

ELECTRICAL LOAD ANALYSIS
 El Corazon el Centro Clinic
 Rice & Gardner Consultants, Inc.
 10-20-09

LOAD DESCRIPTION	DESIGN KVA	PHASE A	PHASE C	NEUTRAL N
10-20-09				
USE - TOTAL	6149 sq.ft.			
OFFICE	3826 sq.ft. 3.0 Watt/sq.ft.			
CORRIDORS	1398 sq.ft. 0.5 Watt/sq.ft.			
WAITING ROOM	925 sq.ft. 1.0 Watt/sq.ft.			

LOAD DESCRIPTION	DESIGN KVA	PHASE A	PHASE C	NEUTRAL N
LIGHTS, CONNECTED	7.57 KW			
+25%	1.89 KW			
LIGHTS, PER CODE	15.10 KW	63	63	63
OFFICE	11.48 KW			
CORRIDOR	0.70 KW			
WAITING ROOM	0.93 KW			
EXTERIOR	2.00 KW			
RECEPTACLES	24.90 KW	104	104	104
AIR CONDITIONING	35.52 KW	148	148	0
FANS	0.25 HP	1	1	0
HEATING	31.60 KW	31.60	NON-COINCIDENT	
WATER HEATING	15.00 KW	63	63	0
KITCHEN	6.60 KW @ 100% 3.30 KW	16	16	0
25% OF LARGEST MOTOR		3	3	0

TOTAL LOAD 397 AMPS

EXISTING CAPACITY 460 AMPS

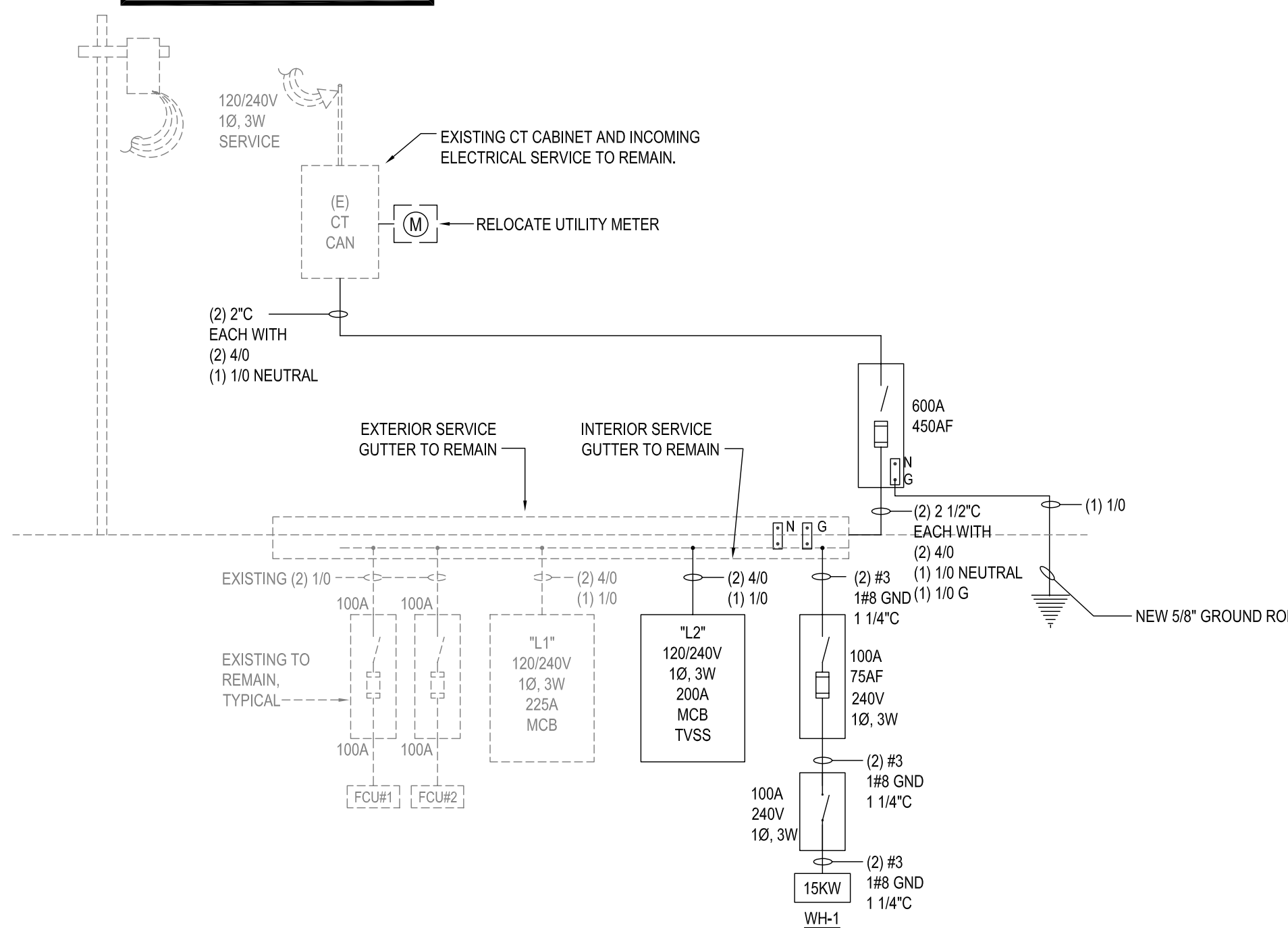
SPARE CAPACITY 63 AMPS

POWER LOAD PER AREA 16 W/sq.ft.

SERVICE PHASE CONDUCTORS (2 SETS OF 4/0) RATED FOR 460 AMPS AND NEUTRAL CONDUCTORS (2 SETS OF 1/0) RATED FOR 300 AMPS.

KITCHEN EQUIPMENT:
240V/1φ OVEN

NOTE:
COORDINATE SHUT DOWN OF SERVICE WITH CENTERPOINT ENERGY PRIOR TO NEW WORK.



NOTE:
LIGHTER DASHED LINEWEIGHT INDICATES EXISTING TO REMAIN, DARKER SOLID LINE WEIGHT INDICATES NEW WORK AND NEW EQUIPMENT UNLESS NOTED OTHERWISE.

1 NEW ONE-LINE DIAGRAM
Scale: NONE

EXISTING PANEL L1 SERVICE 120/240/1PH3W 100% SOLID NEUTRAL 22,000 AIC BREAKERS SURFACE, BOLT ON BREAKERS

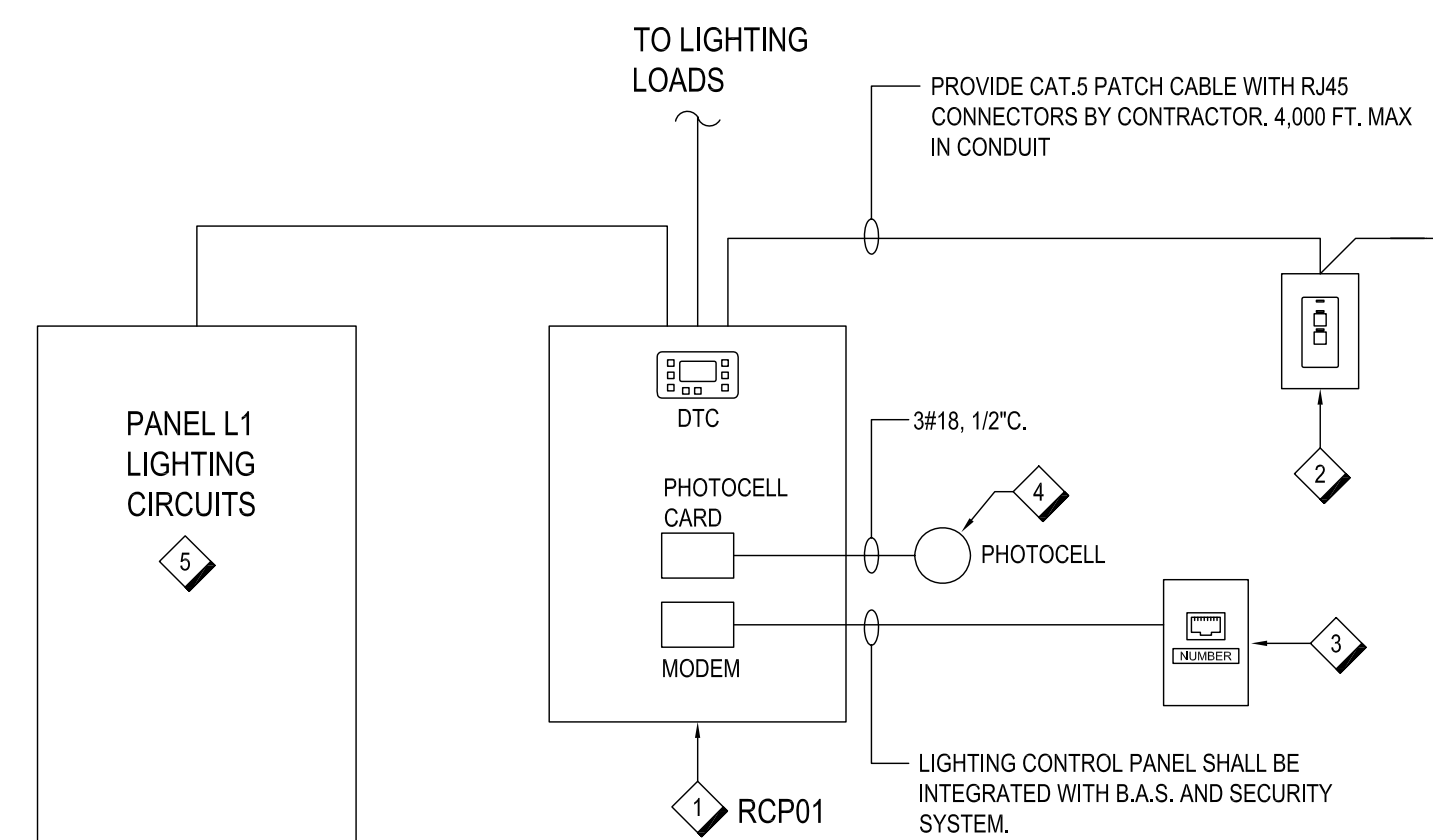
VOLTS	SERVING	WIRE SIZE	BRKR	POLES	CCT	A	C	CCT	POLES	BRKR	WIRE SIZE	SERVING	VOLTS
3900	(N) RTU-1	6	50	2	1	4710		2	1	20	10	(N) ROOF REC	720
3900		6	50	2	3		4090	4	1	20	12	(N) FIRE ALARM	100
3200	(N) RTU-4	8	45	2	7	7270		6	2	50	6	(N) RTU-6	3900
3200		8	45	2	9		3280	10			6	SPACE	3900
3200	(N) RTU-5	8	45	2	11		3280	12				SPACE	
3200		8	45	2	13	0		14	2	20		SPACE	
1610	(E) ACCU-1	10	30	2	15		3220	16	2	30	#10	(E) ACCU-2	1610
1610		10	30	2	17	3220		18			#10	SPACE	1610
	SPACE				19		0	20	1	20		SPACE	
	SPACE				21	782		22	1	20	12	(N) LIGHTING	782
484	(N) EF-1,2,3,4,LTG	12	20	1	23		2196	24	1	20	12	(N) LIGHTING	1712
500	(N) LIGHTING	12	20	1	25	1528		26	1	20	12	(N) LIGHTING	1028
221	(N) EF-5&6	12	20	1	27		1181	28	1	20	12	(N) LIGHTING	960
100	(N) CIRC. PUMP	12	20	1	29	1188		30	1	20	12	(N) LIGHTING	1088
	SPACE				31		1000	32	1	20	12	(N) EXT LIGHTING	1000
	SPACE				33	1000		34	1	20	12	(N) EXT LIGHTING	1000
	SPACE				35		100	36	1	20	12	(N) EXIT/EMER LGT	100
	SPACE				37	0		38				SPACE	
	SPACE				39	0		40				SPACE	
	SPACE				41	0		42				SPACE	
PHASE TOTAL						22978							
PHASE AMPS						191							186

1. CIRCUITS: 22, 24, 26, 28, 30, AND 23 SHALL BE INTERFACED WITH RELAY CONTROL PANEL RCP01. REFER TO DETAIL THIS SHEET.

NEW PANEL L2 SERVICE 120/240/1PH3W 100% SOLID NEUTRAL 22,000 AIC BREAKERS SURFACE, BOLT ON BREAKERS

VOLTS	SERVING	WIRE SIZE	BRKR	POLES	CCT	A	C	CCT	POLES	BRKR	WIRE SIZE	SERVING	VOLTS
1400	4 PC	#12	20	1	1	1580		2	1	20	#12	DEDICATED CIRC.	180
720	4 REC	#12	20	1	3		1260	4	1	20	#12	3 REC	540
1400	4 PC	#12	20	1	5	1940		6	1	20	#12	DEDICATED CIRC.	180
1400	4 PC	#12	20	1	7		2480	8	1	30	#12	3 REC	540
360	2 REC	#12	20	1	9	1060		10	1	20	#12	DEDICATED CIRC.	180
540	3 REC	#12	20	1	11		1620	12	1	20	#12	6 REC	1080
540	3 REC	#12	20	1	13	890		14	1	20	#12	2 PC	700
1400	4 PC	#12	20	1	15		1750	16	1	20	#12	6 REC	1080
900	MICROWAVE	#12	20	1	17	1250		18	1	20	#12	SERVER	350
1080	6 REC	#12	20	1	19		1780	20	1	20	#12	SERVER	350
1400	4 PC	#12	20	1	21	900		22	1	20	#12	5 REC	900
1400	4 PC	#12	20	1	23		2100	24	1	30	#12	2 PC	700
1260	7 REC	#12	20	1	25	1560		26	1	20	#12	TV	300
	SPACE				27		900	28	1	20	#12	5 REC	900
1400	4 PC	#12	20	1	29	2300		30	1	20	#12	4 REC	900
250	EDF	#12	20	1	31		3550	32	2	40	#8	OVEN	3300
180	DEDICATED CIRC.	#12	20	1	33	3480		34			#8		3300
600	REFRIG.	#12	20	1	35		600	36	1	20		SPACE	
180	DEDICATED CIRC.	#12	20	1	37	180		38	1	20		SPACE	
350	SERVER	#12	20	1	39		350	40	1	20		SPACE	
720	4 REC	#12	20	1	41	720		42	1	20		SPACE	
PHASE TOTAL						15860							16390
PHASE AMPS						132							137

NOTES:
1. INCREASE CONDUCTORS ONE WIRE SIZE FOR EVERY 80 FT. RUN.
2. FIELD VERIFY EQUIPMENT LOADS.



RELAY CONTROL DIAGRAM KEYED NOTES

- RELAY CONTROL PANEL WITH INTEGRAL TIME CLOCK AND MODEM. LIGHTING CONTROL AND DESIGN - BLUE BOX MODEL# GR1408L7/8. SHALL BE LOCATED ADJACENT TO THE ELECTRICAL ROOM. PROVIDE 4 HOUR BACKUP.
- LOW VOLTAGE DIGITAL SWITCH "A". LIGHTING CONTROL AND DESIGN MODEL# CHELSEA-CH-2-WH-WH (2-BUTTON CONTROL). WIRE SWITCH FOR MANUAL ON/OFF CONTROL OF ENTIRE RELAY CONTROL RCP01. VERIFY LOCATION WITH ARCHITECT.
- PROVIDE AND INSTALL ANALOG TELEPHONE JACK TO BE MOUNTED WITHIN 12" OF PANEL AND TO BE CONNECTED TO RELAY PANEL'S MODEM. LABEL WITH EXTENSION NUMBER USING ENGRAVED, RIVETED PLASTIC LABEL.
- PROVIDE PHOTOCELL FOR EXTERIOR LIGHTING. CONTROL AND MOUNT TO EXTERIOR OF BUILDING.
- CONNECT LIGHTING CIRCUITS FROM PANEL H1 TO LIGHTING CONTROL PANEL USING #12 THHN CU CONDUCTORS.

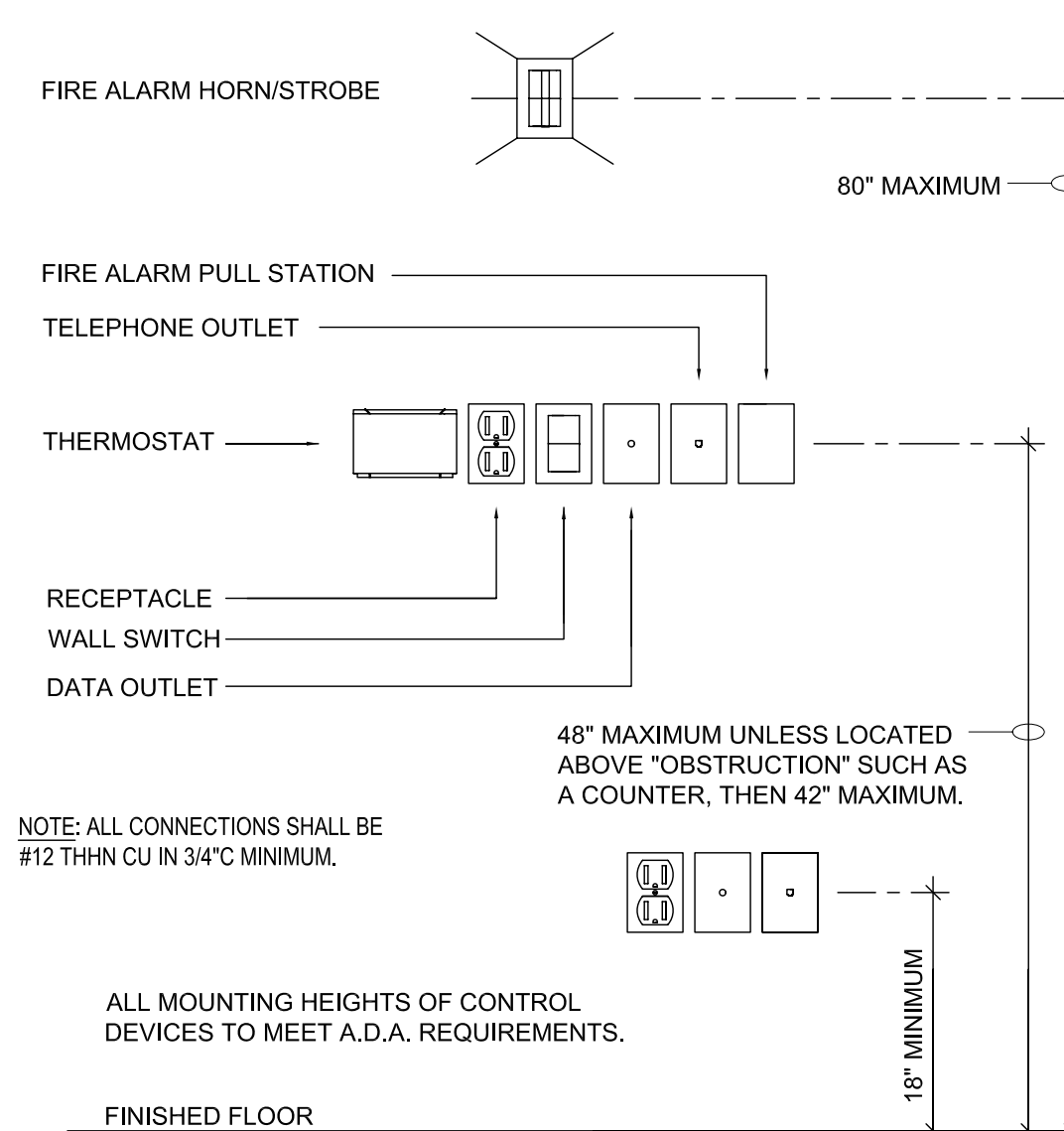
2 RELAY CONTROL DIAGRAM
Scale: NONE

RELAY CONTROL PANEL RCP01

RELAY #	DESCRIPTION	SERVED FROM	
		PANEL	CKT #
1	LIGHTING	L1	10
2	LIGHTING	L1	12
3	EXTERIOR LIGHTING	L1	20
4	EXTERIOR LIGHTING	L1	22
5	LIGHTING/EXHAUST FANS	L1	23
6	UNDER CABINET LIGHTING	L1	25
7	SPARE	-	-
8	SPARE	-	-

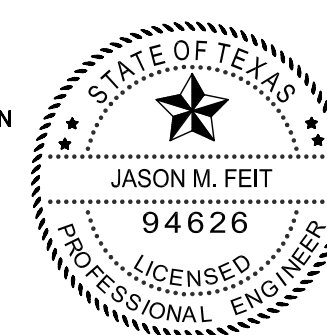
LOW VOLTAGE DIGITAL SWITCH "A"

BUTTON	ZONE	DESCRIPTION
1	1	ALL ON
2	2	ALL OFF



3 ADA MOUNTING HEIGHTS
Scale: NONE

THIS DOCUMENT HAS BEEN REPRODUCED ELECTRONICALLY AT THE REQUEST OF EL CENTRO DE CORAZÓN CANAL ST. FOR REFERENCE USE ONLY. THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JASON M. FEIT, P.E. 94626 ON 19 NOV 2009. TO RECEIVE REPRODUCTIONS OF THE ORIGINAL SIGNED AND SEALED CONSTRUCTION DRAWINGS (DATED 18 NOV 2009) PLEASE CONTACT THE ENGINEER OF RECORD AT THE ADDRESS SHOWN BELOW. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

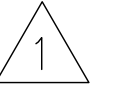


RICE & GARDNER CONSULTANTS INC.
TX PE FIRM F-9057



RICE & GARDNER CONSULTANTS, INC.
6161 Savoy Drive, Suite 1212
Houston, TX. 77036
713.482.2300 tel
713.482.2314 fax

REVISIONS
NOVEMBER 18, 2009



EL CENTRO DE CORAZÓN CANAL ST.
7635 CANAL ST.
HOUSTON, TEXAS 77012

100% CONSTRUCTION DOCUMENTS

deborah morris studios
2101 Winter Street, Studio 7
Houston, Texas 77007
713 868 2231

PROJECT ISSUED FOR PERMIT
OCTOBER 20, 2009
TITLE
SCHEDULES ONE-LINE
SHEET

E-4