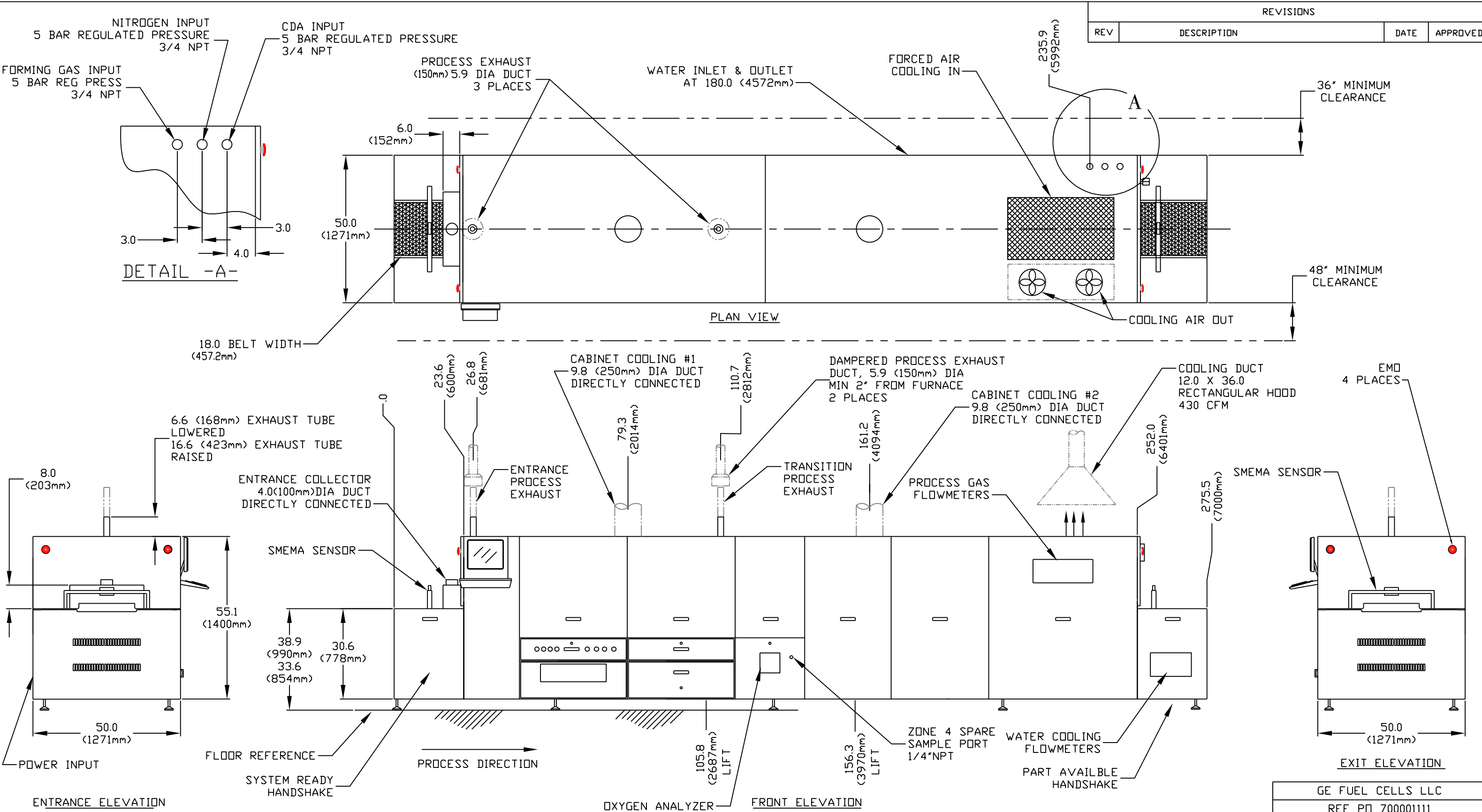




- NOTES:
- 1. ALL DIMENSIONS ARE APPROXIMATE.
 - 2. MAXIMUM LOAD ON BELT: 8 LBS PER FOOT

REV	DESCRIPTION	DATE	APPROVED
1	MISC FURNACE DIMENSION & COMPONENT CHANGES	3/24/16	J CLARK
0	ADDED FRONT & REAR CLEARANCE DIM / NOTE 2	9/30/15	J CLARK

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CONFIG.	
NEXT ASSY	USED ON
APPLICATION	DO NOT SCALE DRAWING

MODEL NO.	TF618X
APPROVALS	DATE
DRAWN C ROODE	9/9/15
CHECKED J CLARK	9/9/15
ISSUED A REY	9/9/15

GE FUEL CELLS LLC

REF PO 700001111

TP SOLAR, INC
16310 DOWNEY AVE
PARAMOUNT, CA 90723

TITLE

FURNACE ARRANGEMENT

SIZE

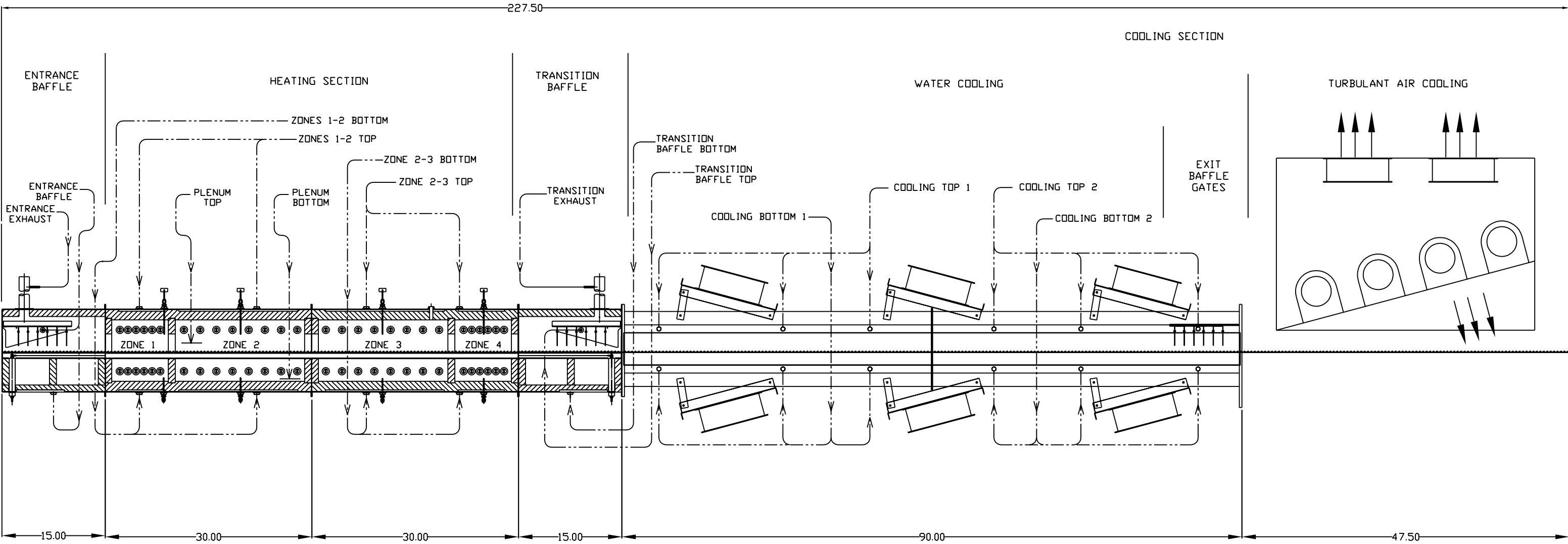
JOB NO. 15-004

DWG. NO. 399-11001-661

REV. 1

SCALE NONE

SHEET 1 OF 1



TPSI TF618 CHAMBER

1	ADDED 2 CAWC FLOWMETERS / CONTRACT RELEASE	9/30/15	J CLARK
REV	DESCRIPTION	DATE	APPROVED
REVISIONS			

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TP SOLAR, INC. IS PROHIBITED.

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
DECIMALS ANGLES FRACTIONS
.X ± .5 XX±.5° X/X±1/4
.XX ± .03 XX.X±.2°

MATERIAL

FINISH

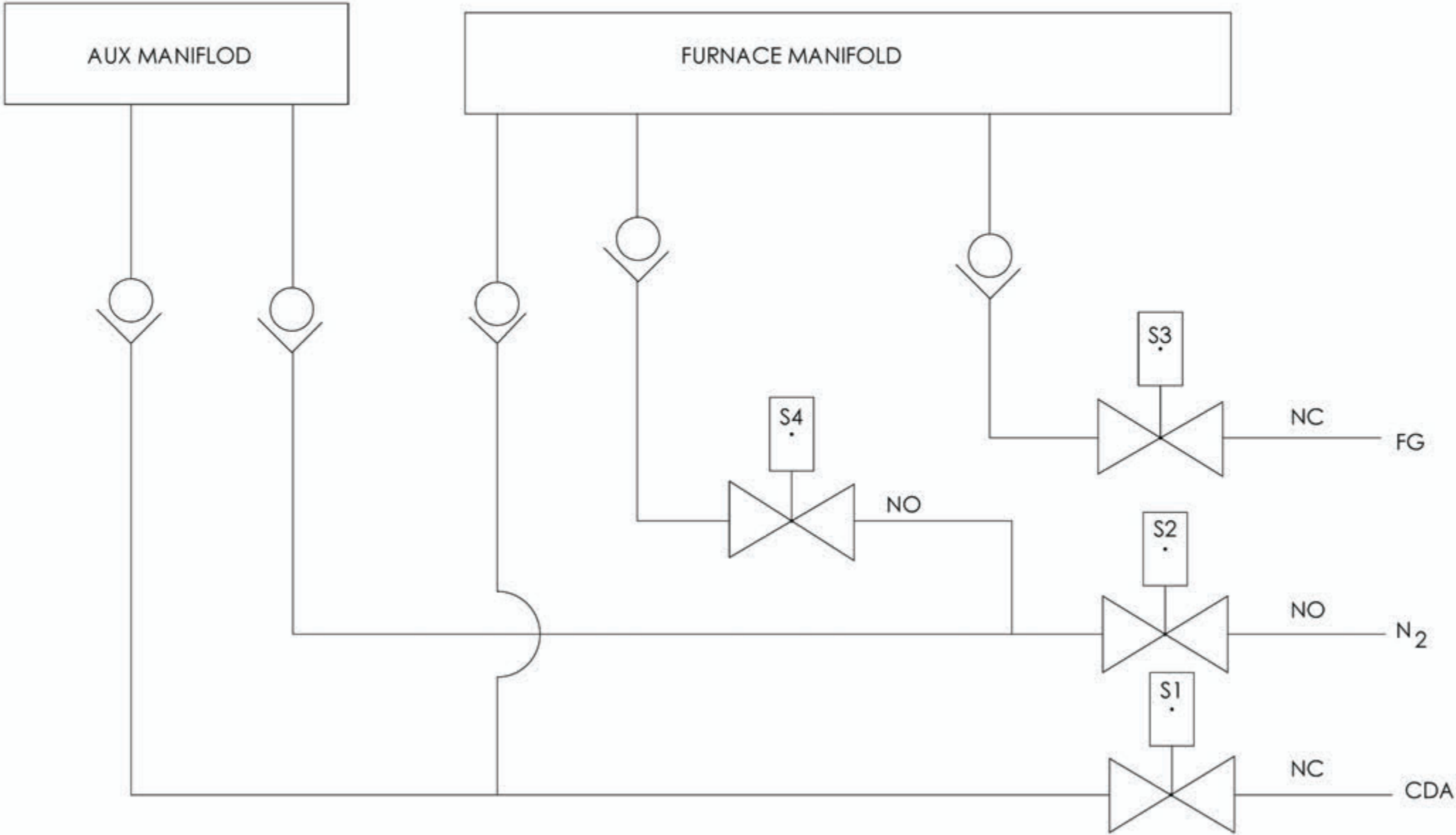
DO NOT SCALE DRAWING

TF618X	
APPROVALS	DATE
DRAWN C ROODE	9/09/15
CHECKED J CLARK	9/09/15
ISSUED A REY	9/09/15

GE FUEL CELLS LLC			
REF PO 700001111			
		TP SOLAR, INC 16310 DOWNEY AVE PARAMOUNT, CA 90723	
TITLE CHAMBER ARRANGEMENT			
SIZE	JOB NO. 15-004	DWG. NO. 803-091734-18	REV. 1
SCALE NONE		REF: GE	SHEET 1 OF 1

Thermal Processing Solutions, INC. PROPRIETARY INFORMATION
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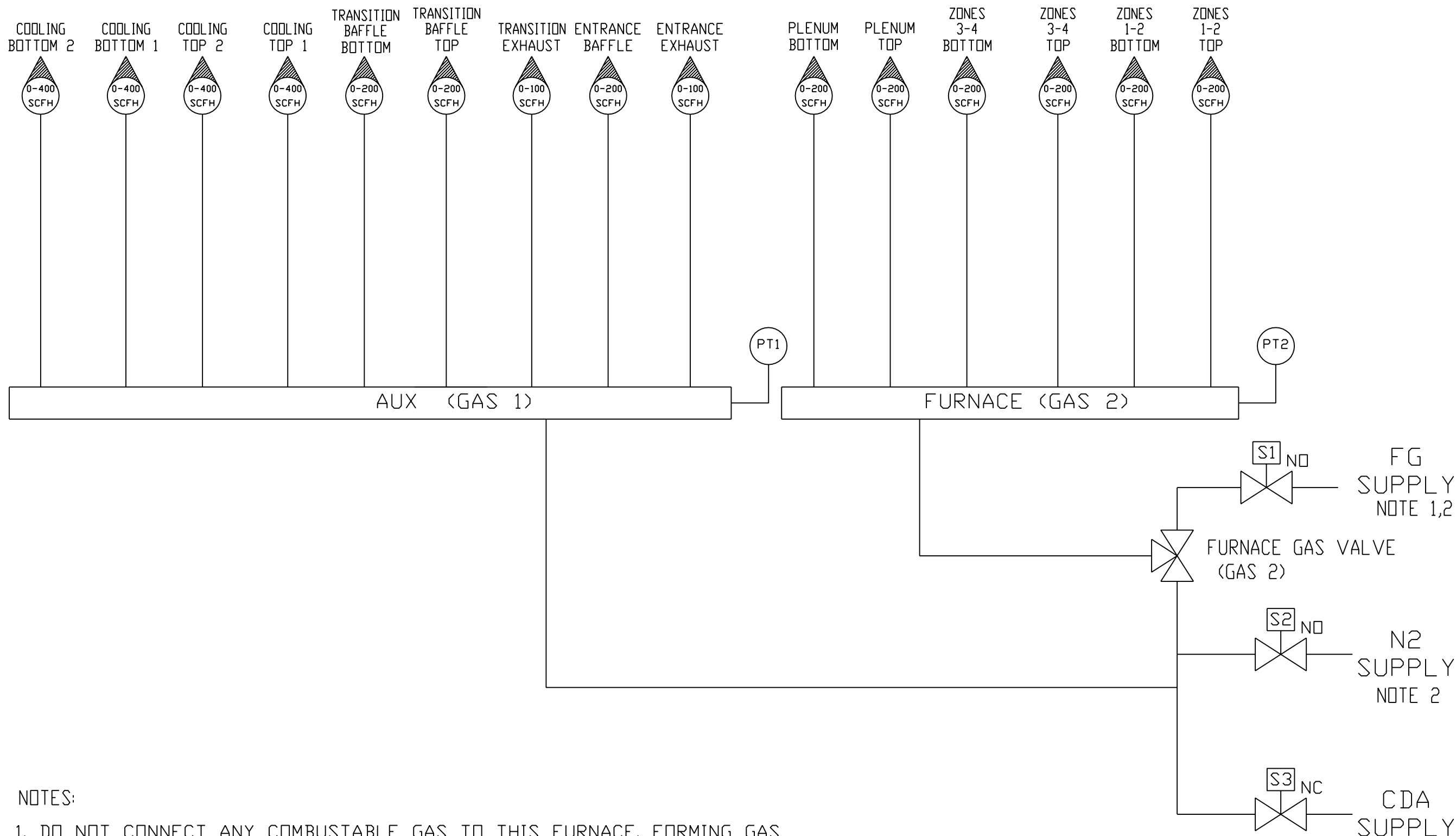
VALVE CONDITION		GAS	S1	S2	S3	S4
CDA MODE	AIR FIRING	CDA	ON	ON	OFF	ON
Nitrogen MODE		LOW O2	OFF	OFF	OFF	OFF
Forming Gas MODE		VL O2 FIRING	OFF	OFF	ON	ON



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UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES		DRAWN	
TOLERANCES:		CHECKED	
FRACTIONAL: X/16, 1/32		ENG. APPR.	
ANGULAR: MACH: 0.01 deg		MFG. APPR.	
ONE PLACE DECIMAL: < .001, .05		Q.A.	
TWO PLACE DECIMAL: < .0001, .0025		TITLE:	
INTERPRET GEOMETRIC TOLERANCING PER:		Supply Gas Switching	
MATERIAL		SIZE	DWG. NO.
NEXT ASSY		C	802-101465-02
USED ON		REV	02
FINISH		SCALE: 1:1	WEIGHT:
APPLICATION		SHEET 1 OF 1	
DO NOT SCALE DRAWING			



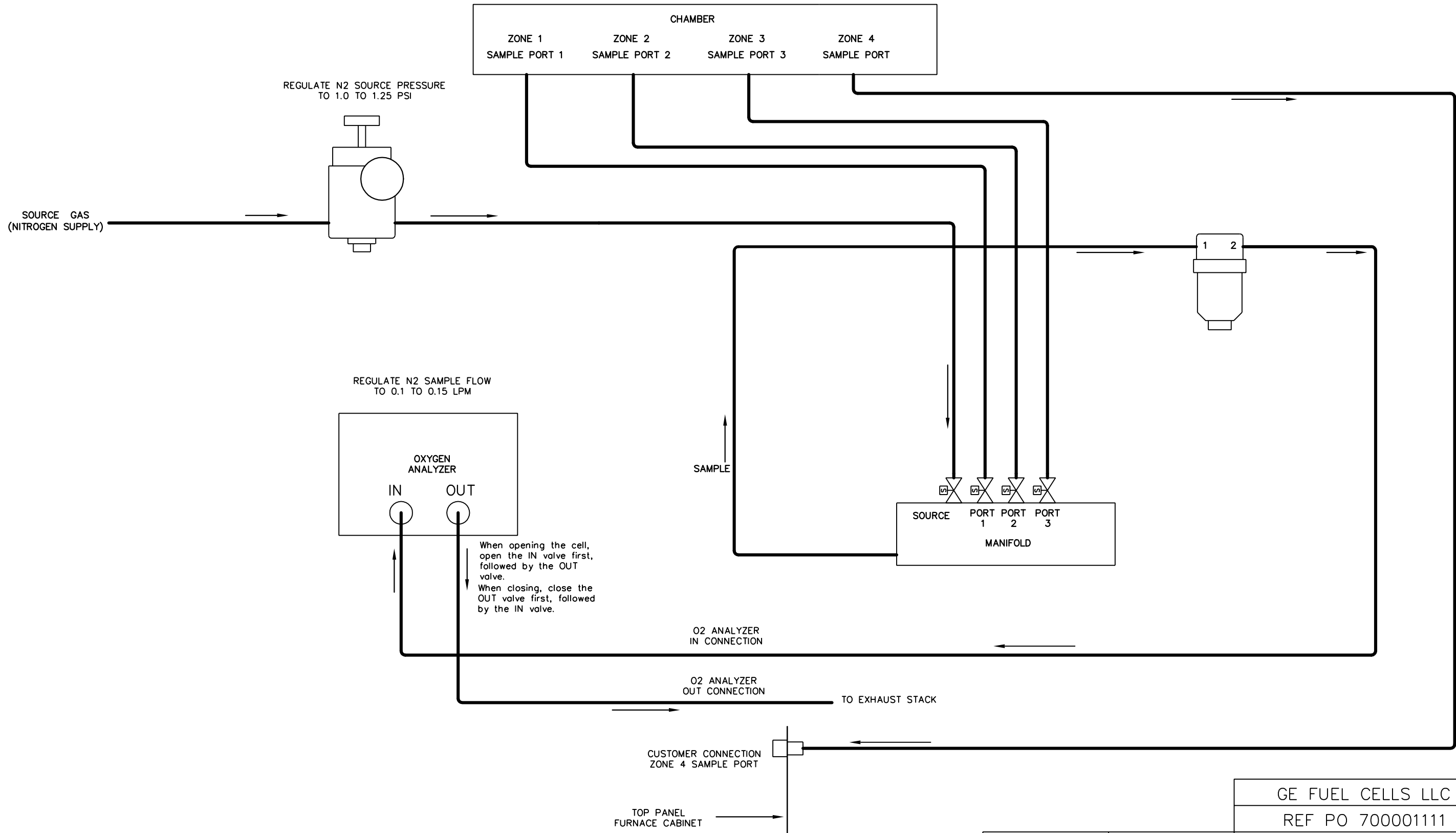


NOTES:

- 1. DO NOT CONNECT ANY COMBUSTABLE GAS TO THIS FURNACE. FORMING GAS OR OTHER MIXTURES WHICH HAVE A COMBUSTABLE GAS CAN BE SAFELY INTRODUCED INTO FURNACE PROVIDED THE DELIVERED CONCENTRATION IS BELOW ITS LOWER FLAMMABLE LIMIT (LFL) IN AIR.
- 2. TO PROTECT PRODUCT,N2 AND FG SUPPLY VALVES ARE NORMALLY OPEN (NO) SO VALVES WILL FAIL OPEN IN THE EVENT OF LOSS OF POWER

1	ADDED 2 CAWC FLOWMETERS / CONTRACT RELEASE	9/30/15	J CLARK
REV	DESCRIPTION	DATE	APPROVED
REVISIONS			

PROPRIETARY AND CONFIDENTIAL		UNLESS OTHERWISE SPECIFIED		GE FUEL CELLS LLC	
THE INFORMATION CONTAINED IN THIS		DIMENSIONS ARE IN INCHES		PD 700001111	
DRAWING IS THE SOLE PROPERTY OF		TOLERANCES ARE:		TP SOLAR, INC	
TP SOLAR, INC.		DECIMALS ANGLES FRACTIONS		16310 DOWNEY AVE	
ANY REPRODUCTION IN PART OR AS A WHOLE		X ± .5 XX ± .5 X/XX1/4		PARAMOUNT, CA 90723	
WITHOUT THE WRITTEN PERMISSION OF		MATERIAL		TITLE	
TP SOLAR, INC. IS PROHIBITED.		FINISH		PROCESS PLUMBING	
		DO NOT SCALE DRAWING		THREE GAS TWO MODE	
				SIZE MODEL NO. DWG. NO. REV.	
				15-004 801-090342-07 1	
				SCALE NONE SHEET 1 OF 1	



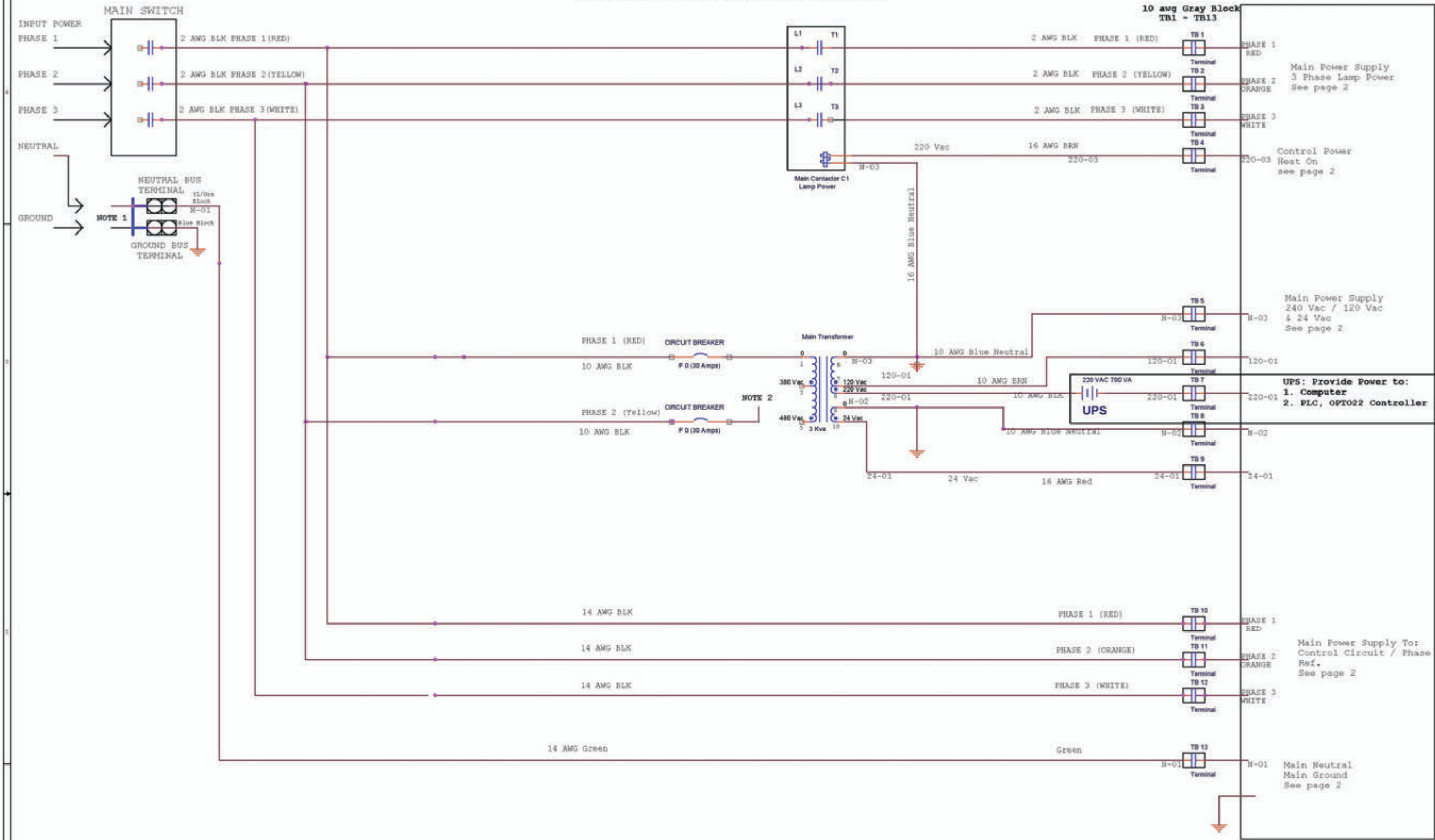
1	ADDED CUSTOMER P.O / CONTRACT RELEASE	9/30/15	J CLARK
REV	DESCRIPTION	DATE	APPROVED
REVISIONS			

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:		
DECIMALS .XX±.03 .XXX±.010	ANGLES XX±.5° XX.X±.2°	FRACTIONS X/X±1/32
MATERIAL		
FINISH		
DO NOT SCALE DRAWING		

MODEL NO		TF-618	
CONTRACT NO.			
APPROVALS		DATE	
DRAWN	C ROODE	9/09/15	
CHECKED	J CLARK	9/09/15	
ISSUED	A REY	9/09/15	

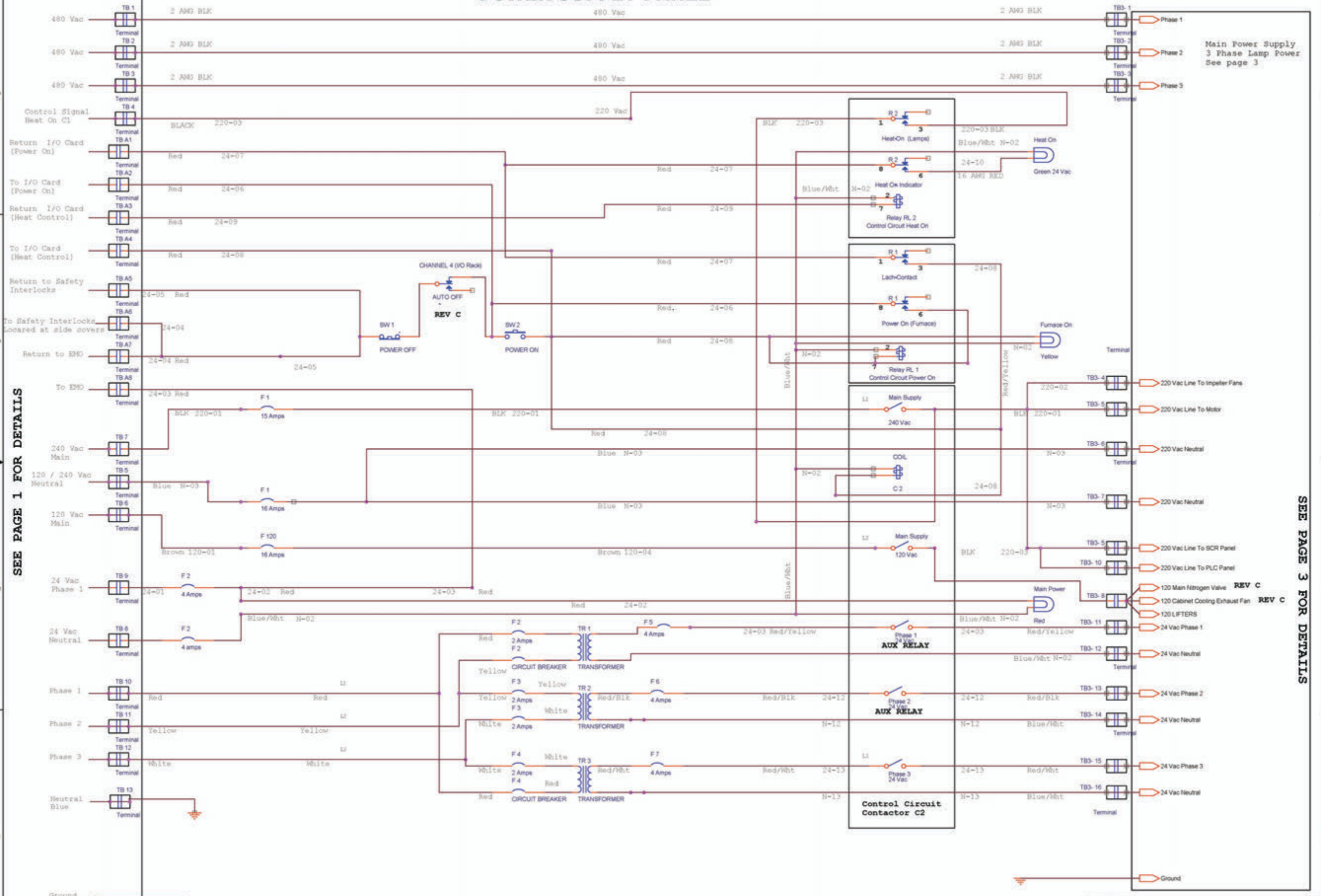
GE FUEL CELLS LLC			
REF PO 700001111			
		TP SOLAR, INC 16310 DOWNEY AVE PARAMOUNT, CA 90723	
TITLE GAS SAMPLING SYSTEM OXYGEN ANALYZER			
SIZE	JOB NO.	DWG NO.	REV.
D	15-004	801-090776-08	1
SCALE NONE		SHEET 1 OF 1	

SAFETY ENCLOSURE PANEL



NOTE 1:
- 5 WIRE SYSTEM: REMOVED JUMPER
- 4 WIRE SYSTEM: ADD JUMPER
NOTE 2:
- Tap transformer according input power

POWER SUPPLY PANEL



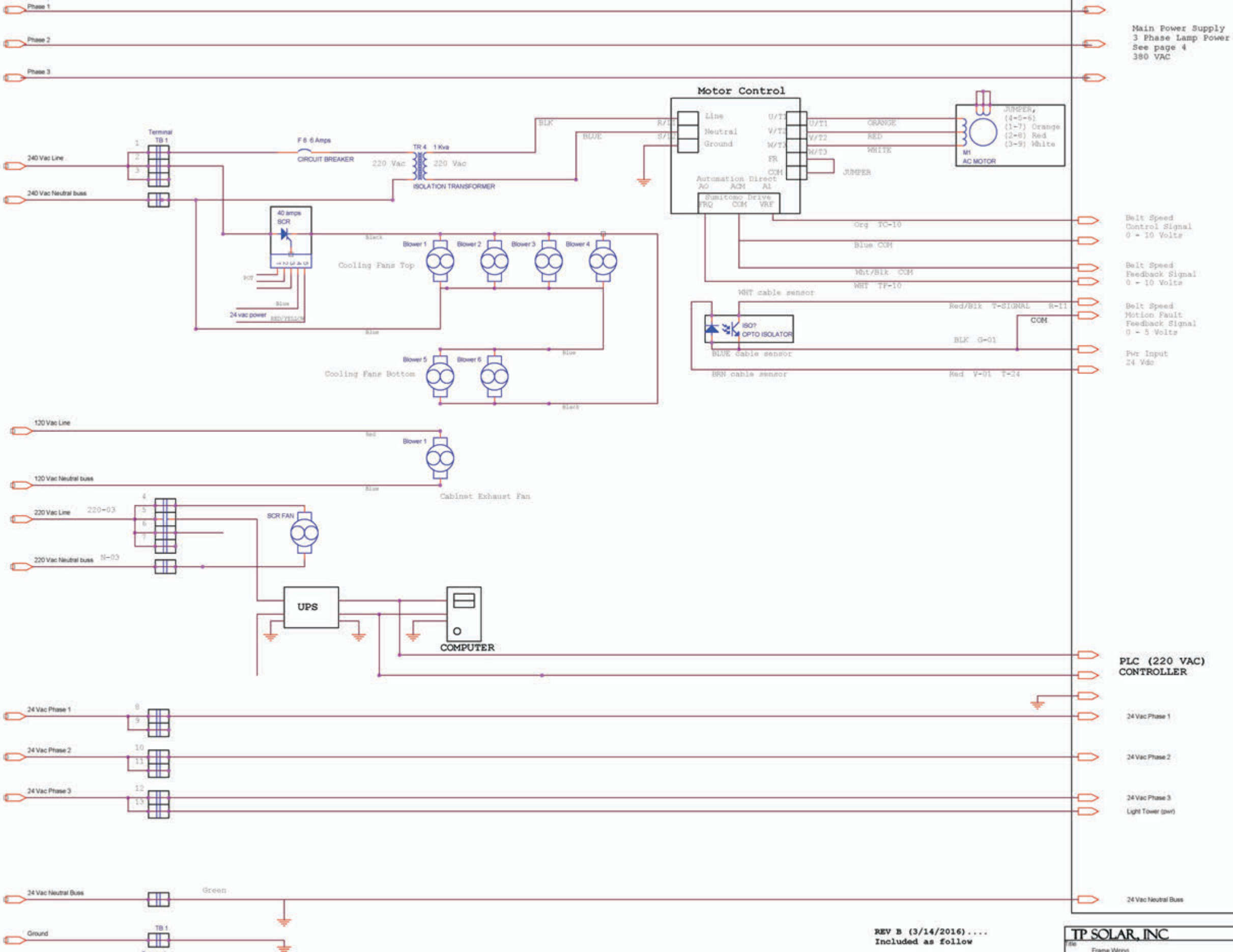
SEE PAGE 1 FOR DETAILS

SEE PAGE 3 FOR DETAILS

- REV C.... Included as follow
1. 120 Main Nitrogen Valve
 2. 120 Cabinet Cooling Exhaust
 3. Auto Off

TP SOLAR, INC			
File	POWER CONTROL CIRCUIT		
Size	Document Number	Rev C	
C	800-10001		
Date	Thursday, September 03, 2015	Sheet	2 of 6

FRAME WIRING



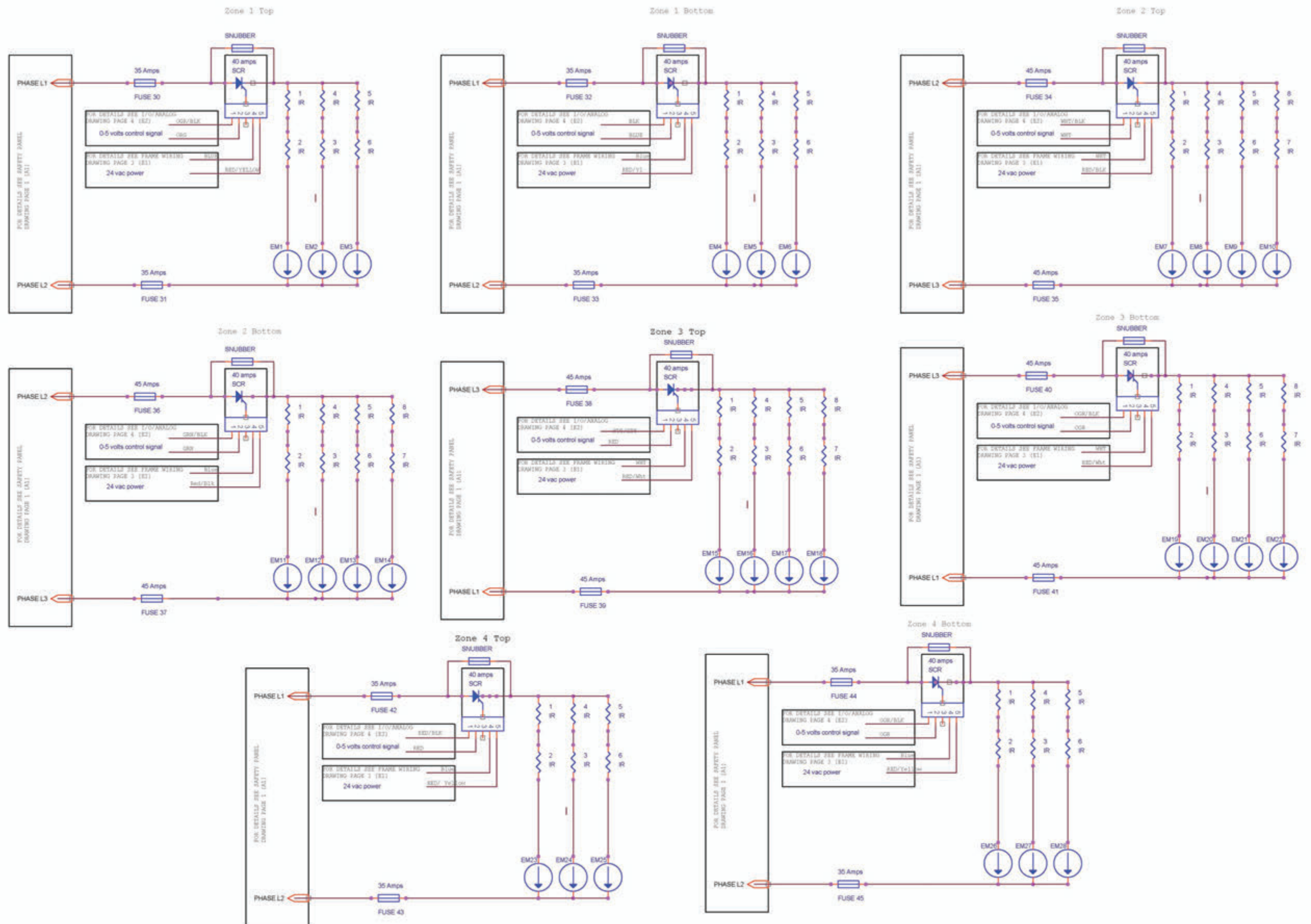
SEE PAGE 2 FOR DETAILS

REV B (3/14/2016) ...
Included as follow

1. 120 Cabinet Cooling Exhaust Fan

TP SOLAR, INC

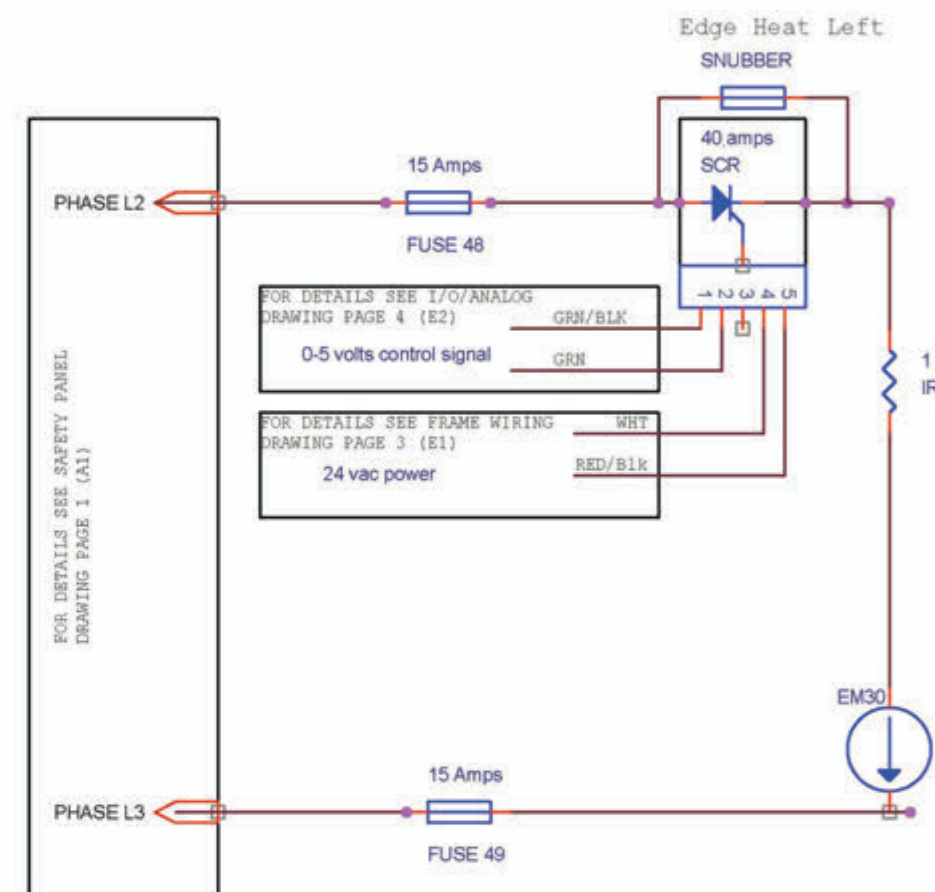
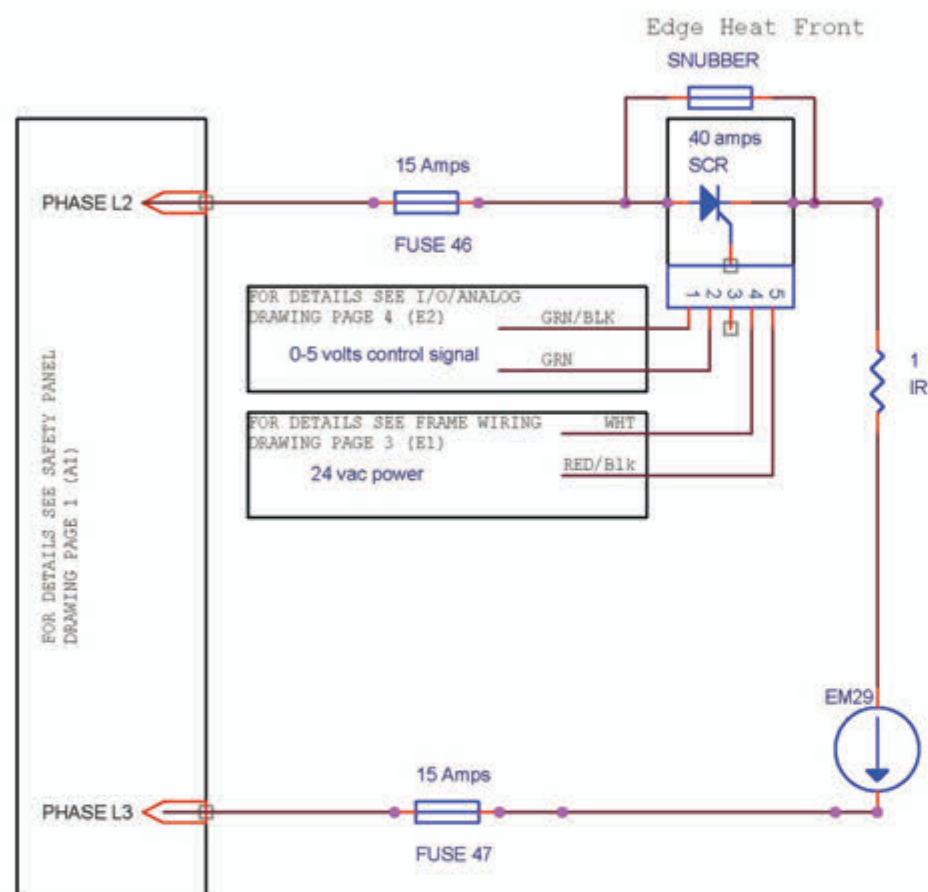
Title		Frame Wiring	
Size	Document Number	Rev	
C	800-10001	B	
Date	Thursday, September 03, 2015	Sheet	3 of 6



REV B (3/14/2016)....
Included as follow

1. Added SNUBBER

TP Solar, Inc		
File	Element Wiring 4020	
Size	Document Number	Rev
C	800-10001	B
---	---	---
Date	Friday, September 04, 2015	Sheet 5 of 6



REV B (3/14/2016)....
Included as follow

1. Added the Snubber

TP Solar, Inc		
Title	EDGE HEAT	
Size	Document Number	Rev
Custom	800-10001	A
Date	Friday, September 04, 2015	Sheet 6 of 6