

**ELECTRICAL ONE-LINE DIAGRAM** 

## ONE-LINE KEY NOTES

**LEGEND** 

1 EXISTING BUILDING GROUNDING ELECTRODE SYSTEM. PROVIDE JUNCTION BOX WITH POLARIS TAPS ABOVE CEILING, INTERCEPT AND EXTEND EXISTING CONDUCTORS TO NEW PANEL LOCATION AND CONNECT FOR OPERATION.

	MAIN LIGHTING CONTROL PANEL SCHEDULE											
PAN	PANEL SCHEDULE PANEL MFG LIGHTING CONTROL & DESIGN PANEL SIZE LC&D BLUE BOX MODEL "GR1408 LT" SERIES PANEL NAME LCP-A LOCATION BACK OF HOUSE											
LOAD CIRCUITS CIRCUIT												
CKT	NOTES	RELAY TYPE	PANEL	BRKR								
1	LIGHTING KENNEL, CAT CONDOS	NCL	3199	1								
2	LIGHTING KENNEL	NCL	3199	3								
3	LIGHTING KENNEL RECEPTIONIST	NCL	3199	5								
4	LIGHTING STORAGE, DOG PLAY RETAIL	NCL	3199	7								
5	LIGHTING STORAGE, DOG PLAY RETAIL	NCL	3199	15								
6	LIGHTING STORAGE, DOG PLAY RETAIL	NCL	3199	17								
7	LIGHTING DOG PLAY	NCL	3199	22								
8	TENANT SIGN	NCL	3199	23								

					SCH	<u>IEDU</u>	LE C	OF SE	ERVICE DISTRIBUTI	ON W	<u>IREW</u>	<u>4Y</u>	
	INGLE TH	ROW, FUSI	BLE SA	FETY SWIT	гсн					vo	LTAGE: 2	.08/120V <b>,</b>	3ø, 4 WIRE
FRAME	TRIP	POLE								Al	C SYMM: 1	00,000	
800	800	3											
								DI	STRIBUTION SECTION				
DESIGNATIO	ON	DESCRIPTIO	N	AMPERE	METER VOLTAGE	Т	YPE "HD		FEEDER	A PHASE	B PHASE KVA	C PHASE KVA	NOTES
DS-1	PAN	EL '3199'		RATING 200	208/120 VOLT 3ø, 4W	FRAME 200	FUSE 200	POLES 3	4#3/0, 1#2/0G IN 2-1/2°C	16.1	17.3	16.1	_
DS-2	PAN	EL '3197'		200	208/120 VOLT 3ø, 4W	200	200	3	4#3/0, 1#2/0G IN 2-1/2"C	15.9	16.8	18.4	_
DS-3	PAN	EL '3195'		100	208/120 VOLT 3ø, 4W	100	100	3	4#3, 1#3G IN 2-1/2"C	7.3	2.9	3.2	_
DS-4		EL '3193'		100	208/120 VOLT 3ø, 4W	100	100	3	4#3, 1#3G IN 2-1/2°C	10.1	9.2	9.8	_
DS-5		EL '3191'		100	208/120 VOLT 3ø, 4W	100	100	3	4#3, 1#3G IN 2-1/2°C	9.4	9.6	9.6	-
DS-6		EL '3189'		100	208/120 VOLT 3ø, 4W	100	100	3	EXISTING	6.0	6.0	6.0	-
DS-7	PAN	EL 'HOUSE'		200	208/120 VOLT 3ø, 4W	200	200	3	EXISTING	12.0	12.0	12.0	_
									KVA PER PHASE AMPS PER PHASE	82.8 690	81.2 677	80.9 674	
									TOTAL KVA		244.9	•	

## SATELLITE LIGHTING CONTROL PANEL SCHEDULE PANEL SCHEDULE PANEL MFG LIGHTING CONTROL & DESIGN PANEL SIZE LC&D BLUE BOX MODEL "GR1408 LT" SERIES PANEL NAME LCP-B LOCATION BACK OF HOUSE LOAD CIRCUITS CIRCUIT PANEL 9 LIGHTING - WASH AREA NCL NCL 10 LIGHTING - WASH AREA 3193 11 LIGHTING - WASH AREA 21 12 LIGHTING - DOG PLAY AREA NCL 3193 23 13 LIGHTING - CORRIDOR NCL 14 LIGHTING - RETAIL/RECEPTION NCL 3199 15 SPARE NCL NCL 16 SPARE

MAIN: S SPEC: E		ROW, FUSIE	BLE SAFET	IY SWIIC	H					\	OLTAGE: 20	08/120V,	3ø, 4 WIRE
FRAME	TRIP	POLE									AIC SYMM: 10	00,000	
800	800	3											
								DK	STRIBUTION SECTION				
ESIGNATIO	ON C	ESCRIPTIO	N A	MPERE I	METER		SAFETY	SWITCH	FEEDER		SEB PHASE		NOTES
				RATING	VOLTAGE	FRAME	FUSE	POLES		KVA	KVA	KVA	
DS-1	PANE	<sub>-</sub> '3199'			208/120 VOLT 3ø, 4W	200	200	3	4#3/0, 1#2/0G IN 2-1/2°C	16.1	17.3	16.1	-
DS-2	PANE	<sub>-</sub> '3197'		200	208/120 VOLT 3ø, 4W	200	200	3	4#3/0, 1#2/0G IN 2-1/2°C	15.9	16.8	18.4	_
DS-3	PANE	<sub>-</sub> '3195'		100	208/120 VOLT 3ø, 4W	100	100	3	4#3, 1#3G IN 2-1/2°C	7.3	2.9	3.2	-
DS-4	PANE	<sub>-</sub> '3193'		100	208/120 VOLT 3ø, 4W	100	100	3	4#3, 1#3G IN 2-1/2°C	10.1	9.2	9.8	-
DS-5	PANE	<sub>-</sub> '3191'		100	208/120 VOLT 3ø, 4W	100	100	3	4#3, 1#3G IN 2-1/2°C	9.4	9.6	9.6	_
DS-6	PANE	<sub>-</sub> '3189'		100	208/120 VOLT 3ø, 4W	100	100	3	EXISTING	6.0	6.0	6.0	_
DS-7	PANE	- 'HOUSE'		200	208/120 VOLT 3ø, 4W	200	200	3	EXISTING	12.0	12.0	12.0	_
									KVA PER PHASE	82.8	81.2	80.9	
								İ	AMPS PER PHASE	690		674	
								[	TOTAL KVA		244.9		

NOTES FOR BRANCH CIRCUIT PANELS	<u>}</u>
1 EXISTING BRANCH CIRCUIT AND CIRCUIT	

- 2 PROVIDE NEW BRANCH CIRCUIT AND CONNECT TO EXISTING SPARE BREAKER AS INDICATED.
- PROVIDE NEW CIRCUIT BREAKER AS INDICATED, INSTALL IN EXISTING SPACE IN PANEL AND CONNECT NEW BRANCH CIRCUIT FOR OPERATION.
- 4 REMOVE EXISTING SPARE BREAKER, PROVIDE NEW CIRCUIT BREAKER AS INDICATED, INSTALL IN SPACE IN PANEL AND CONNECT NEW BRANCH CIRCUIT FOR OPERATION.

SCHEDULE	<b>E</b> C	F	BR	AN	C	H CII	RCUI	T PA	\N	EL	. "3	199	)"(E	XISTING)
MAIN: 200 AMP MAIN LUGS SPEC: EXISTING	SONLY										VOLTA	\GE:	208/12	OV, 3ø, 4 WIRE
MOUNTING: SURFACE											AIC S	YMM:	<b>EXISTIN</b>	GN 10,000
DESCRIPTION	WIRE	GND.	COND.	TRIP	СКТ.	A PHASE KVA	B PHASE KVA	C PHASE KVA	скт.	TRIP	COND.	GND.	WIRE	DESCRIPTION
LTG. KENNEL, CAT CONDOS (2)	2#12	1#12	3/4"	20	1	1.3 0.8			2	20	3/4"	1#12	2#12	GENERAL REC. KENNEL (
LTG. KENNEL (2	2#12	1#12	3/4"	20	3		1.3 0.4		4	20	3/4"	1#12	2#12	GENERAL REC. KENNEL ( GENERAL REC. KENNEL (
LTG. KENNEL, RECIONIST (2)	2#12	1#12	3/4"	20	5			1.3 0.8	6	20	3/4"	1#12	2#12	GENERAL REC. KENNEL (
LTG. STORAGE, DOG P, RETAIL (2)		1#12	3/4"	20	7	1.3 -			8	60/	1	-	T	
		T		30/	9				10		_	_	-	SPARE
SPARE	-	-	_		11				12	/3				
				/3	13	- 0.6			14	20	3/4"	1#12	2#12	REC. OFFICE (
LTG. STORAGE, DOG P, RETAIL (2)	2#12	1#12	3/4"	20	15		1.3 0.4		16	20	3/4"	1#12	2#12	REC. OFFICE  REC. CAT CONDOS  REC. RECIONIST  (
LTG. STORAGE, DOG P, RETAIL (2)	2#12	1#12	3/4"	20	17			1.3 0.6	18	20	3/4"	1#12	2#12	REC. RECIONIST (
'LCP-A' (2	2#12	1#12	3/4"	20	19	0.2 0.6			20	20	3/4"	1#12	2#12	REC. STORE FRONT LTG_DOG_PLAY (
LTG. RETAIL/RECEPTION (2)	2#12	1#12	3/4"	20	21		1.3 1.3		22	20_	3/4"	1#12	2#12	LTG_DOG_PLAY(
TENANT SIGN (2	2#12	1#12	3/4"	20	23			1.6 10.5	24(	125/	1-1/2"	1#6	3#1	
EF-1 (4	2#12	1#12	3/4"	20/	25	0.8 10.5			26(					OARTU-2 )
				/2	27		0.8 10.5		28(	/3				)
NOTE: MULTI-WIRE BRANCH CIRCL					U OF	16.1	17.3	16.1	KVA	PER	PHASE			
THE SINGLE POLE BRANCH CIRCUI						134	144	134	AMP	S PER	PHASE			/1\
MULTI-POLE BREAKERS FOR ALL							49.5		TOT	AL KVA	1		]	
REQUIRED BY THE NATIONAL ELEC NEUTRAL FOR ALL SINGLE POLE E													-	

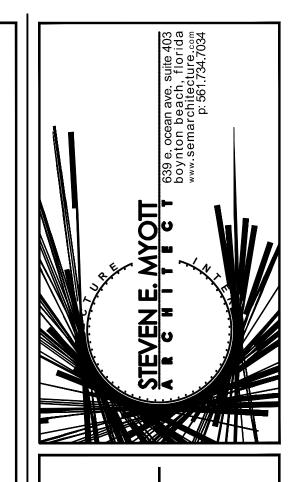
MAIN: 200 AMP MAIN	LUCC	ONII V										VOL TA	OF	008 /10	OV 74 4 MIDE
SPEC: EXISTING	LUGS	UNLT										VOLTA	IGE:	200/12	OV, 3ø, 4 WIRE
MOUNTING: SURFACE												AIC S	YMM:	EXISTIN	G 10,000
DESCRIPTION		WIRE	GND.	COND.	TRIP	скт.	A PHASE KVA	B PHASE KVA	C PHASE KVA	скт.	TRIP	COND.	GND.	WIRE	DESCRIPTION
SPARE		_	_	_	20	1	- 1.2			2	20	3/4"	1#12	2#12	REC. DOG PLAY AREA (
GEN.REC. KITCHEN AREA	(2)	2#12	1#12	3/4"	20	3		0.8 1.0		4	20	3/4"	1#12	2#12	REFRIGERATOR KITCHEN AREA (
REC. STORE FRONT	(2)	2#12	1#12	3/4"	20	5			0.6 1.6	6	20	3/4"	1#12	2#12	REC. O.C.
REC. STORE FRONT	2	2#12	1#12	3/4"	20	7	0.6 –			8	60/				
					40/	9				10		-	_	–	SPARE
SPARE		-	_	_		11				12	/ 3				
					/ 3	13	<b>– 1.6</b>			14	20	3/4"	1#12	2#12	REC. O.C.
FLOOR REC.	(2)	2#12	1#12	3/4"	20	15		0.4 1.6		16	20	3/4"	1#12	2#12	REC. O.C.
SPARE		-	_	-	20	17			<b>–</b> 1.6	18	20	3/4"	1#12	2#12	REC. O.C.
ROOFTOP RECEPTACLES	(2)	2#12	1#12	3/4"	20	19	0.4 -			20	30	-	_	_	SPARE
SPARE		-	_	_	20	21		_   _		22	30	_	_		SPARE
WASHER	(2)	2#12	1#12	3/4"	20	23			1.6   -	24	<u>~~</u>		~~	حقم	SPACE
DRYER	(2)	2#12	1#12	3/4"	20	25	1.6   10.5			26(	125/	1-1/2"	1#6	3#1	) (
WATER HEATER	વ	-	_	_	30/	27		2.5   10.5		28(					OARTU-1 )
					/2	29			2.5   10.5			لحجا			)
NOTE: MULTI-WRE BRANCH CIRCUITS ARE ACCEPTABLE IN LIEU OF 15.9 16.8 18.4 KVA PER PHASE															
THE SINGLE POLE BRANCH CIRCUITS INDICATED. PROVIDE  133   140   153   AMPS PER PHASE  MULTI-POLE BREAKERS FOR ALL MULTI-WIRE BRANCH CIRCUITS AS  1															

<u>SCHEDULI</u>	<u> </u>	)F	BR.	<u>AN</u>	C	H CI	<u>RCU</u>	T PA	<u>/N</u>	EL	<u>"3</u>	<u> 195</u>	5"(E	XISTING)	
MAIN: 150 AMP MAIN LUGS SPEC: EXISTING MOUNTING: SURFACE	S ONLY										VOLTA		•	OV, 3ø, 4 WIRE G 10,000	
DESCRIPTION	WIRE	GND.	COND.	TRIP	скт.	A PHASE KVA	B PHASE KVA	C PHASE KVA	скт.	TRIP	COND.	GND.	WIRE	DESCRIPTION	
CHANDELIER KENNEL (2	2#12	1#12	3/4"	20	1	1.6 -			2	20	_	_	_	SPARE	
LTG. CORRIDOR (3			3/4"	20	3		0.4 -	<b>—</b>	4	20	_	_	_	SPARE	
CHANDELIER KENNEL (2			3/4"	20	5			1.6 -	6	20	_	_	_	SPARE	
CHANDELIER KENNEL (2			3/4"	20	7	1.6 -		l —	8	40/	_	_	-	SPARE	
SPARE	<u> </u>		<b>-</b>	50/	9		-   -	l —	10	/2					
				/2	11			- 1 -	12	20	-	_	-	SPARE	
WATER HEATER (1	2#8	1#10	3/4"	30/	13	2.5 -			14	20	_	_	-	SPARE	
٦	1 "	"	'	/2	15		2.5 -		16	20	_	_	-	SPARE	
CHANDELIER KENNEL (2	2#12	1#12	3/4"	20	17			1.6 -	18	20	_	_	_	SPARE	
CHANDELIER KENNEL (2				30	19	1.6 -		l ——	20	20	_	_	_	SPARE	
SPARE	<u>"-</u>	<u> </u>	<b>–</b>	30	21		-   -		22	35/	-	-	-	SPARE	
SPARE	<b>–</b>	_	_	30	23			- 1 -	24	/2					
NOTE: MULTI-WIRE BRANCH CIRC	UITS AR	E ACCE	PTABLE	IN LIEU	J OF	7.3	2.9	3.2	KVA	PER F	HASE				
THE SINGLE POLE BRANCH CIRCU	–– .			_		61	24	27	AMF	S PER	PHASE		1		
MULTI-POLE BREAKERS FOR ALL							13.4	•		AL KVA			1		
REQUIRED BY THE NATIONAL ELECTION NEUTRAL FOR ALL SINGLE POLE (													•		

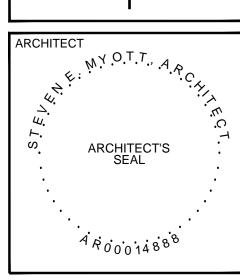
SCHEDULE	<b>∃</b> C	F	BR	AN	C	H CII	RCUI	T PA	/N	EL	. "3	193	3"(E	XISTING)
MAIN: 100 AMP MAIN LUGS SPEC: EXISTING MOUNTING: SURFACE	ONLY										VOLTA	VMM:	•	OV, 3ø, 4 WIRE
DESCRIPTION	WIRE	GND.	COND.	TRIP	скт.	A PHASE KVA	B PHASE KVA	C PHASE KVA	скт.	TRIP	COND.	GND.	WIRE	DESCRIPTION
GENERAL REC. (2)	2#12	1#12	3/4"	20	1	0.4 0.8			2	20	3/4"	1#12	2#12	REC. STORAGE (2
DEDICATED REC. DRY AREA (2)	2#12	1#12	3/4"	20	3		1.6 0.6		4	20	3/4"	1#12	2#12	REC. OFFICE (2
DEDICATED REC. DRY AREA (2)	2#12	1#12	3/4"	20	5			1.6 1.6	6	20	3/4"	1#12	2#12	WASHER (2
DEDICATED REC. GROOM AREA (2)	2#12	1#12	3/4"	20	7	1.6   1.6			8	20	3/4"	1#12	2#12	
SPARE	_			60/	9		- 2.0		10\$	30/	3/4"	1#10	3#10	EWH1 (4
				/2	11			- 2.0	12(			-	"	] }/1\
DEDICATED REC. GROOM AREA (2)	2#12	1#12	3/4"	20	13	1.6 2.0			14(	/3	l		1	<u> </u>
LTG. GROOMING/DRYING AREA (3)	2#12	1#12	3/4"	20	15		1.3   1.6		16	20	3/4"	1#12	2#12	DEDICATED REC. WASH AREA (2
LTG. WASH AREA (2)	2#12	1#12	3/4"	20	17			1.3 0.4	18	20	3/4"	1#12	2#12	REC. WASH AREA (2
LTG. WASH AREA (2)	2#12	1#12	3/4"	20	19	1.3 0.8			20	20/	3/4"	1#12	2#12	EF-2
LTG. WASH AREA (2)	2#12	1#12	3/4"	20	21		1.3 0.8		22	/2	·		"	1
LTG. DOG PLAY AREA (2)	2#12	1#12	3/4"	20	23			1.3 1.6	24	20	3/4"	1#12	2#12	DEDICATED REC. WASH AREA (2
NOTE: MULTI-WRE BRANCH CIRCU	JITS AR	E ACCE	PTABLE	IN LIEU	J OF	10.1	9.2	9.8	KVA	PER F	PHASE			
THE SINGLE POLE BRANCH CIRCUI				_		84	77	82	AMF	S PER	PHASE		1	
MULTI-POLE BREAKERS FOR ALL							29.1	-	TOT	AL KVA	١		1	
REQUIRED BY THE NATIONAL ELEC NEUTRAL FOR ALL SINGLE POLE E														

	MAIN LUGS	ONLY										VOLTA	\GE:	208/12	OV, 3ø, 4 WIRE	
SPEC: EXISTING MOUNTING: SURFACE												AIC S	YMM:	10,000		
DESCRIPTION	١	WIRE	GND.	COND.	TRIP	скт.	A PHASE KVA	B PHASE KVA	C PHASE KVA	скт.	TRIP	COND.	GND.	WIRE	DESCRIPTION	
'LCP-B'	(2)	2#12	1#12	3/4"	20	1	0.2 1.6			2	20	3/4"	1#12	2#12	DRYER	(:
SPARE	-	_	_	-	20	3				4	20	_	_	_	SPARE	
SPARE		_	_	-	50	5				6	20	_	_	_	SPARE	
CU	0	3#8	1#10	3/4"	40	7	2.4   3.6	2.4 3.6	<u> </u>	10	60	1"	1#10	3#6	AHU	(
SPACE			_	_	<u>/ 3</u> _	11 13			2.4   3.6	12 14	<u>∕3</u> 20	3/4"	1#12	2#12	DRYER	(
SPACE		_		-	-	15		-   -	l —	16	20				SPARE	
SPACE		_		_	-	17			-   -	18	20	_	_	_	SPARE	
SPARE		_	_	-	20	19	-   -		<del></del>	20	_	_	-	_	SPACE	
SPARE		_	_	_	20	21		- 3.6		22	69/	1"	1#10	2#6	WATER HEATER	$\overline{}$
SPARE		_	_	_	20	23			- 3.6	24	/2					
NOTE: MULTI-WIRE BF	RANCH CIRCU	ITS AR	E ACCE	PTABLE	IN LIE	J OF	9.4	9.6	9.6	KVA	PER F	PHASE				
THE SINGLE POLE BRA							78	80	80	AMP	S PER	PHASE		1		
MULTI-POLE BREAKER	RS FOR ALL I TIONAL ELEC							28.6		TOT	AL KVA	<del></del>		l		

ISSUED FOR PERMIT	08-04-2016
ISSUED FOR CONSTRU	
	ODRIGUEZ  1407 West Newport Center Drive
<b>Consulting</b>	Deerfield Beach, Florida 33442 Phone 954.949.2200 Fax 954.949.2201 engineering@kammconsulting.com Certification of Authorization #8189
	<b>08-04-2016</b> date
	signed



Jamm)



PROJECT NO: DRAWN BY: CHECKED BY:

NO:	DATE:	ISSUED FOR:
1	05.20.2016	PRELIMINARY REVIEW
2	08.04.2016	PERMIT / BIDDING
	08.09.2016	COORDINATION
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**ELECTRICAL** RISER DIAGRAM

E5.1