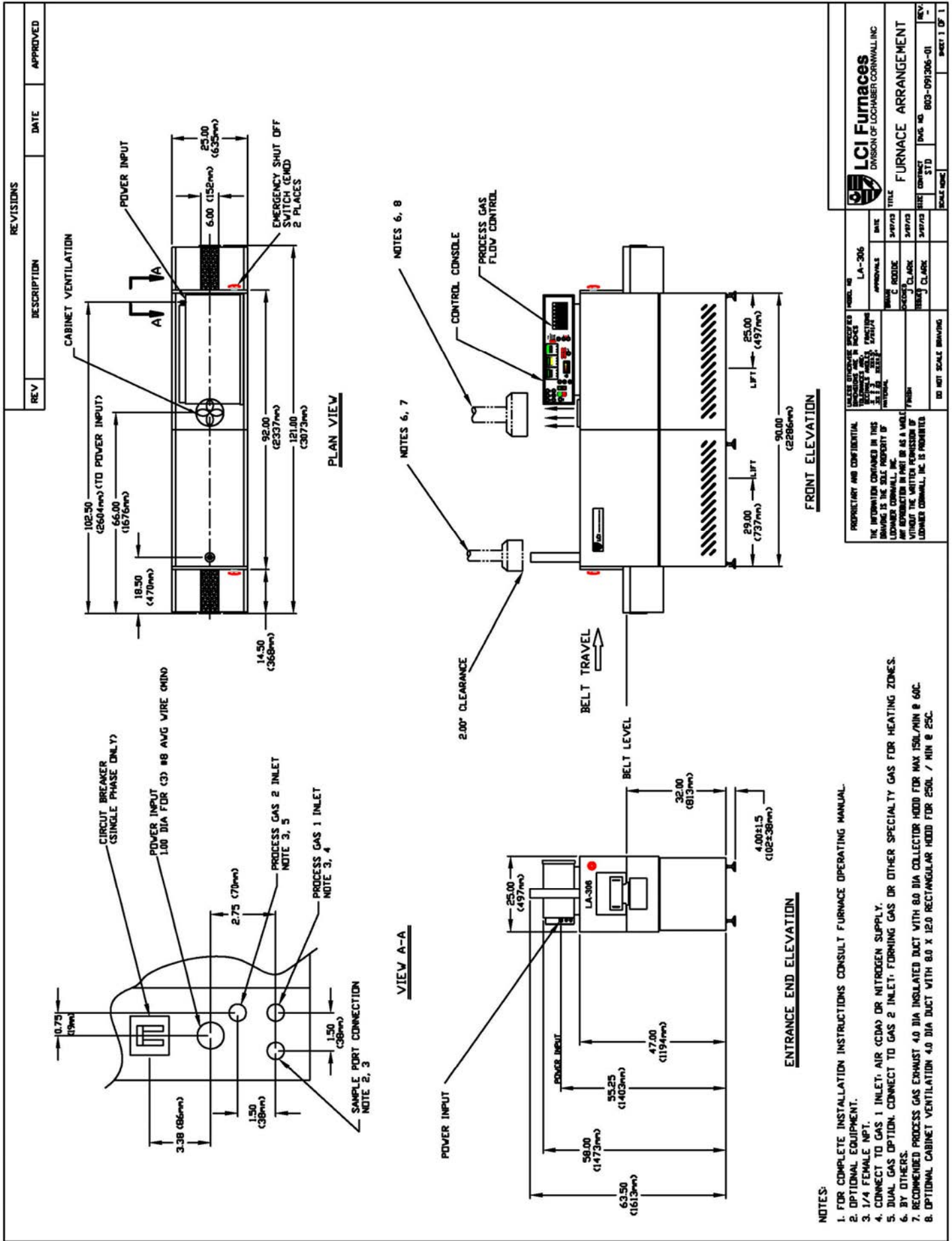


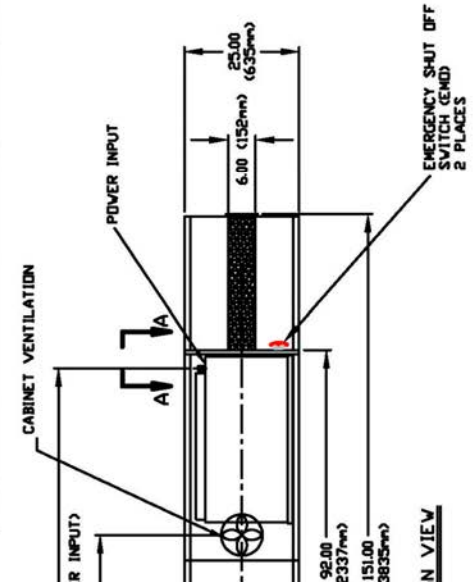
DRAWINGS & SCHEMATICS

Job/Master	Drawing Nbr.	Title
STD	803-091306-01	FURNACE ARRANGEMENT, LA-306
STD	803-091306-05	FURNACE ARRANGEMENT, LA-306 with Options
STD	803-091734-01	CHAMBER ARRANGEMENT
STD	803-091734-02	CHAMBER ARRANGEMENT WITH IE
STD	801-090342-01	PROCESS GAS PLUMBING, SINGLE GAS
STD	801-090342-02	PROCESS GAS PLUMBING, DUAL GAS (option)
STD	801-091940-06	SUPPLY GAS MIXING SYSTEM (option)
STD	801-090776-05	ANALYZER GAS SAMPLE SYSTEM (option)
STD	802-101779-01	SAFETY PANEL LA-306 (208-240 VAC)
STD	802-101779-02	SAFETY PANEL LA-306 (380-415 VAC)
STD	802-101780-03	POWER CONTROL, PLC LA-306
STD	802-101781-04	FRAME WIRING SCHEMATIC, LA-306 & LA-309P
STD	802-101784-02	CONTROL CONSOLE, PLC LA-306
STD	802-101785-07	ZONE CONTROL PANEL (AFTER 2015)
STD	802-101814-306	ELEMENT WIRING – STANDARD POWER
STD	802-101814-306HP	ELEMENT WIRING – HIGH POWER
STD	802-101783	ANALYZER & OSS CONTROL (option)
STD	802-101950-03	PRODUCT ALERT (option)

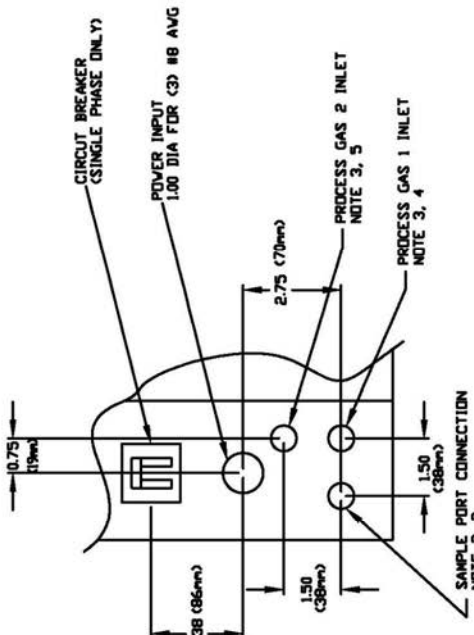


LCI Furnaces DIVISION OF LOCHNER CORNWALL INC	
MODEL NO LA-306 APPROVALS NAME C. ROODE DESIGN J. CLARK FINISH DO NOT SCALE DRAWING	TITLE FURNACE ARRANGEMENT DATE SCALE SHEET NO 803-091306-01 REV. SHEET 1 OF 1

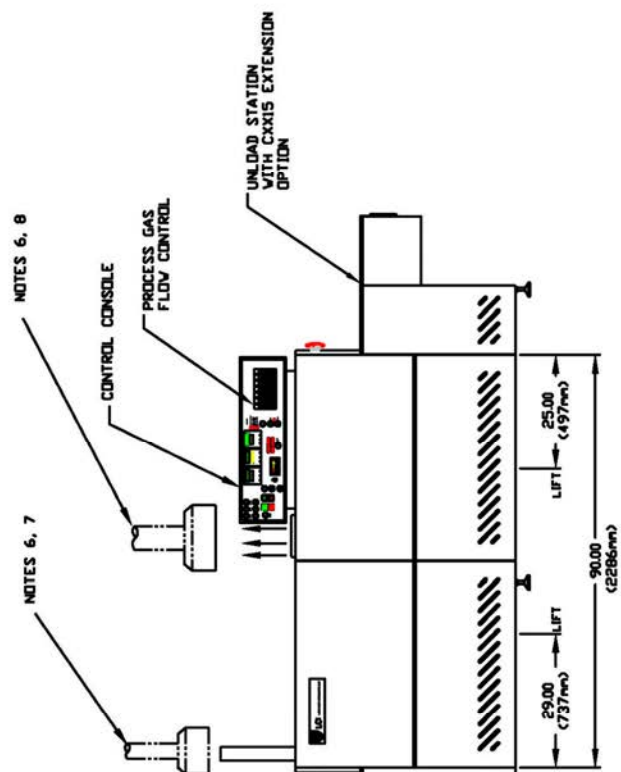
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



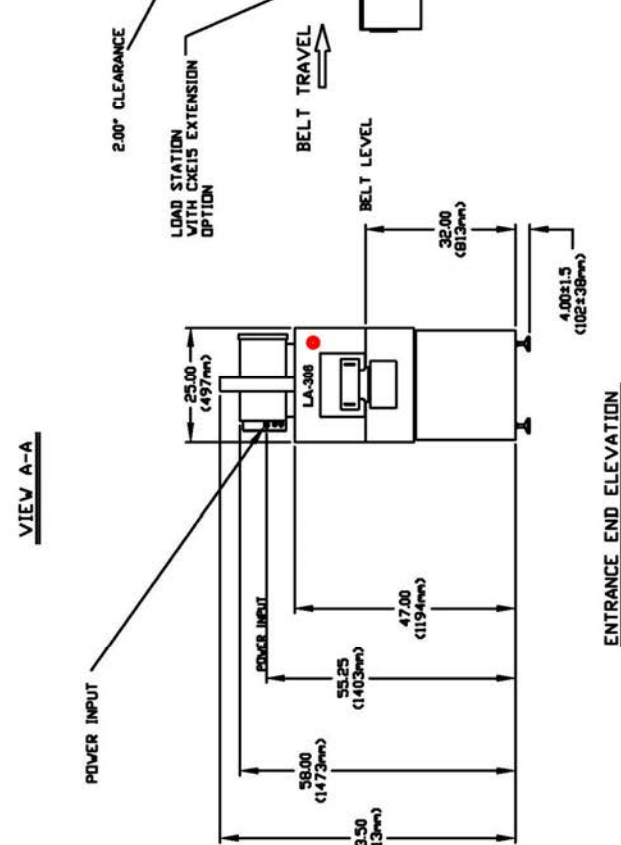
PLAN VIEW



VIEW A-A



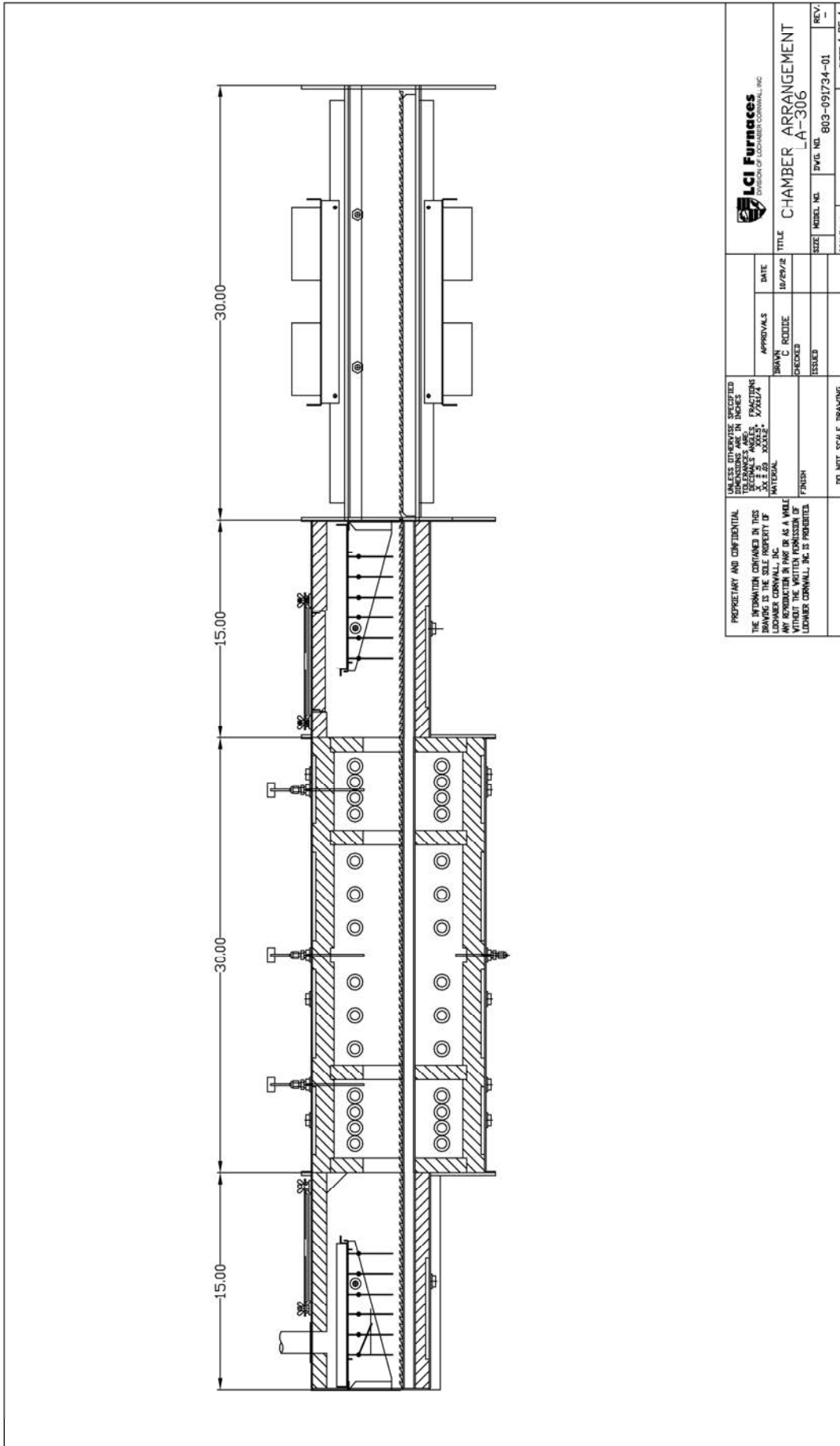
FRONT ELEVATION

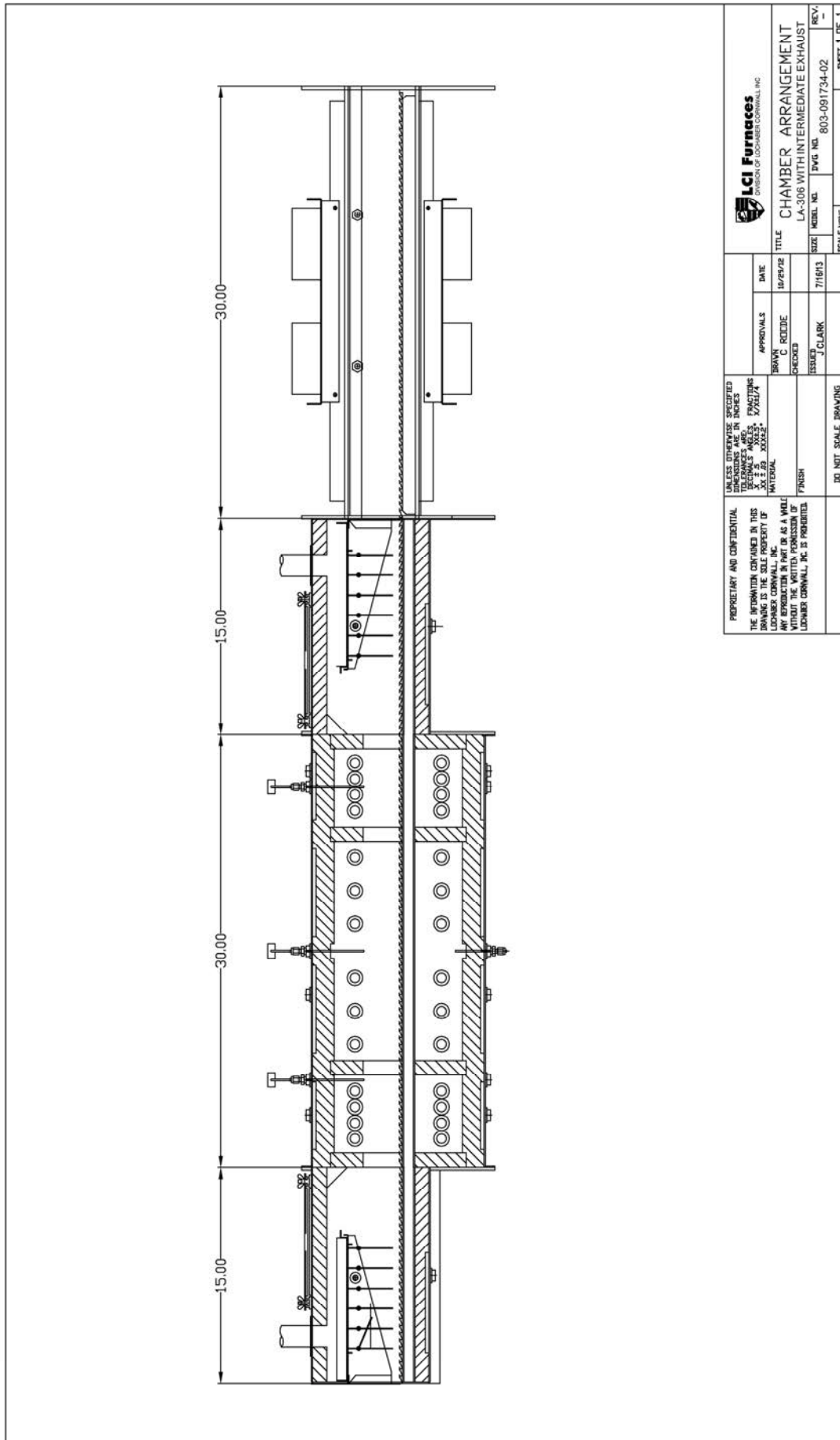


ENTRANCE END ELEVATION

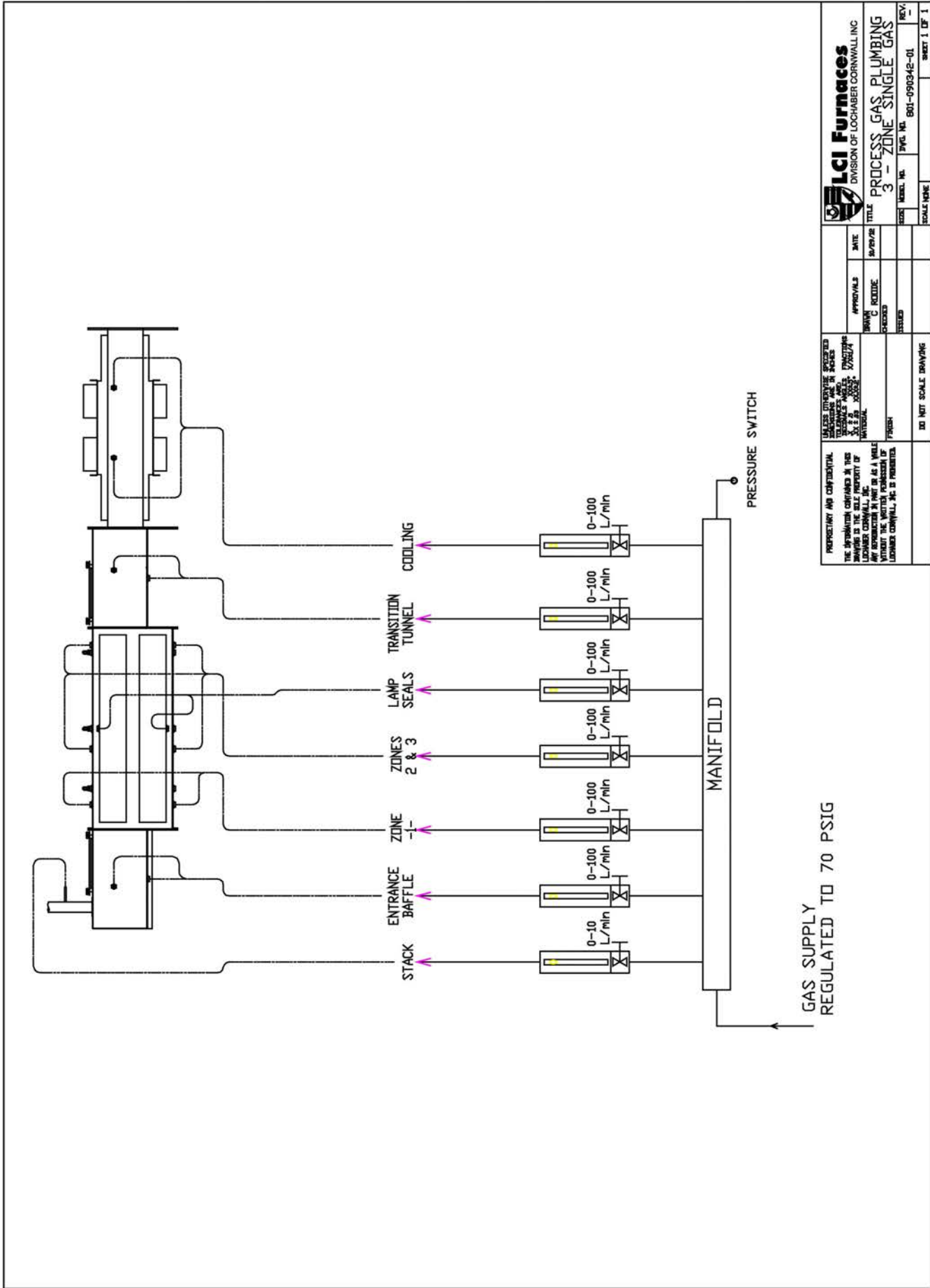
- NOTES:
1. FOR COMPLETE INSTALLATION INSTRUCTIONS CONSULT FURNACE OPERATING MANUAL.
 2. OPTIONAL EQUIPMENT.
 3. 1/4 FEMALE NPT.
 4. CONNECT TO GAS 1 INLET, AIR (C/A) OR NITROGEN SUPPLY.
 5. DUAL GAS OPTION, CONNECT TO GAS 2 INLET, FORMING GAS OR OTHER SPECIALTY GAS FOR HEATING ZONES.
 6. BY OTHERS.
 7. RECOMMENDED PROCESS GAS EXHAUST 4.0 DIA INSULATED BUCT WITH 8.0 DIA COLLECTOR HOOD FOR MAX 150L/MIN @ 60C.
 8. OPTIONAL CABINET VENTILATION 4.0 DIA DUCT WITH 80 X 120 RECTANGULAR HOOD FOR 250L / MIN @ 25C.

 DIVISION OF LOCHNER CORNWALL INC.		MODEL NO LA-306 EXTENDED
SERIAL NO (SEE DRAWING FOR SERIAL NO)	DATE 2/9/13	APPROVALS SALES DESIGN CHECKED J. CLARK
TITLE FURNACE ARRANGEMENT		SCALE 3/10 3/10 3/10
PROJECT NO 803-091206-05		SHEET NO 1 OF 1



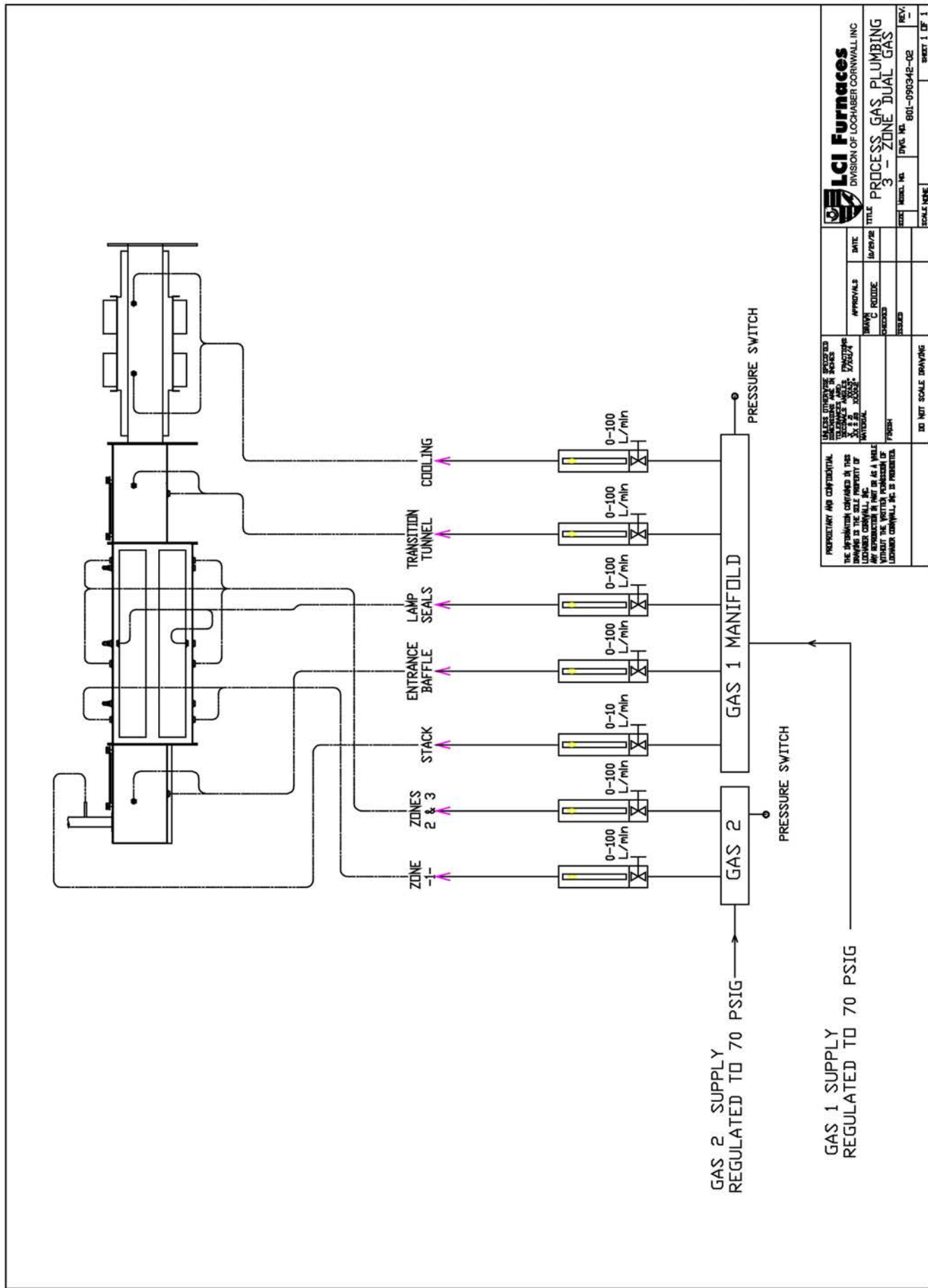


<p>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES X.XX .015 .005 .01</p>	<p>APPROVALS</p>	<p>DATE</p>	<p>LCI Furnaces DIVISION OF LUDHUR CORNWALL, INC.</p>
	<p>DESIGNED C. RODDE</p>	<p>12/22/12</p>	
<p>PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF LUDHUR CORNWALL, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF LUDHUR CORNWALL, INC. IS PROHIBITED.</p>	<p>CHECKED J. CLARK</p>	<p>7/16/13</p>	<p>CHAMBER ARRANGEMENT LA-306 WITH INTERMEDIATE EXHAUST</p>
	<p>FINISH</p>	<p>ISSUED</p>	<p>SCALE NONE</p>
<p>DO NOT SCALE DRAWING</p>	<p>SCALE NONE</p>	<p>REV. 1</p>	<p>SHEET 1 OF 1</p>



GAS SUPPLY
REGULATED TO 70 PSIG

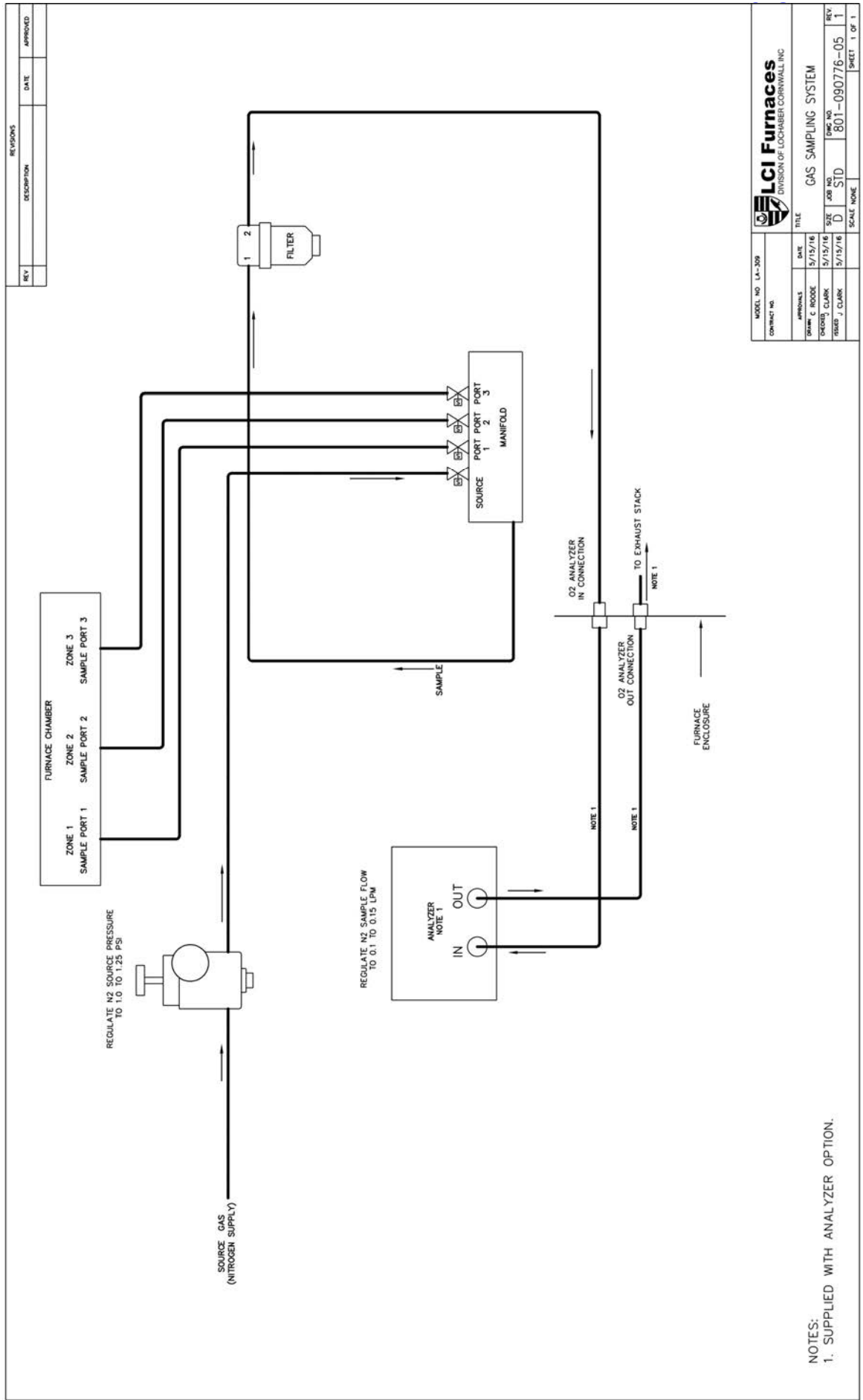
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DECIMALS AND FRACTIONS SHALL BE TO NEAREST 0.005 IN.	APPROVALS DATE	LCI Furnaces DIVISION OF LOCHABER CORNWALL INC
	CHECKED DATE	
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF LOCHABER CORNWALL, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF LOCHABER CORNWALL, INC. IS PROHIBITED.	DRAWN C	SCALE NONE
DO NOT SCALE DRAWING	CHECKED DATE	P/CL. NO. 801-990342-01
		SHEET 1 OF 1

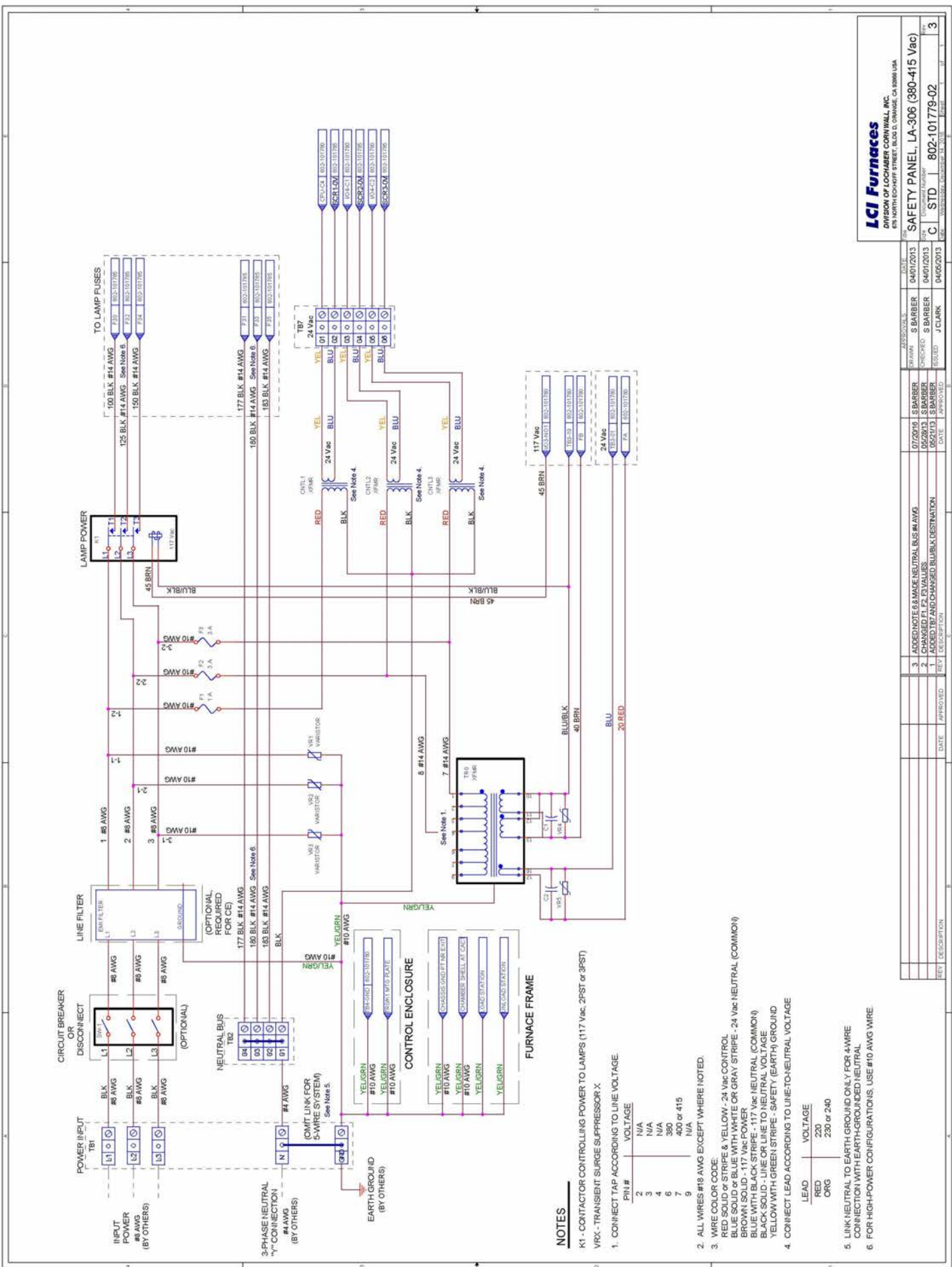


PROTECTIVE AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE PROPERTY OF LOCHABER CORNWALL, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF LOCHABER CORNWALL, INC. IS PROHIBITED.	THESE DIMENSIONS ARE UNLESS OTHERWISE SPECIFIED IN NOTES UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS	LCI Furnaces DIVISION OF LOCHABER CORNWALL, INC.
	DATE: _____ APPROVALS: _____ DRAWN BY: C. P. ROYDIE CHECKED BY: _____ DESIGNED BY: _____	TITLE: PROCESS GAS PLUMBING 3 - ZONE DUAL GAS

GAS 2 SUPPLY
REGULATED TO 70 PSIG

GAS 1 SUPPLY
REGULATED TO 70 PSIG





NOTES

- K1 - CONTACTOR CONTROLLING POWER TO LAMPS (117 Vac, 2PST or 3PST)
 - VRX - TRANSIENT SURGE SUPPRESSOR X
1. CONNECT TAP ACCORDING TO LINE VOLTAGE.

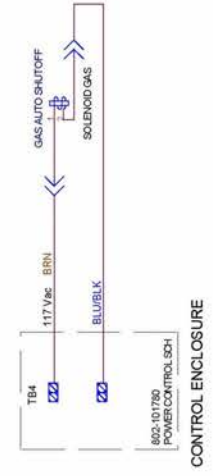
PIN #	VOLTAGE
2	N/A
3	N/A
4	N/A
6	380
7	400 or 415
9	N/A
 2. ALL WIRES #19 AWG EXCEPT WHERE NOTED.
 3. WIRE COLOR CODE:
 RED SOLID or STRIPE - 24 Vac CONTROL
 BLUE SOLID or BLUE WITH WHITE OR GRAY STRIPE - 24 Vac NEUTRAL (COMMON)
 BROWN SOLID - 117 Vac POWER
 BLUE WITH BLACK STRIPE - 117 Vac NEUTRAL (COMMON)
 BLACK SOLID - LINE OR LINE TO NEUTRAL VOLTAGE
 YELLOW WITH GREEN STRIPE - SAFETY (EARTH) GROUND
 4. CONNECT LEAD ACCORDING TO LINE-TO-NEUTRAL VOLTAGE.

LEAD	VOLTAGE
RED	220
ORG	230 or 240
 5. LINK NEUTRAL TO EARTH-GROUND ONLY FOR 4-WIRE CONNECTION WITH EARTH-GROUNDED NEUTRAL.
 6. FOR HIGH-POWER CONFIGURATIONS, USE #10 AWG WIRE.

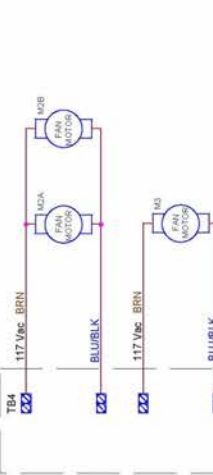
LCI Furnaces
 DIVISION OF LOCHABER CORNWALL, INC.
 675 NORTH BUCHHEFF STREET, BLVD D, ORANGE, CA 92668 USA

REV	DESCRIPTION	DATE	APPROVED	REV	DESCRIPTION	DATE	APPROVED
3	ADDED NOTE 6 & MAKE NEUTRAL BUS #14 AWG	07/20/19	S BARBER	3	SAFETY PANEL, LA-306 (380-415 Vac)	04/01/2013	S BARBER
2	CHANGED F1, F2, F3 VALUES	06/20/13	S BARBER	2		04/01/2013	S BARBER
1	ADDED TB1 AND CHANGED BLUBLK DESTINATION	06/20/13	S BARBER	1		04/01/2013	S BARBER

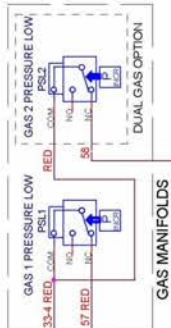
AUTO GAS SHUTOFF
802-101780-01 POWER CONTROL SCHEMATIC
NOTE 2



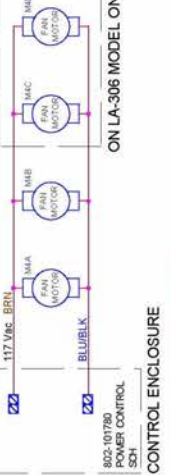
CONTROL ENCLOSURE
CABINET EXHAUST FAN



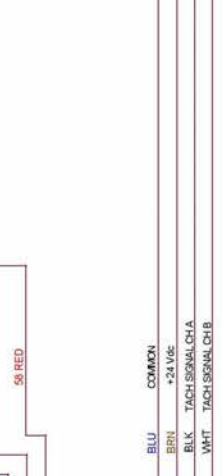
TO ADJUST GAS PRESSURE SWITCH SETPOINT:
CW = RAISES SETPOINT (ALARMS AT HIGHER PRESSURE. REQUIRES MORE PRESSURE TO RELEASE ALARM)
CCW = LOWERS SETPOINT (ALARMS AT LOWER PRESSURE. REQUIRES LOWER PRESSURE TO RELEASE ALARM)



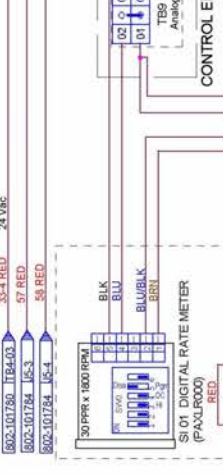
CACT COOLING FANS (NOTE 1)
ON LA-306 MODEL ONLY



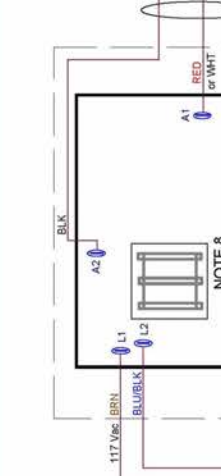
CONTROL ENCLOSURE



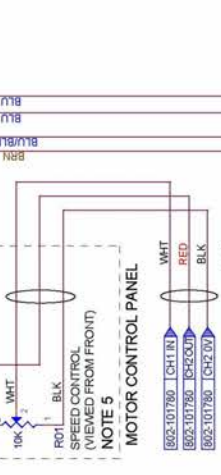
MOTOR CONTROL PANEL



CONTROL ENCLOSURE



MOTOR ENCLOSURE



- NOTES:**
- NUMBER OF FANS MAY VARY.
 - SUPPLIED WITH OPTIONAL EQUIPMENT.
 - ALL WIRES 18 AWG UNLESS OTHERWISE NOTED.
 - ALL MULTI-CONDUCTOR CABLE 22 AWG WIRES.
 - WIRE R01 FOR CW INCREASE IN MOTOR SPEED.
 - INSERT LAMPS IN CORRESPONDING HOLES ON PANEL.
 - REVERSE +ARM AND -ARM FOR PROPER MOTOR ROTATION.
 - SET BOARD JUMPER TO SIGNAL AS SHOWN.
- NOTES (cont.):**
- SET LA-306 MOTOR FOR 120 HP; LA-308P FOR 1.8 HP.
 - SOURCE OF BLU/BLK VARIES:
LA-306 -- 802-101780 / TB4-07
LA-308P -- 802-101780 / K3-8
 - A1 MOTOR CONNECTION COLOR VARIES BY MOTOR.

REV	DESCRIPTION	DATE	APPROVED	DATE	APPROVED	REV	DESCRIPTION	DATE	APPROVED
1	AT MOTOR CONNECTION NOTE 11 ADDED	06/12/16	S BARBER	07/19/2014	S BARBER	1	AT MOTOR CONNECTION NOTE 11 ADDED	06/12/16	S BARBER
2	REVISED FOR RELEASE 03/19/2014					2	REVISED FOR RELEASE 03/19/2014		
3						3			
4						4			
5						5			
6						6			
7						7			
8						8			
9						9			
10						10			
11						11			
12						12			
13						13			
14						14			
15						15			
16						16			
17						17			
18						18			
19						19			
20						20			
21						21			
22						22			
23						23			
24						24			
25						25			
26						26			
27						27			
28						28			
29						29			
30						30			
31						31			
32						32			
33						33			
34						34			
35						35			
36						36			
37						37			
38						38			
39						39			
40						40			
41						41			
42						42			
43						43			
44						44			
45						45			
46						46			
47						47			
48						48			
49						49			
50						50			
51						51			
52						52			
53						53			
54						54			
55						55			
56						56			
57						57			
58						58			
59						59			
60						60			
61						61			
62						62			
63						63			
64						64			
65						65			
66						66			
67						67			
68						68			
69						69			
70						70			
71						71			
72						72			
73						73			
74						74			
75						75			
76						76			
77						77			
78						78			
79						79			
80						80			
81						81			
82						82			
83						83			
84						84			
85						85			
86						86			
87						87			
88						88			
89						89			
90						90			
91						91			
92						92			
93						93			
94						94			
95						95			
96						96			
97						97			
98						98			
99						99			
100						100			

LCI Furnaces
DIVISION OF LOCHABER CORNWALL INC.
675 NORTH ECHOPPE STREET, BLDG D, ORANGE, CA 92668 USA

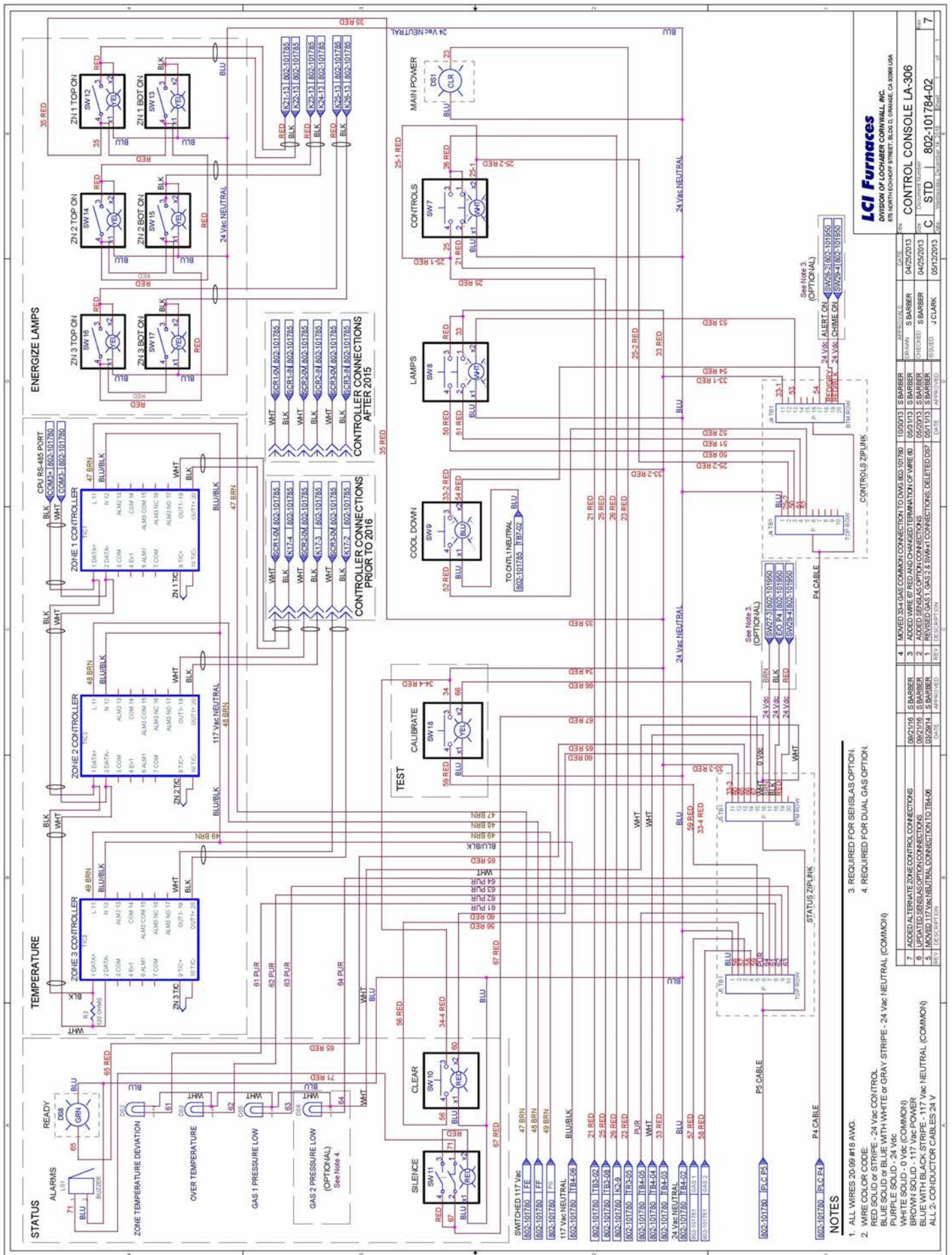
MODEL: LCI LA-306, -309P
DATE: 03/19/2014

DESIGNED: J. CLARK
CHECKED: S. BARBER
DATE: 03/19/2014

APPROVED: S. BARBER
DATE: 06/12/16

REVISED FOR RELEASE 03/19/2014
DATE: 03/19/2014

PLC FRAME WIRING LA-306 & -309P
C STD 802-101781-04



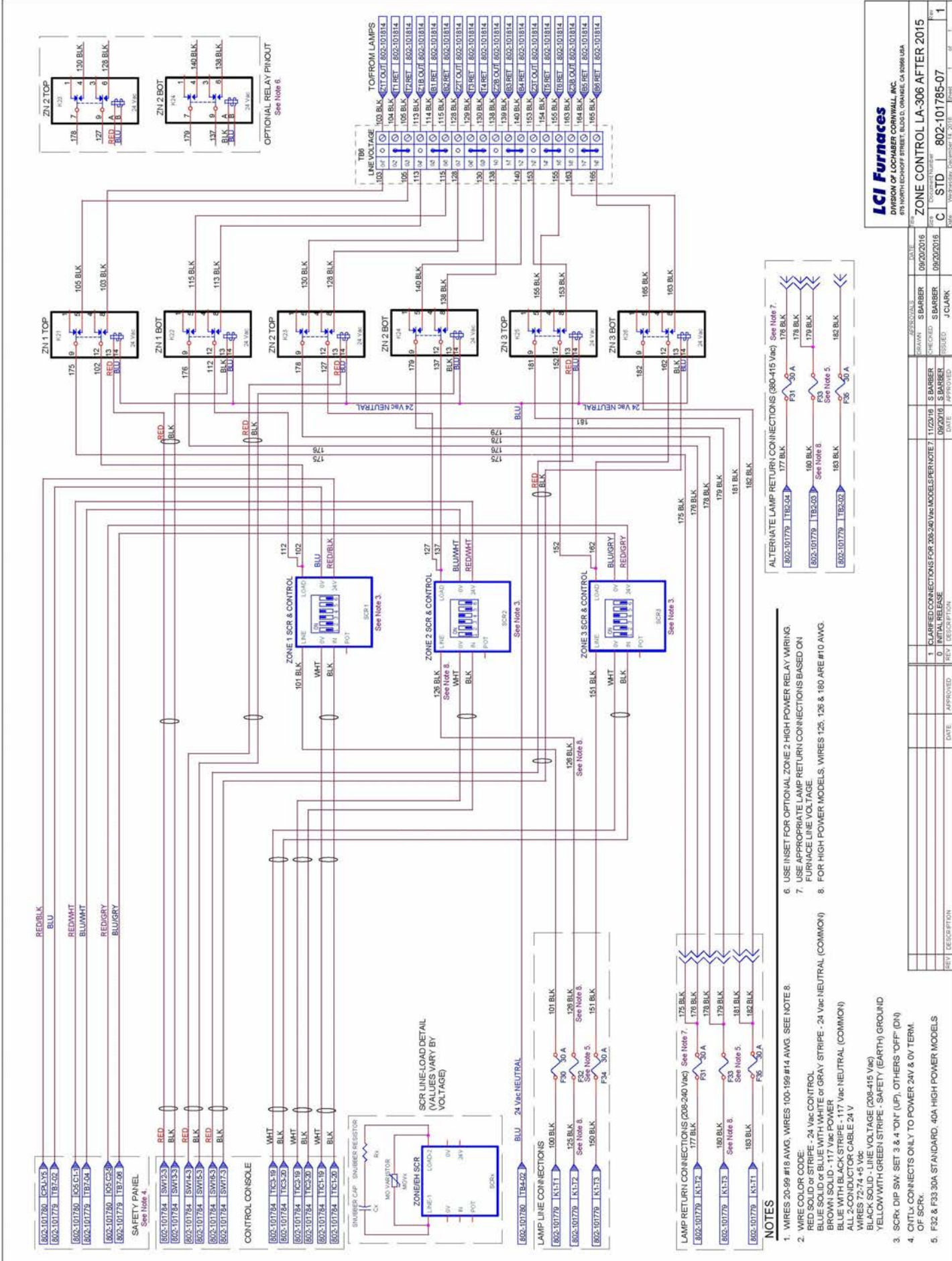
LCI Furnaces
 DIVISION OF LOCHABER CORNWALL INC.
 675 NORTH EDGEMOOR STREET, BLDG D, ORANGE, CA 92668 USA

CONTROL CONSOLE LA-306

NO.	DESCRIPTION	DATE	APPROVED	BY
1	ISSUED	04/25/2013	S BARBER	
2	ADDED SENSAS OPTION CONNECTIONS	04/25/2013	S BARBER	
3	ADDED WIRE #7 RED AND CHANGED TERMINATION OF WIRE #6	05/01/13	S BARBER	
4	MOVED 33-4 GAS COMMON CONNECTION TO DIAG 802-101780	10/20/13	S BARBER	
5	ADDED ALTERNATE ZONE CONTROL CONNECTIONS	09/21/16	S BARBER	
6	UPDATED SENSAS OPTION CONNECTIONS	09/21/16	S BARBER	
7	ADDED ALTERNATE ZONE CONTROL CONNECTIONS	09/21/16	S BARBER	
8	UPDATED SENSAS OPTION CONNECTIONS	09/21/16	S BARBER	
9	MOVED 17 WIRE NEUTRAL CONNECTION TO TB4-6	06/04/17	S BARBER	
10	MOVED 17 WIRE NEUTRAL CONNECTION TO TB4-6	06/04/17	S BARBER	
11	MOVED 17 WIRE NEUTRAL CONNECTION TO TB4-6	06/04/17	S BARBER	
12	MOVED 17 WIRE NEUTRAL CONNECTION TO TB4-6	06/04/17	S BARBER	
13	MOVED 17 WIRE NEUTRAL CONNECTION TO TB4-6	06/04/17	S BARBER	
14	MOVED 17 WIRE NEUTRAL CONNECTION TO TB4-6	06/04/17	S BARBER	
15	MOVED 17 WIRE NEUTRAL CONNECTION TO TB4-6	06/04/17	S BARBER	
16	MOVED 17 WIRE NEUTRAL CONNECTION TO TB4-6	06/04/17	S BARBER	
17	MOVED 17 WIRE NEUTRAL CONNECTION TO TB4-6	06/04/17	S BARBER	

NOTES

- ALL WIRES 20-59 #18 AWG.
- WIRE COLOR CODE:
 RED - 24 VAC CONTROL
 BLUE SOLID OR BLUE WITH WHITE STRIPE - 24 VAC NEUTRAL (COMMON)
 PURPLE SOLID - 24 VAC
 WHITE SOLID - 0 VAC (COMMON)
 BROWN SOLID - 117 VAC POWER
 BLUE WITH BLACK STRIPE - 117 VAC NEUTRAL (COMMON)
 ALL 2- CONDUCTOR CABLES 24 V
- REQUIRED FOR SENSAS OPTION.
- REQUIRED FOR DUAL GAS OPTION.

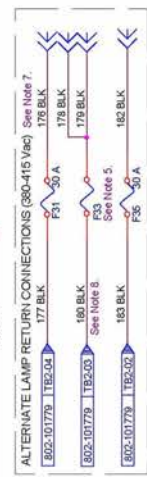


LCI Furnaces
 DIVISION OF LOCHNER CORNWALL INC.
 875 NORTH ECHOFF STREET, BLOOMINGDALE, IL 61702-1015

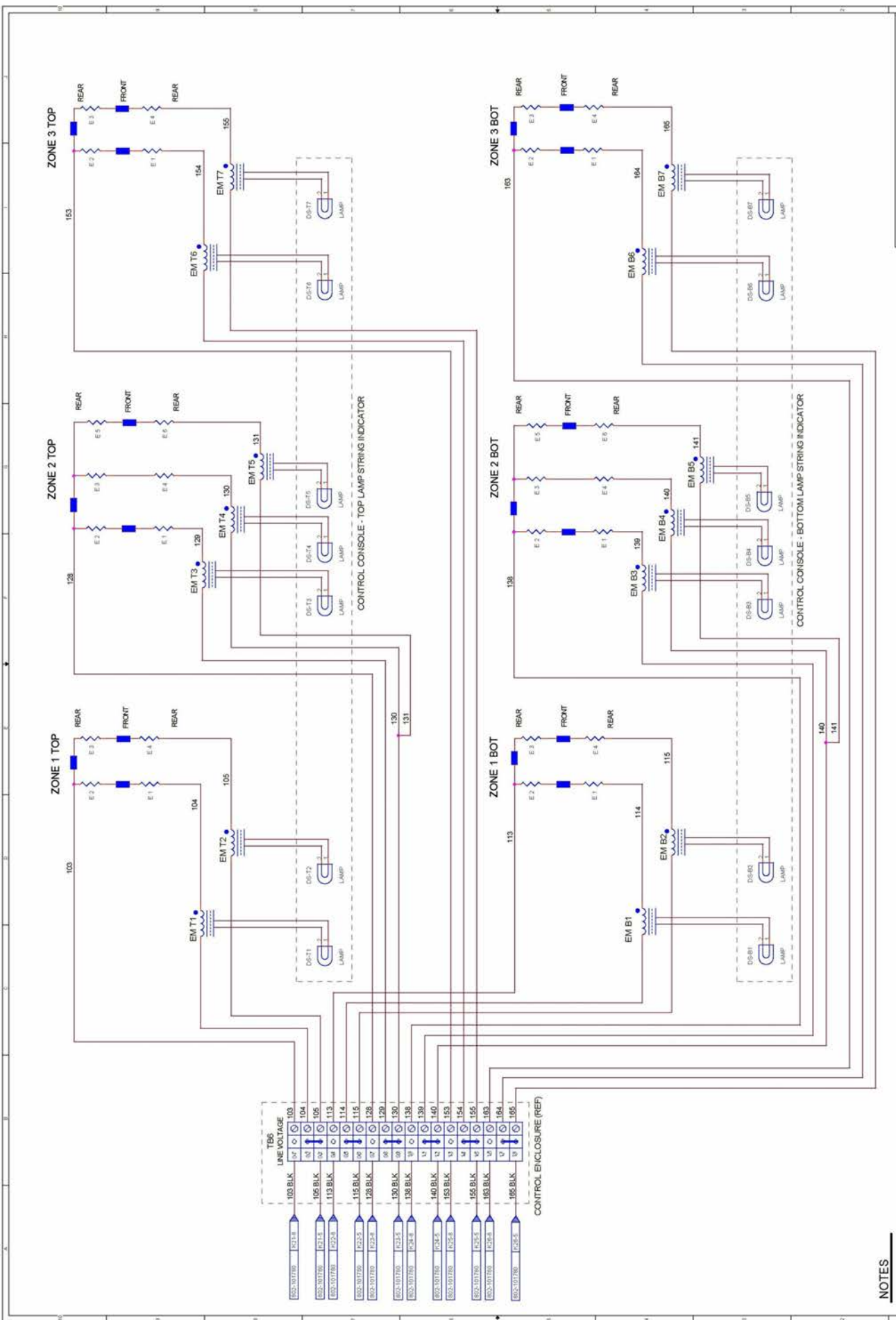
DATE	APPROVALS
09/20/2016	SHAWN S BARBER
09/20/2016	CHECKED S BARBER
09/20/2016	DESIGNED J CLARK

REV	DESCRIPTION	DATE	APPROVED
1	CLARIFIED CONNECTIONS FOR 208-240 VAC MODELS PER NOTE 7	11/23/16	S BARBER
0	INITIAL RELEASE	09/20/16	S BARBER
			DESIGNED
			J CLARK

REV	DESCRIPTION	DATE	APPROVED
1	ZONE CONTROL LA-306 AFTER 2015	09/20/2016	S BARBER
0	INITIAL RELEASE	09/20/2016	S BARBER
			DESIGNED
			J CLARK



- NOTES**
1. WIRES 20-99 #18 AWG, WIRES 100-159 #14 AWG. SEE NOTE 8.
 2. WIRE COLOR CODE:
 RED SOLID or STRIPE - 24 Vac CONTROL
 BLUE SOLID or BLUE WITH WHITE or GRAY STRIPE - 24 Vac NEUTRAL (COMMON)
 BLACK SOLID or BLACK WITH WHITE or GRAY STRIPE - 115 Vac NEUTRAL (COMMON)
 ALL 2-CONDUCTOR CABLE 24 V
 WIRES 72-74 +5 Vdc
 BLACK SOLID - LINE VOLTAGE (208-415 Vac)
 YELLOW WITH GREEN STRIPE - SAFETY (EARTH) GROUND
 3. SCRx DIP SW. SET 3 & 4 "ON" (UP), OTHERS "OFF" (DN)
 4. CNTLY CONNECTS ONLY TO POWER 24V & 0V TERM.
 5. F32 & F33 30A STANDARD, 40A HIGH POWER MODELS



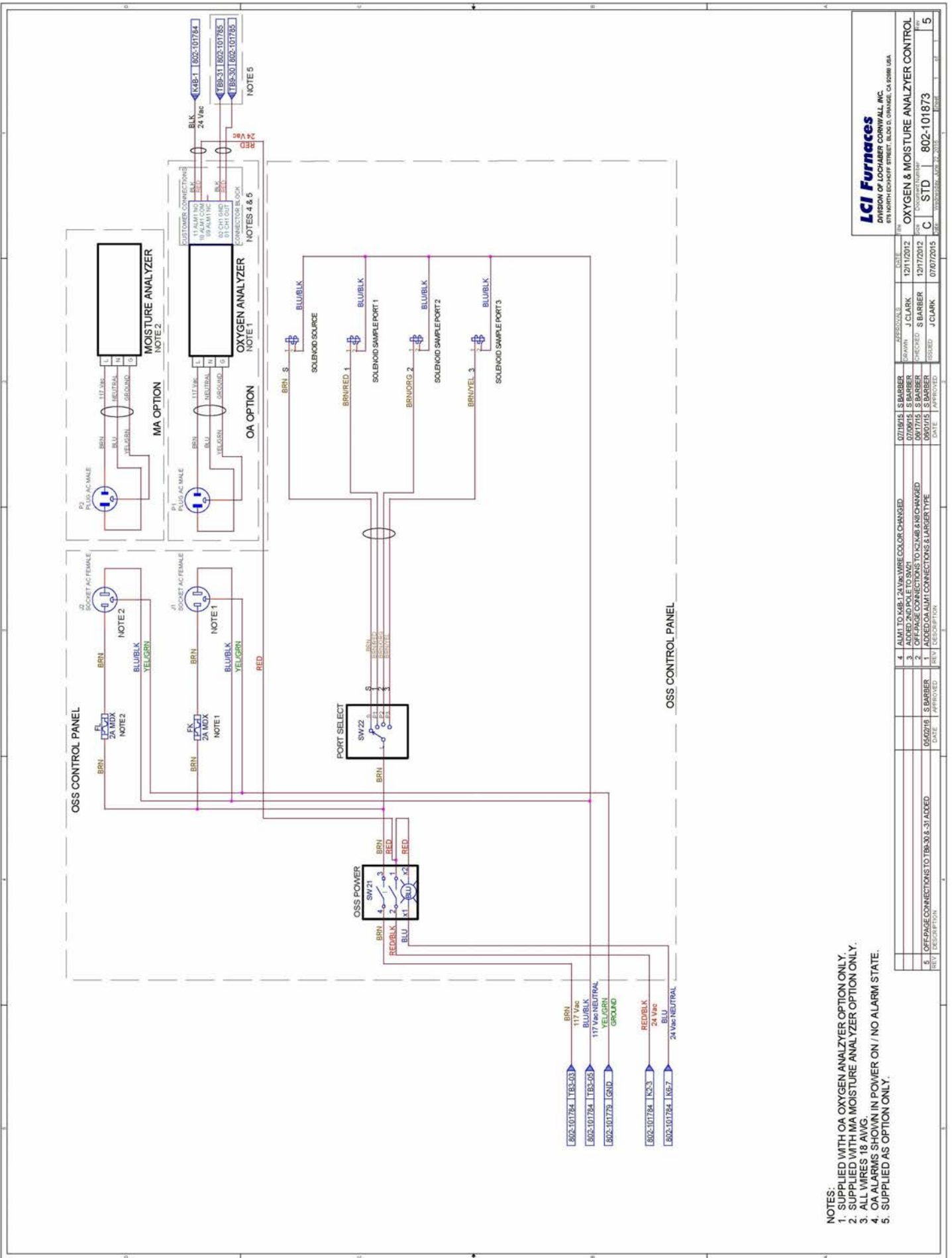
NOTES

- 1. ALL WIRE #14 AWG

LCI Furnaces
 DIVISION OF LOCKHEED CORNWALL INC
 675 NORTH HEDDLEHOF STREET, BLDG D, ORANGE, CA 92668 USA

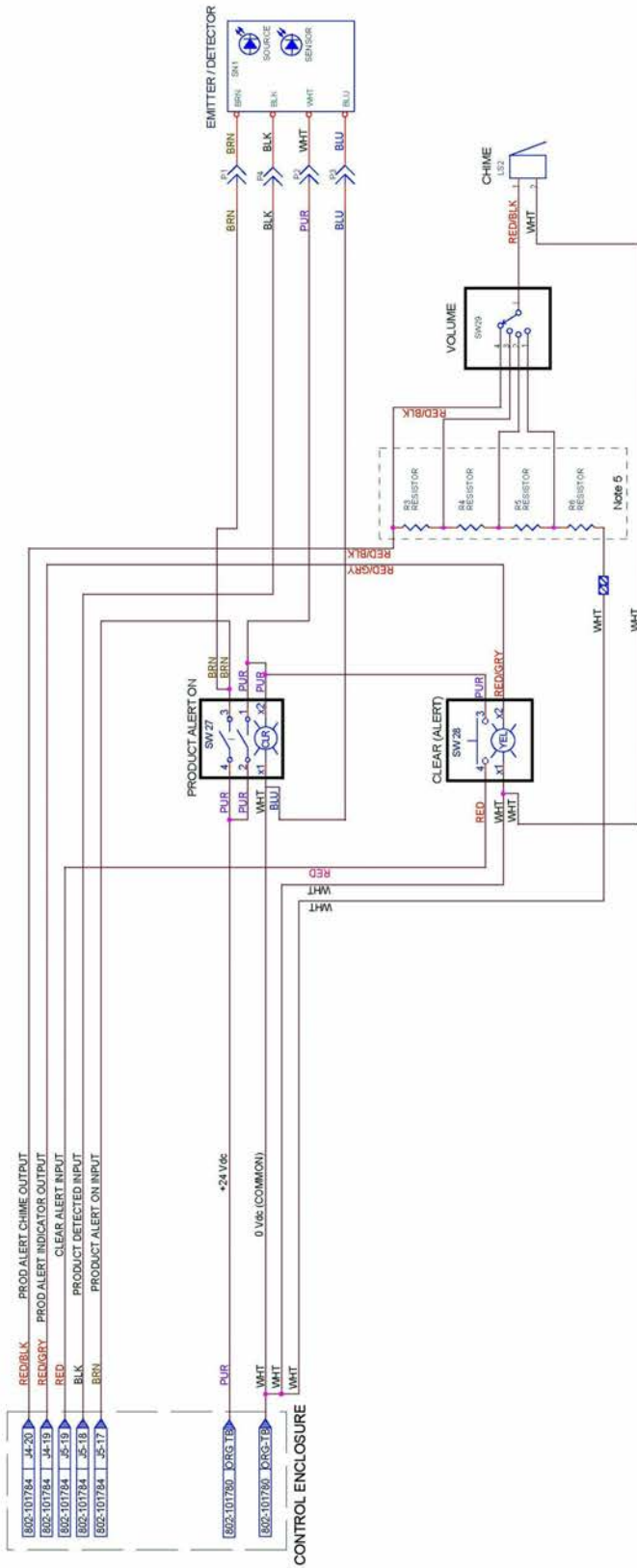
MODEL	LA-306	DATE	07/12/2012
DESIGNED BY	J. CLARK	CHECKED BY	S. BARBER
DATE	07/26/2012	DATE	07/12/2012
REV	DESCRIPTION	REV	DESCRIPTION
3	ZONE 2, NOW 3 LAMP STRINGS	1	CHANGED WIRE NUMBERS ON ZONES
2	CHANGED LAMP FRONT/REAR CONNECTIONS & 802-10780	1	CHANGED WIRE NUMBERS ON ZONES
1		1	

ELEMENT WIRING - HI POWER
 C STD 802-101814-306HP
 3



LCI Furnaces
 DIVISION OF LOCHABER CORNWALL INC.
 678 NORTH EDWARDS STREET, BLDG D, ORANGE, CA 92668 USA

OXYGEN & MOISTURE ANALYZER CONTROL
 C STD 802-101873
 07/07/2015



NOTES

1. SUPPLIED WITH PRODUCT ALERT OPTION ONLY.
2. NOT SUPPLIED ON ALL SYSTEMS
3. ALL WIRES 18 AWG, UNLESS NOTED.
4. WIRE COLOR CODE:
 PURPLE - 24 Vdc
 BLUE - 24 Vdc
 WHITE 0 Vdc (COMMON)
 SN1 EMITTER/DETECTOR CONNECTIONS ONLY:
 BROWN, WHITE + 24 Vdc
 BLACK - 24 Vdc
 BLUE 0 Vdc (COMMON)
5. R3, R4, R5, R6 VALUES
 R3 - 470 OHM, 1 WATT
 R4 - 750 OHM, 1/2 WATT
 R5 - 1600 OHM, 1/4 WATT
 R6 - 6200 OHM, 1/4 WATT

LCI Furnaces
 DIVISION OF LOCHABER CORNWALL INC.
 875 NORTH ECKHOFF STREET, BLDG D, ORANGE, CA 92668 USA

DATE: 06/13/2016
 DRAWN: S BARBER
 CHECKED: J CLARK
 ISSUED: J CLARK

REV: 0
 C STD 802-101950-03
 SENSLAS, LA-306 & -309P w/ PLC

