

COAL WASTE ASH STORAGE EXPANSION FOR OUC - STANTON ENERGY CENTER ORANGE COUNTY, FLORIDA

BID SET
10/31/2018



PREPARED BY:



Ardaman & Associates, Inc.

Geotechnical, Environmental, and
Materials Consultants

A Tetra Tech Company

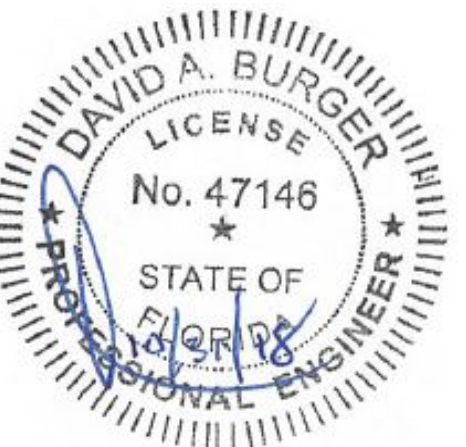
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PROJECT ELECTRICAL ENGINEER
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										NAME		DATE		NAME		DATE		 Ardaman & Associates, Inc. Geotechnical, Environmental, and Materials Consultants A Tetra Tech Company 8008 S. Orange Ave. Orlando, FL 32809 TEL 407/855-3860 FAX 407/859-8121 C.A.N. 5950	 OUC The Reliable One®	COAL WASTE ASH STORAGE EXPANSION										SHEET INDEX	G0002
										DESIGNED BY		DAB		10/31/18		CHECKED BY				DAB		10/31/18									
										DRAWN BY		JAS		10/31/18																	
REVISION	DATE	DESCRIPTION								APPR'D	REVISION	DATE	DESCRIPTION								APPR'D	FILE NO.: -----	SCALE: AS SHOWN								

12-ROF-SST

PIPE MATERIAL CODE

FLOW STREAM IDENTIFICATION

PIPE DIAMETER, INCHES

20-MP-25

PROCESS AREA

EQUIPMENT FUNCTIONAL IDENTIFICATION

EQUIPMENT NUMBER SUFFIX LETTER DISTINGUISHES MULTIPLE SIMILAR DEVICES IN THE SAME INSTRUMENT LOOP.

XX-BV-XX-X

- PROCESS AREA
- VALVE FUNCTIONAL IDENTIFICATION
- SUFFIX LETTER DISTINGUISHES MULTIPLE SIMILAR DEVICES IN THE SAME INSTRUMENT LOOP.

The diagram illustrates the components of a field mounted instrument symbol. The symbol itself is a circle with the text "FIT" inside. Five lines point from descriptive text to parts of the symbol:

- "FIRST LETTER" points to the "F" in "FIT".
- "SUCCEEDING LETTERS" points to the "IT" in "FIT".
- "ANALYTICAL DESCRIPTOR" points to the "T" in "FIT".
- "COND" points to a line above the circle.
- "TAG NO. MODIFIER (USED WITH TWO OR MORE INSTRUMENTS HAVING THE SAME FUNCTIONAL LOOP IDENTIFICATION)" points to the "XX" to the right of the circle.

 Below the symbol, the text "(2)" is shown with a line pointing to it, labeled "NUMBER OF DUPLICATE DEVICES".

Below the main diagram, two symbols are shown with their descriptions:

- A circle representing a "FIELD MOUNTED INSTRUMENT".
- A circle with a horizontal line through its center representing a "PANEL MOUNTED INSTRUMENT".

	MOTOR OPERATED ACTUATOR WITH POSITIONER
	PNEUMATIC OPERATED ACTUATOR WITH POSITIONER
	MOTOR ACTUATOR
	SOLENOID ACTUATOR
	PNEUMATIC ACTUATOR
	PNEUMATIC ACTUATOR WITH STROKE POSITIONER

	BUTTERFLY VALVE (BFV)
	GATE/GENERAL VALVE (GV)
	SWING CHECK VALVE (SCV)
	BALL VALVE (BV)
	GLOBE VALVE (GLV)
	DIAPHRAGM VALVE (DV)
	PLUG VALVE (PV)
	COMBINATION AIR VALVE (ARV)
	MULTI-PORT VALVE (MPV)
	THREE WAY GLOBE VALVE (TWGV)
	BALL CHECK VALVE (BCV)
	BACK PRESSURE REGULATOR VALVE (BPR)
	PRESSURE CONTROL VALVE (PCV)
	SOLENOID CONTROL VALVE (SV)
	3 WAY SOLENOID
	NEEDLE VALVE (NV)
	PINCH VALVE (PIV)
	PRESSURE RELIEF VALVE (PRV)
	FLUSH VALVE (FV)
	CHECK VALVE (CV)
	VACUUM BREAKER VALVE (VBV)
	AIR VENT VALVE (AV)
	DIAPHRAGM CHECK VALVE (DC)

	CENTRIFUGAL PUMP
	BLOWER
	VACUUM
	VERTICAL TURBINE PUMP
	AIR OPERATED DOUBLE DIAPHRAGM CHEMICAL METERING PUMP
	DIAPHRAGM METERING PUMP
	PERISTALTIC METERING PUMP
	TURBO
	TURBINE

	STORAGE TANK AS IDENTIFIED
	STORAGE TANK AS IDENTIFIED
	STORAGE TANK AS IDENTIFIED
	TANK/PROCESS AS IDENTIFIED
	PRESSURIZED TANK/PROCESS AS IDENTIFIED
	CARTRIDGE FILTER
	BAG FILTER
	STRAINER

ABBREVIATION	DESCRIPTION
AC	ALTERNATING CURRENT
AI	ANALOG INPUT
AM	AUTO MANUAL
AMR	AUTO MANUAL REMOTE
AO	ANALOG OUTPUT
C	CLOSE
CL	CHLORINE
COND	CONDUCTIVITY
CP	CONTROL PANEL
DI	DISCRETE INPUT
DO	DISCRETE OUTPUT
ETM	ELAPSED TIME METER
FE	FLOW ELEMENT
FIT	FLOW INDICATOR TRANSMITTER
FL	FLOW ELEMENT
FRS	FLOW RATIO
HA	HAND-AUTO
HL	HIGH-LOW
HLOR	HIGH-LOW-OFF-REMOTE
HOA	HAND-OFF-AUTO
HSC	HAND SWITCH COMPUTER
I/O	INPUT/OUTPUT
ISP	INSTRUMENT & SAMPLE PANEL
LE	LEVER ELEMENT
LOR	LOCAL-OFF-REMOTE
LOS	LOCK-OUT STOP
LR	LOCAL-REMOTE
LSO	LEVEL SWITCH ON
LT	LEVER TRANSMITTER
MCC	MOTOR CONTROL CENTER
MCP	MASTER CONTROL PANEL
MODEM	MODULATE-DEMODULATE
O	OPEN
OAC	OPEN-AUTO-CLOSE
OO	ON-OFF
OOA	ON-OFF-AUTO
OOR	ON-OFF-REMOTE
OSC	OPEN-STOP-CLOSE
OSCA	OPEN-STOP-CLOSE-AUTO
OSCR	OPEN-STOP-CLOSE-REMOTE
PRESSURE	PRESSURE
P	PROPORTIONAL
P/A	PULSE TO ANALOG
PC	PARTICLE COUNTER
PID	PROPORTIONAL-INTEGRAL-DERIVATIVE
P&ID	PIPING AND INSTRUMENTATION DIAGRAM
PLC	PROGRAMMABLE LOGIC CONTROLLER
PSH	PRESSURE SWITCH-HIGH
PR	PRESSURE
PRV	PRESSURE REDUCING VALVE
RSP	REMOTE SET POINT
RTU	REMOTE TERMINAL UNIT
SCS	SUPERVISORY CONTROL STATION
SEL	SELECT
SMC	SOLID-STATE MOTOR CONTROLLER
SP	SET POINT
SS	START-STOP
STCD	STATUS-TO-COMMAND DISAGREEMENT
TOT	TOTALIZATION
TPC	TIME PROPORTIONAL CONTROL
TSP	TWISTED SHIELDED PAIR
TTR	TOE TELEMETRY RECEIVER
TTT	TOE TELEMETRY TRANSMITTER
TURB	TURBIDITY
ZS	POSITION SWITCH

ABBREVIATION	DESCRIPTION
ASTR	AUTOMATIC STRAINER
BWR	BLOWER
CAL	CALIBRATION COLUMN
CF	CARTRIDGE FILTER
CMP	CHEMICAL METERING PUMP
CP	CONTROL PANEL
DD	DESSICANT DRYER
DGS	DEGASIFIER
ERT	ENERGY RECOVERY TURBOCHARGER
EES	EMERGENCY EYEWASH / SHOWER
IMHTR	IMMERSION HEATER
IQ	INJECTION QUILL
M	MECHANICAL EQUIPMENT
MP	METERING PUMP
MXR	MIXER
MOV	MOTOR OPERATED VALVE
PMP	PUMP
PD	PULSATION DAMPENERS
SCR	MANUAL SCREEN
SG	SLIDE / SLUICE GATE
SM	STATIC MIXER
STR	STRAINER
TK	TANK
WG	WEIR GATE

ABBREVIATION	DESCRIPTION
C20	SCHEDULE 40 CARPENTER 20 ALLOY PIPE
CPVC	SCHEDULE 80 CPVC PIPE
CU	COPPER TUBING
DI	DUCTILE IRON PIPE
EPDM	EPDM TUBING
FRP	150 PSI PRESSURE CLASS FIBERGLASS REINFORCED PLASTIC PIPE
HDPE	150 PSI PRESSURE CLASS HIGH-DENSITY POLYETHYLENE PIPE
PE	POLYETHYLENE TUBING
PTFE(T)	150 PSI PRESSURE RATED TEFLON TUBING
pp	150 PSI PRESSURE CLASS POLYPROPYLENE PIPE
PVC	POLYVINYL CHLORIDE PRESSURE PIPE
PVC-D	PVC GRAVITY SEWER PIPE
PVDF	230 PSI PRESSURE CLASS POLYVINYLIDENE FLUORIDE PIPE
SST	TYPE 316/316L STAINLESS STEEL PIPE
STL	FABRICATED STEEL PIPE
STL-EL	FABRICATED STEEL, EPOXY LINED PIPE

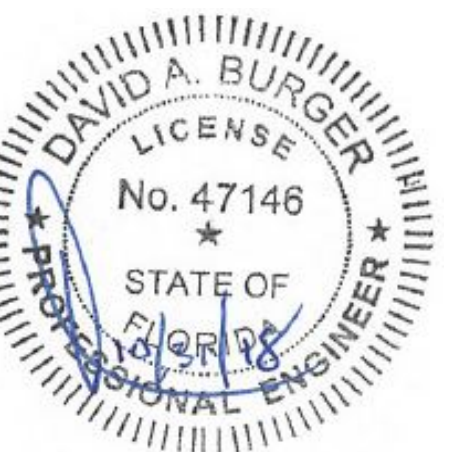
	MAGNETIC FLOWMETER		CAPPED OR PLUGGED
	ORIFICE PLATE		QUICK CONNECT COUPLING
	VENTURI FLOWMETER		CAMLOCK W/ MALE CAP
	ANNUBAR		RUPTURE DISK
	TURBINE FLOWMETER		INJECTOR
	ROTAMETER		DRAIN
	POSITIVE DISPLACEMENT FLOWMETER		ULTRASONIC LEVEL SENSOR
	ULTRASONIC LEVEL INSTRUMENT		NORMAL LIQUID LEVEL
	LEVEL SENSOR, FLOAT TYPE		MIXER
	MIXER		PIPE MATERIAL CHANGE
	CALIBRATION COLUMN		PIPE BREAK
	PULSATION DAMPENERS		PIPE CROSSING
	REDUCER		PROPELLER MIXER
	Y STRAINER		INJECTION QUILL WITH CORP STOP
	BLIND FLANGE		PUMP-OUT CONNECTION
	SAMPLE PORT		
	DIAPHRAGM SEAL		

MAJOR PROCESS FLOW

SECONDARY PROCESS FLOW

SAMPLE/ MINOR PROCESS FLOW

FUTURE PROCESS FLOW

[illegible]

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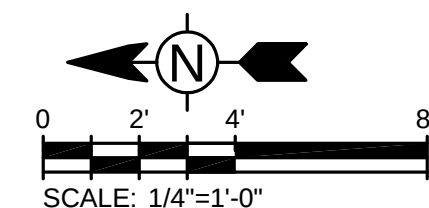
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ORANGE COUNTY, FLORIDA

MECHANICAL LEGEND AND ABBREVIATIONS

DRAWING NO.

1001

[illegible]



SCALE: 1/4" = 1'-0"

1. SYSTEM IS ONE OF FOUR REQUIRED AT CELL 2 INCLUDED IN THIS CONTRACT AND FOUR FUTURE UNITS AT CELL 3 TO BE INSTALLED UNDER A FUTURE CONTRACT.



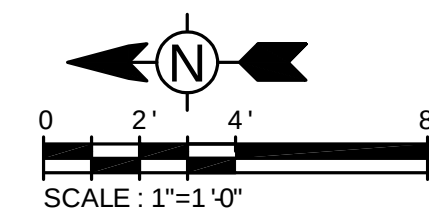
\\TTS181FS1\Projects\IER\01295\200-01295-18001\CAD\sheetfiles\M-3001 Leachate Collection System Overall Plan.dwg 2018/10/31 3:08 PM, Chancellor, Wyatt



OUC STANTON ENERGY CENTER
ORANGE COUNTY, FLORIDA

DRAWING NO.

M3001



1. SYSTEM IS ONE OF FOUR REQUIRED AT CELL 2 INCLUDED IN THIS CONTRACT AND FOUR FUTURE UNITS AT CELL 3 TO BE INSTALLED UNDER A FUTURE CONTRACT .
2. REFER TO SHEETS M -5001 AND M -5002 FOR INSTALLATION DETAILS .

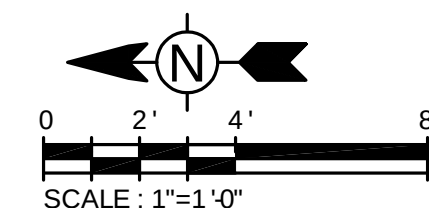


SCALE: 1" = 1'-0"

[illegible]

M4001

REVISION	DATE	DESCRIPTION	APPR'D	REVISION
\\TTS181FS1\Projects\IER\01295\200-01295-18001\CAD\sheetfiles\M-4001 Leachate Collection System Enlarged Plan.dwg 2018/10/31 3:08 PM, Chancellor, Wrat				



1. SYSTEM IS ONE OF FOUR REQUIRED AT CELL 2 INCLUDED IN THIS CONTRACT AND FOUR FUTURE UNITS AT CELL 3 TO BE INSTALLED UNDER A FUTURE CONTRACT .
2. SUBSTITUTE 2,3,4 FOR SUBSEQUENT CONTROL PANELS .



SCALE : 1" = 1'-0"

[illegible]

OUC STANTON ENERGY CENTER
ORANGE COUNTY, FLORIDA

LEACHATE COLLECTION SYSTEM
ENLARGED PLAN

DRAWING NO.

M4002

FROM PUMP

HDPE DISCHARGE PIPE

TYPE 316 STAINLESS STEEL FEMALE CAMLOCK FITTING

TYPE 316 STAINLESS STEEL MALE CAMLOCK FITTING

THREADED 316 SST PIPE FITTING

316 SST PULLING CONNECTION

PULLING CONNECTION

O-RING

INNER GASKET

BACKUP WASHER

OUTER GASKET

LOCK NUT

2

DETAIL

SCALE: NTS

TRANSMITTER

PRESSURE SEAL W/ 1/2" NPT INSTRUMENT & PROCESS CONNECTION FOR PIPE SIZES GREATER THAN 12-INCHES. (SEE SPECIFICATIONS)

1/2" TYPE 316 STAINLESS STEEL PIPE

1/2" TYPE 316 SST BALL VALVE

1/2" TYPE 316 STAINLESS STEEL PIPE

PROCESS PIPE

IN-LINE FLANGED PRESSURE SENSOR (SEE SPECIFICATIONS)

3 DETAIL

SCALE: NTS

FLUID FILLED PRESSURE GAUGE

PRESSURE SEAL W/ 1/2" NPT INSTRUMENT & PROCESS CONNECTION FOR PIPE SIZES GREATER THAN 12-INCHES. (SEE SPECIFICATIONS)

1/2" TYPE 316 STAINLESS STEEL PIPE

1/2" TYPE 316 SST BALL VALVE

1/2" TYPE 316 STAINLESS STEEL PIPE

PROCESS PIPE

IN-LINE FLANGED PRESSURE SENSOR (SEE SPECIFICATIONS)

4 **DETAIL**

SCALE: NTS

PROCESS PIPE

316 SST U-BOLT

1/4" NEOPRENE PAD

SEE EMPIRE INDUSTRIES INC.
FIG. 429KT FOR REFERENCE.

5'-0" MAX

1-1/4" INTERNAL STRAIGHT
THREAD

2" SCHEDULE 40 316 SST PIPE CUT TO
MEET REQUIRED PIPE GRADE

1/4"

3/4" SST WEDGE ANCHORS
WITH LEVELING NUTS
EMBED 4-3/4" (TYP OF 4)

1/4" THICK SQUARE
STEEL PLATE

1" NON-SHRINK GROUT

NOTES:

1. 316 SST ENTIRE PIPE SUPPORT AFTER FABRICATION.

PIPE SIZE	A	B	C	D	E	F	G	H
2"	2"	3.95"	5.75"	1-1/4"	8"	2.45"	3.75"	1/2-13
3"	2"	5"	5.75"	1-1/4"	8"	3.5"	.5"	5/8-11

* ALL DIMENSIONS
IN INCHES.

5

DETAIL

SCALE: NTS

PIPE PLUG (TYP)

NIPPLE

316 SS BALL VALVE

NIPPLE

SEE PLAN FOR OUTLET SIZE. PIPE TO 24" HDPE CARRIER PIPE.

AIR RELEASE AND VACUUM VALVE

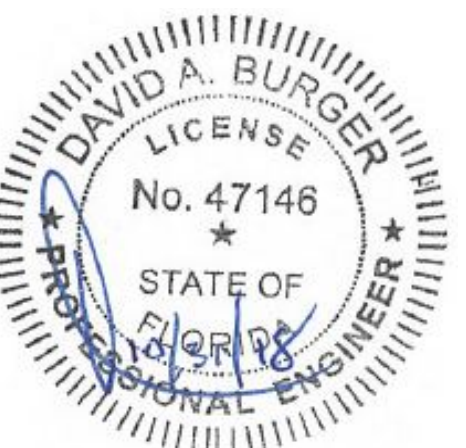
TEE W/ TAPPED FLANGE FOR " NPT

PROCESS PIPING. SEE PLANS FOR SIZE

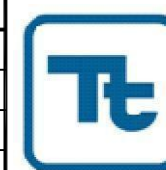
CONNECT TO HDPE RISER

6 DETAIL

SCALE: NTS



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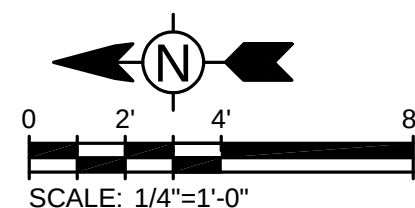


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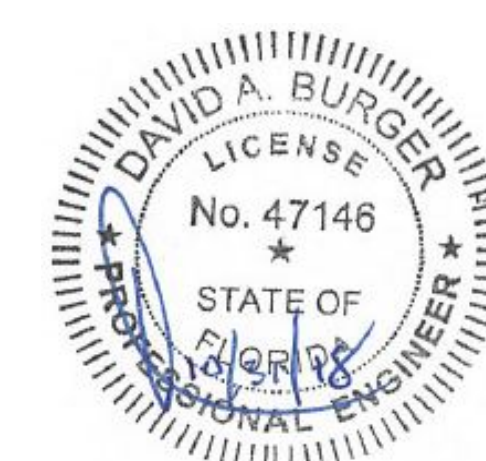
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M5001

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SCALE: 1/4" = 1'-0"



NOTES:

1. SYSTEM IS ONE OF FOUR REQUIRED AT CELL 2 INCLUDED IN THIS CONTRACT AND FOUR FUTURE UNITS AT CELL 3 TO BE INSTALLED UNDER A FUTURE CONTRACT.

[illegible]



CONTROL CIRCUIT & PILOT DEVICE LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	PRESS. ACTUATED SWITCH		SELECTOR SWITCH OPERATOR WITH FUNCTION SHOWN
	FLOAT ACTUATED SWITCH		
	FLOW ACTUATED SWITCH		MOMENTARY PUSHBUTTON OPERATOR-NORMALLY OPEN
	TEMP. ACTUATED SWITCH		MOMENTARY PUSHBUTTON OPERATOR-NORMALLY CLOSED
	LIMIT SWITCH- NORMALLY OPEN		PUSHBUTTON OPERATOR WITH MUSHROOM HEAD
	LIMIT SWITCH- NORMALLY CLOSED		FIELD LOCATED STOP BUTTON
	LIMIT SWITCH-NORMALLY CLOSED-HELD OPEN		MAINTAINED PUSH-PULL OPERATOR
	LIMIT SWITCH-NORMALLY OPEN-HELD CLOSED		MAINTAINED STOP-START PUSHBUTTON OPERATOR
	LATCHING CABLE SWITCH		
	TIME-DELAY FUSE		SOLENOID OR CLUTCH
	CONTROL RELAY COIL		PUSH-TO-TEST INDICATING LIGHT
	CONTROL RELAY CONTACT-NORMALLY OPEN		MAINTAINED STOP- MOMENTARY START PUSHBUTTON (JOG)
	CONTROL RELAY CONTACT-NORMALLY CLOSED		
	TWO COIL LATCHING RELAY		ZERO SPEED OR ANTI- PLUGGING SWITCH
	TIMING RELAY COIL		LOCAL TERMINALS WITH EXTERNAL WIRING
	TIMED CLOSED CONTACT ON ENERGIZATION		ELAPSED TIME INDICATOR
	TIMED OPEN CONTACT ON ENERGIZATION		TIMING RELAY INSTANTANEOUS CONTACTS
	TIMED OPEN CONTACT ON DE-ENERGIZATION		
	TIMED CLOSED CONTACT ON DE-ENERGIZATION		
	120 VAC TRANSFORMER		

BACKGROUND PLAN AND ONE LINE SYMBOLS			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	CONTROL SWITCH (SEL. OR P.B.) SEE CIRCUITS FOR SPECIFIC TYPE		LOW VOLTAGE DISCONNECT SWITCH
	SEE CIRCUITS FOR SPECIFIC TYPE FLOAT SWITCH - FLOW SWITCH		LOW VOLTAGE FUSE (BELOW 600V)
	TEMPERATURE - HUMIDISTAT SWITCH (SUBSCRIPT = NO. OF STAGES)		ALL STARTERS SHALL BE FULL VOLTAGE NON-REVERSING UNLESS OTHERWISE INDICATED
	LIMIT - PRESSURE - VACUUM SWITCH		(FVR) FULL VOLTAGE REVERSING (RV) REDUCED VOLTAGE (2S,2W) TWO SPEED, TWO WINDING
	ELECTRICAL OR MECHANICAL ALTERNATOR (SEE WIRING)		600V, 3 POLE MOLDED CASE CIRCUIT BREAKER, FRAME & RATING AS SHOWN
	OVERLOAD SWITCH OR DEVICE		SINGLE PHASE, FRACTIONAL HP MOTOR TO LOCATION INDICATED (SEE GEN. NOTE 4)
	TERMINAL BOX		TAG NO. (BALLOON) FOR DEVICE INDICATED
	LIGHTING PROTECTION AIR TERMINAL		FOR POWER (SEE GEN. NOTE 4) 3/4" C/2 C#18 SHLD. CONDUIT AND WIRE RUN FROM DEVICE INDICATED TO LOCATION INDICATED
	PHOTOCELL LINE VOLTAGE		MCP - 1
	TELEPHONE OUTLET OR JUNCTION BOX		CAPACITOR, 3 PHASE, SIZE AS INDICATED
	AS NOTED (LIGHTING PANEL, CONTROL PANEL, DISTRIBUTION PANEL ETC.) WALL MOUNTED		DISCONNECT SWITCH (F) = FUSED (C) = CIRCUIT BREAKER
	JUNCTION BOX		MAGNETIC STARTER (BACKGROUND DRAWINGS ONLY)
	HEATER		COMBINATION MAGNETIC STARTER FUSED UNLESS NOTED (CIRCUIT BREAKER)
	TRANSFORMER		COMBINATION LIGHTING CONTACTOR WITH HAND-OFF-AUTO SWITCH
	CONDUIT WITH CONDUIT SEAL FITTING		CONTROL PANEL
	CONDUIT EXPOSED		TEMPERATURE CONTROL PANEL
	CONDUIT CONCEALED		UNIT HEATER, 1/8 HORSEPOWER
	DIRECT BURIED CONDUIT		LIGHTNING ARRESTOR
	DIRECT BURIED CABLE		LOW VOLTAGE HOME RUNS 120/208 V 120/240 V (SEE GEN. NOTE 4)
	OVERHEAD LINE		KEYLOCK
	UNDERGROUND DUCT BANK		SMOKE DETECTOR
	LED LUMINAIRE WITH BATTERY BACKUP		EXIT LIGHT
	LED WALLPACK		LED LUMINAIRE
	LED SITE LIGHT		

ABBREVIATIONS			
ABBREVIATION	DEFINITION	ABBREVIATION	DEFINITION
A	AMPS	MCC	MOTOR CONTROL CENTER
AFF	ABOVE FINISHED FLOOR TO CENTERLINE	MCP	MOTOR CONTROL PANEL
AHU	AIR HANDLING UNIT	MLO	MAIN LUGS ONLY
C	CONDUIT	MSH	MOTOR SPACE HEATER
CKT	CIRCUIT	NEMA 4	WATERTIGHT
C/B	CIRCUIT BREAKER	NEMA 4X	WATERTIGHT AND CORROSION PROOF
DC	DOOR SECURITY CONTACT	NEMA 7	EXPLOSION PROOF - CLASS I, DIVISION I, GROUP D
DISC	DISCONNECT	NEMA 9	EXPLOSION PROOF - CLASS II, DIVISION 1
EF	EXHAUST FAN	PE	PRESSURE SENSOR
EUH	ELECTRIC UNIT HEATER	PIT	PRESSURE TRANSMITTER
EWC	ELECTRIC WATER HEATER	PNL	PANEL
EX	EXISTING	PP	POWER PANEL
FE	FLOW SENSOR	RCP	REFLECTED CEILING PLAN
FIT	FLOW TRANSMITTER	SPD	SURGE PROTECTION DEVICE
FOC	FIBER OPTIC CONVERTER	TS	TEMPERATURE SENSOR
FOPP	FIBER OPTIC PATCH PANEL	TYP	TYPICAL
GFI	GROUND FAULT CIRCUIT INTERRUPTER	UG	UNDERGROUND
G/WP	GROUND FAULT-WEATHERPROOF	UON	UNLESS OTHERWISE NOTED
GND	GROUND	VFD	VARIABLE FREQUENCY DRIVE
HP	HORSEPOWER	W/	WITH
HSP	HIGH SERVICE PUMP	WP	WEATHER PROTECTED RECEPTACLE
LE	LEVEL SENSOR	XFMR	TRANSFORMER
LIT	LEVEL TRANSMITTER	Ⓢ	THERMOSTAT PROVIDED BY HVAC CONTRACTOR, INSTALLED AND WIRED BY ELECTRICIAN.
LOS	LOCAL-OFF-STOP CONTROL STARTER	Ⓢ	3/4" X 10' LONG COPPER CLAD STEEL GROUND ROD.

GENERAL NOTES	
NUMBER	NOTE
1.	ELECTRICAL MATERIALS AND EQUIPMENT ITEMS SHOWN IN LIGHT LINE WEIGHTS ON THE DRAWINGS ARE EXISTING ITEMS TO REMAIN. ELECTRICAL MATERIALS AND EQUIPMENT ITEMS SHOWN IN HEAVY LINE WEIGHTS ARE NEW THIS CONTRACT.
2.	ITEMS SHOWN CROSSHATCHED ON THE DRAWINGS ARE EXISTING ITEMS TO BE REMOVED.
3.	FOR ITEMS INDICATED AS "FIELD LOCATE" CHECK DRAWINGS OF OTHER TRADES (IN PARTICULAR PIPING AND STRUCTURAL) FOR INTERFERENCE AND FOR LOCATIONS OF MOUNTING FLANGES, CONNECTION POINTS, ETC.
4.	INSTALL A SINGLE CONDUCTOR INSULATED (RHW-2, OR XHHW-2) COPPER GROUND WIRE IN EACH CONDUIT, SIZE AS SHOWN ON DRAWINGS OR AS A MINIMUM PER THE NATIONAL ELECTRICAL CODE. THIS GROUND WIRE SHALL BE CONNECTED AT EACH END TO THE EQUIPMENT GROUND. CONDUIT SHALL BE 3/4" MIN.
5.	THE FOLLOWING COMPONENT IDENTIFICATION SHALL BE USED AS APPROPRIATE: (F) FIELD MOUNTED, NOT AT STARTER OR OTHER CONTROL PANELS. (S) STARTER PANEL MOUNTED. (MCP) AT MAIN CONTROL PANEL. (1) AT CONTROL PANEL NO. 1 (2) AT CONTROL PANEL NO. 2 (TCP) AT TEMPERATURE CONTROL PANEL.
6.	IN GENERAL, THE WORK REQUIRED UNDER THIS CONTRACT SHALL BE PERFORMED WITHOUT DISRUPTION TO THE EXISTING PLANT. ANY SYSTEM OUTAGE AFFECTING THE OPERATION OF THE EXISTING PLANT SHALL BE APPROVED BY THE OWNER IN WRITING PRIOR TO COMMENCING WORK.
7.	HOMERUNS AND WIRING SHALL BE 2#12, #12G IN 3/4" UNLESS NOTED OTHERWISE.

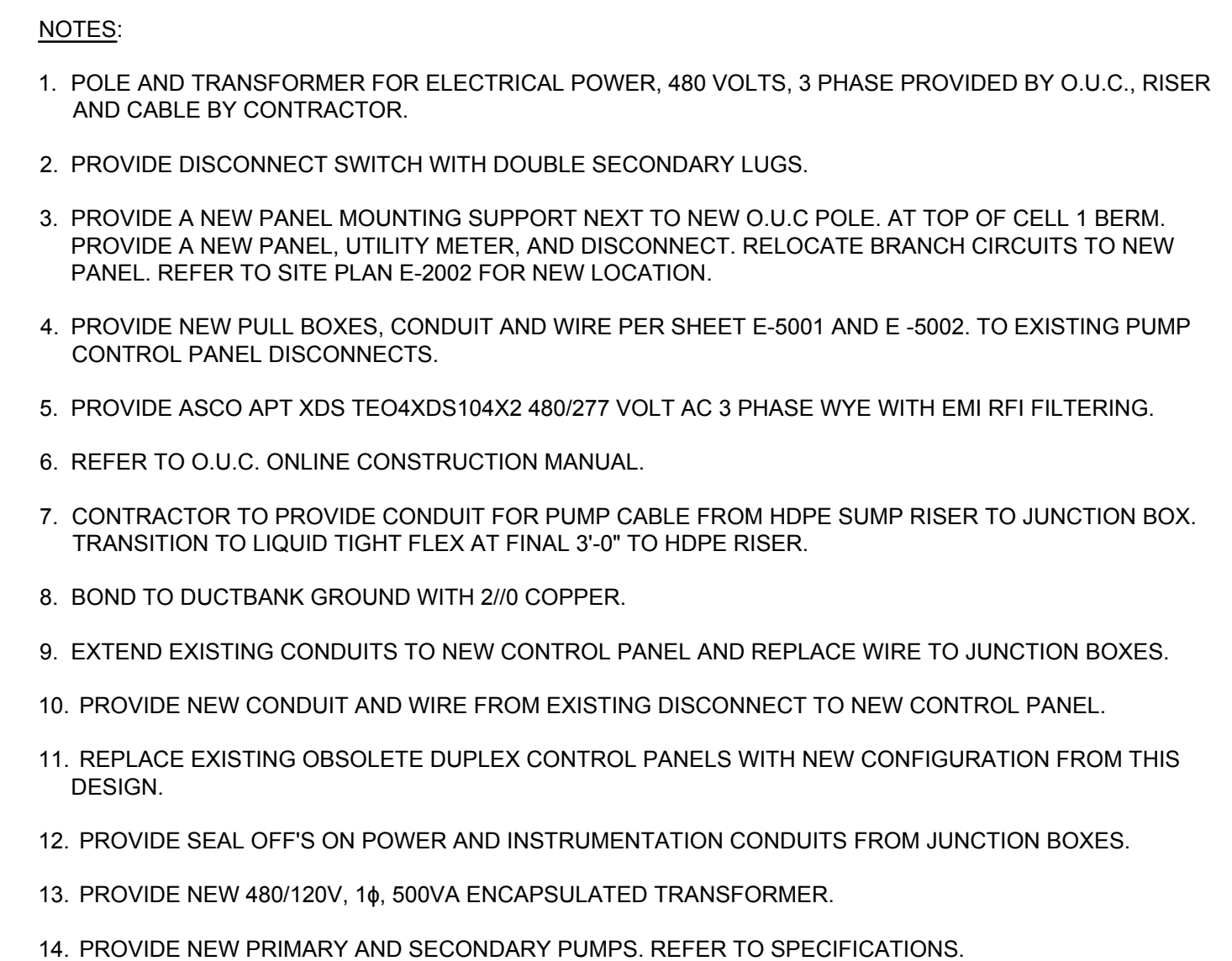
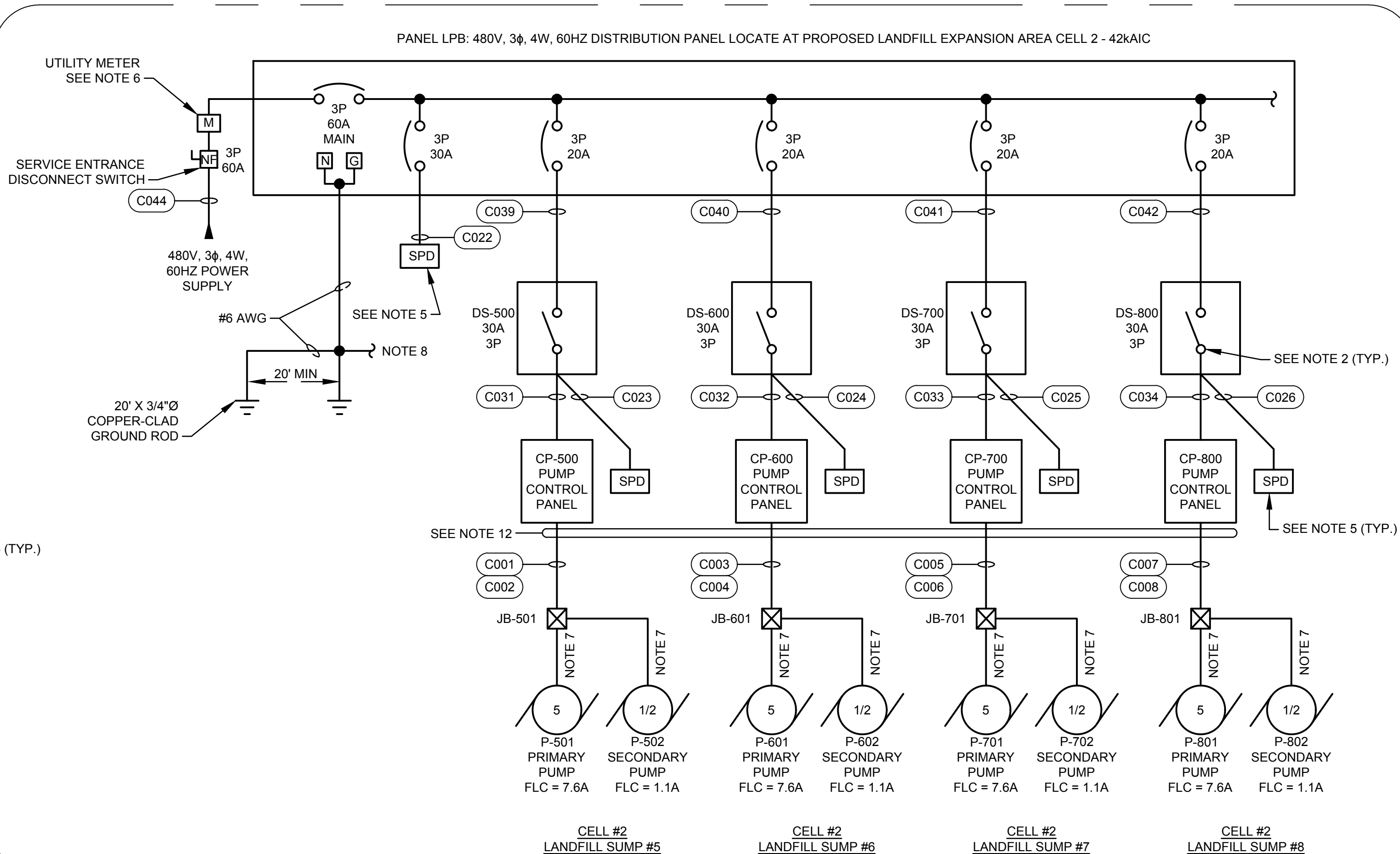
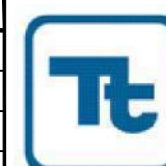
GENERAL NOTES:

1. ALL SECTIONS OF SUBCONTRACTOR AND PRIMARY CONTRACTORS SPECIFICATIONS MANUALS APPLY. CONTRACTORS ARE RESPONSIBLE TO SUBMIT BIDS COMPLYING WITH MOST STRINGENT REQUIREMENTS OF BOTH SPECIFICATION MANUALS.

WIRING DEVICE SCHEDULE		
SYMBOL	DESCRIPTION	NEMA TYPE
	125V, 2P, SIMPLEX, 3W	5-20 R
	125V, 2P, DUPLEX, 3W	5-20 R
	20A, 120/277 V SWITCH	SPST
	20A, 120/277 V SWITCH	2PDT
	20A, 120/277 V SWITCH	3 WAY
	20A, 120/277 V SWITCH	4 WAY
	600V, 2P, 3W, SIMPLEX WELDING	L9-50R
	208V, 3P, SIMPLEX, 4W, LOCKING	L14-20R
	277V, 2P, DUPLEX, 3W	7-15R

NOTE: PROVIDE WEATHERPROOF IN-USE COVERS FOR ALL OUTDOOR RECEPTACLES.

[illegible]

[illegible]

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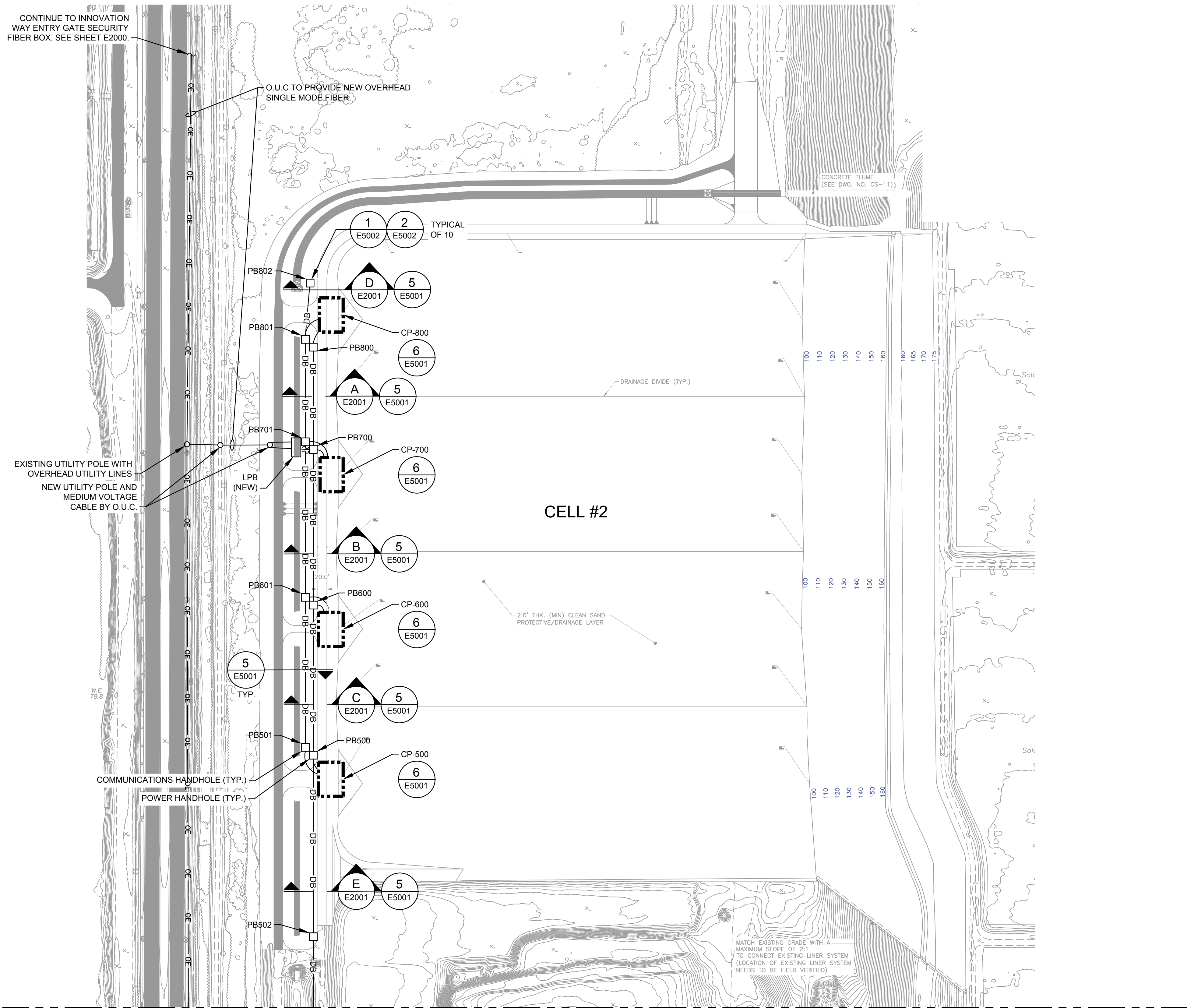
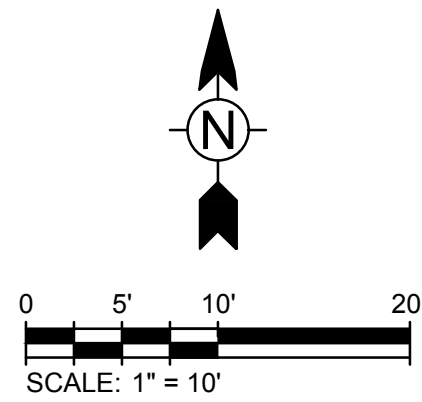


OUC STANTON ENERGY CENTER
ORANGE COUNTY, FLORIDA

ELECTRICAL SINGLE LINE DIAGRAM

DRAWING NO.

E1001



CONTINUED ON E2002

DUCT BANK SECTION A

- POWER:**
- | | |
|---------------------|--|
| 1. 1"C(3#8, 1#10G) | 1. PANEL LPB TO CP-800 PUMP CONTROL PANEL. |
| 2. 1"C(PULL-STRING) | 2. PB700 TO PB800 |
- COMMUNICATIONS:**
- | | |
|----------------------------------|---|
| 1. 2"C(12 STRAND MM FIBER OPTIC) | 1. CP-700 PUMP CONTROL PANEL TO CP-800 PUMP CONTROL PANEL (PB701, PB801). |
| 2. 2"C(PULL-STRING) | 2. CP-700 PUMP CONTROL PANEL TO CP-800 PUMP CONTROL PANEL (PB701, PB801). |

DUCT BANK SECTION B

- POWER:**
- | | |
|---------------------|--|
| 1. 1"C(3#8, 1#8G) | 1. PANEL LPB TO CP-600 PUMP CONTROL PANEL. |
| 2. 1"C(3#8, 1#10G) | 2. PANEL LPB TO CP-500 PUMP CONTROL PANEL. |
| 3. 1"C(PULL-STRING) | 3. PB700 TO PB600 |
- COMMUNICATIONS:**
- | | |
|----------------------------------|---|
| 1. 2"C(12 STRAND MM FIBER OPTIC) | 1. CP-700 PUMP CONTROL PANEL TO CP-600 PUMP CONTROL PANEL (PB701, PB601). |
| 2. 2"C(PULL-STRING) | 2. CP-700 PUMP CONTROL PANEL TO CP-600 PUMP CONTROL PANEL (PB601, PB501). |

DUCT BANK SECTION C

- POWER:**
- | | |
|---------------------|--|
| 1. 1"C(3#8, 1#8G) | 1. PANEL LPB TO CP-500 PUMP CONTROL PANEL. |
| 2. 1"C(PULL-STRING) | 2. PB600 TO PB500 |
- COMMUNICATIONS:**
- | | |
|----------------------------------|--|
| 1. 2"C(12 STRAND MM FIBER OPTIC) | 1. CP-700 PUMP CONTROL PANEL TO CP-500 PUMP CONTROL PANEL (PB701, PB601, PB501). |
| 2. 2"C(PULL-STRING) | 2. PB601 TO PB501 |

DUCT BANK SECTION D

- COMMUNICATIONS:**
- | | |
|---------------------|--|
| 1. 2"C(PULL-STRING) | 1. CONDUIT FOR FIBER TO FUTURE CELL #3 (PB801 TO PB802). |
|---------------------|--|

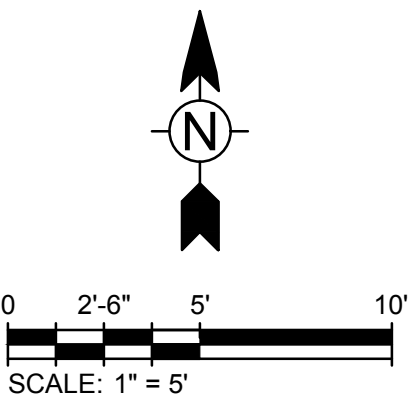
DUCT BANK SECTION E

- COMMUNICATIONS:**
- | | |
|----------------------------------|--|
| 1. 2"C(12 STRAND MM FIBER OPTIC) | 1. CP-500 PUMP CONTROL PANEL TO CP-400 PUMP CONTROL PANEL VIA PB501, PB502, PB402. |
|----------------------------------|--|

- NOTES:**
1. TERMINATE DUCT BANK GROUND WIRE AT EACH PUMP GROUND RING COUNTERPOISE.
 2. BOND DUCT BANK GROUND TO ELECTRIC SERVICE GROUND RODS.
 3. INSTALL GROUND RING AROUND EACH OF 4 EXISTING CELL #1 AND NEW CELL #2 CONTROL PANELS PER DETAIL 6 SHEET E5001.
 4. DO NOT LOCATE PULL BOXES ON VEHICLE DRIVE SURFACES.
 5. PANEL LPB LOCATION SHALL BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO INSTALLATION OF MOUNTING RACK OR DUCT BANK
 6. STAKE OUT CENTER OF EACH PULL BOX OR HANDHOLE PRIOR TO COMMENCING DUCT BANKS FOR OWNER AND ENGINEER OF RECORD APPROVAL.
 7. ALL WIRE RHW-2.



										NAME		DATE		NAME		DATE			Ardaman & Associates, Inc. Geotechnical, Environmental, and Materials Consultants <i>A Tetra Tech Company</i> 8008 S. Orange Ave. Orlando, FL 32809 TEL 407/855-3860 FAX 407/859-8121 C.A.N. 5950		COAL WASTE ASH STORAGE EXPANSION										CELL #2 ELECTRICAL SITE PLAN	DRAWING NO
										DESIGNED BY		DAB		10/31/18									E200									
										DRAWN BY		JAS		10/31/18		CHECKED BY					DAB			10/31/18								
										DAB		FILE NO.: -----				SCALE: AS SHOWN																
										APPROVED BY:																						
REVISION	DATE	DESCRIPTION								APPR'D	REVISION	DATE	DESCRIPTION								APPR'D											



1. SINGLE MODE FIBER BY O.U.C.
2. RUN NEW MULTIMODE FIBER BELOW GRADE TO NEW CONCRETE PANEL. ROUTE AROUND PERIMETER OF EXISTING CONCRETE TO PULL BOXES. DO NOT LOCATE IN OBVIOUS DRIVE PATH.
3. SAW CUT CONCRETE TO ROUTE TO PANEL. PATCH WITH 4000 PSI CONCRETE.
4. DEDICATED O.U.C. CONDUIT FOR SINGLE MODE FIBER DUCT BANK AND PULL ROPE BY CONTRACTOR. FASTER LONG TERM MAINTENANCE ONLY.
5. PROVIDE AND INSTALL NEW NETWORK SWITCH PANEL. TERMINATE FIBER CONDUITS.
6. STAKE OUT CENTER OF EACH PULL BOX OR HANDHOLE PRIOR TO COMMENCING DUCT BANKS FOR OWNER AND ENGINEER OF RECORD APPROVAL.
7. REPLACE SIMPLEX PUMP PANEL, FLOW METER, PRESSURE SENSOR, LEVEL SENSOR AND ALL APPURTENANCES.
8. 1" WITH 6 STRAND MM FIBER.
9. ADD 2 POLE 15A BREAKER TO EXISTING PANEL AND RUN POWER TO NEW REMOTE NETWORK CONTROL TRANSFORMER.
10. ADD 480V/120 VAC, 1PH, ENCAPSULATED CONTROL TRANSFORMER TO PANEL RACK WITH 20 AMP DISCONNECT FOR NETWORK SWITCH PANEL.
11. PROVIDE FIBER TERMINATION BOX FOR OUC SINGLE MODE FIBER. SEE SHEET 11012.

COMMUNICATIONS:

1. 2-2°C EACH WITH(6 STRAND MM FIBER) TO CWSA #1 AND #2
2. 2-2°C EACH WITH(PULL-STRING) TO CWSA #1 AND #2

COMMUNICATIONS:

1. 2"C(6 STRAND MM FIBER) TO CWSA #4
2. 2"C(PULL-STRING) TO CWSA #4

COMMUNICATIONS:
1. 3"C(PULL-STRING))

COMMUNICATIONS:

1. 3"C(PULL-STRING)
2. 3-2"C EACH WITH (6 STRAND MM FIBER)
3. 3-2"C EACH WITH (PULL-STRING)

POWER:

1. 1"C(3#10 RHW-2) TO NETWORK RACK

[illegible]

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COAL WASTE ASH STORAGE EXPANSION

OUC STANTON ENERGY CENTER
ORANGE COUNTY, FLORIDA

CWSA PONDS ELECTRICAL SITE PLAN

DRAWING NO.

E2003



1. REPLACE LEAKING PITLESS ADAPTER AND SEALS ON ONE LEAKING RISER CONNECTION.



1. REPLACE 4 CELL 1 CONTROL PANELS, 8 FLOW METERS (2 PER PAD), 8 LEVEL SENSORS (2 PER PAD), 4 PRESSURE SENSORS.
2. MODIFY EXISTING SUPPORT STRUCTURE AS NECESSARY FOR NEW EQUIPMENT CONTROL PANELS..
3. PROVIDE ELEVATIONS OF ALL RACK LAYOUTS AS SUBMITTALS FOR ENGINEER APPROVALS.



1. INSTALL NEW GROUND RING ALL CELL 1 PUMP PADS.
2. REPLACE (4) CONTROL PANELS (1 PER PAD).



1. RELOCATE CELL 1 SERVICE REFER TO SITE PLAN SHEET E2002.
2. PROVIDE NEW SURGE SUPPRESSOR, SEE SINGLE LINE. PROVIDE UNISTRUT TO MOUNT DEVICE, SEE NOTES SHEET E1001.



1. BURY EXPOSED GROUND 18" BELOW GRADE. EXTEND GROUND TO BACKSIDE OF UNISTRUT RACK AND BOND TO RACK.
2. PROVIDE RAIN COVER OVER PLC CABINET AND POWER PANEL, REFER TO DETAILS SEE SHEET E5005.

P:\JER\01295\260-01295-18001\C40\SheetFiles\E-3001 ELECTRICAL SITE PHOTOS.dwg 2018/10/31 3:20 PM, Chancellor, Wyatt



E3001



NEW THIS CONTRACTREPLACE WITH NEW AT NEW LOCATIONCELL 3 PANEL LPC (FUTURE)

CELL 1 PANEL LPA

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COAL WASTE ASH STORAGE EXPANSION
OUC STANTON ENERGY CENTER ORANGE COUNTY, FLORIDA

PANEL BOARD SCHEDULES	DRAWING NO.
	E4001



HANDHOLE DETAIL CONCRETE ENCASEMENT

PLAN

56" OVERLAP TYPICAL

8" OVERLAP TYPICAL

CONCRETE PAD AROUND HAND HOLE

SECTION

REBAR BASKET

#5 REBAR (TYP.)

IRON TOP

18"

13"

18"

3"

3"

3"

3"

COMPACT SOILS TO 95% RDS

DETAIL

1

E5002

SCALE: NTS

HANDHOLE DETAIL

SECTION

PLAN

COVER DETAIL

NOTES:

1. PROVIDE H20 TIER RATED HANDHOLES. PROVIDE WITH CAST IRON COVERS.
2. IN UNPAVED AREAS, THE TOP OF MANHOLE COVERS SHALL BE APPROXIMATELY 1" ABOVE THE FINISHED GRADE.
3. PROVIDE 18" X 18" PAD AROUND HAND HOLE. PER DETAIL 1 THIS SHEET.

NOTES:

- 1) INSIDE DIMENSIONS TO BE: 17"W x 28"L x 18"D
- 2) COVER TO BE PROVIDED: CAST IRON TRAFFIC COVER
- 3) PROVIDE EXTENSIONS AS REQUIRED.
- 4) PULLBOX TO BE PRECAST; BROOKS, A.C. MILLER, OR HUGHES SUPPLY

NOTES:

1. DO NOT LOCATE IN ROAD OR DRIVE SURFACES.
2. PROVIDE CONCRETE ENCASEMENT PER ACCOMPANYING DETAIL.

2
E5002

DETAIL

SCALE: NTS

POLE DETAIL OVERHEAD FIBER

O.U.C. POLE

SINGLE MODE FIBER CABLE BY O.U.C.

100 LB. PULLSTRING

2 HOLE PIPE STRAP 3 REQUIRED, ASTM B695 CLASS 50 TYPE 1, 0.25" X 1"

10'-0"

FINISHED GRADE

3" SCHEDULE 80 PVC

O.U.C. PROVIDED CONTRACTOR INSTALLED PULLBOX

100 LB. PULLSTRING

LABEL CONDUITS WITH TERMINATION LOCATION USING HEAT-SHRINK LABEL AND PERMANENT MARKING.

3" FACTORY LONG SWEEPS ONLY, TYPICAL

100 LB. PULLSTRING TO NETWORK PANEL FOR O.U.C.

TO REMOTE NETWORK PANEL

3
E5002

DETAIL
SCALE: NTS

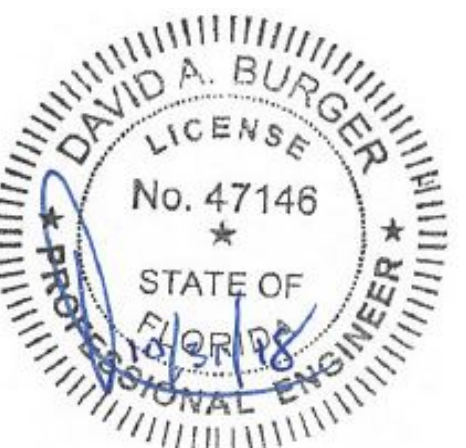
SUNSHADE DETAIL

The drawing consists of two line drawings. The left drawing is a front view of a rectangular sunshade structure with two vertical posts and a horizontal top rail. The right drawing is a side view of the same structure, showing the profile of the top rail and the vertical post. Both drawings are set against a background of diagonal hatching representing the ground.

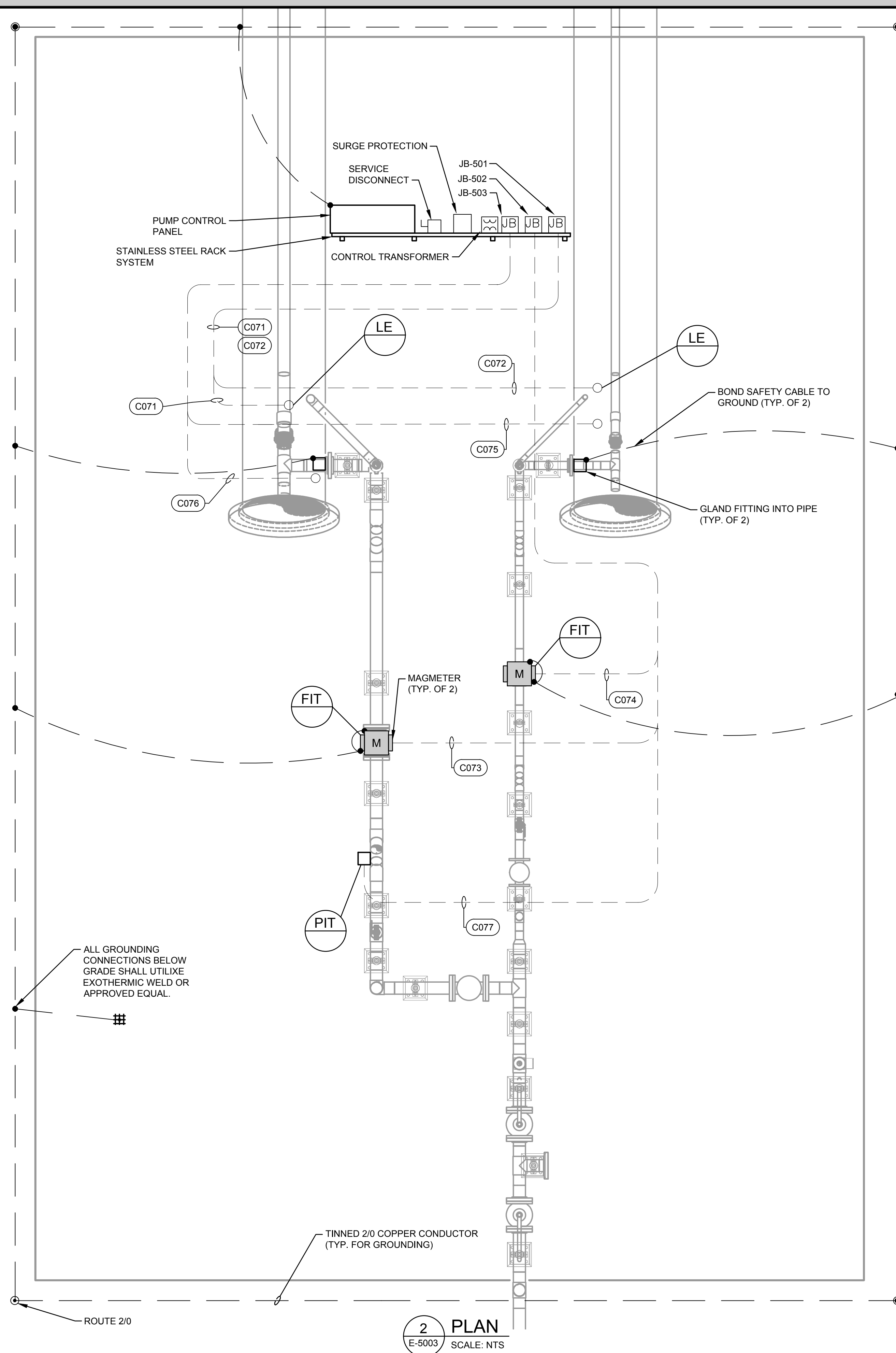
FRONT

SIDE

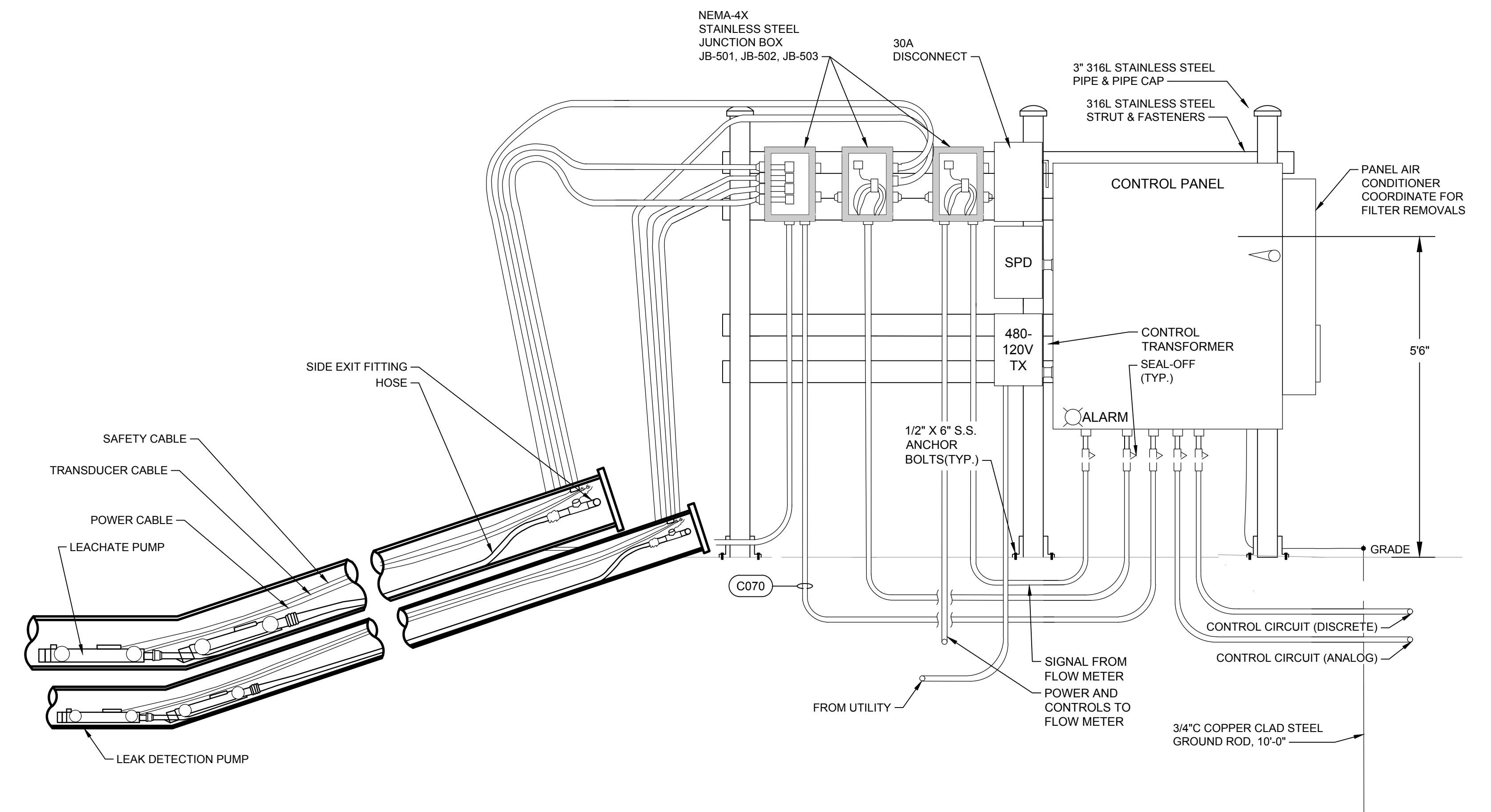
4 **DETAIL**
E5002 SCALE: NTS

5002

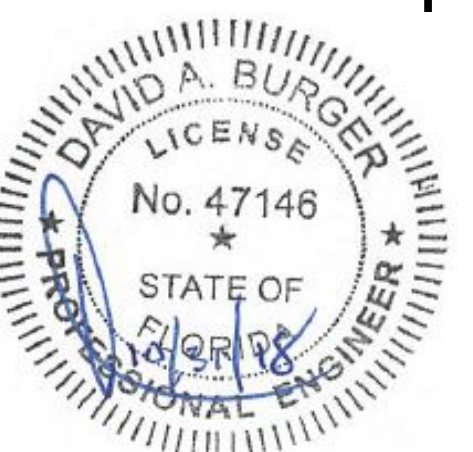
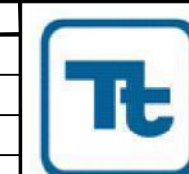
SUMP PAD DETAILS



ELECTRICAL RACK DETAIL



1 ELEVATION
E-5003 SCALE: NTS

[illegible]

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COAL WASTE ASH STORAGE EXPANSION

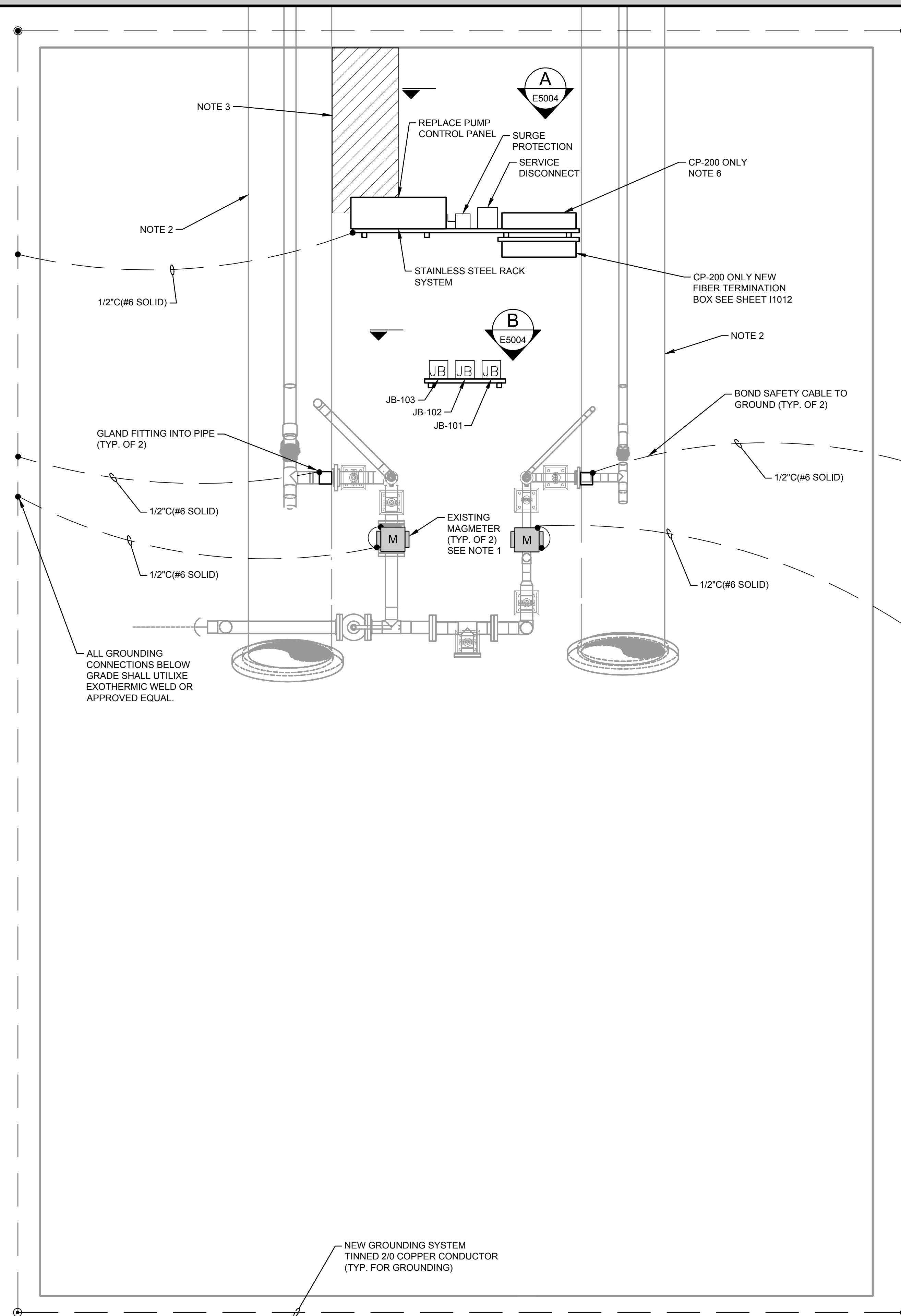
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ORANGE COUNTY, FLORIDA

ELECTRICAL PLAN AND ELEVATION
CELL #2 OR CELL #3

AWING NO.

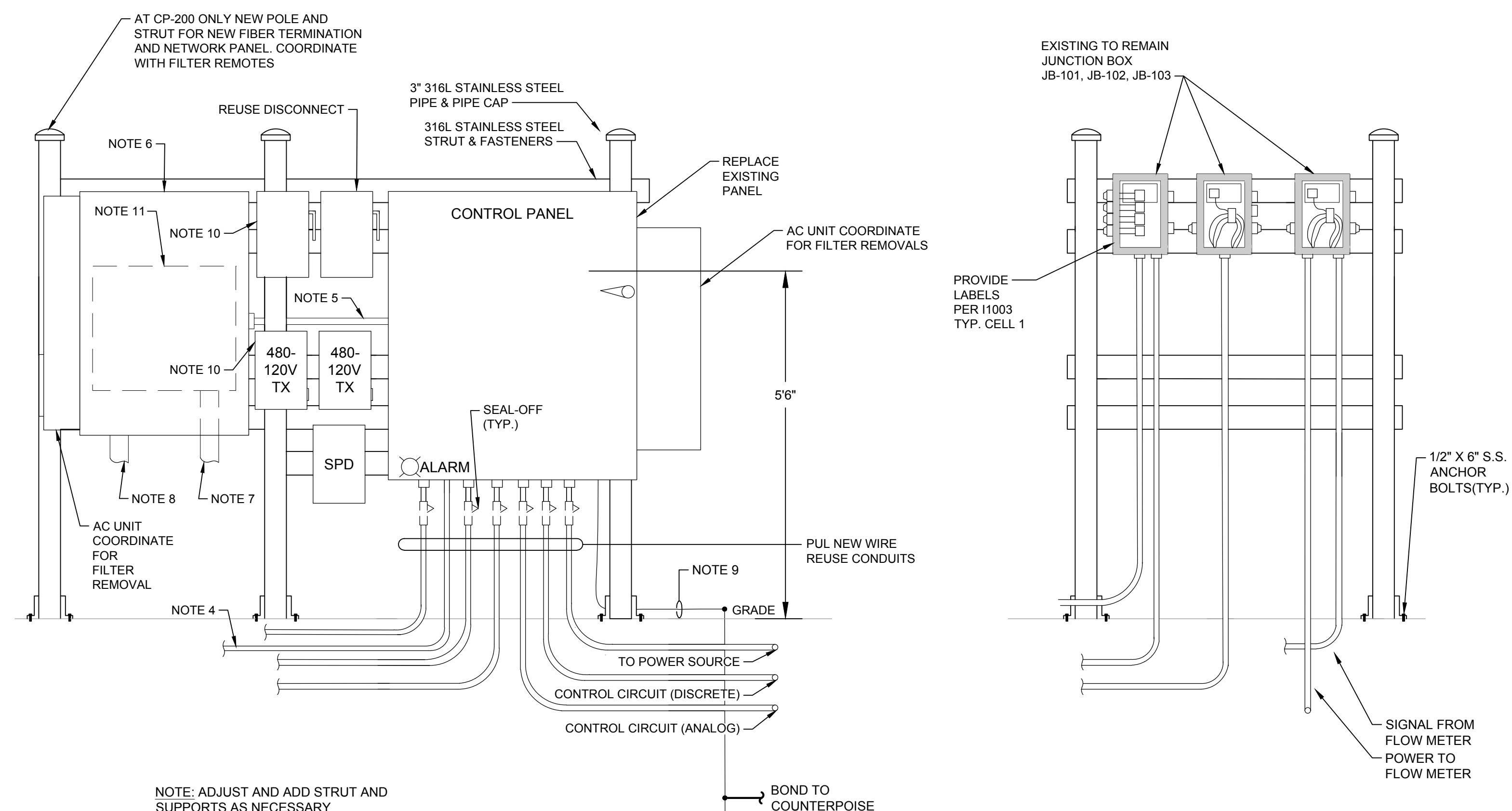
5003

SUMP PAD DETAILS CELL #1 CP-100, CP-200, CP-300, CP-400



1 PLAN
E-5004 SCALE: NTS

ELECTRICAL RACK DETAIL CELL #1 CP-100, CP-200, CP-300, CP-400



A ELEVATION

B ELEVATION
E-5004

- NOTES:**
- | | |
|---|---|
| <p>1. REPLACE MAGMETERS WITH ROSEMOUNT MODEL 8750WA32EST2A1ETA020CA1.</p> <p>2. REPLACE LEVEL SENSOR AND PUMPS.</p> <p>3. SAWCUT AND REPAIR CONCRETE TO INSTALL NEW FIBER NETWORK CABLE .</p> <p>4. NEW FIBER DUCT FROM MULTIMODE PULLBOX FOR CP-100, CP-300, CP-400.</p> <p>5. NEW 1" CONDUIT FOR FIBER TO CP-200.</p> <p>6. PROVIDE NEW REMOTE NETWORK PANEL AT CP-200.</p> <p>7. 3" SCH 80 PVC TO O.U.C. FIBER POLE.</p> | <p>8. 3" C SCH 80 PVC TO PB203 WITH MULTIMODE FIBER TO CONTROL PANELS, SEE I2001.</p> <p>9. INSTALL IN CONDUIT TO GRADE TO PREVENT DAMAGE.</p> <p>10. AT CP-200 PROVIDE DISCONNECT AND CONTROL TRANSFORMER FOR REMOTE NETWORK PANEL.</p> <p>11. AT CP-200 PROVIDE FIBER TERMINATION BOX SEE SHEET H1012</p> |
|---|---|

[illegible]

COAL WASTE ASH STORAGE EXPANSION

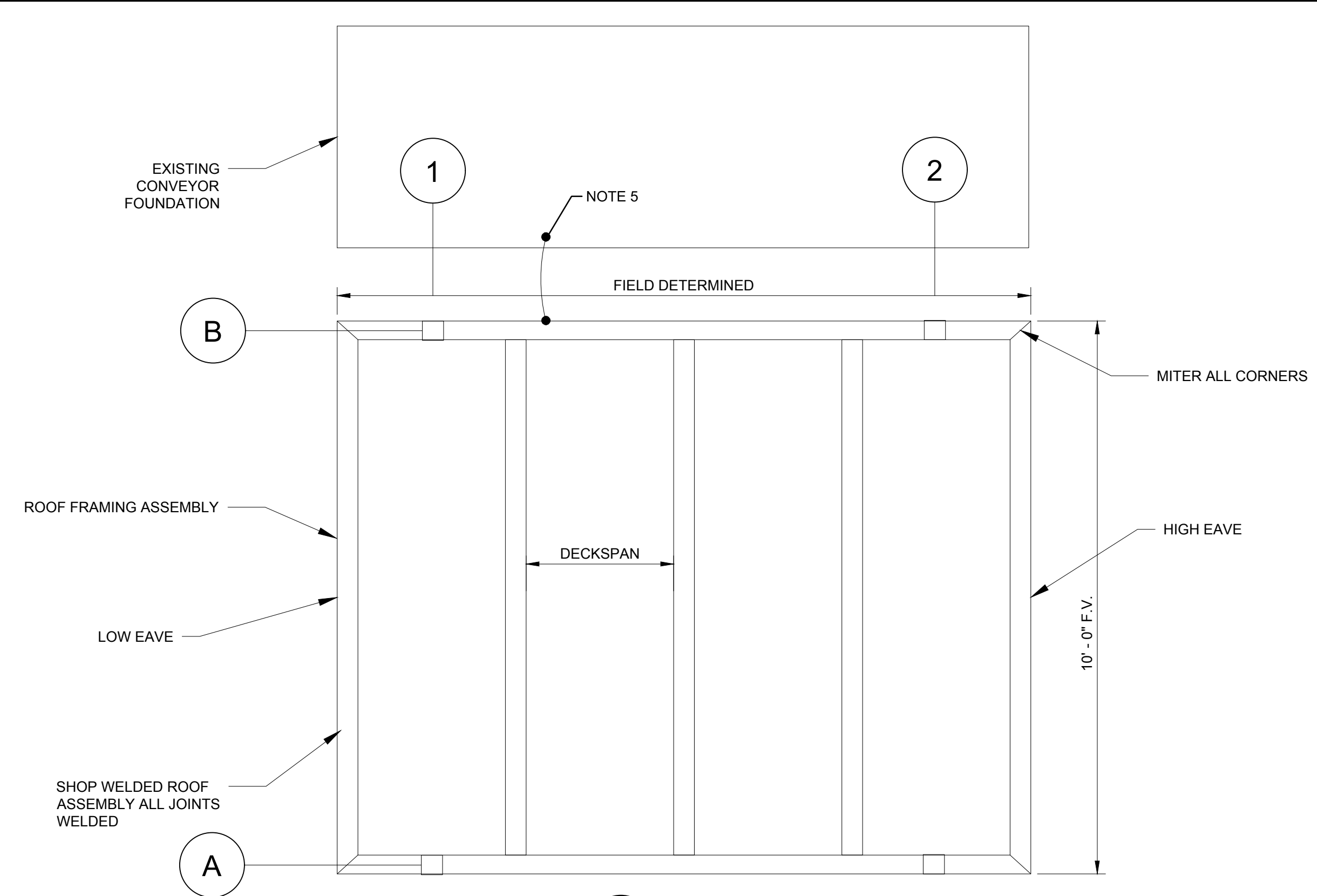
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ELECTRICAL PANEL AND ELEVATION
CELL #1

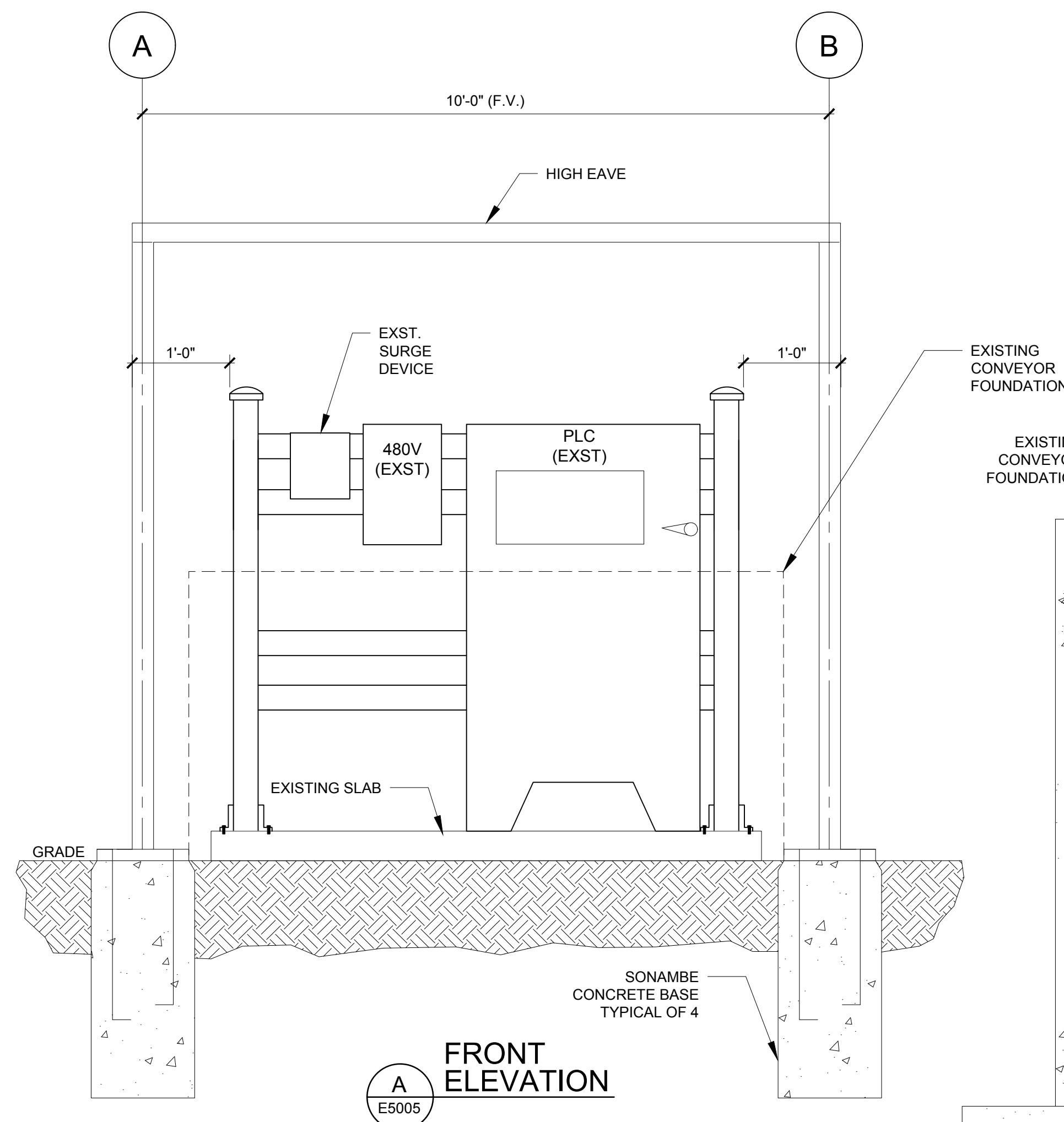
DRAWING NO.

E5004

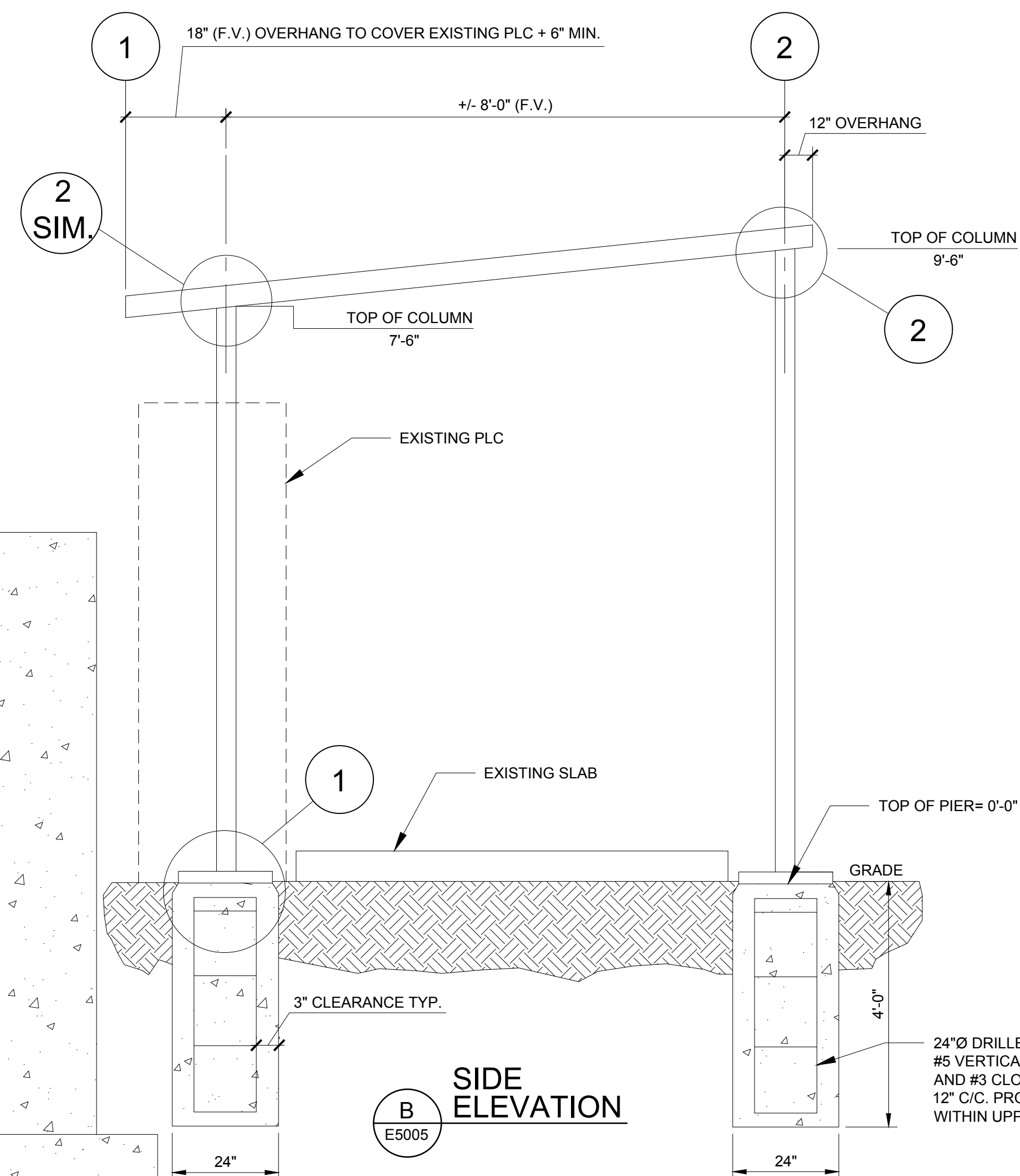
PANEL RAIN GUARD DETAIL



C ROOF PLAN
E5005

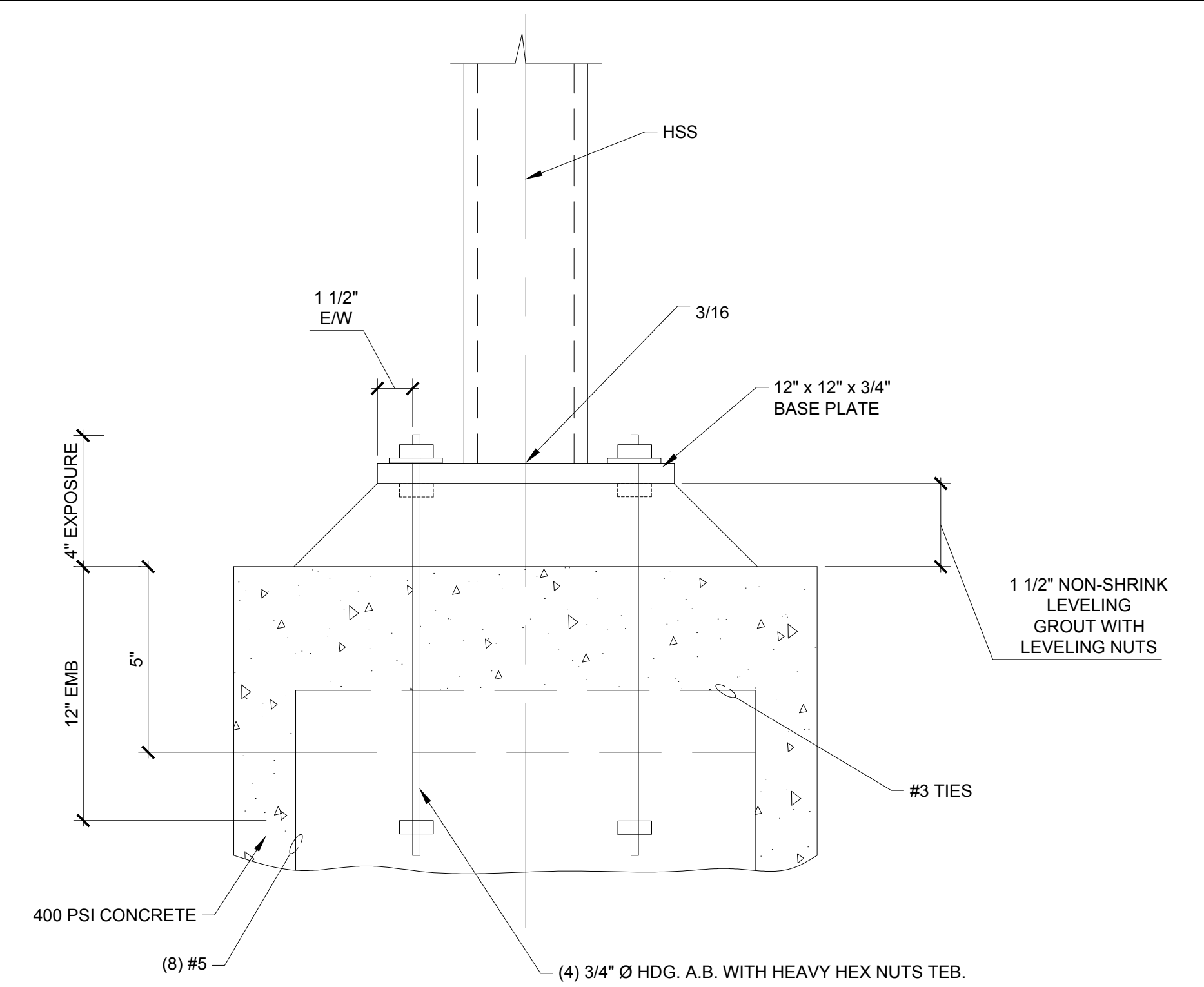


A
E5005

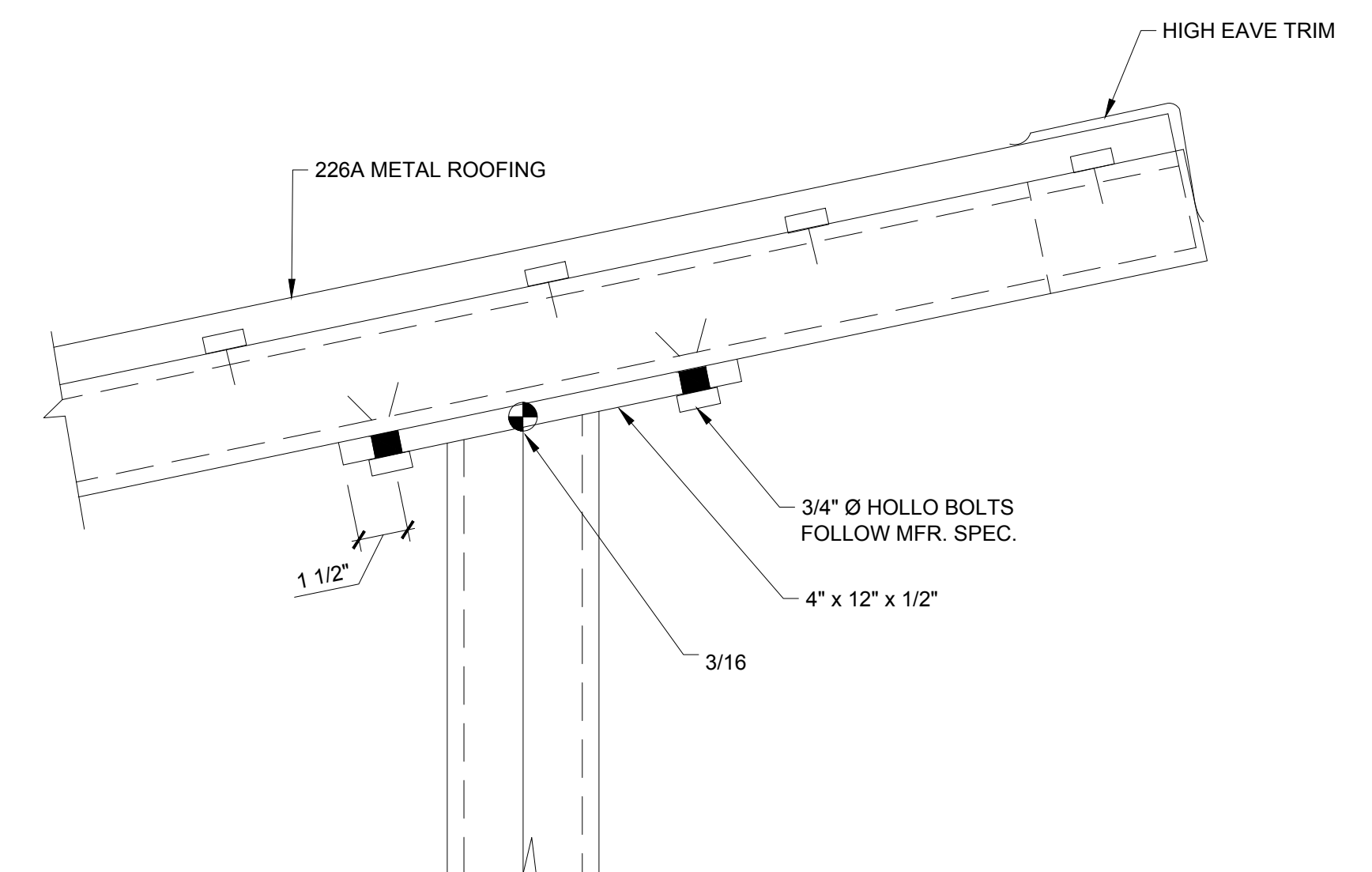


B
E5005

**SIDE
ELEVATION**



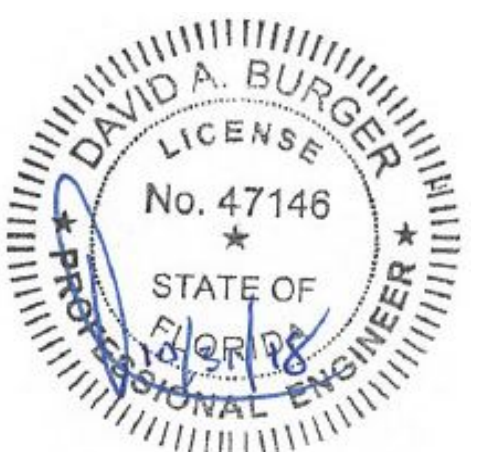
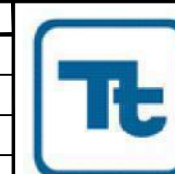
1 DETAIL



2 DETAIL

NOTES:

1. ALL FRAMING 4" X4" X 3/16" CLASS III GALVANIZED TUBE STEEL (ASTM A500 GR.B).
2. ALL STEEL HOT DIPPED GALVANIZED
3. FASTEN ROOF DECK WITH #12 SDS SEAL TITE SCREW AT 6" C/C ALONG ALL SUPPORTS AND ROOF PERIMETER. PROVIDE SEAL TAPE AT JOINTS.
4. PROVIDE HIGH/LOW EAVE TRIM, ROKE TRIM AND ALL INCIDENTALS.
5. PROVIDE #4 STRANDED COPPER , GROUND BOND TO CONVEYOR COLUMN.
6. DESIGN WIND SPEED = 150 MPH
EXPOSURE = C OPEN STRUCTURE.
7. EPOXY COAT ALL STRUCTURAL MEMBERS AND ROOF.

[illegible]

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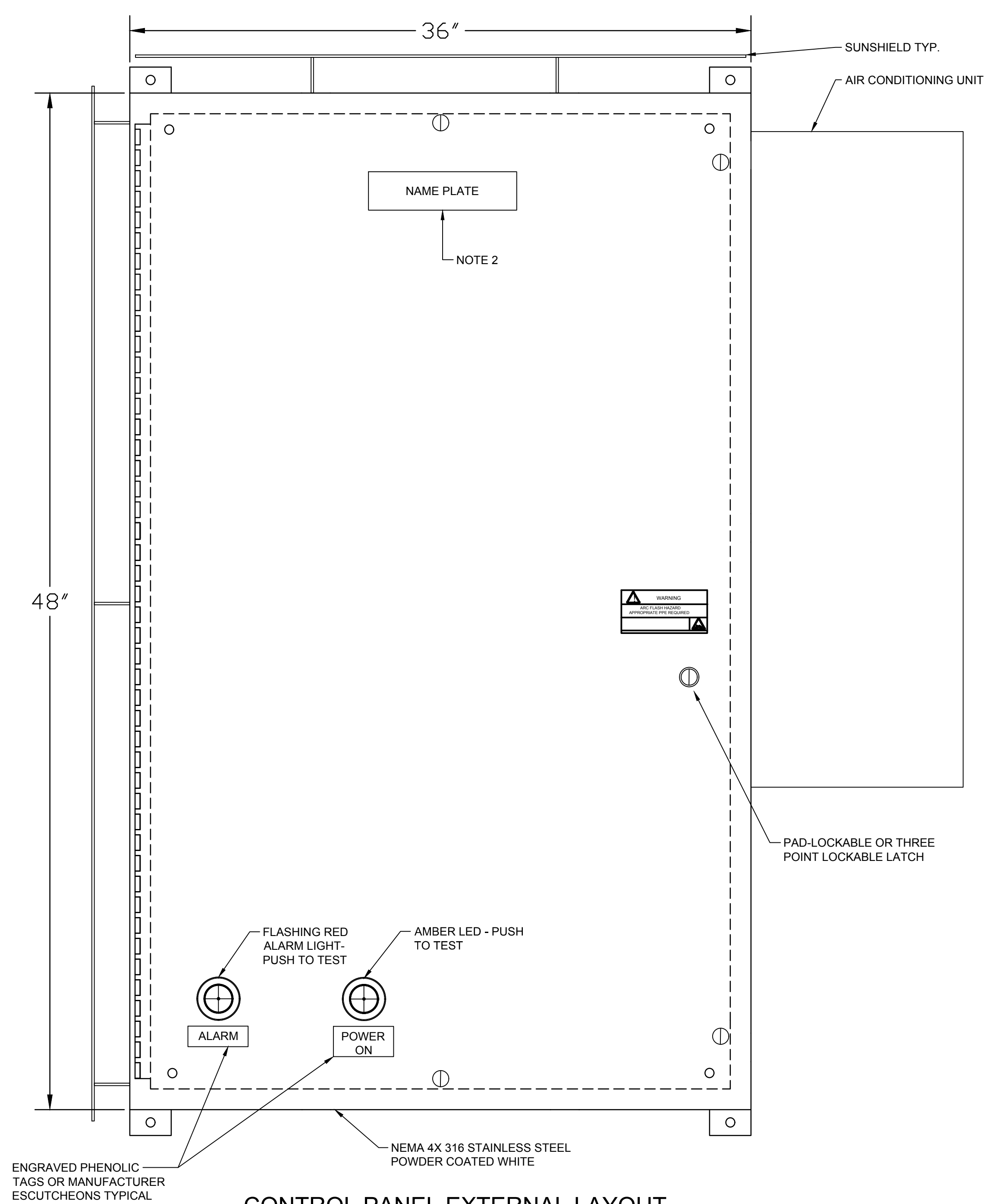
COAL WASTE ASH STORAGE EXPANSION

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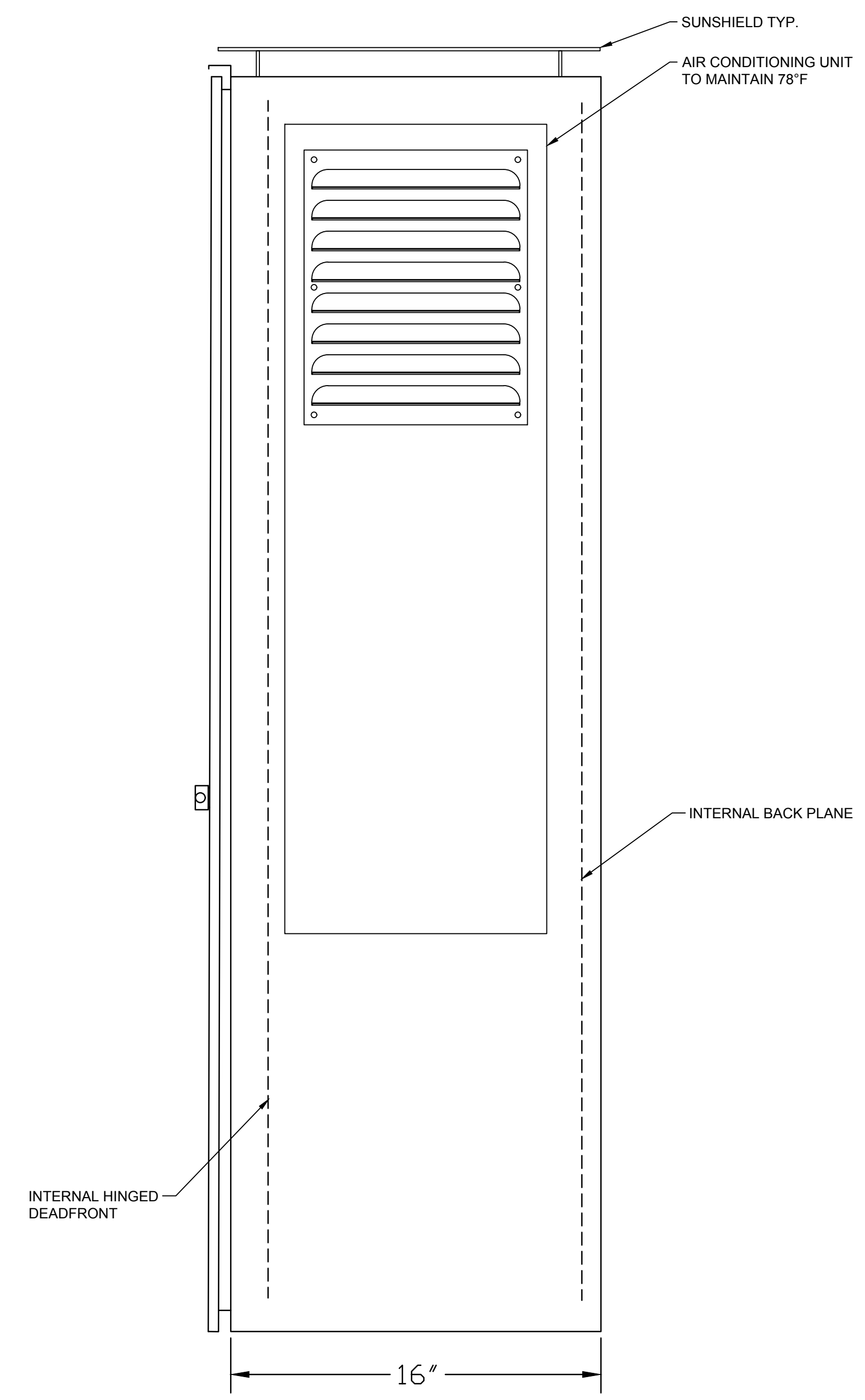
SUNSHADE DETAIL

RAWING NO.

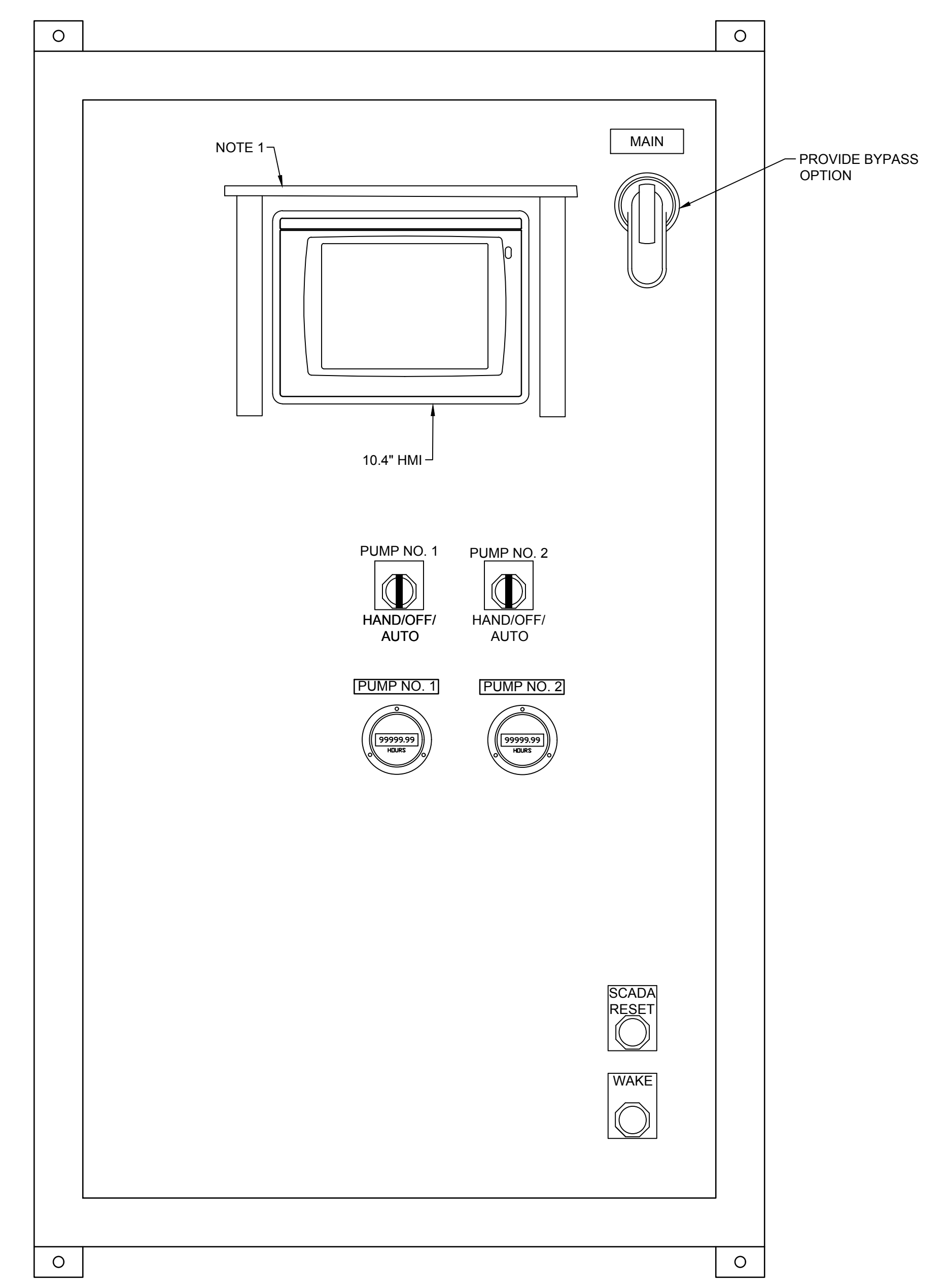
E5005



CONTROL PANEL EXTERNAL LAYOUT
(NOT TO SCALE)

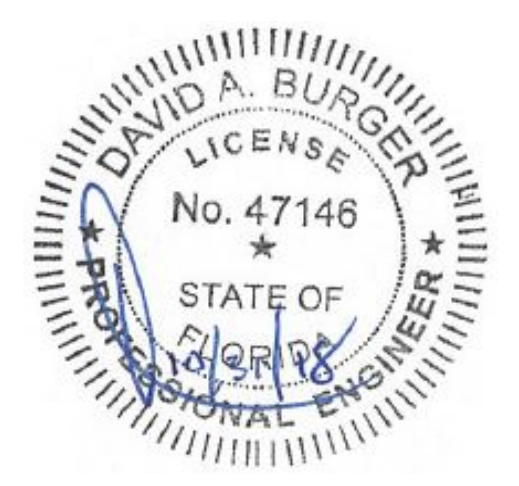


CONTROL PANEL EXTERNAL RIGHT SIDE VIEW
(NOT TO SCALE)



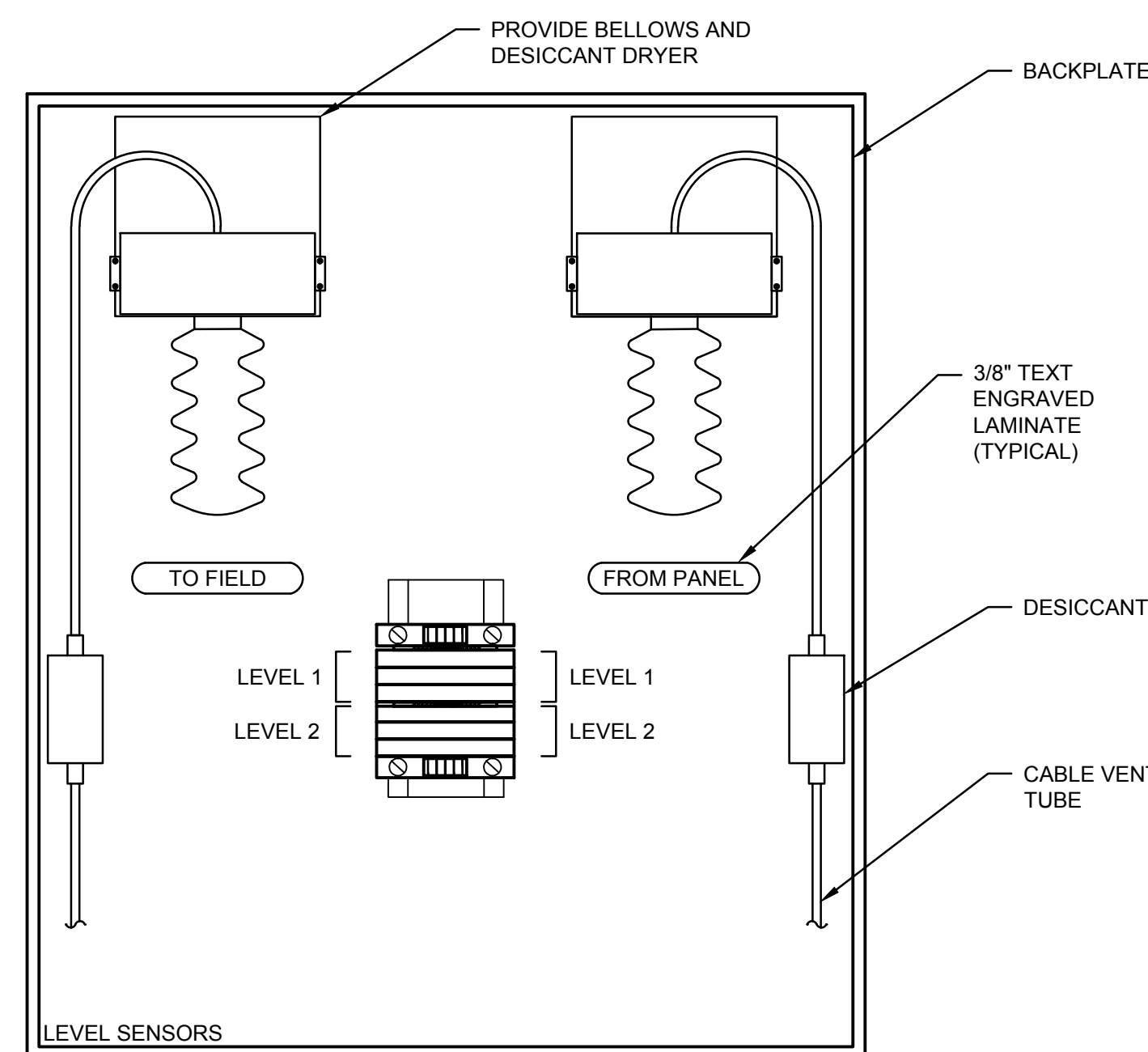
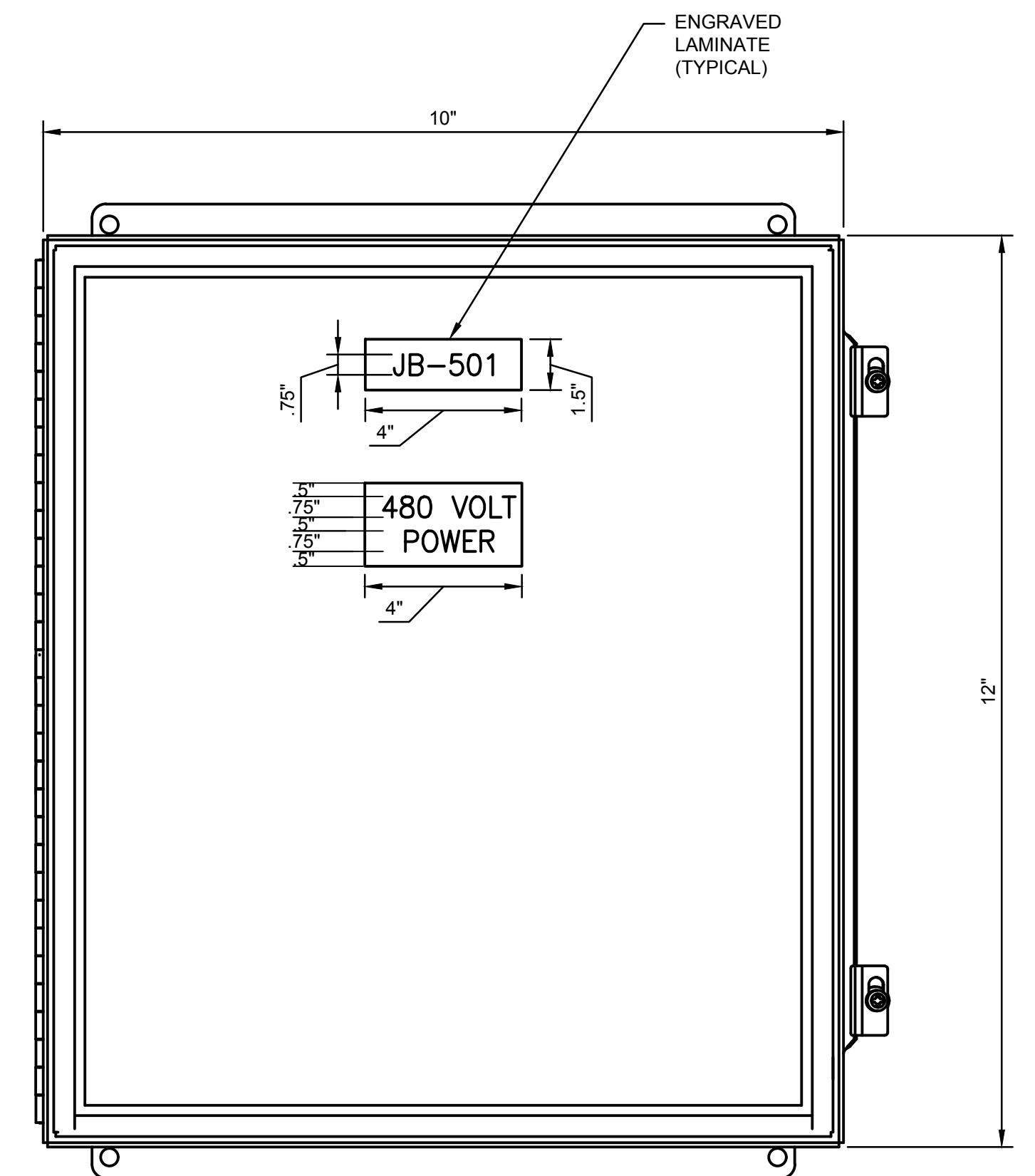
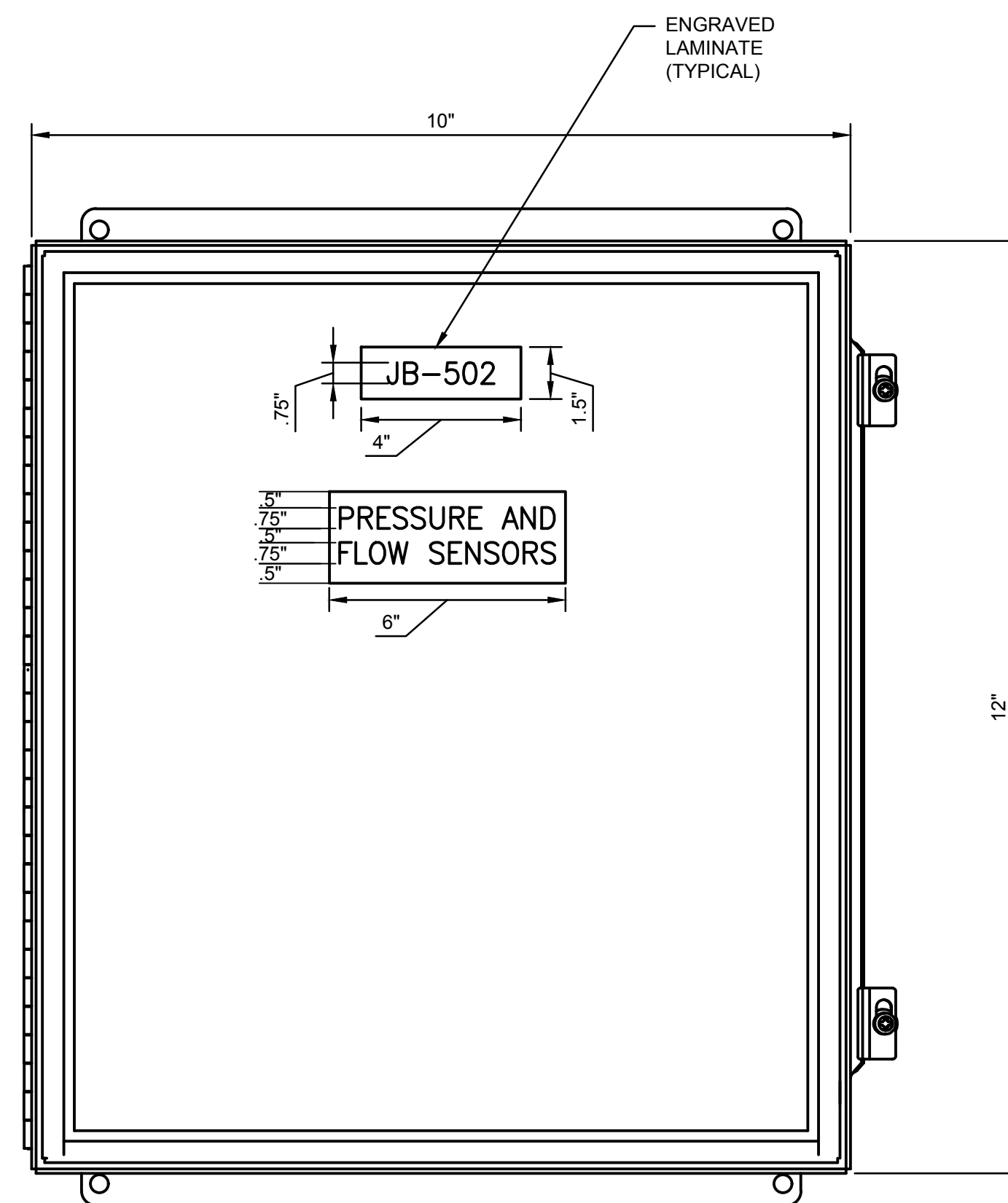
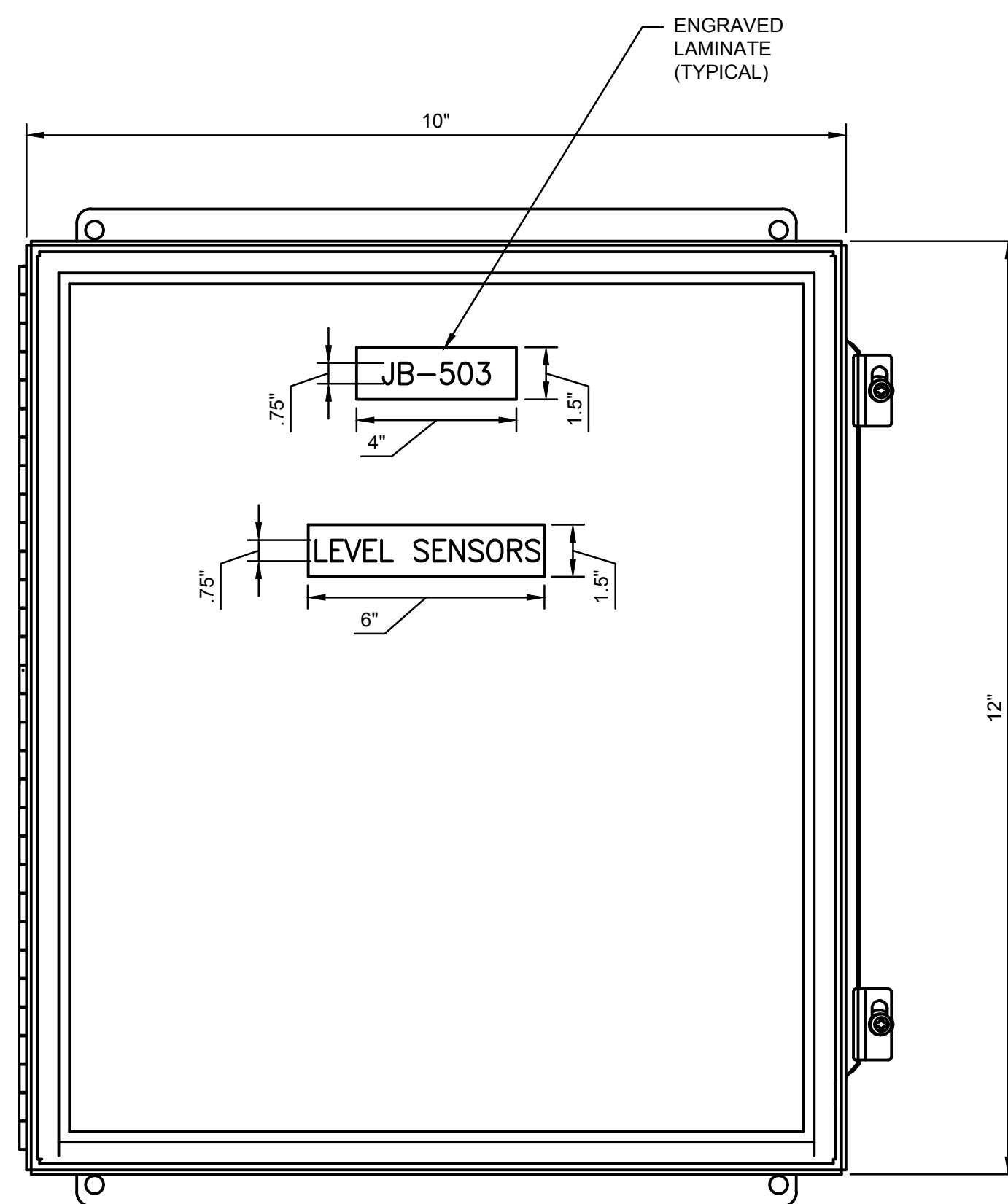
CONTROL PANEL INTERNAL DEAD FRONT LAYOUT
(NOT TO SCALE)

- NOTES:**
1. PROVIDE SHADE AIDE BY SMITH & LOVELESS, INC., COORDINATE WITH TOUCH SCREEN SIZE.
 2. PROVIDE ENGRAVED PHENOLIC TAG WITH O.U.C. DESIGNATION AND IN PARENTHESIS THE CP-XXX DESIGNATION FROM THESE PLANS, 1/2" LETTERING.

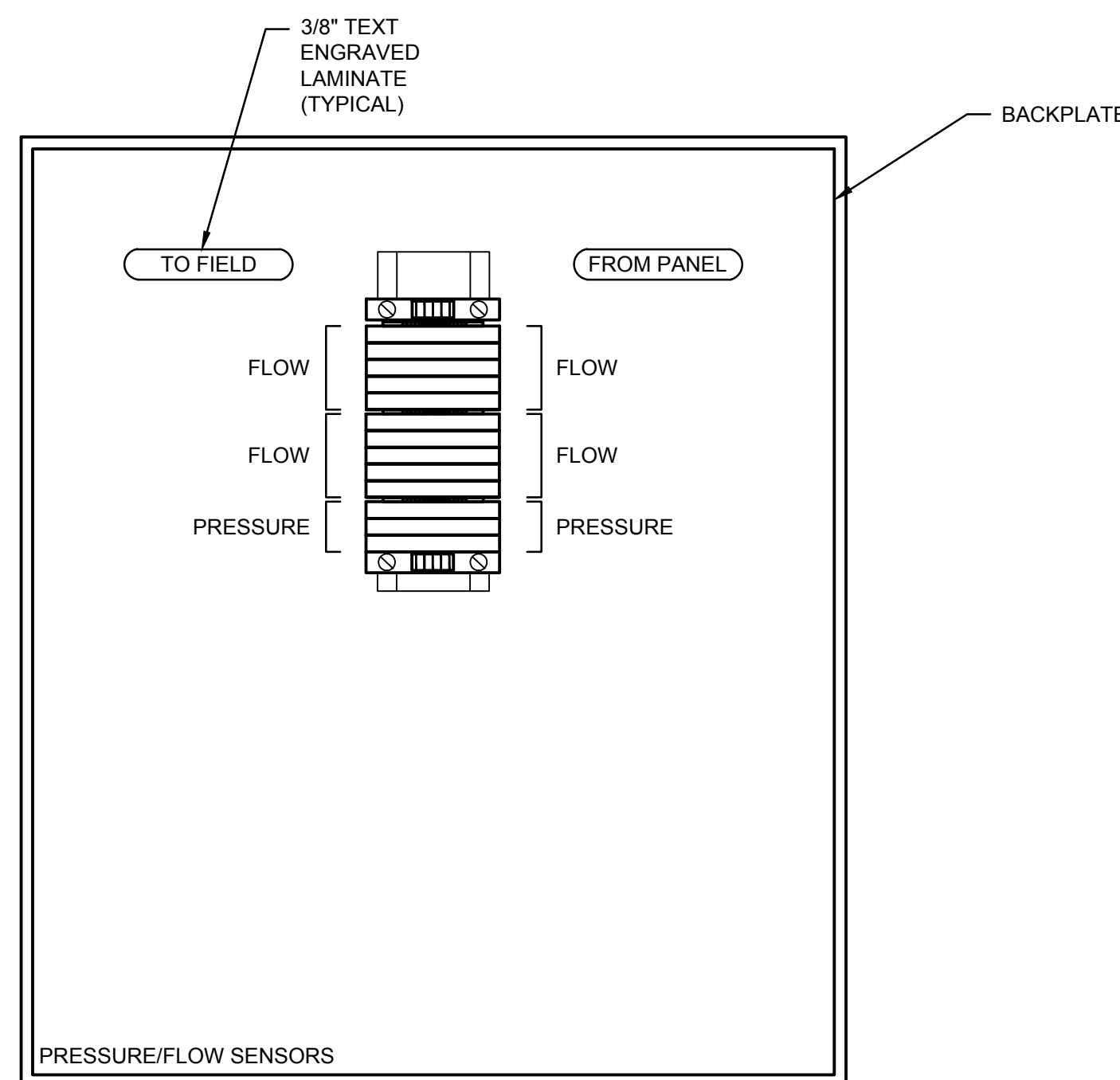




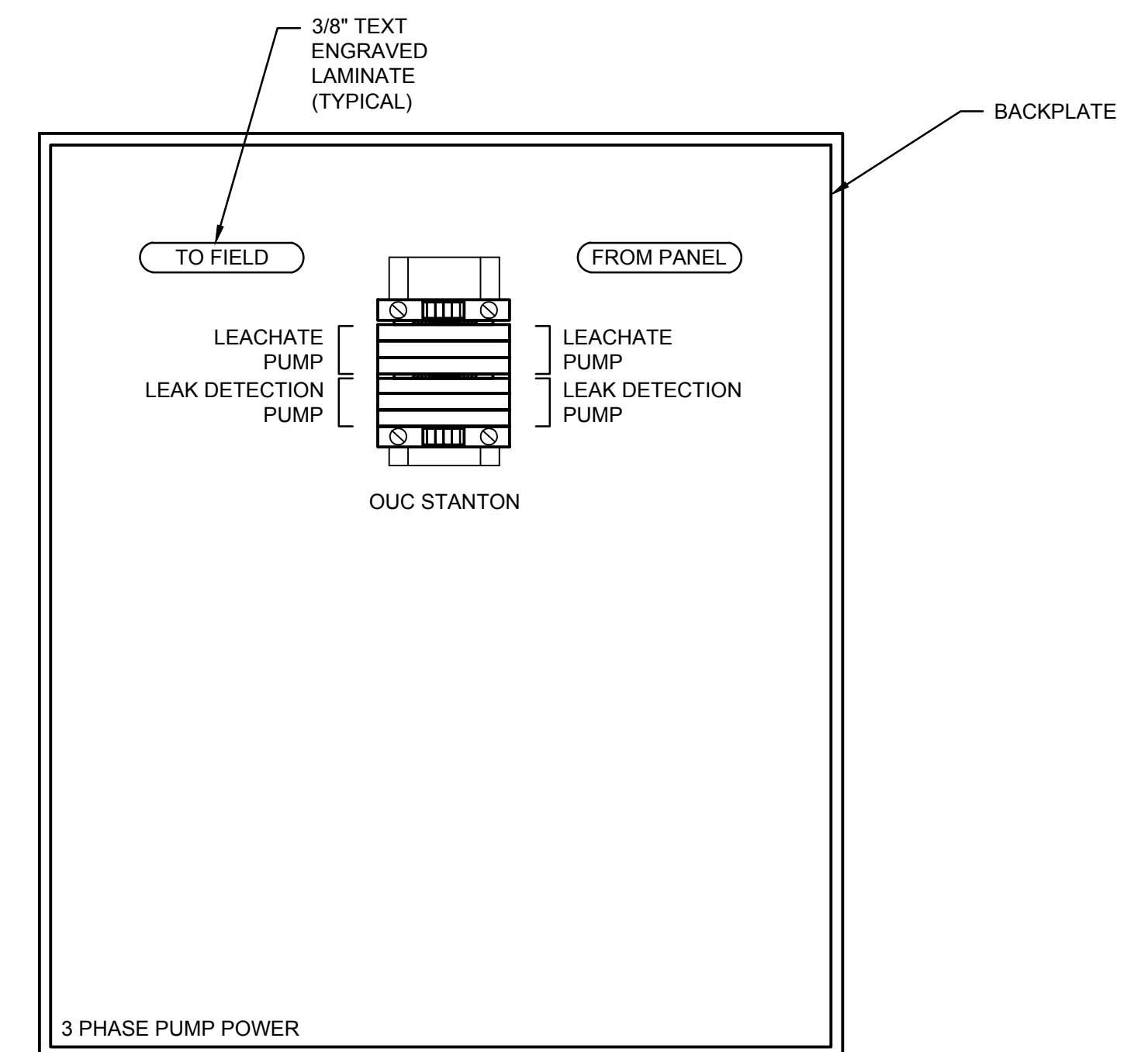
DAVID A. BURGER
LICENSE
No. 47146
★
STATE OF
FLORIDA
10/18/18
PROFESSIONAL ENGINEER



**TYPICAL LEVEL SENSORS
JUNCTION BOX**
(NOT TO SCALE)

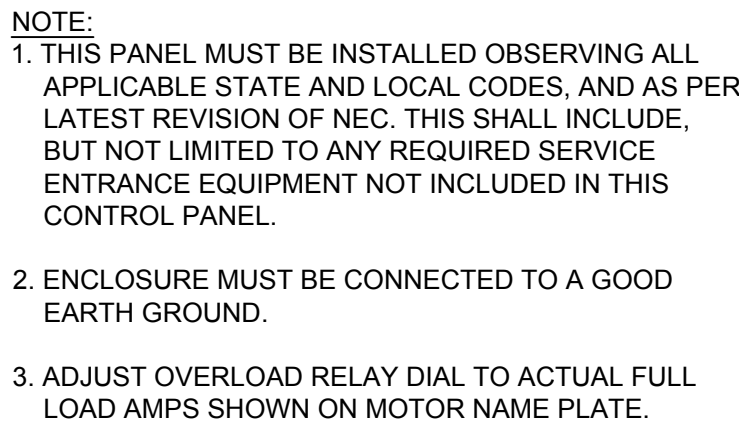


**TYPICAL PRESSURE/FLOW SENSORS
JUNCTION BOX**
(NOT TO SCALE)



**TYPICAL 3 PHASE PUMP POWER
JUNCTION BOX**
(NOT TO SCALE)



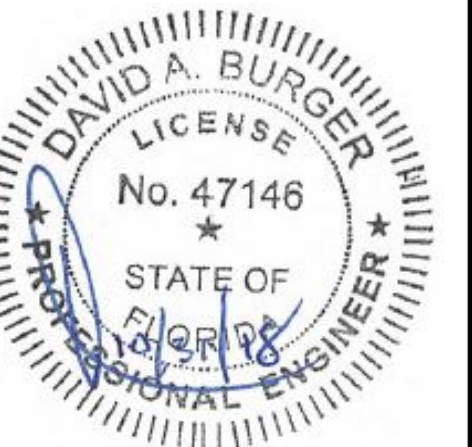


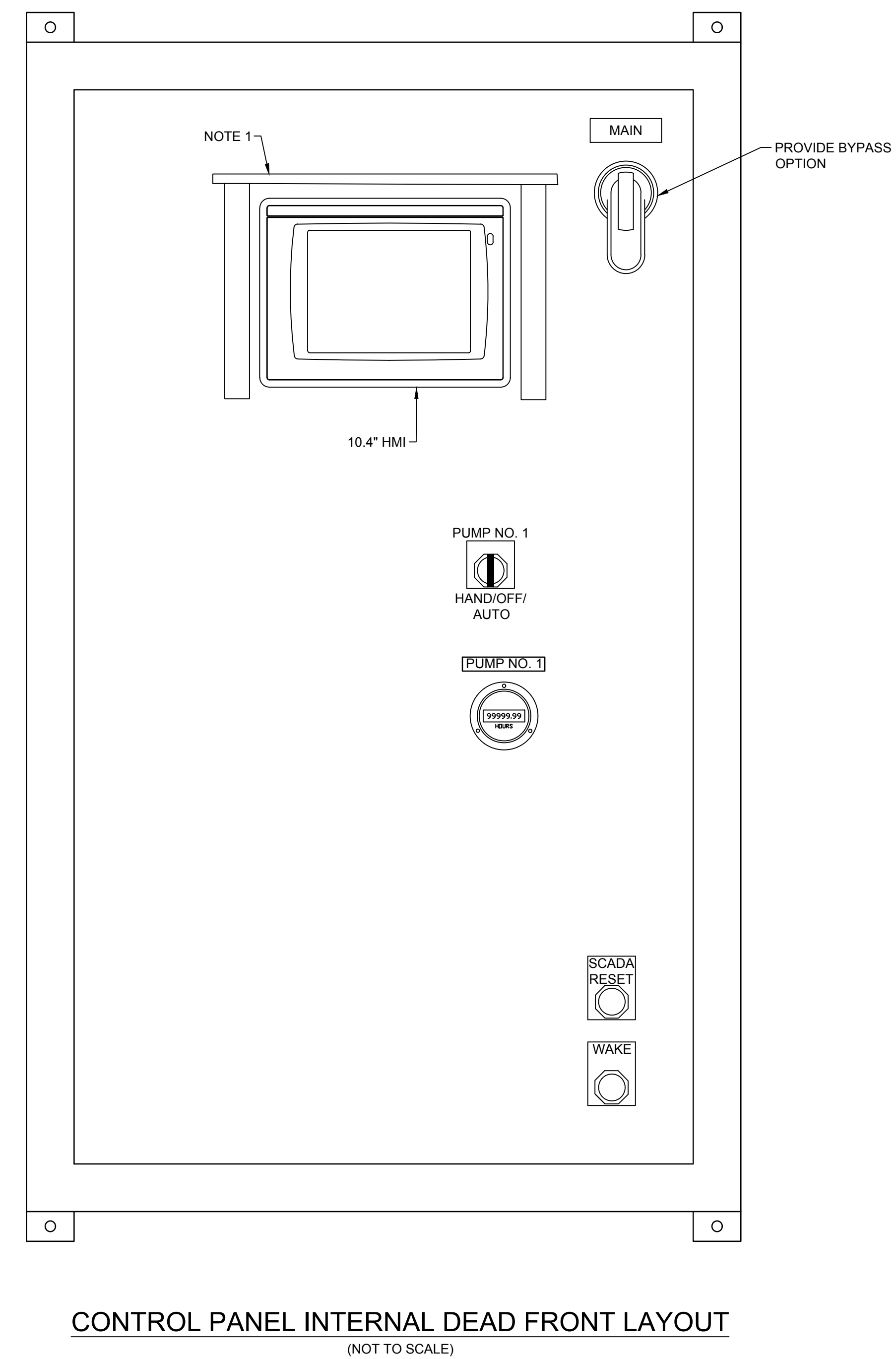
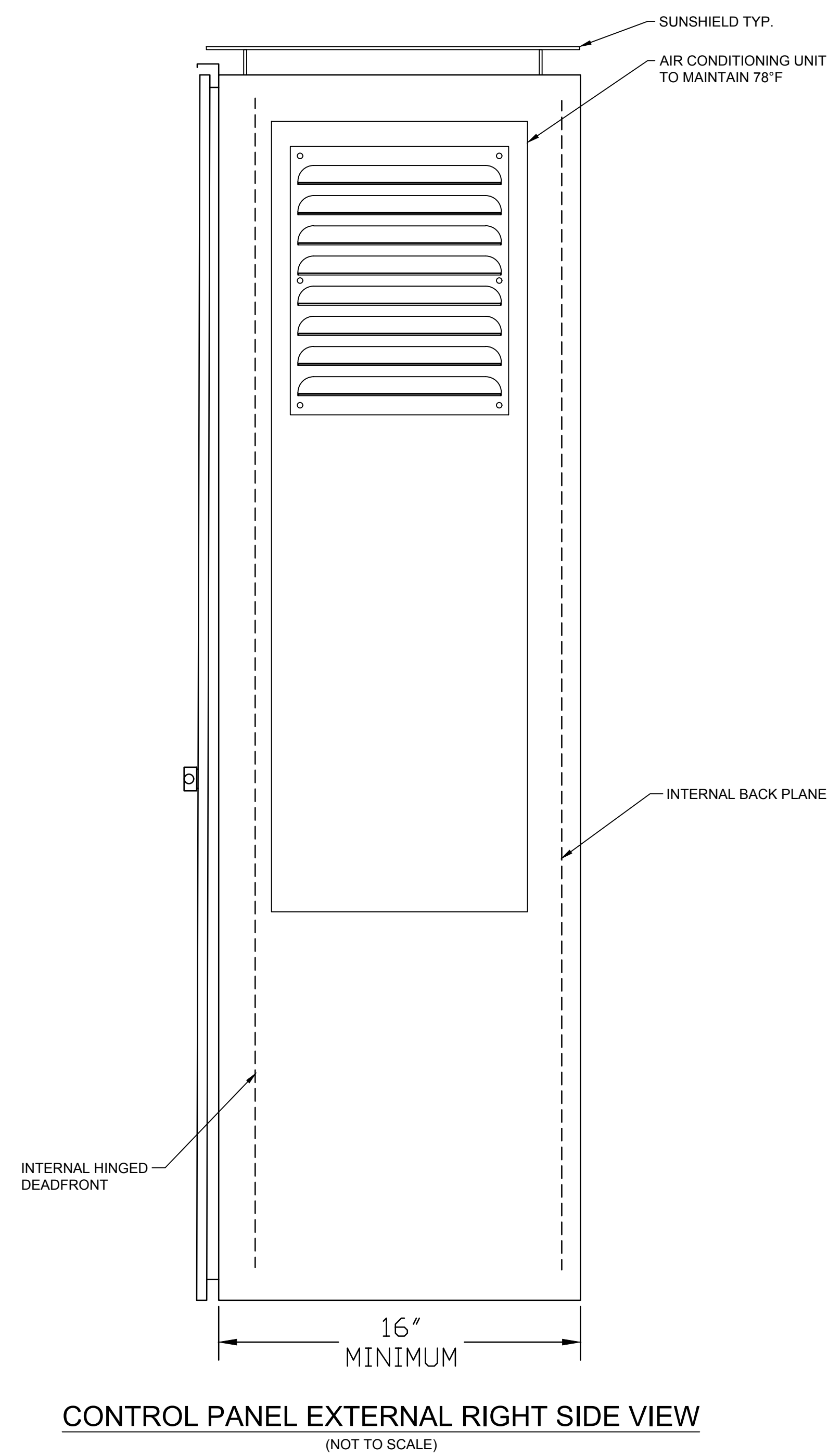
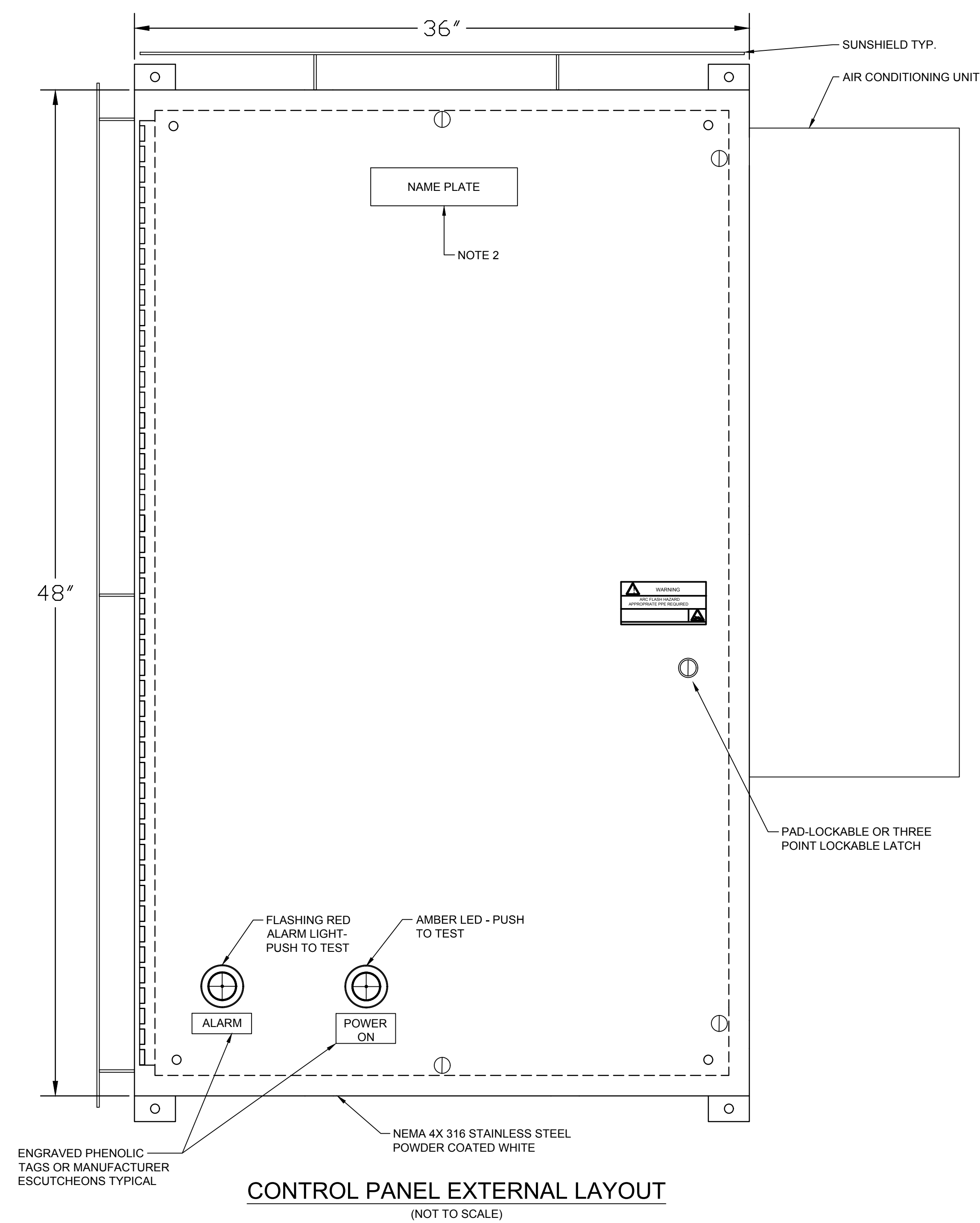
OUC 
The *Reliable One*®

OUC STANTON ENERGY CENTER
ORANGE COUNTY, FLORIDA

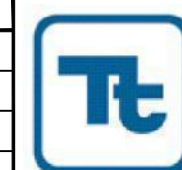
AWING NO.

1004 |

1005



- NOTES:**
1. PROVIDE SHADE AIDE BY SMITH & LOVELESS, INC.,
COORDINATE WITH TOUCH SCREEN SIZE.
 2. PROVIDE ENGRAVED PHENOLIC TAG WITH O.U.C.
DESIGNATION AND IN PARENTHESIS THE CP-XXX
DESIGNATION FROM THESE PLANS, 1/2" LETTERING.

[illegible]

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Materials Consultants
A Tetra Tech Company
8008 S. Orange Ave. Orlando, FL 32809
TEL 407/855-3860 FAX 407/859-8121 C.A.N. 5950



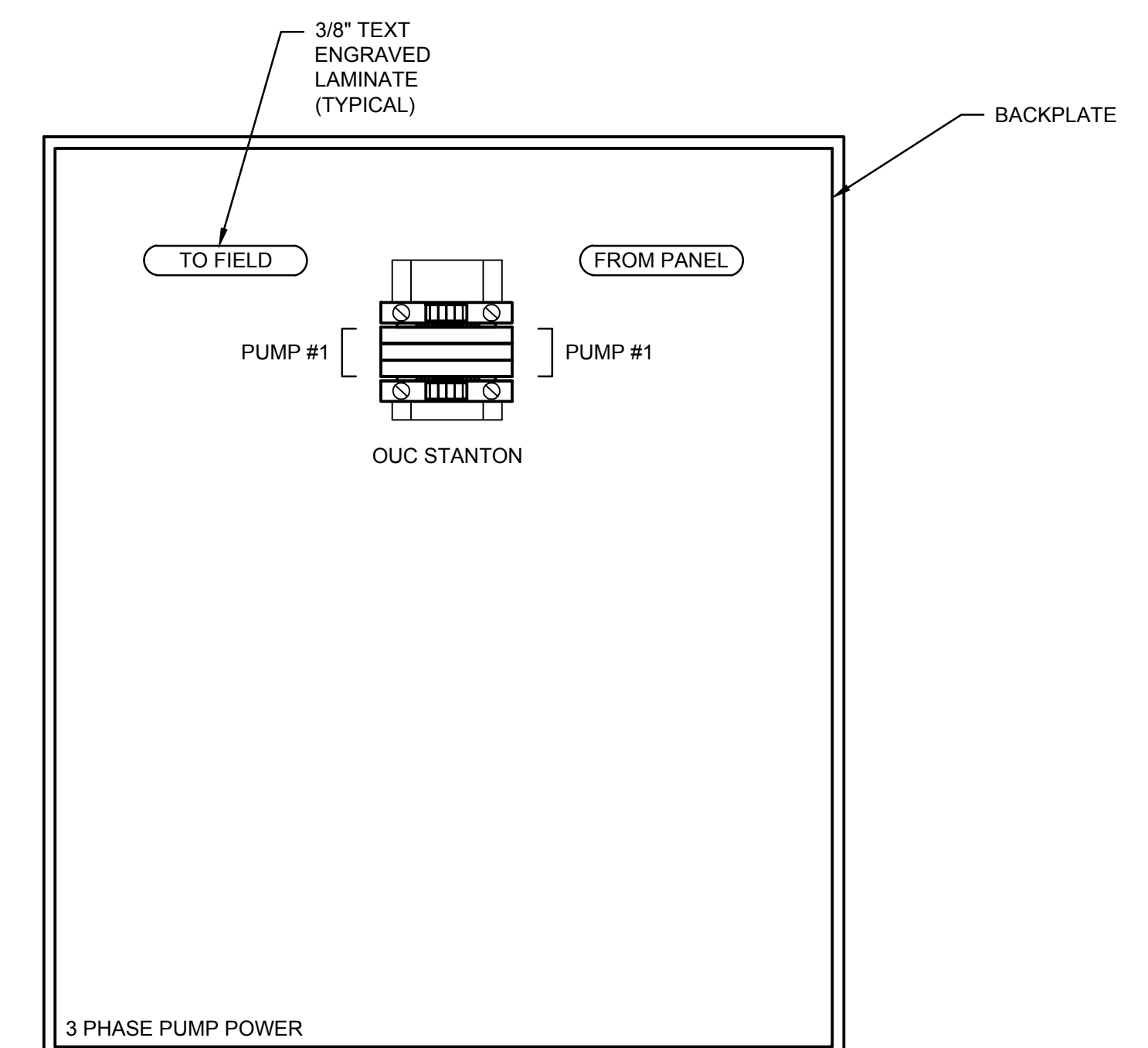
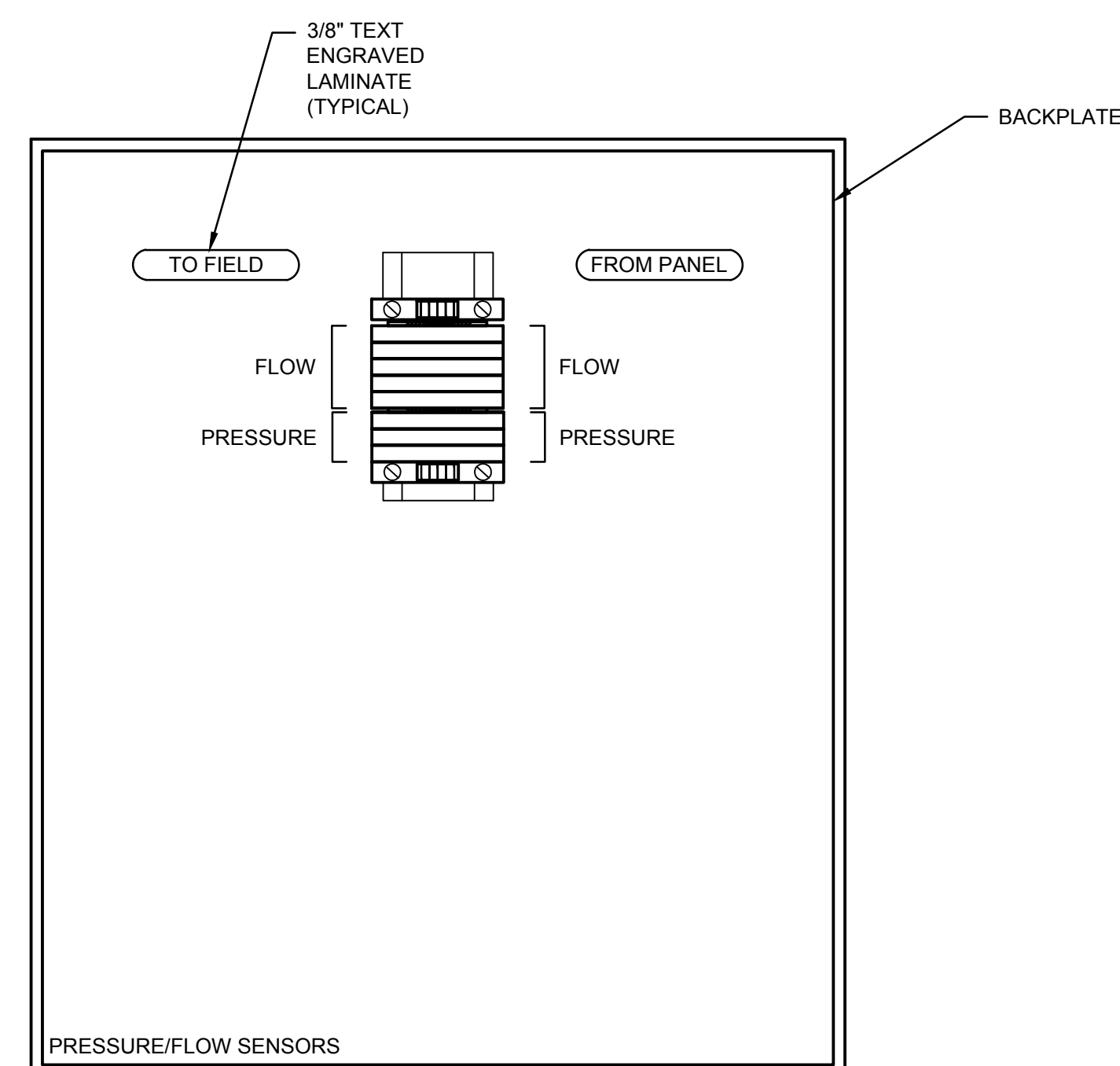
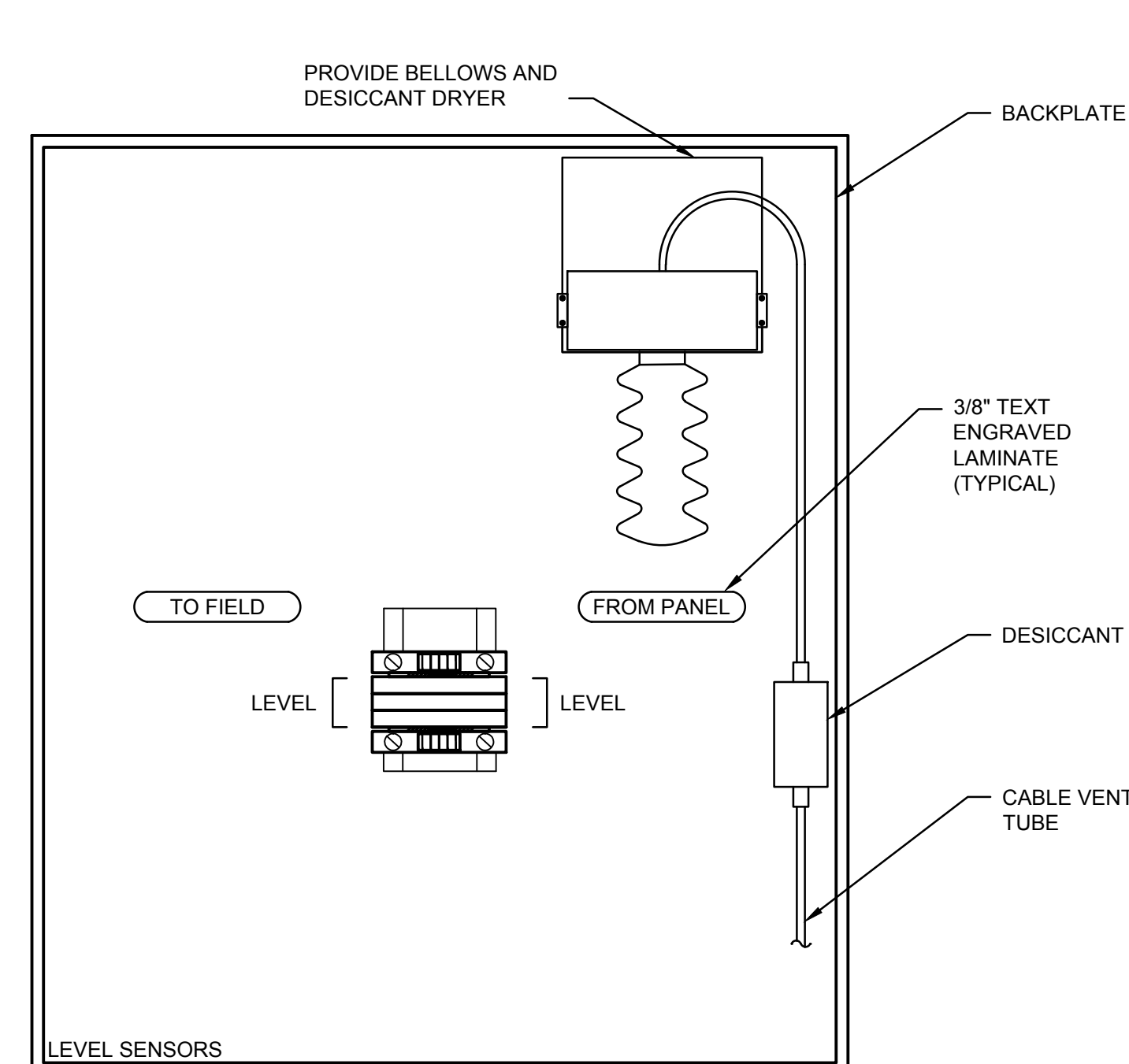
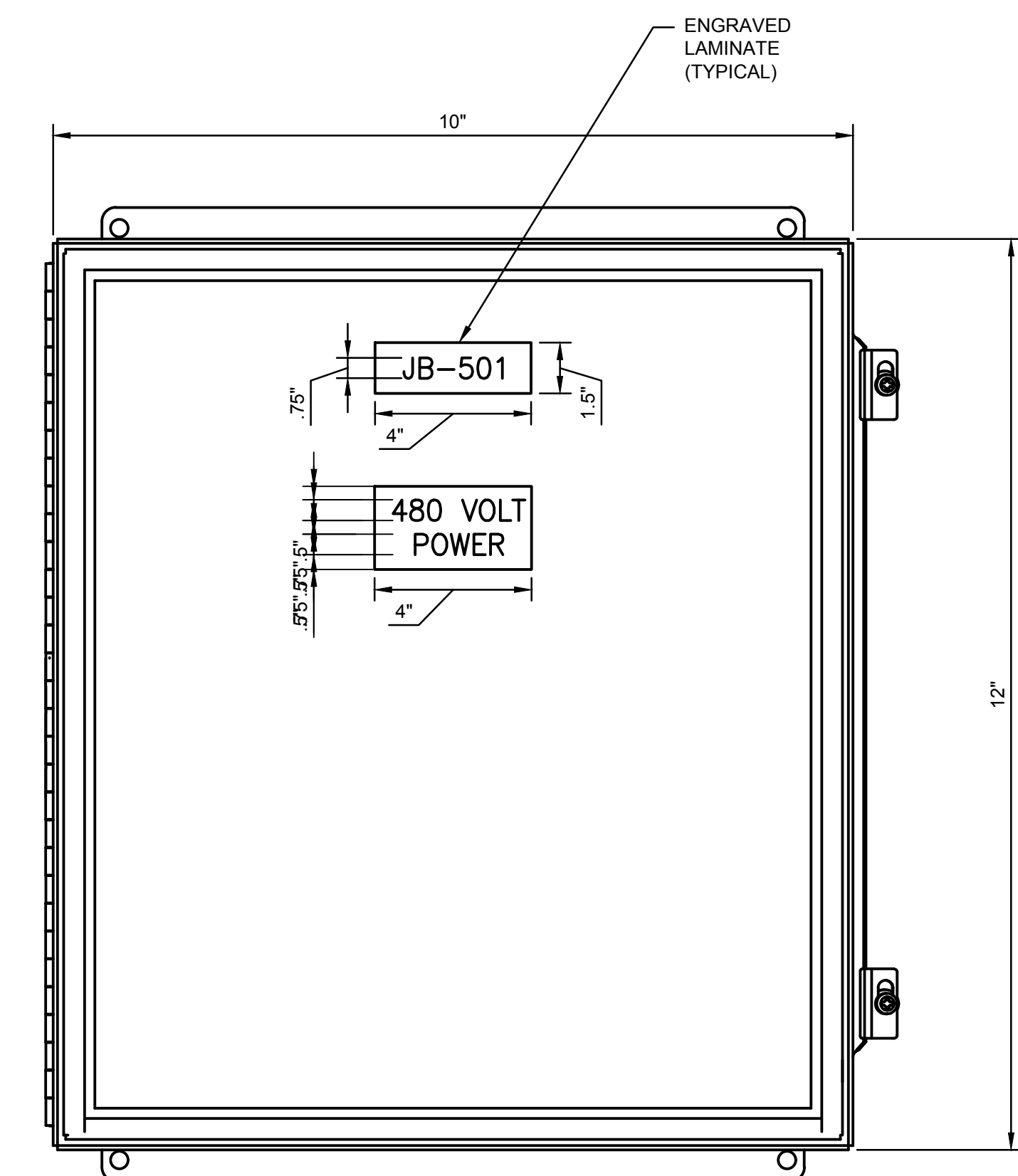
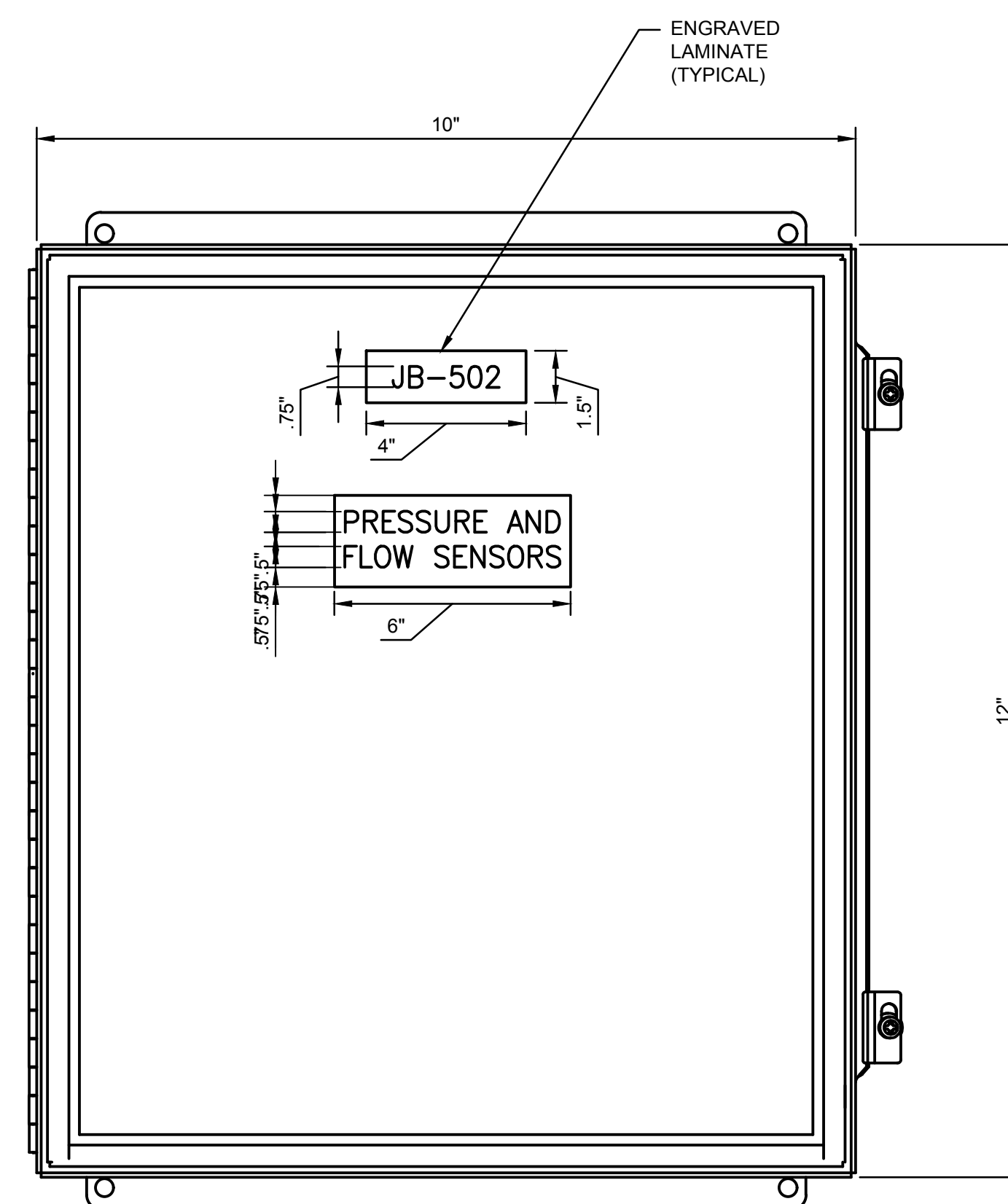
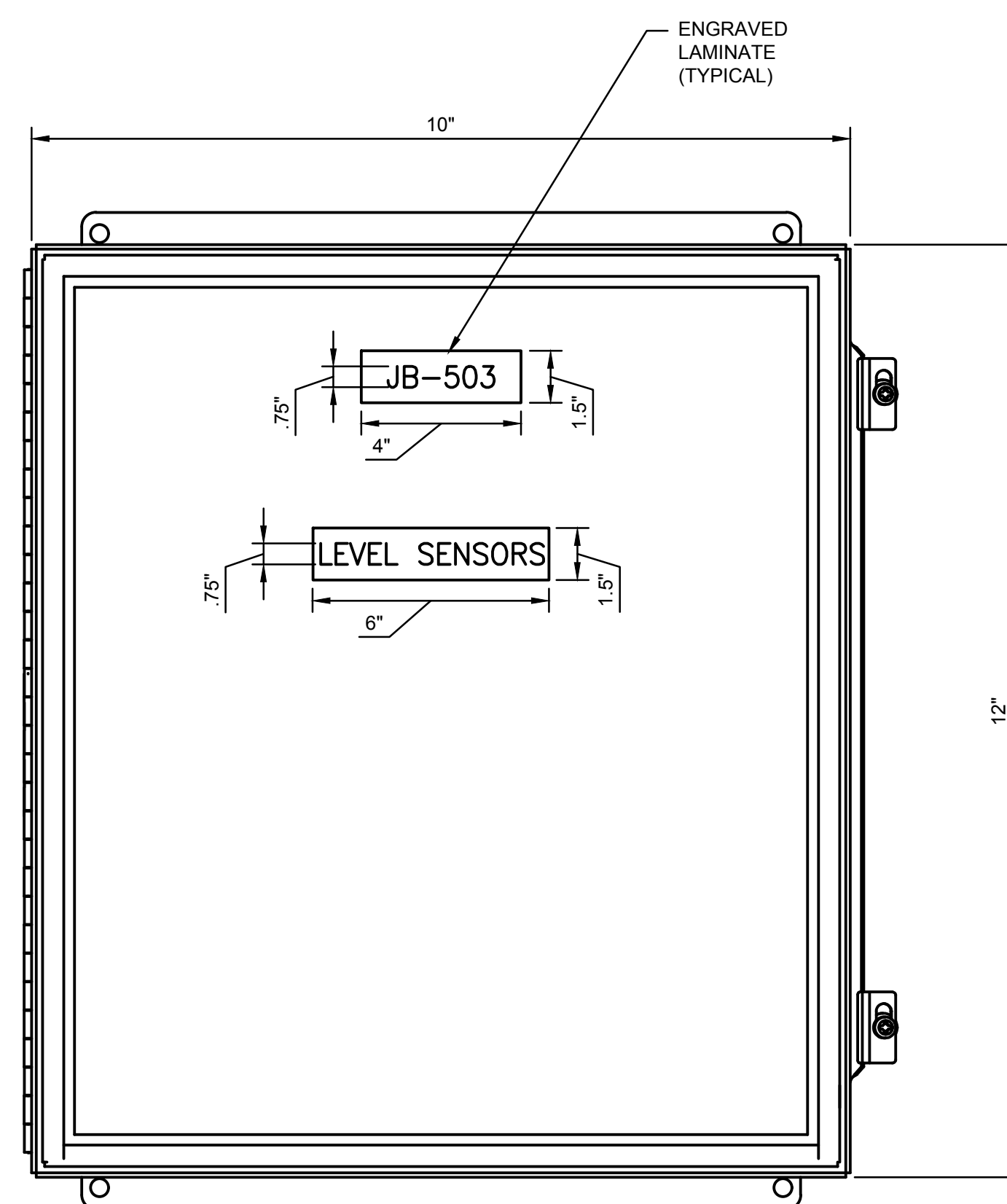
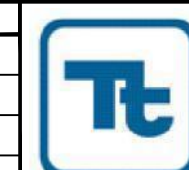
COAL WASTE ASH STORAGE EXPANSION

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SIMPLEX PUMP CONTROL PANEL LAYOUT

DRAWING NO.

11006

[illegible]

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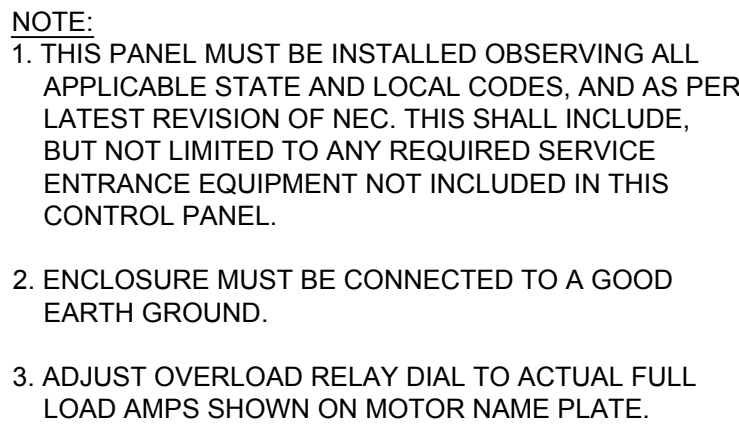
COAL WASTE ASH STORAGE EXPANSION

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ORANGE COUNTY, FLORIDA

SIMPLEX PUMP TERMINATION JUNCTION BOX LAYOUTS

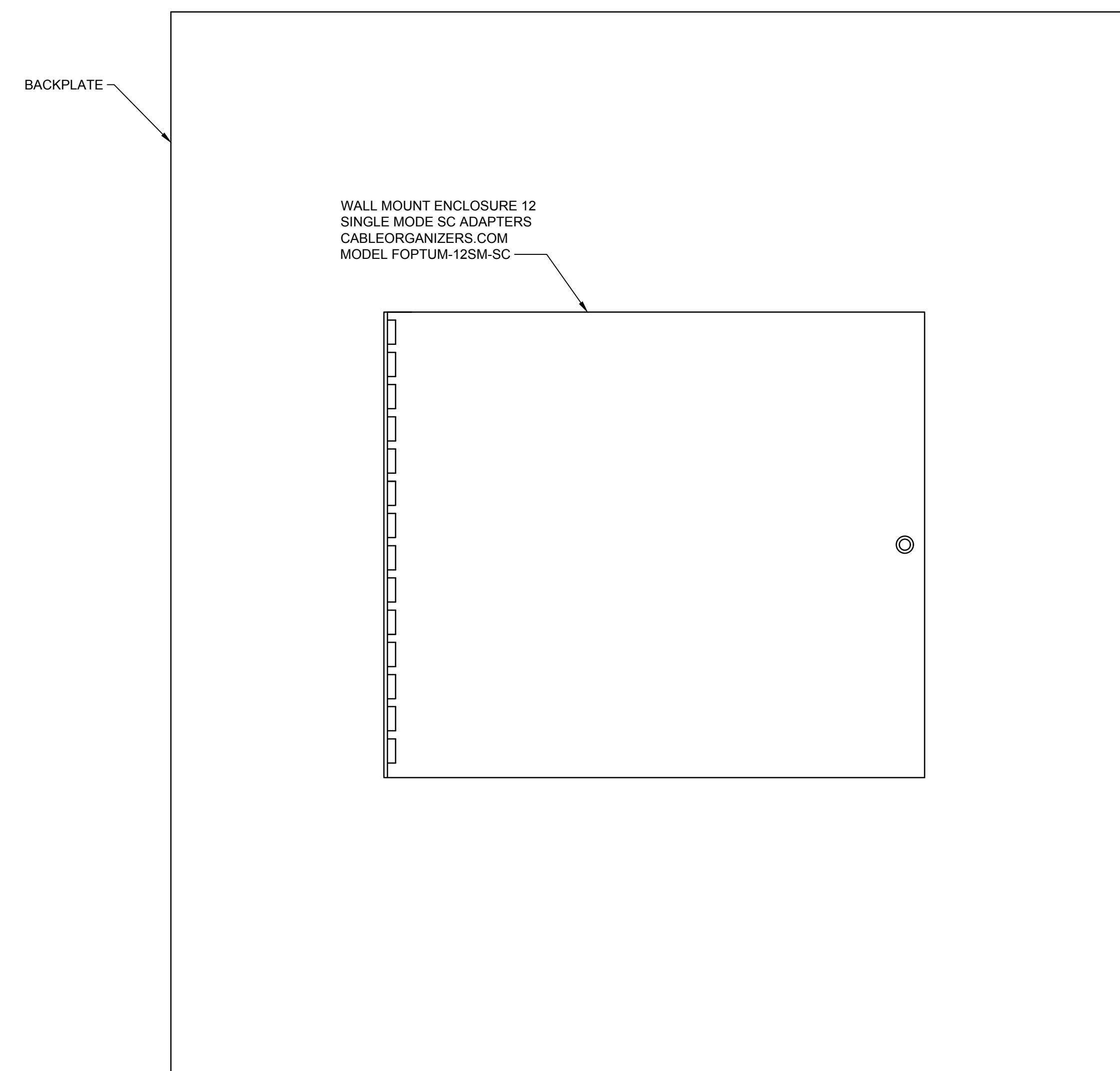
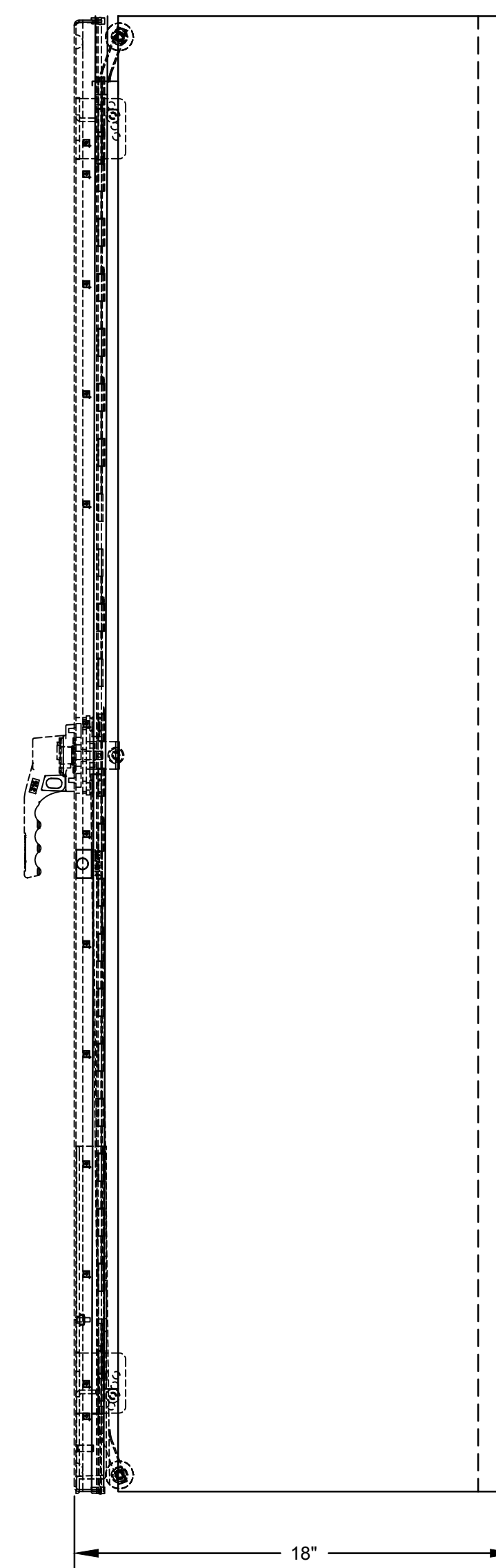
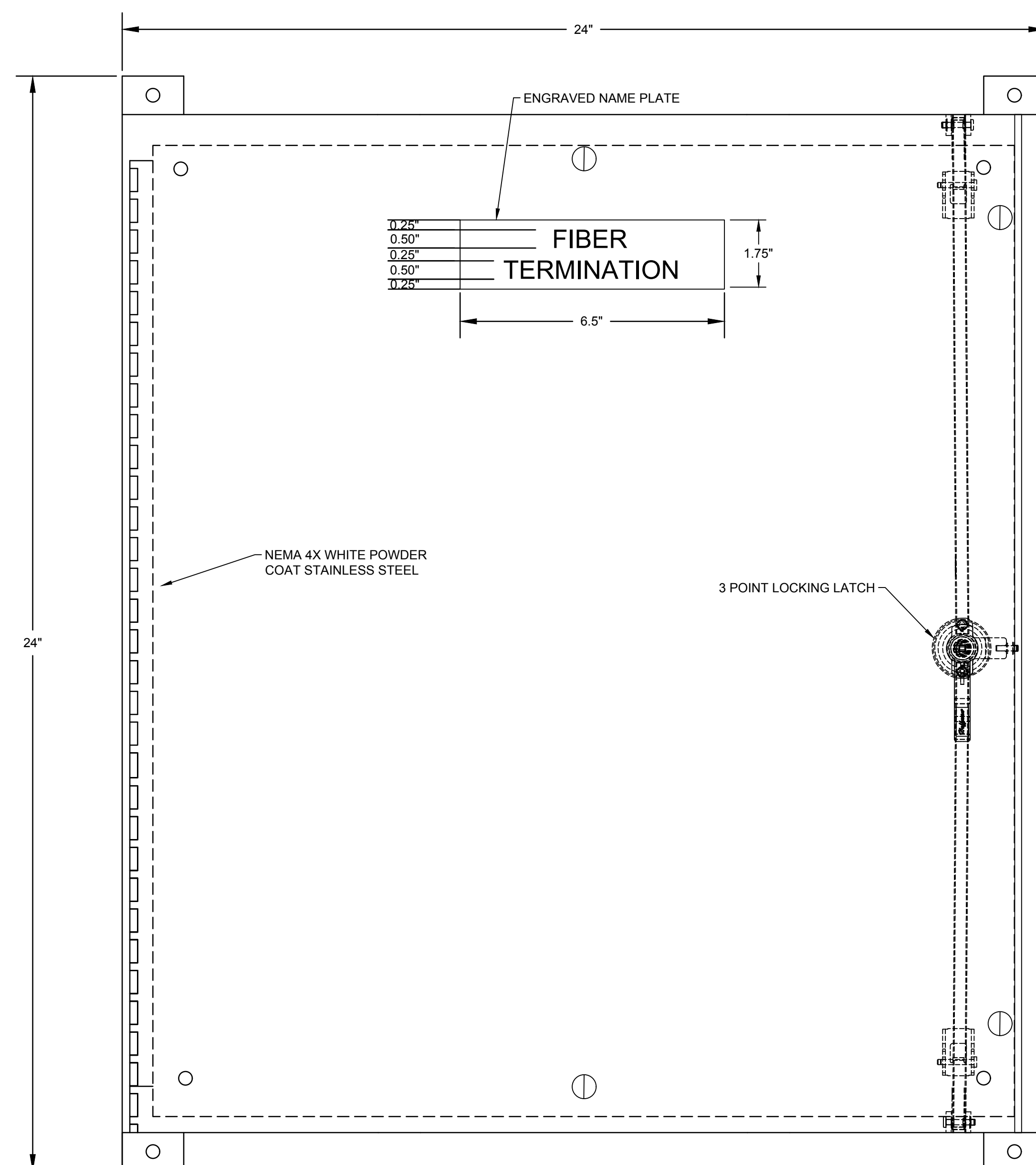
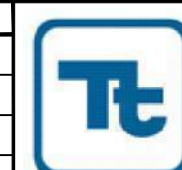
DRAWING NO.

1008

1009

1010

11011

[illegible]

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COAL WASTE ASH STORAGE EXPANSION

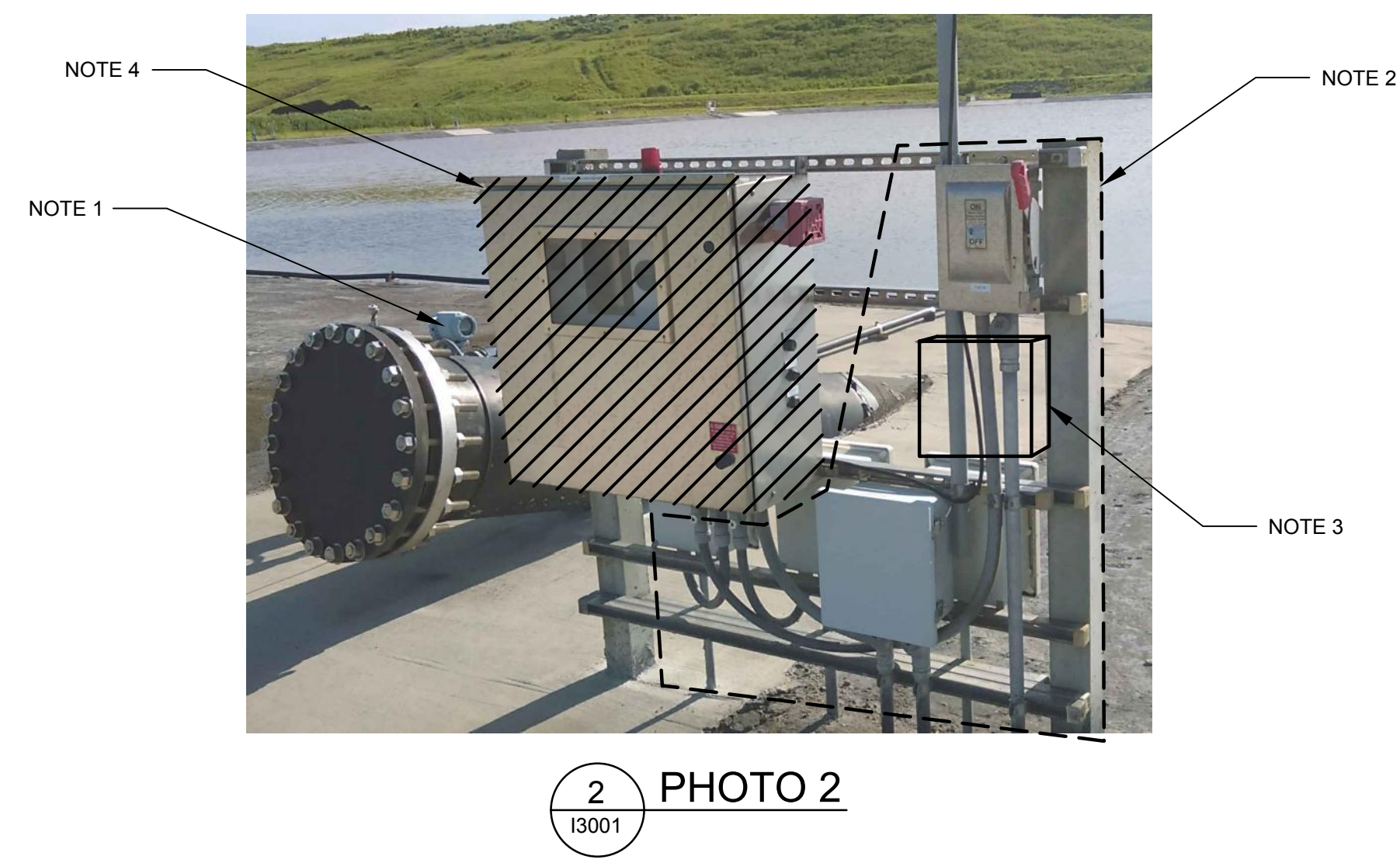
OUC STANTON ENERGY CENTER
ORANGE COUNTY, FLORIDA

FIBER TERMINATION BOX

DRAWING NO

11012



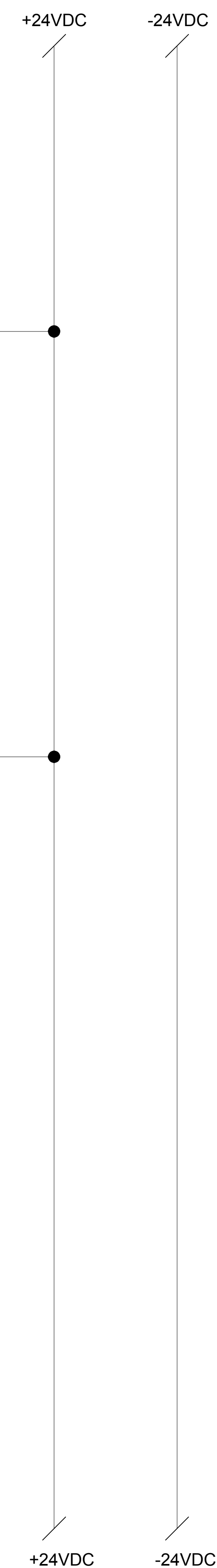


- NOTES:
1. REPLACE FLOW METER, LEVEL SENSOR, AND PRESSURE SENSOR, TYPICAL 4 CONTROL PANELS.
 2. REUSE DISCONNECT CONDUIT, EXTEND CONDUIT AND WIRE AS NECESSARY TO NEW PANEL, TYPICAL 4 SIMPLEX CONTROL PANELS.
 3. ADD SURGE PROTECTOR PER SINGLE LINE.
 4. REPLACE SIMPLEX CONTROL PANELS TYPICAL OF 4.
 5. EXTEND STRUT AND PROVIDE ADDITIONAL CONCRETE COLUMN AT CWSA #3, SEE SHEET E2003, FOR NEW REMOTE NETWORK PANEL AND FIBER TERMINATION BOX.

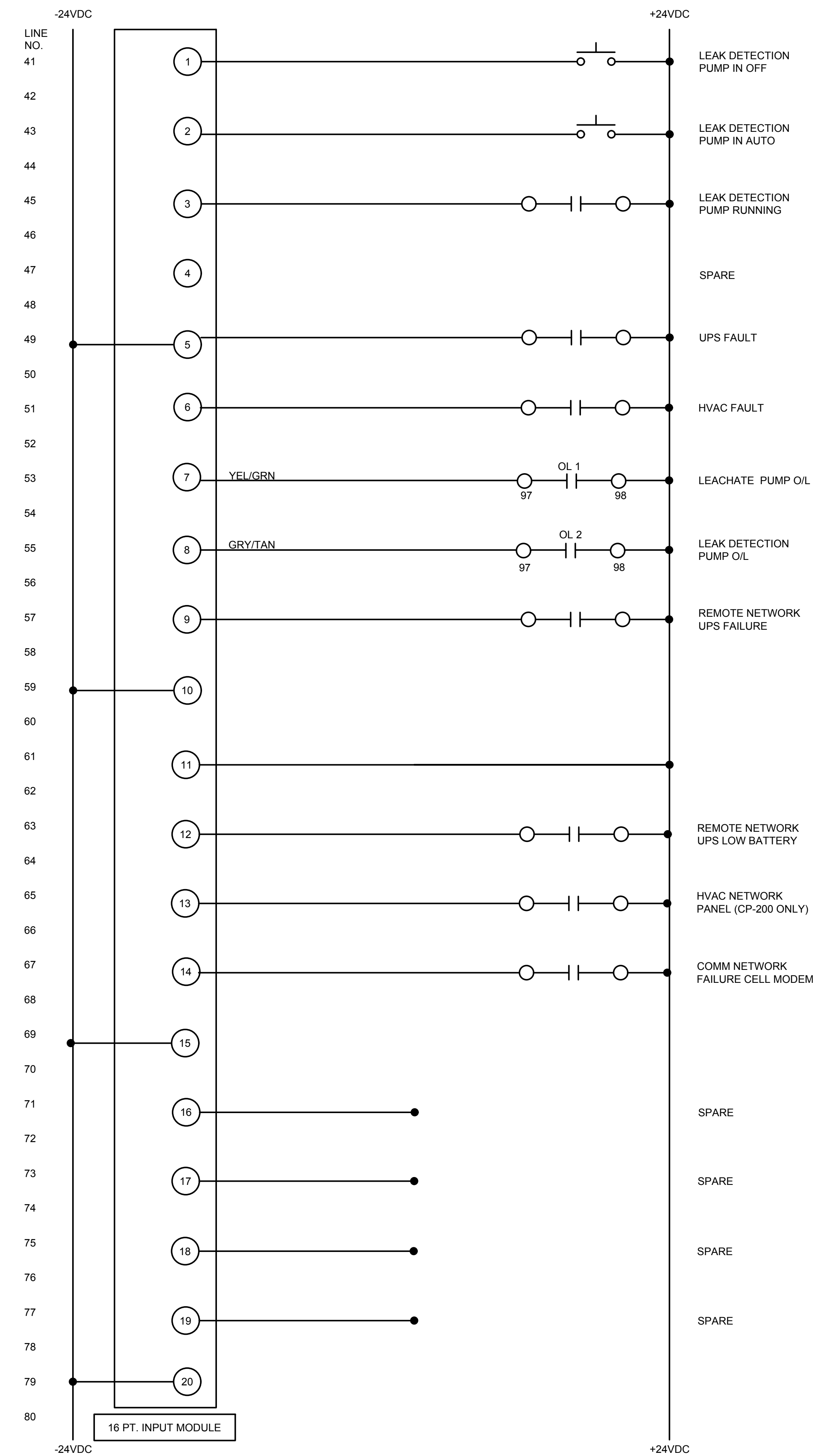
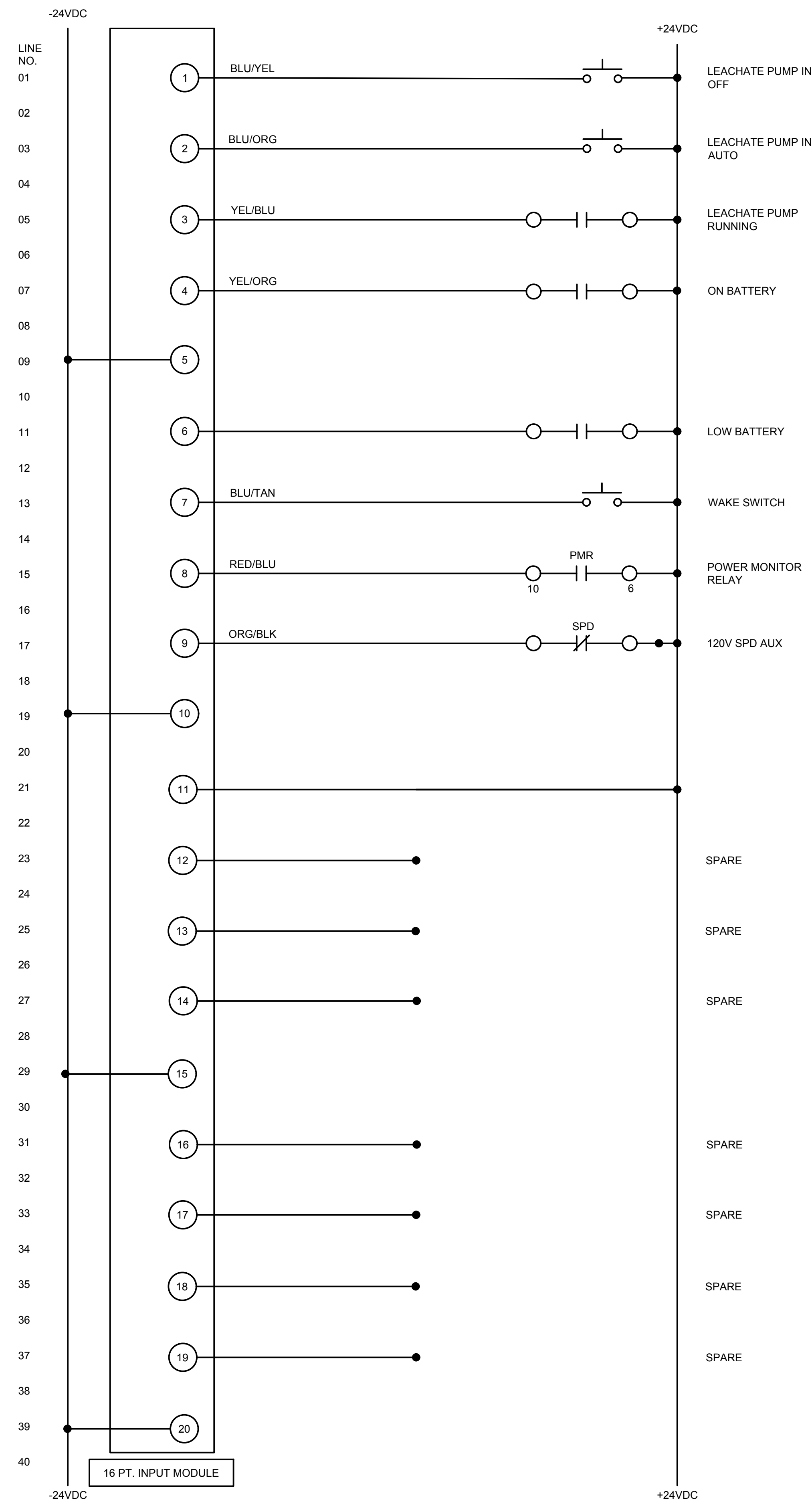
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P:\VER\01295\200-01295-18001\CAD\Sheetfiles\I-3001 ELECTRICAL PHOTOS.dwg 2018/10/31 3:21 PM, Chancellor, Wyatt

NON-HAZARDOUS LOCATION

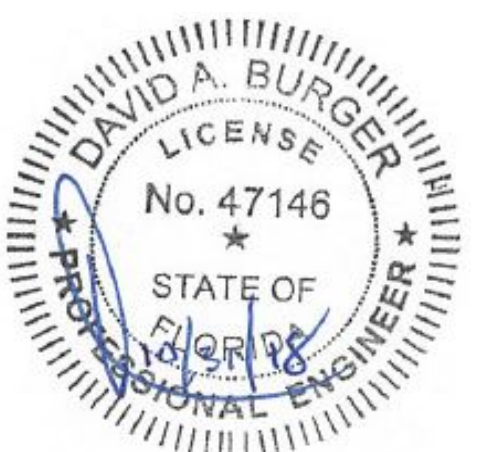


14002



NOTE:

1. CONTROLS CONTRACTOR SHALL CONFIRM ALL CONTROL LOGIC PRIOR TO SUBMITTING SHOP DRAWINGS.
2. WIRE ALL SPARE INTERPOSING RELAYS TO TERMINAL BLOCKS.

[illegible]

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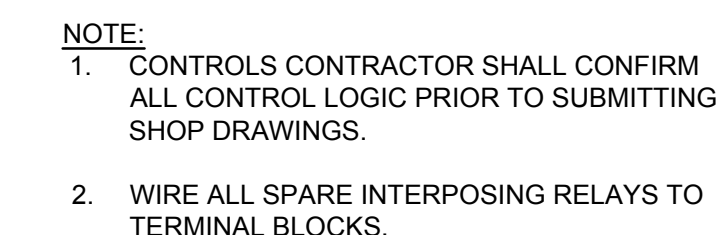
COAL WASTE ASH STORAGE EXPANSION

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ORANGE COUNTY, FLORIDA

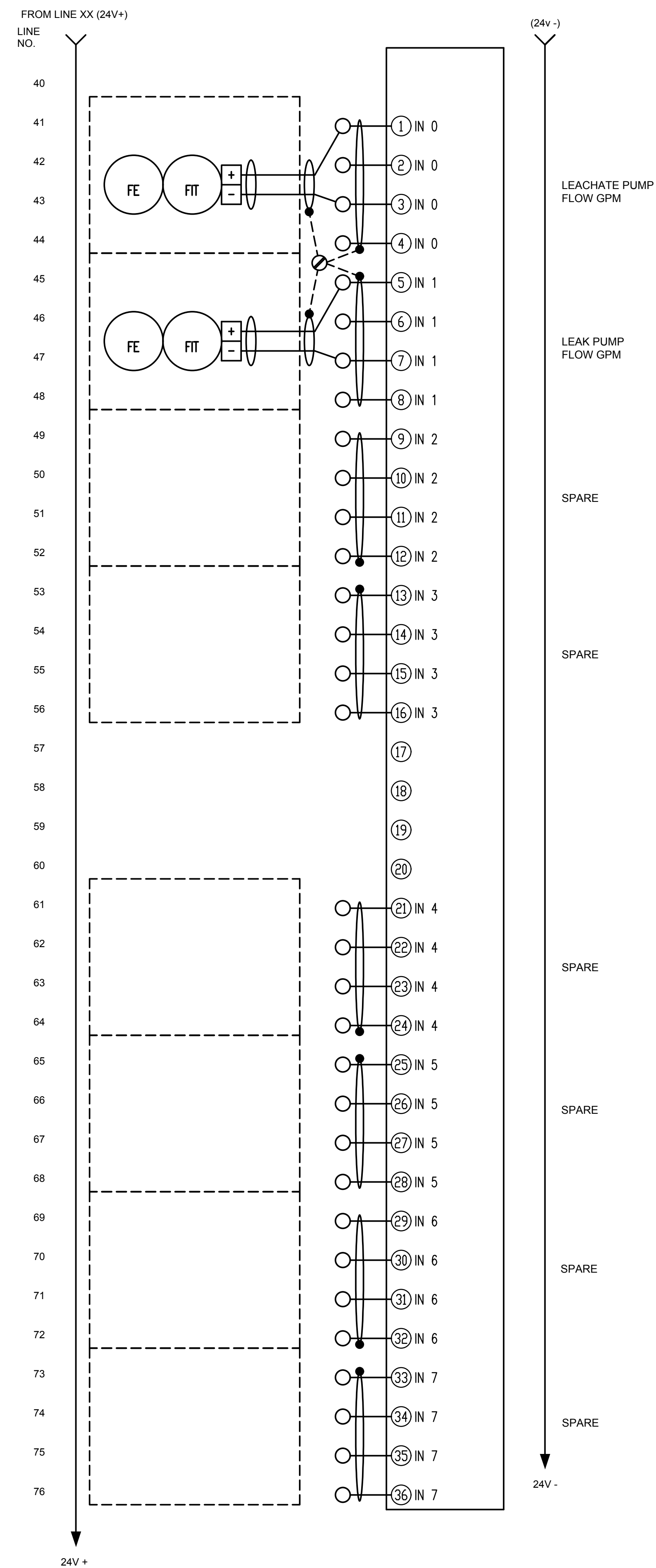
LEACHATE DUPLEX PUMP PANEL
SLOT #1 & SLOT #2
DISCRETE INPUT

AWING NO.

4003

[illegible]

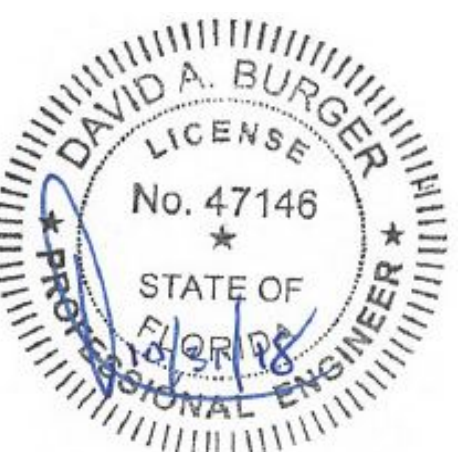
P:\IER\01295\200-01295-18001\CAD\SheetFiles\I-4004_CARD_DIAGRAMS.dwg 2018/10/31 3:22 PM, Chancellor, Wyatt



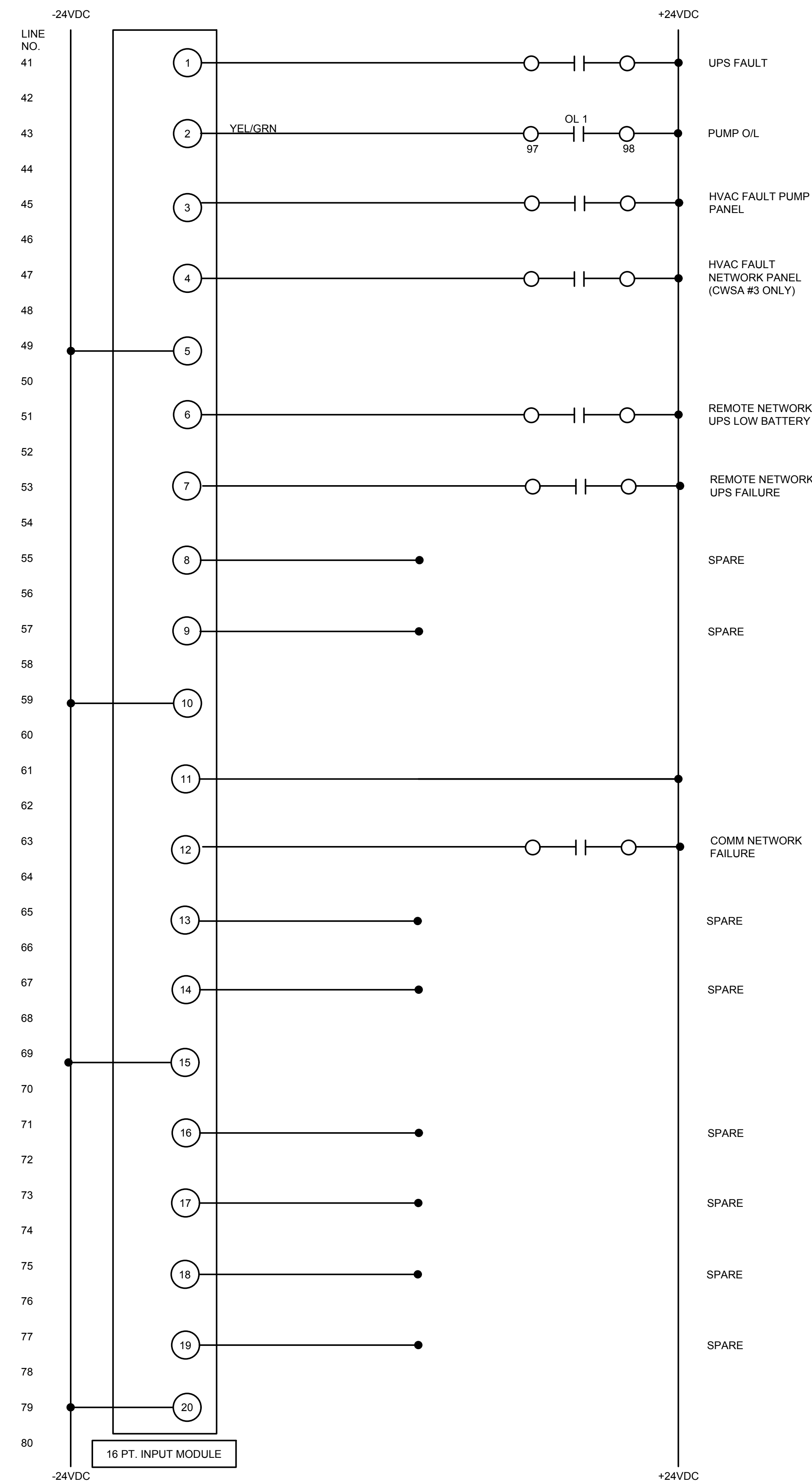
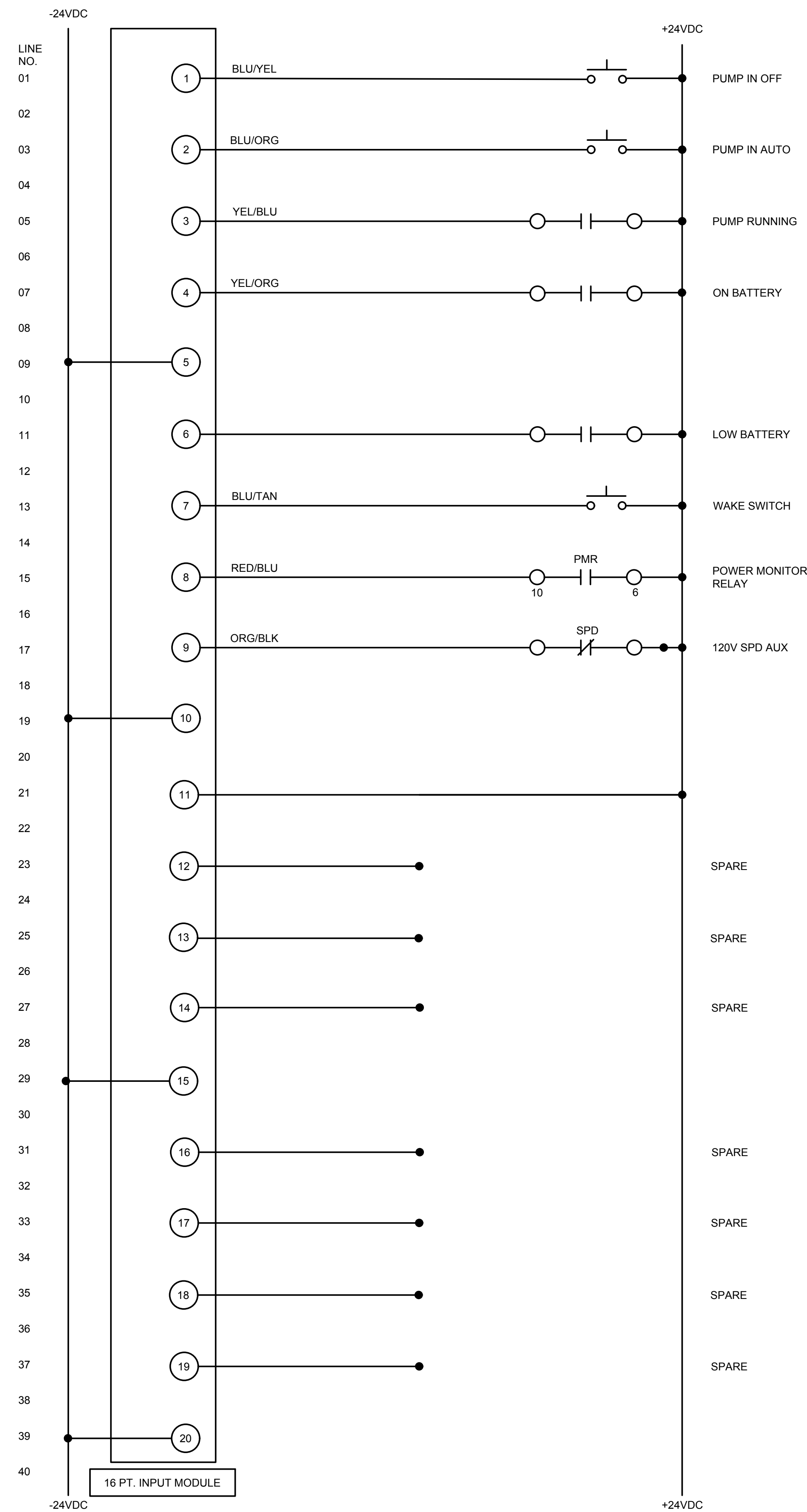
A circular professional engineer seal for David A. Burger. The outer ring contains the text "DAVID A. BURGER" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by two stars. Inside the ring, the word "LICENSE" is at the top, "No. 47146" is in the center, and "STATE OF FLORIDA" is at the bottom, also separated by two stars. A blue ink signature is written across the seal.

14005

NON-HAZARDOUS LOCATION

[illegible]





NOTE:

1. CONTROLS CONTRACTOR SHALL CONFIRM ALL CONTROL LOGIC PRIOR TO SUBMITTING SHOP DRAWINGS.
2. WIRE ALL SPARE INTERPOSING RELAYS TO TERMINAL BLOCKS.

[illegible]

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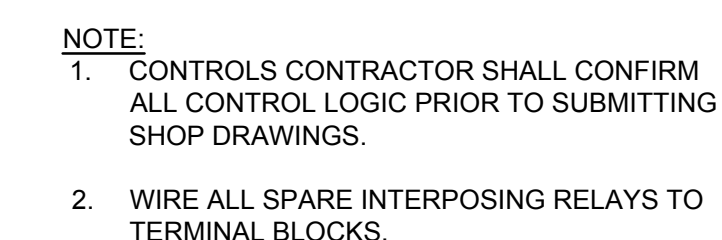
COAL WASTE ASH STORAGE EXPANSION

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ORANGE COUNTY, FLORIDA

CWSA PONDS SIMPLEX PUMP PANEL
SLOT #1 & SLOT #2
DISCRETE INPUT

AWING NO.

4008

[illegible]

