

- 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 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 Ventry	
	R5/R6	Field Ventry	Sales Lights
	R3/R4	Field Ventry	
K2	R7/R8	Field Ventry	
	R5/R6	Field Ventry	Manager Level Lights
	R3/R4	Field Ventry	
K3	R7/R8	Field Ventry	
	R5/R6	Field Ventry	Exterior Parking Lights
	R3/R4	Field Ventry	
K4	R7/R8	Field Ventry	
	R5/R6	Field Ventry	Exterior Signs
	R3/R4	Field Ventry	
K5	R7/R8	Field Ventry	
	R5/R6	Field Ventry	Wall Packs
	R3/R4	Field Ventry	
K6	R7/R8	Field Ventry	
	R5/R6	Field Ventry	Stock Room Lights
	R3/R4	Field Ventry	

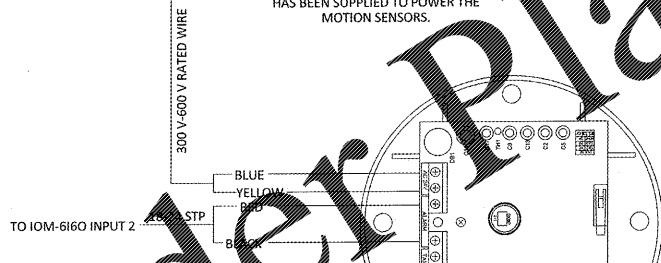
FOR ANY SITES THAT REQUIRE MORE THAN 6 CONTACTORS A SECOND LCP-2 WILL BE REQUIRED.

**FIRE ALARM COORDINATION PER NFPA 2015**

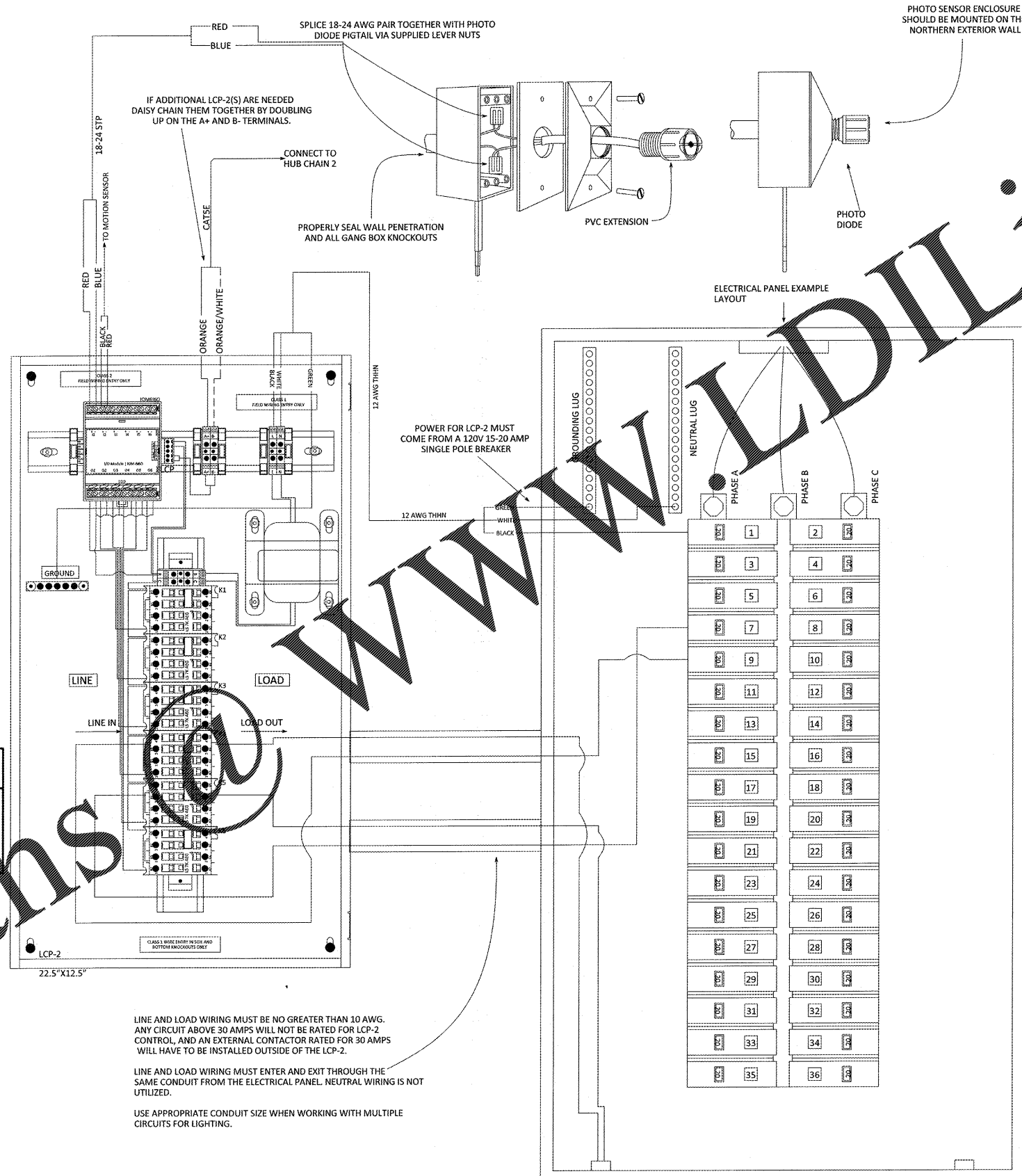
IF THE LCP IS OFF, THEN ALL THE LIGHTS WILL TURN ON. IF THE LCP IS ON AND THE FIRE ALARM TRIGGERS, THEN GRIDPOINT WILL MONITOR THE FIRE ALARM SIGNAL AND TURN LIGHTS ON. NOTE: THE FIRE ALARM SIGNAL NEEDS TO STAY ACTIVE FOR AT LEAST 1 MINUTE.

HOMERUN TO 24VAC TRANSFORMER

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



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



**O'REILLY PREFERRED ONE LINE DIAGRAM**

**GRIDPOINT.COM**

5305 VALLEY PARK DRIVE SUITE # 2 - ROANOKE, VA - 24060

**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  REVIEW  PERMIT  BIDDING  CONSTRUCTION

REVISIONS

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

**REVISIONS**

DESCRIPTION: Single motion sensor

DATE: 05/14/2018

BY: DKD

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: O'BROTHERS FOR REFERENCE ONLY

ENGINEER OF RECORD  
 Norm Goth  
 FL Lic # 57809  
 Mo Lic # 27905  
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PROJECT: NEW O'REILLY AUTO PARTS STORE  
 463352 S.R. 200  
 YULEE, FL 32097

**GRIDPOINT EMS**

O'Reilly AUTO PARTS

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 233 SOUTH PATTERSON  
 SPRINGFIELD, MISSOURI 65802  
 (417) 882-2674 TELEPHONE

DRAWN BY: LB  
 CHECKED BY: NEG

DATE: 10/19/2018

REVISION:

PROJECT NUMBER: YUL

SHEET NUMBER: EM1.1

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