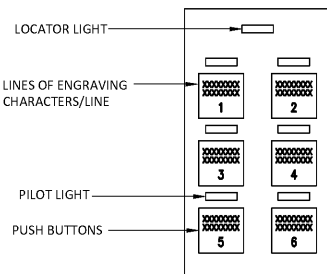


LIGHTING CONTROL SYSTEM SPECIFICATION

- LIGHTING CONTROL SYSTEM SHALL BE DIGITAL (COMMUNICATIONS BASED) AND CONSIST OF A MASTER LCP WITH UP TO 16 INDIVIDUAL RELAYS, SLAVE LCP'S WITH UP TO 16 INDIVIDUAL RELAYS IN EACH PANEL, A MICRO LCP WITH UP TO 4 INDIVIDUAL RELAYS AND DIMMED OUTPUTS (0-10V), DIGITAL SWITCHES (RS-485) AND DIGITAL INTERFACE CARDS. ALL SYSTEM COMPONENTS SHALL CONNECT AND BE CONTROLLED VIA A SINGLE CATEGORY 5, 4 TWISTED PAIR STRANDED CABLE PROVIDING REAL-TIME TWO-WAY COMMUNICATION WITH EACH SYSTEM COMPONENT. ANALOG SYSTEMS (CONTACT CLOSURE BASED) SHALL NOT BE ACCEPTABLE.
- RELAY PANELS SHALL BE PRE-WIRED, PRE-ASSEMBLED, PRE-PROGRAMMED AND ETL LISTED TO UL 916 (OR ETL LISTED TO UL 924 WHEN PART OF AN EMERGENCY SYSTEM). PANELS SHALL BE PROVIDED WITH A SWITCH SELECTABLE POWER SUPPLY (347/120/OFF) AND 16 GAUGE BARRIERS TO SEPARATE 120V, 347V AND LOW VOLTAGE. NORMAL AND EMERGENCY POWER SHALL BE IN SEPARATE ENCLOSURES.
- RELAYS SHALL HAVE NORMALLY CLOSED (NC) CONTACTS RATED FOR 120/347 20A TUNGSTEN BALLAST, OR HID. STANDARD RELAYS SHALL BE SERO-CROSS TYPE. OPTIONAL 600V, 2-POLE RELAYS SHALL BE AVAILABLE.
- INCANDESCENT LIGHTING CIRCUITS SHALL BE CONTROLLED BY SOFTSTART NC RELAYS.
- RELAY PANEL ELECTRONICS SHALL PROVIDE VISUAL STATUS AND MANUAL CONTROL OF EACH RELAY. SYSTEM CONTROL ELECTRONIC SHALL STORE PROGRAMING IN NON-VOLATILE MEMORY WITH 200 YEAR MEMORY RETENTION (AND A 10-YEAR TIME OF DAY MEMORY).
- LIGHTING CONTROL SYSTEM SHALL CONSIST OF MASTER AND SLAVE PANEL(S) CONTROLLED BY A 32-CHANNEL DIGITAL TIME CLOCK (DTC) THAT CONTROLS AND PROGRAMS THE ENTIRE LIGHTING CONTROL SYSTEM. THE DTC SHALL SUPPLY TIME FUNCTIONS AND ACCEPT INTERFACE INPUTS. THE DTC SHALL ACCEPT CONTROL LOCALLY USING BUILT IN BUTTON PROMPTS AND USE OF AN 8 LINE 21 CHARACTER DISPLAY, OR FROM A COMPUTER OR MODEM VIA AN ON-BOARD RS-232 PORT. COMMANDS SHALL BE IN PLAIN ENGLISH. HELP PAGES SHALL DISPLAY ON THE DTC SCREEN.
- SWITCHES SHALL COMMUNICATE VIA RS-485. CONTACT CLOSURE SYSTLE SWITCHES ARE NOT ACCEPTABLE. ANY SWITCH BUTTON FUNCTION SHALL BE ABLE TO BE CHANGED LOCALLY (AT THE DTC OR A SERIALLY CONNECTED PC) OR REMOTELY, VIA DUAL-UP MODEM, ETHERNET, OR INTERNET. REFER TO SINGLE LINE DIAGRAM FOR WIRING DETAILS.
- PHOTOCELL, EXTERIOR (PCD) OR INTERIOR (CI) SHALL PROVIDE READ-OUT ON THE DTC SCREEN IN NUMERIC VALUES ANALOGOUS TO FOOT-CANDLES. EACH PHOTOCELL CARD SHALL PROVIDE A MINIMUM OF 14 TRIGGER POINTS. EACH TRIGGER MAY BE PROGRAMMED LOCALLY OR REMOTELY TO CONTROL ANY RELAY(S) OR ZONE(S) IN ANY PANEL(S). PHOTOCELLS THAT REQUIRE THE USE OF SET SCREWS O MANUAL ADJUSTMENTS AT THE PHOTOCELL OR CONTROL CARD SHALL NOT BE ACCEPTABLE.
- LIGHTING CONTROL SYSTEM INTERFACES TO INCLUDE A DRY-CONTACT INPUT INTERFACE, BAS INTERFACE (RS 232 OR RS 485, DIMMING SYSTEM INTERFACE (RS 232), ETHERNET, AND FIBER OPTIC MODEM. VERIFY AND INSTALL ONLY THOSE INTERFACES INDICATED ON THE PLANS.
- STANDARD LIGHTING CONTROL SYSTEM SOFTWARE, PRE-INSTALLED INTO THE DTC, SHALL CONSIST OF AND USE STANDARD INTERACTIVE GRAPHICAL PAGES. SOFTWARE SHALL PROVIDE VIA LOCATION OR REMOTE PC A VISUAL REPRESENTATION OF EACH DEVICE ON THE BUS, SHOW REAL TIME STATUS AND THE ABILITY TO CHANGE THE STATUS OF ANY INDIVIDUAL DEVICE, RELAY OR ZONE. OPTIONAL SOFTWARE THAT ACCEPTS JOB SPECIFIC GRAPHICS SHALL BE AVAILABLE. NO EXCEPTIONS.
- START UP: EC SHALL CONTACT LIGHTING CONTROL MANUFACTURER AT LEAST 7 DAYS BEFORE TURNOVER OF PROJECT. LIGHTING CONTROL MANUFACTURER WILL REMOTELY DIAL INTO THE LIGHTING CONTROL SYSTEM, RUN DIAGNOSTICS AND CONFIRM SYSTEM PROGRAMMING. EC SHALL BE AVAILABLE AT THE TIME OF DIAL IN TO PERFORM ANY CORRECTIONS REQUIRED BY MANUFACTURER. EC IS RESPONSIBLE FOR COORDINATING WITH GC AND THE OWNER THE INSTALLATION OF A DEDICATED TELEPHONE LINE OR S A SHARED PHONE LINE WITH AN A/B SWITCH. PHONE JACK TO BE MOUNTED WITHIN 12" OF MASTER LCP. LABEL JACK WITH PHONE NUMBER. EC TO CONNECT PHONE LINE FROM JACK TO MASTER LCP. NO EXCEPTIONS.
- TELEPHONE FACTORY SUPPORT SHALL BE AVAILABLE AT NO ADDITIONAL COST TO THE EC OR OWNER BOTH DURING AND AFTER THE WARRANTY PERIOD. FACTORY TO PRE-PROGRAM THE LIGHTING CONTROL SYSTEM PER PLANS AND APPROVED SUBMITTAL. THE LIGHTING CONTROL MANUFACTURER, AT NO ADDED COST, SHALL PROVIDE ADDITIONAL PROGRAMMING VIA MODEM OR INTERNET AS REQUIRED BY THE EC OR OWNER FOR THE OPERATION LIFE OF THE SYSTEM. MANUFACTURER WARRANTIES THAT BOTH THE SYSTEM FIRMWARE AND THE SOFTWARE CAN BE UPGRADED AND MONITORED REMOTELY. UPON REQUEST MANUFACTURER TO PROVIDE REMOTE DIAL UP SOFTWARE AND FUTURE FIRMWARE UPDATED TO SYSTEM OWNER. NO EXCEPTIONS.
- SHOP DRAWINGS SUBMITTED BY MANUFACTURER SHALL BE JOB SPECIFIC, INCLUDING PANEL, SWITCH AND TIME CLOCK SCHEDULES, SINGLE LINE DRAWINGS, AND SHALL BE AVAILABLE IN BOTH ELECTRONIC AND HARD COPY FORMAT. SUBMITTALS WHICH CONSIST OF TYPICAL SINGLE LINE DRAWINGS OR GENERAL PROGRAMMING INFORMATION SHALL NOT BE ACCEPTABLE.
- LIGHTING CONTROL SYSTEM BY OWNER TO BE MANUFACTURED BY LIGHTING CONTROL & DESIGN, LOS ANGELES, CA. 1-800-345-4448 OR SALES@LIGHTINGCONTROLS.COM.

CHELSEA DIGITAL SWITCH

BUTTON	FUNCTION	RELAY CONTROLLED	COLOR	AREA	ZONE
1	ON MODE	LCP: R3, R5, R7	WHITE	SALES AREA	1
2	ON MODE	LCP: R4, R6, R8	WHITE	SALES AREA	2
3	ON MODE	LCP: R9, R10	WHITE	SALES AREA	3
4	ON MODE	LCP: R1, R2, R12, R13, R15	WHITE	SIGN/SHOW WINDOW RECEPPTS/LIGHTS	4
5	ON MODE	LCP: R11, R12	WHITE	FITTING ROOMS	5
6	OFF MODE	LCP: ALL RELAYS	WHITE	ALL OFF	ALL



1 TYPICAL CHELSEA DIGITAL SWITCH DETAIL
E5 SCALE: NONE

LIGHTING CONTROL PANEL

RELAY	PANEL	CIRCUIT	CONTROL DESCRIPTION	ZONE	AREA	NOTES
R1						
R2						
R3	L/12		TRACK LIGHTS	1	SALES AREA	
R4	L/14		TRACK LIGHTS	2	SALES AREA	
R5	L/16		TRACK LIGHTS	1	SALES AREA	
R6	L/18		TRACK LIGHTS	2	SALES AREA	
R7	L/20		TRACK LIGHTS	1	SALES AREA	
R8						
R9	L/8		SALES FLOOR LIGHTING	3	SALES AREA	
R10	H/3		SALES FLOOR PENDANTS	3	SALES AREA	
R11	L/22		FITTING ROOM LIGHTS	5	FITTING ROOMS	
R12						
R13						
R14						
R15	L/23		CLOCK OUTLET	4	SALES AREA	
R16			SPARE	-		

LIGHT FIXTURE SCHEDULE

SYMBOL	DESCRIPTION	FIXTURE MANUFACTURER & MODEL NUMBER	MOUNTING	FINISH	LAMP TYPE	WATTS	VOLTAGE	NOTES
A1	PENDANT SUPPLIED BY TENANT, INSTALLED BY GC UPLIGHT DEEP BOWL SHADE COLLECTION	BRIKK BY HOUZZ ID# 104578493 BANGOR CEMENT 12" DIAMETER WITH 59" CORD/BLACK METAL CHAIN	7'-0" TO BOTTOM OF FIXTURE	CEMENT	LED A19	14.7W 2700K	277V	
A7	PENDANT LIGHT	SEAGULL LIGHTING - 14" DIAMETER 6024EN-15 WITH 54" CORD	BOTTOM OF FIXTURE TO BE 8'-0" AFF	WHITE	LED (INCLUDED)	10W	120V	
B4	6" DOWNLIGHT	CONTECH LIGHTING #RF6L130KCG-WHT (CTC)	RECESSED IN CEILING	WHITE	1000 LUMEN LED RETROFIT MODULE 3000K GU24	15W		SUITABLE FOR WET LOCATION
D2	TRACK LIGHT WITH 25" TRACK HEAD	CONTECH 120V TRACK LIGHTING PAR 38 GIMBAL RING TRACK HEAD# CTL2838N-P: LT-*P TRACK	SUSPENDED TO 11'-0" AFF, UON	WHITE	LED 3000K	17W	120V	
E	EXIT SIGN / EMERGENCY LIGHT	EXITRONIX - ILLUMINEX ILK WITH ARROWS AS INDICATED	BOTTOM OF FIXTURE TO BE 8'-0" AFF	BLACK TRACK AT DREFRONT; WHITE TYP UON	LED	5W	120V	
E3	3 HEADS DOWNLIGHT	SOLAIS LIGHTING XFR13-XM24-25-30K-1600-WH	RECESSED	WHITE	LED - INCLUDED	20W	120V	
E4	4 HEADS DOWNLIGHT	SOLAIS LIGHTING XFR14-XM24-25-30K-1600-WH	RECESSED	WHITE	LED- INCLUDED	20W	120V	
EM	EMERGENCY LIGHT WITH BATTERY BACK UP	COLITE 0 MIGN-25-LC-UN	WALL AT 14'-0" AFF	WHITE	LED	50W	120V	
F1	RECESSED FLUORESCENT	TEXAS LIGHT LOW PROFILE CENTER BASKET SHUC-PF-2-24-MV	BOTTOM OF FIXTURE AT 12'-0" AFF	WHITE	T5 HO - 2 LAMP	24W	120V	
F2	T8 - 48" STRIP LIGHT	TEXAS LIGHT #C232MV-C48WG-GT310	BOTTOM OF FIXTURE 12'-0" AFF	WHITE	FLUORESCENT F032-830-ECO-21777	64W	277V	
F2A	48" STRIP LIGHT WITH EMERGENCY	TEXAS LIGHT #C-2-32-8-MV-EM	BOTTOM OF FIXTURE 12'-0" AFF	WHITE	FLUORESCENT L032/830/ECO-21777	59W	277V	
F3	NARROW 48" STRIP LIGHT	ORACLE LIGHTING 4-OCN-1-32-T8	FLUSH AT GYP	WHITE	T8 - 1 LAMP	32W	277V	
F3A	NARROW 48" STRIP LIGHT WITH EMERGENCY	ORACLE LIGHTING 4-OCN-1-32-T8 EMG FOR EMERGENCY TYPE	FLUSH AT GYP	WHITE	T8 - 1 LAMP	32W	277V	
G3	WALL SCONCE	NUVO #60-4804	SEE FITTING ROOM ELEVATIONS	BRONZE	LED G25 GLOBE	9.5W	120V	

NOTE

CUT SHEETS FOR ALL LIGHT FIXTURES WILL BE REQUIRED BY THE CITY OF DANIA BEACH FOR PLAN REVIEW.

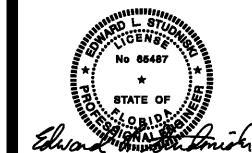
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DANIA
POINTE

1763 POINTE BLVD
DANIA BEACH, FL
33004

SPACE #M115

SPECIALTY

SHEET TITLE:
ELECTRICAL
SCHEDULES

REVISIONS:
ORIGINAL ISSUE: 01.17.19
NO: 1 DATE: 04/03/19 BY: BLDG

PROJECT NO: 18028.008
DRAWN BY: ALH

E5

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