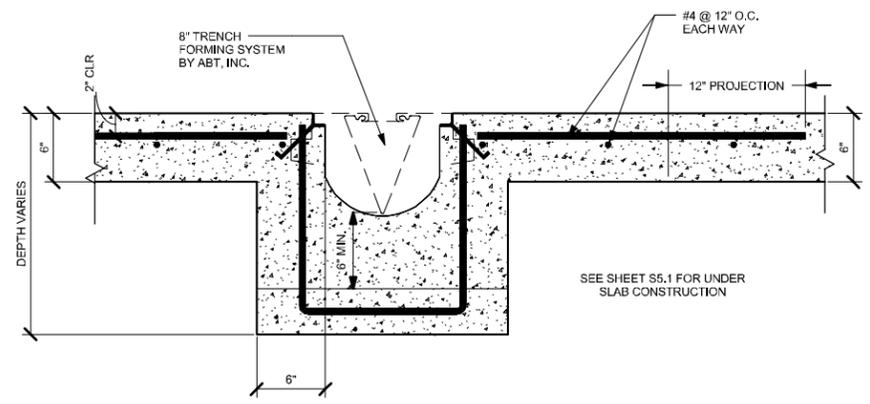
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PYRAMID WTP
UNALASKA, ALASKA
STRUCTURAL DETAILS

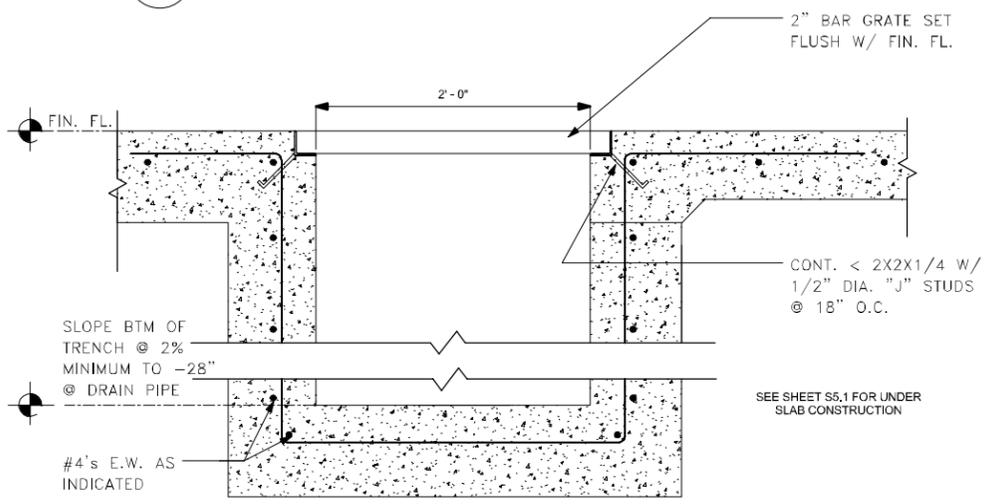
SCALE: As indicated
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DATE: 12/2/13
FILE NO.: 850.05
SHEET NUMBER:
S5.1 OF **6**



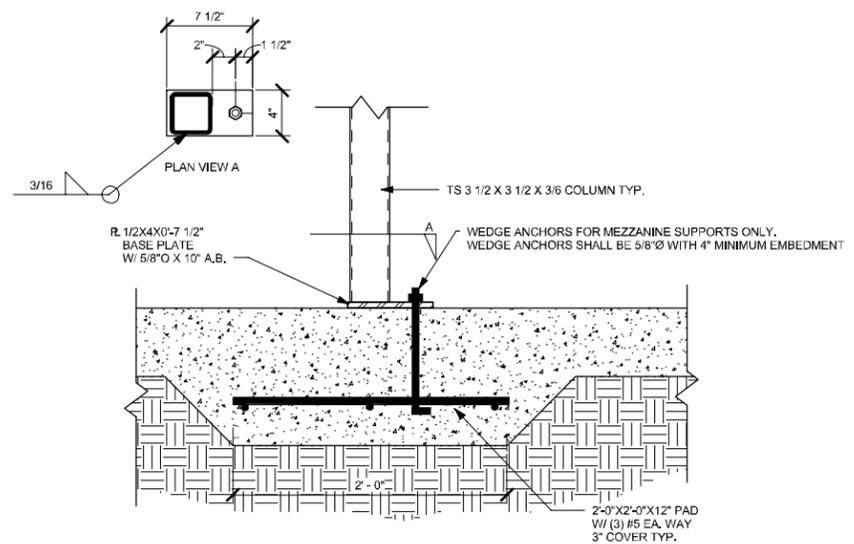
4 ANTENNA BASE FOOTING
S5.2 1 1/2" = 1'-0"



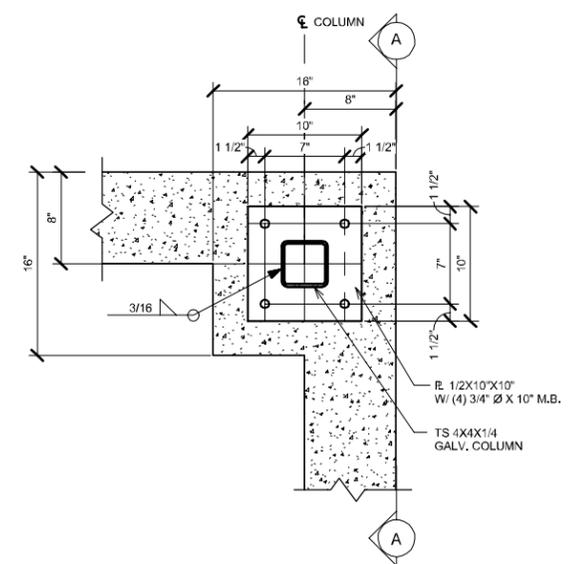
2 SLAB AND TRENCH DETAIL
S5.2 1 1/2" = 1'-0"



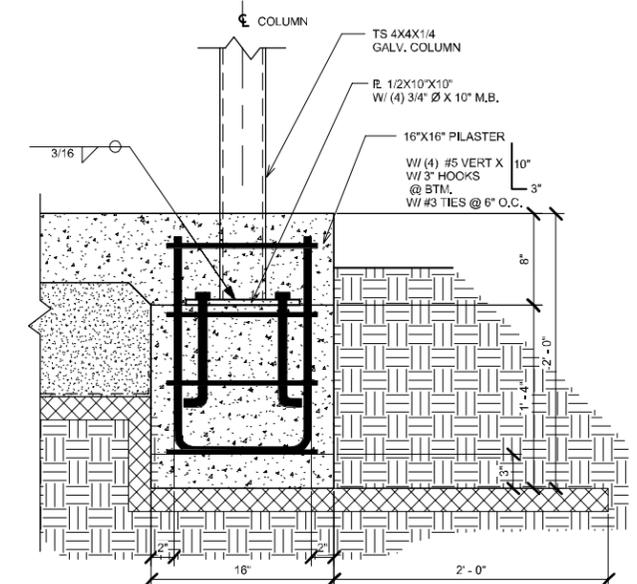
3 DE-CHLORINATION SUMP DETAIL
S5.2 1 1/2" = 1'-0"



5 BASE PLATE TO PAD DETAIL
S5.2 1 1/2" = 1'-0"



PILASTER AND PLATE / COLUMN PLAN VIEW



NOTE: FOR FOOTINGS B-2 & B-4 DRILL 6" INTO TOP OF FOOTING AND ROUT OR EPOXY THE REBAR INTO THE FOOTING

PILASTER AND PLATE / COLUMN SECTION VIEW

1 PILASTER DETAIL
S5.2 1 1/2" = 1'-0"

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BY: Thomas Regan, P.E. *Thomas Regan* DATE: Sept 1, 2016

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Date/Time: 10/4/2016 11:25:24 AM
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**PYRAMID WTP
UNALASKA, ALASKA**

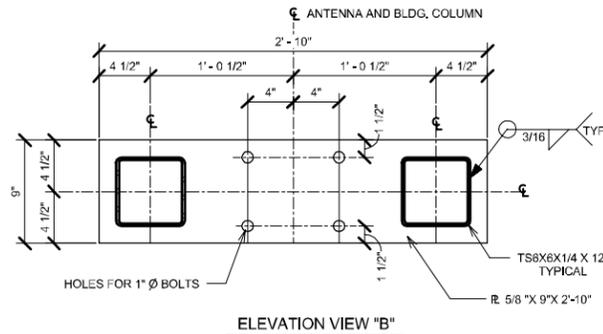
STRUCTURAL DETAILS II

SCALE: 1 1/2" = 1'-0"

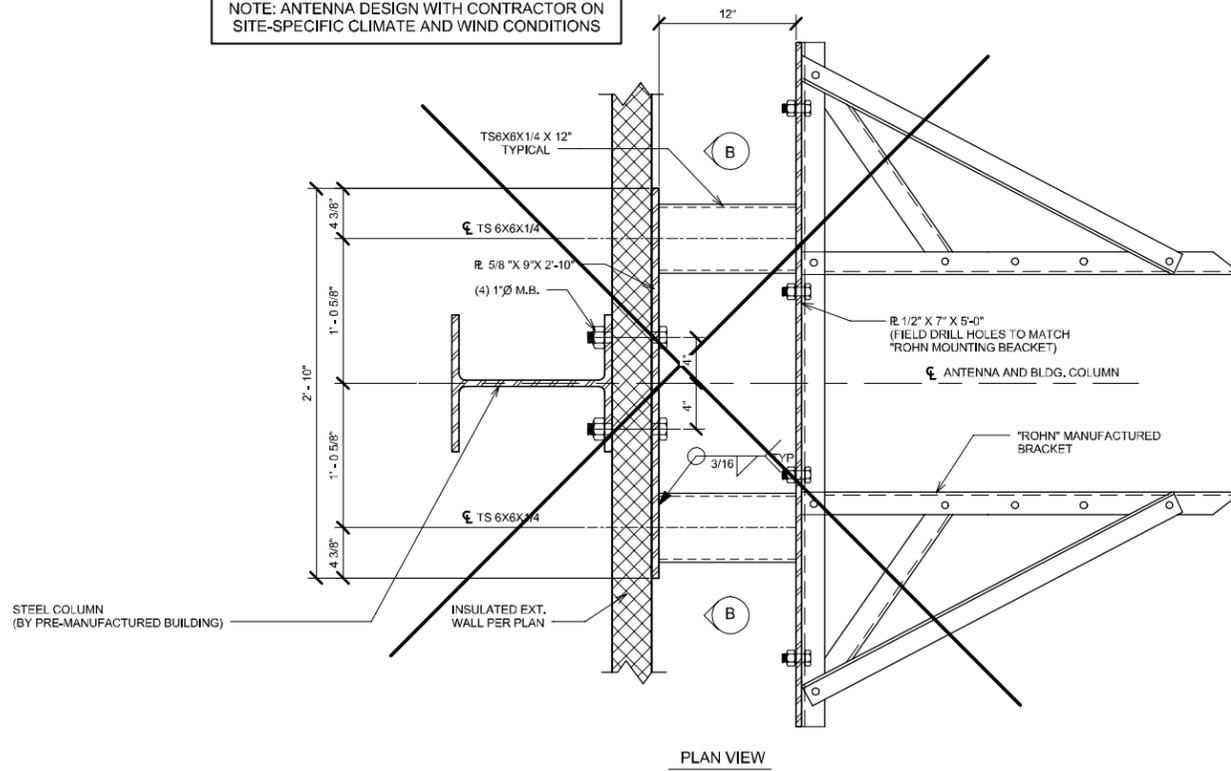
DESIGNED BY:	DOG
DRAWN BY:	JR
CHECKED BY:	DOG
DATE:	12/2/13
FILE NO.:	850.05
SHEET NUMBER:	S5.2 OF 6

NOTE: ALL EXTERIOR STEEL TO BE HOT-DIP GALVANIZED

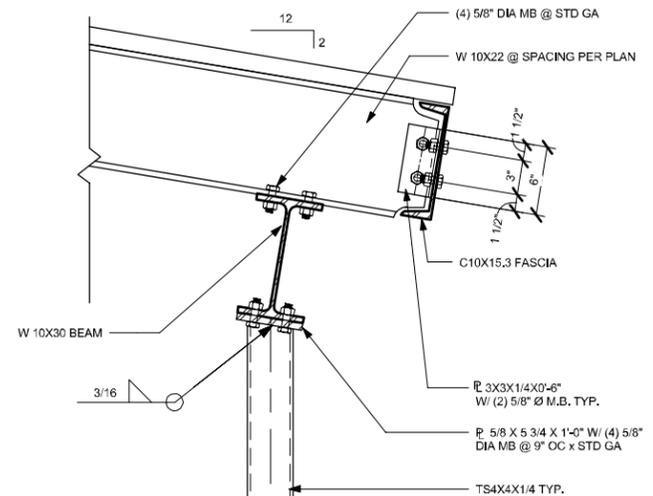
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 BY: Thomas Regan, P.E. *Thomas Regan* DATE: Sept 1, 2016



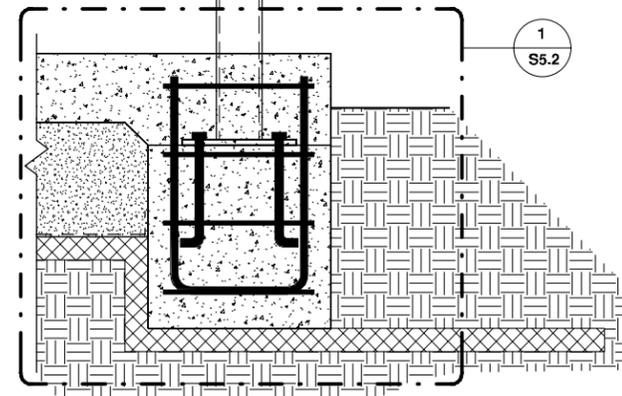
NOTE: ANTENNA DESIGN WITH CONTRACTOR ON SITE-SPECIFIC CLIMATE AND WIND CONDITIONS



2 ANTENNA BRACKET DETAIL
 S5.3 1 1/2" = 1'-0"



1 TYPICAL CANOPY COLUMN
 S5.3 1 1/2" = 1'-0"



NO	DATE	BY	REVISION
3	9/02/16	RW	RECORD DRAWINGS
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**PYRAMID WTP
 UNALASKA, ALASKA
 STRUCTURAL DETAILS III**

SCALE: 1 1/2" = 1'-0"

DESIGNED BY: DOG

DRAWN BY: JR

CHECKED BY: DOG

DATE: 12/2/13

FILE NO. 850.05

SHEET NUMBER
S5.3 OF 6

ABBREVIATIONS

A	COMPRESSED AIR	HOA	HAND-OFF-AUTO
AAV	AUTOMATIC AIR VENT	HW	HOT WATER
ABV	ABOVE	HWC	HOT WATER CIRCULATED
ACC-X	AIR COOLED CHILLER DESIGNATOR	HP	HORSEPOWER
ADA	AMERICAN WITH DISABILITIES ACT GUIDELINES	ID	INSIDE DAMPER
AD	ACCESS DOOR	IN	INCHES
AF	AIR FOIL	IBC	INTERNATIONAL BUILDING CODE
AFF	ABOVE FINISHED FLOOR	IFC	INTERNATIONAL FIRE CODE
AFG	ABOVE FINISHED GRADE	IFGC	INTERNATIONAL FUEL GAS CODE
AHAP	AS HIGH AS POSSIBLE	IW	IRRIGATION WATER
AHU-X	AIR HANDLING UNIT DESIGNATOR	LAT	LEAVING AIR TEMPERATURE
AL	ALUMINUM	LAV	LAVATORY
AMPS	AMPERES	LDC	LEAK DETECTION CABLE
APD	AIR PRESSURE DROP	LF	LINEAL FEET
ARCH	ARCHITECTURAL	LWT	LEAVING WATER TEMPERATURE
BB-X	BASEBOARD RADIATION DESIGNATOR	MA	MEDICAL AIR
BDD	BACKDRAFT DAMPER	MAX	MAXIMUM
BDS-X	BLOWDOWN SEPARATOR DESIGNATOR	MBH	THOUSAND BTUH
BLDG	BUILDING	MFG	MANUFACTURER
BOD	BOTTOM OF DUCT	M/A	MAKEUP AIR
BTUH	BRITISH THERMAL UNIT/HOUR	MIN	MINIMUM
C	CONDENSATE	MOD	MOTOR OPERATED DAMPER
CAP	CAPACITY	MTD	MOUNTED
CF-X	CARBON FILTER DESIGNATOR	NC	NOISE CRITERIA
CFM	CUBIC FEET PER MINUTE	N.C.	NORMALLY CLOSED
CGR	COOLING GLYCOL RETURN	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
CGS	COOLING GLYCOL SUPPLY	NO.	NUMBER
CIRC	CIRCULATING	N.O.	NORMALLY OPEN
CLG	CEILING	NT-X	NEUTRALIZING TANK DESIGNATOR
CONT	CONTINUED	NTS	NOT TO SCALE
C.O./CO	CLEANOUT	OC	ON CENTER
CONN	CONNECTION	O/A	OUTSIDE AIR
CP-X	CIRCULATION PUMP DESIGNATOR	OD	OUTSIDE DAMPER
CUH-X	CABINET UNIT HEATER DESIGNATOR	OD-X	OVERFLOW DRAIN DESIGNATOR
CU	COPPER	OSV	OIL SAFETY VALVE
CW	COLD WATER	P-X	PLUMBING FIXTURE DESIGNATOR
DCO	DOUBLE WYE CLEANOUT	PD	PRESSURE DROP
DIA	DIAMETER	PF-X	PRE-FILTER DESIGNATOR
dB	DECIBELS	PG	PROPYLENE GLYCOL
DEG	DEGREE	PH	PHASE
DIM	DIMENSION	PSI	POUND PER SQUARE INCH
DN	DOWN	PSIG	POUNDS PER SQUARE INCH GAUGE
DPSIG	DIFFERENTIAL POUNDS PER SQUARE INCH, GAUGE	R/A	RETURN AIR
DT-X	DAY TANK DESIGNATOR	RP-X	RADIANT CEILING PANEL DESIGNATOR
DWG	DRAWING	RPM	REVOLUTIONS PER MINUTE
E/A	EXHAUST AIR	RD-X	ROOF DRAIN DESIGNATOR
EAT	ENTERING AIR TEMPERATURE	RL	RAIN LEADER
EFF	EFFICIENCY	S/A	SUPPLY AIR
EF-X	EXHAUST FAN DESIGNATOR	SCFM	STANDARD CUBIC FEET PER MINUTE
ET-X	EXPANSION TANK DESIGNATOR	SD	SMOKE DAMPER
EX-X	EXHAUST HOOD DESIGNATOR	SGS	SNOWMELT GLYCOL SUPPLY
EXH	EXHAUST	SGR	SNOWMELT GLYCOL RETURN
EWT	ENTERING WATER TEMPERATURE	SM-X	SNOWMELT MANIFOLD DESIGNATOR
ESP	EXTERNAL STATIC PRESSURE	SMP-X	SNOWMELT PUMP DESIGNATOR
EGT	ENTERING GLYCOL TEMPERATURE	SP	STATIC PRESSURE
ENT	ENTERING	SPD	SUMP PUMP DISCHARGE
EXIST	EXISTING	SQ	SQUARE
FT	FEET	ST-X	SOUND TRAP DESIGNATOR
FT-X	FINNED TUBE RADIATION DESIGNATOR	TEMP	TEMPERATURE
FPM	FEET PER MINUTE	TOD	TOP OF DUCT
FPF	FINS PER FOOT	TSP	TOTAL STATIC PRESSURE
FC	FORWARD CURVE	T'STAT	THERMOSTAT
FF-X	FINAL FILTER DESIGNATOR	TTL	TOTAL
F	FAHRENHEIT	TV-X	TEMPERING VALVE DESIGNATOR
FCO	FLOOR CLEAN OUT	TW	TEMPERED WATER
FD	FIRE DAMPER	TWC	TEMPERED WATER CIRCULATED
FD-X	FLOOR DRAIN DESIGNATOR	TYP	TYPICAL
FIN	FINISHED	UH-X	UNIT HEATER DESIGNATOR
FLR	FLOOR	UPC	UNIFORM PLUMBING CODE
FM	FORCED MAIN	V	VENT
FOS	FUEL OIL SUPPLY	VAC	VOLT-AC
FOR	FUEL OIL RETURN	VDC	VOLT-DC
FS	FIRE SPRINKLER	VEL	VELOCITY
FS-X	FLOOR SINK DESIGNATOR	VF-X	VENTILATION FAN DESIGNATOR
FSD	FIRE SMOKE DAMPER	VTR	VENT THRU ROOF
FST-X	FUEL STORAGE TANK DESIGNATOR	W/	WITH
FTU	FAN TERMINAL UNIT	W/O	WITHOUT
GA	GAUGE	W	WASTE
GALV	GALVANIZED	WC	WATER COLUMN
GPH	GALLONS PER HOUR	WCO	WALL CLEAN OUT
GAL	GALLONS	WF	WATER FEATURE WATER
GPM	GALLONS PER MINUTE	WG	WATER GAUGE
HB-X	HOSE BIBB DESIGNATOR	WHA	WATER HAMMER ARRESTOR
HC-X	HEATING COIL DESIGNATOR	WPD	WATER PRESSURE DROP
HD	HEAD		

PIPING (SINGLE LINE)

	WASTE
	SEE ABBREVIATIONS
	VENT PIPING
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	HOT WATER RECIRCULATING
	PIPE UP
	PIPE DOWN
	TEE UP
	TEE DOWN
	CAP
	UNION
	DIRECTION OF FLOW
	BALL VALVE
	BUTTERFLY VALVE
	OS&Y GATE VALVE
	2-WAY CONTROL VALVE
	CHECK VALVE
	BALANCE/SHUT-OFF VALVE
	PRESSURE REDUCING VALVE
	PRESSURE/TEMPERATURE RELIEF VALVE
	HOSE BIBB

HVAC LEGEND

	THERMOSTAT
	CLOSE-ON-RISE THERMOSTAT
	SENSOR
	THERMOSTAT OR DDC SENSOR WITH CLEAR PLASTIC LOCKING GUARD.
	EMERGENCY SHUT-OFF SWITCH
	VARIABLE SPEED CONTROLLER
	PILOT LIGHT SWITCH
	SUPPLY AIR UP & DOWN
	RETURN AIR UP & DOWN
	EXHAUST AIR UP & DOWN
	ROUND DUCT UP & DOWN

	WATER HAMMER ARRESTOR
	PUMP
	VALVED AND CAPPED HOSE THREAD
	WALL CLEANOUT
	FILTER
	METER
	THERMOMETER
	PRESSURE GAUGE WITH ISOLATION COCK
	AUTOMATIC AIR VENT WITH ISOLATION VALVE
	STRAINER W/ BLOWDOWN
	FLOOR CLEANOUT
	FLOOR DRAIN
	FLOOR SINK

LOGIC

	POINT OF CONNECTION
	DETAIL NUMBER
	SHEET LOCATED ON
	DIRECTION OF VIEW
	SECTION NUMBER
	SHEET LOCATED ON
	SHEET NOTES
	CONNECTION
	NECK SIZE
	CFM
	DIFFUSER OR GRILLE TYPE

NOTE: THE MECHANICAL LEGEND AND ABBREVIATIONS ON THIS DRAWING IS A STANDARDIZED VERSION. ALL SYMBOLS AND ABBREVIATIONS SHOWN MAY NOT BE USED ON DRAWINGS.

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 MECHANICAL AND ELECTRICAL CONSULTING ENGINEERS
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 Wasilla, Alaska 99654 (907) 357-1521

CITY OF UNALASKA

SCALE: AS NOTED

DESIGNED BY: JFH

DRAWN BY: DM

CHECKED BY: JFH

DATE: 12/2/13

FILE NO. L0109.00

SHEET NUMBER

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PROJECT RECORD DRAWINGS
 09-27-2016

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PLUMBING FIXTURE SCHEDULE

SYMBOL	FIXTURE	MOUNTING	CW	HW	WASTE	VENT	TRAP	BASIS OF DESIGN	MODEL	COLOR/FINISH	TRIM/REMARKS
P-1	WATER CLOSET	FLOOR	1/2	—	4	2	—	KOHLER	K-3427-HIGHLINE	WHITE	OPEN FRONT SEAT LESS COVER, FLUSH TANK 1.6 GPF TOILET, ELONGATED BOWL.
P-2	LAVATORY	WALL	1/2	1/2	1-1/2	1-1/4	1-1/4	KOHLER	K-2005 KINGSTON	WHITE	SINGLE HANDLE FAUCET WITH METAL GRID STRAINER.
P-3	AQUA GLASS	FLOOR	1/2	1/2	2	1-1/2	2	AQUAGLASS	613636	—	DELTA FAUCET T13H162, PRESSURE BALANCED, ADJUSTABLE STOPS, VANDAL RESISTANT WALL MOUNT SHOWER HEAD, 1" S.S. CURTAIN ROD W/ COMMERCIAL GRADE VINYL, SHOWER CURTAIN.
P-4	LAB SINK	COUNTER	1/2	1/2	2	1-1/2	2	FIAT	DL-1	WHITE	FIAT A-1 DECK FAUCET, PROVIDE WATTS SERIES 8 HOSE CONNECTION VACUUM BREAKER.
P-5	EYE WASH	WALL	1/2	1/2	2	1-1/2	1-1/2	HAWS	7360BT-7460BT	STAINLESS	EYE/FACE WASH; SINGLE ACTION SWING DOWN, PROVIDE WITH TEMPERED WATER BLENDING VALVE (HAWS #9201EF)
P-6	SINK - DOUBLE	WALL	1/2	1/2	2	1-1/2	1-1/2	FIAT	LTD II	WHITE	FIAT A-1 DECK FAUCET.
FD-1	FLOOR DRAIN	FLOOR	—	—	2	1-1/2	—	ZURN	Z415B-P	—	ROUND TOP, 1/2" TRAP PRIMER CONNECTION.
FD-2	FLOOR DRAIN	FLOOR	—	—	4	2	—	ZURN	Z415-P-4	—	ROUND TOP, 1/2" TRAP PRIMER CONNECTION.
FD-3	HUB DRAIN	FLOOR	—	—	4	2	—	ZURN	Z211-S	—	NO-HUB OUTLET, 1/2" TRAP PRIMER CONNECTION.
HB-1	HOSE BIBB-EXTERIOR	WALL	3/4	—	—	—	—	WOODFORD	65	—	SELF DRAINING, FROST PROOF, VACUUM BREAKER, PROVIDE ISOLATION VALVE.
HB-2	HOSE BIBB-INTERIOR	WALL	3/4	—	—	—	—	WOODFORD	24	—	PROVIDE ISOLATION VALVE, WHEEL HANDLE.
TD-1	TRENCH DRAIN	FLOOR	—	—	4	—	—	ZURN	Z882-HDS-RFS-DB	—	PROVIDE WITH STAINLESS STEEL SLOTTED GRATE, BOTTOM DOME STRAINER, AND 4" BOTTOM OUTLET.

BOILER SCHEDULE

SYMBOL	MFGR/MODEL	HEATED MEDIUM	FUEL	INPUT GPH	GROSS OUTPUT	AFUE	REMARKS
B-1,2	WEIL-MCLAIN/WG0-5	50% PG	FUEL OIL #2	1.45	175 MBH	85%	BECKETT BURNER, 6" DIA. FLUE. INSTALL PER MANUFACTURER'S INSTRUCTIONS.

PUMP SCHEDULE

SYMBOL	MFGR/MODEL	FUNCTION	MEDIUM	GPM	FT.	HP	POWER	REMARKS
CP-1,2	GRUNDFOS/UPS 32-80/2	BOILER CIRC.	50% PG	21	12	1/2	120/60/1	FINAL SPEED SET BY BALANCING CONTRACTOR.
CP-3,4	GRUNDFOS/UPS 32-160/2	BUILDING CIRC.	50% PG	40	30	3/4	120/60/1	FINAL SPEED SET BY BALANCING CONTRACTOR.
CP-5	GRUNDFOS/UP 26-96F	HWG-1 CIRC.	50% PG	13	10	1/12	120/60/1	
CP-6	GRUNDFOS/UPS 15-35-SFC	HOT WATER CIRC.	WATER	2	10	1/12	120/60/1	STAINLESS STEEL CONSTRUCTION SUITABLE FOR OPEN SYSTEMS, INTEGRAL CHECK VALVE, FLANGED CONNECTIONS.
SMP-1	GRUNDFOS/UP 15-42F	SNOWMELT #1	50% PG	1.5	12	1/25	120/60/1	
SMP-2	GRUNDFOS/UP 15-42F	SNOWMELT #2	50% PG	2	12	1/25	120/60/1	

DOMESTIC WATER BOOSTER PUMP SCHEDULE

SYMBOL	MFGR/MODEL	FLUID	FLOW	HEAD	HP	POWER	REMARKS
WBP-1	GRUNDFOS/MQ3-45	WATER	10.0 GPM	103 FEET		120/60/1	PACKAGED BOOSTER SYSTEM COMPLETE WITH CONTROLS, DRY-RUN PROTECTION, ANTI-CYCLING PROTECTION.

AIR / DIRT SEPARATOR SCHEDULE

SYMBOL	MFGR/MODEL	SIZE	CONNECTION	MATERIAL	FLUID	REMARKS
AS-1	SPIROTHERM/VDN-200	2"	FLANGED	STEEL	50% PG	COMBINATION AIR AND DIRT SEPARATOR, REMOVEABLE HEAD, 1 FT PRESSURE DROP, INTEGRATED HIGH CAPACITY AIR VENT.

TANK SCHEDULE

SYMBOL	MFGR/MODEL	FUNCTION	MEDIUM	MATERIAL	TANK VOL. (GAL)	DIMENSIONS	REMARKS
DT-1	SIMPLEX RELIANT/SRS-50	DAY TANK	#1 OR #2 FUEL OIL	STEEL	50	26"W x 29"H	15A/120/1 POWER, SOLENOID VALVE, RUPTURE BASIN, COMPOUND GAUGE, BASIN DRAIN VALVE, PUMP CONTROLLER, VENT FLOAT SWITCH, CHECK VALVE, HAND PUMP, 1/3 HP SUPPLY AND RETURN PUMPS.
ET-1	AMTROL/AX-40V	HEATING EXPANSION	50% PG	STEEL/BUTYL	21.7	17"DIA x 36"H	MAX ACCEPTANCE 11.3 GALLONS. PRE CHARGE TO 12 PSI.
ET-2	AMTROL/ST-12	WATER EXPANSION	DOM.WATER	STEEL	4.4	11"DIA x 15"H	CHARGE TO WATER PRESSURE, MAX. ACCEPT VOLUME 3.2 GAL.
ET-3	YOUNG ENG./1.OBET-17NR	EXPANSION CONTROL	#2 FUEL OIL	STEEL/BUNA-N	1.0	8-5/8"DIA x 14"H	175 PSI WORKING PRESSURE.
GT-1	AXIOM/MF-300	GLYCOL TANK	50% PG	PLASTIC	17	12"W x 12L x 36"H	0.7A/120/1 ELECTRICAL, PACKAGED GLYCOL CHARGING SYSTEM WITH INTEGRAL CHECK VALVE, PRESSURE SWITCH.

FUEL STORAGE TANK SCHEDULE

SYMBOL	BASIS OF DESIGN	CAPACITY	DIMENSIONS	SHIPPING WEIGHT	LABEL	REMARKS
		NOMINAL	LENGTH	DIAMETER		
FOT-1	ANCHORAGE TANK	5,000	5,261	204"	96"	10,826 LBS UL 142 DOUBLE WALL, SKID MOUNTED, STEEL STORAGE TANK, APPURTENANCES PER SPECIFICATIONS AND AS INDICATED, REFER TO 3/M5.1

HYDRONIC UNIT HEATER SCHEDULE

SYMBOL	MFGR/MODEL	CAPACITY	GPM	MEDIUM	EGT	LGT	WPD	CFM	RPM	HP	POWER	REMARKS
		MBH			DEG F	DEG F	FT HD					
UH-1	MODINE/HC-86	46.9	5.2	50% PG	180	160	1.0	1340	1550	1/8	120/60/1	CEILING MOUNTED.
UH-2	MODINE/HC-18	18.0	1.3	50% PG	180	160	0.5	340	1550	1/60	120/60/1	CEILING MOUNTED.

RADIATION SCHEDULE

SYMBOL	MFGR/MODEL	# ROWS	ELEMENT	FPF	ENCLOSURE	GPM	MEDIUM	EGT	LGT	EAT	BTUH/LF	REMARKS
								DEG F	DEG F	DEG F		
FT-1	STERLING/JVA-S	1	C3/4-35, 3-1/4" SQ.	50	SLOPE TOP "S", 14" HIGH	0.10/FT	50% PG	180	160	65	880	
FT-2	STERLING/JVB-SS	2	C435, 4-1/4"x3-5/8", 2 AT 6" CENTERS	50	DOUBLE SLOPE "SS", 29.5" HIGH	0.17/FT	50% PG	180	160	65	1,530	STAINLESS STEEL ENCLOSURE, ELEMENTS WITH PHENOLIC EPOXY FINISH.

TEMPERING VALVE SCHEDULE

SYMBOL	BASIS OF DESIGN	MODEL	MEDIUM	MIN FLOW @ 20 PSI	MATERIAL	REMARKS
				GPM		
TV-1	LAWLER	801 UNIT 86208	WATER	34	BRONZE	HIGH/LOW THERMOSTATIC MIXING VALVE, UNION END STOP AND CHECK INLETS, DIAL THERMOMETER, SET DISCHARGE TEMPERATURE TO 120 DEG F.

HOT WATER GENERATOR SCHEDULE

SYMBOL	MFGR/MODEL	DOMESTIC HOT WATER				HEATING WATER				LABEL	REMARKS		
		MEDIUM	RECOVERY	CAPACITY	EWT	LWT	MEDIUM	FLOW	PD			EGT	LGT
			GPH	GAL	DEG F	DEG F		GPM	FT HD	DEG F	DEG F		
HWG-1	BRADFORD WHITE/DW-2-40-L	WATER	123	38	40	140	50% PG	8.0	2.4	180	160	IAPMO	DOUBLE WALL COIL.

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CITY OF UNALASKA

PYRAMID WTP
UNALASKA, ALASKA
MECHANICAL SCHEDULES

SCALE:	AS NOTED
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AIR INLET/OUTLET SCHEDULE

SYMBOL	MFGR/MODEL	TYPE	USE	MATERIAL	FINISH	CFM	FACE SIZE (IN)	NC	THROW	REMARKS
(A)	TITUS/300RL	SIDEWALL	S/A	STEEL	WHITE	PER PLANS	—	<30	—	3/4" SPACING, SURFACE MOUNT SIDEWALL GRILLE.
(B)	TITUS/350RL	SIDEWALL	R/A	STEEL	WHITE	PER PLANS	PER PLANS	<30	—	SURFACE MOUNT SIDEWALL GRILLE.
(C)	TITUS/50F	EGGRATE	E/A	ALUMINUM	WHITE	PER PLANS	PER PLANS	<30	—	1/2"x1/2"x1/2" GRILLE, FRAME TYPE AS REQUIRED.

FAN SCHEDULE

SYMBOL	MFGR/MODEL	TYPE	DRIVE	SERVICE	CFM	ESP IN W.C.	FAN RPM	MOTOR DATA		SONES	REMARKS
								HP	POWER		
EF-1	COOK/GN-144	CEILING	DIRECT	TOILET ROOM EXHAUST	75	0.375	846	0.7 A	120/60/1	1.2	PROVIDE BACKDRAFT DAMPER, ALUMINUM WALL CAP, PRE-WIRED FAN SPEED CONTROLLER.
EF-2	COOK/SQND-EC	INLINE	DIRECT	BATTERY RM. COOLING	900	0.5	1,725	1/2	115/60/1	8.5	ECM MOTOR, 0-10 VDC SPEED CONTROL, PHENOLIC EPOXY COATING, MOTORIZED DAMPER D-3.
EF-3	COOK/150SQ17D	INLINE	DIRECT	CHLORINE RM. EXHAUST	2,200	1.0	1,725	1	460/60/3	23.0	PROVIDE VARIABLE FREQUENCY DRIVE AND PHENOLIC EPOXY FINISH.
SF-1	COOK/90SQ15D	INLINE	DIRECT	CHLORINE RM. SUPPLY	600	0.5	1,489	1/6	120/60/1	7.5	PROVIDE PRE-WIRED FAN SPEED CONTROLLER, MOTORIZED DAMPER D-6, AND PHENOLIC EPOXY FINISH.
SF-2	COOK/GN-620	INLINE	DIRECT	BOILER RM. COOLING	400	0.20	940	4.9 A	120/60/1	1.2	PROVIDE PRE-WIRED FAN SPEED CONTROLLER.
CF-1	ZOO/H30	CEILING/MUFFIN	DIRECT	APPARATUS BAY	670	N/A	—	46 W	120/60/1	—	PROVIDE MODEL VS-5A SPEED CONTROLLER, CORD AND PLUG CONNECTION.

HEAT RECOVERY VENTILATOR SCHEDULE

SYMBOL	MFGR/MODEL	AREA SERVED	COIL TAG	CFM	ESP IN W.C.	MOTOR DATA HP/VOLT/PH	REMARKS
HRV-1	ALDES/HRV 700SDD	PROCESS BAY	HC-2	500	0.5	1/10HP/120/1 (EACH MOTOR)	DUAL CORE, 2 MOTORS, DEFROST CYCLE, SUSPEND FROM CEILING.

HEATING COIL SCHEDULE

SYMBOL	MFGR/MODEL	LOCATION	SIZE	CFM	AIR P.D. IN. WC.	FACE VEL. FPM	EAT DEG F	LAT DEG F	CAPACITY MBH	GPM	MEDIUM	EGT DEG F	LGT DEG F	WPD FT HD	REMARKS
HC-1	USA COIL	SF-1	16"x12"	600	0.15	450	45.0	75.0	19.5	2.2	50% PG	180	160	<2.0	PROVIDE COIL WITH PHENOLIC EPOXY COATING.
HC-2	USA COIL	HRV-1	14"x12"	500	0.15	450	0	75.0	40.7	4.5	50% PG	180	160	<2.0	PROVIDE COIL WITH PHENOLIC EPOXY COATING.

DAMPER SCHEDULE

SYMBOL	MFGR/MODEL	SERVICE	MATERIAL	SIZE (IN.)	APD ("W.G.)	REMARKS	NOTES
D-3, 6, 8	RUSKIN/CDT1-50	EXHAUST	ALUMINUM	12"x12"	—	LOW-TEMPERATURE, FOAM INJECTED, THERMALLY ISOLATED DAMPER.	1, 2
D-1, 2, 4, 5, 7	RUSKIN/CDT1-50	INTAKE	ALUMINUM	12"x12"	—	LOW-TEMPERATURE, FOAM INJECTED, THERMALLY ISOLATED DAMPER.	1, 2

NOTES:

- PROVIDE 24 VOLT, SPRING CLOSED ELECTRIC ACTUATOR FOR DAMPER.
- PROVIDE AUXILIARY LIMIT SWITCH TO INDICATE DAMPER POSITION.

AIR CONDITIONING UNIT SCHEDULE - EVAPORATOR

SYMBOL	BASIS OF DESIGN	MODEL	SERVICE	NOMINAL TONS	COOLING NET CAPACITY	REFR. TYPE	FAN CFM HIGH/LOW	ELECTRICAL DATA			SOUND LEVEL (dBA)	REMARKS
								FLA	MCA	POWER		
AC-1	MITSUBISHI	PKAA24FA	COMM 120	2.0	24,000 BTU	R410A	705/530	0.43	1.0	208/60/1	45	INTEGRAL CONDENSATE PUMP, PROVIDE WITH PAR-M21AA WIRED REMOTE CONTROLLER.

AIR CONDITIONING UNIT SCHEDULE - CONDENSING UNIT

SYMBOL	BASIS OF DESIGN	MODEL	LOCATION	ELECTRICAL DATA		REFR. TYPE	SOUND LEVEL (dBA)	REMARKS
				MCA	POWER			
CU-1	MITSUBISHI	PUYA24NHA	ROOF	18	208/60/1	R410A	48	DC INVERTER/TWIN ROTARY COMPRESSOR, WEIGHT 90 LBS

SEQUENCE OF OPERATIONS FOR EF-2 (BATTERY ROOM COOLING):

PROVIDE TEMPERATURE CONTROLLER (HONEYWELL T775M2048 OR EQUIVALENT). UPON CALL FOR COOLING FOR ELECTRICAL ROOM, DAMPER D-3 SHALL OPEN. AFTER D-3 ENDSWITCHES INDICATE OPEN, EF-2 SHALL BE ENABLED. CONTROLLER SHALL PROVIDE 0-10VDC SIGNAL TO EF-2 TO VARY SPEED OF FAN ACCORDING TO CALL FOR COOLING.

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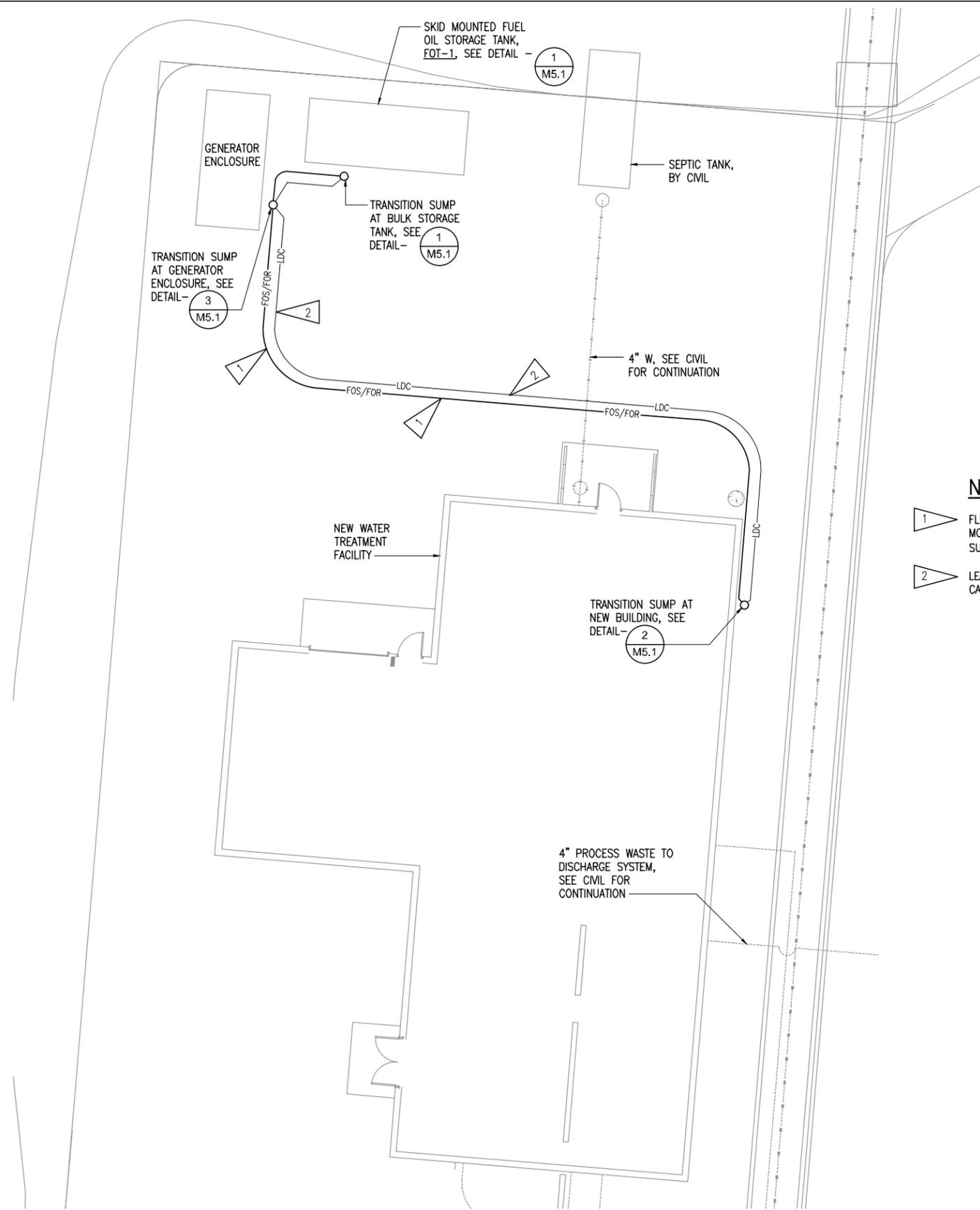
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CITY OF UNALASKA

PYRAMID WTP
 UNALASKA, ALASKA
 MECHANICAL SCHEDULES CONTINUED

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NOTES:

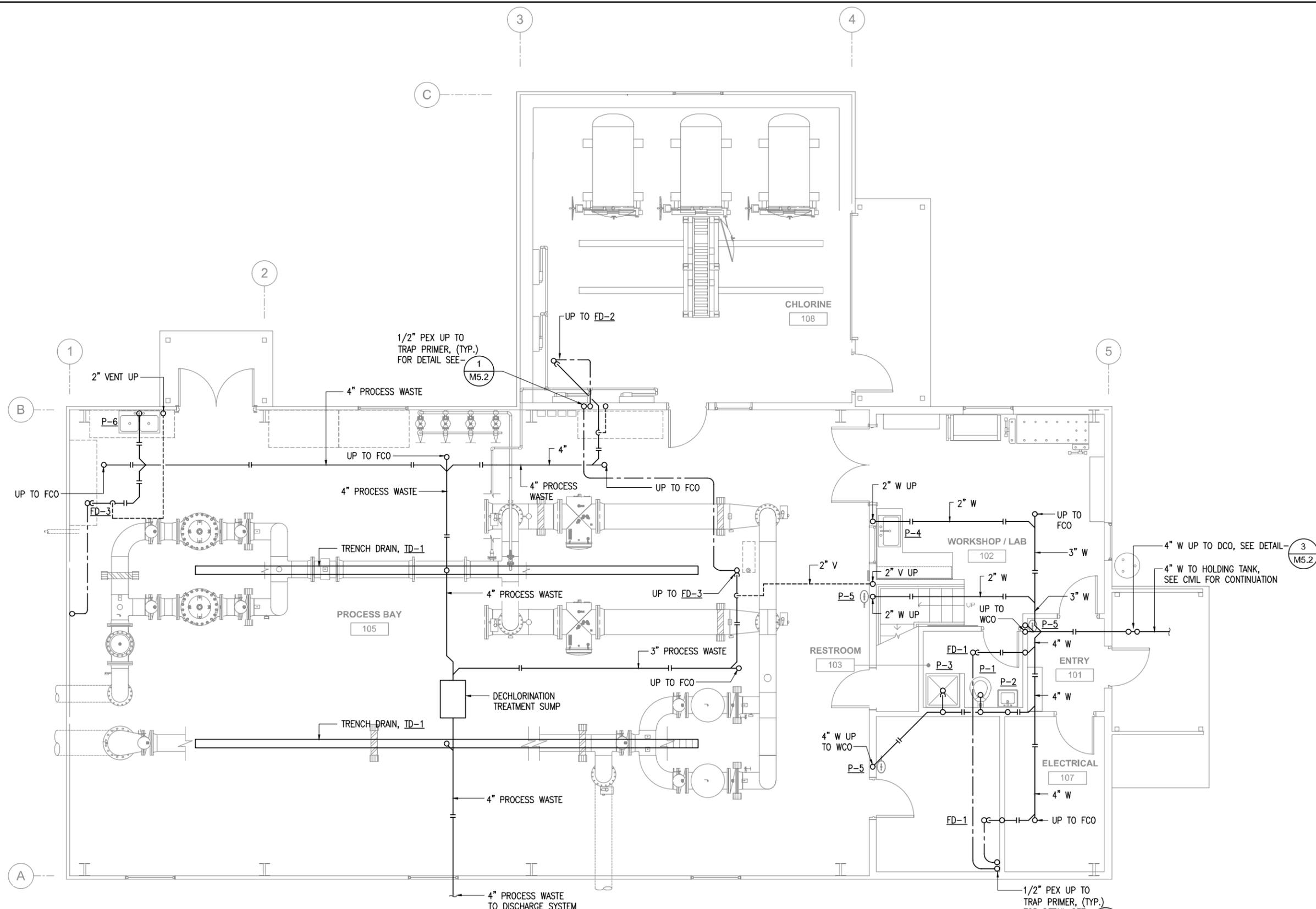
- 1 FLEXWORKS MODEL C075 DOUBLE-WALL FUEL OIL SUPPLY PIPING AND FLEXWORKS MODEL C10 DOUBLE-WALL FUEL OIL RETURN PIPING ROUTED BETWEEN TRANSITION SUMPS IN FLEXWORKS MODEL AXP40 4" DOUBLE LAYER ACCESS PIPE. SEE DETAIL - 6 M5.2
- 2 LEAK DETECTION CABLE (LDC) ROUTED IN CONDUIT BELOW GRADE. LEAK DETECTION CABLING SHALL CONNECT TO TANK MONITORING PANEL.

1 MECHANICAL SITE PLAN
1/8" = 1'-0"



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				MWB	JFH
PYRAMID WTP UNALASKA, ALASKA MECHANICAL SITE PLAN		CITY OF UNALASKA			

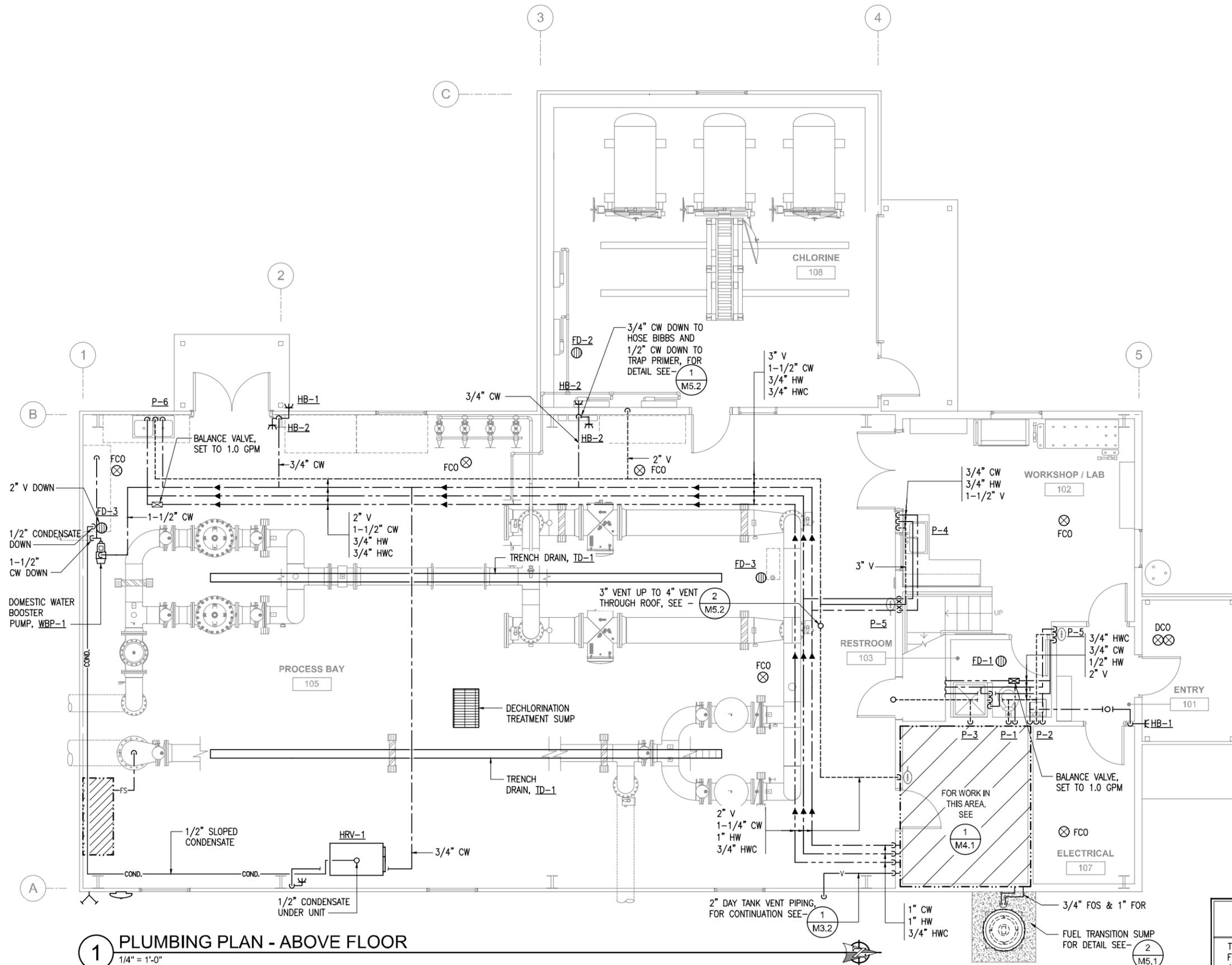


1 PLUMBING PLAN - UNDER FLOOR
 1/4" = 1'-0"

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PYRAMID WTP UNALASKA, ALASKA		PLUMBING PLAN - UNDER FLOOR	
SCALE:	AS NOTED	DESIGNED BY:	JFH
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SHEET NUMBER		M1.1 OF 13	
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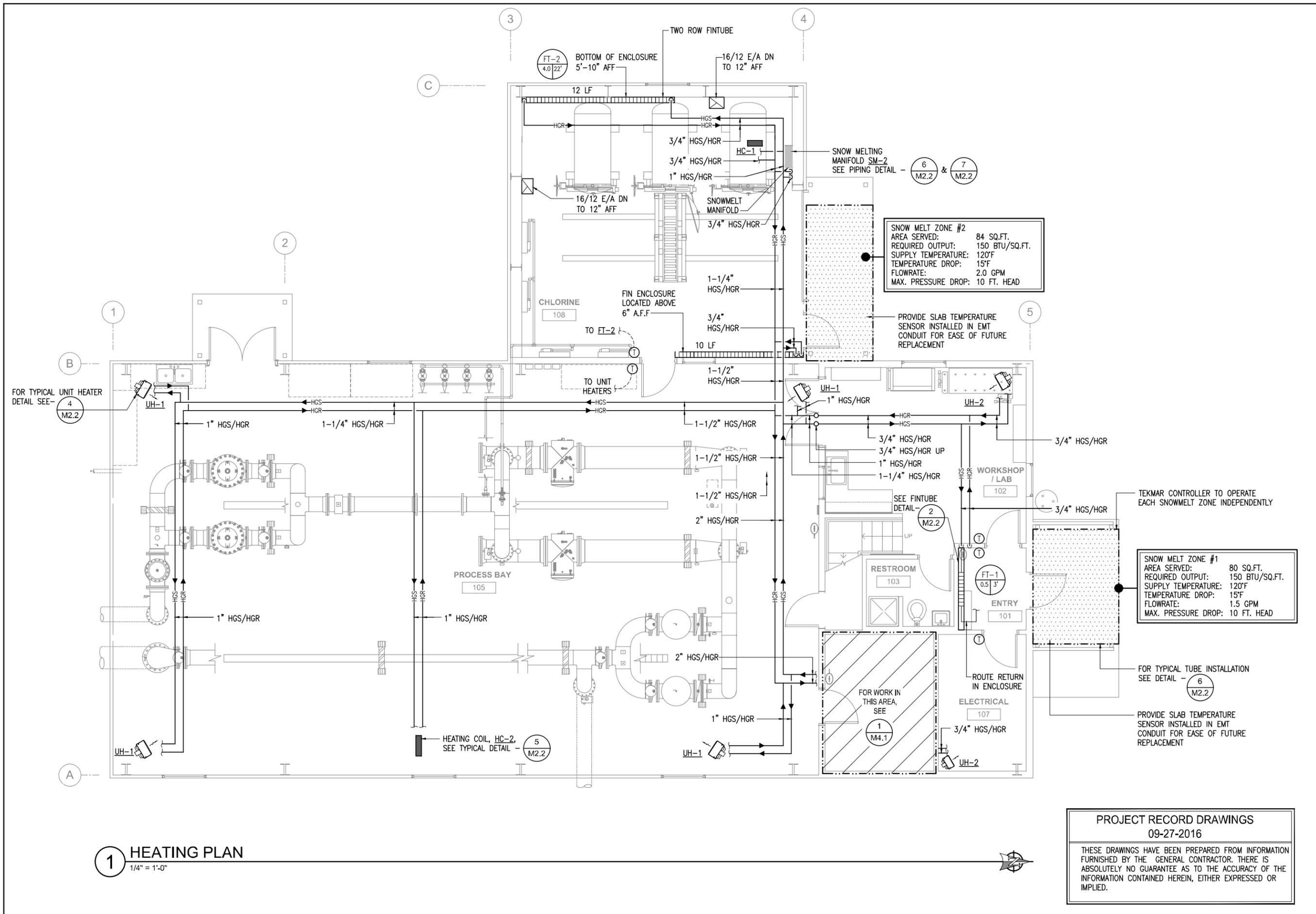


1 PLUMBING PLAN - ABOVE FLOOR
 1/4" = 1'-0"

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		MWB	
PYRAMID WTP UNALASKA, ALASKA PLUMBING PLAN - ABOVE FLOOR			
SCALE:	AS NOTED		
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FILE NO.:	L0109.00		
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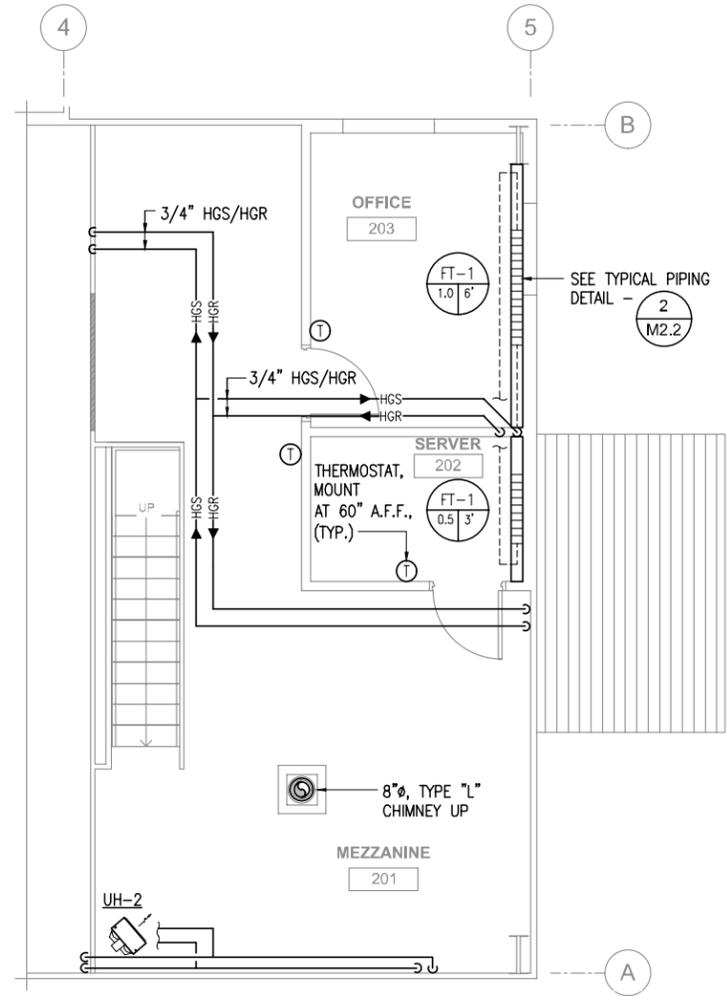


1 HEATING PLAN
1/4" = 1'-0"

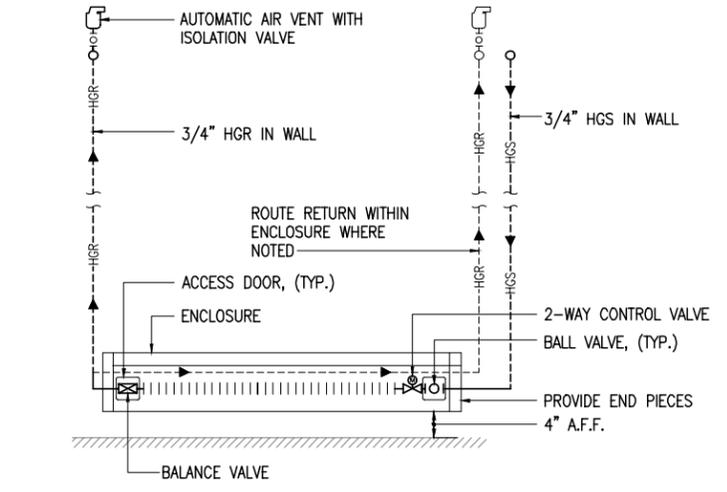
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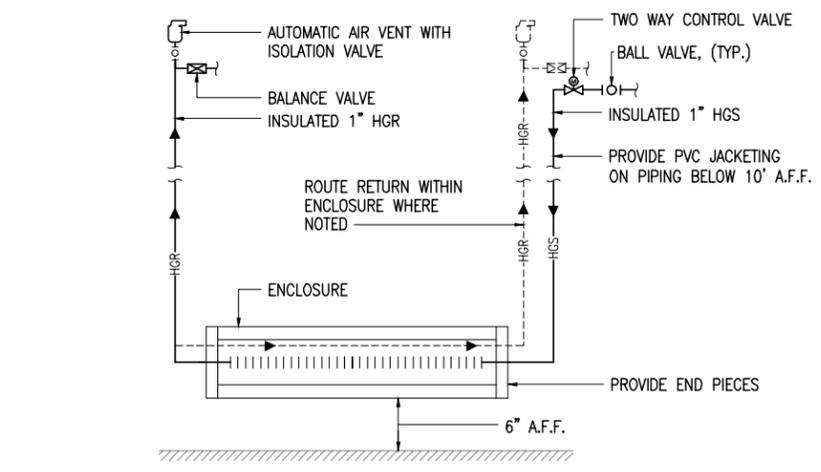
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<p>6 M2.2 & 7 M2.2</p>	<p>JFH</p>	<p></p>	<p>MWB</p>
<p>UNALASKA, ALASKA</p>			
<p>1ST FLOOR HEATING PLAN</p>			
<p>SCALE: AS NOTED</p>			
<p>DESIGNED BY: JFH</p>			
<p>DRAWN BY: DM</p>			
<p>CHECKED BY: JFH</p>			
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<p>M2.1 OF 13</p>			



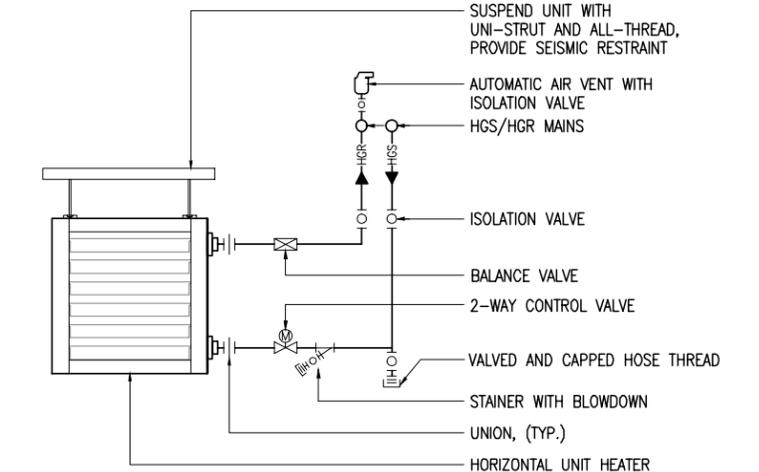
1 MEZZANINE HEATING PLAN
1/4" = 1'-0"



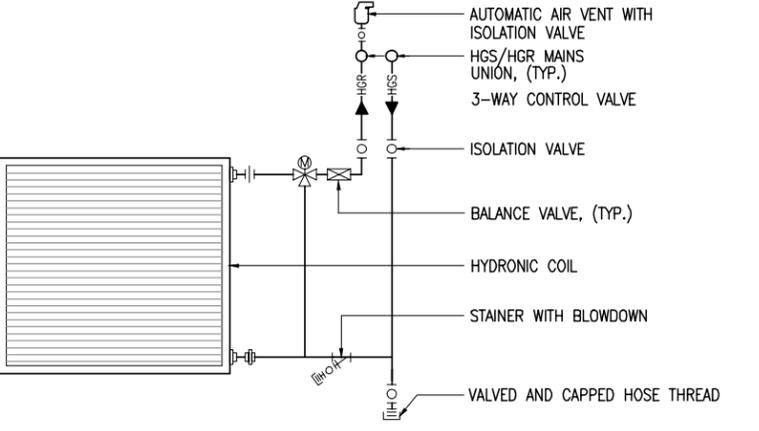
2 FINTUBE RADIATION - FT-1
NO SCALE



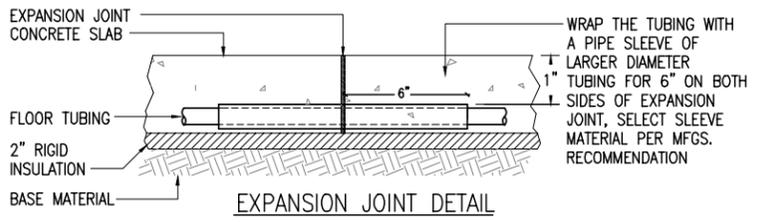
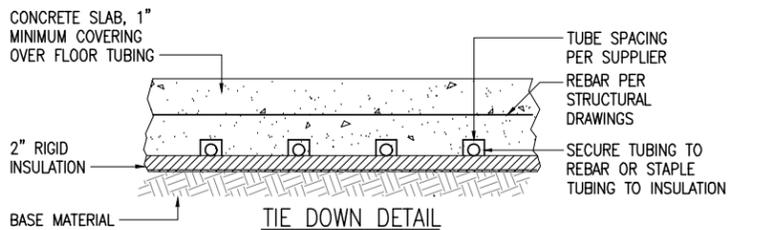
3 FINTUBE RADIATION - FT-2
NO SCALE



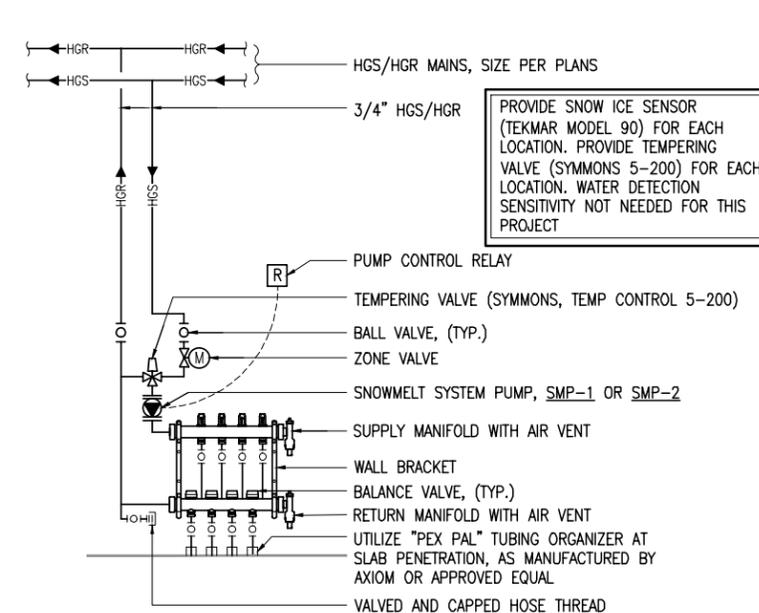
4 HORIZONTAL UNIT HEATER - UH-1 AND UH-2
NO SCALE



5 HYDRONIC COIL
NO SCALE



6 SNOW MELT TUBING DETAL
NO SCALE



7 TYPICAL SNOWMELT MANIFOLD PIPING
NO SCALE

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09-27-2016

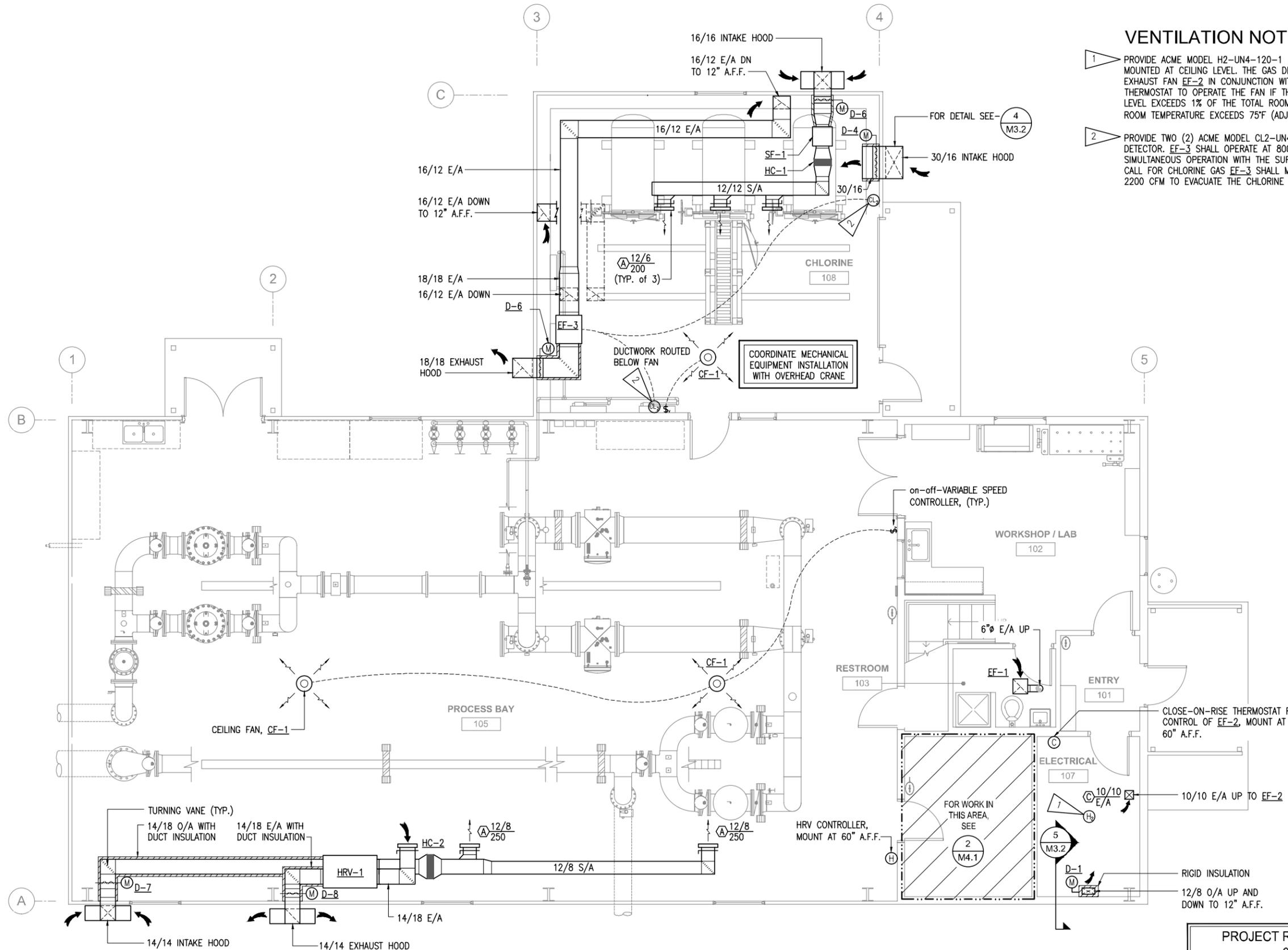
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PYRAMID WTP
UNALASKA, ALASKA
2ND FLOOR HEATING PLAN AND DETAILS

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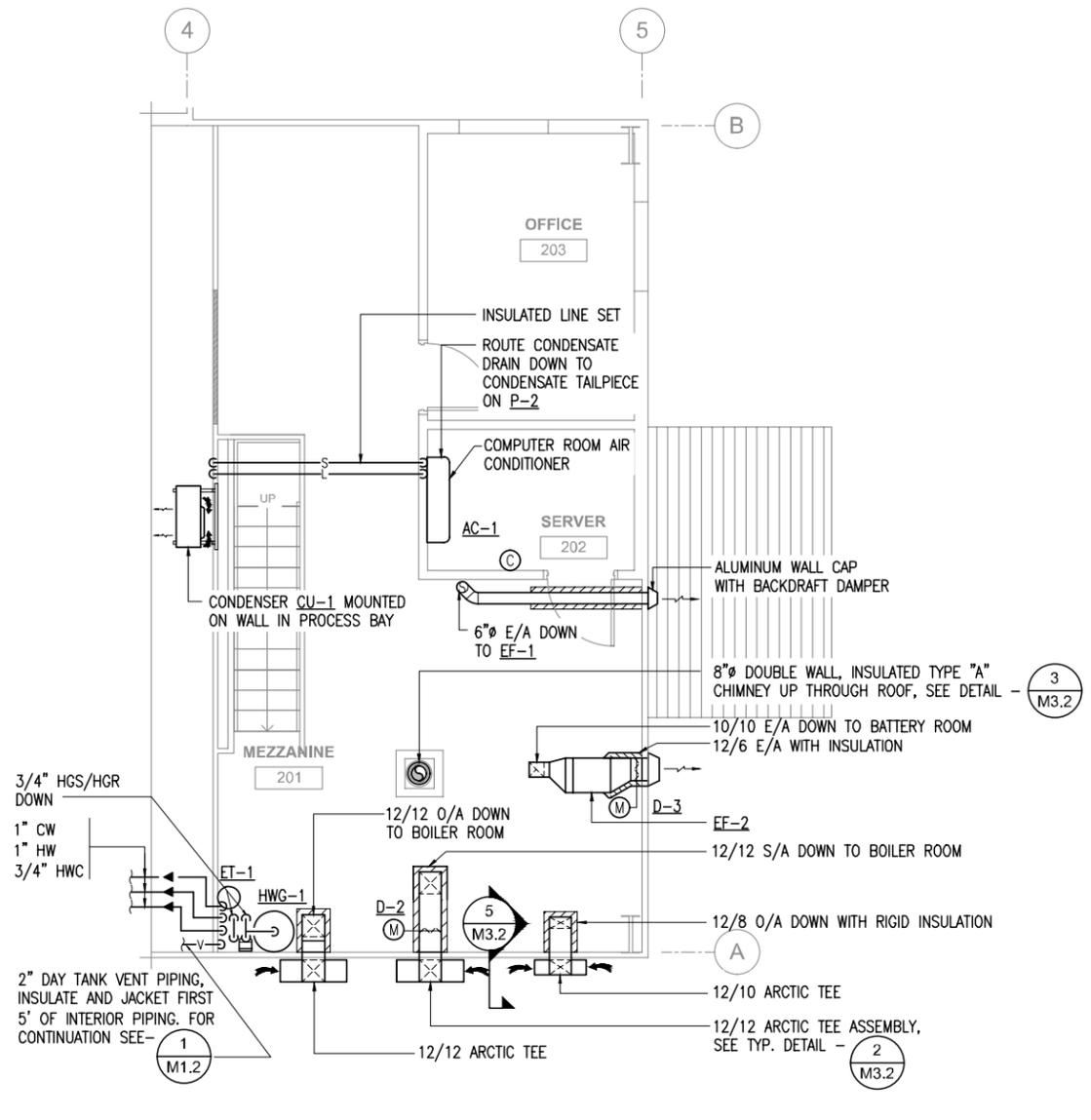
- VENTILATION NOTES:**
- 1 PROVIDE ACME MODEL H2-UN4-120-1 HYDROGEN GAS DETECTOR MOUNTED AT CEILING LEVEL. THE GAS DETECTOR SHALL OPERATE EXHAUST FAN EF-2 IN CONJUNCTION WITH THE WALL MOUNTED THERMOSTAT TO OPERATE THE FAN IF THE ROOM HYDROGEN GAS LEVEL EXCEEDS 1% OF THE TOTAL ROOM VOLUME OR IF THE ROOM TEMPERATURE EXCEEDS 75°F (ADJUSTABLE).
 - 2 PROVIDE TWO (2) ACME MODEL CL2-UN4-120-1 CHLORINE GAS DETECTOR. EF-3 SHALL OPERATE AT 800 CFM WHILE IN SIMULTANEOUS OPERATION WITH THE SUPPLY FAN SF-1. UPON CALL FOR CHLORINE GAS EF-3 SHALL MODULATE UP TO 2200 CFM TO EVACUATE THE CHLORINE GAS FROM THE SPACE.

1 VENTILATION PLAN
1/4" = 1'-0"

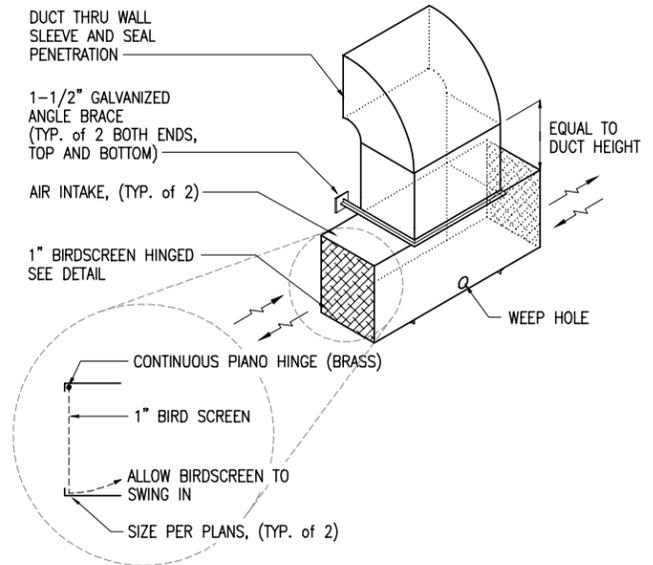
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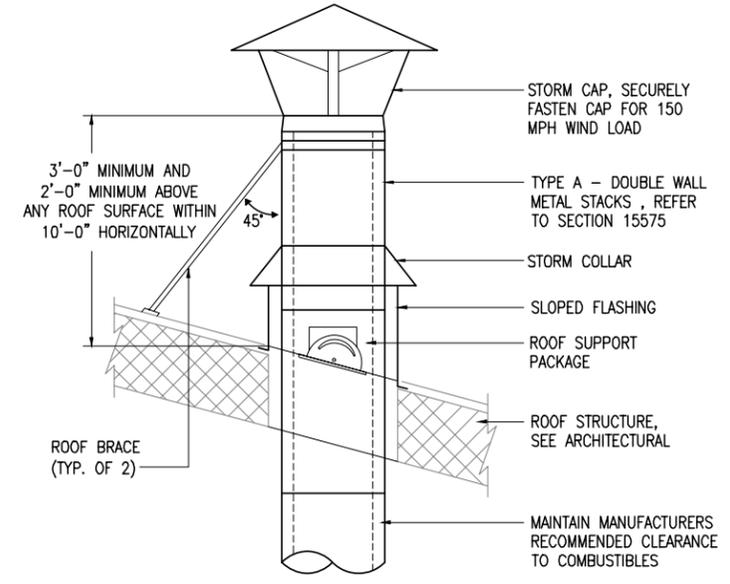
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<p>PYRAMID WTP UNALASKA, ALASKA 1ST FLOOR VENTILATION PLAN</p>			
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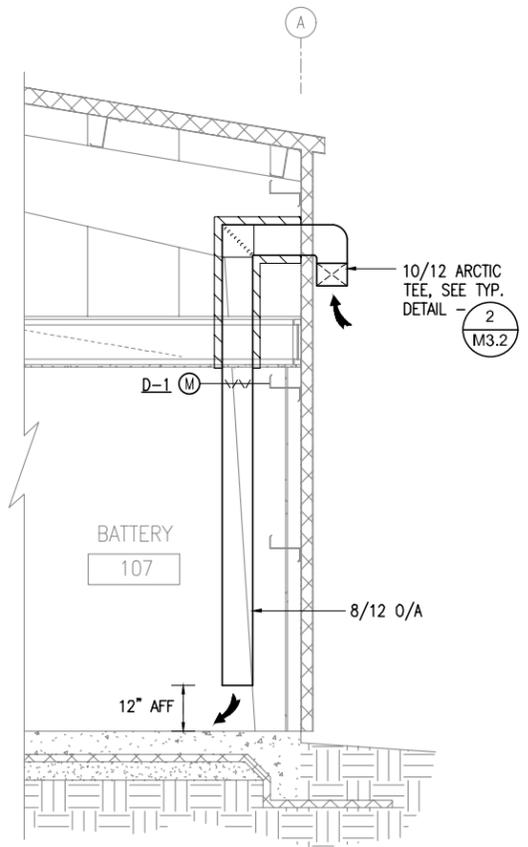
1 MEZZANINE VENTILATION PLAN
1/4" = 1'-0"



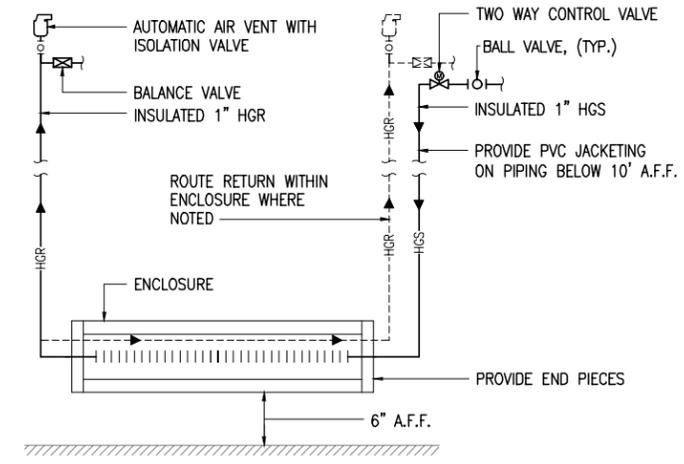
2 TYPICAL ARCTIC TEE
NO SCALE



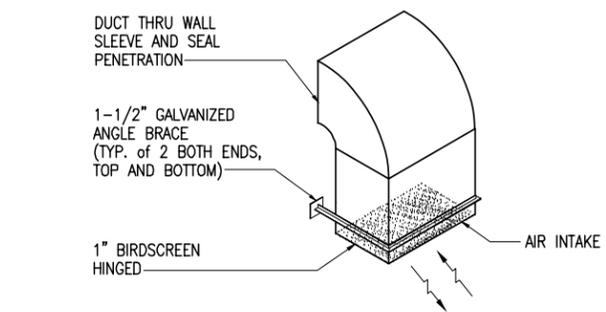
3 ROOF VENT
NO SCALE



5 SECTION AT BATTERY 107
NO SCALE



6 FINTUBE RADIATION - FT-2
NO SCALE

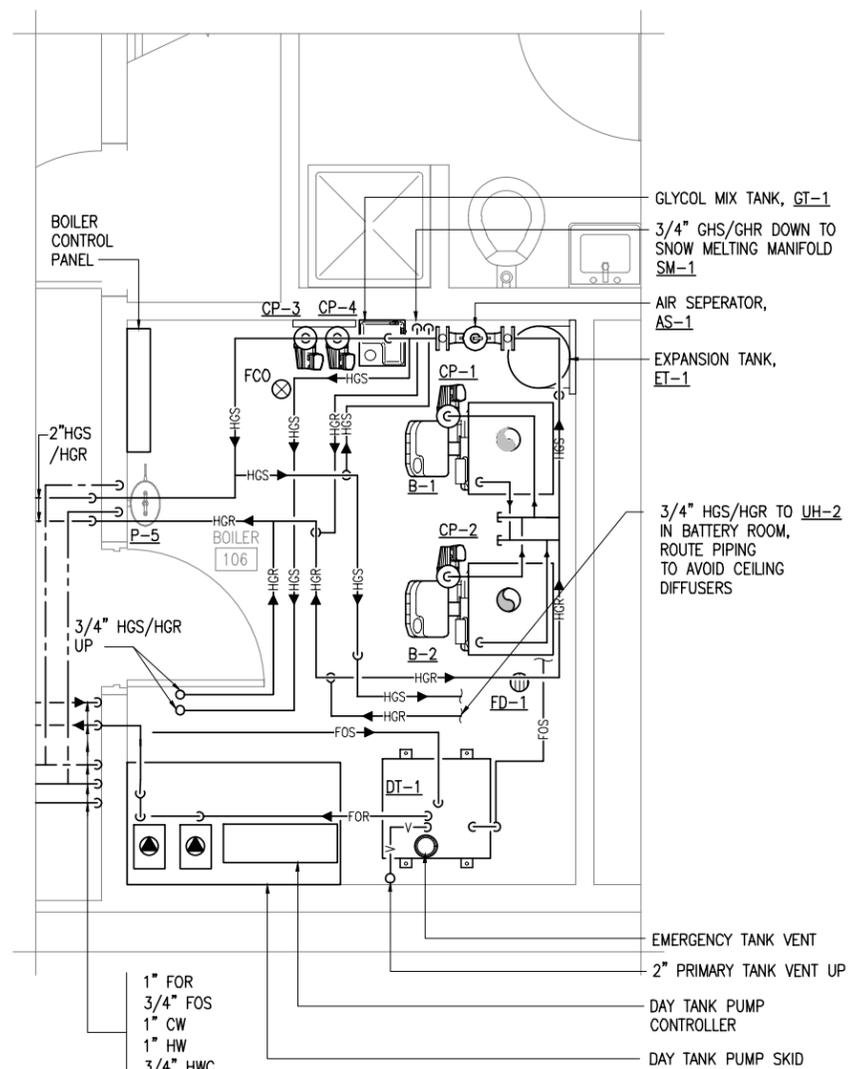


4 TYPICAL ARCTIC HOOD
NO SCALE

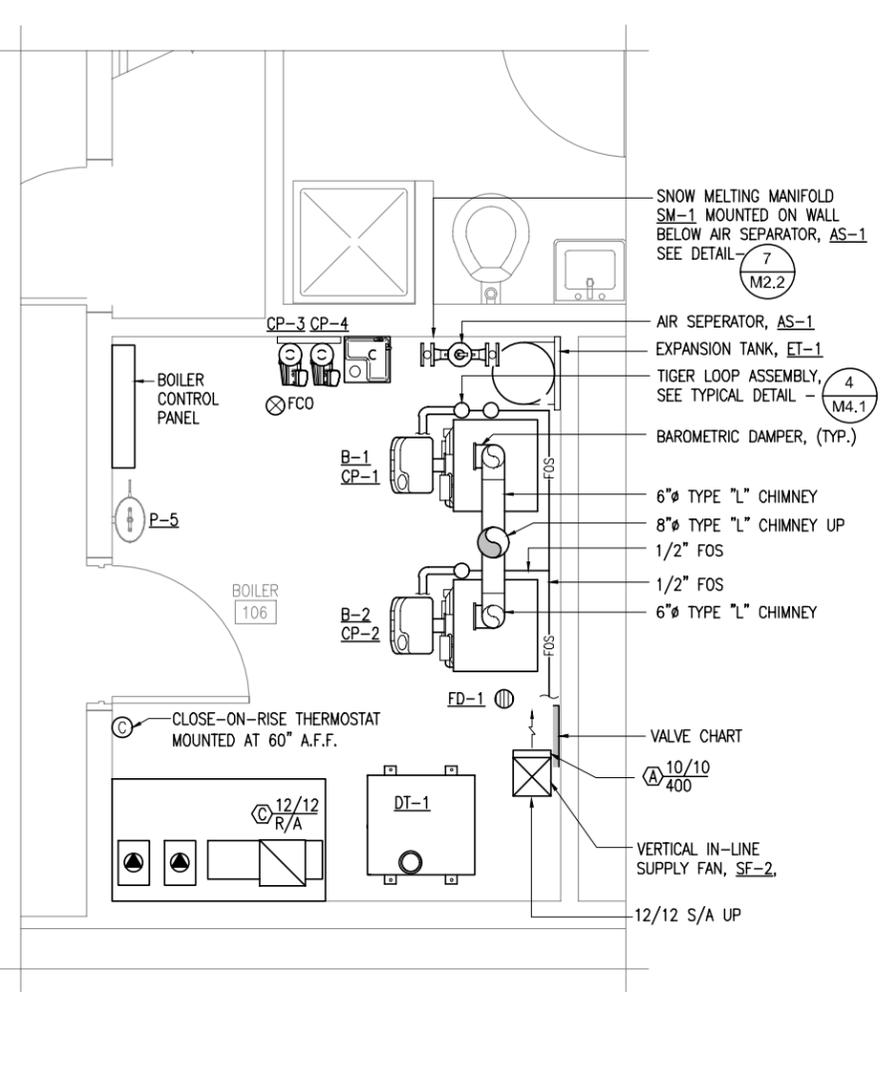
PROJECT RECORD DRAWINGS
09-27-2016

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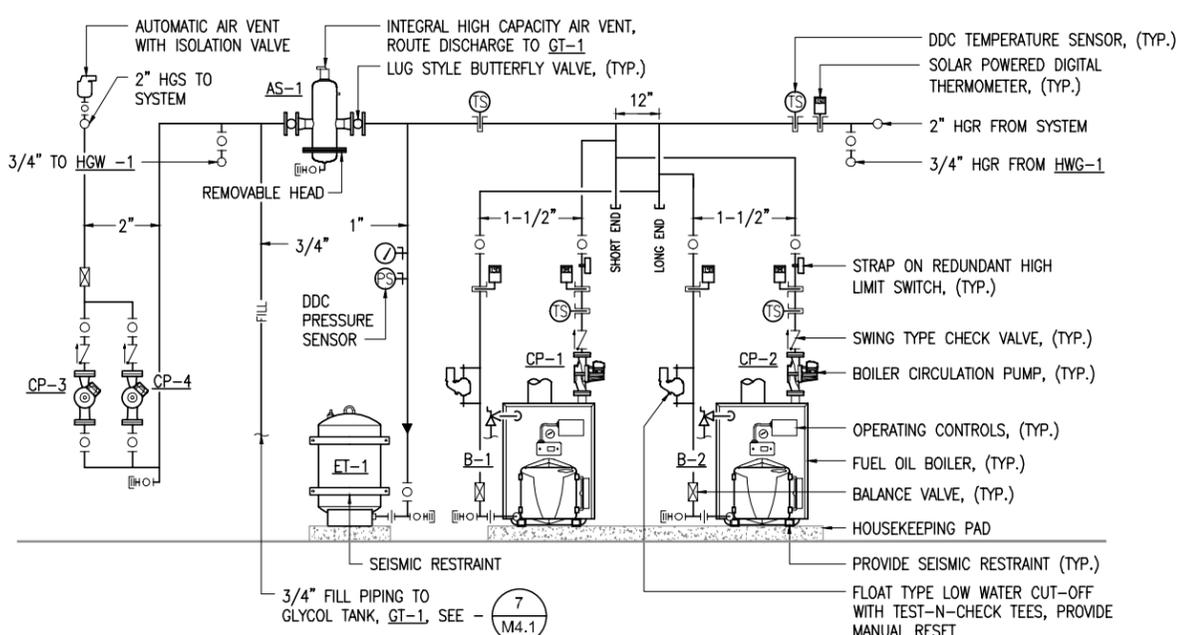
RSA Engineering, Inc. MECHANICAL AND ELECTRICAL CONSULTING ENGINEERS 191 E. Swanson Avenue, Suite 101 Wasilla, Alaska 99664 (907) 357-1521		CITY OF UNALASKA	
PYRAM WTP UNALASKA, ALASKA	2ND FLOOR VENTILATION PLAN AND DETAILS		
SCALE:	AS NOTED		
DESIGNED BY:	JFH		
DRAWN BY:	DM		
CHECKED BY:	JFH		
DATE:	12/2/13		
FILE NO.:	L0109.00		
SHEET NUMBER	M3.2 OF 13		



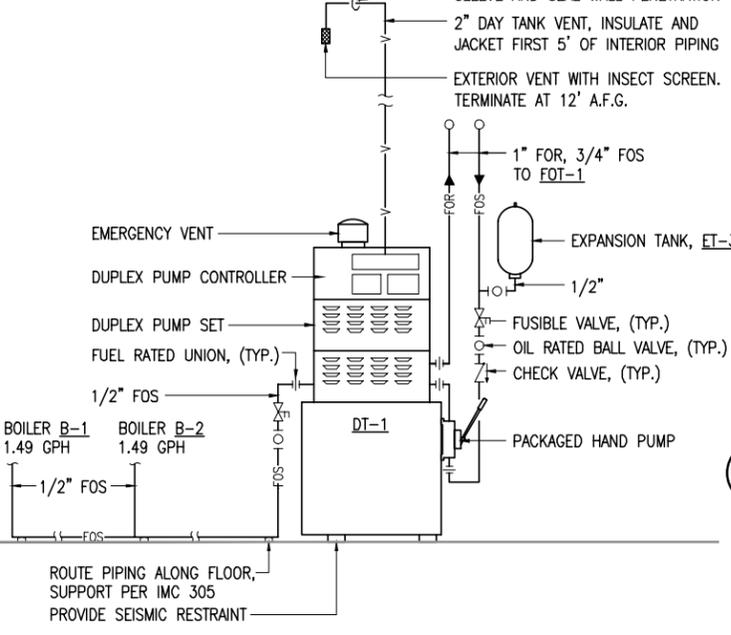
1 BOILER ROOM PIPING PLAN
1/2" = 1'-0"



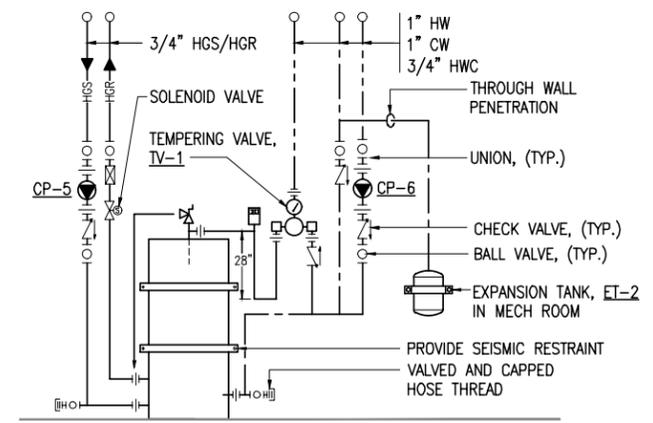
2 BOILER ROOM VENTILATION PLAN
1/2" = 1'-0"



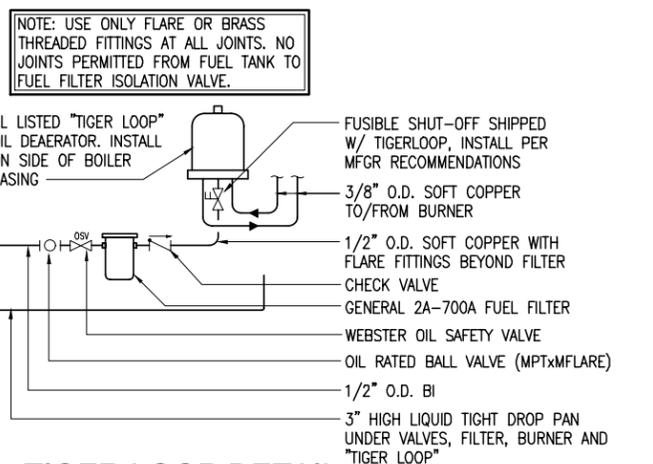
5 BOILER PIPING SCHEMATIC
NO SCALE



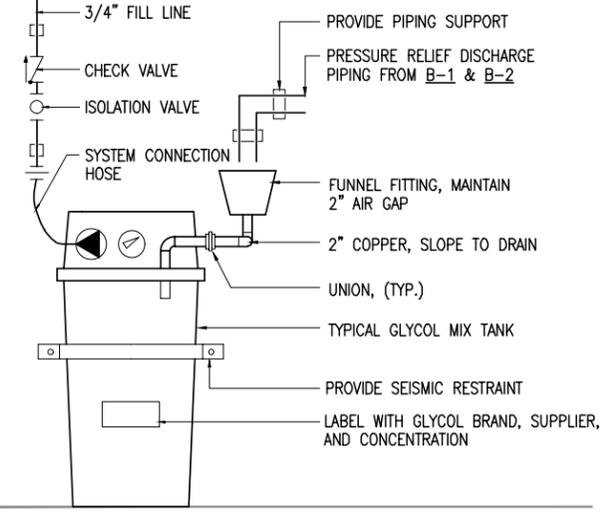
6 FUEL OIL DAY TANK
NO SCALE



3 HOT WATER GENERATOR
NO SCALE



4 TIGER LOOP DETAIL
NO SCALE

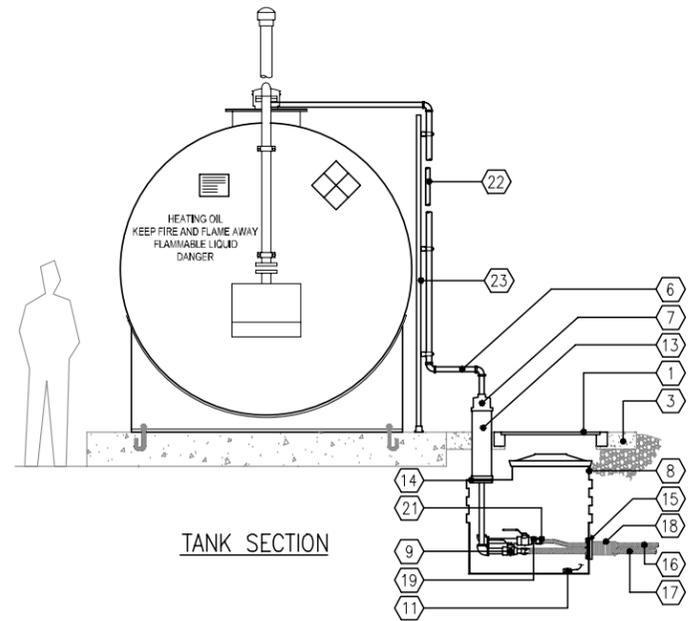


7 GLYCOL TANK - GT-1
NO SCALE

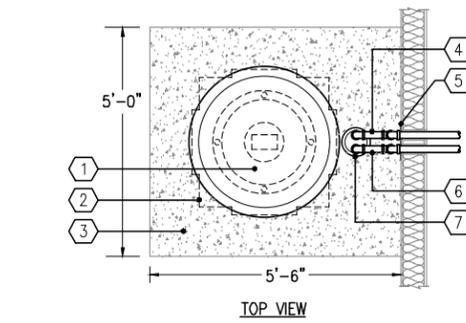
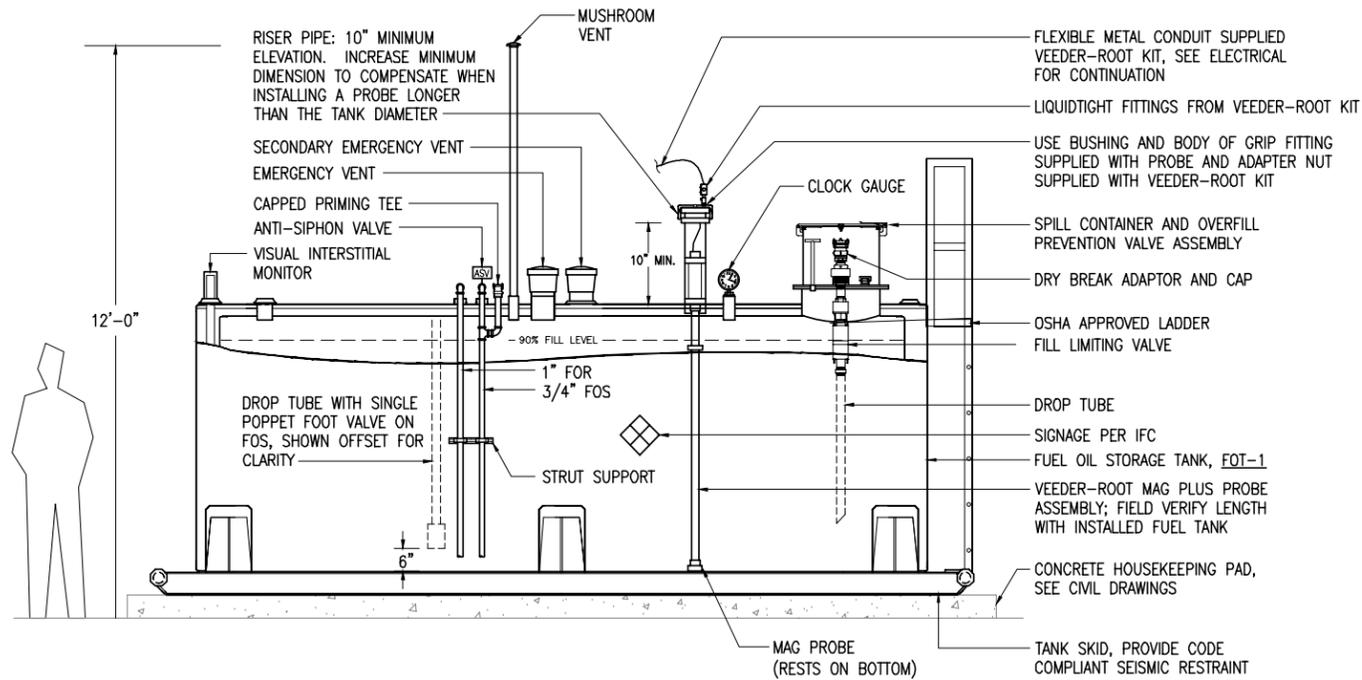
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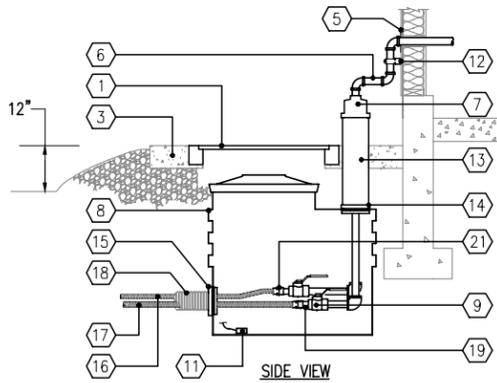
RS&A Engineering, Inc.		CITY OF UNALASKA	
MECHANICAL AND ELECTRICAL CONSULTING ENGINEERS		PYRAMID WTP	
2522 Arctic Boulevard, Suite 200		UNALASKA, ALASKA	
Anchorage, AK 99503 (907) 276-0621		BOILER ROOM PLANS AND DETAILS	
NO.	DATE	BY	REVISION
		JFH	
		MWB	
SCALE: AS NOTED		DESIGNED BY: JFH	
DRAWN BY: DM		CHECKED BY: JFH	
DATE: 12/2/13		FILE NO: L0109.00	
SHEET NUMBER		M4.1 OF 13	



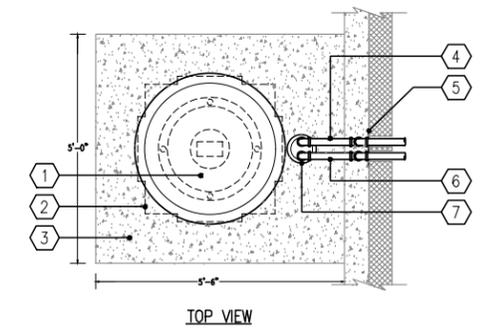
TANK SECTION



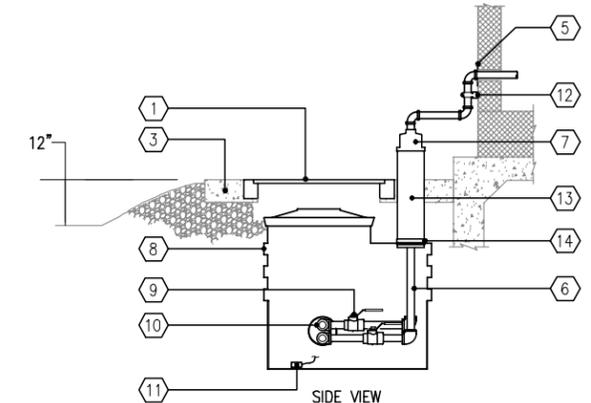
TOP VIEW



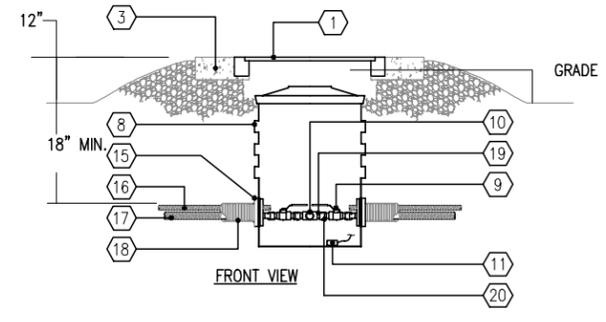
SIDE VIEW



TOP VIEW



SIDE VIEW



FRONT VIEW

1 FUEL OIL STORAGE TANK FOT-1
NO SCALE

2 SUMP AT BUILDING DETAIL
NO SCALE

3 SUMP AT GENERATOR DETAIL
NO SCALE

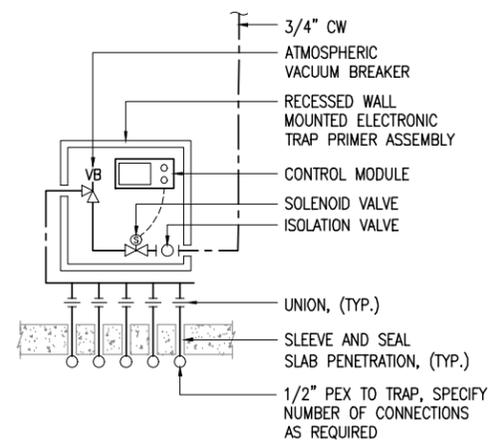
EQUIPMENT KEY:

- 1 MANHOLE COVER.
- 2 MANHOLE FRAME.
- 3 5'x5.5'x4" CONCRETE SLAB.
- 4 3/4" STEEL FUEL OIL SUPPLY PIPING W/ WELDED JOINTS.
- 5 SEAL WALL PENETRATION AND PROVIDE CLOSE-FITTING GALVANIZED ESCUTCHEON.
- 6 1" STEEL FUEL OIL RETURN PIPING W/ WELDED JOINTS.
- 7 FLEXWORKS MODEL PTA-4175 4" X 1" X 3/4" TRANSITION ASSEMBLY.
- 8 FLEXWORKS MODEL PST-4630 TRANSITION SUMP.
- 9 STAINLESS STEEL, 1/4 TURN, FULL PORT BALL VALVE (TYP).
- 10 FLEXWORKS STAINLESS STEEL TEE (TYP).
- 11 TYPICAL SUMP DETECTOR. LOCATE DETECTOR AT LOWEST POINT IN SUMP PIPING SYSTEM, FIELD COORDINATE. WIRING FOR SENSOR SHALL BE ROUTED IN CONDUIT TO THE PUMP BUILDING. ALL PENETRATION INTO SUMP SHALL BE MADE WITH FLEXWORKS MODEL PBFN-751 CONDUIT ENTRY FITTINGS INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- 12 PIPING SUPPORT.
- 13 4" RIGID RISER PIPE.
- 14 FLEXWORKS MODEL EBF-0400 ENTRY BOOT FITTING FOR 4" RIGID PIPE.
- 15 DIRECT BURY COAXIAL PIPE FLANGE, FLEXWORKS MODEL PBFB-400AXP.
- 16 FLEXWORKS 3/4" DOUBLE-WALL FLEXIBLE PIPING.
- 17 FLEXWORKS 1" DOUBLE-WALL FLEXIBLE PIPING.
- 18 FLEXWORKS MODEL AXP40 4" DOUBLE-WALL ACCESS PIPE.
- 19 STAINLESS STEEL PIPE NIPPLE AS REQUIRED.
- 20 STAINLESS STEEL MALE TO FEMALE ADAPTER.
- 21 FLEXWORKS FLEXIBLE PIPE TO STEEL PIPE ADAPTER.
- 22 1" FUEL OIL RETURN TO TANK.
- 23 HOT-DIPPED GALVANIZED STRUT PIPING SUPPORT. PROVIDE LATERAL IN TWO DIRECTIONS. UTILIZE UNI-STRUT POST BASE MODEL P2072A. ALL EXTERIOR HARDWARE SHALL BE HOT-DIPPED GALVANIZED.

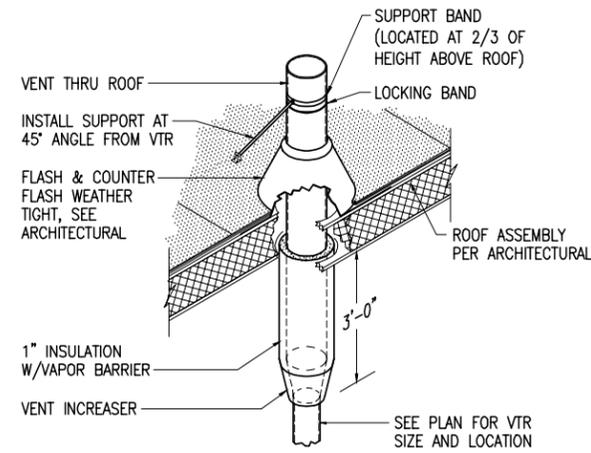
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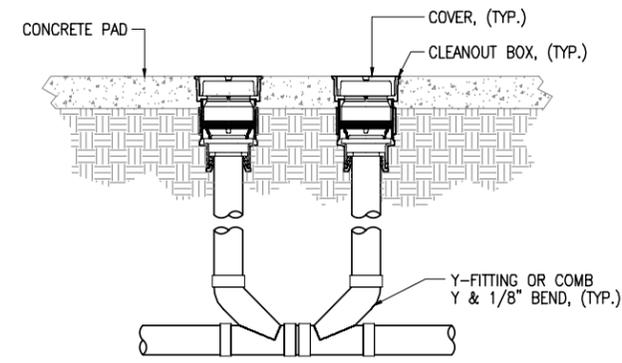
RSA Engineering, Inc.		CITY OF UNALASKA	
MECHANICAL AND ELECTRICAL CONSULTING ENGINEERS 191 E. Swanson Avenue, Suite 101 Wasilla, Alaska 99654 (907) 357-1521		NO. _____	
2522 Arctic Boulevard, Suite 200 Anchorage, AK 99503 (907) 276-0621		DATE _____	
ANCHORAGE, ALASKA		BY: JFH	
UNALASKA, ALASKA		MWB	
PYRAMID WTP		REVISION	
UNALASKA, ALASKA		DETAILS	
SCALE: AS NOTED		DESIGNED BY: JFH	
DRAWN BY: DM		CHECKED BY: JFH	
DATE: 12/2/13		FILE NO. L0109.00	
SHEET NUMBER		M5.1 OF 13	



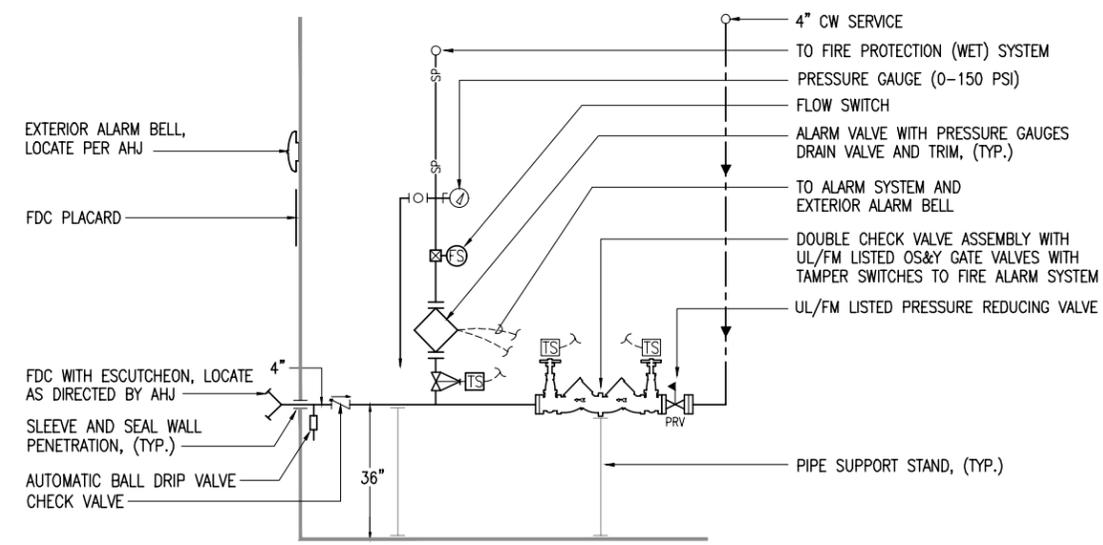
1 ELECTRONIC TRAP PRIMER
NO SCALE



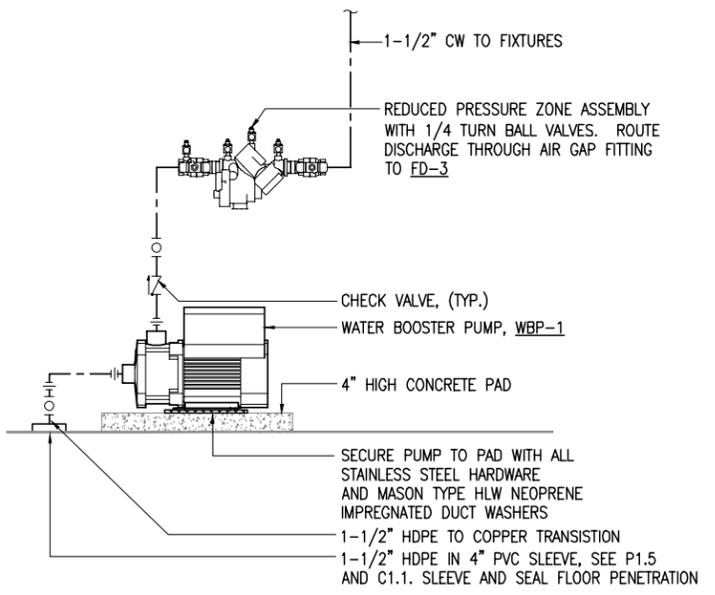
2 VENT THROUGH ROOF DETAIL WITH ROOF BRACE KIT
NO SCALE



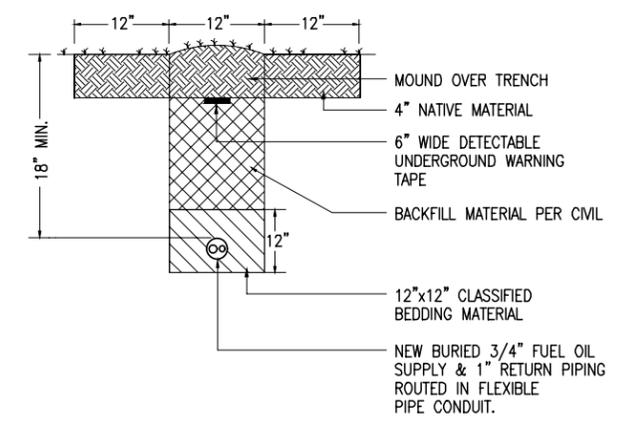
3 DOUBLE WYE CLEANOUT DETAIL
NO SCALE



4 WATER SERVICE ENTRANCE PIPING SCHEMATIC
NO SCALE



5 DOMESTIC WATER PUMP
NO SCALE

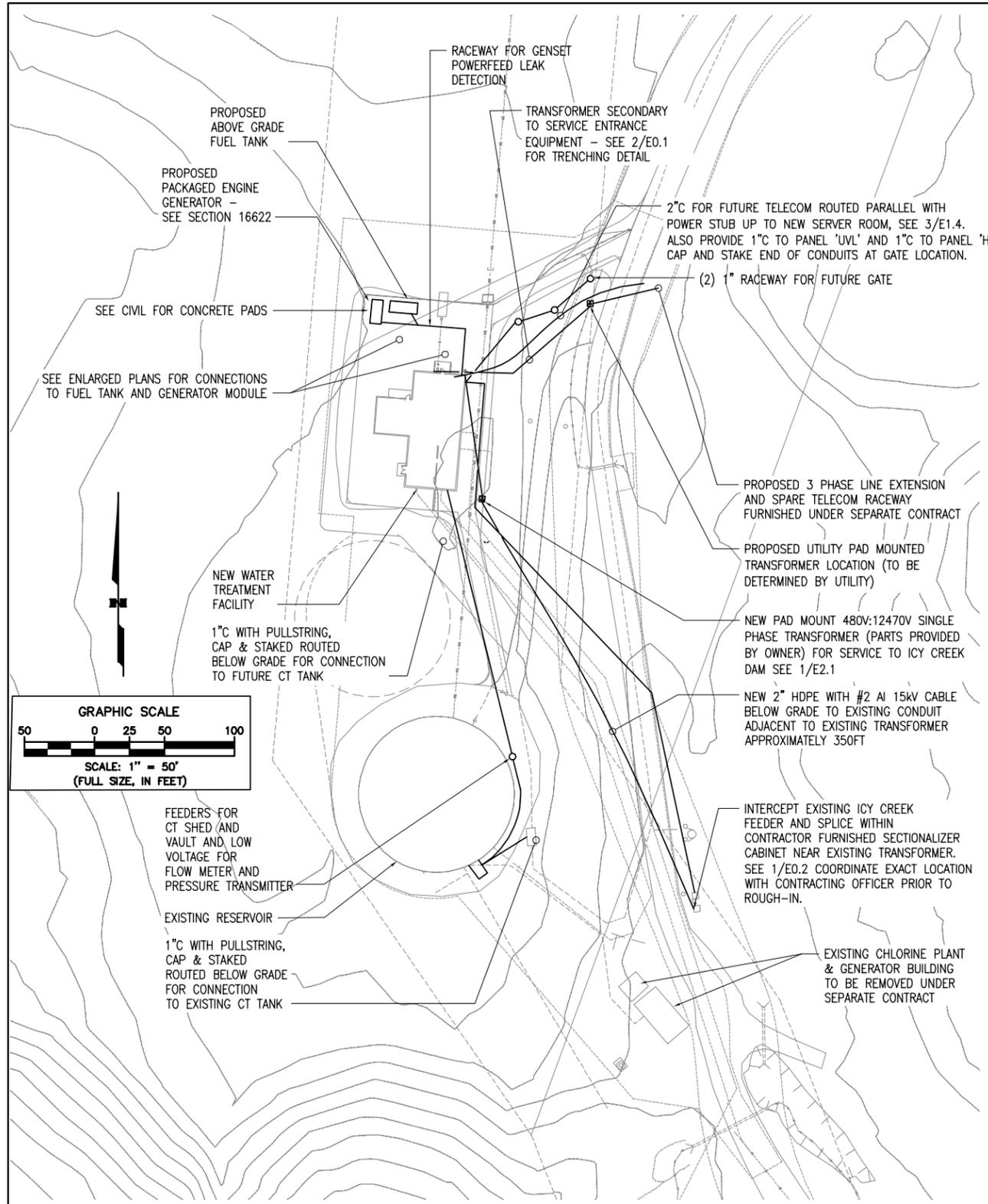


6 TRENCHING DETAIL
NO SCALE

PROJECT RECORD DRAWINGS
09-27-2016

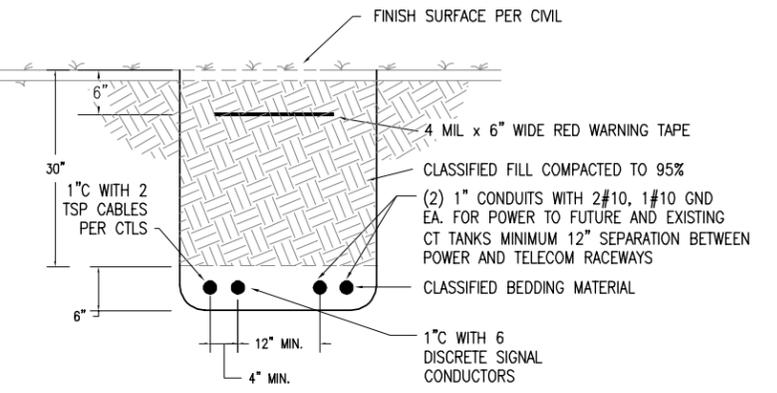
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<p>PYRAMID WTP UNALASKA, ALASKA</p>		<p>CITY OF UNALASKA</p>
<p>DETAILS</p>		<p>SCALE: AS NOTED</p> <p>DESIGNED BY: JFH</p> <p>DRAWN BY: DM</p> <p>CHECKED BY: JFH</p> <p>DATE: 12/2/13</p> <p>FILE NO. L0109.00</p> <p>SHEET NUMBER</p> <p>M5.2 OF 13</p>

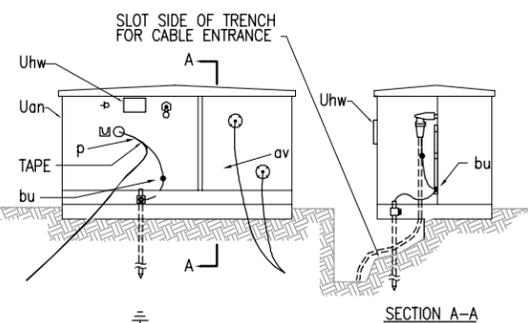


LUMINAIRE SCHEDULE						
DESIG-NATION	MFR. MODEL NO. OR APPROVED EQ.	PRODUCT DESCRIPTION	LAMP QTY.	WATTS	TYPE	MOUNTING
A	COLUMBIA # LUN4-254-EPU	1X4 ENCLOSED AND GASKETED SURFACE FLUORESCENT, FIBERGLASS HOUSING, CLEAR ACRYLIC LENS, UNIVERSAL VOLTAGE ELECTRONIC BALLAST, WET LOCATION LISTED.	2	54	T5HO 5000K	SURFACE CEILING
B	FAIL-SAFE # CFS-24-454-UNV-93-EB51-SSN-SHN	2X4 CLEANROOM FLUORESCENT, STAINLESS STEEL HOUSING/DOOR/HARDWARE, PRISMATIC TEMPERED GLASS LENS, UNIV. VOLTAGE ELECTRONIC BALLAST.	4	54	T5HO 5000K	SURFACE CEILING
C	COOPER # LDWP-PL-4A-ED-DP	LED WALL BRACKET, DIE CAST HOUSING, POLYCARBONATE LENS, UNIVERSAL VOLTAGE ELECTRONIC DRIVER MODULE, DARK PLATINUM FINISH.	MULTI	40	LED 5000K	SURFACE WALL ABOVE DOOR
D	McGRAW EDISON # CNC-A02-LED-E1-GL4-BZ-SM	CANOPY SQUARE LED SURFACE MOUNT, TYPE IV DISTRIBUTION W/GLARE CONTROL, ELECTRONIC DRIVER MODULE, DARK BRONZE FINISH.	20	53	LED 4000K	SURFACE CANOPY
EM	DUAL-LITE # N4X7-12V1	HARSH ENVIRONMENT DUAL HEAD EMERGENCY LIGHTING UNIT, GREY POLYCARBONATE HOUSING, SEALED BEAM LAMPS, SELF-DIAGNOSTICS.	2	9	HAL BI-PIN	WALL 7'-6" AFF
ER	DUAL-LITE # PGZ-HTR	EXTERIOR LED EMERGENCY LIGHTING UNIT, DIE-CAST HOUSING, NICKEL-CADMIUM BATTERY W/AUTOMATIC CHARGER, STRIP HEATER ACCESSORY.	MULTI	15	LED 6350K	EXIT DISCHARGE AREAS 7'-6" AFG
F	HUBBELL # NV2FG42XHG	FLUORESCENT NON-METALLIC VAPORITITE, TEMPERED GLASS GLOBE AND GUARD, COMPACT FLUORESCENT LAMP	1	42	TRT 3000K	UNDER STAIR
G	COLUMBIA # XTS4-254-M4R-EPU	4FT SEVERE ENVIRONMENT FLUORESCENT PENDANT, 7" DIA. ACRYLIC ENCLOSURE, STAINLESS STEEL END CAPS, UNIVERSAL VOLTAGE ELECTRONIC BALLAST, NSF CERTIFIED AND NEMA 4X RATED.	2	54	T5HO 5000K	PENDANT 12'-0" AFF
X	DUAL-LITE # LN4XRWEI	CORROSION RESISTANT LED EXIT SIGN, POLYCARBONATE HOUSING, RED STENCIL FACE, NI-CAD BATTERY, SELF-DIAGNOSTICS.	MULTI	3.8	RED LED	PATH OF EGRESS ABOVE DOORS

LEGEND	
	LIGHT FIXTURE - SURFACE MTD ON CLG
	LIGHT FIXTURE - SURFACE MTD ON WALL
	LIGHT FIXTURE - RECESS MTD
	EMERGENCY EXIT LIGHT - SURFACE MTD CLG
	EMERGENCY EXIT LIGHT - SURFACE MTD WALL
	EMERGENCY LIGHT
	EMERGENCY FIXTURE - FLUORESCENT
	FLUORESCENT FIXTURE - RECESS MTD
	FLUORESCENT FIXTURE - SURFACE MTD
	FLUORESCENT FIXTURE - WALL MTD
	FLUORESCENT FIXTURE STRIP - SURFACE MTD CLG
	AREA LIGHT - OUTDOORS, WEATHERPROOF
	FLOODLIGHT - OUTDOORS, WEATHERPROOF
	FIXTURE TAG (LETTER INDICATES TYPE)
	PHOTOCELL
	MOTOR (SIZED AS NOTED)
	DISCONNECT SWITCH
	DISCONNECT SWITCH (FUSED)
	COMBINATION DISCONNECT/MAGNETIC MOTOR STARTER
	FRACTIONAL HORSEPOWER MOTOR STARTER
	SINGLE POLE SWITCH
	THREE WAY SWITCH
	FOUR WAY SWITCH
	KEY OPERATED SWITCH
	PILOT LIGHT SWITCH
	CONDUIT, CONCEALED
	NUMBER AND SIZE OF WIRES (NO MARKS = 3 #12)
	HOMERUN TO PANEL (PANEL AND CIRCUIT No.)
	PANEL
	DUPLEX RECEPTACLE
	DUPLEX RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER
	QUADRAPLEX RECEPTACLE
	QUADRAPLEX RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER
	SPECIAL PURPOSE OUTLET
	TELEPHONE OUTLET
	TELECOMMUNICATIONS OUTLET (COMBINATION TELEPHONE & DATA)
	JUNCTION BOX
	SECURITY ALARM PANEL/KEYPAD
	REMOTE GENERATOR ANNUNCIATOR PANEL
	SECURITY DEVICES: DOOR CONTACT, GLASS BREAK SENSOR, MOTION DET.
	FIRE ALARM PULL STATION
	FIRE ALARM BELL
	FIRE ALARM HORN
	FIRE ALARM HORN AND STROBE LIGHT
	FIRE ALARM STROBE LIGHT
	HEAT DETECTOR 135°F & RATE OF RISE
	SMOKE DETECTOR
	FIRE ALARM CONTROL PANEL
	SPRINKLER TAMPER, FLOW, AND CONTROL MODULE
	NOTE TAG (No. INDICATES NOTE)
	CHLORINE ALARM WEATHERPROOF HORN/STROBE
	MULTI-GAS DETECTION PANEL
	CHLORINE GAS SENSOR/TRANSMITTER
	HYDROGEN GAS SENSOR/TRANSMITTER
	ABOVE FINISHED FLOOR
	ABOVE FINISHED GRADE
	CONDUIT
	CONDUIT ONLY
	DENOTES EXISTING ITEM
	DENOTES EMERGENCY POWER
	GALVANIZED RIGID STEEL CONDUIT
	NIGHT LIGHT
	WEATHERPROOF
	WEATHER RESISTANT
	UNLESS OTHERWISE NOTED



2 CONDUIT TRENCHING DETAIL
E0.1 SCALE: NONE

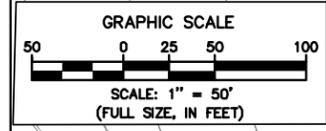


- NOTES:
1. PROVIDE SUFFICIENT PRIMARY NEUTRAL PIGTAIL AND CABLE SLACK TO PERMIT READY DISCONNECTION OF ELBOW AND MOUNTING ON PARKING STAND. TRAIN CABLES AS SHOWN.
 2. INSTALL WITH UNIT UM48-1 OR OTHER GROUNDING UNIT TO BE SPECIFIED SEPARATELY.
 3. SPECIFY PAD OR SLEEVE SEPARATELY.
 4. INSTALL "DANGER" SIGN ON TRANSFORMER INSIDE ENCLOSURE. INSTALL "WARNING" SIGN ON OUTSIDE SURFACE OF ENCLOSURE.

ITEM	QTY.	MATERIAL
p		CONNECTORS, AS REQUIRED
av		JUMPERS, COPPER AS REQUIRED
Uan	1	TRANSFORMER, PAD MOUNTED, SINGLE PRIMARY LOAD BREAK BUSHING AND INTERNAL FUSE (UG6 & UG6B)
Uhw	2	SIGNS, 'DANGER' AND 'CAUTION'
bu	2	CONNECTOR, EQUIPMENT GROUND
		GROUND WIRE (SEE NOTE #3)
		TAPE AS REQUIRED

3 PAD MOUNTED TRANSFORMER DETAIL
E0.1 SCALE: NONE

1 ELECTRICAL SITE PLAN
E0.1 SCALE: 1" = 50'-0"



BEFORE YOU DIG CALL FOR FREE UNDERGROUND LOCATION

Locate Call Center of Alaska
Anchorage Area.....278-3121
Statewide.....800-478-3121
who will notify subscribed utilities only.
Other utilities need to be contacted individually.

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09-27-2016

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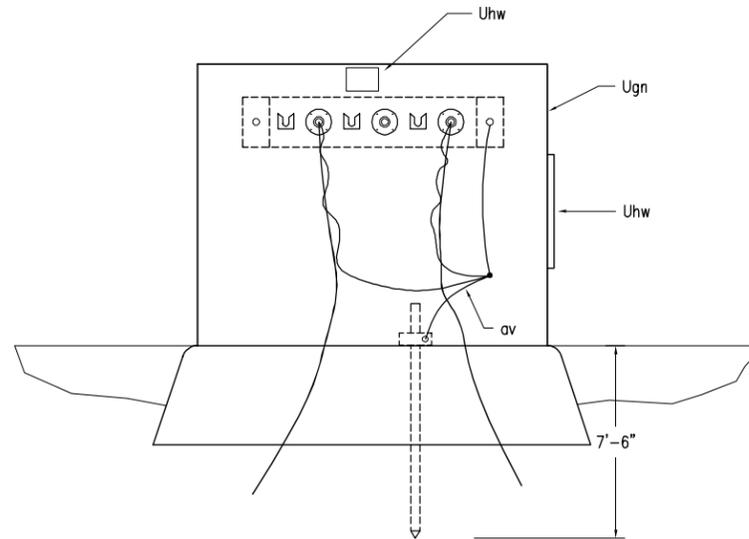
RSA Engineering, Inc.
MECHANICAL AND ELECTRICAL CONSULTING ENGINEERS
191 E. Swanton Avenue, Suite 101
Wasilla, Alaska 99654 (907) 357-1521

PYRAMID WTP
UNALASKA, ALASKA

ELECTRICAL LEGEND, SCHEDULES, SITE PLAN AND DETAILS

CITY OF UNALASKA

SCALE: AS SHOWN
DESIGNED BY: JHE
DRAWN BY: JHE
CHECKED BY: DAO/TEH
DATE: 12/2/13
FILE NO.
SHEET NUMBER
E0.1 OF 10



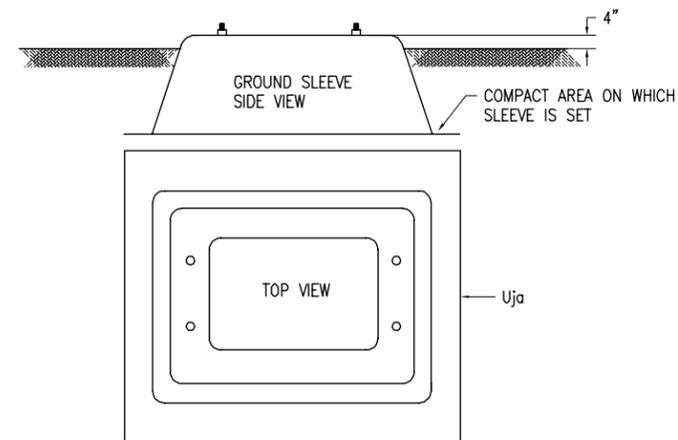
UM3-14

ITEM NO.	QTY.	MATERIAL
p		CONNECTORS, AS REQUIRED
av		JUMPERS, AS REQUIRED
Ugn	1	ENCLOSURE, STAINLESS STEEL
Uhw	2	SIGNS, "DANGER" AND "CAUTION"

NOTES:

- THE FOLLOWING UNITS/ASSEMBLIES ARE NOT PART OF THIS UNIT. SPECIFY SEPARATELY:
 - MULTIPOINT TERMINATION AND OTHER ACCESSORIES
 - FUSED OR NON-FUSED LOADBREAK ELBOWS
 - GROUNDING ASSEMBLY UM48-1 OR OTHER
 - PAD OR SLEEVE (IF REQUIRED)
- SPECIFY CONDUIT OR U-GUARD AS NEEDED TO EXTEND AT LEAST ONE FOOT BELOW GRADE.
- INSTALL "CAUTION" SIGN ON OUTSIDE SURFACE OF ENCLOSURE AND "DANGER" SIGN INSIDE ENCLOSURE.

1 SINGLE PHASE SECTIONALIZING ENCLOSURE DETAIL
E0.2 NTS



NOTE:
THIS MAY CONSIST OF A ONE PIECE UNIT OR 4 SEPARATE WALL SECTIONS

UNIT DESIGNATIONS:
UM1-7C CONCRETE
UM1-ZNC NON-CONCRETE

2 GROUND SLEEVE ASSEMBLY
E0.2 SCALE: NONE

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09-27-2016

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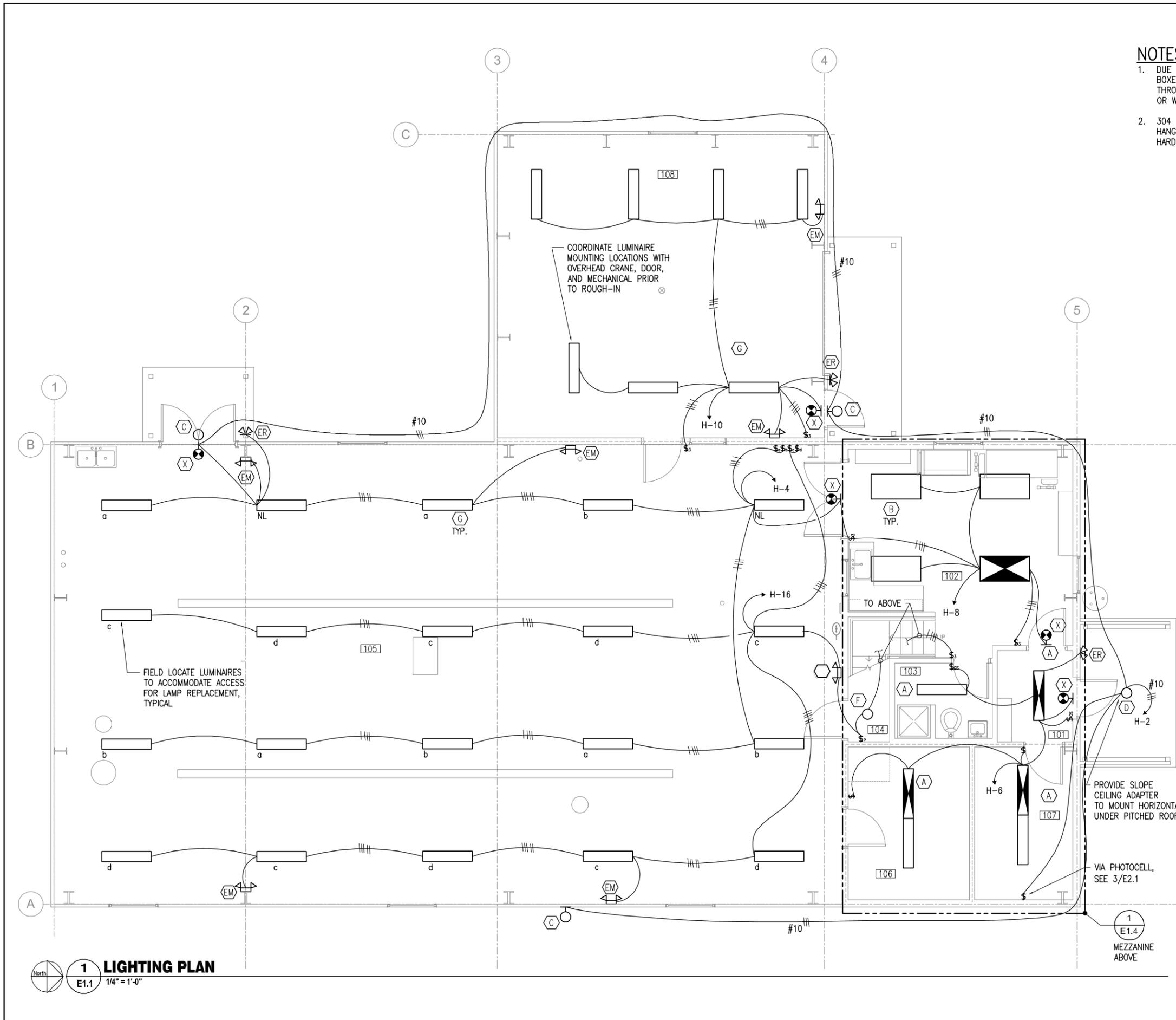
NO.	DATE	BY	REVISION

RSA Engineering, Inc.
MECHANICAL AND ELECTRICAL CONSULTING ENGINEERS
191 E. Swanson Avenue, Suite 101
Wasilla, Alaska 99654 (907) 357-1521

CITY OF UNALASKA

PYRAMID WTP
UNALASKA, ALASKA
ELECTRICAL DETAILS

SCALE:	AS SHOWN
DESIGNED BY:	JHE
DRAWN BY:	JHE
CHECKED BY:	DAO/TEH
DATE:	12/2/13
FILE NO.	
SHEET NUMBER	
E0.2	OF 10



NOTES:

1. DUE TO THE CORROSIVE ATMOSPHERE, NON-METALLIC RACEWAY, BOXES, FITTINGS, ENCLOSURES AND ACCESSORIES SHALL BE USED THROUGHOUT THE PROJECT UNLESS SPECIFICALLY NOTED OTHERWISE OR WHERE NOT PERMITTED BY NEC ARTICLE 352.
2. 304 OR 316 STAINLESS STEEL SHALL BE USED FOR ALL FASTENERS, HANGERS, RODS, CHANNEL, STRUTS, AND OTHER MOUNTING HARDWARE UNLESS SPECIFICALLY NOTED OTHERWISE.

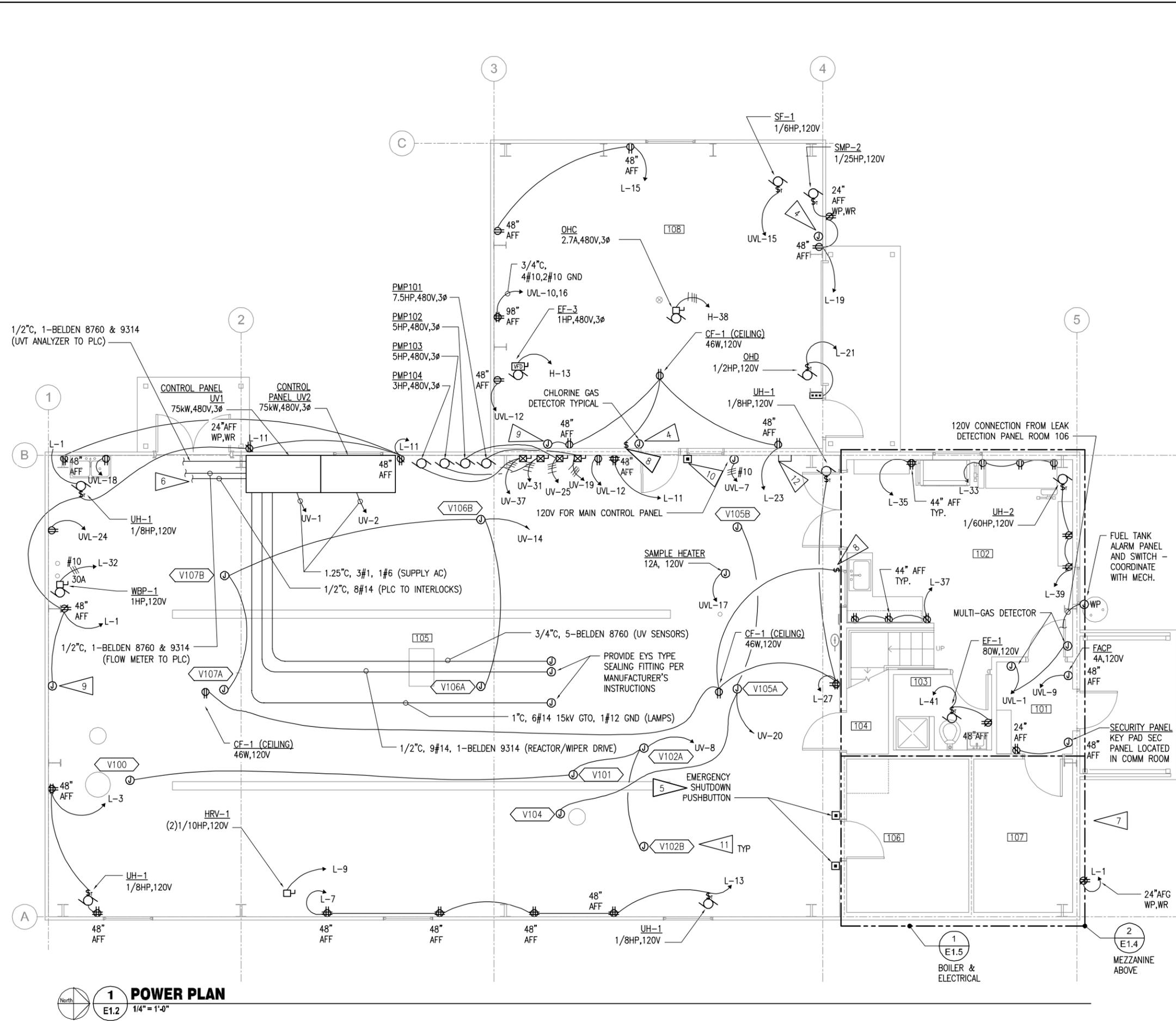
ROOM LIST

101	ENTRY
102	OFFICE/LAB
103	RESTROOM
104	STORAGE
105	PROCESS BAY
106	BOILER
107	ELECTRICAL
108	CHLORINE

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<p align="center">RSA Engineering, Inc. MECHANICAL AND ELECTRICAL CONSULTING ENGINEERS 191 E. Swanson Avenue, Suite 101 Anchorage, AK 99502 (907) 276-0521 Wasilla, Alaska 99654 (907) 357-1521</p>		<p align="center">CITY OF UNALASKA</p>
<p align="center">PYRAMID WTP UNALASKA, ALASKA</p>		<p align="center">LIGHTING PLANS</p>
SCALE:	AS SHOWN	NO.
DESIGNED BY:	JHE	BY
DRAWN BY:	JHE	DATE
CHECKED BY:	DAO/TEH	
DATE:	12/2/13	
FILE NO.		
SHEET NUMBER		
E1.1	OF 10	



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2. 304 OR 316 STAINLESS STEEL SHALL BE USED FOR ALL FASTENERS, HANGERS, RODS, CHANNEL, STRUTS, AND OTHER MOUNTING HARDWARE UNLESS SPECIFICALLY NOTED OTHERWISE.
3. ALL RECEPTACLES AND SWITCHES IN PROCESS BAY AND CHLORINE ROOM SHALL BE CORROSION RESISTANT AND LOCATED AT 48\" AFF UNLESS NOTED OTHERWISE. SEE SPECIFICATION SECTION 16141.
4. SEE 5/E1.4 FOR GAS DETECTION WIRING DIAGRAM.
5. ROUTE BOILER CIRCUITS VIA CONTACTOR WITH PUSHBUTTON OPERATOR TO DISCONNECT POWER FOR BURNERS WHEN ACTIVATED. SEE 4/E1.4 FOR WIRING DIAGRAM.
6. MANUFACTURER'S RECOMMENDED FIELD WIRING INDICATED FOR ONE REACTOR ONLY FOR CLARITY. REACTOR #2 WIRING IS IDENTICAL. SEE PROCESS AND INSTRUMENTATION DRAWINGS FOR ADDITIONAL INFORMATION.
7. SERVICE ENTRANCE EQUIPMENT LOCATION, SEE 1/E1.5. PROVIDE SIGNAGE TO INDICATE TYPE AND LOCATION OF ALL STANDBY SOURCES AT MAIN DISCONNECT PER NEC 701.7. ENGRAVED PLACARD SHALL READ "MAIN DISCONNECT AND GENERATOR DISCONNECT IS LOCATED WITHIN AUTOMATIC TRANSFER SWITCH. UPS DISCONNECT IS LOCATED ON UNIT IN ELECTRICAL ROOM BEHIND SERVICE EQUIPMENT".
8. CONTROLLER FURNISHED WITH FAN.
9. CONNECTION FOR TRAP PRIMER SOLENOID. COORDINATE LOCATION WITH MECHANICAL PRIOR TO ROUGH-IN.
10. MANUAL MULTIPOLE PUSHBUTTON SHUTOFF CONTROL FOR EXHAUST FAN EF-3 AND SF-1. PROVIDE ENGRAVED LABEL TO READ "VENTILATION SYSTEM EMERGENCY SHUTOFF" PER 2009 IMC SECTION 502.8.1.1.
11. PROCESS VALVES AND EQUIPMENT SHOWN ON ELECTRICAL PLANS REQUIRE EXTERNAL POWER SOURCE FOR EQUIPMENT POWERED THROUGH MCP, CONTROL AND INSTRUMENTATION WIRING SEE P AND EC DRAWINGS.
12. CONTACTOR FOR VENTILATION SYSTEM EMERGENCY SHUT OFF FOR EF-3 AND SF-1.

ROOM LIST

101	ENTRY
102	OFFICE/LAB
103	RESTROOM
104	STORAGE
105	PROCESS BAY
106	BOILER
107	ELECTRICAL
108	CHLORINE

PROJECT RECORD DRAWINGS
09-27-2016

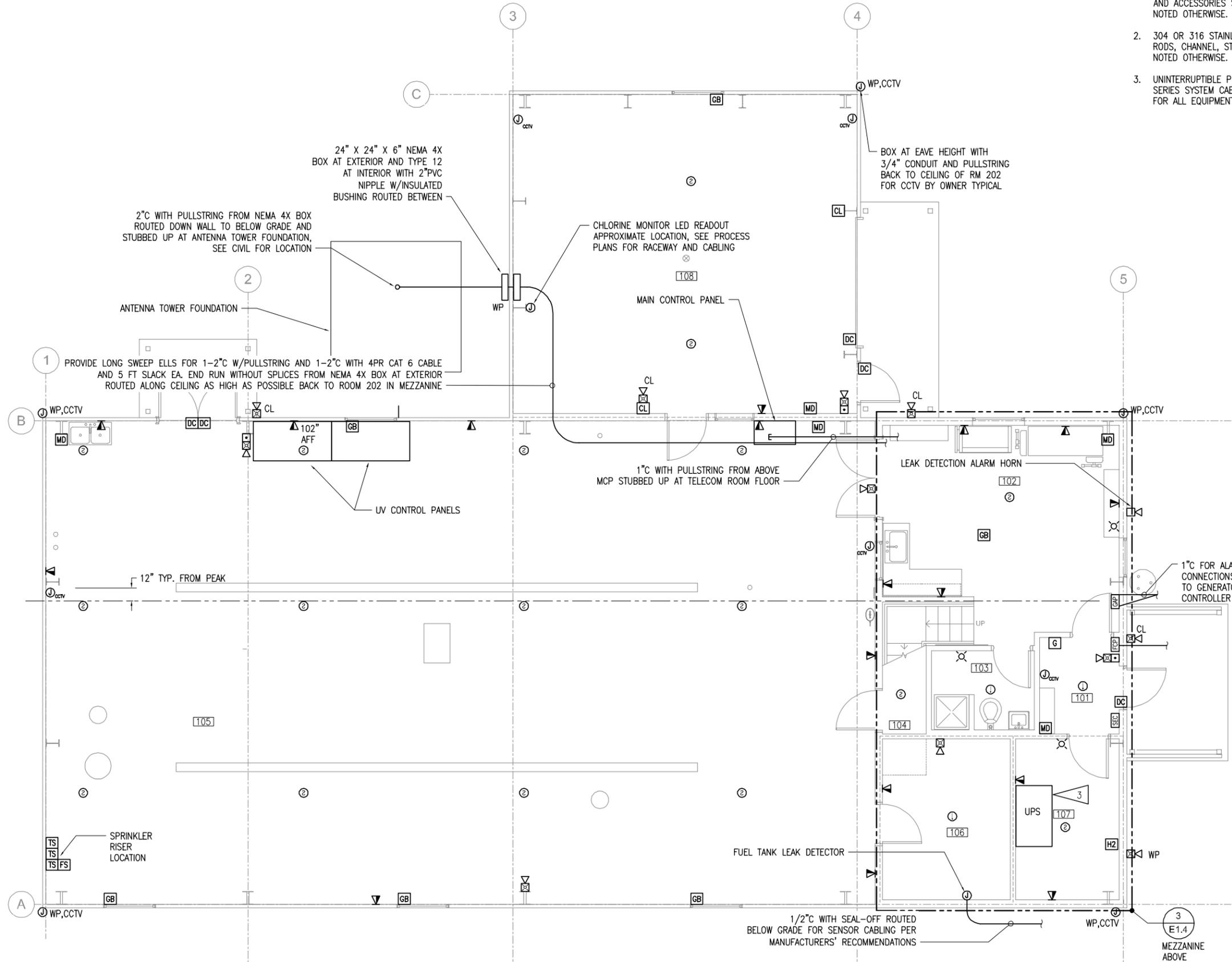
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<p align="center">PYRAMID WTP UNALASKA, ALASKA</p>	<p align="center">POWER PLANS</p>	
<p>SCALE: AS SHOWN</p> <p>DESIGNED BY: JHE</p> <p>DRAWN BY: JHE</p> <p>CHECKED BY: DAO/TEH</p> <p>DATE: 12/2/13</p> <p>FILE NO.</p>	<p align="center">SHEET NUMBER</p> <p align="center">E1.2 OF 10</p>	

1 POWER PLAN
E1.2
1/4" = 1'-0"

NOTES:

1. DUE TO THE CORROSIVE ATMOSPHERE, NON-METALLIC RACEWAY, BOXES, FITTINGS, AND ACCESSORIES SHALL BE USED THROUGHOUT THE PROJECT UNLESS SPECIFICALLY NOTED OTHERWISE.
2. 304 OR 316 STAINLESS STEEL SHALL BE USED FOR ALL FASTENERS, HANGERS, RODS, CHANNEL, STRUTS, AND OTHER MOUNTING HARDWARE UNLESS SPECIFICALLY NOTED OTHERWISE.
3. UNINTERRUPTIBLE POWER SUPPLY UNIT DIMENSIONS ARE BASED ON THE EATON 9315 SERIES SYSTEM CABINET. CONTRACTOR SHALL VERIFY MINIMUM WORKING CLEARANCES FOR ALL EQUIPMENT WITHIN THE ELECTRICAL ROOM PRIOR TO ROUGH-IN.



ROOM LIST

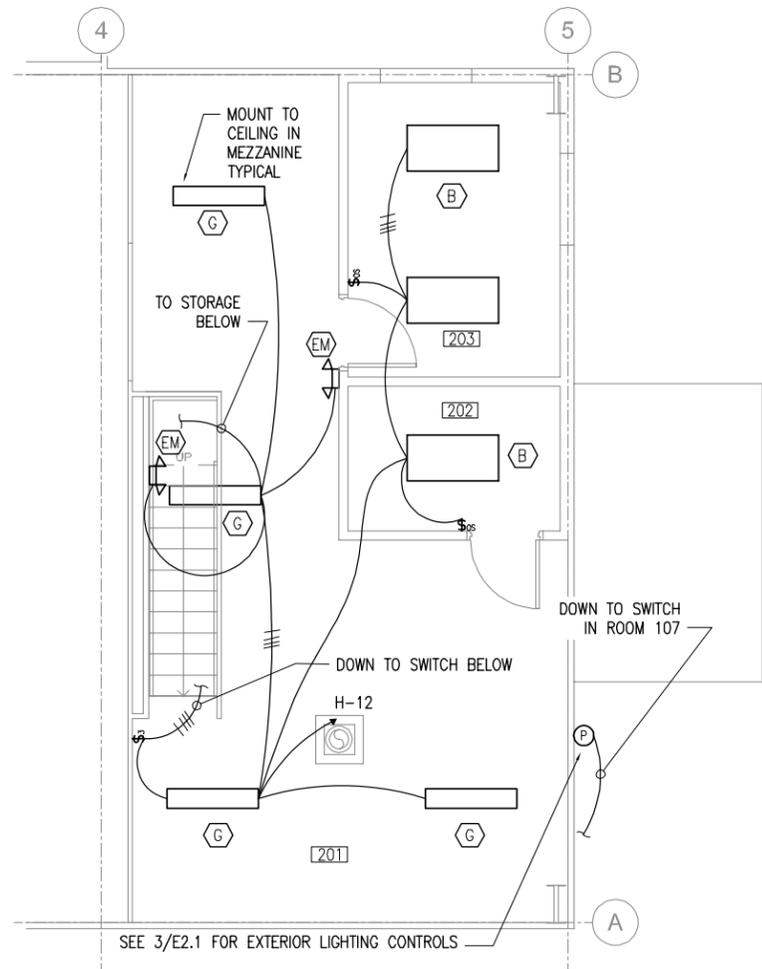
101	ENTRY
102	OFFICE/LAB
103	RESTROOM
104	STORAGE
105	PROCESS BAY
106	BOILER
107	ELECTRICAL
108	CHLORINE

1 SPECIAL SYSTEMS PLAN
E1.3 1/4" = 1'-0"

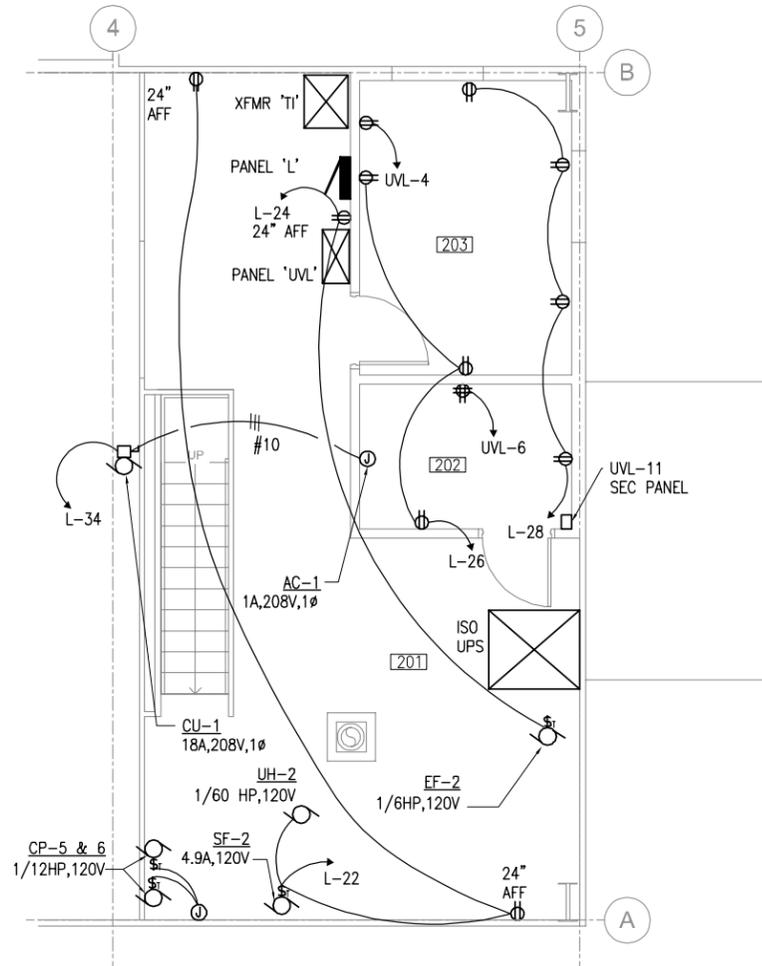
PROJECT RECORD DRAWINGS
09-27-2016

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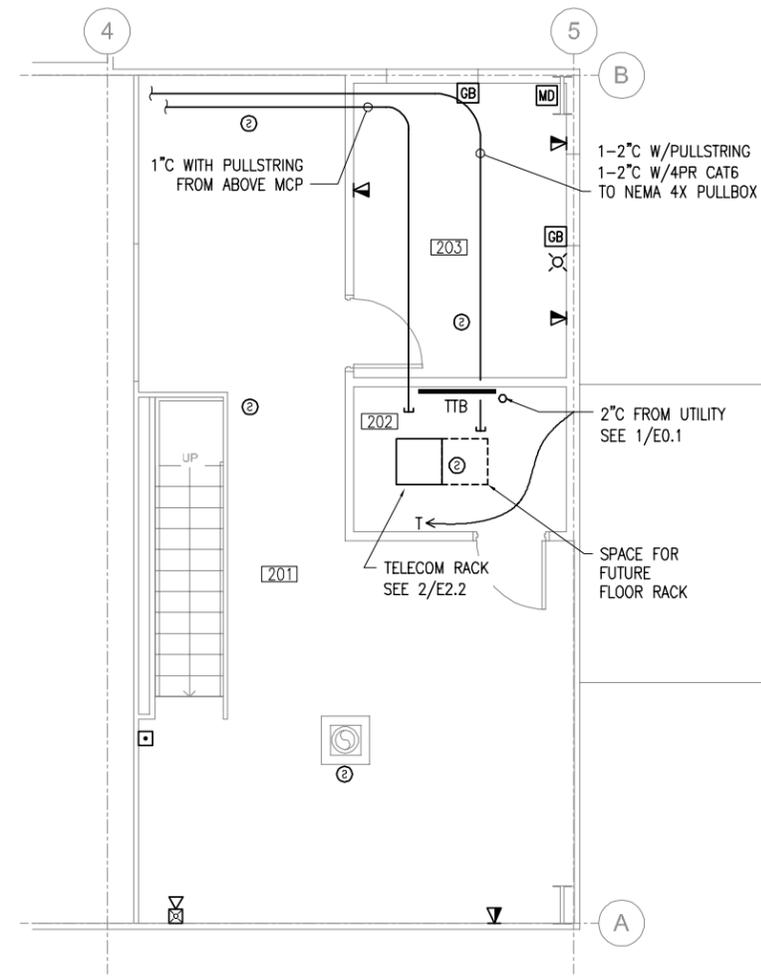
<p>RSA Engineering, Inc. MECHANICAL AND ELECTRICAL CONSULTING ENGINEERS 191 E. Swanson Avenue, Suite 101 Wasilla, Alaska 99654 (907) 357-1521</p>		<p>CITY OF UNALASKA</p>
<p>NO.</p>	<p>DATE</p>	<p>BY</p>
<p>REVISION</p>		
<p>UNALASKA, ALASKA</p>		
<p>SPECIAL ELECTRICAL SYSTEMS PLAN</p>		
<p>SCALE: AS SHOWN</p>		
<p>DESIGNED BY: JHE</p>		
<p>DRAWN BY: JHE</p>		
<p>CHECKED BY: DAO/TEH</p>		
<p>DATE: 12/2/13</p>		
<p>FILE NO.</p>		
<p>SHEET NUMBER</p>		
<p>E1.3 OF 10</p>		



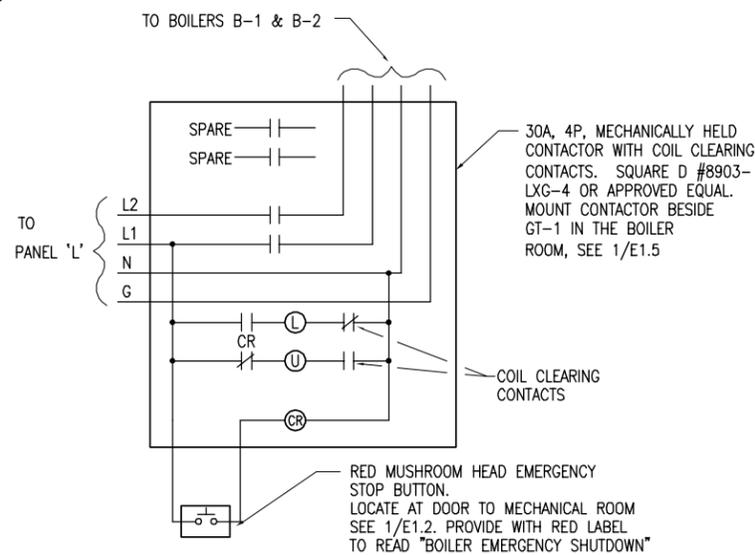
1 LIGHTING PLAN - MEZZANINE
 E1.4 1/4" = 1'-0"



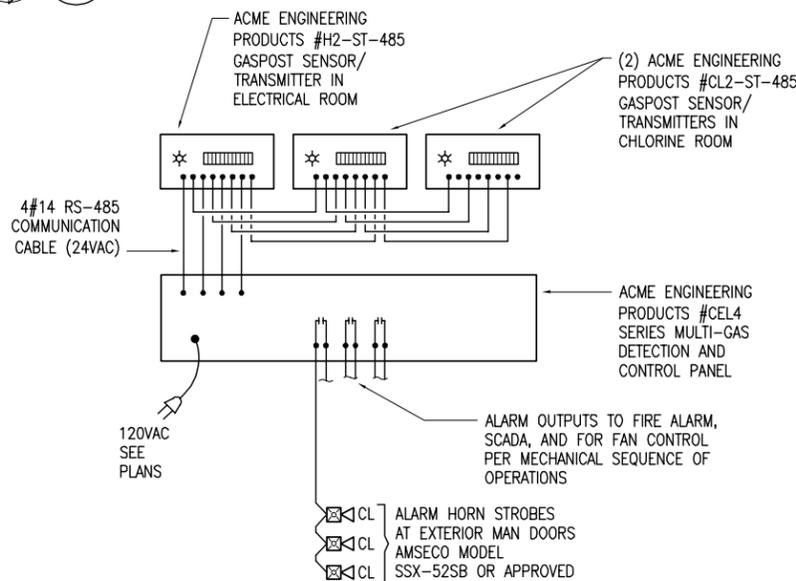
2 POWER PLAN - MEZZANINE
 E1.4 1/4" = 1'-0"



3 SPECIAL SYSTEMS PLAN - MEZZANINE
 E1.4 1/4" = 1'-0"



4 BOILER EMERGENCY SHUTDOWN WIRING DIAGRAM
 E1.4 NTS



5 GAS ALARM WIRING DIAGRAM
 E1.4 NTS

NOTES:

1. DUE TO THE CORROSIVE ATMOSPHERE, NON-METALLIC RACEWAY, BOXES, FITTINGS, AND ACCESSORIES SHALL BE USED THROUGHOUT THE PROJECT UNLESS SPECIFICALLY NOTED OTHERWISE.
2. 304 OR 316 STAINLESS STEEL SHALL BE USED FOR ALL FACEPLATES, FASTENERS, HANGERS, RODS, CHANNEL, STRUTS, AND OTHER MOUNTING HARDWARE UNLESS SPECIFICALLY NOTED OTHERWISE.
3. ALL RECEPTACLES AND SWITCHES SHALL BE WEATHER RESISTANT AND LOCATED AT 48" AFF UNLESS NOTED OTHERWISE. SEE SPECIFICATION SECTION 16141.

PROJECT RECORD DRAWINGS
 09-27-2016

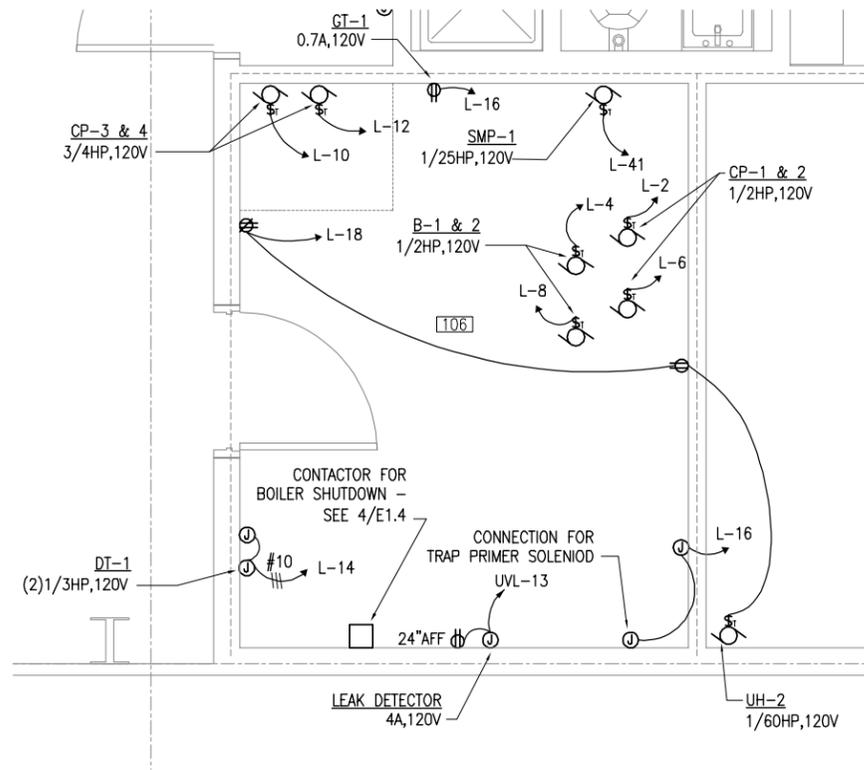
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 MECHANICAL AND ELECTRICAL CONSULTING ENGINEERS
 191 E. Swanson Avenue, Suite 101
 Wasilla, Alaska 99654 (907) 276-0521
 Anchorage, AK 99502 (907) 276-0521

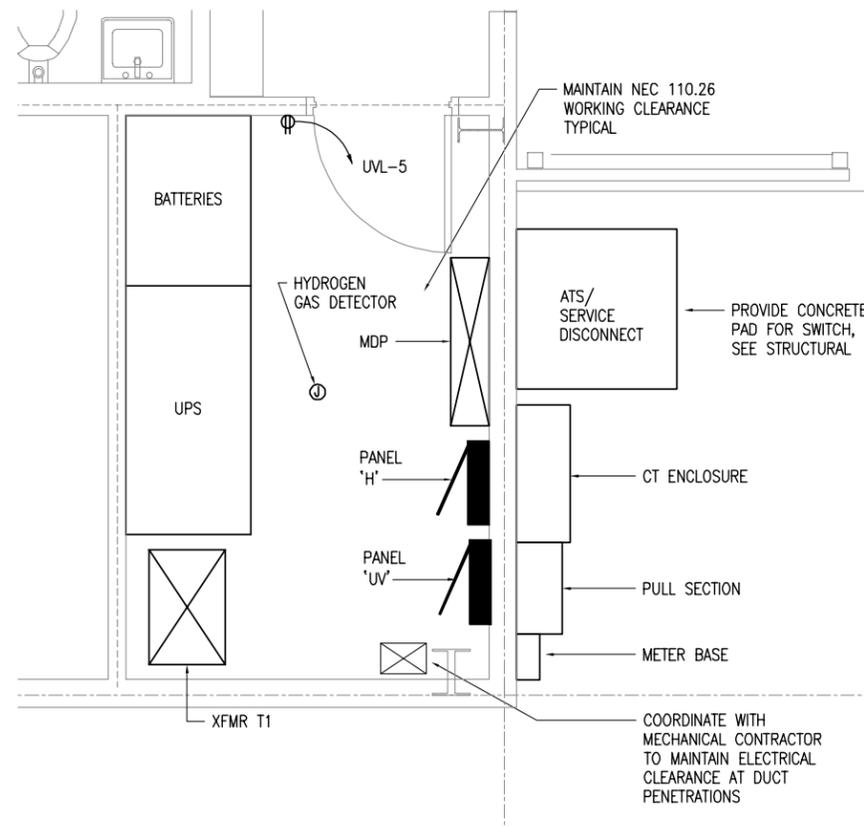
CITY OF UNALASKA

PYRAMID WTP
 UNALASKA, ALASKA
 MEZZANINE ELECTRICAL PLANS

SCALE:	AS SHOWN
DESIGNED BY:	JHE
DRAWN BY:	JHE
CHECKED BY:	DAO/TEH
DATE:	12/2/13
FILE NO.:	
SHEET NUMBER:	E1.4 OF 10



1 ENLARGED POWER PLANS - BOILER ROOM
 E1.5 1/2" = 1'-0"



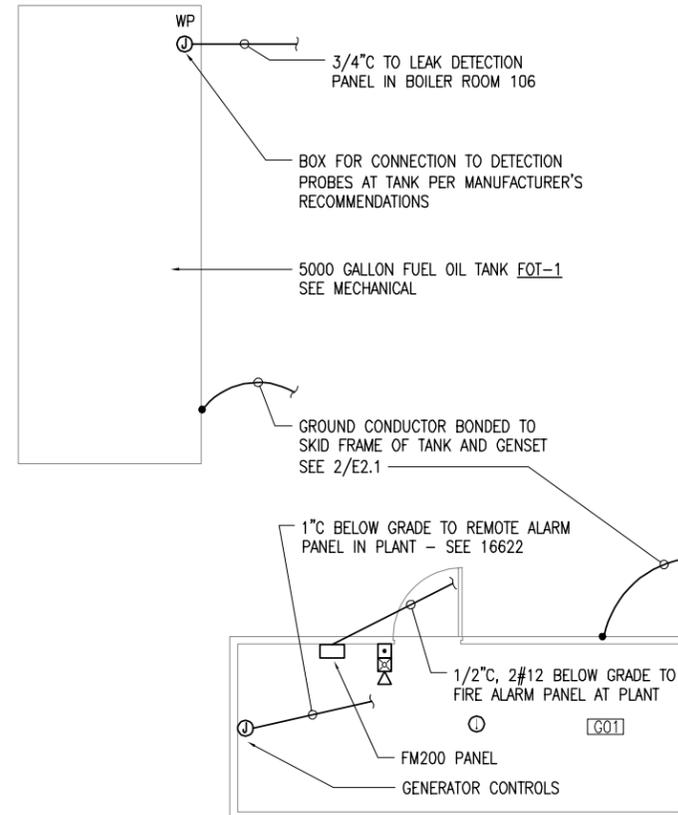
3 ENLARGED POWER PLANS - ELECTRICAL ROOM
 E1.5 1/2" = 1'-0"

ROOM LIST

106	BOILER
107	ELECTRICAL
G01	GENERATOR

NOTES:

- 304 OR 316 STAINLESS STEEL SHALL BE USED FOR ALL FACEPLATES, FASTENERS, HANGERS, RODS, CHANNEL, STRUTS, AND OTHER MOUNTING HARDWARE UNLESS SPECIFICALLY NOTED OTHERWISE.
- SEE 1/E2.1 FOR ONE LINE DIAGRAM AND 2/E2.1 FOR GROUNDING DETAIL.



2 SPECIAL SYSTEMS PLAN - GENERATOR & FUEL TANK
 E1.5 1/4" = 1'-0"

PROJECT RECORD DRAWINGS
 09-27-2016

THESE DRAWINGS HAVE BEEN PREPARED FROM INFORMATION FURNISHED BY THE GENERAL CONTRACTOR. THERE IS ABSOLUTELY NO GUARANTEE AS TO THE ACCURACY OF THE INFORMATION CONTAINED HEREIN, EITHER EXPRESSED OR IMPLIED.

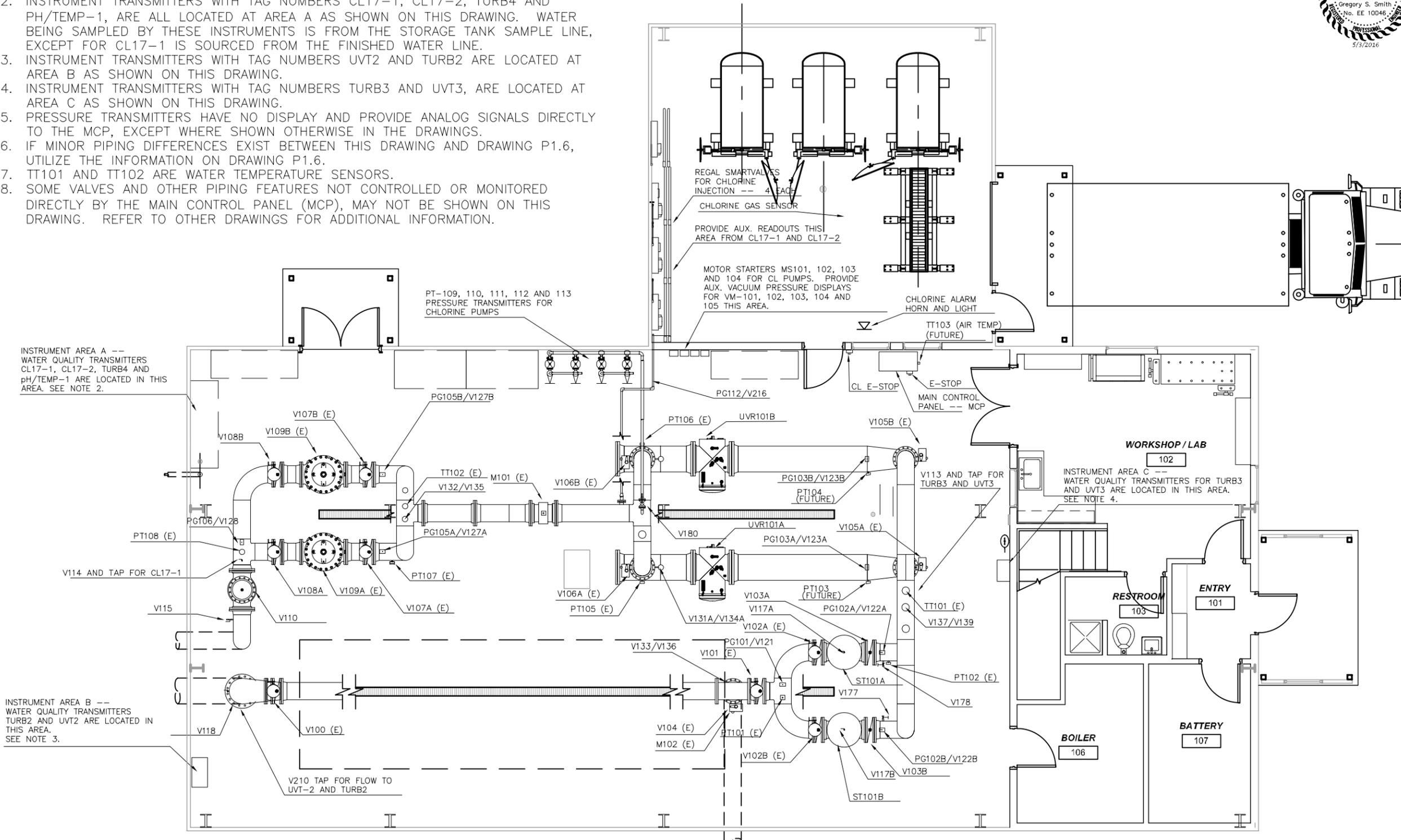
<p>RSA Engineering, Inc. MECHANICAL AND ELECTRICAL CONSULTING ENGINEERS 191 E. Swanson Avenue, Suite 101 Wasilla, Alaska 99654 (907) 357-1521</p>		<p>NO. _____</p> <p>DATE _____</p> <p>BY _____</p> <p>REVISION _____</p>
<p>PYRAMID WTP UNALASKA, ALASKA</p>		<p>CITY OF UNALASKA</p>
<p>GENERATOR ELECTRICAL PLANS</p>		<p>SCALE: AS SHOWN</p> <p>DESIGNED BY: JHE</p> <p>DRAWN BY: JHE</p> <p>CHECKED BY: DAO/TEH</p> <p>DATE: 12/2/13</p> <p>FILE NO. _____</p> <p>SHEET NUMBER</p> <p>E1.5 OF 10</p>

RECORD DRAWINGS BASED ON AS-CONSTRUCTED DRAWINGS PREPARED BY TSI



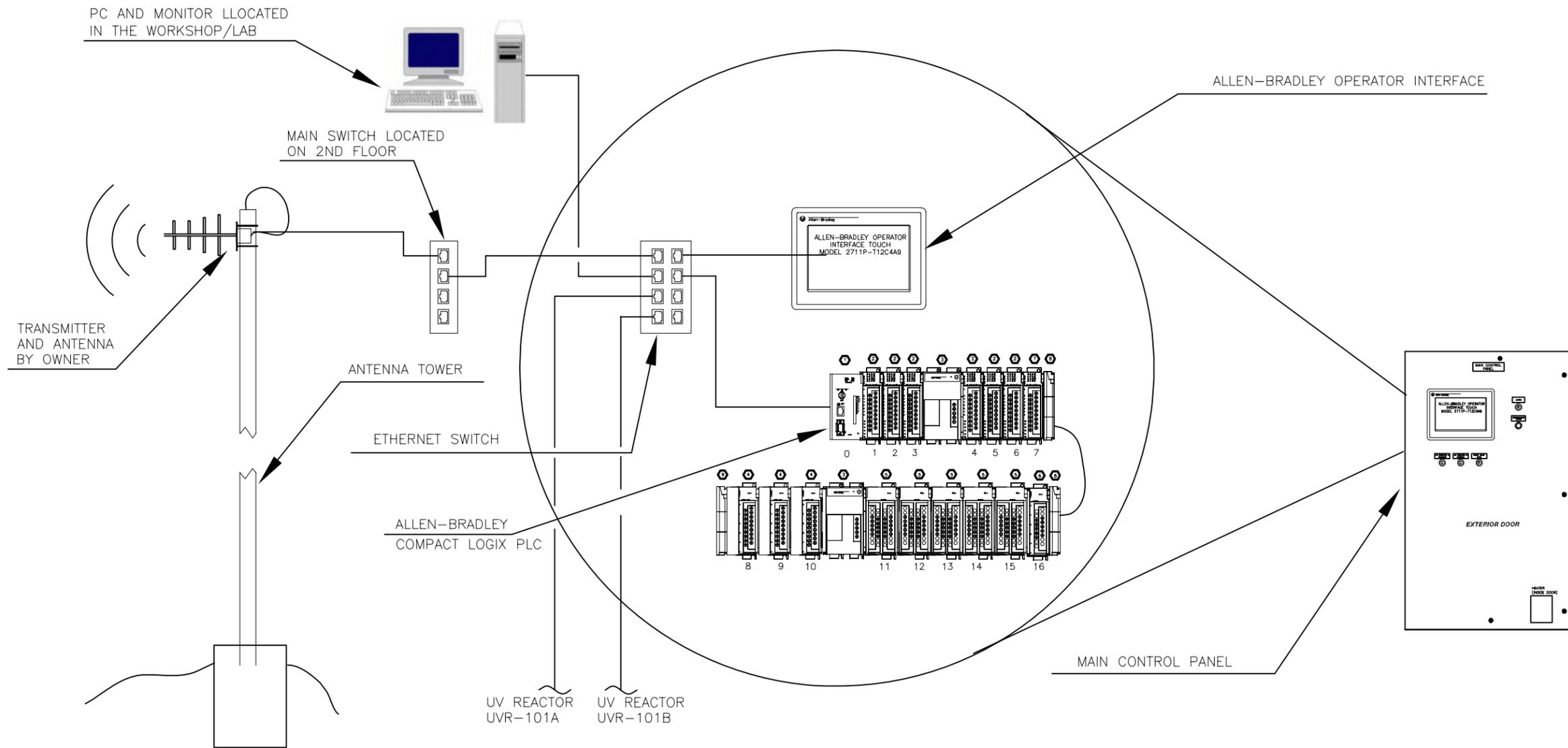
NOTES

1. VALVE OR SENSOR ID TAGS FOLLOWED BY AN (E) ARE ELECTRICALLY OPERATED OR MONITORED IN THE PLC.
2. INSTRUMENT TRANSMITTERS WITH TAG NUMBERS CL17-1, CL17-2, TURB4 AND PH/TEMP-1, ARE ALL LOCATED AT AREA A AS SHOWN ON THIS DRAWING. WATER BEING SAMPLED BY THESE INSTRUMENTS IS FROM THE STORAGE TANK SAMPLE LINE, EXCEPT FOR CL17-1 IS SOURCED FROM THE FINISHED WATER LINE.
3. INSTRUMENT TRANSMITTERS WITH TAG NUMBERS UVT2 AND TURB2 ARE LOCATED AT AREA B AS SHOWN ON THIS DRAWING.
4. INSTRUMENT TRANSMITTERS WITH TAG NUMBERS TURB3 AND UVT3, ARE LOCATED AT AREA C AS SHOWN ON THIS DRAWING.
5. PRESSURE TRANSMITTERS HAVE NO DISPLAY AND PROVIDE ANALOG SIGNALS DIRECTLY TO THE MCP, EXCEPT WHERE SHOWN OTHERWISE IN THE DRAWINGS.
6. IF MINOR PIPING DIFFERENCES EXIST BETWEEN THIS DRAWING AND DRAWING P1.6, UTILIZE THE INFORMATION ON DRAWING P1.6.
7. TT101 AND TT102 ARE WATER TEMPERATURE SENSORS.
8. SOME VALVES AND OTHER PIPING FEATURES NOT CONTROLLED OR MONITORED DIRECTLY BY THE MAIN CONTROL PANEL (MCP), MAY NOT BE SHOWN ON THIS DRAWING. REFER TO OTHER DRAWINGS FOR ADDITIONAL INFORMATION.



PROJECT NO. 202-05		DRAWING NO. 20205-SEC-01		SHEET 1 OF 19	
DESIGNED: SRS		DRAWN: SRS		CHECKED: GSS	
DATE: 6/15/2011		3100 Channel Dr. Ste. 210N Juneau, AK 99801 Phone: 907-586-8367 FAX: 907-586-4010			
PYRAMID WATER TREATMENT PLANT CITY OF UNALASKA UNALASKA, ALASKA					
PYRAMID WATER TREATMENT PLANT INSTRUMENTATION FLOOR PLAN SKETCH FOR USE IN INSTALLATION					
SCALE: 1/8" = 1'-0"					
1) ASI 01 - SUBMITTAL - 9/02/2014					
2) AS-RECORDED - 10/09/2015					
3)					
4)					
5)					

RECORD DRAWINGS BASED ON AS-CONSTRUCTED
DRAWINGS PREPARED BY TSI



NETWORK DIAGRAM

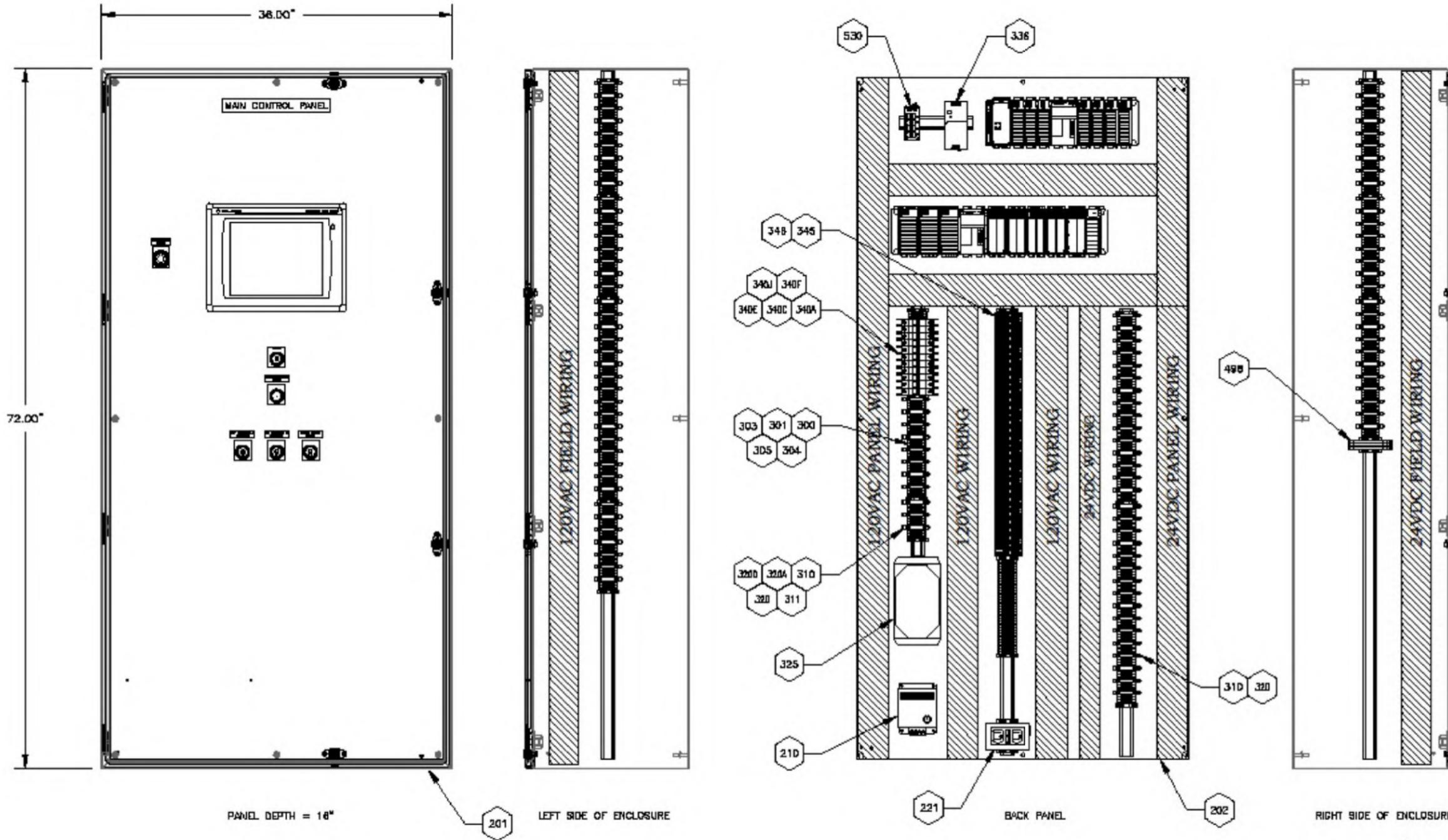
PYRAMID WATER TREATMENT PLANT MODIFICATIONS
UNALASKA, ALASKA
CITY OF UNALASKA

PROJECT NO. 202-05	DESIGNED: SRS	DATE: 6/15/2011
DRAWING NO. 20205-EC-02	DRAWN: SRS	CHECKED: GSS
SHEET 2 of 19		
3100 Channel Dr. Ste. 210N Juneau, AK 99801 Phone: 907-586-8367 FAX: 907-586-4010		
BCi BOREAL CONTROLS, INC. JUNEAU, ALASKA		

PYRAMID WATER TREATMENT PLANT
NETWORK DIAGRAM
SCALE: NONE

1) ASI 01 SUBMITTAL - 9/02/2014
2) AS-RECORDED - 10/09/2015
3)
4)
5)

RECORD DRAWINGS BASED ON AS-CONSTRUCTED DRAWINGS PREPARED BY TSI



DRAWING COPIED FROM TSI FIELD RECORD DRAWING SET --- SHEET MCP-J01 (NOT TO SCALE)

- 1) ASI 01 SUBMITTAL - 9/02/2014
- 2) AS-RECORDED - 10/09/2015
- 3)
- 4)
- 5)

PYRAMID WATER TREATMENT PLANT
CITY OF UNALASKA

PYRAMID WATER TREATMENT PLANT
CONTROL PANEL LAYOUT
SKETCH FOR USE IN FABRICATION
SCALE: 1.5"=1'-0"

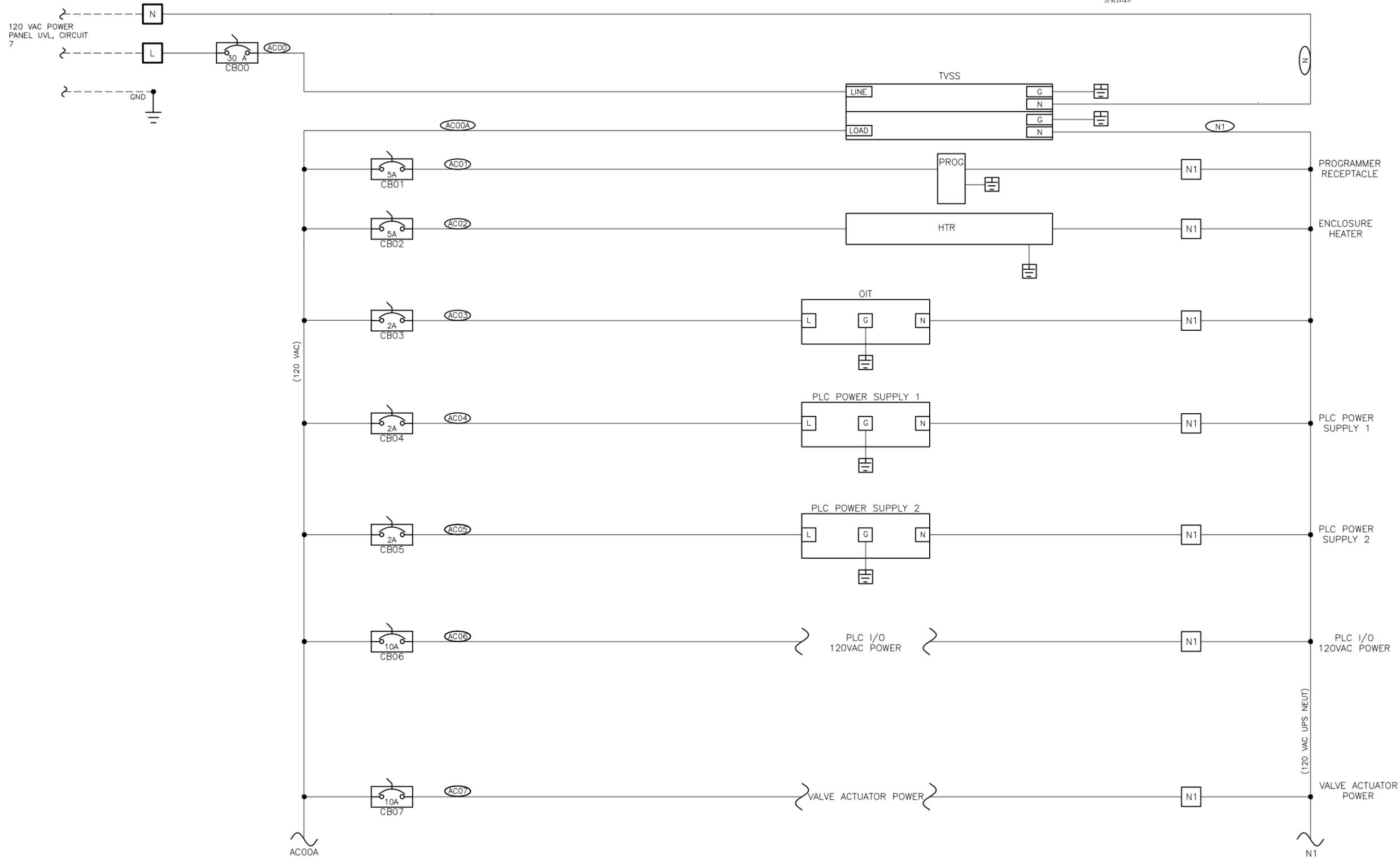


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FAX: 907-586-4010

DESIGNED: SRS
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DATE: 6/15/2011

PROJECT NO. 202-05
DRAWING NO. 20205-SEC-03
SKETCH 3 of 19

RECORD DRAWINGS BASED ON AS-CONSTRUCTED
DRAWINGS PREPARED BY TSI



PYRAMID WATER TREATMENT PLANT MODIFICATIONS
UNALASKA, ALASKA
CITY OF UNALASKA

PROJECT NO.
202-05

DRAWING NO.
20205-EC-04

SHEET
4 OF 19

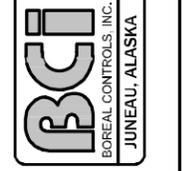
DESIGNED:
SRS

DRAWN:
SRS

CHECKED:
GSS

DATE:
6/15/2011

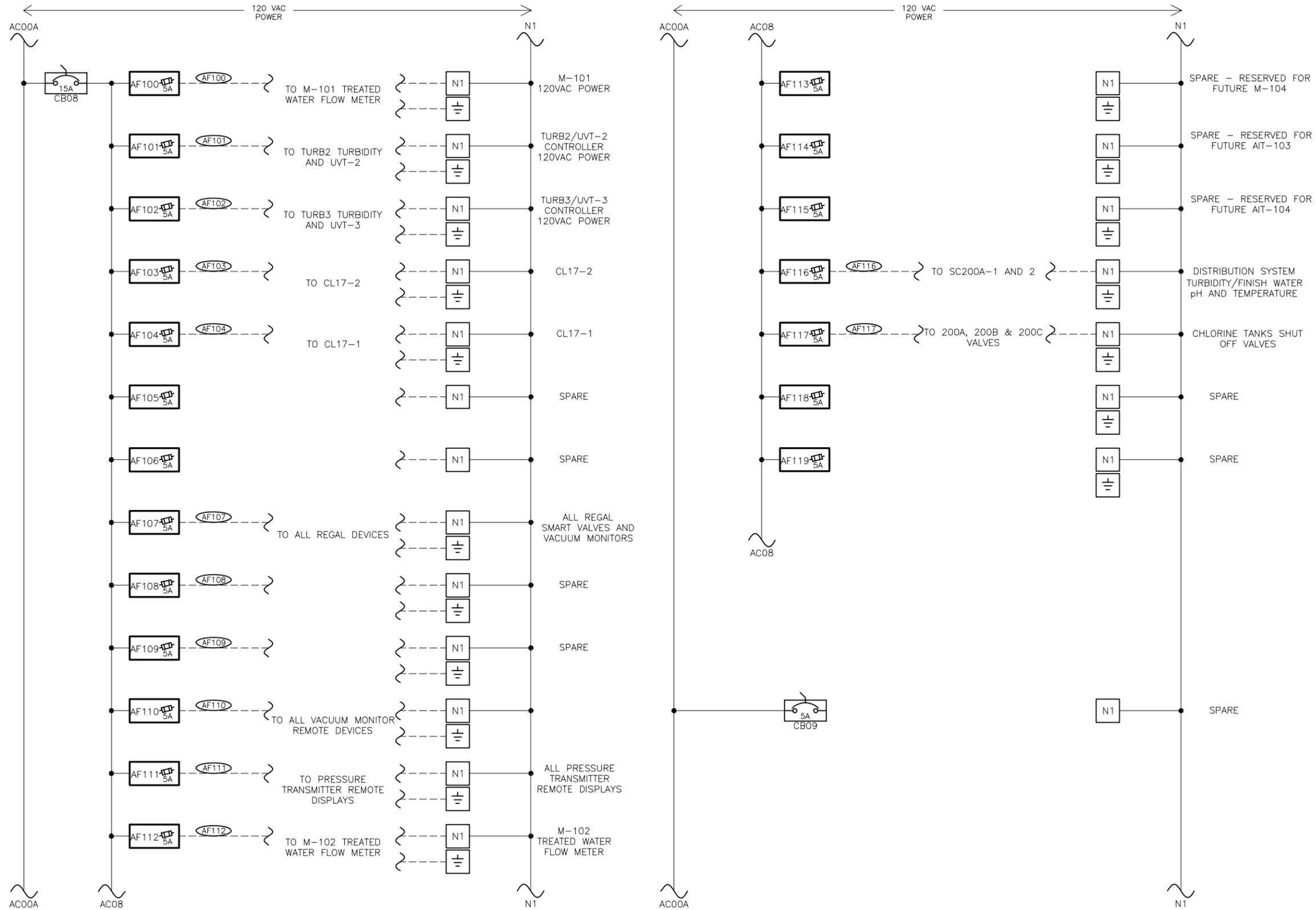
3100 Channel Dr. Ste. 210N
Juneau, AK 99801
Phone: 907-586-8367
FAX: 907-586-4010



PYRAMID WATER TREATMENT PLANT
MAIN CONTROL PANEL
CONTROL POWER SCHEMATIC
SCALE: NONE

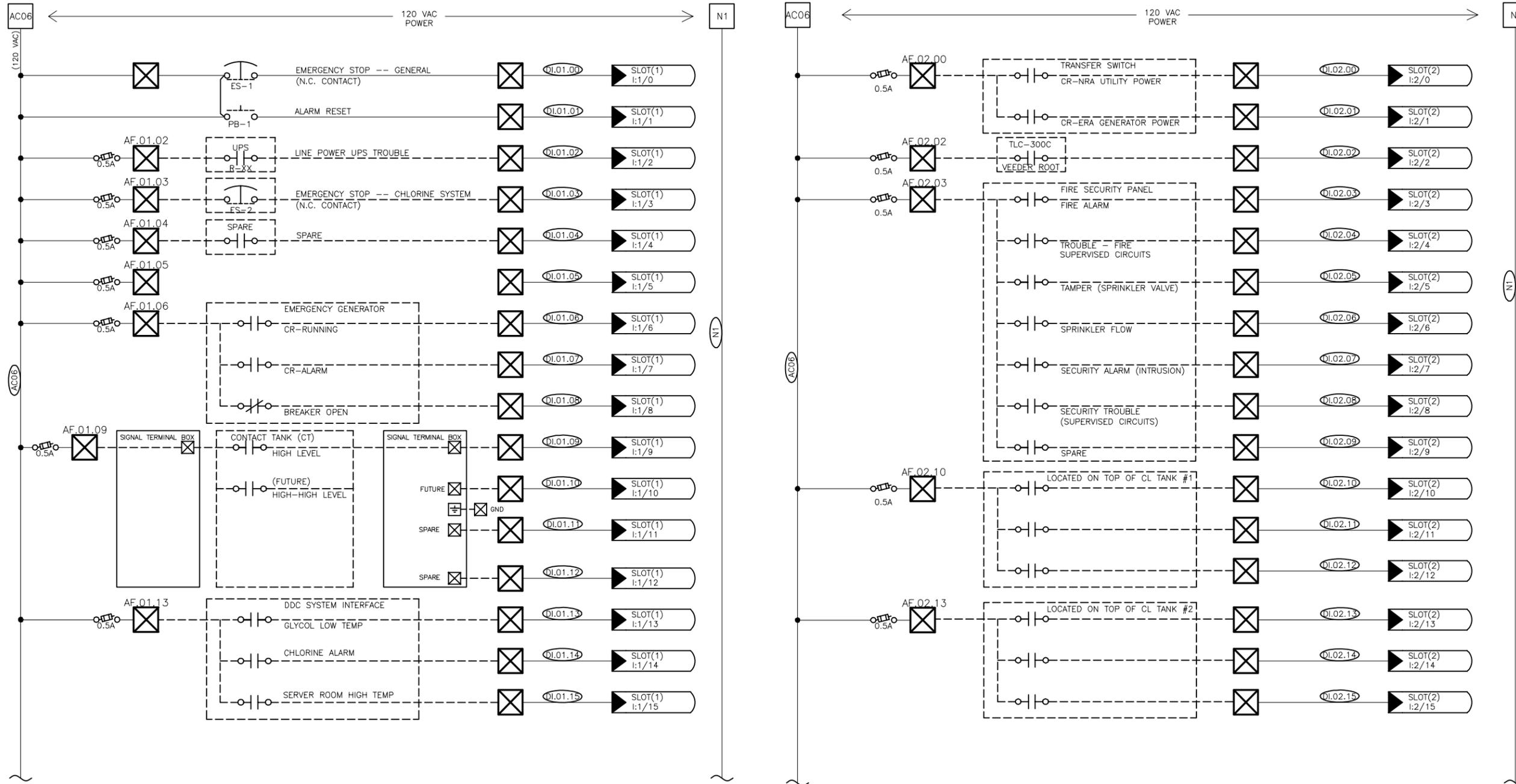
- 1) ASI 01 SUBMITTAL - 9/02/2014
- 2) AS-RECORDED - 10/09/2015
- 3)
- 4)
- 5)

RECORD DRAWINGS BASED ON AS-CONSTRUCTED
DRAWINGS PREPARED BY TSI



PYRAMID WATER TREATMENT PLANT MODIFICATIONS UNALASKA, ALASKA		PROJECT NO. 202-05 DRAWING NO. 20205-EC-05 SHEET 5 of 19 DATE: 6/15/2011
PYRAMID WATER TREATMENT PLANT MAIN CONTROL PANEL CONTROL POWER SCHEMATIC SCALE: NONE		DESIGNED: SRS DRAWN: SRS CHECKED: GSS 3100 Channel Dr. Ste. 210N Juneau, AK 99801 Phone: 907-586-8367 FAX: 907-586-4010
1) ASI 01 SUBMITTAL - 9/02/2014 2) AS-RECORDED - 10/09/2015 3) 4) 5)		

RECORD DRAWINGS BASED ON AS-CONSTRUCTED
DRAWINGS PREPARED BY TSI



NOTE:
1. THESE I/O POINTS INCLUDE ONLY DISCRETE INPUT SIGNALS. REFER TO DISCRETE OUTPUT SCHEMATICS, ANALOG I/O SCHEMATICS AND MISCELLANEOUS WIRING DIAGRAMS FOR ADDITIONAL INFORMATION.

PYRAMID WATER TREATMENT PLANT MODIFICATIONS
UNALASKA, ALASKA
CITY OF UNALASKA

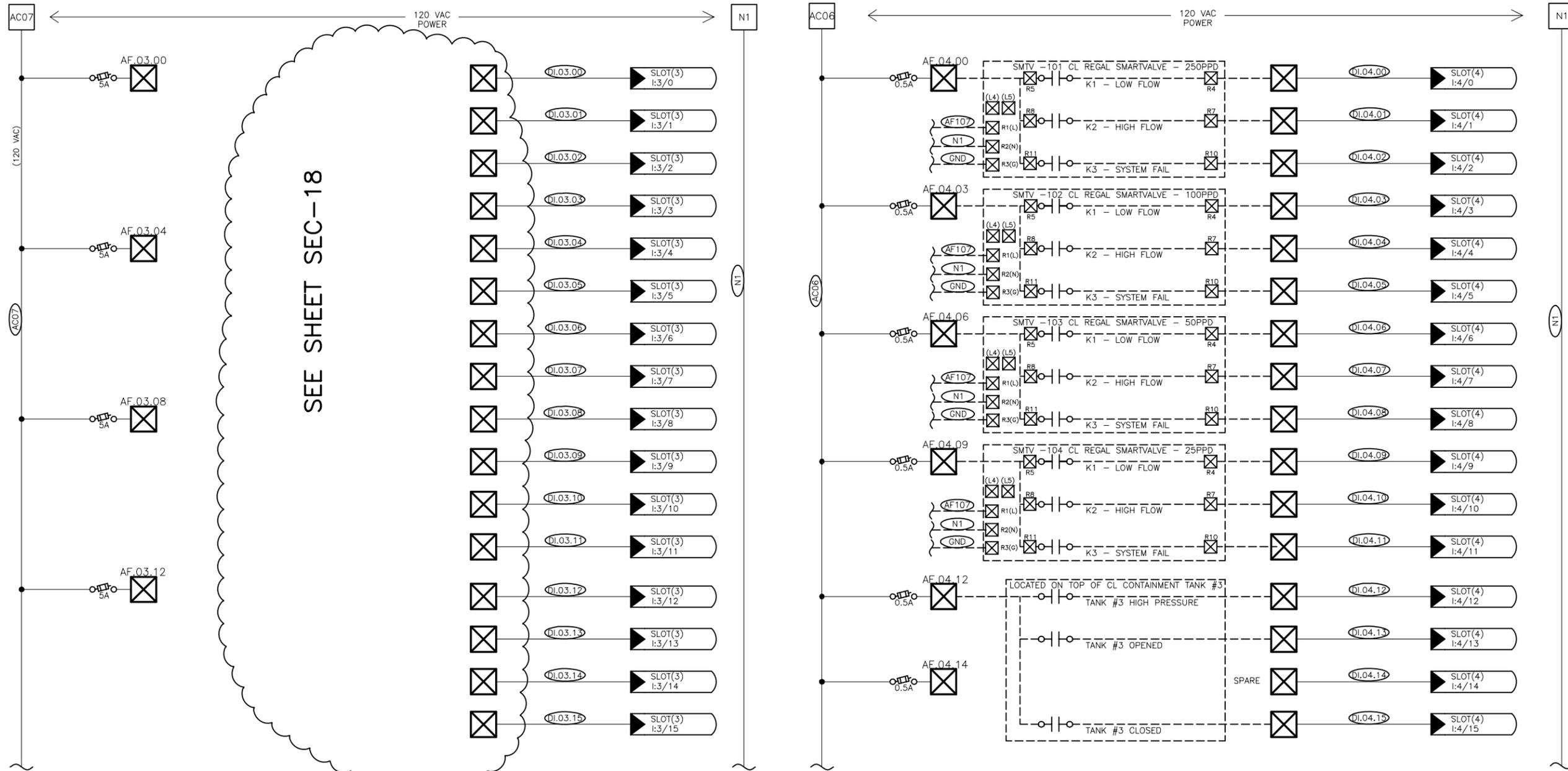
PROJECT NO. 202-05	DESIGNED: SRS
DRAWING NO. 20205-SEC-06	DRAWN: SRS
SHEET 6 of 19	CHECKED: GSS
DATE: 6/15/2011	

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Juneau, AK 99801
Phone: 907-586-8367
FAX: 907-586-4010

PYRAMID WATER TREATMENT PLANT
MAIN CONTROL PANEL
DISCRETE 120VAC INPUT SCHEMATIC -
SKETCH FOR FABRICATION
SCALE: NONE

- 1) ASI 01 SUBMITTAL - 9/02/2014
- 2) AS-RECORDED - 10/09/2015
- 3)
- 4)
- 5)

RECORD DRAWINGS BASED ON AS-CONSTRUCTED
DRAWINGS PREPARED BY TSI



SEE SHEET SEC-18

NOTE:

1. THESE I/O POINTS INCLUDE ONLY DISCRETE INPUT SIGNALS. REFER TO DISCRETE OUTPUT SCHEMATICS, ANALOG I/O SCHEMATICS AND MISCELLANEOUS WIRING DIAGRAMS FOR ADDITIONAL INFORMATION.

PYRAMID WATER TREATMENT PLANT MODIFICATIONS
UNALASKA, ALASKA
CITY OF UNALASKA

PROJECT NO. 202-05
DRAWING NO. 20205-SEC-07
SHEET 7 OF 19

DESIGNED: SRS
DRAWN: SRS
CHECKED: GSS
DATE: 6/15/2011

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Juneau, AK 99801
Phone: 907-586-8367
FAX: 907-586-4010

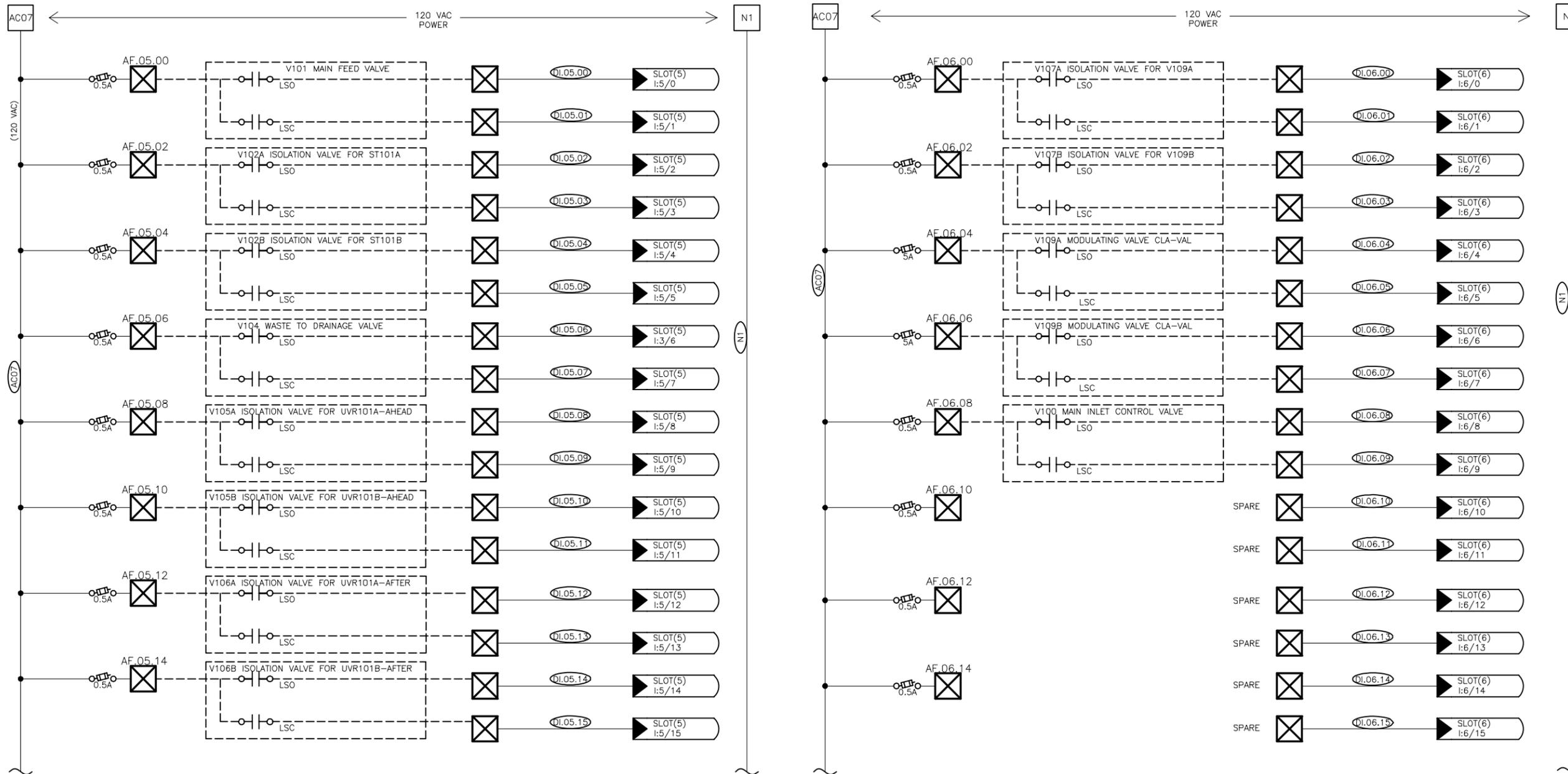
BCi
BOREAL CONTROLS, INC.
JUNEAU, ALASKA

PYRAMID WATER TREATMENT PLANT
MAIN CONTROL PANEL
DISCRETE 120VAC INPUT SCHEMATIC-2
SKETCH FOR FABRICATION

SCALE: NONE

- 1) ASI 01 SUBMITTAL - 9/02/2014
- 2) AS-RECORDED - 10/09/2015
- 3)
- 4)
- 5)

RECORD DRAWINGS BASED ON AS-CONSTRUCTED
DRAWINGS PREPARED BY TSI



NOTE:
1. THESE I/O POINTS INCLUDE ONLY DISCRETE INPUT SIGNALS. REFER TO DISCRETE OUTPUT SCHEMATICS, ANALOG I/O SCHEMATICS AND MISCELLANEOUS WIRING DIAGRAMS FOR ADDITIONAL INFORMATION.

PYRAMID WATER TREATMENT PLANT MODIFICATIONS
UNALASKA, ALASKA
CITY OF UNALASKA

PROJECT NO. 202-05
DRAWING NO. 20205-SEC-08
SHEET 8 of 19

DESIGNED: SRS
DRAWN: SRS
CHECKED: GSS
DATE: 6/15/2011

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Juneau, AK 99801
Phone: 907-586-8367
FAX: 907-586-4010

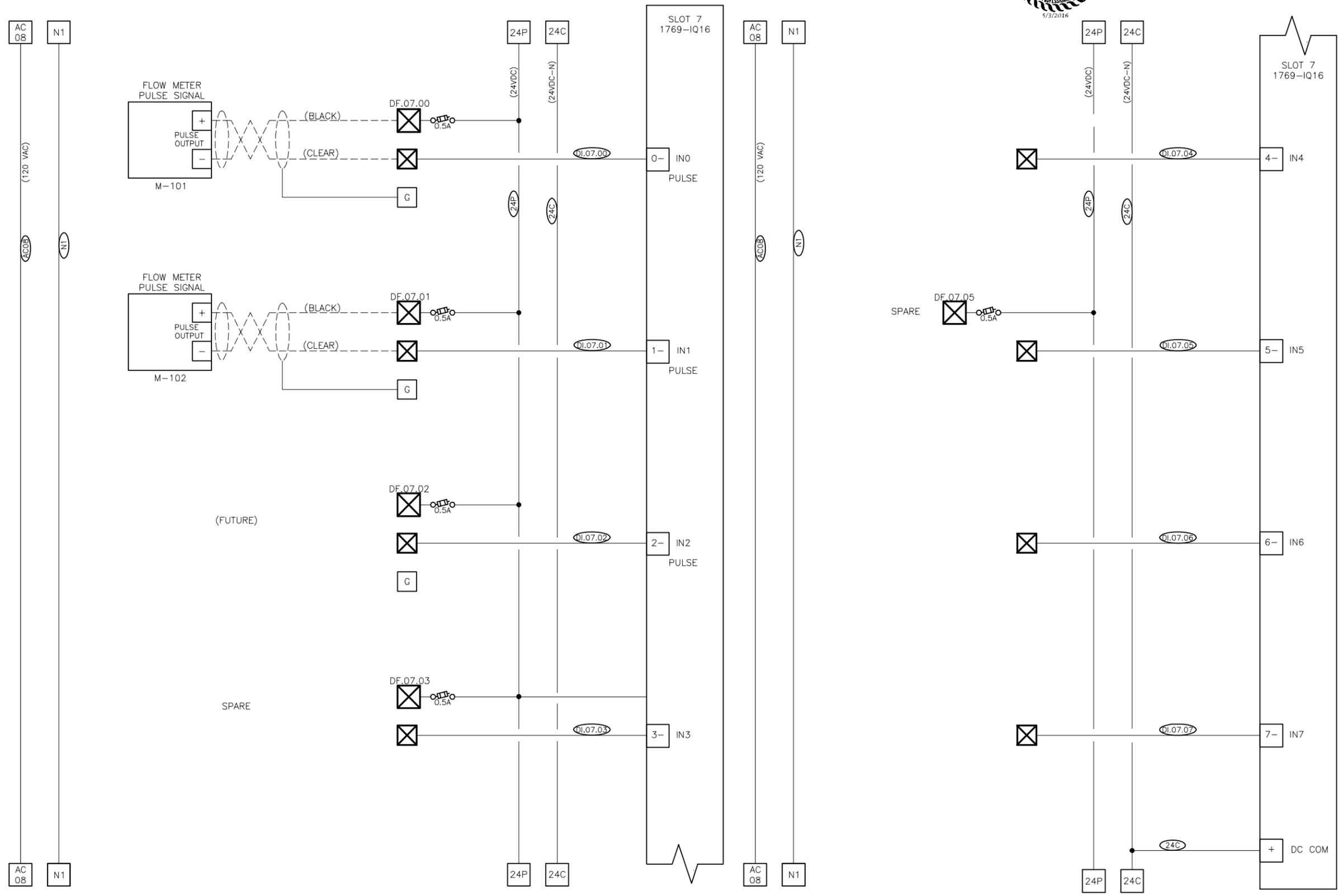
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BORCAL CONTROLS, INC.
JUNEAU, ALASKA

PYRAMID WATER TREATMENT PLANT
MAIN CONTROL PANEL
DISCRETE 120VAC INPUT SCHEMATIC-3
SKETCH FOR FABRICATION

SCALE: NONE

- 1) ASI 01 SUBMITTAL - 9/02/2014
- 2) AS-RECORDED - 10/09/2015
- 3)
- 4)
- 5)

RECORD DRAWINGS BASED ON AS-CONSTRUCTED
DRAWINGS PREPARED BY TSI



- 1) ASI 01 SUBMITTAL - 9/02/2014
- 2) AS-RECORDED - 10/09/2015
- 3)
- 4)
- 5)

PYRAMID WATER TREATMENT PLANT
CITY OF UNALASKA

PYRAMID WATER TREATMENT PLANT
MAIN CONTROL PANEL
DISCRETE 120VAC INPUT SCHEMATIC-3
SKETCH FOR FABRICATION

SCALE: NONE

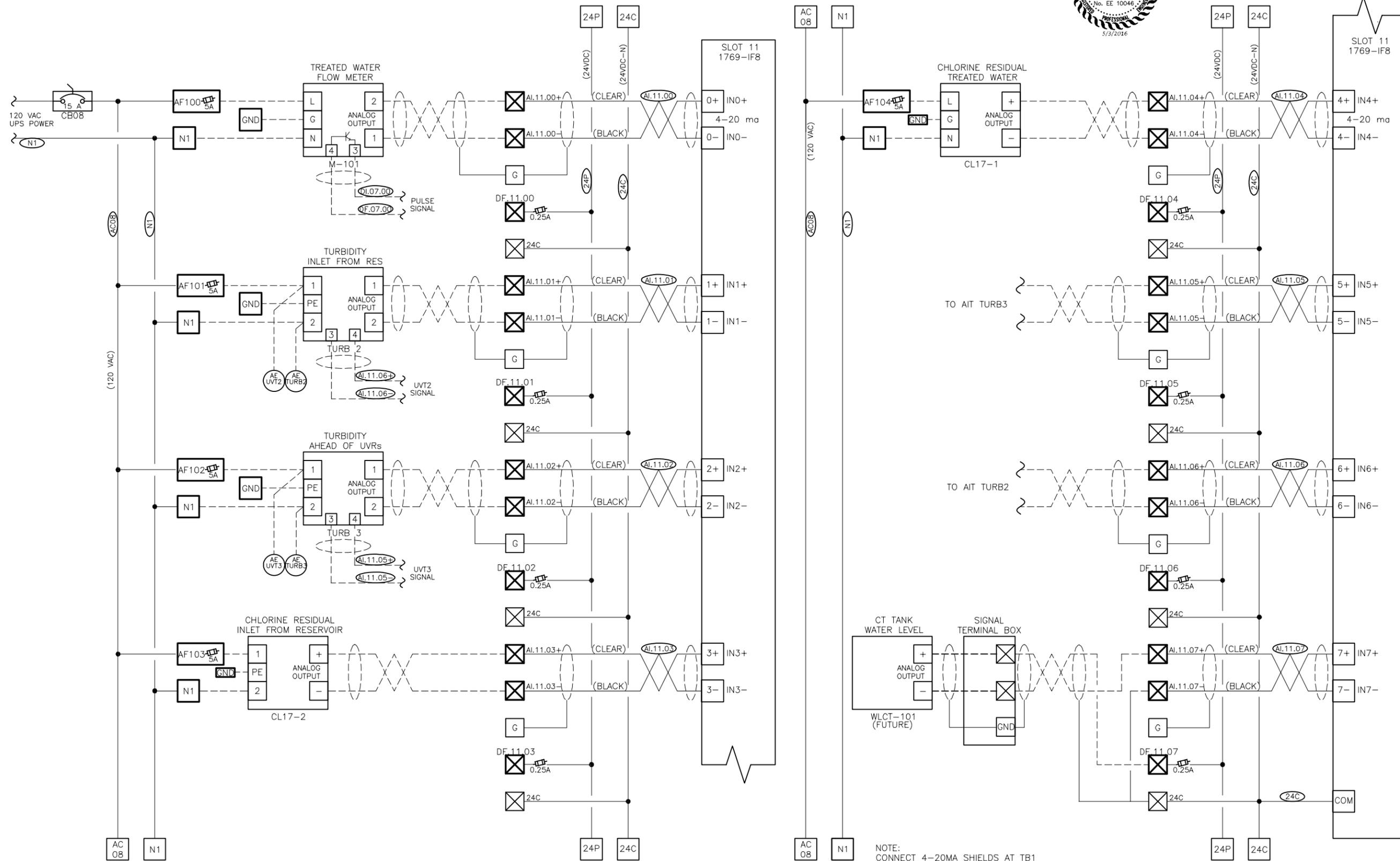


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Juneau, AK 99801
Phone: 907-586-8367
FAX: 907-586-4010

DESIGNED: SRS	PROJECT NO. 202-05
DRAWN: SRS	DRAWING NO. 20205-SEC-09
CHECKED: GSS	SHEET 9 of 19
DATE: 6/15/2011	

PYRAMID WATER TREATMENT PLANT MODIFICATIONS
UNALASKA, ALASKA

RECORD DRAWINGS BASED ON AS-CONSTRUCTED
DRAWINGS PREPARED BY TSI



NOTE:
CONNECT 4-20MA SHIELDS AT TB1
GROUND ONLY, DO NOT CONNECT
SHIELD AT OTHER END OF CABLE.

PYRAMID WATER TREATMENT PLANT MODIFICATIONS
UNALASKA, ALASKA
CITY OF UNALASKA

PROJECT NO. 202-05
DRAWING NO. 20205-SEC-11
SHEET 11 of 19

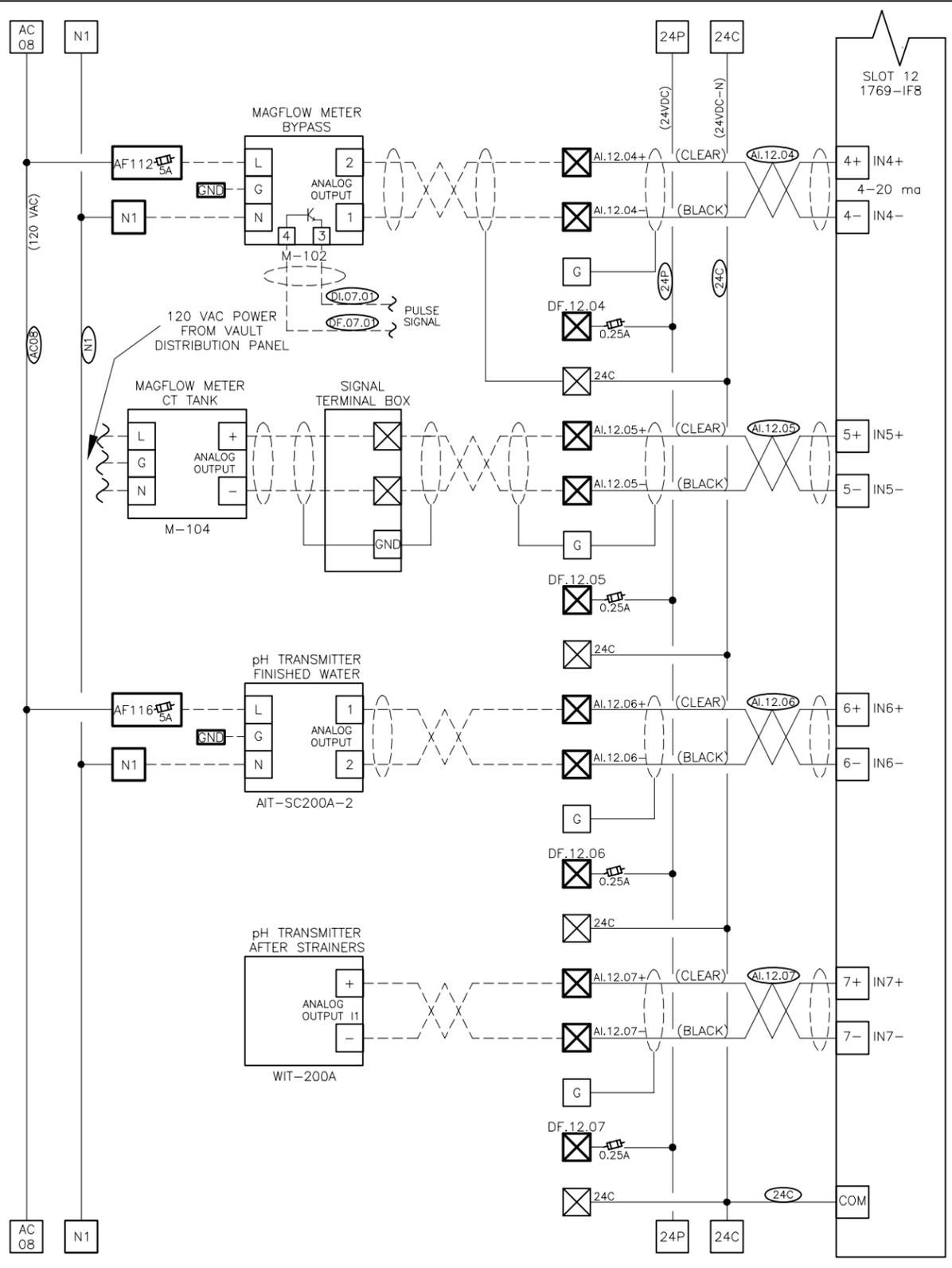
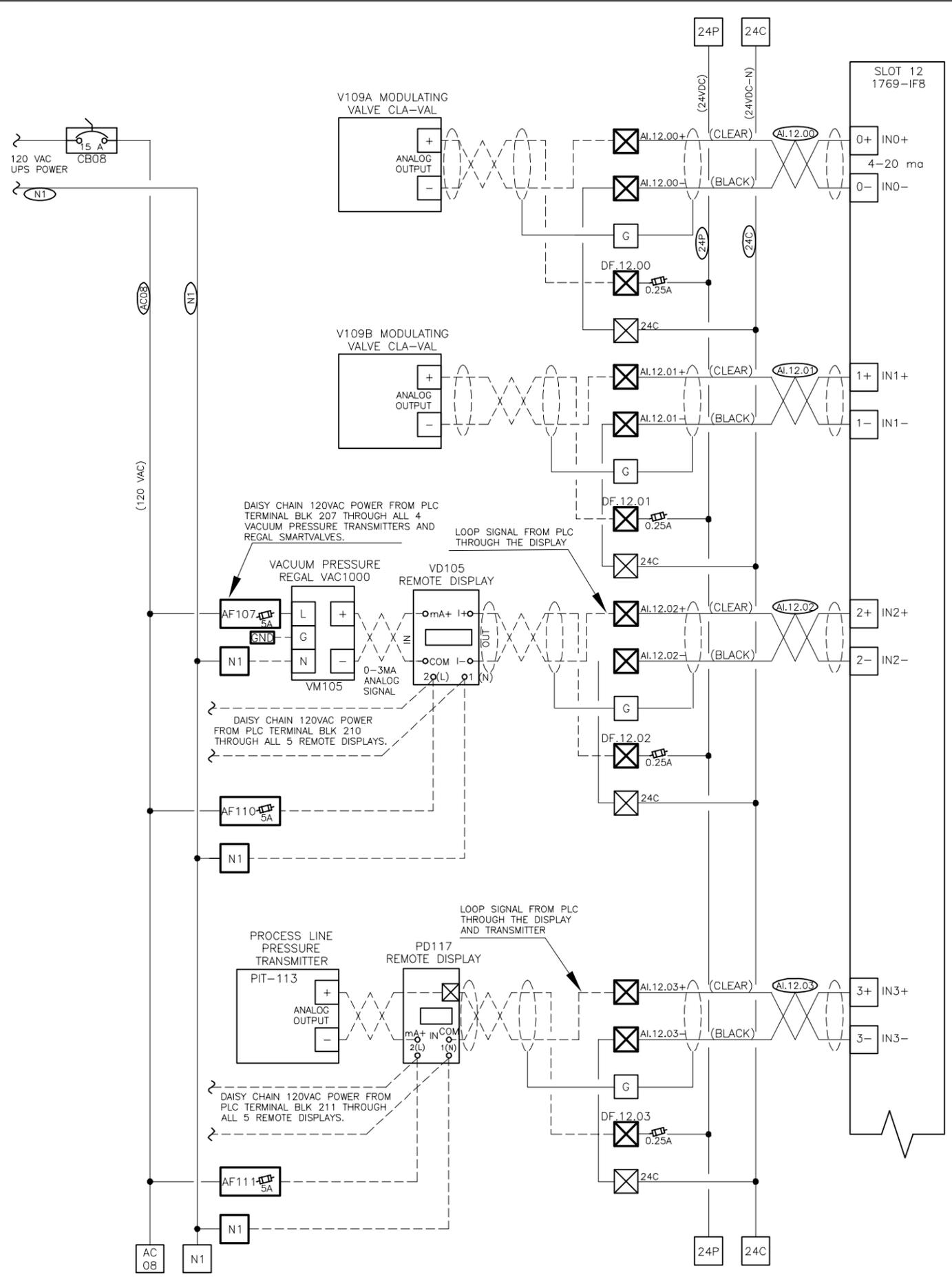
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DRAWN: SRS
CHECKED: GSS
DATE: 6/15/2011

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Juneau, AK 99801
Phone: 907-586-8367
FAX: 907-586-4010

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BORCAL CONTROLS, INC.
JUNEAU, ALASKA

PYRAMID WATER TREATMENT PLANT
MAIN CONTROL PANEL
ANALOG INPUT SCHEMATIC - 1
SCALE: NONE

- 1) ASI 01 SUBMITTAL - 9/021/2014
- 2) AS-RECORDED - 10/09/2015
- 3)
- 4)
- 5)



RECORD DRAWINGS BASED ON AS-CONSTRUCTED DRAWINGS PREPARED BY TSI



PYRAMID WATER TREATMENT PLANT MODIFICATIONS
 UNALASKA, ALASKA
 CITY OF UNALASKA
 PYRAMID WATER TREATMENT PLANT
 MAIN CONTROL PANEL
 ANALOG INPUT SCHEMATIC - 2
 SKETCH FOR USE IN FABRICATION

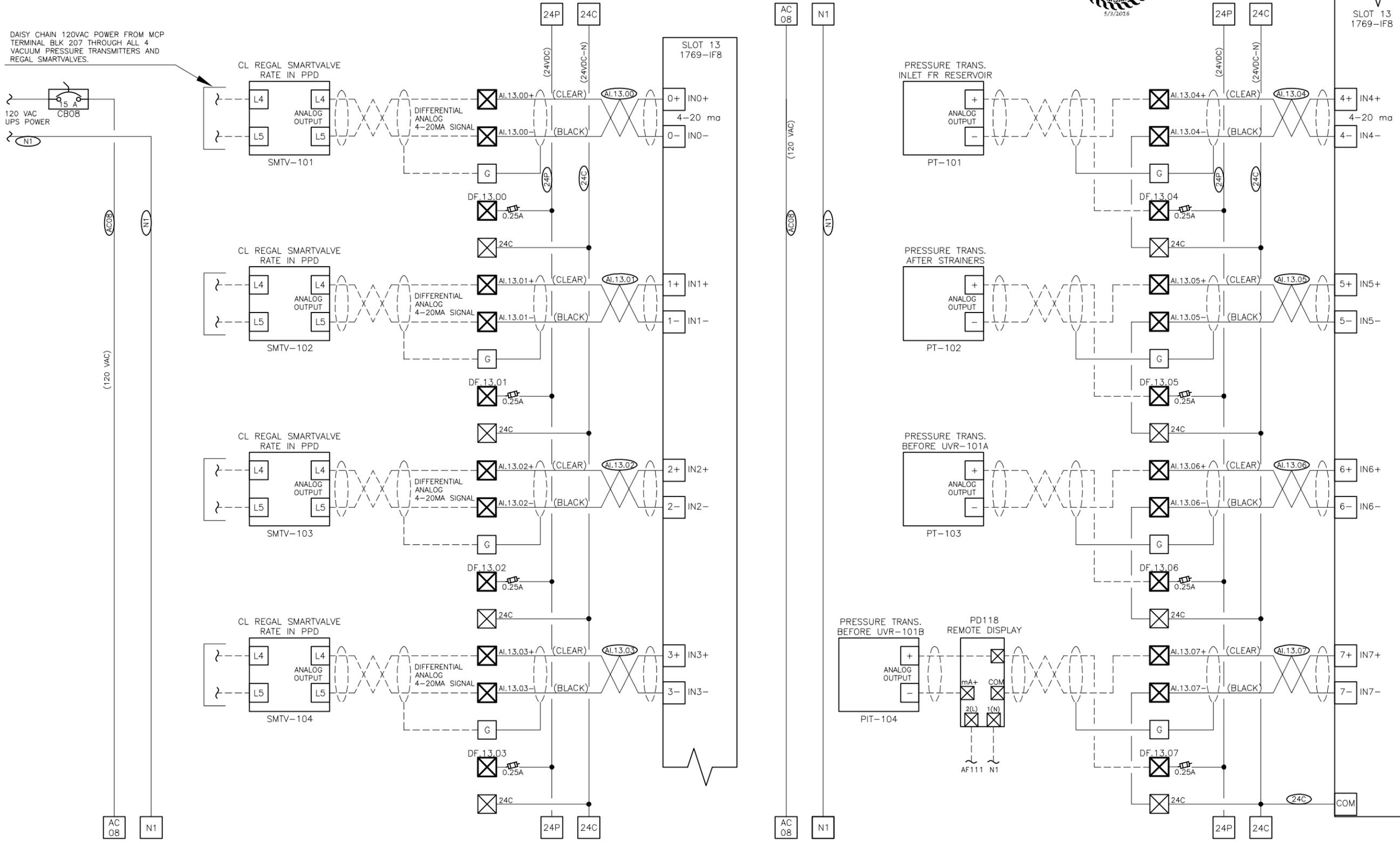
PROJECT NO. 202-05
 DRAWING NO. 20205-SEC-12
 SHEET 12 OF 19
 DESIGNED: SRS
 DRAWN: SRS
 CHECKED: GSS
 DATE: 6/15/2011
 3100 Channel Dr. Ste. 210N
 Juneau, AK 99801
 Phone: 907-586-8367
 FAX: 907-586-4010
BCi
 BOREAL CONTROLS, INC.
 JUNEAU, ALASKA
 SCALE: NONE

1) ASI 01 SUBMITTAL - 9/02/2014
 2) AS-RECORDED - 10/09/2015
 3)
 4)
 5)

RECORD DRAWINGS BASED ON AS-CONSTRUCTED
DRAWINGS PREPARED BY TSI



DAISY CHAIN 120VAC POWER FROM MCP
TERMINAL BLK-207 THROUGH ALL 4
VACUUM PRESSURE TRANSMITTERS AND
REGAL SMARTVALVES.



PYRAMID WATER TREATMENT PLANT MODIFICATIONS
UNALASKA, ALASKA
CITY OF UNALASKA

PROJECT NO.
202-05
DRAWING NO.
20205-SEC-13
SHEET
13 of 19

DESIGNED:
SRS
DRAWN:
SRS
CHECKED:
GSS
DATE:
6/15/2011

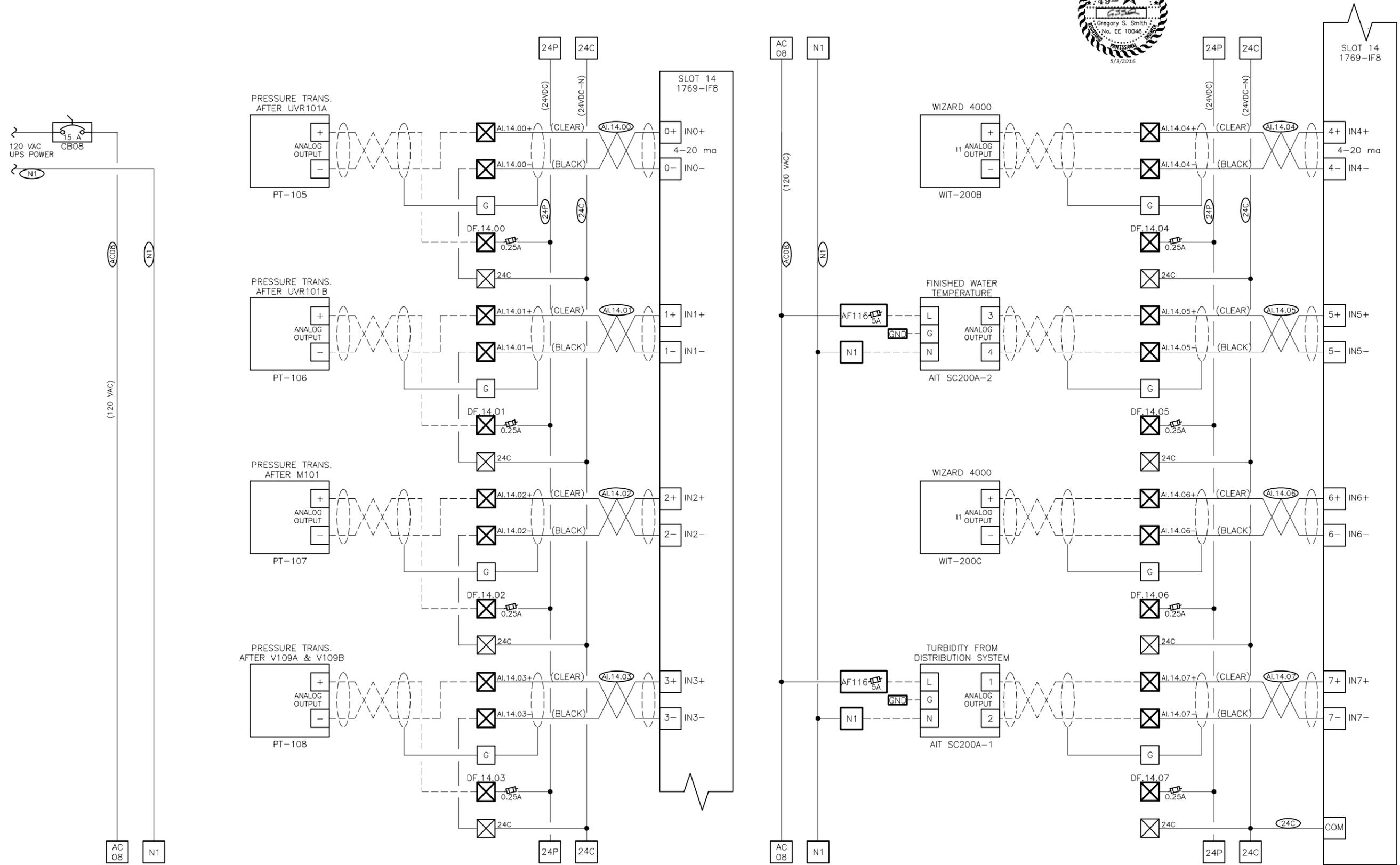
3100 Channel Dr. Ste. 210N
Juneau, AK 99801
Phone: 907-586-8367
FAX: 907-586-4010



PYRAMID WATER TREATMENT PLANT
MAIN CONTROL PANEL
ANALOG INPUT SCHEMATIC - 3
SCALE: NONE
SKETCH FOR USE IN FABRICATION

- 1) ASI 01 SUBMITTAL - 9/02/2014
- 2) AS-RECORDED - 10/09/2015
- 3)
- 4)
- 5)

RECORD DRAWINGS BASED ON AS-CONSTRUCTED
DRAWINGS PREPARED BY TSI



PYRAMID WATER TREATMENT PLANT MODIFICATIONS
UNALASKA, ALASKA
CITY OF UNALASKA

PROJECT NO. 202-05
DRAWING NO. 20205-SEC-14
SHEET 14 of 19

DESIGNED: SRS
DRAWN: SRS
CHECKED: GSS
DATE: 6/15/2011

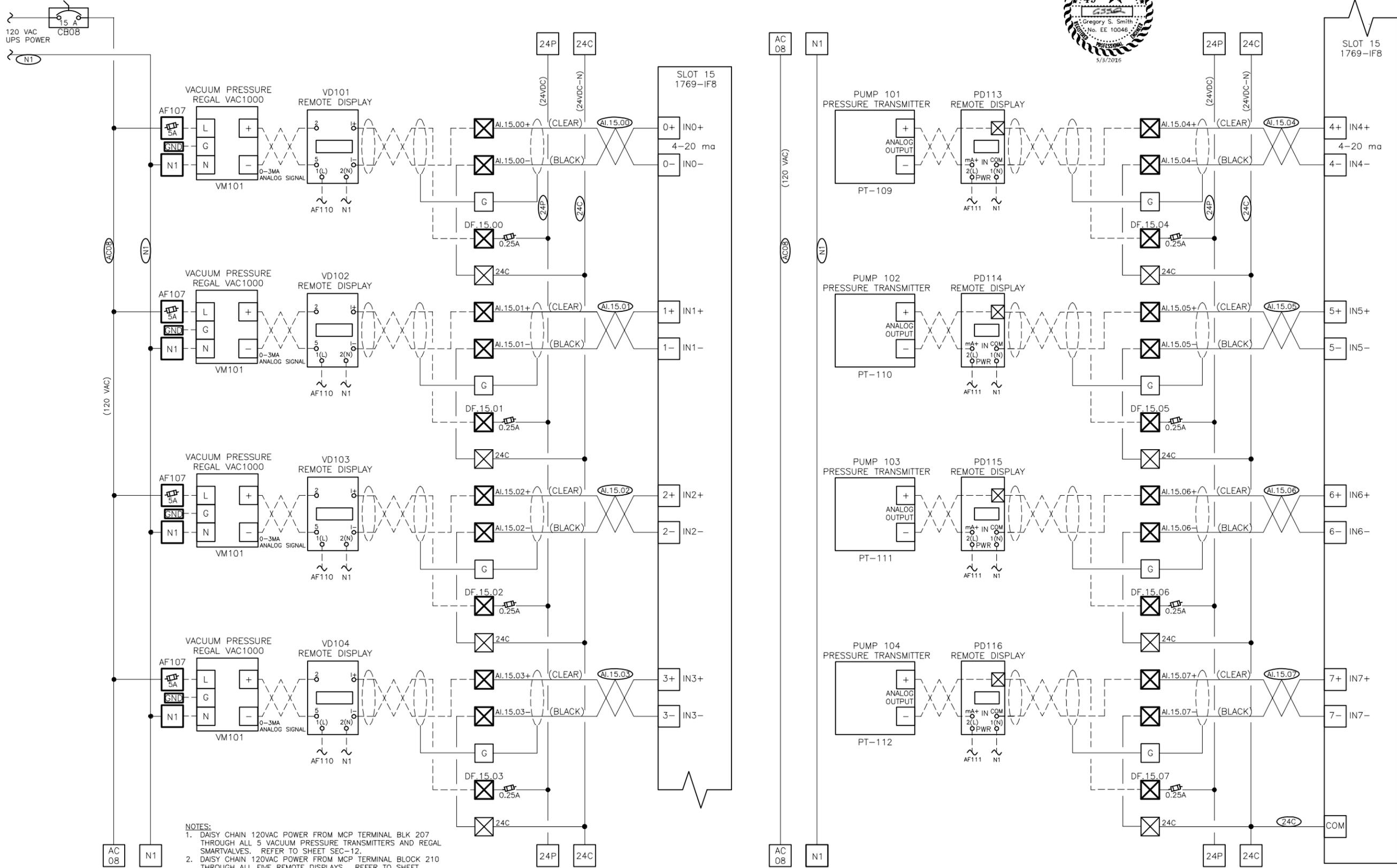
3100 Channel Dr. Ste. 210N
Juneau, AK 99801
Phone: 907-586-8367
FAX: 907-586-4010

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JUNEAU, ALASKA

PYRAMID WATER TREATMENT PLANT
MAIN CONTROL PANEL
ANALOG INPUT SCHEMATIC - 4
SCALE: NONE
SKETCH FOR USE IN FABRICATION

- 1) ASI 01 SUBMITTAL - 9/02/2014
- 2) AS-RECORDED - 10/09/2015
- 3)
- 4)
- 5)

RECORD DRAWINGS BASED ON AS-CONSTRUCTED
DRAWINGS PREPARED BY TSI



- NOTES:
1. DAISY CHAIN 120VAC POWER FROM MCP TERMINAL BLK 207 THROUGH ALL 5 VACUUM PRESSURE TRANSMITTERS AND REGAL SMARTVALVES. REFER TO SHEET SEC-12.
 2. DAISY CHAIN 120VAC POWER FROM MCP TERMINAL BLOCK 210 THROUGH ALL FIVE REMOTE DISPLAYS. REFER TO SHEET SEC-13.
 3. THE 4-20MA ANALOG SIGNALS FROM THE MCP TO THE REMOTE DISPLAYS ARE LOOP POWERED FROM THE MCP.
 4. THE 0-3MA ANALOG SIGNALS FROM THE VAC1000 TO THE REMOTE DISPLAYS ARE POWERED FROM THE VAC1000.

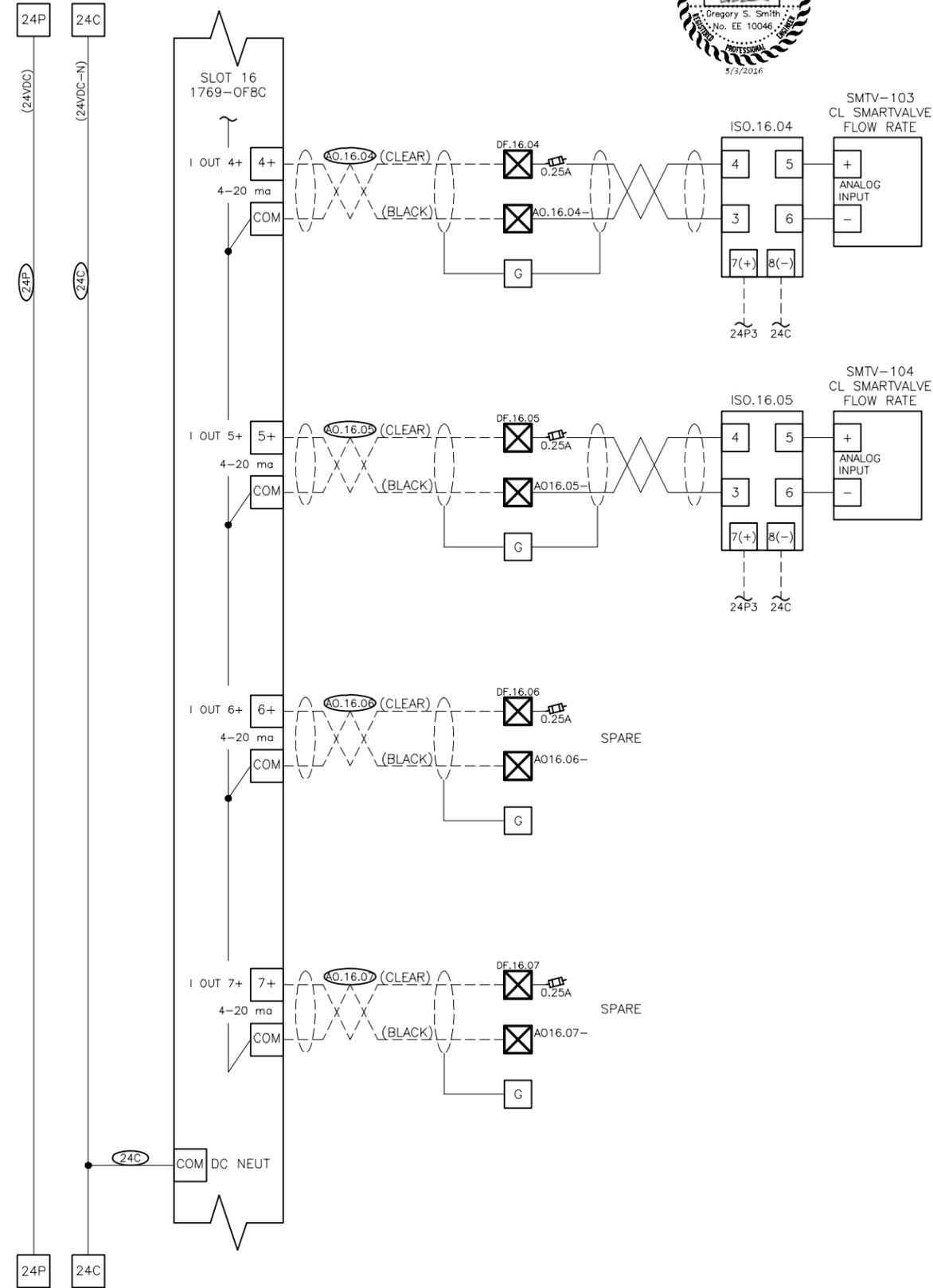
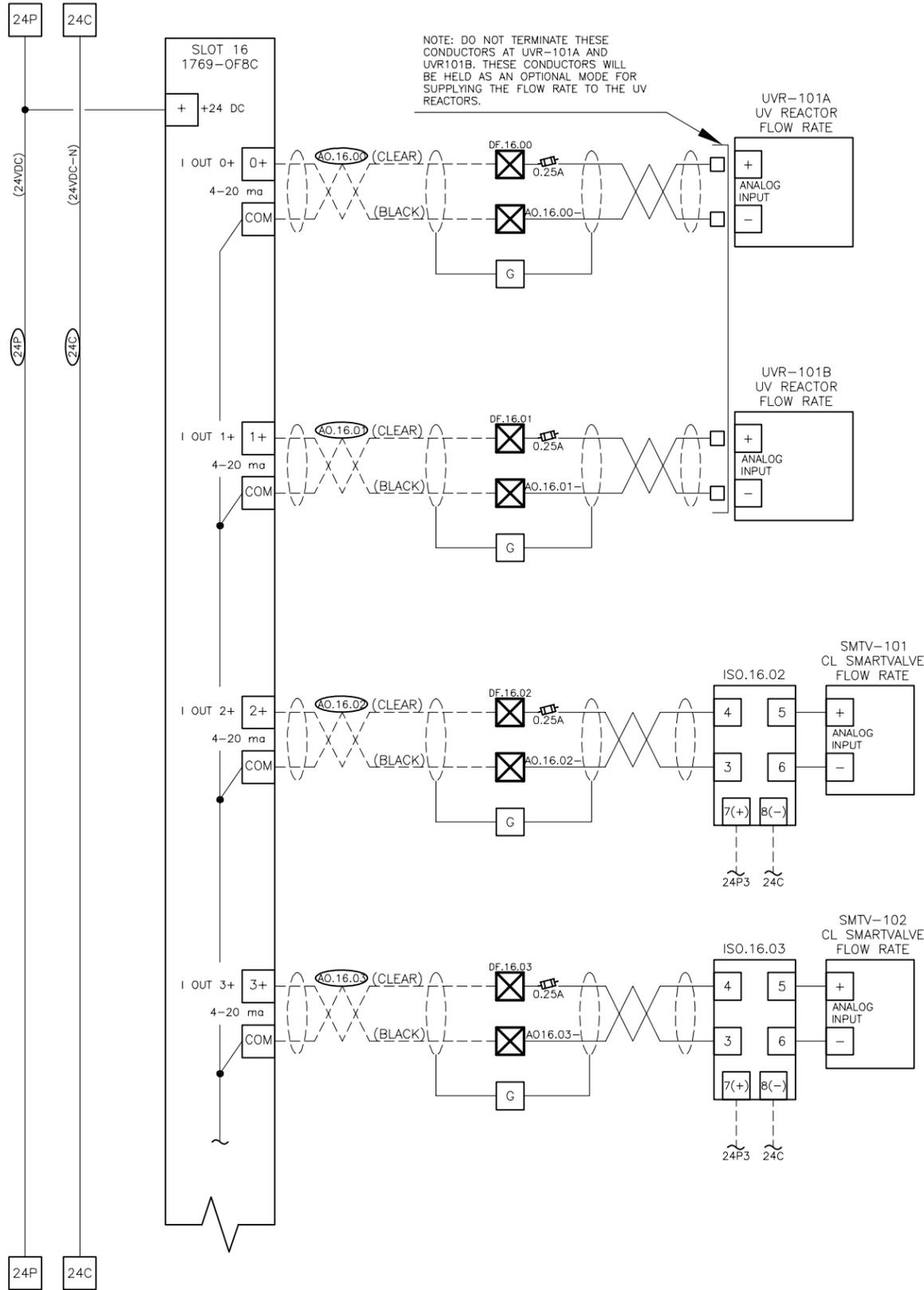
PYRAMID WATER TREATMENT PLANT MODIFICATIONS
UNALASKA, ALASKA

CITY OF UNALASKA

PYRAMID WATER TREATMENT PLANT
MAIN CONTROL PANEL
ANALOG INPUT SCHEMATIC - 5
SKETCH FOR USE IN FABRICATION

PROJECT NO. 202-05	DRAWING NO. 20205-SEC-15	SHEET 15 OF 19	
DESIGNED: SRS	DRAWN: SRS	CHECKED: GSS	DATE: 6/15/2011
3100 Channel Dr. Ste. 210N Juneau, AK 99801 Phone: 907-586-8367 FAX: 907-586-4010			
1) ASI 01 SUBMITTAL - 9/02/2014	2) AS-RECORDED - 10/09/2015	3)	4)
5)			

RECORD DRAWINGS BASED ON AS-CONSTRUCTED
DRAWINGS PREPARED BY TSI



PYRAMID WATER TREATMENT PLANT MODIFICATIONS
UNALASKA, ALASKA
CITY OF UNALASKA

PYRAMID WATER TREATMENT PLANT
MAIN CONTROL PANEL
ANALOG OUTPUT SCHEMATIC
SKETCH FOR USE IN FABRICATION

DESIGNED: SRS
DRAWN: SRS
CHECKED: GSS
DATE: 6/15/2011

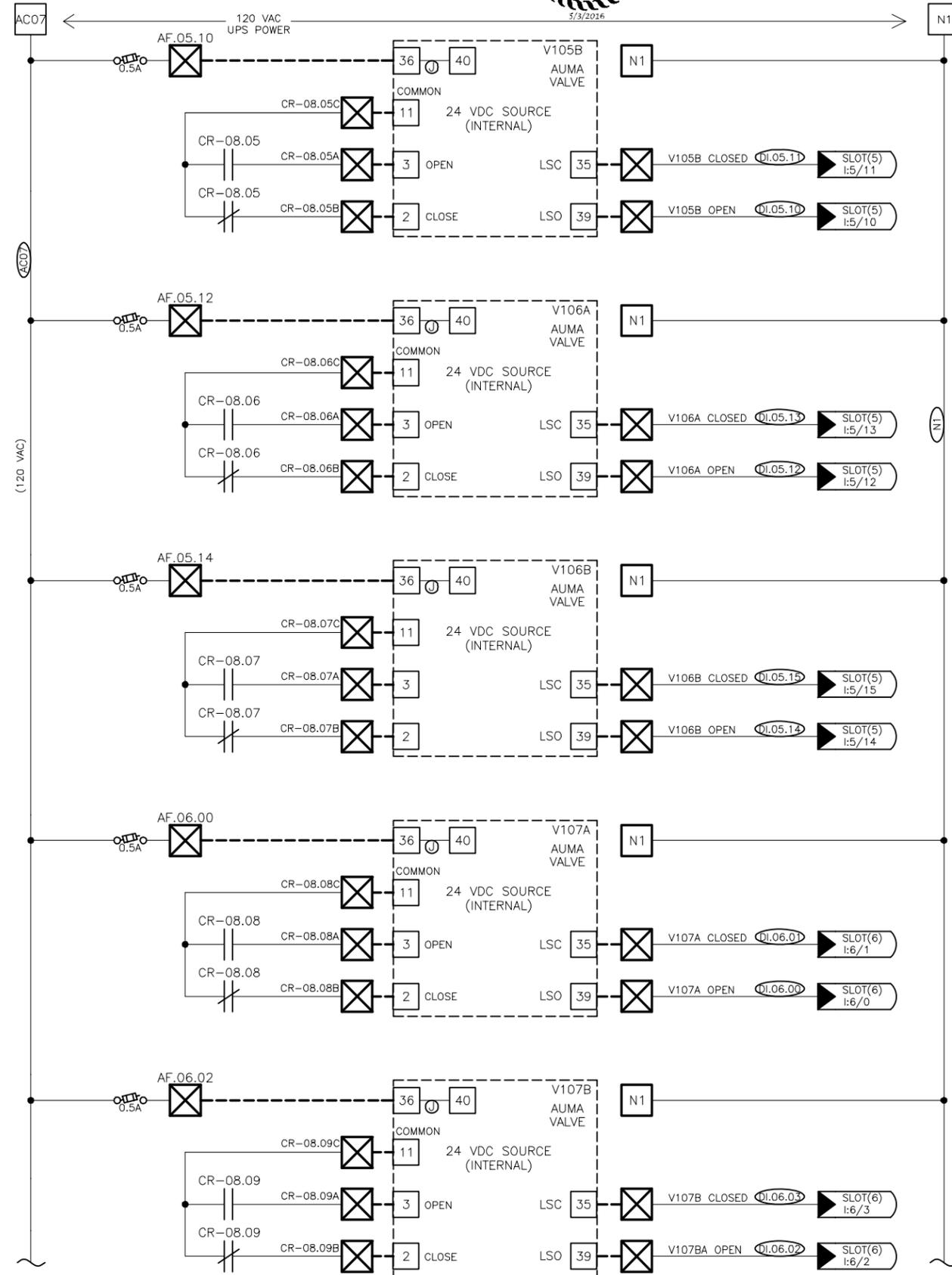
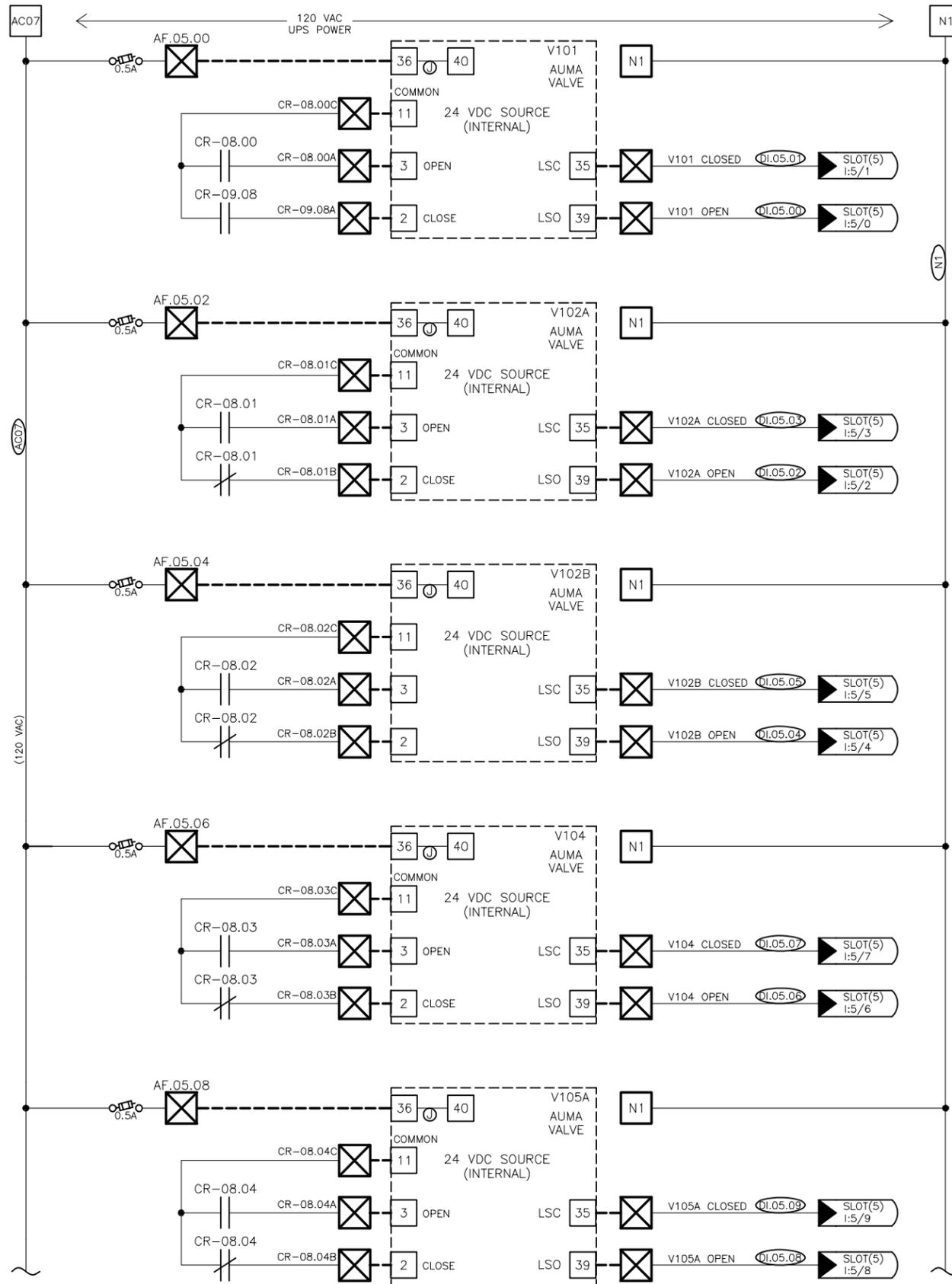
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Phone: 907-586-8367
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JUNEAU, ALASKA

PROJECT NO. 202-05
DRAWING NO. 20205-SEC-16
SHEET 16 of 19

- 1) ASI 01 SUBMITTAL - 9/02/2014
- 2) AS-RECORDED - 10/09/2015
- 3)
- 4)
- 5)

RECORD DRAWINGS BASED ON AS-CONSTRUCTED
DRAWINGS PREPARED BY TSI



- 1) ASI 01 SUBMITTAL - 9/02/2014
- 2) AS-RECORDED - 10/09/2015
- 3)
- 4)
- 5)

PYRAMID WATER TREATMENT PLANT
CITY OF UNALASKA

PYRAMID WATER TREATMENT PLANT
MAIN CONTROL PANEL
MISCELLANEOUS DISCRETE I/O WIRING--1
SKETCH FOR USE IN FABRICATION

SCALE: NONE

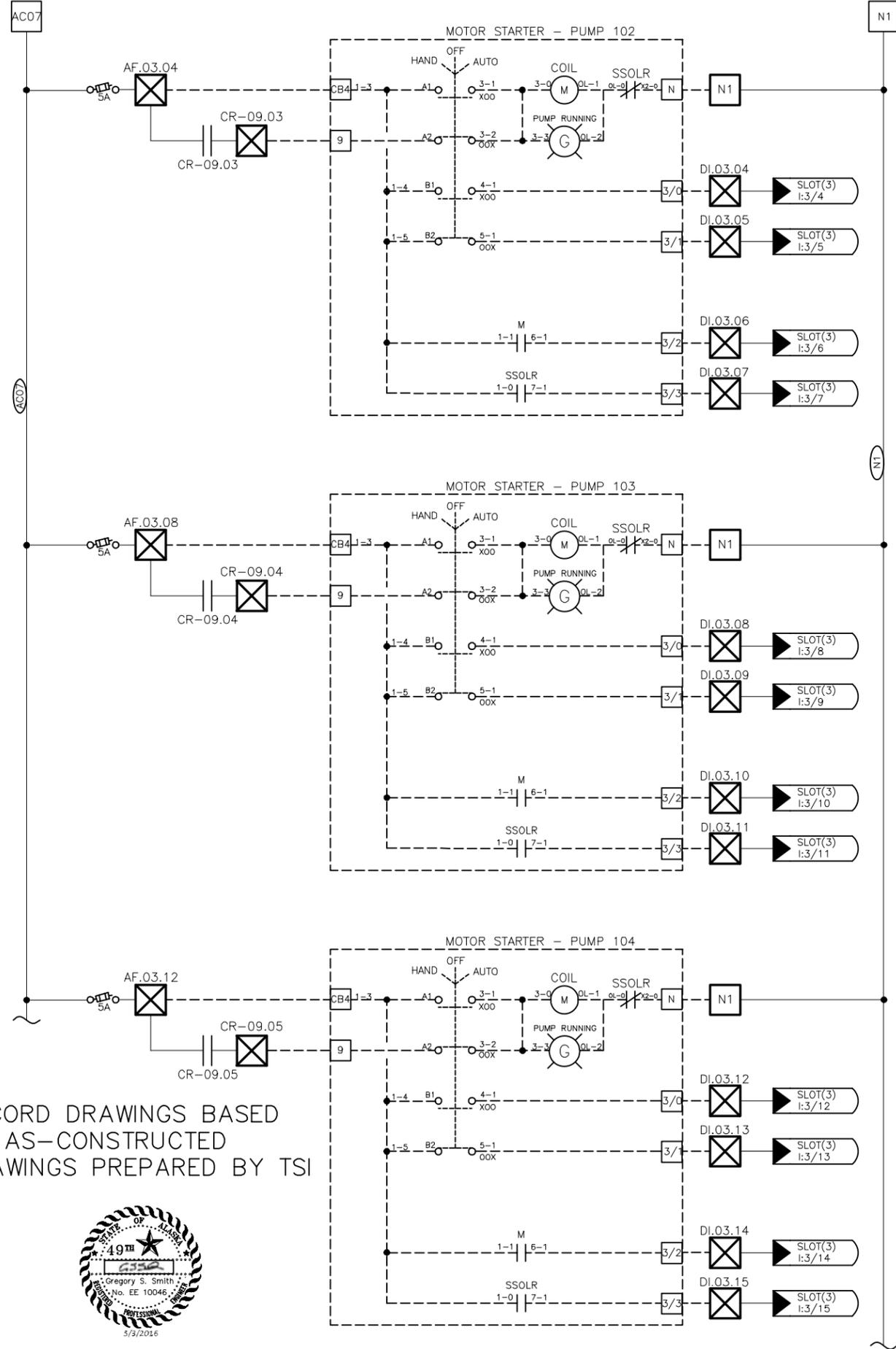
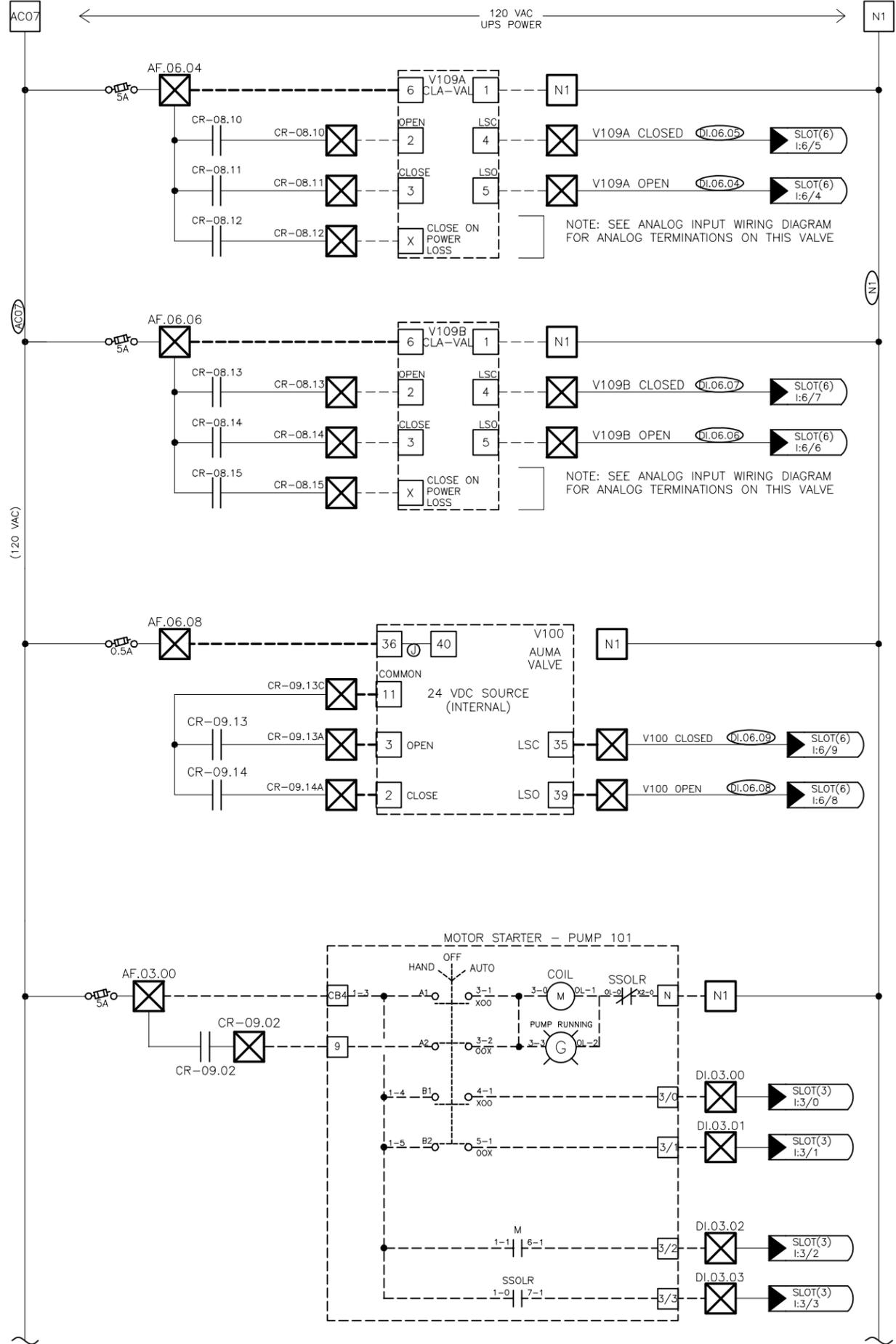


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DESIGNED: SRS
DRAWN: SRS
CHECKED: GSS
DATE: 6/15/2011

PROJECT NO. 202-05
DRAWING NO. 20205-SEC-17
SHEET 17 of 19

PYRAMID WATER TREATMENT PLANT MODIFICATIONS
UNALASKA, ALASKA



RECORD DRAWINGS BASED ON AS-CONSTRUCTED DRAWINGS PREPARED BY TSI



PYRAMID WATER TREATMENT PLANT MODIFICATIONS
UNALASKA, ALASKA

CITY OF UNALASKA

PYRAMID WATER TREATMENT PLANT
MAIN CONTROL PANEL
MISCELLANEOUS WIRING DIAGRAMS 2
SKETCH FOR USE IN FABRICATION

PROJECT NO. 202-05	DRAWING NO. 20205-SEC-18	SHEET 18 of 19	
DESIGNED: SRS	DRAWN: SRS	CHECKED: GSS	DATE: 6/15/2011
 BOREAL CONTROLS, INC. JUNEAU, ALASKA			
3100 Channel Dr. Ste. 210N Juneau, AK 99801 Phone: 907-586-8367 FAX: 907-586-4010			

1) ASI 01 SUBMITTAL - 9/02/2014	
2) AS-RECORDED - 10/09/2015	
3)	
4)	
5)	

CONDUIT			FROM	TO	CONDUCTORS				NOTES
NO.	USE	SIZE			TYPE	NO.	SIZE	GND	
100	P	3/4"	UVL	MCP	A	2	10	1	
101	J	3/4"	PT-101	MCP	TSP	1	18		
102	J	3/4"	PT-102	MCP	TSP	1	18		
103	J	3/4"	PT-105	MCP	TSP	1	18		
104	J	3/4"	PT-106	MCP	TSP	1	18		
105	J	3/4"	PT-107	MCP	TSP	1	18		
106	J	3/4"	PT-108	MCP	TSP	1	18		
107	J	3/4"	M-101 (TRANSMITTER)	MCP	TSP	2	18		
107	P	3/4"	M-101 (TRANSMITTER)	MCP	A	2	14	1	
107	M	3/4"	M-101 (SENSOR)	M-101 (TRANSMITTER)	M				
108	J	3/4"	M-102 (TRANSMITTER)	MCP	TSP	2	18		
108	P	3/4"	M-102 (TRANSMITTER)	MCP	TSP	2	18		
108	M	3/4"	M-102 (SENSOR)	M-102 (TRANSMITTER)	M				
109	P	3/4"	AIT-101	MCP	A	2	14	1	
109	J	3/4"	AIT-101	MCP	TSP	2	18		
110	P	3/4"	AIT-102	MCP	A	2	14	1	
110	J	3/4"	AIT-102	MCP	TSP	2	18		
111	P	3/4"	AIT-103	MCP	A	2	14	1	
111	J	3/4"	AIT-103	MCP	TSP	1	18		
112	P	3/4"	AIT-104	MCP	A	2	14	1	
112	J	3/4"	AIT-104	MCP	TSP	1	18		
113	J	3/4"	TT-101	MCP	TSP	1	18		
114	J	3/4"	TT-102	MCP	TSP	1	18		
115	J	3/4"	TT-103	MCP	TSP	1	18		
116	P	3/4"	CL17-2	MCP	A	2	14	1	
116	J	3/4"	CL17-2	MCP	TSP	2	18		
117	P	3/4"	CL17-1	MCP	A	2	14	1	
117	J	3/4"	CL17-1	MCP	TSP	2	18		
118	P	3/4"	UVT-1	MCP	A	2	14	1	
118	J	3/4"	UVT-1	MCP	TSP	2	18		
119	P	3/4"	UVT-2	MCP	A	2	14	1	
119	J	3/4"	UVT-2	MCP	TSP	2	18		
120			NOT USED	MCP	TSP	1	18		
121	J	3/4"	M-103 (TRANSMITTER)	MCP	TSP	2	18		
121	P	3/4"	M-103 (TRANSMITTER)	MCP	A	2	14	1	
121	M	3/4"	M-103 (SENSOR)	M-103 (TRANSMITTER)	M				
122	C	3/4"	FS-101						
123	C	3/4"	FS-102	MCP	A	2	14	1	
124	C	3/4"	E-SHUTDOWN	MCP	A	2	14	1	
125	C	3/4"	CL ALARM/HORN	MCP	A	2	14	1	
126	C	3/4"	CL E-SHUTDOWN	MCP	A	2	14	1	
127	J	3/4"	CL READOUT CL17-1	MCP	TSP	1	18		SERIES FROM CL17-1 TO MCP
128	J	3/4"	CL READOUT CL17-2	MCP	TSP	1	18		SERIES FROM CL17-2 TO MCP
129	J	3/4"	VPT-101	MCP	TSP	1	18		ROUTE THRU READOUT NEAR PUMPS
130	J	3/4"	VPT-102	MCP	TSP	1	18		ROUTE THRU READOUT NEAR PUMPS
131	J	3/4"	VPT-103	MCP	TSP	1	18		ROUTE THRU READOUT NEAR PUMPS
132	J	3/4"	VPT-104	MCP	TSP	1	18		ROUTE THRU READOUT NEAR PUMPS
133	J	3/4"	PT-109	MCP	TSP	1	18		
134	J	3/4"	PT-110	MCP	TSP	1	18		
135	J	3/4"	PT-111	MCP	TSP	1	18		
136	C	3/4"	CL ALARM	MCP	A	2	14	1	
137	C	3/4"	TROUBLE - REGAL CL	MCP	A	2	14	1	
138	C	1"	GENERATOR	MCP	A	8	14	1	3 SEPARATE SIGNALS
139	C	3/4"	TRANSFER SWITCH	MCP	A	6	14	1	2 SEPARATE SIGNALS
140	C	3/4"	UPS ALARM	MCP	A	2	14	1	
141	J	3/4"	CT TANK WATER LEVEL	MCP	TSP	1	18		
142	C	3/4"	SEWER TANK - HIGH	MCP	A	2	14	1	
143	C	3/4"	FUEL TANK - LOW	MCP	A	2	14	1	
144	C	3/4"	CT TANK - SPARE	MCP	A	6	14	1	4 SEPARATE SIGNALS
144	J	3/4"	CT TANK - SPARE	MCP	TSP	2	18		
145	C	3/4"	DDC CONTROL PANEL	MCP	A	6	14	1	3 SEPARATE SIGNALS
146	C	1"	FIRE/SECURITY PANEL	MCP	A	10	14	1	7 SEPARATE SIGNALS

LEGEND

CONDUIT TYPE
P ~ POWER (SEE NOTE 1)
C ~ CONTROL (DISCRETE SIGNALS ~ 24VDC or 120VAC)
J ~ SIGNAL (ETHERNET OR ANALOG)

CONDUCTOR TYPE
A ~ SINGLE CONDUCTORS (VARIOUS SIZES)
E ~ ETHERNET CABLES (CAT 6)
TSP ~ TWISTED SHIELDED PAIR OR OTHER MULTI-CONDUCTOR CABLE
M ~ SPECIALIZED CABLE FURNISHED BY EQUIPMENT SUPPLIER

CONDUIT			FROM	TO	CONDUCTORS				NOTES
NO.	USE	SIZE			TYPE	NO.	SIZE	GND	
147	C	3/4"	V101	MCP	A	8	14	1	4 SIGNALS
147	P	3/4"	V101	PANEL BOARD 3 PH	A	3	14	1	480 3PH POWER
148	C	3/4"	V102A	MCP	A	8	14	1	4 SIGNALS
148	P	3/4"	V102A	PANEL BOARD 3 PH	A	3	14	1	480 3PH POWER
149	C	3/4"	V102B	MCP	A	8	14	1	4 SIGNALS
149	P	3/4"	V102B	PANEL BOARD 3 PH	A	3	14	1	480 3PH POWER
150	C	3/4"	V104	MCP	A	8	14	1	4 SIGNALS
150	P	3/4"	V104	PANEL BOARD 3 PH	A	3	14	1	480 3PH POWER
151	C	3/4"	V105A	MCP	A	8	14	1	4 SIGNALS
151	P	3/4"	V105A	PANEL BOARD 3 PH	A	3	14	1	480 3PH POWER
152	C	3/4"	V105B	MCP	A	8	14	1	4 SIGNALS
152	P	3/4"	V105B	PANEL BOARD 3 PH	A	3	14	1	480 3PH POWER
153	C	3/4"	V106A	MCP	A	8	14	1	4 SIGNALS
153	P	3/4"	V106A	PANEL BOARD 3 PH	A	3	14	1	480 3PH POWER
154	C	3/4"	V106B	MCP	A	8	14	1	4 SIGNALS
154	P	3/4"	V106B	PANEL BOARD 3 PH	A	3	14	1	480 3PH POWER
155	C	3/4"	V107A	MCP	A	8	14	1	4 SIGNALS
155	P	3/4"	V107A	PANEL BOARD 3 PH	A	3	14	1	480 3PH POWER
156	C	3/4"	V107B	MCP	A	8	14	1	4 SIGNALS
156	P	3/4"	V107B	PANEL BOARD 3 PH	A	3	14	1	480 3PH POWER
157	C	3/4"	V109A	MCP	A	10	14	1	4 SIGNALS
157	J	3/4"	V109A	MCP	TSP	1	18		
158	C	3/4"	V109B	MCP	A	10	14	1	4 SIGNALS
158	J	3/4"	V109B	MCP	TSP	1	18		
159	J	3/4"	UVR-101A	MCP	E	1			
159	J	3/4"	UVR-101A	MCP	TSP	2	18		
160	J	3/4"	UVR-101B	MCP	E	1			
160	J	3/4"	UVR-101B	MCP	TSP	2	18		
161	C	3/4"	PMP-101	MCP	A	8	14	1	4 SIGNALS
162	C	3/4"	PMP-102	MCP	A	8	14	1	4 SIGNALS
163	C	3/4"	PMP-103	MCP	A	8	14	1	4 SIGNALS
164	C	3/4"	PMP-104	MCP	A	8	14	1	4 SIGNALS
165	C	3/4"	SMTV-101	MCP	A	6	14	1	4 SIGNALS
165	J	3/4"	SMTV-101	MCP	TSP	2	18		
166	C	3/4"	SMTV-102	MCP	A	6	14	1	4 SIGNALS
166	J	3/4"	SMTV-102	MCP	TSP	2	18		
167	C	3/4"	SMTV-103	MCP	A	6	14	1	4 SIGNALS
167	J	3/4"	SMTV-103	MCP	TSP	2	18		
167	C	3/4"	SMTV-104	MCP	A	6	14	1	4 SIGNALS
168	J	3/4"	SMTV-104	MCP	TSP	2	18		
169	J	3/4"	PT-103	MCP	TSP	1	18		
170	J	3/4"	PT-112	MCP	TSP	1	18		
	P	3/4"	PT-112	MCP	A	2	14		
	J	3/4"	PT-113	MCP	TSP	1	18		
	P	3/4"	PT-113	MCP	A	2	14		
	J	3/4"	PT-114	MCP	TSP	1	18		
	P	3/4"	PT-114	MCP	A	2	14		
	J	3/4"	CL TANK 1	MCP	TSP	1	18		
	P	3/4"	CL TANK 1	MCP	A	2	14		
	C	3/4"	CL TANK 1	MCP	A	4	14		
	J	3/4"	CL TANK 2	MCP	TSP	1	18		
	P	3/4"	CL TANK 2	MCP	A	2	14		
	C	3/4"	CL TANK 2	MCP	A	4	14		
	J	3/4"	CL TANK 3	MCP	TSP	1	18		
	P	3/4"	CL TANK 3	MCP	A	2	14		
	C	3/4"	CL TANK 3	MCP	A	4	14		

NOTES

- 1 ~ EXCEPT FOR POWER TO VALVES, THE ONLY POWER CONDUCTORS SHOWN IN THIS TABLE ARE THOSE WHERE THE POWER SOURCE IS IN THE MCP. OTHER POWER CONDUCTORS ARE SHOWN ON THE ELECTRICAL DRAWINGS AND ORIGINATE IN PANEL BOARDS OR OTHER POWER CENTERS. POWER FOR VALVE ACTUATORS WILL BE 480V 3PH AND ORIGINATES IN PANEL BOARDS.
- 2 ~ MINIMUM CONDUIT SIZE IS 3/4"
- 3 ~ MAXIMUM PERCENTAGE CONDUIT FILL IS 30%
- 4 ~ WHEN CONVENIENT, CONTRACTOR MAY COMBINE SEVERAL NAMED CONDUITS INTO A SINGLE CONDUIT OF THE SAME USE. CONTROL, POWER AND SIGNAL WIRES MAY NOT BE COMBINED IN THE SAME CONDUIT. THE 30% CONDUIT FILL REQUIREMENT MUST BE MAINTAINED.
- 5 ~ ALL CONDUITS SHALL BE IDENTIFIED IN THE FIELD AFTER INSTALLATION WITH TAPED LABELS. LETTERING SHALL BE BLACK ON WHITE AND 3/4" IN SIZE.

RECORD DRAWINGS BASED
ON REDLINE DRAWINGS
PREPARED BY SUMNER ELECTRIC



PYRAMID WATER TREATMENT PLANT MODIFICATIONS
UNALASKA, ALASKA

CITY OF UNALASKA

PYRAMID WATER TREATMENT PLANT
CONTROL SYSTEM
CONDUIT SCHEDULE
SKETCH FOR USE IN FABRICATION

PROJECT NO. 202-05
DRAWING NO. 20205-SEC-19
SHEET 19 of 19

DESIGNED: SRS
DRAWN: SRS
CHECKED: GSS
DATE: 6/15/2011

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BCi
BOREAL CONTROLS, INC.
JUNEAU, ALASKA

SCALE: NONE

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- 2) AS-RECORDED - 10/09/2015
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- 5)