PHOTO DIODE SENSOR

a) **LOCATION/MOUNTING**
- A PHOTO DIODE SENSOR SHALL BE MOUNTED IN A WATERTIGHT ENCLOSURE ON THE NORTHERN MOST SIDE OF THE BUILDING.
- THE PHOTO DIODE MUST BE MOUNTED IN THE PROPER ORIENTATION. THE WATERTIGHT ENCLOSURE SHALL BE MOUNTED USING THE APPROPRIATE WALL ANCHORS. ANY EXTERIOR WALL PENETRATION SHALL BE SEALED PROPERLY WITH WEATHER-TIGHT CAULK/SILICON.

b) **CONNECTIONS**
- THE PHOTO DIODE LEADS MUST BE EXTENDED USING 18-24 AWG SHIELDED TWISTED PAIR CABLE, AND ROUTED BACK TO THE LCA/LCP J5 PS+/- TERMINALS. TERMINALS ARE POLARITY SENSITIVE.

LCP-2 (LOAD CONTROL PANEL) - NOT APPLICABLE FOR SITES CONTAINING EXISTING SMART LIGHTING CONTROLS

a) **LOCATION/MOUNTING**
(1) LCP-2 SHALL BE MOUNTED WITHIN THE ELECTRICAL ROOM
THE LCP-2 SHALL BE MOUNTED USING THE APPROPRIATE WALL ANCHORS.

b) **POWER REQUIREMENTS**
THE 120 VAC POWER SOURCE FOR THE LCP-2 MUST BE OBTAINED FROM A DEDICATED 15-20 AMP SINGLE POLE BREAKER.
HIGH VOLTAGE KNOCKOUTS FOR THE LCP-2 ARE LOCATED ON THE SIDE/BOTTOM OF THE CABINET ENCLOSURE. WHEN USING SIDE KNOCKOUTS THE INSTALLER SHALL ONLY UTILIZE KNOCKOUTS BELOW THE GROUNDING BAR WITHIN THE LCP-2 CABINET.
LOW VOLTAGE KNOCKOUTS FOR THE LCP-2 ARE LOCATED ON THE TOP OF THE CABINET ENCLOSURE.

c) **CONNECTIONS**
THE LCP-2 SHALL CONTROL THE FOLLOWING:
- EXTERIOR SIGNS AND BUILDING LIGHTING
- EXTERIOR PARKING LOT LIGHTS
- INTERIOR LIGHTING

THE LIGHTING ZONES SHALL BE SEPARATED PER THE SOW.
LINE AND LOAD WIRING SHALL BE ROUTED FROM THE ELECTRICAL PANEL CONTAINING THE CIRCUITS TO BE CONTROLLED BACK TO THE LCP-2. SINCE THE LCP-2 DOES NOT REQUIRE NEUTRAL WIRES, LINE AND LOAD WIRING MUST ENTER AND EXIT THE LCP-2 THROUGH THE SAME CONDUIT. LINE SIDE WIRING IS ON THE LEFT SIDE OF THE CONTACTORS AND LOAD SIDE WIRING IS ON THE RIGHT SIDE OF THE CONTACTORS.
DO NOT BREACH CONDUIT WIRING CAPACITY, AND INSTALL ADDITIONAL CONDUIT IF NEEDED TO CONTAIN LINE AND LOAD PAIRS.

d) **COMMUNICATION**
RS-485 CONNECTIONS SHALL BE OBTAINED USING THE A+/B- TERMINALS USING CAT5E CABLE AND WIRED BACK TO AN OPEN CHAIN OF THE HUB.

e) **LABELING**
THE LCP-2 SHALL BE LABELED PER POWER SOURCE. THE LABEL SHALL BE APPLIED TO THE FRONT CABINET DOOR.

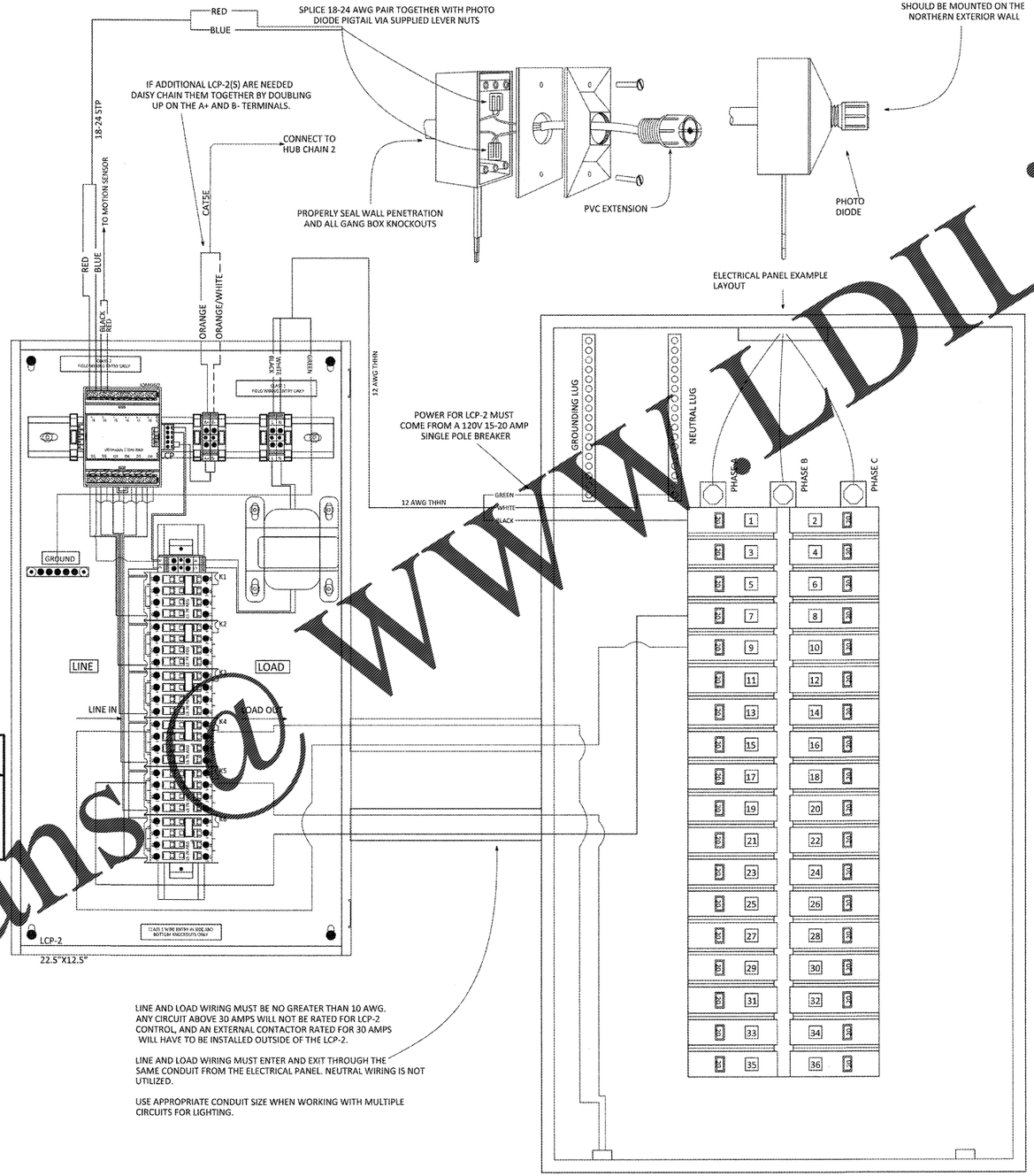
CONTACTOR SCHEDULE

Contactor	Terminal	Circuit	Load Description
K1	R7 / R8	Field Verify	Sales Lights
	R5 / R6	Field Verify	
	R3 / R4	Field Verify	
	R1 / R2	Field Verify	
K2	R7 / R8	Field Verify	Manager Level Lights
	R5 / R6	Field Verify	
	R3 / R4	Field Verify	
	R1 / R2	Field Verify	
K3	R7 / R8	Field Verify	Exterior Parking Lights
	R5 / R6	Field Verify	
	R3 / R4	Field Verify	
	R1 / R2	Field Verify	
K4	R7 / R8	Field Verify	Exterior Signs
	R5 / R6	Field Verify	
	R3 / R4	Field Verify	
	R1 / R2	Field Verify	
K5	R7 / R8	Field Verify	Wall Packs
	R5 / R6	Field Verify	
	R3 / R4	Field Verify	
	R1 / R2	Field Verify	
K6	R7 / R8	Field Verify	Stock Room Lights
	R5 / R6	Field Verify	
	R3 / R4	Field Verify	
	R1 / R2	Field Verify	

FOR ANY SITES THAT REQUIRE MORE THAN 6 CONTACTORS A SECOND LCP-2 WILL BE REQUIRED.

FIRE ALARM COORDINATION PER NFPA 2015

IF THE LCP IS OFF, THEN ALL THE LIGHTS WILL TURN ON. IF THE LCP IS ON AND THE FIRE ALARM TRIGGERS, THEN GRIDPOINT WILL MONITOR THE FIRE ALARM SIGNAL AND TURN LIGHTS ON. NOTE: THE FIRE ALARM SIGNAL NEEDS TO STAY ACTIVE FOR AT LEAST 1 MINUTE.



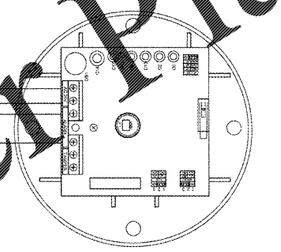
HOMERUN TO 24VAC TRANSFORMER

A DEDICATED 24 VAC TRANSFORMER HAS BEEN SUPPLIED TO POWER THE MOTION SENSORS.

300 V-600 V RATED WIRE

BLUE
YELLOW
RED
BLACK

TO IOM-6I6O INPUT 2 18-2



MOTION SENSOR

MOUNT SENSOR AT 12' AFF. THE COVERAGE AREA AT THIS HEIGHT IS 26'.

LINE AND LOAD WIRING MUST BE NO GREATER THAN 10 AWG. ANY CIRCUIT ABOVE 30 AMPS WILL NOT BE RATED FOR LCP-2 CONTROL, AND AN EXTERNAL CONTACTOR RATED FOR 30 AMPS WILL HAVE TO BE INSTALLED OUTSIDE OF THE LCP-2.

LINE AND LOAD WIRING MUST ENTER AND EXIT THROUGH THE SAME CONDUIT FROM THE ELECTRICAL PANEL. NEUTRAL WIRING IS NOT UTILIZED.

USE APPROPRIATE CONDUIT SIZE WHEN WORKING WITH MULTIPLE CIRCUITS FOR LIGHTING.

O'REILLY PREFERRED ONE LINE DIAGRAM

GRIDPOINT
5305 VALLEY PARK DRIVE SUITE # 2 - ROANOKE, VA - 24019

GRIDPOINT CONTACT

PLEASE CONTACT GRIDPOINT INSTALLATION MANAGEMENT @ 866-800-8906 FOR INSTALLATION CONTACT BASED ON THE STORE LOCATION.
EMAIL: SUPPORT@GRIDPOINT.COM

PRINTS ARE FOR: DESIGN [X] REVIEW [ ] PERMIT [ ] BIDDING [X] CONSTRUCTION [ ]

REVISIONS DESCRIPTION:	DATE:	BY:
Single motion sensor	05/14/2018	DKD

CONFIDENTIAL AND PROPRIETARY

SHEET TITLE:
LIGHTING CONTROL AND MOTION SENSORS

FILE NAME:
O'REILLY PREFERRED ONE LINE DIAGRAM

DATE: 2/27/2018
DRAWN BY: DAVID COLWELL

SHEET NO:
EM 1.1

DESIGN BY OTHERS FOR REFERENCE ONLY

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FOLEY, ALABAMA

GRIDPOINT EMS

DRAWN BY: CEV
CHECKED BY: NEG
DATE: 10/12/18
REVISION:
PROJECT NUMBER: FOL-1133
SHEET NUMBER: EM1.1

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