Continental-Price Electrical Contractors Inc.

PO Box 462, Stittsville, ON K2S 1A6
Phone (613) 836-8242
Fax (613) 836-8241

TRANSMITTAL

Date: May 03, 2017

TO: TAL-CO BUILDING INNOVATIONS LIMITED

ATTN: Chris Simpson

Project: Tomlinson Head office

Received from Crestron

☐ REVIEWED

☐ REVISE AND RESUBMIT

purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting sa and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

Attached we are sending you copies of the following items:

- ☑ Drawings
- ☐ Prints
- ☐ Plans
- ☑ Specifications
- ☐ Information
- ☐ Submittals
- ☐ Other

These are Transmitted for:

- ☐ Prior Approval
- ☑ Approval
- ☐ Approval as Submitted
- ☐ Approved as Noted
- ☐ Resubmit for Approval
- ☐ Corrections
- ☐ Your use
- ☐ Review and Comment
- ☐ For your Record

# of Copies	Title, Desc
Electronic	Crestron Rev 3A drawings
Electronic	Leviton lighting control

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

CRESTRON

TOMLINSON

CITIGATE, OTTAWA

ORDER/PROJECT #: 1841941

SUBMITTALS FOR APPROVAL

NOTE:

SUBMITTALS GENERATED FROM THE FOLLOWING PROJECT DOCUMENTATION:
CRESTRON QUOTATION #: 1048528 QUOTE REVISION: 3 QUOTE DATE: 4/24/17

PROJECT SPECIFICATIONS: 26 09 43.13
PROJECT DRAWINGS: E-101, E-102, E-103, E-104

ENGINEER: JRP ENGINEERING **REVISION:** PRICING **DATE:** 8/29/16
IF THIS DOCUMENTATION IS NOT CURRENT IT IS THE RESPONSIBILITY OF THE APPROVER TO PROVIDE THE LATEST REVISION OF THE PROJECT DRAWINGS TO CRESTRON LIGHTING PROJECTS.

THIS COVER PAGE MUST BE SIGNED & RETURNED TO CLCOrders@CRESTRON.COM TO APPROVE THIS PROJECT FOR MANUFACTURING.

IN ADDITION TO THIS APPROVAL, THE ELECTRICAL DISTRIBUTOR'S RELEASE INTENT (EMAIL OR RELEASE PO) IS REQUIRED. APPROVED & RELEASED PROJECTS SHIP WITHIN 15 BUSINESS DAYS.

☐ Accepted
☐ Accepted with Notations
☐ Revise & Resubmit
☐ Rejected

SIGNATURE DATE

TYPED / PRINTED NAME

COMPANY

PLEASE ENSURE THAT YOU HAVE THE LATEST VERSION OF DRAWINGS FOR THIS PROJECT

SCAN THE QR CODE ABOVE TO DOWNLOAD THE CURRENT CRESTRON DRAWING SET

DRAWING INDEX

DRAWING#	REV	TITLE
01.0	00	COVER PAGE AND DRAWING INDEX
02.0	00	GENERAL SYSTEM NOTES
02.1	00	SYSTEM ELECTRONIC COMMISSIONING REQUEST FORM
02.2	00	CRESNET WIRING INSTRUCTIONS
02.3	00	CRESNET POWER CALCULATIONS
03.0	03	BILL OF MATERIALS
04.0	03	GROUND FLOOR RISER DIAGRAM
04.1	03	GROUND FLOOR RISER DIAGRAM CONT'D
04.2	03	SECOND FLOOR RISER DIAGRAM
04.3	03	THIRD FLOOR RISER DIAGRAM
04.4	03	FOURTH FLOOR RISER DIAGRAM
04.5	03	FOURTH FLOOR RISER DIAGRAM CONT'D
05.0	03	CPP DETAIL DRAWING
06.0	01	GLPAC LOAD SCHEDULES
06.1	01	GLPP LOAD SCHEDULES
06.2	01	GLPP LOAD SCHEDULES CONT'D
C2N-CBD-P	00	CAMEO STYLE KEYPAD
DIN-AP3	00	DIN-AP3 CONTROL SYSTEM PROCESSOR
GL-IPAC-SW8	00	GL-IPAC-SW8 DETAIL DRAWING
GLPAC-DIMFLVX	00	GLPAC-DIMFLV4 & 8 DETAIL DRAWING
GLPP-AIR	00	GLPP-AIR DETAIL DRAWING
GLPP-DIMFLVCN-PM	00	GLPP-DIMFLVCN-PM DETAIL DRAWING
GLS-LOL	00	GLS-LOL OPEN-LOOP PHOTOCELL
GLS-ODT-CN-NS	00	GLS-ODT-CN-NS TECHNOLOGY SENSOR
GLS-PART-CN	00	PARTITION SENSOR
GLS-SIM	00	GLS-SIM WITH SENSOR WIRING DETAILS
TSW-750	00	7" SURFACE MOUNT ETHERNET TOUCH SCREEN

REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or this responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site for information that pertains solely to fabrication processes to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering
C.McGuire
DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

CONTACT INFORMATION:

THE CRESTRON PROJECT MANAGER WILL BE YOUR CONTACT THROUGHOUT THIS PROJECT FOR ALL INFORMATION REGARDING YOUR ORDER, SHIPMENT, PROGRAMMING, OR SCHEDULING.

THE CRESTRON FIELD ENGINEER IS RESPONSIBLE FOR ADVISING THE CONTRACTOR REGARDING THE INSTALLATION OF THE SYSTEM, AND SHOULD BE THE PRIMARY CONTACT *AFTER* THE ORDER HAS BEEN RELEASED FOR PRODUCTION, AND WHEN YOU HAVE QUESTIONS REGARDING WIRING OR EQUIPMENT INSTALLATION.

FOR QUESTIONS SPECIFICALLY RELATING TO THESE SUBMITTALS, PLEASE CONTACT CLCSUBS@CRESTRON.COM

IF YOU ARE UNSURE OF WHOM TO CONTACT, PLEASE SPEAK WITH YOUR PROJECT MANAGER.

PROJECT MANAGER: PEGGIE DEVANEY
EMAIL: PDEVANEY@CRESTRON.COM
PHONE: 800.237.2041 X10847

FIELD ENGINEER: TBD
EMAIL: TBD
PHONE: TBD

ALL CRESTRON PROJECT MANAGERS AND PROJECT ENGINEERS ARE BASED IN ROCKLEIGH, NJ, USA.
CRESTRON FIELD ENGINEERS ARE BASED ACROSS THE COUNTRY
OUR NORMAL BUSINESS HOURS ARE M-F 9AM-5:30PM LOCAL TIME

DRAWING SET REVISION HISTORY

REV	DATE	ENG	REVISION DESCRIPTION
0	1-24-17	SDL	INITIAL SUBMITTAL
1	3-29-17	SDL	REVISED
2	4-13-17	SDL	REVISED
3	4-21-17	SDL	REVISED

THE DRAWINGS CONTAINED WITHIN THIS SET ARE NOT TO SCALE.

THIS DRAWING SET IS FORMATTED FOR PRINTING AT 11"X17" (B-SIZE/TABLOID). IF THIS DRAWING SET HAS BEEN PRINTED AT A SMALLER SIZE AND IS ILLEGIBLE, CONTACT YOUR PROJECT MANAGER.

PROJECT: TOMLINSON
LOCATION: CITIGATE, OTTAWA
QUOTE #:1048528
ORDER #: 1841941
PO #: PURCHASE ORDER
SALES REP: BDA LIGHTING GROUP
DISTRIBUTOR: DISTRIBUTOR

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

TITLE:
COVER PAGE AND DRAWING INDEX

DRAWING:
01.0
REV:03
DATE:4/21/17
DRAWN BY:SDL

Crestron General System Notes

Not all notes will be pertinent to all projects. The installing contractor should review these notes and determine their applicability to the project.

Submittal Approval

- One copy of this submittal package must be stamped and/or signed and approved by the responsible architect/engineer. It should then be forwarded to:
  CLCLighting@crestron.com
- Email is the best method for returning the submittal, but if it must be mailed it should be addressed to:
  Crestron Electronics, Inc.
  6 Volvo Drive
  Rockleigh, NJ 07647
  ATTN: Commercial Lighting
- Please clearly indicate whether this package is accepted as is, accepted with notations, or rejected.
- In the case of "accepted with notations", if the notations are extensive or require substantial changes, Crestron reserves the right to require re-approval of the submittal package after the incorporation of those notations. Additional charges may apply for added equipment or services.
- An order for the dimming system described by this submittal package will be accepted after receipt of the stamped submittal and a valid PO matching the latest revision of the Crestron quotation. After receipt of these items, shipment will be scheduled within 10-15 days. In the case of custom products fabrication may take slightly longer.
- Any changes to this system will result in rescheduling, longer manufacturing time, and/or additional engineering charges.
- Orders canceled after 3 days from Crestron's acceptance of the order or after submittals have been provided will result in cancellation charges.

Color Choices

- Please carefully examine these submittals for notations regarding the color or finish of devices and confirm that all choices are correct. Restocking fees will apply for changing device colors after shipment.

System Programming

- Programming charges include 'Standard' & 'Modified' default keypad and touch screen templates. Additional design fees are required for certain custom graphics. Contact your Crestron Project MANAGER for details and charges.

Control System Power

- It is recommended that the system processor and all control signal distribution equipment be supplied by a dedicated, backed up, clean power source with surge & spike protection, furnished by others unless specifically noted otherwise in this submittal.

WARNING

THIS DOCUMENT SET DOES NOT DESCRIBE AN INSTALLABLE SYSTEM UNTIL IT HAS BEEN REVIEWED FOR CODE COMPLIANCE BY THE PROJECT ELECTRICAL ENGINEER OR OTHER CODE-COMPLIANCE AUTHORITY. ALTHOUGH EVERY EFFORT HAS BEEN MADE TO PRODUCE A COMPLETE AND CODE-COMPLIANT DESIGN, CRESTRON INC. SPECIFICALLY DISCLAIMS ANY RESPONSIBILITY FOR CODE COMPLIANCE, WHICH IS THE RESPONSIBILITY OF THE PROJECT ELECTRICAL ENGINEER OR CODE AUTHORITY.

System Wiring & Electrical

- Crestron's Ex...ded 5 Year Limited Warranty requires the use of Crestron Certified wire. Please v... www.crestron.com/wire for more information.
- All installation and termination labor is furnished by the project electrical contractor.
- All Ethernet wiring must be terminated to the appropriate ANSI/EIA wiring specification. All other control wiring must be terminated per the Crestron wiring specification shown in this document.
- All line voltage conductors of the same circuit shall be contained in the same conduit, raceway, auxiliary gutter, cable tray, or cable.
- All low voltage control wire shall be separated appropriately to eliminate any possibility of secondary induced voltage due to line voltage wires in close proximity.
- Load circuit wiring shall have individual neutrals for any circuit with phase control dimming.
- Line feeds are to be determined by others.
- Phase-balancing of loads is to be determined by others. If this requires modification of Crestron panels, Crestron must be notified immediately and submittals shall be revised to ensure accurate programming of system.
- Replacement hardware shall be re-installed by licensed Electrical Contractor only.
- All Crestron control devices have an associated serial number. The Electrical Contractor must identify each SN for each device, and their location of installation on the plans. This information is required to program the system.

System Start-up

- Three weeks prior to scheduled system turn-on, the electrical contractor must fill out and submit the System Commissioning Forms on the following pages.
- In order to accomplish the system commissioning, the Crestron field engineer must have full access to t... rmal business hours, 8am-5pm local time. An additional premium rate will apply if work must be performed outside of normal business hours or at night, on weekends, or on natio...
- In order to commission the system, the Crestron field engineer must be able to access all equip... contractor's res... required for pro...

4-Wire 0-10v Dimmi...

- Crestron produc... compliant with ... This standard is ... source. Ballasts ... components to ...
- Crestron recom... AWG wire. Twis...

Fluorescent Lamps

- If fluorescent la... spares, should ... improve lamp lif... recommendatio...

Ethernet

- Ethernet infrastr... submittal, excep... configured by o...
- Crestron Ethern... Crestron should ...
- An Ethernet connection to allow contact between the processor and an Internet time server is the most reliable way to update the system astronomical time clocks to keep the system time accurate in a multiple processor system.
- Even when not specifically required by the project, Crestron strongly recommends providing an Ethernet connection to the Crestron processor(s) to allow for remote system updates and troubleshooting. If an Ethernet connection cannot be provided Crestron will request a signed waiver noting the understanding that remote access is not being given and additional troubleshooting trips may be required.
- Static IP addresses or other system-specific configuration that must be implemented on Crestron-provided equipment must be provided to Crestron prior to the technician's arrival onsite.

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the details checked thereon the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the contract documents. The Contractor is responsible for confirming and correlating at the job site, information and dimensions pertaining solely to fabrication processes, techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

Shades & Drapes

- Crestron programming of third-party shades, drapes, or shade controllers is limited to master up/down or open/close & stop commands only. Any addressing, identification, grouping, or other manufacturer-specific programming is outside of Crestron's scope of work and must be provided by others. Any changes made by a third-party provider after system commissioning that requires a matching change by Crestron will be subject to additional programming and on-site fees.

BMS Integration

- Unless a Crestron "GLA-BMS" interface or DIN-AP3 processor is provided with this system, BMS integration is assumed to be via contact closures within the limits of the Crestron system processor. See processor specifications for the quantity of contact closures available.
- If a GLA-BMS interface is provided, the following programming is provided:
  - Crestron GA-BMS is a protocol translator only, and is not the head-end control for any BMS equipment
  - Standard configuration of the GLA-BMS is for the BMS system as "client"
  - Standard configuration of the GLA-BMS is for the Crestron system as "Server" to the BMS Client.
  - Note: Server gives Client access to control of circuits or presets, status of circuits or presets, status of occupancy sensors, and status of photocells. Server does not control individual BMS device programming and control is the responsibility of the BMS manufacturer/integrator. Any deviation from this BMS standard requires additional configuration, programming, and onsite fees.
- The DIN-AP3 (and certain other "Series 3" processors) has the same capabilities, but only communicates via BACnet over IP, and is limited to 50 points/objects unless an upgraded version is included & shown on the Bill of Materials. ("SW-3SERIES-BACNET-50+")

DMX Integration

- If included, a GLA-DMX512 or DIN-DMX Interface quote is based upon the following standards:
  - DMX device will be used to interface Crestron lighting control processors to DMX lighting fixtures.
  - Crestron is not a show controller and is not responsible for programming DMX light shows, i.e. chases, color fades, etc.
  - Crestron will only provide DMX fixture presets that may be accessed by a Crestron User Interface.
  - Crestron is not responsible for setting up addresses (ID's) or channels on DMX lighting fixtures. Both addresses and chanels are required to be given to Crestron prior to the On-Site Startup Request.
  - If a DMX console is being used to control lighting on the Crestron control system, additional programming and onsite fees will be required. The processor in this case must be a Crestron 256mps processor or greater (ie. PAC2 or DIN-AP3). Only the GLA-DMX512 may accept external DMX to "snapshot". The DIN-DMX will pass DMX from a console through to DMX devices, but may not record the signal as a preset.

ALI Systems

If DALI is provided as a part of the Crestron system, the contractor must supply one authorized representative to the Crestron Field Engineer during System Commissioning to assist with fixture identification, fixture locations, and addressing.

The DALI Standard does not require shielded wire. However, unshielded wire may be subject to induced voltage due to improper installation. If unshielded DALI cable is used & improperly installed causing induced voltage on the cable, the Electrical Contractor will be charged for Crestron's time to troubleshoot the system.

- DALI wire gauge shall be sized appropriately based upon voltage drop. Crestron recommends 14-20 AWG based upon run length.
- The DALI protocol can communicate up to 300m.
- Per the NEC, Class 1 DALI cable may be run in the same conduit as line voltage wire.

Touch Screens

- Certain touch screens (noted in Bill of Materials) are quoted with Crestron backboxes designed for drywall mounting applications. All other backboxes are standard electrical boxes and should be furnished by the installing contractor. Contact Crestron for additional mounting options if necessary.

PROJECT: TOMLINSON
LOCATION: CITIGATE, OTTAWA
QUOTE #:1048528
ORDER #: 1841941
PO #: PURCHASE ORDER
SALES REP: BDA LIGHTING GROUP
DISTRIBUTOR: DISTRIBUTOR

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

TITLE:
GENERAL SYSTEM NOTES

DRAWING: 02.0
REV:00
DATE:1-26-17
DRAWN BY:SDL

Crestron Commercial Lighting Control Systems
Electronic System Commissioning Request

CLCS Commissioning Requests must be received three weeks prior to the time Crestron is to arrive on site. The 3 week lead time is necessary to review all system documentation, ensure that documentation is complete and accurate, obtain any missing information, as well as program the system prior to arriving on site.

Crestron will not schedule on-site visits, until all information below is verified as being complete by a Crestron Project MANAGER. Please contact your CLCS Project MANAGER to help you complete these forms if you have ANY questions.

CANCELLATION POLICY: If a Start-Up Request Form has been submitted and confirmed, and appropriate travel arrangements have been made (ie. flight, train, car rental, hotel, etc.) requestee will be held responsible for all associated cancellation fees. Crestron will invoice purchasee all associated cancellation fees. Failure of back-charge payment will void all system warranty.

All Start-Up requests are now completed electronically. Follow the instructions below to download the "Canvas Plus" application for your iOS and Droid devices.

Instructions

STEP1: Download the Canvas Plus App

For iPhone & iPad users, Click on this link: https://itunes.apple.com/us/app/canvas-plus/id482034211?mt=8

Or scan this QR Code:

For Android users, open the Android Marketplace, search for canvas, click and download the canvas plus app created by Canvas Solutions Inc.

Or scan this QR Code:

For other PC & Mobile Operating Systems: go to this link http://www.gocanvas.com/m and select the mobile operatio

Or scan this QR Code:

STEP 2: Log on

- User Name: electrical.contractor@crestron.com
- Password: crestron07647

STEP 3:

Select "Commissioning Form" and click START

Project #: 1841941 Project Name: TOMLINSON

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

PROJECT: TOMLINSON
LOCATION: CITIGATE, OTTAWA
ORDER #: 1841941
QUOTE #: 1048528
PO #: PURCHASE ORDER
SALES REP: BDA LIGHTING GROUP
DISTRIBUTOR: DISTRIBUTOR

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

TITLE: SYSTEM ELECTRONIC COMMISSIONING REQUEST FORM
DRAWING: 02.1
REV: 00
DATE: 1-26-17
DRAWN BY: SDL

CRESNET WIRING DETAILS

CAUTION: POSSIBLE EQUIPMENT DAMAGE IF MISWIRED

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for coordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

1 TO 1 PINOUT REFERENCE

24	24
Y	Y
Z	Z
G	G

COLOR CODE - CRESNET CABLE

GND	=	BLACK
Z	=	BLUE
Y	=	WHITE
24	=	RED

DATA PAIR (#22 AWG TWISTED) — POWER PAIR (#18 AWG PARALLEL-STANDARD CABLE) (#12 AWG PARALLEL-HIGH POWER CABLE)

CONNECTION TO CONTROL PROCESSOR

(BLACK) G
(BLUE) Z
(WHITE) Y
(RED) 24

BLACK #18 AWG DC GROUND

SHIELD / DRAIN
(TERMINATE AT CONTROL/ PROCESSOR END ONLY)
DRAIN WIRES MUST BE SPLICED AT ALL CONNECTIONS

TWISTED PAIR A (BLUE/ WHITE)

PARALLEL PAIR B (RED/BLACK)

BLUE #22 AWG DATA Z

WHITE #22 AWG DATA Y

RED #18 AWG +24VDC

CRESNET CABLE

TO EACH NETWORK DEVICE ALONG THE CABLE

24 (RED)
Y (WHITE)
Z (BLUE)
G (BLACK)

SHIELD / DRAIN
CAP-OFF AT END POINT OF CABLE

TO LAST NETWORK DEVICE AT END-OF-LINE

24 (RED)
Y (WHITE)
Z (BLUE)
G (BLACK)

WIRING NOTES

GENUINE CRESN
COMMERCIAL LIC

STRIP ONLY THE
EXPOSED CONDU
ELECTRICAL TAP

GROUND SHIELD

SHIELD/DRAIN MU
OF CONTROL RU

SHIELD/DRAIN SH
CNTBLOCK) BUT
TOGETHER AS D

WHEN DAISY CHA
AND THE OUTGO
USE A PIGTAIL SP
PHOENIX CONNE
"HP" (HIGH-POWE
CONDUCTORS.

MODEL "CNTBLO
TESTING PURPOSES AND CONVENIENCE OF WIRING.

ND

IS

Y

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

DO NOT DO THIS:

DO NOT POWER UP SYSTEM UNTIL ALL WIRING IS VERIFIED. CARE SHOULD BE TAKEN TO ENSURE DATA (Y,Z) AND POWER (24,G) CONNECTIONS ARE NOT CROSSED.

DO NOT CONNECT THE SHIELD/DRAIN WIRE OF ANY CRESNET CABLE TO GROUND AT ANY CONNECTION POINT EXCEPT THE CONTROL PROCESSOR.

DO NOT ALLOW ANY EXPOSED SHIELD/DRAIN WIRE TO MAKE CONTACT WITH ANY ELECTRICAL GROUND. IF ANY WIRE IS EXPOSED, IT MUST BE INSULATED- HEAT SHRINK TUBE IS RECOMMENDED, BUT AT A MINIMUM PVC ELECTRICAL TAPE CAN BE USED.

DO NOT EXCEED THE "MAXIMUM LENGTH" SHOWN IN THE CABLE IDENTIFICATION BLOCK OF ANY CABLE. 1000' IS THE NORMAL MAXIMUM LENGTH THAT WILL BE INDICATED. IN MOST SITUATIONS 1500' WILL BE POSSIBLE, BUT IS NOT RECOMMENDED DUE TO POSSIBLE INTERFERENCE & INDUCED VOLTAGE. LONGER CABLE RUNS WILL REQUIRE SIGNAL HUBS OR REPEATERS TO ENSURE SIGNAL RELIABILITY. (SEE NEXT SHEET FOR MORE INFO ON CRESNET POWER.)

DO NOT EXCEED 20 CRESNET "DEVICES" ON ANY ONE NETWORK SEGMENT WITHOUT DISCUSSING THE POSSIBLE IMPLICATIONS WITH YOUR CRESTRON PROJECT ENGINEER. (SEE NEXT SHEET FOR MORE INFO ON CRESNET DEVICES.)

PROJECT: TOMLINSON
LOCATION: CITIGATE, OTTAWA
ORDER #: 1841941
QUOTE #: 1048528
PO #: PURCHASE ORDER
SALES REP: BDA LIGHTING GROUP
DISTRIBUTOR: DISTRIBUTOR

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

TITLE:
CRESNET WIRING INSTRUCTIONS

DRAWING:
02.2
REV:00
DATE:1-26-17
DRAWN BY:SDL

CALCULATING POWER USED AND MAXIMUM CABLE LENGTH

IN MOST CASES, CRESTRON WILL CALCULATE THE CABLE REQUIREMENTS OF THE CRESTRON SYSTEM AS A PART OF THE SUBMITTAL PACKAGE. IN CASES WHERE CRESTRON HAS NOT BEEN PROVIDED WITH COMPLETE INFORMATION TO GENERATE THE SUBMITTAL THE INSTALLING CONTRACTOR MUST REVIEW & UNDERSTAND THE INFORMATION ON THIS PAGE IN ORDER TO PROPERLY INSTALL THE LIGHTING SYSTEM.

CABLE IDENTIFICATION BLOCK

EACH CONTROL CABLE RUN ON THE CRESTRON RISER DRAWINGS SHOULD INCLUDE A BLOCK LIKE THE ONE SHOWN TO THE LEFT. THIS SHOWS THE NUMBER OF CRESNET DEVICES ATTACHED TO THE CABLE, THE MAXIMUM LENGTH THAT WILL ALLOW CORRECT FUNCTION, AND THE MINIMUM VOLTAGE THAT SHOULD BE MEASURED AT THE END OF THE CABLE MOST DISTANT FROM THE PROCESSOR OR MID-POINT POWER SUPPLY/DISTRIBUTION HUB. MAXIMUM LENGTH IS SHOWN FOR STANDARD CRESNET CABLE; USING CRESNET-HP (HIGH-POWER) CABLE ALLOWS YOU TO MULTIPLY THE LENGTH BY APPROXIMATELY 3.5 TIMES.

THE CONTRACTOR SHOULD LABEL THE PROCESSOR END OF THE CABLE WITH THE APPROPRIATE CRESNET CABLE NUMBER. WHILE NOT STRICTLY REQUIRED, IS IS RECOMMENDED THAT THE CABLE BE LABELED AT EACH SPLICE POINT, IN THE EVENT TROUBLESHOOTING IS REQUIRED DURING SYSTEM COMMISSIONING.

THIS CABLE ID BLOCK MAY BE OMITTED ON SMALLER PROJECTS, OR PROJECTS WITH LIMITED POWER REQUIREMENTS.

CRESNET CABLE 1	
DEVICES	12
WATTS USED	14
MAX LENGTH	476
MIN VOLTS	22V

CRESNET DEVICES:

"DEVICES" INDICATES THE NUMBER OF LOGICAL CRESNET DEVICES ON THE CABLE. THIS NUMBER MAY NOT BE OBVIOUS WHEN EXAMINING THE RISER. FOR EXAMPLE, IN SOME DIMMING/SWITCHING PANELS EACH INTERNAL MODULE MAY COUNT AS A SEPARATE DEVICE. ALTERNATELY, IF TWO SENSORS ARE CONNECTED TO ONE GLS-SIM INTERFACE, ONLY THE INTERFACE COUNTS AS A CRESNET DEVICE. IN MOST CASES THE MAXIMUM NUMBER OF CRESNET DEVICES ON ANY ONE WIRING SEGMENT IS (20). A "SEGMENT" IS A GROUPING OF PORTS AS SHOWN ON THE PROCESSOR WIRING DETAIL SHEETS, AND OFTEN INCLUDES MORE THAN ONE CRESNET CABLE. CRESNET "HUBS" (i.e. DIN-HUB) MAY BE USED TO INCREASE THE NUMBER OF DEVICES ON ONE SEGMENT, BUT SHOULD NOT BE ADDED WITHOUT CONSULTING THE CRESTON PROJECT ENGINEER.

CRESTRON STRONGLY RECOMMENDS THAT THE EQUIPMENT IN THIS SYSTEM BE INSTALLED AS SHOWN ON THE RISERS. MINOR CHANGES ARE ACCEPTABLE-FOR EXAMPLE, ALTERING THE ORDER OF DEVICES ALONG A CABLE. HOWEVER, ADDING OR REMOVING DEVICES WILL HAVE AN IMPACT ON THE DEVICE COUNT AND POWER REQUIREMENTS.

FURTHER, THE INFORMATION AS PROVIDED IN THE CABLE IDENTIFICATION BLOCKS IS ALSO USED FOR THE PREPARATION OF THE PROCESSOR WIRING DETAIL SHEETS IN THIS PACKAGE. ALTERING THE DEVICE QUANTITY MAY HAVE SIGNIFICANT IMPACT ON THESE DRAWINGS.

IF THE WIRING AS SHOWN ON THE CRESTRON RISERS IS NOT POSSIBLE, THE INFORMATION BELOW MAY BE USED TO CALCULATE THE MAXIMUM POSSIBLE LENGTH OF A CABLE. NO CABLE SHOULD EXCEED 1000' WITHOUT DISCUSSION WITH YOUR PROJECT ENGINEER. MUCH LONGER DISTANCES ARE POSSIBLE, BUT MUST BE DISCUSSED WITH CRESTRON. USING CRESNET-HP HIGH POWER CABLE DOES NOT EXTEND THIS LIMIT. IF A LONGER CABLE IS REQUIRED A SIGNAL HUB OR REPEATER MAY BE ADDED ALONG THE CABLE.

PLEASE CONTACT YOUR CRESTRON PROJECT ENGINEER IF YOU HAVE ANY QUESTIONS REGARDING THE WIRING REQUIREMENTS OF THE SYSTEM, OR IF YOU NEED ASSISTANCE IN ALTERING THE RISERS. YOUR PROJECT ENGINEER IS AVAILABLE AS A RESOURCE TO HELP.

ANY CHANGES MADE TO THE WIRING AS SHOWN ON CRESTRON RISERS MUST BE COMMUNICATED TO CRESTRON NO LATER THAN WHEN YOU REQUEST SYSTEM COMMISSIONING.

ANY CHANGES MADE TO THE RISERS THAT ARE NOT COMMUNICATED TO CRESTRON THAT REQUIRE ALTERING SYSTEM PROGRAMMING AT THE TIME OF COMMISSIONING MAY RESULT IN ADDITIONAL CHARGES FOR REPROGRAMMING OR ADDITIONAL SERVICE VISITS.

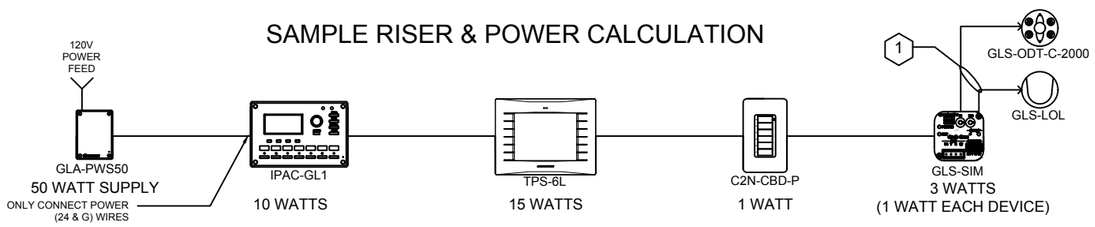
THE CRESNET POWER CALCULATION:

MAXIMUM CRESNET CABLE LENGTH

$$L < \frac{40{,}000}{R \times P}$$

Where L = Maximum Length of run in feet from power source
R = 6 Ohms for Cresnet Certified wire or
1.6 Ohms for Cresnet High Power Certified wire
P = Cresnet Power usage of entire run

SAMPLE RISER & POWER CALCULATION



TO CALCULATE THE MAXIMUM LENGTH CABLE FOR THE ABOVE EXAMPLE TAKE THE TOTAL POWER USED (28 WATTS) AND MULTIPLY IT BY THE RESISTANCE OF THE WIRE, THEN DIVIDE 40,000 BY THAT NUMBER.

CRESNET STANDARD CABLE (CRESNET-NP OR CRESNET-P) HAS A RESISTANCE OF 6 OHMS.

29 WATTS X 6 OHMS = 174
40,000 DIVIDED BY 174 GIVES YOU A RESULT OF A MAXIMUM CABLE RUN OF 230 FEET.

CRESNET HIGH-POWER (CRESNET-HP-NP) CABLE HAS A LOWER RESISTANCE OF 1.6 OHMS.

29 WATTS x 1.6 OHMS = 46.4
40,0000 DIVIDED BY 46.4 GIVES YOU A MAXIMUM LENGTH OF 862 FEET.

POWER DRAW OF COMMON CRESTRON DEVICES

CATEGORY	DEVICE	DESCRIPTION	POWER DRAW	NOTES
PROCESSORS	PAC2	PAC2 PROCESSOR	25W	CONTAINS 75W POWER SUPPLY; CAN POWER 50W OF EXTERNAL DEVICES
	PAC2M	PAC2M PROCESSOR	5W	
	DIN-AP3	DIN RAIL MOUNT PROCESSOR	8W	
	IPAC-GL1	INTEGRATED PROCESSOR	10W	
	GLPAC-DIMFLV	INTEGRATED DIMMING/SWITCHING PANEL	0W	DOES NOT DRAW ANY CRESNET POWER; SUPPLIES 10W TO LOCAL DEVICES
	GLPP (SWCN or DIMFLV)	POWER PACK WITH INTEGRATED DIMMING OR SWITCHING	0W	DOES NOT DRAW ANY CRESNET POWER; SUPPLIES 2.5W TO LOCAL DEVICES
KEYPADS	C2N-CBD-P	CAMEO KEYPAD	1W	
	C2N-CBD-E	CAMEO EXPRESS KEYPAD	1W	
	C2N-CBD	CAMEO KEYPAD	1W	
SENSORS & ACCESSORIES	GLS-SIM	SENSOR/INTEGRATION MODULE	1W	
	GLS-ODT-C	DUAL TECHNOLOGY OCCUPANCY SENSORS	1W	
	GLS-ODT-CN	CRESNET DUAL TECH OCCUPANCY SENSOR	1W	
	GLS-OIR	INFRARED OCCUPANCY SENSORS	1W	
	GLS-LOL, LCL	PHOTOCELLS	1W	
	GLS-LEXT	EXTERIOR PHOTOCELL	1W	
	GLS-PART	PARTITION SENSOR	1W	
	C2N-SBD	STANDALONE CONTROLLER	3W	
	C2N-SDCI-DI	DIMMER/DRAPE CONTROLLER	35W	REQUIRES DEDICATED GLA-PWS50 OR GREATER POWER SUPPLY
	C2N-IO	PORT EXPANDER: RS232 & RELAY OUTPUTS	0W	
DIN RAIL UNITS	DIN-DALI2	DALI CONTROLLER	9W	MAY USE POWER OVER ETHERNET; DEFAULTS TO CRESNET POWER IF BOTH ARE PRESENT
	DIN-HUB	CRESNET DISTRIBUTION HUB	6W	
	DIN-1DIM4	DIMMER MODULES	6W	SAME FOR DIN-1DIMU4
	DIN-8SW8	SWITCH MODULE	6W	SAME FOR DIN-8SW8-I

REVIEWED
REVIEWED AND MODIFIED
REVISE AND RESUBMIT
NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean approval of the detail design inherent in the shop drawings which shall remain with the Contractor submitting same and review shall not relieve the Contractor of his responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for coordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

PROPER SEPARATION OF POWER & DATA

POWER CONDUIT OR CABLE

DATA CONDUIT OR CABLE

TAKEN FROM ANSI/NECA/BICSI 568-2001

PROTECTION	POWER <2KVA	POWER 2-5KVA	POWER >5KVA
NONE- POWER & DATA CABLE OPEN AIR	5" (127MM)	10" (305MM)	24" (610MM)
DATA IN CONDUIT, POWER OPEN AIR	2.5" (64MM)	6" (152MM)	12" (305MM)
BOTH POWER & DATA IN CONDUIT	0	0	6" (152MM)
SPECIAL CASE: MOTORS OR TRANSFORMERS NEAR DATA CABLE IN CONDUIT	0	0	48" (1220MM)

SEPARATION SHOWN IS THE **MINIMUM** ALLOWABLE BY THIS STANDARD.
GREATER SEPARATION IS PREFERABLE

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

PROJECT: TOMLINSON
LOCATION: CITIGATE, OTTAWA
QUOTE #:1048528
ORDER #: 1841941
PO #: PURCHASE ORDER
SALES REP: BDA LIGHTING GROUP
DISTRIBUTOR: DISTRIBUTOR

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

TITLE:
CRESNET POWER CALCULATIONS

DRAWING:
02.3
REV:00
DATE:1-26-17
DRAWN BY:SDL

Bill of Materials

Project: TOMLINSON
Creator: SDL
Date: 4/21/2017 **Rev: 3**

3

Panel ID: CONTROL PROCESSOR (TYPICAL OF 4)

QTY	PART #	DESCRIPTION
1	DIN-EN-6X18	ENCLOSURE FOR DIN RAIL DEVICES, 6 DIN RAILS, 18 UNITS WIDE
1	DIN-AP3	DIN RAIL 3-SERIES CONTROL PROCESSOR
3	CEN-SW-POE-5	4 PORT NETWORK SWITCH WITH UPLINK
1	DIN-PWS50	DIN RAIL MOUNT POWER SUPPLY, 50 WATT
2	DIN-HUB	DIN-RAIL MOUNT CRESNET DISTRIBUTION HUB
1	XPANEL-CI	PC e- CONTROL INTERFACE (NATIVE TO PROCESSOR-NOTHING TO SHIP)
1	SW-3SERIES-BACNET-50+	BACNET IP SUPPORT FOR 3-SERIES, FULL LICENSE FOR MORE THAN 50 OBJECTS

Panel ID: DIMMING CONTROL

QTY	PART #	DESCRIPTION
1	GLPAC-DIMFLV8	GREENLIGHT AUTOMATION PROCESSOR, 8 CHANNELS 0-10V DIMMING OR SWITCHING
19	GLPAC-DIMFLV4	GREENLIGHT AUTOMATION PROCESSOR, 4 CHANNELS 0-10V DIMMING OR SWITCHING
6	GLPP-1DIMFLV2CN-PM	GREENLIGHT POWERPACK, ONE FEED, TWO SWITCHED OR 4-WIRE DIMMED LOADS
70	GLPP-DIMFLV1CN-PM	GREENLIGHT POWERPACK, ONE FEED, ONE SWITCHED OR 4-WIRE DIMMED LOAD

3

Panel ID: EXTERIOR LIGHTING

QTY	PART #	DESCRIPTION
1	GL-IPAC-SW8	GREENLIGHT INTEGRATED SWITCHING SYSTEM
1	GLS-LEXT	EXTERIOR OPEN LOOP PHOTOCELL
1	GLS-SIM	SENSOR INTEGRATION MODULE

Interfaces:

QTY	PART #	DESCRIPTION	COLOR
161	GLS-ODT-C-N		
36	GLS-LOL		
2	C2N-CBD-P		HITE, SMOOTH
7	GLA-PWS50		
68	GLPPA-KP		HITE, SMOOTH
1	GLS-PART-CI		
2	TSW-750		HITE, SMOOTH

REVIEWED
REVIEWED AND MODIFIED
REVISE AND RESUBMIT
NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean that the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

PROJECT SPECIFIC SYSTEM NOTES:
This proposal is based on drawings E-101 - E-104 dated June 15, 2016 and an email from Francois Bertrand dated September 2, 2016
1.Please note that the lighting panels on this proposal do not include circuit breakers. An external breaker box, with associated circuit breakers, must be provided by others.
2.It is assumed that all fixtures are compatible with 0-10V dimming. Please contact Crestron should an alternate type of dimming be needed.
3.Cameo keypads are compatible with standard decora faceplates, which are to be provided by others.
4.Crestron BACnet/IP is a protocol translator only and is not the head end control for any BMS equipment
5.Standard configuration of the BACnet/IP is for the BMS system as 'Client'
6.Standard configuration of the BACnet/IP is for the Crestron system as 'Server' to the BMS Client
7.Note: Server gives Client access to control of circuits or presets, status of circuits or presets, status of occupancy sensors, and status of photocells. Server does not control individual BMS devices on the network (i.e. thermostats, security systems, fire systems, etc.) Individual BMS device programming and control is the responsibility of the BMS Manufacturer/Integrator. Any deviation from this BMS standard requires additional configuration, programming, and onsite fees. Core 3 processors natively support BACnet/IP. A full BACnet/IP license has been provided and is available to support up to 500 objects. For systems with more than 500 objects you must purchase an additional Core 3 processor and full license. For more information on BACnet and the maximum number of objects that each processor can support, please visit WWW.crestron.com/bacnet
8.All emergency power provision including battery backup ballasts, generators, inverter systems and switching/transfer equipment including shunt relays are F.B.O.
9.Proposal includes X-Panel software as a user interface. Server/workstation, keyboard, pointer device, and monitor required for X-Panel F.B.O.
10.All network infrastructure, including routers, switches and wireless access points, to be provided by others.
11.Crestron also offers support and maintenance plans for Commercial Lighting Systems. Contact Crestron for details and pricing about these service contracts.
12.Important: All commissioning to be done during normal business hours of Monday-Friday 7am-6pm. Contact Crestron for a revised quote if project requires commissioning outside of these hours
13.Important: Crestron products with 4-wire 0-10V dimming comply with IEC 60929 Annex E. This is the most common standard in use in the U.S. This standard is for current sinking dimmers, with the dimming ballast being the voltage source. Ballasts requiring the dimmer to be the voltage source will require additional components to be added to the quote. Please contact Crestron for a revised quote if voltage source dimmers for 4-wire 0-10V ballasts are required for this project.
14.PLEASE NOTE – All line-voltage sensor / switch solutions are to be F.B.O. If a networked low-voltage solution is desired please contact Crestron for a revised quote.
15.It is the responsibility of the installing contractor to ensure that all Electrical and Energy codes are in compliance with the code requirements of the Authority Having Jurisdiction. In the event a Crestron lighting solution doesn't meet these code requirements, please contact your local Crestron sales representative for a revised solution.
16.PLEASE NOTE: The specifications provided did not have the correct design for the project as per conversation with Francois Bertrand on September 7, 2016. This proposal included a distributed design instead of a centralized design. Please contact Crestron for a revised quote if the design requirements change.

STANDARD LIGHTING CONTROL SYSTEM NOTES:
Crestron equipment requires programming, commissioning, and support. All Crestron factory system quotations for Commercial Lighting Systems include the services of Standard Programming and Standard Commissioning.

- Standard Programming - Crestron offers both Standard Programming Templates as well as Custom Programming for their Lighting Control Systems. This quote includes programming using Crestron's Standard Design Templates for items such as Keypads, Touch Screens, BMS interfaces, and DMX Interfaces. You can review these standard templates on the Crestron website, www.crestron.com. Please contact Crestron to request a quote for additional design fees related to Custom Programming for products.
- Standard Commissioning - Crestron's Standard Commissioning for Commercial Lighting Systems includes three (3) on-site visits: (1) for submittal review with the EC, (1) for system startup, and (1) for end user training. Please contact Crestron to request a quote for any additional on-site services or support. Crestron Commercial Lighting System Quotations also include charges for custom factory engineering, configuration, documentation and UL Approval. (Smaller projects may be limited to a single visit. This will be noted in the Project Specific Note section.

All Crestron Commercial Lighting system purchases that use "MLO" style cabinets must also include Crestron Circuit Breakers.

Our pricing is as the attached Crestron Bill of Materials only, and may vary from equipment and systems detailed in the contract documents.

Actual cost and BOM may vary once additional information is provided. Orders for this project shall be "as per the Crestron Bill of Materials" only.

This is a preliminary quote subject to submittal/review of complete/final lighting system load schedule, functional specifications, and drawings.

No Cresnet wiring/cable is included on this proposal. Cresnet cable is required, and is to be purchased on an additional PO once appropriate types and required lengths are identified based on site conditions. Please contact Crestron for all cable options and pricing

Notes:
1. Please ensure all colors shown on this bill of materials are correct prior to releasing the order for shipment.
2. The addition of hardware to this order may result in additional programming charges.
3. If there are any corrections please make sure to notify your Crestron Project Engineer, listed on the cover page of this submittal.

PROJECT: TOMLINSON
LOCATION: CITIGATE, OTTAWA
QUOTE #: 1048528
ORDER #: 1841941
PO #: PURCHASE ORDER
SALES REP: BDA LIGHTING GROUP
DISTRIBUTOR: DISTRIBUTOR

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

TITLE:
BILL OF MATERIALS

DRAWING:
03.0
REV:03
DATE:4-21-17
DRAWN BY:SDL

NOTES:

THESE NOTES MAY PERTAIN TO ANY ONE-LINE RISER IN THIS SET. THEY WILL NOT BE REPEATED ON OTHER SHEETS.

1. THE ORDER OF DEVICES ALONG A CRESNET CABLE MAY BE ALTERED AS REQUIRED FOR EASE OF INSTALLATION. MOVING OF DEVICES FROM ONE CRESNET CABLE TO ANOTHER MAY BE POSSIBLE, BUT PLEASE DO NOT MAKE SUCH ALTERATIONS WITHOUT DISCUSSIONS WITH YOUR CRESTRON PROJECT ENGINEER.

2. PLEASE PROVIDE LOCATIONS FOR ALL PANELS & CONTROL DEVICES SHOWN WITH A LOCATION CONTAINING "TBD".

REVIEWED

REVIEWED AND MODIFIED

REVISE AND RESUBMIT

NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility for which shall remain with the Contractor submitting them, and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site. Information pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

TSW-750
STATION ID: P01-05
LOCATION: ATRIUM 100
DWG. #: TSW-750

GLS-LOL

GLS-ODT-C-NS
STATION ID:P01-6F
LOCATION: TRAINING RM A
DWG. #: GLS-ODT-C-NS

GLS-ODT-C-NS
STATION ID:P01-70
LOCATION: TRAINING RM A
DWG. #: GLS-ODT-C-NS

GLS-ODT-C-NS
STATION ID:P01-6D
LOCATION: TRAINING RM B
DWG. #: GLS-ODT-C-NS

GLS-ODT-C-NS
STATION ID:P01-6E
LOCATION: TRAINING RM B
DWG. #: GLS-ODT-C-NS

FEEDS: 120V/277AC 2W + GND 20A(MAX) PER CIRCUIT

OVERCURRENT PROTECTION BY INSTALLER
HEIGHT: 12.25"
WIDTH: 14.25"
DEPTH: 4.25"
GLPAC-DIMFLV4
PANEL ID: P01-6B
LOCATION: TRAINING ROOM A/B
DETAIL DWG#: GLPAC-DIMFLVx

TO LOADS: 4 LOADS MAX
2W + GND 20A(MAX)
(TYPICAL SWITCHED LOAD)
4W + GND 20A(MAX)
(TYPICAL 0-10V DIMMED LOAD)

CONNECT TO "LOCAL NET" IN GLPAC

C2N-CBD-P
2-8 BUTTONS
STATION ID:P01-23
LOCATION: TRAINING RM B
DWG. #: C2N-CBD-P

C2N-CBD-P
2-8 BUTTONS
STATION ID:P01-24
LOCATION: TRAINING RM A
DWG. #: C2N-CBD-P

GLS-PART-CN
STATION ID:P01-6C
LOCATION: TRAINING RM A/B
DWG. #: GLS-PART-CN

TO CPP-2 ON SECOND FLOOR, SEE SHEET 4.2

TO CPP-1 ON SECOND FLOOR, SEE SHEET 4.2

CRESNET CABLE #1-1

CRESNET CABLE #1-2

GLS-ODT-C-NS
STATION ID:P01-7C
LOCATION: CAFETERIA 114
DWG. #: GLS-ODT-C-NS

GLS-ODT-C-NS
STATION ID:P01-7D
LOCATION: CAFETERIA 114
DWG. #: GLS-ODT-C-NS

GLS-ODT-C-NS
STATION ID:P01-7A
LOCATION: CAFETERIA 114
DWG. #: GLS-ODT-C-NS

GLS-ODT-C-NS
STATION ID:P01-7B
LOCATION: CAFETERIA 114
DWG. #: GLS-ODT-C-NS

PANEL ID: P01-79
LOCATION: CAFETERIA 114
DETAIL DWG#: GLPAC-DIMFLVx

GLS-ODT-C-NS
STATION ID:P01-81
LOCATION: OPEN OFFICE 120
DWG. #: GLS-ODT-C-NS

GLS-ODT-C-NS
STATION ID:P01-82
LOCATION: OPEN OFFICE 120
DWG. #: GLS-ODT-C-NS

GLS-ODT-C-NS
STATION ID:P01-7F
LOCATION: OPEN OFFICE 120
DWG. #: GLS-ODT-C-NS

GLS-ODT-C-NS
STATION ID:P01-80
LOCATION: OPEN OFFICE 120
DWG. #: GLS-ODT-C-NS

PANEL ID: P01-7E
LOCATION: OPEN OFFICE 120
DETAIL DWG#: GLPAC-DIMFLVx

PANEL ID: P01-60
LOCATION: ATRIUM 100
DETAIL DWG#: GLPAC-DIMFLVx

PANEL ID: P01-75
LOCATION: GYM 132
DETAIL DWG#: GLPAC-DIMFLVx

OCCUPANCY
GLS-OD
KEYPAD
(2) #18
GLPPA-KP

TO LOAD: (1 MAX)
2W+GND 20A (MAX)
(TYP. SWITCH LOAD)
4W+GND 20A (MAX)
(TYP. DIMMED LOAD)

FEED: 120V/277AC 2W + GND 20A(MAX)

GLPP-DIMFLVCN-PM
STATION ID: P01-71
LOCATION: OFFICE 127
DWG. #: GLPP-

GLPP-DIMFLVCN-PM
STATION ID: P01-72
LOCATION: OFFICE 126
DWG. #: GLPP-

GLPP-DIMFLVCN-PM
STATION ID: P01-73
LOCATION: OFFICE 125
DWG. #: GLPP-

GLPP-DIMFLVCN-PM
STATION ID: P01-66
LOCATION: MENS 105
DWG. #: GLPP-

GLPP-DIMFLVCN-PM
STATION ID: P01-67
LOCATION: WOMENS 106
DWG. #: GLPP-

GLPP-DIMFLVCN-PM
STATION ID: P01-6A
LOCATION: BREAKOUT RM 121
DWG. #: GLPP-

GLPP-DIMFLVCN-PM
STATION ID: P01-74
LOCATION: WATER ENTRY RM 124
DWG. #: GLPP-

GLPP-DIMFLVCN-PM
STATION ID: P01-65
LOCATION: ELECT RM 108
DWG. #: GLPP-

FEEDS: 120V/277AC 2W + GND 20A(MAX) PER CIRCUIT

TO LOADS: 8 LOADS MAX 2W + GND 20A(MAX)

OVERCURRENT PROTECTION BY INSTALLER
HEIGHT: 12.25"
WIDTH: 14.25"
DEPTH: 4.25"
GL-IPAC-SW8

GLS-LEXT

GLS-SIM
STATION ID: P03-B0
LOCATION: TBD BY SPECIFIER
DWG. #: GLS-SIM

PANEL ID: P04-60
LOCATION: ELECTRICAL ROOM
DETAIL DWG#: GL-IPAC-SW88

2ND SENSOR IN PARALLEL

GLPP-DIMFLVCN-PM
STATION ID: P01-61
LOCATION: CLOAK RM 133
DWG. #: GLPP-

GLPP-DIMFLVCN-PM
STATION ID: P01-64
LOCATION: HOLDING ROOM 117A
DWG. #: GLPP-

GR

3

CRESNET CABLE 1-2	
DEVICES	25
WATTS USED	0
MAX LENGTH*	1000
MIN VOLTS**	22V

CRESNET CABLE 1-1	
DEVICES	13
WATTS USED	0
MAX LENGTH*	1000
MIN VOLTS**	22V

WIRE TYPES:

(NOT ALL TYPES ARE USED ON ALL PROJECTS)

1. "CRESNET" CABLE:
(1) PAIR #18AWG,
(1) TWISTED PAIR 22AWG
W/SHIELD (BY E.C.)
NON-PLENUM PN: CRESNET-NP-TL
PLENUM PN: CRESNET-P-TL

2. RS-232 CABLE:
(1) TWISTED PAIR 22AWG
(1) SHIELD
DB-9 CONNECTOR
(BY E.C.)

3. CABLE:
(1) TWISTED PAIR 18AWG
(1) SHIELD
(BY E.C.)

4. CABLE:
CAT5E (OR GREATER)
ETHERNET

5. SUITABLE GAUGE WIRE
TO MEET LOAD
REQUIREMENTS

ALL WIRE RUNS ARE TYPE 1, CRESNET, UNLESS OTHERWISE NOTED.

P = Cresnet Power usage of entire run

SEE CRESNET WIRING INSTRUCTIONS, DWG. 02.3, FOR FULL DETAILS.

LENGTH OF CRESNET WIRING RUNS ARE LIMITED TO # OF DEVICES AND CRESNET POWER DRAW. DAISY CHAIN AND OR STAR TOPOLOGIES ARE PERMITTED TO SUIT INSTALLATION NEEDS. EACH HOME RUN NOT TO EXCEED 20 CRESNET DEVICES. USE THE CALCULATOR SHOWN TO DETERMINE MAXIMUM WIRE RUN LENGTH. POWER SUPPLIES CAN BE ADDED TO INCREASE LENGTH OF HOME RUNS.

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

*"MAX LENGTH" IS THE LENGTH, IN FEET, THAT MAY NOT BE EXCEEDED WITH CRESNET CABLE. USING CRESNET "HIGH-POWER" CABLE INCREASES THIS DISTANCE BY APPROXIMATELY 3.5 TIMES. DO NOT EXCEED 1000' WITHOUT DISCUSSING WITH THE PROJECT ENGINEER.

**"MIN VOLTS" IS THE MINIMUM ALLOWABLE VOLTAGE WHEN MEASURED AT THE MOST DISTANT END OF THE CONTROL CABLE RUN.

ALL PHYSICAL DEVICE LOCATIONS TO BE COORDINATED WITH ARCHITECT.

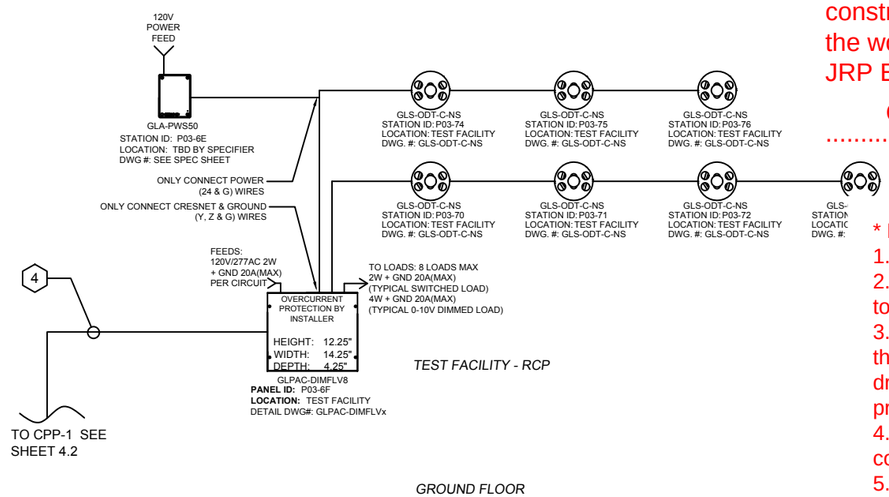
PROJECT: TOMLINSON
LOCATION: CITIGATE, OTTAWA
QUOTE #: 1048528
ORDER #: 1841941
PO #: PURCHASE ORDER
SALES REP: BDA LIGHTING GROUP
DISTRIBUTOR: DISTRIBUTOR

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

TITLE:
GROUND FLOOR
RISER DIAGRAM

DRAWING:
04.0
REV:03
DATE:4-21-17
DRAWN BY:SDL

NOTES:
PLEASE SEE ALL ONE-LINE RISER NOTES ON SHEET 04.0



☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

WIRE TYPES:

(NOT ALL TYPES ARE USED ON ALL PROJECTS)

1. "CRESNET" CABLE:
(1) PAIR #18AWG,
(1) TWISTED PAIR 22AWG
W/SHIELD (BY E.C.)
NON-PLENUM PN: CRESNET-NP-TL
PLENUM PN: CRESNET-P-TL

2. RS-232 CABLE:
(1) TWISTED PAIR 22AWG
(1) SHIELD
DB-9 CONNECTOR
(BY E.C.)

3. CABLE:
(1) TWISTED PAIR 18AWG
(1) SHIELD
(BY E.C.)

4. CABLE:
CAT5E (OR GREATER)
ETHERNET

5. SUITABLE GAUGE WIRE
TO MEET LOAD
REQUIREMENTS

ALL WIRE RUNS ARE TYPE 1, CRESNET, UNLESS OTHERWISE NOTED.

MAXIMUM CABLE LENGTH EQUATION:

$$L < \frac{40{,}000}{R \times P}$$

Where L = Maximum Length of run in feet from power source
R = 6 Ohms for Cresnet Certified wire or
1.6 Ohms for Cresnet High Power Certified wire
P = Cresnet Power usage of entire run

SEE CRESNET WIRING INSTRUCTIONS, DWG. 02.3, FOR FULL DETAILS.

LENGTH OF CRESNET WIRING RUNS ARE LIMITED TO # OF DEVICES AND CRESNET POWER DRAW. DAISY CHAIN AND OR STAR TOPOLOGIES ARE PERMITTED TO SUIT INSTALLATION NEEDS. EACH HOME RUN NOT TO EXCEED 20 CRESNET DEVICES. USE THE CALCULATOR SHOWN TO DETERMINE MAXIMUM WIRE RUN LENGTH. POWER SUPPLIES CAN BE ADDED TO INCREASE LENGTH OF HOME RUNS.

*"MAX LENGTH" IS THE LENGTH, IN FEET, THAT MAY NOT BE EXCEEDED WITH CRESNET CABLE. USING CRESNET "HIGH-POWER" CABLE INCREASES THIS DISTANCE BY APPROXIMATELY 3.5 TIMES. DO NOT EXCEED 1000' WITHOUT DISCUSSING WITH THE PROJECT ENGINEER.

**"MIN VOLTS" IS THE MINIMUM ALLOWABLE VOLTAGE WHEN MEASURED AT THE MOST DISTANT END OF THE CONTROL CABLE RUN.

ALL PHYSICAL DEVICE LOCATIONS TO BE COORDINATED WITH ARCHITECT.

PROJECT: TOMLINSON
LOCATION: CITIGATE, OTTAWA
ORDER #: 1841941
QUOTE #: 1048528
PO #: PURCHASE ORDER
SALES REP: BDA LIGHTING GROUP
DISTRIBUTOR: DISTRIBUTOR

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

TITLE:
TEST FACILITY
RISER DIAGRAM

DRAWING:
04.1
REV:03
DATE:4-21-17
DRAWN BY:SDL

NOTES:
PLEASE SEE ALL ONE-LINE RISER NOTES ON SHEET 04.0

REVIEWED
☑ REVIEWED AND MODIFIED
REVISE AND RESUBMIT
NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility of meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for coordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

CRESNET CABLE #1-3	
DEVICES	20
WATTS USED	0
MAX LENGTH*	1000
MIN VOLTS**	22V

CRESNET CABLE 1-4	
DEVICES	22
WATTS USED	0
MAX LENGTH*	1000
MIN VOLTS**	22V

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

WIRE TYPES: (NOT ALL TYPES ARE USED ON ALL PROJECTS)

1. "CRESNET" CABLE:
(1) PAIR #18AWG,
(1) TWISTED PAIR 22AWG
W/SHIELD (BY E.C.)
NON-PLENUM PN: CRESNET-NP-TL
PLENUM PN: CRESNET-P-TL

2. RS-232 CABLE:
(1) TWISTED PAIR 22AWG
(1) SHIELD
DB-9 CONNECTOR
(BY E.C.)

3. CABLE:
(1) TWISTED PAIR 18AWG
(1) SHIELD
(BY E.C.)

4. CABLE:
CAT5E (OR GREATER)
ETHERNET

5. SUITABLE GAUGE WIRE
TO MEET LOAD
REQUIREMENTS

ALL WIRE RUNS ARE TYPE 1, CRESNET, UNLESS OTHERWISE NOTED.

MAXIMUM CABLE LENGTH EQUATION:

$$L < \frac{40{,}000}{R \times P}$$

Where L = Maximum Length of run in feet from power source
R = 6 Ohms for Cresnet Certified wire or
1.6 Ohms for Cresnet High Power Certified wire
P = Cresnet Power usage of entire run

SEE CRESNET WIRING INSTRUCTIONS, DWG. 02.3, FOR FULL DETAILS.

LENGTH OF CRESNET WIRING RUNS ARE LIMITED TO # OF DEVICES AND CRESNET POWER DRAW. DAISY CHAIN AND OR STAR TOPOLOGIES ARE PERMITTED TO SUIT INSTALLATION NEEDS. EACH HOME RUN NOT TO EXCEED 20 CRESNET DEVICES. USE THE CALCULATOR SHOWN TO DETERMINE MAXIMUM WIRE RUN LENGTH. POWER SUPPLIES CAN BE ADDED TO INCREASE LENGTH OF HOME RUNS.

NGTH" IS THE LENGTH, IN FEET, THAT MAY NOT BE EXCEEDED WITH CRESNET CABLE. USING CRESNET "HIGH-POWER" CABLE INCREASES THIS DISTANCE BY APPROXIMATELY 3.5 TIMES. DO NOT EXCEED 1000' WITHOUT DISCUSSING WITH THE PROJECT ENGINEER.

**"MIN VOLTS" IS THE MINIMUM ALLOWABLE VOLTAGE WHEN MEASURED AT THE MOST DISTANT END OF THE CONTROL CABLE RUN.

ALL PHYSICAL DEVICE LOCATIONS TO BE COORDINATED WITH ARCHITECT.

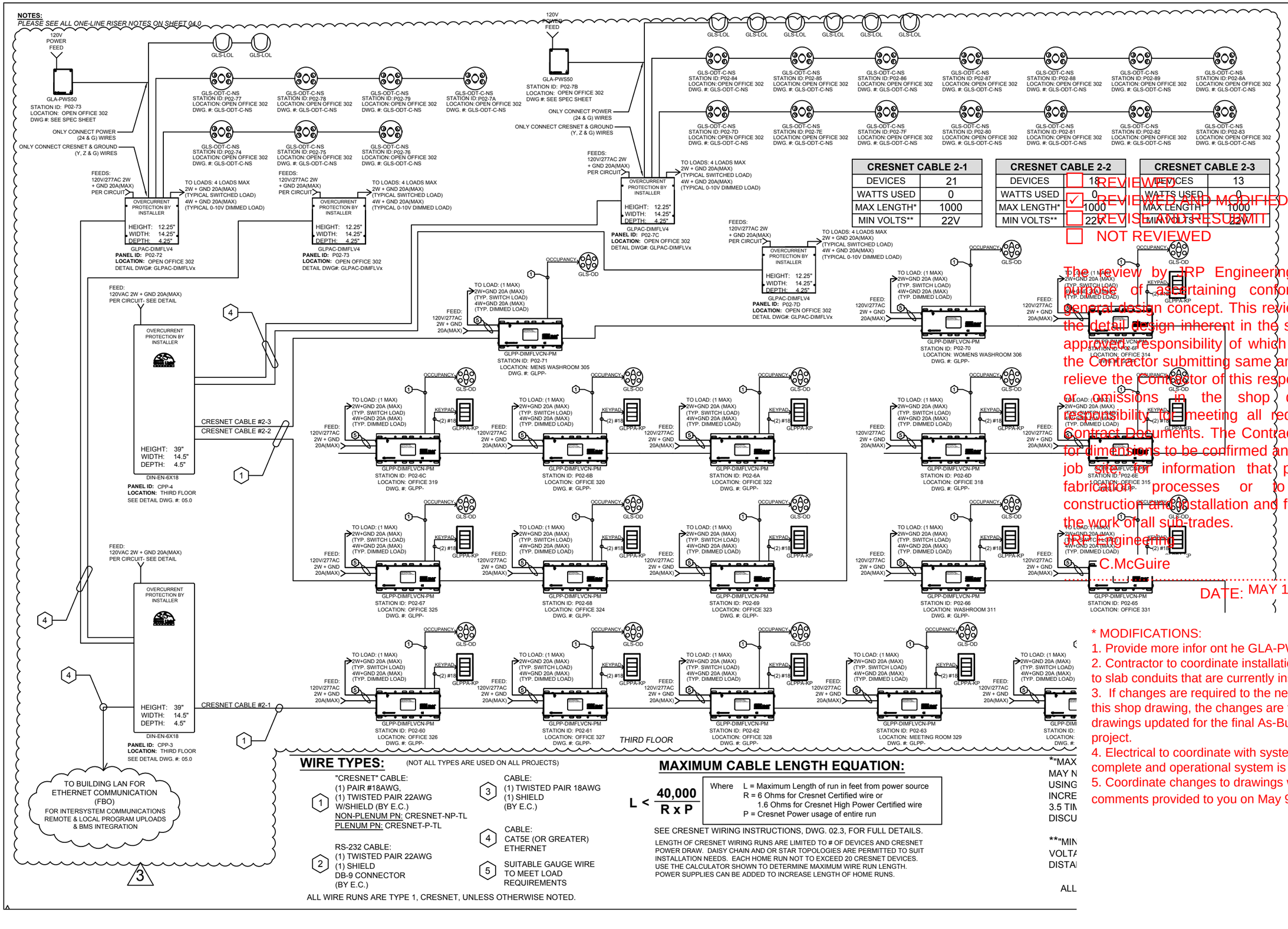
PROJECT: TOMLINSON
LOCATION: CITIGATE, OTTAWA
ORDER #: 1841941
QUOTE #: 1048528
PO #: PURCHASE ORDER
SALES REP: BDA LIGHTING GROUP
DISTRIBUTOR: DISTRIBUTOR

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

TITLE:
SECOND FLOOR
RISER DIAGRAM

DRAWING:
04.2
REV:03
DATE:4-21-17
DRAWN BY:SDL

NOTES:
PLEASE SEE ALL ONE-LINE RISER NOTES ON SHEET 04.0



CRESNET CABLE 2-1	
DEVICES	21
WATTS USED	0
MAX LENGTH*	1000
MIN VOLTS**	22V

CRESNET CABLE 2-2	
DEVICES	18
WATTS USED	0
MAX LENGTH*	1000
MIN VOLTS**	22V

CRESNET CABLE 2-3	
DEVICES	13
WATTS USED	0
MAX LENGTH*	1000
MIN VOLTS**	22V

WIRE TYPES:

(NOT ALL TYPES ARE USED ON ALL PROJECTS)

1. "CRESNET" CABLE: (1) PAIR #18AWG, (1) TWISTED PAIR 22AWG W/SHIELD (BY E.C.) NON-PLENUM PN: CRESNET-NP-TL PLENUM PN: CRESNET-P-TL
2. RS-232 CABLE: (1) TWISTED PAIR 22AWG (1) SHIELD DB-9 CONNECTOR (BY E.C.)
3. CABLE: (1) TWISTED PAIR 18AWG (1) SHIELD (BY E.C.)
4. CABLE: CAT5E (OR GREATER) ETHERNET
5. SUITABLE GAUGE WIRE TO MEET LOAD REQUIREMENTS

ALL WIRE RUNS ARE TYPE 1, CRESNET, UNLESS OTHERWISE NOTED.

MAXIMUM CABLE LENGTH EQUATION:

$$L < \frac{40{,}000}{R \times P}$$

Where L = Maximum Length of run in feet from power source
R = 6 Ohms for Cresnet Certified wire or 1.6 Ohms for Cresnet High Power Certified wire
P = Cresnet Power usage of entire run

SEE CRESNET WIRING INSTRUCTIONS, DWG. 02.3, FOR FULL DETAILS.

LENGTH OF CRESNET WIRING RUNS ARE LIMITED TO # OF DEVICES AND CRESNET POWER DRAW. DAISY CHAIN AND OR STAR TOPOLOGIES ARE PERMITTED TO SUIT INSTALLATION NEEDS. EACH HOME RUN NOT TO EXCEED 20 CRESNET DEVICES. USE THE CALCULATOR SHOWN TO DETERMINE MAXIMUM WIRE RUN LENGTH. POWER SUPPLIES CAN BE ADDED TO INCREASE LENGTH OF HOME RUNS.

*"MAX
MAY N
USING
INCRE
3.5 TIM
DISCU

**"MIN
VOLTA
DISTAI

ALL

REVIEWED
REVIEWED AND MODIFIED
REVISE AND RESUBMIT
NOT REVIEWED

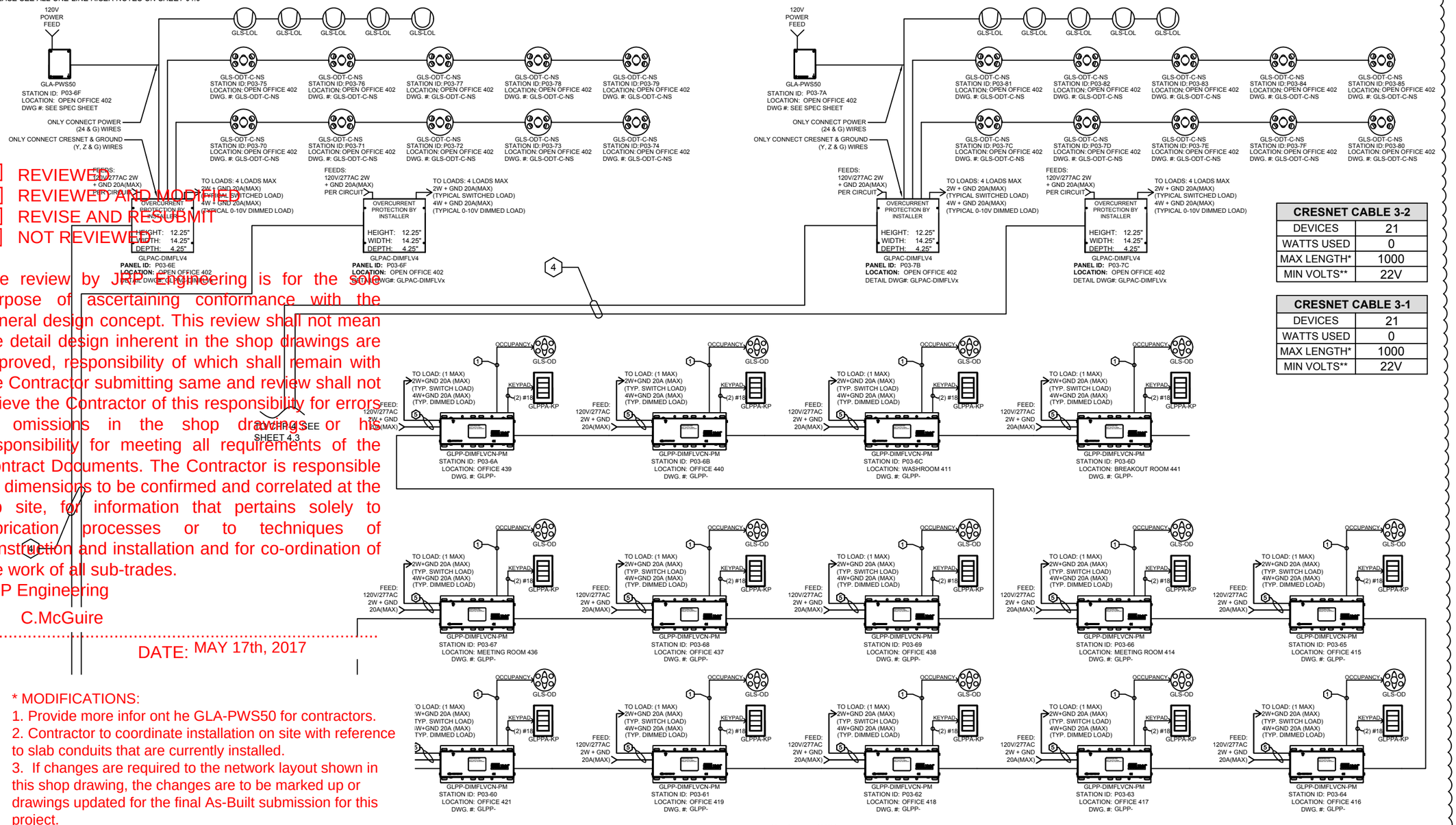
The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site for information that pertains solely to fabrication processes or to techniques of construction and installation and for coordination of the work of all sub-trades.

JRP Engineering
C.McGuire
DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

PROJECT: IOMLINSON
LOCATION: CITYGATE OTTAWA
QUOTE #: 1841941
SALES REP: BRAD LIGHTING GROUP
DISTRIBUTOR: ORDER #: 1841941
DISTRIBUTOR: PO #: PURCHASE ORDER

NOTES:
PLEASE SEE ALL ONE-LINE RISER NOTES ON SHEET 04.0



FOURTH FLOOR

CRESNET CABLE 3-2	
DEVICES	21
WATTS USED	0
MAX LENGTH*	1000
MIN VOLTS**	22V

CRESNET CABLE 3-1	
DEVICES	21
WATTS USED	0
MAX LENGTH*	1000
MIN VOLTS**	22V

(NOT ALL TYPES ARE USED ON ALL PROJECTS)

ABLE:
WG,
PAIR 22AWG
/ E.C.)
I PN: CRESNET-NP-TL
CRESNET-P-TL

E:
PAIR 22AWG

CTOR

: TYPE 1, CRESNET, UNLESS OTHERWISE NOTED.

3 CABLE: (1) TWISTED PAIR 18AWG (1) SHIELD (BY E.C.)

4 CABLE: CAT5E (OR GREATER) ETHERNET

5 SUITABLE GAUGE WIRE TO MEET LOAD REQUIREMENTS

MAXIMUM CABLE LENGTH EQUATION:

$$L < \frac{40{,}000}{R \times P}$$

Where L = Maximum Length of run in feet from power source
R = 6 Ohms for Cresnet Certified wire or
1.6 Ohms for Cresnet High Power Certified wire
P = Cresnet Power usage of entire run

SEE CRESNET WIRING INSTRUCTIONS, DWG. 02.3, FOR FULL DETAILS.

LENGTH OF CRESNET WIRING RUNS ARE LIMITED TO # OF DEVICES AND CRESNET POWER DRAW. DAISY CHAIN AND OR STAR TOPOLOGIES ARE PERMITTED TO SUIT INSTALLATION NEEDS. EACH HOME RUN NOT TO EXCEED 20 CRESNET DEVICES. USE THE CALCULATOR SHOWN TO DETERMINE MAXIMUM WIRE RUN LENGTH. POWER SUPPLIES CAN BE ADDED TO INCREASE LENGTH OF HOME RUNS.

*"MAX LENGTH" IS THE LENGTH, IN FEET, THAT MAY NOT BE EXCEEDED WITH CRESNET CABLE. USING CRESNET "HIGH-POWER" CABLE INCREASES THIS DISTANCE BY APPROXIMATELY 3.5 TIMES. DO NOT EXCEED 1000' WITHOUT DISCUSSING WITH THE PROJECT ENGINEER.

**"MIN VOLTS" IS THE MINIMUM ALLOWABLE VOLTAGE WHEN MEASURED AT THE MOST DISTANT END OF THE CONTROL CABLE RUN.

ALL PHYSICAL DEVICE LOCATIONS TO BE COORDINATED WITH ARCHITECT.

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

PROJECT: TOMLINSON
LOCATION: CITIGATE, OTTAWA
ORDER #: 1841941
QUOTE #: 1048528
PO #: PURCHASE ORDER
SALES REP: BDA LIGHTING GROUP
DISTRIBUTOR: DISTRIBUTOR

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

TITLE:
FOURTH FLOOR
RISER DIAGRAM

DRAWING: 04.4
REV:03
DATE:4-21-17
DRAWN BY:SDL

NOTES:
PLEASE SEE ALL ONE-LINE RISER NOTES ON SHEET 04.0

CRESNET CABLE 3-3	
DEVICES	21
WATTS USED	0
MAX LENGTH*	1000
MIN VOLTS**	22V

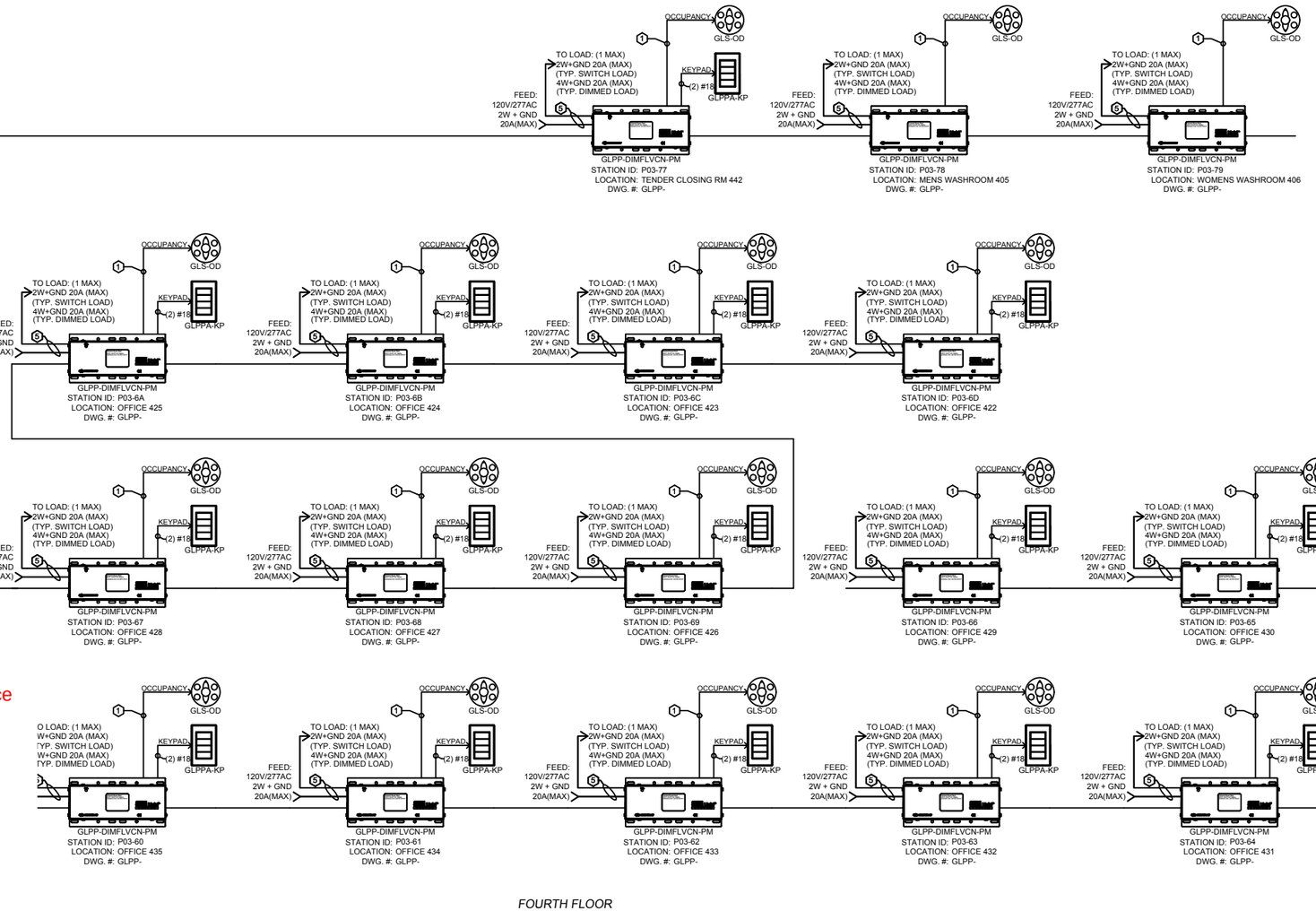
CRESNET CABLE 3-4	
DEVICES	21
WATTS USED	0
MAX LENGTH*	1000
MIN VOLTS**	22V

CRESNET CABLE 3-5	
DEVICES	7
WATTS USED	0
MAX LENGTH*	1000
MIN VOLTS**	22V

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering
C.McGuire
DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.



FOURTH FLOOR

S: (NOT ALL TYPES ARE USED ON ALL PROJECTS)

T" CABLE:
:18AWG,
ED PAIR 22AWG
) (BY E.C.)
NUM PN: CRESNET-NP-TL
PN: CRESNET-P-TL

ABLE:
(2) (1) TWISTED PAIR 22AWG
(1) SHIELD
DB-9 CONNECTOR
(BY E.C.)

(3) CABLE:
(1) TWISTED PAIR 18AWG
(1) SHIELD
(BY E.C.)

(4) CABLE:
CAT5E (OR GREATER)
ETHERNET

(5) SUITABLE GAUGE WIRE
TO MEET LOAD
REQUIREMENTS

ALL WIRE RUNS ARE TYPE 1, CRESNET, UNLESS OTHERWISE NOTED.

MAXIMUM CABLE LENGTH EQUATION:

$$L < \frac{40{,}000}{R \times P}$$

Where L = Maximum Length of run in feet from power source
R = 6 Ohms for Cresnet Certified wire or
1.6 Ohms for Cresnet High Power Certified wire
P = Cresnet Power usage of entire run

SEE CRESNET WIRING INSTRUCTIONS, DWG. 02.3, FOR FULL DETAILS.

LENGTH OF CRESNET WIRING RUNS ARE LIMITED TO # OF DEVICES AND CRESNET POWER DRAW. DAISY CHAIN AND OR STAR TOPOLOGIES ARE PERMITTED TO SUIT INSTALLATION NEEDS. EACH HOME RUN NOT TO EXCEED 20 CRESNET DEVICES. USE THE CALCULATOR SHOWN TO DETERMINE MAXIMUM WIRE RUN LENGTH. POWER SUPPLIES CAN BE ADDED TO INCREASE LENGTH OF HOME RUNS.

*"MAX LENGTH" IS THE LENGTH, IN FEET, THAT MAY NOT BE EXCEEDED WITH CRESNET CABLE. USING CRESNET "HIGH-POWER" CABLE INCREASES THIS DISTANCE BY APPROXIMATELY 3.5 TIMES. DO NOT EXCEED 1000' WITHOUT DISCUSSING WITH THE PROJECT ENGINEER.

**"MIN VOLTS" IS THE MINIMUM ALLOWABLE VOLTAGE WHEN MEASURED AT THE MOST DISTANT END OF THE CONTROL CABLE RUN.

ALL PHYSICAL DEVICE LOCATIONS TO BE COORDINATED WITH ARCHITECT.

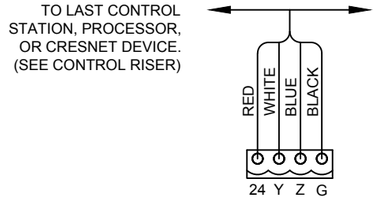
PROJECT: TOMLINSON
LOCATION: CITIGATE, OTTAWA
QUOTE #: 1048528
ORDER #: 1841941
PO #: PURCHASE ORDER
SALES REP: BDA LIGHTING GROUP
DISTRIBUTOR: DISTRIBUTOR

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

TITLE:
FOURTH FLOOR
RISER DIAGRAM
CONT'D

DRAWING:
04.5
REV:03
DATE:4-21-17
DRAWN BY:SDL

CRESNET CONTROL WIRING

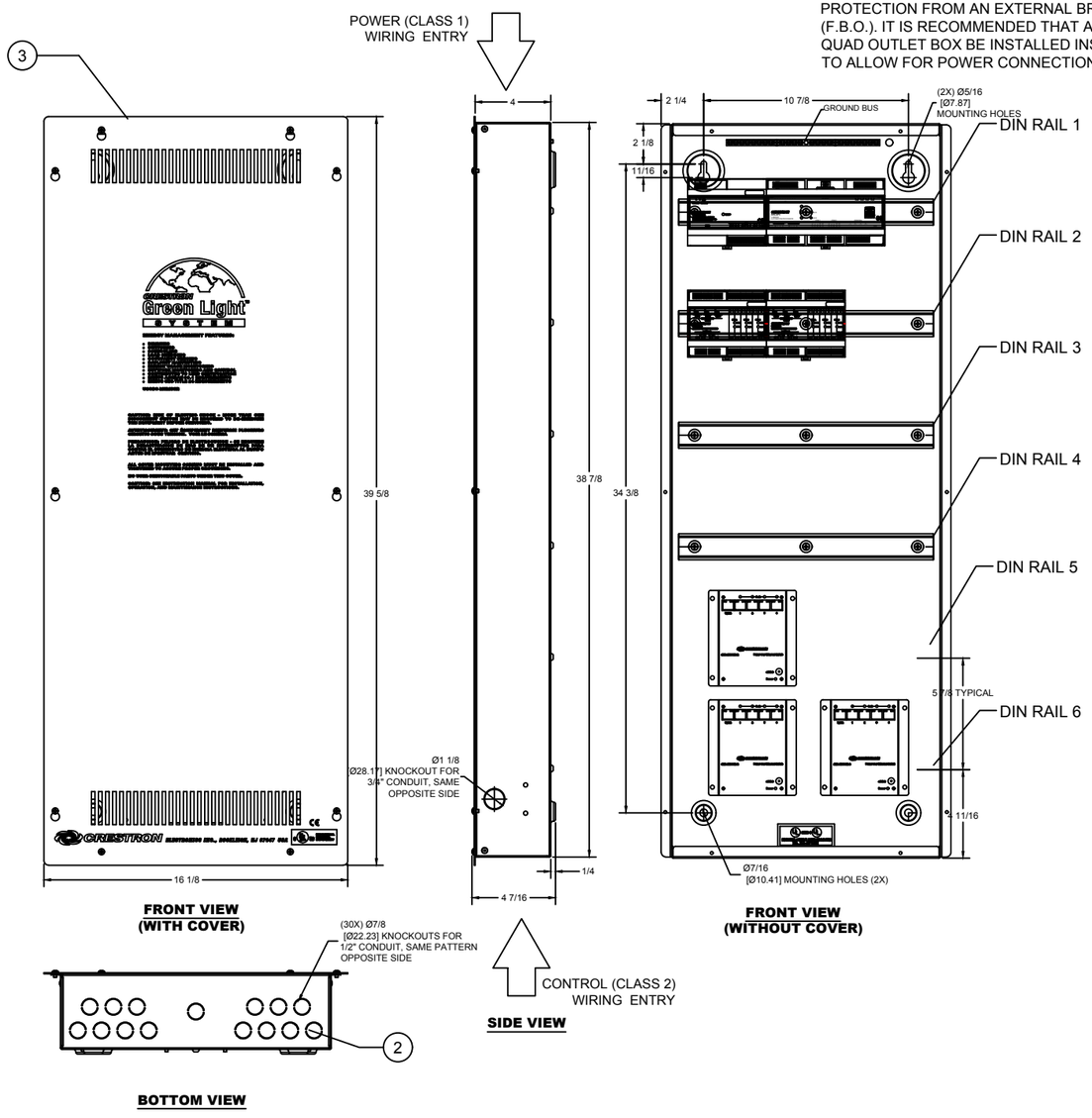


GENERAL NOTES

1. DO NOT POWER UP SYSTEM UNTIL ALL WIRING IS VERIFIED. CARE SHOULD BE TAKEN TO ENSURE DATA (Y,Z) AND POWER (24,G) CONNECTIONS ARE NOT CROSSED.
2. GROUND SHIELD AT CONTROL SYSTEM END **ONLY**.
3. GENUINE CRESNET CONTROL CABLE IS RECOMMENDED FOR CONNECTION OF CRESTRON COMMERCIAL LIGHTING SYSTEMS.
4. KEEP ALL CLASS 1 POWER WIRING SEPERATED FROM ALL CLASS 2 CONTROL WIRING WITHIN THE CABINET
5. THIS PANEL REQUIRES POWER & OVERCURRENT PROTECTION FROM AN EXTERNAL BREAKER PANEL (F.B.O.). IT IS RECOMMENDED THAT A DUPLEX OR QUAD OUTLET BOX BE INSTALLED INSIDE THIS PANEL TO ALLOW FOR POWER CONNECTIONS.

NOTES KEY

1. MOUNTING KEYHOLES IN BACK PANEL OF DIN-EN-2X18 ENCLOSURE FOR SURFACE MOUNTING OF ASSEMBLY.
2. KNOCKOUTS FOR CABINET WIRING
3. #DIN-EN-6X18 AUTOMATION ENCLOSURE DIMENSIONS: 39-5/8" H x 16-1/8" W X 4 3/8" D



LIGHTING CONTROL CABINET

PANEL ID	CPP-1, 2, 3, 4
MODEL	DIN-EN-6X18
TYPE	NORMAL

CABINET MODULE SCHEDULE

DIN RAIL	MODULES	VOLTAGE	# OF FEEDS	# OF CKTS
1	DIN-PWS50	120-240	1	N/A
	DIN-AP3	N/A	N/A	N/A
2	(2) DIN-HUB	N/A	N/A	N/A
3				
4				
5	CEN-SW-POE-5	120V (POWER BRICK)		N/A
6	(2) CEN-SW-POE-5	120V (POWER BRICK)		N/A

PARTS DESCRIPTIONS

DIN-PWS50 - DIN RAIL MOUNTED CRESNET POWER SUPPLY
DIN-HUB - DIN RAIL CRESNET DISTRIBUTION HUB
DIN-AP3 - AUTOMATION & CONTROL PROCESSOR
CEN-SW-POE-5 - ETHERNET SWITCH W/ 5 UPLINK PORT

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

DIN-EN-6X18 LIGHTING PANEL

PROJECT: TOMLINSON
LOCATION: CITIGATE, OTTAWA
QUOTE #: 1048528
ORDER #: 1841941
PO #: PURCHASE ORDER
SALES REP: BDA LIGHTING GROUP
DISTRIBUTOR: DISTRIBUTOR

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

TITLE:
CPP DETAIL DRAWING

DRAWING: 05.0
REV:03
DATE:4-21-17
DRAWN BY:SDL

GLPAC Load Schedule w/ Detailed Panel Terminations

Project: TOMLINSON
Creator: SDL
Date: 4/21/2017 Revision: 03
Mounting Location:

Panel	Area / Room	Room #	Description	Zone #	Circuit #	Voltage	GLPAC Type	GLPAC ID	Output #	Fixture Designation	Load Type	Dim (Y/N)	Fixture Watts	Qty	Total Watts
	TRAINING ROOM A & B	128A & 129A	LINEAR	a	B-1.53	120V	GLPAC-DIMFLV4	1	1	A	0-10V DIMMED	Y	38.8	6	232.8
			LINEAR	b	B-1.53	120V			2	A	0-10V DIMMED	Y	38.8	12	465.6
			LINEAR	c	B-1.53	120V			3	A	0-10V DIMMED	Y	38.8	6	232.8
			LINEAR	d	B-1.53	120V			4	A	0-10V DIMMED	Y	38.8	12	465.6
	GYM	132	LINEAR	a	B-1.49	120V	GLPAC-DIMFLV4	2	1	A	0-10V DIMMED	Y	38.8	6	232.8
			LINEAR	b	B-1.49	120V			2	A	0-10V DIMMED	Y	38.8	6	232.8
			LINEAR	c	B-1.51	120V			3	A	0-10V DIMMED	Y	38.8	12	465.6
			LINEAR	d	B-1.51	120V			4	A	0-10V DIMMED	Y	38.8	8	310.4
	OPEN OFFICE	120	LINEAR	a	A-1.63	120V	GLPAC-DIMFLV4	3	1	A	0-10V DIMMED	Y	38.8	9	349.2
			LINEAR	b	A-1.63	120V			2	A	0-10V DIMMED	Y	38.8	17	659.6
			LINEAR	c	A-1.63	120V			3	A	0-10V DIMMED	Y	38.8	10	388
			LINEAR	d	A-1.63	120V			4	A	0-10V DIMMED	Y	38.8	19	737.2
	CAFETERIA	114	LINEAR	a	A-1.55	120V	GLPAC-DIMFLV4	4	1	A	0-10V DIMMED	Y	38.8	16	620.8
			LINEAR	b	A-1.55	120V			2	A	0-10V DIMMED	Y	38.8	14	543.2
			LINEAR	c	A-1.55	120V			3	A	0-10V DIMMED	Y	38.8	5	194
			LINEAR	d	A-1.55	120V			4	A	0-10V DIMMED	Y	38.8	6	232.8
	LARGE MEETING ROOM	221	DOWNLIGHT	a	A-2.57	120V	GLPAC-DIMFLV4	5	1	M1	0-10V DIMMED	Y	20	4	80
			DOWNLIGHT	b	A-2.57	120V			2	M1	0-10V DIMMED	Y	20	6	120
			DECORATIVE	c	A-2.57	120V			3	08	0-10V DIMMED	Y			MAX. 16A
			SPARE			120V			4		SWITCHED OR 0-10V DIMMED	Y/N			MAX. 16A
	OPEN OFFICE	202	LINEAR	a	B-2.36	120V	GLPAC-DIMFLV4	5	1	A	0-10V DIMMED	Y	38.8	3	116.4
			LINEAR	b	B-2.36	120V			2	A	0-10V DIMMED	Y	38.8	18	698.4
			LINEAR	c	B-2.37	120V			3	A	0-10V DIMMED	Y	38.8	4	155.2
			LINEAR	d	B-2.37	120V			4	A	0-10V DIMMED	Y	38.8	3	116.4
	OPEN OFFICE	202	LINEAR	e	B-2.37	120V	GLPAC-DIMFLV4	5	1	A	0-10V DIMMED	Y	38.8	6	232.8
			LINEAR	f	B-2.41	120V			2	A	0-10V DIMMED	Y	38.8	3	116.4
			LINEAR	g	B-2.41	120V			3	A	0-10V DIMMED	Y	38.8	6	232.8
			LINEAR	h	B-2.41	120V			4	A	0-10V DIMMED	Y	38.8	10	388
	ATRIUM	100	DOWNLIGHTS	a	B-1.55	120V	GLPAC-DIMFLV4	5	1	M	SWITCHED	N	32.2	8	257.6
			DOWNLIGHTS	b	B-1.55	120V			2	M	SWITCHED	N	32.2	8	257.6
			CUSTOM LIGHT FIXTURE	c		120V			3		SWITCHED OR 0-10V DIMMED	Y/N			MAX. 16A
			CUSTOM LIGHT FIXTURE	d		120V			4		SWITCHED OR 0-10V DIMMED	Y/N			MAX. 16A
	ATRIUM	100	CUSTOM LIGHT FIXTURE	e		120V	GLPAC-DIMFLV4	5	1		SWITCHED OR 0-10V DIMMED	Y/N			MAX. 16A
			CUSTOM LIGHT FIXTURE	f		120V			2		SWITCHED OR 0-10V DIMMED	Y/N			MAX. 16A
			CUSTOM LIGHT FIXTURE	g		120V			3		SWITCHED OR 0-10V DIMMED	Y/N			MAX. 16A
			CUSTOM LIGHT FIXTURE	h		120V			4		SWITCHED OR 0-10V DIMMED	Y/N			MAX. 16A
	OPEN OFFICE	202	LINEAR	a	A-2.55	120V	GLPAC-DIMFLV4	5	1	A	0-10V DIMMED	Y	38.8	7	271.6
			LINEAR	b	A-2.55	120V			2	A	0-10V DIMMED	Y	38.8	33	1280.4
			LINEAR	c	A-2.57	120V			3	A	0-10V DIMMED	Y	38.8	17	659.6
			LINEAR	d	A-2.57	120V			4	A	0-10V DIMMED	Y	38.8	5	194
	OPEN OFFICE	202	LINEAR	e	A-2.59	120V	GLPAC-DIMFLV4	5	1	A	0-10V DIMMED	Y	38.8	6	232.8
			LINEAR	f	A-2.59	120V			2	A	0-10V DIMMED	Y	38.8	18	698.4
			LINEAR	g	A-2.59	120V			3	A	0-10V DIMMED	Y	38.8	12	465.6
			LINEAR	h	A-2.57	120V			4	A	0-10V DIMMED	Y	38.8	4	155.2
	OPEN OFFICE	302	LINEAR	a	B-3.49	120V	GLPAC-DIMFLV4	5	1	A	0-10V DIMMED	Y	38.8	5	194
			LINEAR	b	B-3.49	120V			2	A	0-10V DIMMED	Y	38.8	23	892.4
			LINEAR	c	B-3.51	120V			3	A	0-10V DIMMED	Y	38.8	20	776
			LINEAR	d	B-3.51	120V			4	A	0-10V DIMMED	Y	38.8	8	310.4
	OPEN OFFICE	302	LINEAR	e	B-3.53	120V	GLPAC-DIMFLV4	5	1	A	0-10V DIMMED	Y	38.8	5	194
			LINEAR	f	B-3.53	120V			2	A	0-10V DIMMED	Y	38.8	25	970
			SPACE			120V			3		SWITCHED OR 0-10V DIMMED	Y/N			MAX. 16A
			SPACE			120V			4		SWITCHED OR 0-10V DIMMED	Y/N			MAX. 16A
	OPEN OFFICE	302	LINEAR	a	A-3.79	120V	GLPAC-DIMFLV4	5	1	A	0-10V DIMMED	Y	38.8	8	310.4
			LINEAR	b	A-3.79	120V			2	A	0-10V DIMMED	Y	38.8	28	1086.4
			LINEAR	c	A-3.81	120V			3	A	0-10V DIMMED	Y	38.8	6	232.8
			LINEAR	d	A-3.77	120V			4	A	0-10V DIMMED	Y	38.8	19	737.2
	OPEN OFFICE	302	LINEAR	e	A-3.77	120V	GLPAC-DIMFLV4	5	1	A	0-10V DIMMED	Y	38.8	12	465.6
			LINEAR	f	A-3.83	120V			2	A	0-10V DIMMED	Y	38.8	8	310.4
			LINEAR	g	A-3.83	120V			3	A	0-10V DIMMED	Y	38.8	11	426.8
			LINEAR	h	A-3.83	120V			4	A	0-10V DIMMED	Y	38.8	30	1164
	OPEN OFFICE	402	LINEAR	a	B-4.59	120V	GLPAC-DIMFLV4	5	1	A	0-10V DIMMED	Y	38.8	16	620.8
			LINEAR	b	B-4.59	120V			2	A	0-10V DIMMED	Y	38.8	10	388
			LINEAR	c	B-4.63	120V			3	A	0-10V DIMMED	Y	38.8	6	232.8
			LINEAR	d	A-4.81	120V			4	A	0-10V DIMMED	Y	38.8	10	388
	OPEN OFFICE	402	LINEAR	e	A-4.83	120V	GLPAC-DIMFLV4	5	1	A	0-10V DIMMED	Y	38.8	7	271.6
			LINEAR	f	B-4.59	120V			2	A	0-10V DIMMED	Y	38.8	20	776
			LINEAR	g	A-4.81	120V			3	A	0-10V DIMMED	Y	38.8	20	776
			LINEAR	h	A-4.81	120V			4	A	0-10V DIMMED	Y	38.8	20	766
	OPEN OFFICE	402	LINEAR	a	A-4.77	120V	GLPAC-DIMFLV4	5	1	A	0-10V DIMMED	Y	38.8	16	620.8
			LINEAR	b	B-4.65	120V			2	A	0-10V DIMMED	Y	38.8	9	349.2
			LINEAR	c	A-4.83	120V			3	A	0-10V DIMMED	Y	38.8	9	349.2
			LINEAR	d	A-4.79	120V			4	A	0-10V DIMMED	Y	38.8	4	155.2
	OPEN OFFICE	402	LINEAR	e	A-4.79	120V	GLPAC-DIMFLV4	5	1	A	0-10V DIMMED	Y	38.8	7	271.6
			LINEAR	f	A-4.77	120V			2	A	0-10V DIMMED	Y	38.8	15	582
			LINEAR	g	A-4.77	120V			3	A	0-10V DIMMED	Y	38.8	13	504.4
			LINEAR	h	B-4.65	120V			4	A	0-10V DIMMED	Y	38.8	27	1047.6
	TEST FACILITY		INDUSTRIALS	a	A-TF.55	120V	GLPAC-DIMFLV8	13	1	L	SWITCHED	N	149	7	1043
			INDUSTRIALS	b	A-TF.55	120V			2	L	SWITCHED	N	149	8	1192
			INDUSTRIALS	c	A-TF.53	120V			3	L	SWITCHED	N	149	8	1192
			INDUSTRIALS	d	A-TF.53	120V			4	L	SWITCHED	N	149	3	447
			INDUSTRIALS	e	A-TF.61	120V			5	L	SWITCHED	N	149	5	745
			INDUSTRIALS	f	A-TF.61	120V			6	L	SWITCHED	N	149	5	745
			SPARE			120V			7		SWITCHED OR 0-10V DIMMED	Y/N			MAX. 16A
			SPARE			120V			8		SWITCHED OR 0-10V DIMMED	Y/N			MAX. 16A
	EXTERIOR					120V	GL-PAC-SW8	14	1		SWITCHED	N			MAX. 16A
	EXTERIOR					120V			2		SWITCHED	N			MAX. 16A
	EXTERIOR					120V			3		SWITCHED	N			MAX. 16A
	EXTERIOR					120V			4		SWITCHED	N			MAX. 16A
	EXTERIOR					120V			5		SWITCHED	N			MAX. 16A
	EXTERIOR					120V			6		SWITCHED	N			MAX. 16A
	EXTERIOR					120V			7		SWITCHED	N			MAX. 16A
	EXTERIOR					120V			8		SWITCHED	N			MAX. 16A

3

NOTES:

1.) LOAD SCHEDULE IS TO BE VERIFIED BY THE ELECTRICAL CONTRACTOR UPON COMPLETION OF INSTALLATION.

2.) AS BUILT REDLINE MARKUPS OF THE LOAD SCHEDULE MUST BE PROVIDED TO CRESTRON BEFORE SYSTEM PROGRAMMING CAN BE COMPLETED.

3.) THE ELECTRICAL CONTRACTOR, DISTRIBUTOR, OR ELECTRICAL ENGINEER MUST CONFIRM THAT THE FIXTURES SHOWN ARE COMPATIBLE WITH THE TYPE OF SWITCH OR DIMMER SHOWN ON THIS SCHEDULE. DIMMING A FIXTURE WITH AN INCOMPATIBLE BALLAST MAY CAUSE DAMAGE THAT IS NOT COVERED BY WARRANTY.

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

PROJECT: TOMLINSON
LOCATION: CITIGATE, OTTAWA
ORDER #: 1841941
QUOTE #: 1048528
PO #: PURCHASE ORDER
SALES REP: BDA LIGHTING GROUP
DISTRIBUTOR: DISTRIBUTOR

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

TITLE:
GLPAC LOAD SCHEDULES

DRAWING:
06.0
REV:03
DATE:4-21-17
DRAWN BY:SDL

Load Schedule w/ Panel Terminations

Project: TOMLINSON
Creator: SDL
Date: 3/28/2017 Revision: 01

Panel	Area / Room	Room #	Description	Zone #	Circuit #	Voltage	GLPP Type	GLPP ID	Output #	Fixture Designation	Load Type	Dim (Y/N)	Fixture Watts	Qty	Total Watts
GLPP-	CLOAK ROOM	133	LINEAR		B-1.49	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	14	543.2
GLPP-	MENS	105	FIXTURES		A-1.57	120V	GLPP-DIMFLVCN-PM	1	1	F, E	SWITCHED	N	20	5	100
GLPP-	WOMENS	106	FIXTURES		A-1.57	120V	GLPP-DIMFLVCN-PM	1	1	F, E	SWITCHED	N	20	5	100
GLPP-	ELECT ROOM	108	FIXTURES		A-1.57	120V	GLPP-DIMFLVCN-PM	1	1	D	SWITCHED	N	52.5	1	52.5
GLPP-	ELECTRICAL ROOM	116	LINEAR		A-1.55	120V	GLPP-DIMFLVCN-PM	1	1	D	0-10V DIMMED	Y	52.5	2	105
GLPP-	HOLDING ROOM	117A	LINEAR		A-1.57	120V	GLPP-DIMFLVCN-PM	1	1	D	0-10V DIMMED	Y	52.5	6	315
GLPP-	OFFICE	123	LINEAR		A-1.57	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	3	116.4
GLPP-	OFFICE	122	LINEAR		A-1.57	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.6
GLPP-	BREAKOUT ROOM	121	LINEAR		A-1.57	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	1	38.8
GLPP-	WATER ENTRY ROOM	124	LINEAR		A-1.63	120V	GLPP-DIMFLVCN-PM	1	1	D	0-10V DIMMED	Y	52.5	2	105
GLPP-	OFFICE	125	LINEAR		A-1.63	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.6
GLPP-	OFFICE	126	LINEAR		A-1.63	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.6
GLPP-	OFFICE	127	LINEAR		A-1.63	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	3	116.4
GLPP-	WASHROOM	211	FIXTURE			120V	GLPP-DIMFLVCN-PM	1	1	H	0-10V DIMMED	Y	16.37	1	16.37
GLPP-	MENS WASHROOM	205	FIXTURES		A-2.57	120V	GLPP-DIMFLVCN-PM	1	1	E, F	SWITCHED	N	71.7	1	71.7
GLPP-	WOMENS WASHROOM	206	FIXTURES		A-2.57	120V	GLPP-DIMFLVCN-PM	1	1	E, F	SWITCHED	N	71.7	1	71.7
GLPP-	OFFICE	216	LINEAR		A-2.57	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.6
GLPP-	OFFICE	217	LINEAR		A-2.57	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.6
GLPP-	BREAKOUT ROOM	216	LINEAR		A-2.57	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.6
GLPP-	OFFICE	219	LINEAR		A-2.57	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.6
GLPP-	OFFICE	220	LINEAR		A-2.57	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.6
GLPP-	OFFICE	326	LINEAR		B-3.53	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	3	116.4
GLPP-	OFFICE	327	LINEAR		B-3.51	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	3	116.4
GLPP-	OFFICE	328	LINEAR		B-3.51	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.6
GLPP-	MEETING ROOM	329	LINEAR		B-3.51	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	4	155.2
GLPP-	OFFICE	330	LINEAR		B-3.49	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.8
GLPP-	OFFICE	331	LINEAR		B-3.49	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	3	116.4
GLPP-	WASHROOM	311	FIXTURES			120V	GLPP-DIMFLVCN-PM	1	1	E, F	SWITCHED	N	71.7	1	71.7
GLPP-	MENS WASHROOM	305	FIXTURES		A-3.81	120V	GLPP-DIMFLVCN-PM	1	1	E,F	SWITCHED	N	71.7	1	71.7
GLPP-	WOMENS WASHROOM	306	FIXTURES		A-3.81	120V	GLPP-DIMFLVCN-PM	1	1	E,F	SWITCHED	N	71.7	1	71.7
GLPP-	OFFICE	314	LINEAR		A-3.81	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	3	116.4
GLPP-	OFFICE	315	LINEAR		A-3.81	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.8
GLPP-	OFFICE	318	LINEAR		A-3.81	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.8
GLPP-	OFFICE	319	LINEAR		A-3.77	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.8
GLPP-	OFFICE	320	LINEAR		A-3.77	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	3	116.4
GLPP-	MEETING ROOM	322	LINEAR		A-3.83	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	3	116.4
GLPP-	OFFICE	323	LINEAR		A-3.83	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.8
GLPP-	OFFICE	324	LINEAR		A-3.83	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.8

NOTES:

1.) LOAD SCHEDULE IS TO BE VERIFIED BY THE ELECTRICAL CONTRACTOR UPON COMPLETION OF INSTALLATION.

2.) AS BUILT REDLINE MARKUPS OF THE LOAD SCHEDULE MUST BE PROVIDED TO CRESTRON BEFORE SYSTEM PROGRAMMING CAN BE COMPLETED.

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REJECTED/RESUBMIT
☐ NOT REVIEWED

THE ELECTRICAL CONTRACTOR, DISTRIBUTOR, OR ELECTRICAL ENGINEER MUST CONFIRM THAT THE FIXTURES SHOWN ARE COMPATIBLE WITH THE TYPE OF SWITCH OR DIMMER SHOWN ON THIS SCHEDULE. DIMMING A FIXTURE WITH AN INCOMPATIBLE BALLAST MAY CAUSE DAMAGE THAT IS NOT COVERED BY WARRANTY.

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

PROJECT: TOMLINSON
LOCATION: CITIGATE, OTTAWA
ORDER #: 1841941
QUOTE #: 1048528
PO #: PURCHASE ORDER
SALES REP: BDA LIGHTING GROUP
DISTRIBUTOR: DISTRIBUTOR

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

TITLE:
GLPP LOAD SCHEDULES

DRAWING:
06.1
REV:01
DATE:3-29-17
DRAWN BY:SDL

GLPP-	OFFICE	325	LINEAR		A-3.83	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.6
GLPP-	OFFICE	435	LINEAR		B-4.63	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.8
GLPP-	OFFICE	434	LINEAR		B-4.63	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.8
GLPP-	OFFICE	433	LINEAR		B-4.59	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.6
GLPP-	OFFICE	437	LINEAR		B-4.63	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	3	116.4
GLPP-	MEETING ROOM	436	LINEAR		B-4.63	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	4	155.2
GLPP-	OFFICE	438	LINEAR		B-4.65	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.8
GLPP-	OFFICE	439	LINEAR		B-4.65	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.8
GLPP-	OFFICE	440	LINEAR		B-4.65	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.8
GLPP-	WASHROOM	411	FIXTURES			120V	GLPP-DIMFLVCN-PM	1	1	E, H	SWITCHED	N	22.37	1	22.37
GLPP-	BREAKOUT ROOM	441	LINEAR		B-4.65	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.8
GLPP-	OFFICE	432	LINEAR		B-4.59	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.6
GLPP-	OFFICE	431	LINEAR		B-4.59	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.6
GLPP-	OFFICE	430	LINEAR		A-4.81	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.8
GLPP-	BREAKOUT ROOM	429	LINEAR		A-4.81	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.8
GLPP-	OFFICE	428	LINEAR		A-4.83	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	3	116.4
GLPP-	OFFICE	427	LINEAR		A-4.83	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.8
GLPP-	OFFICE	426	LINEAR		A-4.83	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.8
GLPP-	OFFICE	425	LINEAR		A-4.83	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.8
GLPP-	OFFICE	424	LINEAR		A-4.83	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	3	116.4
GLPP-	OFFICE	423	LINEAR		A-4.83	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.8
GLPP-	OFFICE	422	LINEAR		A-4.83	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	3	116.4
GLPP-	OFFICE	421	LINEAR		A-4.83	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	
GLPP-	OFFICE	419	LINEAR		A-4.79	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.8
GLPP-	OFFICE	418	LINEAR		A-4.79	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	77.6
GLPP-	OFFICE	417	LINEAR		A-4.79	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	
GLPP-	OFFICE	416	LINEAR		A-4.79	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	
GLPP-	OFFICE	415	LINEAR		A-4.79	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	
GLPP-	MEETING ROOM	414	LINEAR		A-4.79	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	3	
GLPP-	WOMENS WASHROOM	406	FIXTURES		A-4.79	120V	GLPP-DIMFLVCN-PM	1	1	E, F	SWITCHED	N	71.7	1	
GLPP-	MENS WASHROOM	405	FIXTURES		A-4.79	120V	GLPP-DIMFLVCN-PM	1	1	E, F	SWITCHED	N	71.7	1	
GLPP-	TENDER CLOSING ROOM	442	LINEAR		A-4.77	120V	GLPP-DIMFLVCN-PM	1	1	A	0-10V DIMMED	Y	38.8	9	
GLPP-	KITCHEN	115	LINEAR		A-1.55	120V	GLPP-1DIMFLV2CN-PM	1	1	K	0-10V DIMMED	Y	54	8	
			LINEAR						2	K	0-10V DIMMED	Y	54	1	
GLPP-	OFFICE	223	LINEAR		B-2.41	120V	GLPP-1DIMFLV2CN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	
			LINEAR						2	A	0-10V DIMMED	Y	38.8	2	
GLPP-	OFFICE	224	LINEAR		B-2.37	120V	GLPP-1DIMFLV2CN-PM	1	1	A	0-10V DIMMED	Y	38.8	4	
			LINEAR						2	A	0-10V DIMMED	Y	38.8	4	
GLPP-	OFFICE	225	LINEAR		B-2.35	120V	GLPP-1DIMFLV2CN-PM	1	1	A	0-10V DIMMED	Y	38.8	4	
			LINEAR						2	A	0-10V DIMMED	Y	38.8	4	
GLPP-	OFFICE	226	LINEAR		B-2.35	120V	GLPP-1DIMFLV2CN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	
			LINEAR						2	A	0-10V DIMMED	Y	38.8	2	
GLPP-	OFFICE	227	LINEAR		B-2.35	120V	GLPP-1DIMFLV2CN-PM	1	1	A	0-10V DIMMED	Y	38.8	2	
			LINEAR						2	A	0-10V DIMMED	Y	38.8	2	

1

NOTES:

1.) LOAD SCHEDULE IS TO BE VERIFIED BY THE ELECTRICAL CONTRACTOR UPON COMPLETION OF INSTALLATION.

2.) AS BUILT REDLINE MARKUPS OF THE LOAD SCHEDULE MUST BE PROVIDED TO CRESTRON BEFORE SYSTEM PROGRAMMING CAN BE COMPLETED.

3.) THE ELECTRICAL CONTRACTOR, DISTRIBUTOR, OR ELECTRICAL ENGINEER MUST CONFIRM THAT THE FIXTURES SHOWN ARE COMPATIBLE WITH THE TYPE OF SWITCH OR DIMMER SHOWN ON THIS SCHEDULE. DIMMING A FIXTURE WITH AN INCOMPATIBLE BALLAST MAY CAUSE DAMAGE THAT IS NOT COVERED BY WARRANTY.

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean that the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

PROJECT: TOMLINSON
LOCATION: CITIGATE, OTTAWA
QUOTE #:1048528
ORDER #: 1841941
PO #: PURCHASE ORDER
SALES REP: BDA LIGHTING GROUP
DISTRIBUTOR: DISTRIBUTOR

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

TITLE:
GLPP LOAD SCHEDULES CONT'D

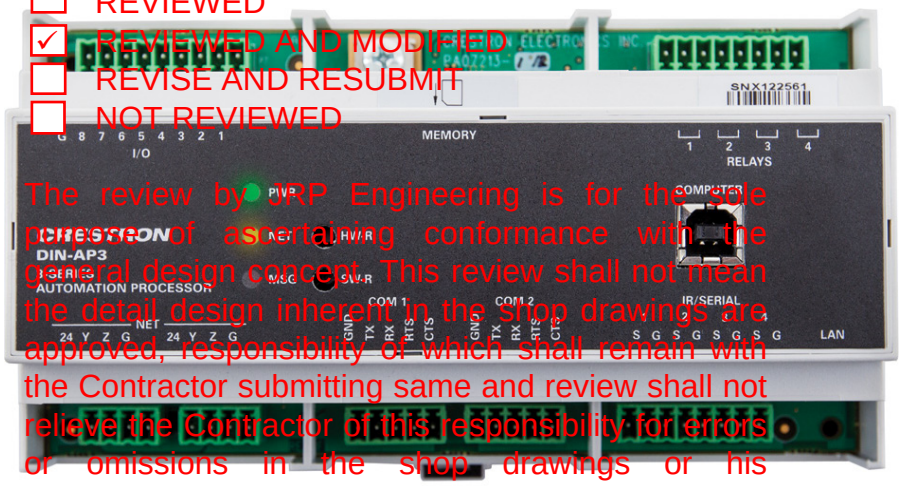
DRAWING: 06.2
REV:01
DATE:3-29-17
DRAWN BY:SDL

DIN-AP3

3 SERIES

DIN Rail 3-Series® Automation Processor

- *Enterprise-class control system*
- *3-Series® Control Engine — substantially faster and more powerful than other control systems*
- *Exclusive modular programming architecture*
- *Programmable astronomical time clock for scheduled events*
- *Onboard 256MB RAM & 4GB Flash memory*
- *Memory card slot*
- *Industry-standard Ethernet and Cresnet® wired communications*
- *XPanel with Smart Graphics™ computer and web based control*
- *iPhone®, iPad®, and Android™ control app support*
- *Crestron Fusion® Cloud Enterprise Management Service support*
- *SNMP remote management support*
- *Two RS-232/422/485 COM ports with hardware and software handshaking*
- *Four IR/serial, four relay, and eight Versiport I/O ports*
- *Native BACnet™/IP support [2]*
- *Installer setup via Crestron Toolbox™ software or web browser*
- *C#, symbol based, and drag-and-drop programming environments*
- *Full Unicode (multi-language) support*
- *Increased network throughput and security*
- *Secure access through full user/group management or Active Directory integration*
- *Hardware level security using 802.1X authentication*
- *TLS, SSL, SSH, and SFTP network security protocols*
- *FIPS 140-2 compliant encryption*
- *IIS v.6.0 Web Server*
- *IPv6 ready*
- *Front panel USB computer console port*
- *9M wide DIN rail mountable*



REVIEWED

☑ REVIEWED AND MODIFIED

REVISE AND RESUBMIT

NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and for coordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

3-Series® Control Systems

Today's commercial buildings and custom homes comprise more technology than ever before, and all these systems need to be networked, managed, and controlled in fundamentally new ways. The IP based 3-Series platform is engineered from the ground up to deliver a network-grade server appliance capable of fully handling everything from lighting and AV system control to total building management.

3-Series embodies a distinctively robust, dynamic, and secure platform [illegible] your system designs to higher levels of performance and reliability. [illegible] other control systems, Crestron 3-Series provides a pronounced increase in processing po[illegible], rock solid networking and IP control, and a unique modular programming architecture.

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

The Crestron® DIN-AP3 is a 3-Series Control System® designed for rail mounting applications. Featuring the 3-Series® control engine, DIN-AP3 forms the core of any modern networked home or comme building, managing and integrating all the disparate technologies throughout the facility to make life easier, greener, more productive and more enjoyable.

DIN Rail Mounting

The DIN-AP3 is designed to snap onto a standard DIN rail for instal a wall mount enclosure (Crestron DIN-EN series [1] or similar) or on panel. DIN rail mounting affords a very space-efficient, cost-effecti modular solution for configuring complete automation systems usi DIN-AP3 along with additional Crestron and third-party DIN rail mountable devices.

media servers, security systems, lighting, HVAC, and other equipment — whether on premises or across the globe.

DIN-AP3 DIN Rail 3-Series® Automation Processor

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all subtrades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

Control Apps & XPanel

Years ago, Crestron pioneered the world's first IP-based control system, unleashing vast new possibilities for controlling, monitoring, and managing integrated systems over a LAN, WAN, and the Internet. Today, Crestron offers more ways than ever to control your world the way you want. Using a computer, smartphone, or tablet device, Crestron lets you control anything in your home or workplace from anywhere in the world.

Native to every 3-Series control system, Crestron XPanel technology transforms any laptop or desktop computer into a virtual Crestron touch screen. Crestron control apps deliver the Crestron touch screen experience to iPhone®, iPad®, and Android™ devices, letting you safely monitor and control your entire residence or commercial facility using the one device that goes with you everywhere.

Crestron Fusion® Cloud

Crestron Fusion Cloud provides an integrated platform for creating truly smart buildings that save energy, enhance worker productivity, and prolong the life span of valuable equipment. As part of a complete managed network in a corporate enterprise, college campus, convention center, or any other facility, the DIN-AP3 works integrally with Crestron Fusion Cloud to enable remote scheduling, monitoring, and control of rooms and technology from a central help desk. It also enables organizations to reduce energy consumption by tracking real-time usage and automating control of lighting, shades, and HVAC.

SNMP Support

Built-in SNMP support enables integration with third-party IT management software, allowing network administrators to manage and control Crestron systems on the network in an IT-friendly format.

Astronomical Time Clock Feature

Scheduled events may be programmed c
astronomical time clock. As a result, eve
times or at an offset from sunrise or sun

Cresnet®

Cresnet provides a dependable network
keypads, lighting controls, shade motors
and other devices that don't require the
Cresnet bus offers easy wiring and confi
communication and 24VDC power to eac
cable. To assist with troubleshooting, the
pending Network Analyzer which continu
Cresnet network for wiring faults, margir

The DIN-AP3 includes a pair of Cresnet r
of supporting approximately 20 typical d
than 20 devices can be handled by addir
Distribution Hub or DIN-CENCN-2 Ethern
Connectivity for multiple homeruns can b
DIN-BLOCK Cresnet Distribution Blocks [1]
DIN-PWS50 Cresnet Power Supply [1] is required to power the DIN-AP3 and any connected Cresnet devices.

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

Onboard Control Ports

In addition to Ethernet, the DIN-AP3 includes a variety of control ports for interfacing with third-party equipment. Its two bidirectional COM ports and four IR ports allow for interfacing with security systems, small appliances, and AV devices. Four programmable relay ports are provided for controlling projection screens, lifts, power controllers, and other contact-closure actuated equipment. Eight "Versiport" I/O ports enable the integration of power sensors, motion detectors, door switches, alarms, or anything else that provides a dry contact closure, low-voltage logic, or 0-10 Volt DC signal. Additional control ports, lighting and motor controls, and other types of interfaces can be added easily using Crestron DIN Rail series lighting and automation modules.

BACnet™/IP

Native support for the BACnet/IP communication protocol provides a direct interface to third-party building management systems over Ethernet, simplifying integration with HVAC, security, fire & life safety, voice & data, lighting, shades, and other systems. Using BACnet/IP, each system runs independently with the ability to communicate together on one platform for a truly smart building.[2]

SPECIFICATIONS

Control Engine

Crestron 3-Series; real-time, preemptive multi-threaded/multitasking
d FAT file system; supports up to 10
simultaneously running programs

rds up to 32 GB

uto-negotiating, auto-discovery,
stack, UDP/IP, CIP, DHCP, SSL,
l), FIPS 140-2 compliant
[2], IPv4 or IPv6, Active Directory
e-mail client

panel USB 2.0 device port
ol and monitoring, supports
baud with hardware and

via infrared up to 1.2 MHz or
baud

Connectors & Card Slots

I/O 1 – 8: (1) 9-pin 3.5 mm detachable terminal block;
Comprises (8) "Versiport" digital input/output or analog input ports (referenced to GND);

DIN-AP3 DIN Rail 3-Series® Automation Processor

Digital Input: Rated for 0-24 Volts DC; input impedance 20k Ohms, logic threshold >3.125V low/0 and <1.81V high/1;
Digital Output: 250 mA sink from m[illegible]mum 24 Volts DC; catch diodes for use with “real world” loads;
Analog Input: Rated for 0-10 Volts DC, protected to 24 Volts DC maximum, input impedance 21k Ohms with pull-up resistor disabled;
Programmable 5 Volts, 2k Ohms pull-up resistor per pin

Ground: (1) Captive screw terminal;
Chassis ground lug

MEMORY: (1) SD memory card slot;
Accepts one SD or SDHC card up to 32 GB for memory expansion

RELAYS 1 – 4: (1) 8-pin 3.5 mm detachable terminal block;
Comprises (4) normally open, isolated relays;
Rated 1 Amp, 30 Volts AC/DC;
MOV arc suppression across contacts

COMPUTER: (1) USB Type B female;
USB 2.0 computer console port (6 ft cable included);
For setup only

NET: (2) 4-pin 3.5 mm detachable terminal blocks, paralleled;
Cresnet master port and 24 Volt DC power input

COM 1 – 2: (2) 5-pin 3.5 mm detachable terminal blocks;
Bidirectional RS-232/422/485 ports;
Up to 115.2k baud; hardware and software handshaking support

IR/SERIAL 1 – 4: (1) 8-pin 3.5 mm detachable terminal block;
Comprises (4) IR/Serial output ports;
IR output up to 1.2 MHz;
1-way serial TTL/RS-232 (0-5 Volts) u

LAN: (1) 8-pin RJ45 jack;
10Base-T/100Base-TX Ethernet port

Controls & Indicators

PWR: (1) Dual-color green/amber LEI
from Cresnet network or power suppl
green when operating
NET: (1) Amber LED, indicates comm
MSG: (1) Red LED, indicates process
HW-R: (1) Recessed miniature pushb
SW-R: (1) Recessed miniature pushb
LAN: (2) LEDs, green LED indicates E
indicates Ethernet activity

Power

Cresnet Power Usage: 8 Watts (0.33

Environmental

Temperature: 32° to 104° F (0° to 40° C)
Humidity: 10% to 90% RH (non-condensing)
Heat Dissipation: 26 BTU/hr

Enclosure

Light gray polycarbonate housing with polycarbonate label overlay, UL94 V-0 rated, 35 mm DIN EN 60715 rail mount, DIN 43880 form factor for enclosures with 45 mm front panel cutout, occupies 9 DIN module spaces (162 mm)

Dimensions

Height: 3.72 in (95 mm)
Width: 6.38 in (160 mm)
Depth: 2.29 in (59 mm)

Weight

9.8 oz (277 g)

MODELS & ACCESSORIES

Available Models

DIN-AP3: DIN Rail 3-Series® Automation Processor

Available Accessories

DIN-EN Series: Enclosures for DIN Rail Devices
DIN-PWS50: DIN Rail 50 Watt Cresnet Power Supply
DIN-PWS30-277: DIN Rail 30 Watt Cresnet Power Supply, 277V
DIN-BLOCK: DIN Rail Cresnet Distribution Block
DIN-[illegible]: [illegible]stribution Hub
DIN-[illegible]: Ethernet to [illegible]esnet Bridge
DIN-[illegible]: Ethernet to Cresnet Bridge w/PoE
· channels
er, 1 feed, 4 channels
cent Dimmer, 4 feeds, 4 channels
ch, 8 feeds, 8 channels
itch with Digital Inputs
eds, 2 channels
ıle

nterface
le
k Connector
iOS® and Android™
rs

nent Platform
pport for 3-Series®

REVIEWED
REVIEWED AND MODIFIED
REVISE AND RESUBMIT
NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering
C.McGuire
DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

DIN-AP3 DIN Rail 3-Series® Automation Processor

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

Notes:

1. Item(s) sold separately.
2. License required. The DIN-AP3 supports a maximum of 500 BACnet objects when dedicated for BACnet use only. Actual capabilities are contingent upon the overall program size and complexity.

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

The specific patents that cover Crestron products are listed online at patents.crestron.com.

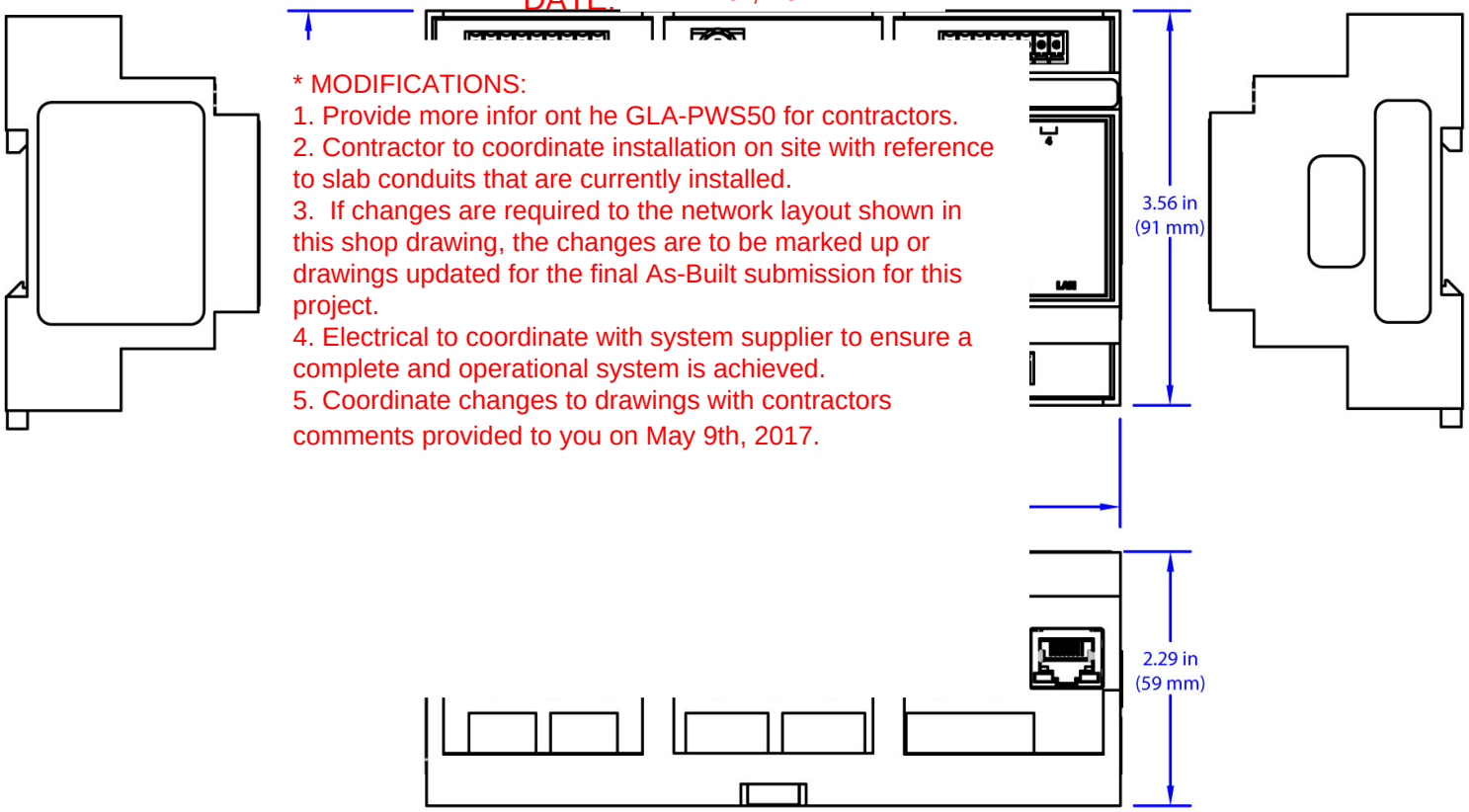
Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean that JRP Engineering has approved the detail design inherent in the shop drawings, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017



* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

Crestron Electronics, Inc. 15 Volvo Drive | Rockleigh, NJ 07647
Tel: 800.237.2041 / 201.767.3400 | Fax: 201.767.1903
www.crestron.com

Specifications subject to change without notice. Revised 10/21/16

CEN-SW-POE-5

5-Port PoE Switch

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

- *5-port unmanaged Ethernet switch*
- *All ports support 1000Base-T Gigabit Ethernet*
- *Provides PoE (802.3af) on 4 ports*
- *Auto-negotiating and auto MDI/MDIX*
- *Rugged metal enclosure*
- *Surface or rack-rail mountable*

The CEN-SW-POE-5 is a 5-port unmanaged Gigabit Ethernet switch that provides Power over Ethernet (PoE) from four of its ports. Power over Ethernet affords a one-wire solution for connecting Crestron touch screens, gateways, and other devices, delivering power and data over a single CAT5/6 network cable. All 5 ports are Gigabit capable to ensure maximum bandwidth for multimedia and critical control data.

Using the CEN-SW-POE-5, there is no need to install a separate power supply at each networked device location. The CEN-SW-POE-5 can simply be mounted at a convenient location on a wall or in an equipment rack, providing a single power source for four separate 802.3af compliant PoE powered devices. Non-PoE devices may also be connected to any port on the CEN-SW-POE-5 without risk of damage to either component.

SPECIFICATIONS

Ethernet

Ports: (5) 10Base-T/100Base-TX/1000Base-T Ethernet
Network Standards: IEEE 802.3, 802.3u, 802.3ab, 802.3x, & 802.3af
Transmission Meth [illegible]

Indicators

PoE 1 – 4: (4) gree
each correspondin

Uplink: (1) green L
speed, and activity

1 – 4: (1) green LE
indicate Ethernet li
corresponding port

Power: (1) yellow
power pack

Connectors

Uplink: (1) 8-wire
10Base-T/100Base

1 – 4: (4) 8-wire R
10Base-T/100Base
Sourcing Equipmer

G: (1) 6-32 screw, chassis ground lug

48VDC: (1) 4-pin (2x2) rectangular connector;
48 Volt DC power input (power pack included)

Power Requirements

mps @ 48 Volts DC;
/60 Hz power pack included

) 104°F (0° to 40°C)
0% RH (non-condensing)
) BTU/hour

k finish, with (2) integral mounting flanges, vented top

ding, surface mount, or attach to a single rack rail

mm)
mm)
nm)

13.5 oz (381 g)

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

CEN-SW-POE-5 5-Port PoE Switch

MODELS & ACCESSORIES

Available Models

CEN-SW-POE-5: 5-Port PoE Switch

Notes:

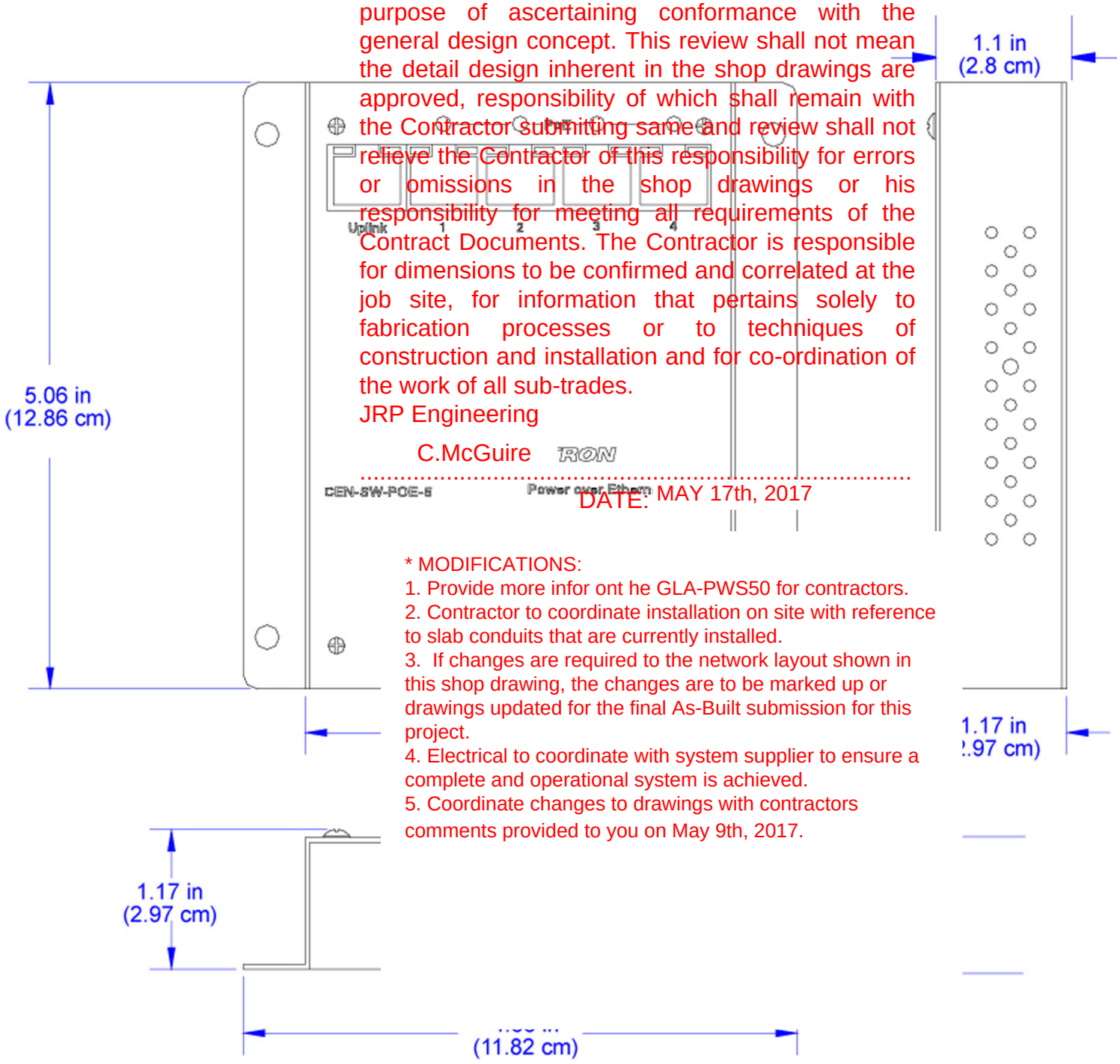
This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering

C.McGuire

DATE: MAY 17th, 2017



* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

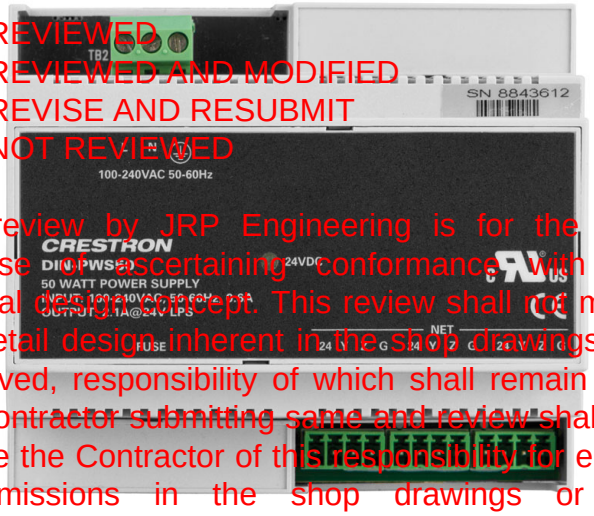
DIN-PWS50

DIN Rail 50 Watt Cresnet Power Supply

The DIN-PWS50 is a 50 Watt Cresnet Power Supply module designed to snap onto a standard DIN rail for installation in a wall mount enclosure. DIN rail mounting enables modular installation alongside Crestron DIN Rail lighting and automation control modules and other third-party DIN rail mountable devices. All wiring connections are made using screw terminals positioned along the top and bottom, clearly accessible from the front for easy installation and servicing. Three (3) Cresnet power ports are provided.

> 50 Watt Cresnet power supply module
> Powers the DIN-AP2 Automation Processor and other Cresnet devices

> Includes 3 Cresnet power ports
> Cresnet data passes through unaffected
> Dual line power input terminals for easy daisy-chaining
> 6M wide DIN rail mounting



SPECIFICATIONS

Output Power

Per Output Port: 50 Watts (2.08 Amps @ 24 Volts DC, Regulated), limited power source
Module Total: 50 Watts (2.08 Amps @ 24 Volts DC, Regulated)
Ripple/Noise: <1%

Power Requirements

Line Power: 60 Watts @ 100-240 Volts AC, 50/60 Hz

Connections

100-240V~50/60 Hz: (1) set of (3) captive screw terminals;
Line power input, neutral, and ground with pass-through;
Maximum Wire Size: 12 AWG (2.5 mm²)
NET: (3) 4-pin 3.5mm detachable terminal blocks, paralleled;
Cresnet power output ports with data pass-through
FUSE: DC output fuse, T3.15AH;
(5x20mm, 250V, 3.15A, time-lag, ceramic cartridge)

LED Indicators

24VDC: (1) green LED, indicates 24 Volts DC output at all NET ports; Remains lit when fuse is blown

Enclosure

Light gray polycarbonate housing with polycarbonate label overlay, UL94 V-0 rated, 35mm DIN EN 60715 rail mount, DIN 43880 form factor for enclosures with 45mm front panel cutout, occupies 6 DIN module spaces (108mm)

Environmental

Temperature: 32° to 104°F (0° to 40°C)
Humidity: 10% to 90% RH (non-condensing)
Heat Dissipation: 26 BTU/hr

Dimensions

Height: 3.71 in (9.42 cm)
Width: 4.18 in (10.60 cm)
Depth: 2.29 in (5.80 cm)

Weight

6 oz (170 g)

Available Models

DIN-PWS50 [6501744]: DIN Rail 50 Watt Cresnet Power Supply

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

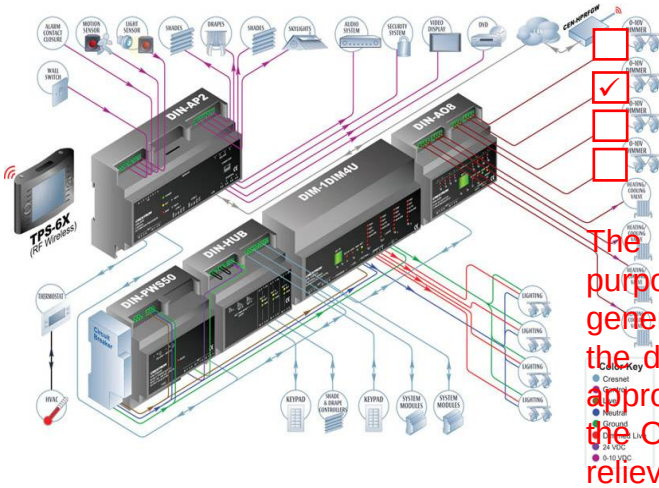
C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

DIN-PWS50DIN Rail 50 Watt Cresnet Power Supply

DIN Rail Automation System



- ☐ REVIEWED
- ☑ REVIEWED AND MODIFIED
- ☐ REVISE AND RESUBMIT
- ☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

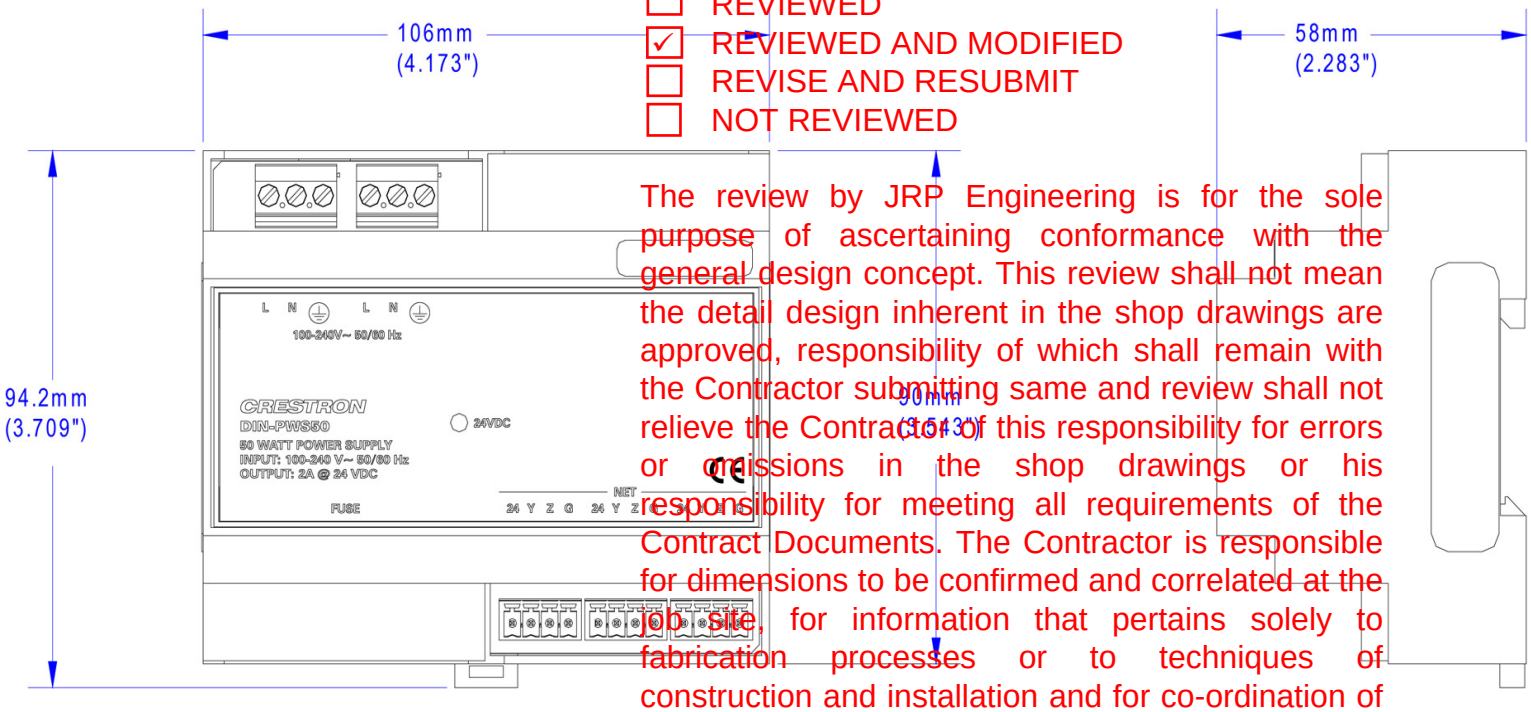
.....

DATE: MAY 17th, 2017

* MODIFICATIONS:

1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

DIN-PWS50DIN Rail 50 Watt Cresnet Power Supply



☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

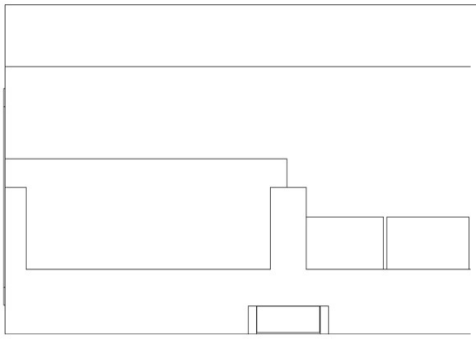
The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

.....

DATE: MAY 17th, 2017



* MODIFICATIONS:

1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

DIN-HUB

DIN Rail Cresnet® Distribution Hub

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering
C.McGuire
DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

- > 3-segment Cresnet hub
- > For C[illegible] networks with more than 20 devices
- > Configurable power supply for PWR
- > No programming required
- > 6M wide DIN rail mounting

The DIN-HUB is a DIN rail-mounted Cresnet hub designed to facilitate the configuration of large Cresnet networks. DIN rail mounting enables modular installation alongside Crestron DIN rail lighting and automation control modules and other third-party DIN rail mountable devices.

3-Segment Cresnet® Hub

Cresnet is the communications backbone for Crestron lighting modules, wall box dimmers, shade controllers, thermostats, keypads, touchpanels, and many other devices. This flexible 4-wire bus normally supports approximately 20 Cresnet devices without requiring a hub. Larger systems are easily enabled by adding the DIN-HUB. The DIN-HUB features 3 isolated Cresnet segments, each supporting an additional 20 devices, allowing for systems of approximately 80 devices total (including the "host" segment). More hubs may be added to allow up to a maximum potential of 252 devices.*

Cresnet Power Distribution

In addition to data, Cresnet carries 24 Volts DC for powering the devices connected to it. The DIN-HUB provides an easy way to manage the distribution of power on the Cresnet network. Each segment can be configured to receive its power from the "host" or another power supply. Separate power supplies may be dedicated to each segment, or a single supply can be shared amongst multiple segments as needed. Each

DIN Rail Insta

The DIN-HUB
in a wall mou
are made usi
bottom, clear
Diagnostic in
installed in a
panel stays v

SPECIF

Connectio

NET HOST: (2
Connects to
thru to additi
NET PWR IN
blocks; Cresn
external Cresnet power supplies, or to "host" power source via jumpers, to power Cresnet devices connected to the NET A-C ports;
Maximum Load per Segment: 75 Watts (3.13 Amps @ 24 Volts DC)

NET A – C: (6) 4-pin 3.5mm detachable terminal blocks comprising (2) Cresnet ports (paralleled) per each of (3) segments

LED Indicators

NET HOST, PWR: (1 Green) Indicates Cresnet power is supplied to unit via either NET HOST port
NET HOST, NET: (1 Yellow) Indicates Cresnet bus activity at either NET HOST port
NET A – C, PWR: (3 Green) Indicate Cresnet power is available at NET ports of corresponding hub segment
NET A – C, NET: (3 Yellow) Indicate Cresnet bus activity at NET ports of corresponding hub segment

uirements

Usage: 0.6 Watts (0.03 Amps @ 24 Volts DC)

ntal

32° to 104° F (0° to 40° C)
to 90% RH (non-condensing)
on: 2 BTU/hr

carbonate housing with polycarbonate label overlay,
, 35mm DIN EN 60715 rail mount, DIN 43880 form factor
with 45mm front panel cutout, occupies 6 DIN module
n)

s

(9.42 cm)
Width: 4.16 in (10.60 cm)
Depth: 2.28 in (5.80 cm)

DIN-HUB DIN Rail Cresnet® Distribution Hub

Weight

6.0 oz (169 g)

** The actual number of possible devices per segment and per network may vary depending upon the length and geometry of network wiring, and the power requirements of every device. A general rule of thumb suggests approximately 20 devices, an aggregate of 3000 feet of cable, and up to a 75 Watt load per segment (wiring and devices permitting). In any case, 1,250 is the maximum number of possible devices on a complete Cresnet network. Contact Crestron True Blue Support for further design assistance.*

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

MODELS & ACCESSORIES

Available Models

DIN-HUB: DIN-Rail Cresnet® Distribution Hub

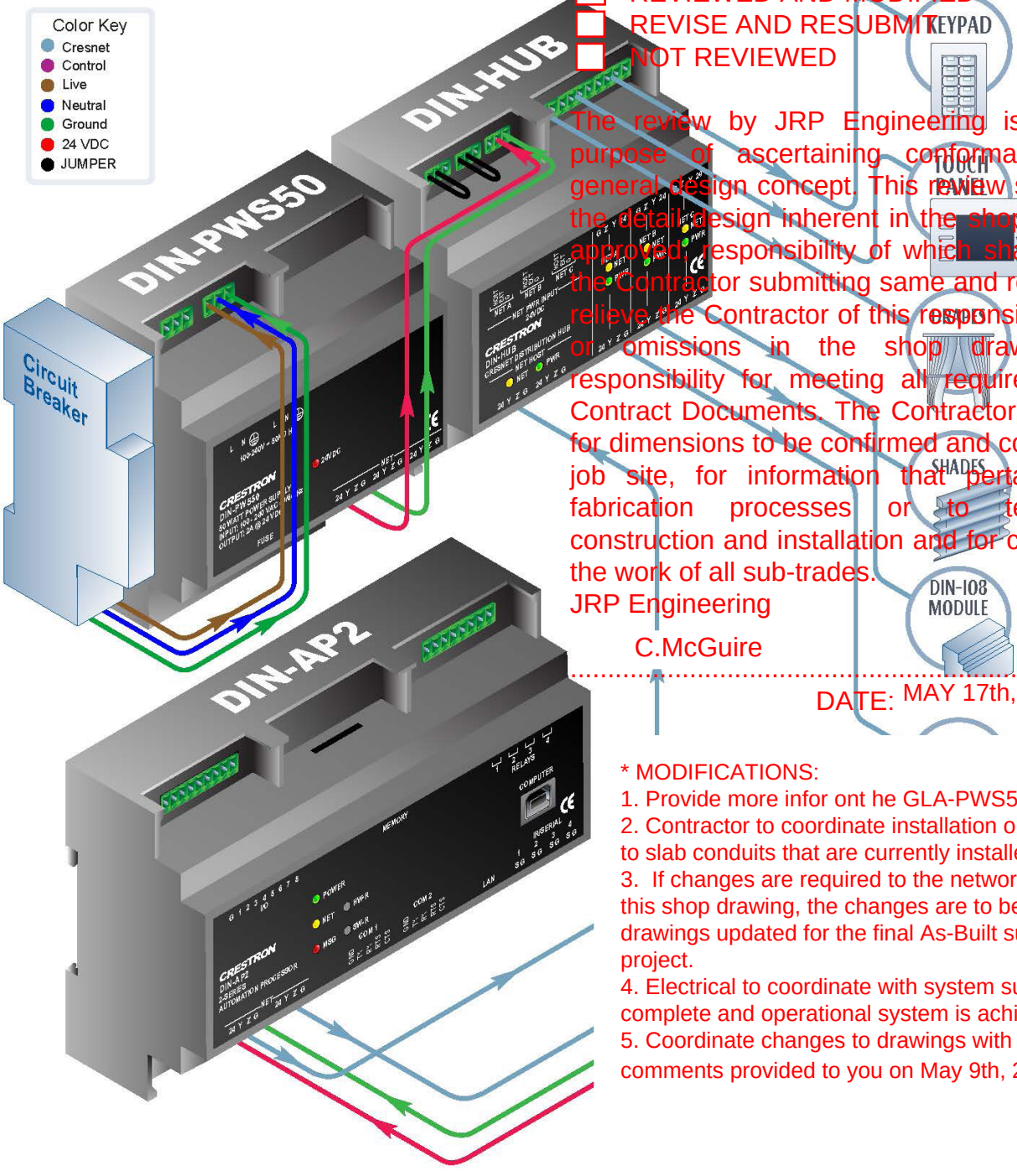
The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering

C.McGuire
.....
DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

DIN-HUB DIN Rail Cresnet® Distribution Hub

APPLICATION DIAGRAM



☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:

1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

Crestron Electronics, Inc. 15 Volvo Drive | Rockleigh, NJ 07647
Tel: 800.237.2041 / 201.767.3400 | Fax: 201.767.1903
www.crestron.com

XPanel

Crestron Control® for Computers

- *Enables virtual Crestron® touch screen control on a computer*
- *Compatible with Windows® and Mac® platforms*
- *Runs as a desktop application or in a Web browser*
- *Supports Smart Graphics™*
- *Programmed just like a Crestron touch screen or mobile app*
- *Can be generated instantly from an existing touch screen or mobile project*
- *Communicates directly over IP with a Crestron control system*
- *No special servers or service fees required*

Transform any computer into a virtual Crestron® touch screen with XPanel.

Crestron XPanel lets you control anything in your home, office or classroom using a laptop or desktop computer running Windows® or Mac®. XPanel works on any computer platform and any screen size using a mouse, touch screen monitor, or other pointing device. It can be installed and run as a desktop application, or you can launch it like a website using any Web browser. Use XPanel as a low-cost control solution for a small classroom AV system, to monitor your home from the office, as an interactive kiosk in a lobby or museum exhibit, or to enable centralized control of lighting and climate control in an office building or conference center. For virtually any application, XPanel can provide a robust and scalable IP based control solution.

Programming for XPanel is the same as for a Crestron touch screen, smartphone, or tablet, affording a computer-based user interface with the same look and feel as any other touch screen or mobile device in your system. XPanel suppor[1], delivering the Crestron touch screen experience to your computer using buttons, slid dynamic text, scrolling lists, and customizable themes. A touch screen project developed using Smart Graphics can be instantly transformed into an XPanel project, dram projects using Smart G by simply changing the programmers to test to screen present.

Every Crestron control s and affordable to add r computer communicate system over Ethernet o are required. Establishi control system is enabl

Whether you just want projector, or add full rer commercial building m effective option.

Control System Compatibility

XPanel is supported on all Ethernet-enabled Crestron® control systems.

XPanel with Smart Graphics™ is supported on all 3-Series® control systems.

XPanel with Smart Graphics is supported on the following 2-Series control systems: AV2, CEN2E, DMPS-100-C, DMPS-200-C, DMPS-300-C, DMPS-300-C-AEC, PAC2, PRO2, RACK2.

Please note: Smart Graphics "Applications" such as Media Player, Weather, and EnergyMonitor require a 3-Series control system.

For additional information about Smart Graphics, please refer to Crestron Help Answer ID 5188.

control system compatibility.

ıming, and other Crestron products must be purchased from an d a dealer, please contact the Crestron sales representative for ıtatives is available online at www.crestron.com/salesreps or by

restron products are listed online at: patents.crestron.com.

eries, Crestron Control, and Smart Graphics are either trademarks tron Electronics, Inc. in the United States and/or other countries. istered trademark of Apple Inc. in the United States and/or other ademark or registered trademark of Microsoft Corporation in the ries. Other trademarks, registered trademarks, and trade names refer to either the entities claiming the marks and names or their proprietary interest in the marks and names of others. Crestron ɔography or photography. Specifications are subject to change Electronics, Inc.

REVIEWED
☑ REVIEWED AND MODIFIED
REVISE AND RESUBMIT
NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

SW-3SERIES-BACNET

3 SERIES

3-Series® Native BACnet™/IP Support

One platform, complete control and automation

Crestron 3-Series® Control Systems bring all your technology and devices together onto a single platform so they work together seamlessly and intelligently. Anything and everything connected to a Crestron control system can be monitored, managed, and controlled — anytime, anywhere from a touch screen, laptop, or smart device.

3-Series® Control Systems Native BACnet™/IP Interface

The ability for all 3-Series Control Systems to natively talk BACnet/IP is now available. This exciting feature enables you to connect all local devices to the Building Management System (BMS), as well as to control all BMS devices from a touch screen.

The 3-Series Control System® with native BACnet/IP support provides a scalable, IP-based platform for implementing fully integrated building management and automation. Integrated control of lighting, shades, HVAC, AV, BMS, security, voice & data, and other connected systems is now faster, simpler and more efficient than ever. Built-in BACnet/IP support enables seamless integration with existing building management systems. All systems run independently and communicate with each other on the same platform, creating a truly smart building.

Licensing

A free BACnet/IP license is available to support up to 50 objects. For systems with more than 50 objects you must purchase the full license. For details on obtaining a license and implementing BACnet/IP support, please refer to Crestron True Blue Online Help Answer ID 5283.

BACnet/IP support is NOW AVAILABLE for the following 3-Series control systems:

- AV3
- CP3
- CP3N
- DIN-AP3
- DIN-AP3MEX
- DMPS3-4K-150-C
- DMPS3-200-C
- DMPS3-300-C
- ET-TSC600
- MC3
- PRO3
- RMC3
- TPCS-4SM
- TPCS-4SMD
- TSCW-730

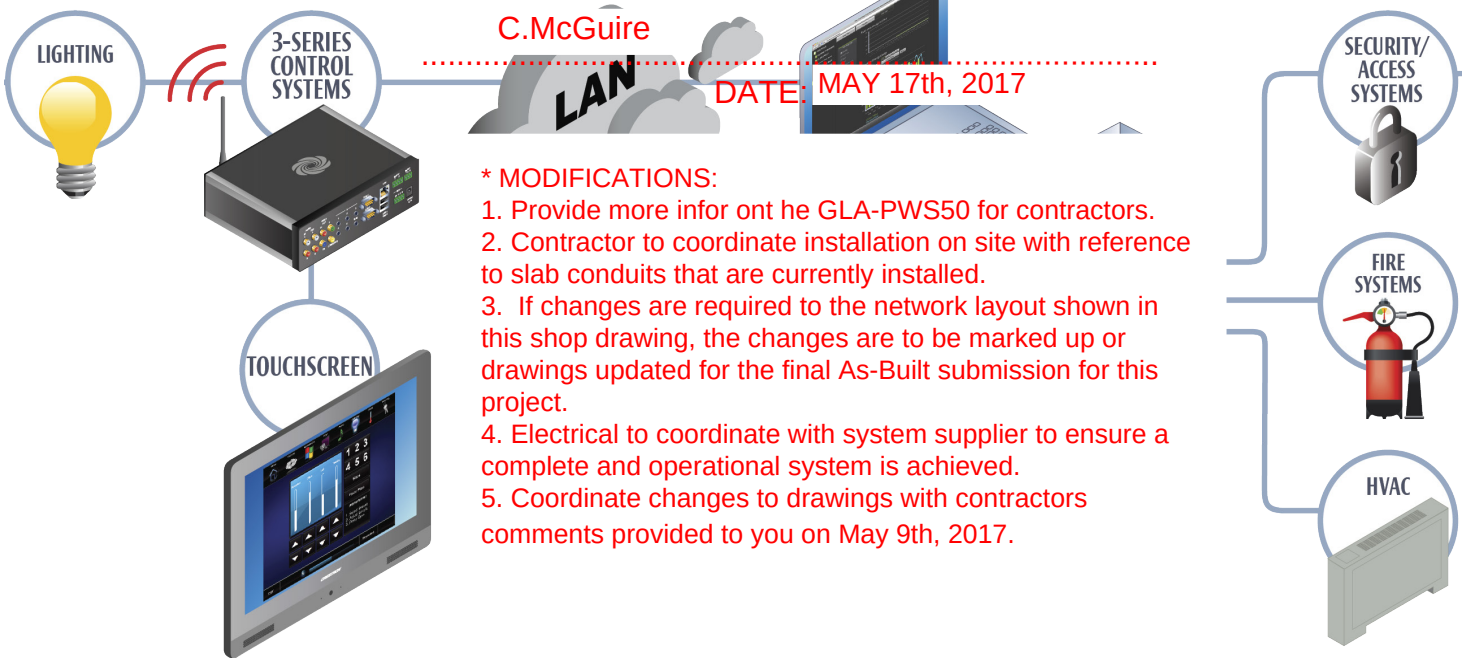
☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017



* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

3-Series® Native BACnet™/IP Support

System Design & Programming Considerations

Please note the following limits when designing or programming your control system. Actual capabilities are contingent upon the overall program size and complexity. The following limits assume the control system is dedicated for BACnet use only with no other significant control system functions:

- FT-TSC600, TPCS-4SM, TPCS-4SMD, & TSCW-730: 250 objects maximum
- DIN-AP3, DIN-AP3MEX, DMPS3-4K-150-C, DMPS3-200-C, DMPS3-300-C, MC3, & RMC3: 500 objects maximum
- CP3 & CP3N: 1000 objects maximum
- AV3 & PRO3: 2000 objects maximum

MODELS

Available Models

SW-3SERIES-BACNET-50+: BACnet™/IP Support for 3-Series® – Full license for more than 50 objects

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

.....

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

Notes:

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

The specific patents that cover Crestron products are listed online at: patents.crestron.com.

GLPAC-DIMFLV

Crestron Green Light® Integrated Lighting System

- Up to 8 channels of 0-10 Volt dimming control
- Works in 100 to 277 VAC systems
- 16-Amp load rating per channel
- Built-in Control System with Ethernet and Cresnet ports
- UL924 compliant emergency configuration in GLPAC-DIMFLV8-4E Series models
- Programmable astronomical time clock for scheduled events
- Preloaded program for quick setup
- Optional real-time power monitoring per channel
- Supports keypad control, occupancy sensing, and daylight harvesting for up to 4 rooms
- Positive air gap at each output
- Phase-independent channels
- Local controls for setup, testing and verification
- Local and remote override capability
- Non-volatile power failure memory
- High-speed Ethernet LAN port
- CEC Title 24 2013 Compliant

REVIEWED
REVIEWED AND MODIFIED
REVISE AND RESUBMIT
NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

The GLPAC-DIMFLV is a Crestron Green Light® integrated lighting system designed for use as a standalone lighting controller in classrooms, conference rooms, and offices. Available to deliver control of eight channels of 0-10 Volt dimming control, each GLPAC-DIMFLV also provides a link to a centralized Crestron® lighting control system. Add optional real-time power monitoring and Fusion EM® Energy Management Software to help track and minimize energy usage throughout a facility. Cresnet® and Ethernet connectivity afford extensive sys hen using keypads, touch screens, shade controllers,

Flexibility

Each GLPAC-DIMFLV can be independent rooms. Single- with no additional configura system adjustments are acc GLPAC-DIMFLV or via the bu GLPAC-DIMFLV is a Crestron customization is possible fo

Astronomical Time Clock

Scheduled events may be p to an astronomical time clo specific times or at an offse

Save Energy

Built-in support for occupar energy costs. Automatically maintain balanced bulb brig Crestron GLS Series sensor maximize the benefits of en

Emergency Configuration

Each GLPAC-DIMFLV8-4E Series model features built-in voltage barriers that isolate four of its eight output channels. This configuration allows loads such as emergency lighting and exit signs to be supplied from two asynchronous sources.

Built-in Power Monitoring

Optional power monitoring tracks the real time energy usage of each load and delivers energy consumption statistics to the user to help control energy costs. By analyzing real data, organizations can make more educated decisions regarding energy resources, which will have greater impact on the bottom line.

Easy Deployment

tal enclosure, the GLPAC-DIMFLV can be deployed in ing plenum ceilings. The surface-mount d to a wall or ceiling rafter, cleanly out of sight. ts are provided.

tron Green Light commercial lighting tron Sales Support Services.

MFLV4 Series: 4
MFLV8 Series: 8
MFLV8-4E Series: 4 and 4, isolated
) to 277 Volts AC, 50/60 Hz
lorescent ballast or LED driver (4-wire);

ent Ballast, incandescent, magnetic oltage, neon/cold cathode, high-intensity

GLPAC-DIMFLV Crestron Green Light® Integrated Lighting System

Relay Lifetime: Resistive rating: 100,000 on/off operations, 50 Amps @ 277 Volts AC
General rating: 50,000 on/off operations, 16 Amps @ 120/277 Volts AC

Power Requirements

Main Power: 100-277 Volts AC, 50/60Hz, su ed via channel 1 (LINE 1 NEUT)
Available Cresnet Power: 10 Watts at 24 Volts DC, shared with occupancy and photosensor ports

Connectors (Class 1) - 4-Channel Models Only

NEUT: (2) Terminal blocks, paralleled, line input neutral
LINE 1 - LINE 4: (8) Terminal blocks, paralleled, line power inputs
SW1 - SW4: (4) Terminal blocks, switch channel outputs
0-10V DIM (+,-) 1-4: (1) 8-position terminal block, dim channel output, galvanically isolated; May be wired as Class 1 or Class 2

Connectors (Class 1) - 8-Channel Models Only

NEUT: (2) Terminal blocks, paralleled, line input neutral
LINE 1 - LINE 8: (16) Terminal blocks; 2 connections per channel, paralleled, allows for easy daisy chaining; line power inputs
SW1 - SW8: (8) Terminal blocks, switch channel outputs
0-10V DIM (+,-) 1-8: (2) 8-position terminal block, dim channel output, gavanically isolated; may be wired as Class 1 or Class 2

Connectors (Class 2)

NET SLAVE: (1) 4-pin 3.5mm detachable terminal block; Cresnet ports for connection to main control processor or other GLP/ ot output 24 Volts DC
OVR: (1) 2-pin 3.5mm detachable terminal block, comprising (2) inputs for external contact closures to trigger the preset Override state
NET LOCAL: (1) 4-pin 3.5mm detachable term connection to local devices such as keypads, s screens; outputs 24 Volts DC
RELAY 1-4 (-PM models only): (1) 8-pin 3.5m blocks comprising (4) normally open, isolated used for interfacing to local Variable Air Volum occupancy; Rated 1 Amp, 30 Volts DC
INPUT 1-8: (1) 9-pin 3.5mm detachable termir digital input ports, referenced to ground
OCCUPANCY SENSOR INPUT 1-4: (1) 6-pin 3.5 block comprising (4) occupancy sensor inputs, port (provides sensors with power)
PHOTOCELL 1-4: (1) 6-pin 3.5mm detachable (4) photocell sensor inputs, (1) +24VDC, and (1 sensors with power); Min-change setting can often sensor reports changes in values
USB: (1) USB Type B console port, for commun Crestron Toolbox™
LAN: (1) 8-wire RJ45 with 2 LED indicators; 1(Green LED indicates link status; Yellow LED in

Controls & Indicators

MODE: (2) 7-Segment green LED digits and (2) miniature pushbuttons for setting mode during setup or local control
VALUE: (2) 7-Segment green LED digits and (2) miniature pushbuttons for setting value
SAVE: (1) Red LED and (1) miniature pushbutton for saving settings
CANCEL: (1) Red LED and (1) miniature pushbutton for cancelling current operation
PWR: (1) Green LED: solid illumination indicates line power is applied to NEUT and LINE1
HW-R: (1) Recessed miniature pushbutton for hardware reset (reboots the processor)
SW-R: (1) Recessed miniature pushbutton for software reset (restarts the SIMPL program)
NET-C: (1) Yellow LED; indicates communication with main control processor (if being used)
NET-L: (1) Yellow LED; indicates communication with local devices
MSG: (1) Red LED indicates control system has generated an error message
OVR: (1) Red LED and (1) miniature pushbutton for enabling override mode
ON/OFF: (8) Red LEDs and (8) miniature pushbuttons for individual manual channel activation and dimming

Enclosure

Surface mount metal box enclosure, suitable for mounting in plenum airspace

Environmental

Temp ... sing)

s according to UL508,
ectronic Ballasts)
isms incorporated in
ıp circuits or other

g System, 4-Channel
GLPAC-DIMFLV4-CP: Green Light Integrated Lighting System, 4-Channel, Chicago Plenum Enclosure

REVIEWED
☑ REVIEWED AND MODIFIED
REVISE AND RESUBMIT
NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean that the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering
C.McGuire
DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

GLPAC-DIMFLV Crestron Green Light® Integrated Lighting System

GLPAC-DIMFLV4-PM: Green Light Integrated Lighting System, 4-Channel, Power Monitoring
GLPAC-DIMFLV4-PM-CP: Green Light Integrated Lighting System, 4-Channel, Power Monitoring, Chicago Plenum Enclosure
GLPAC-DIMFLV8: Green Light Integrated Lighting System, 8-Channel
GLPAC-DIMFLV8-CP: Green Light Integrated Lighting System, 8-Channel, Chicago Plenum Enclosure
GLPAC-DIMFLV8-PM: Green Light Integrated Lighting System, 8-Channel, Power Monitoring
GLPAC-DIMFLV8-PM-CP: Green Light Integrated Lighting System, 8-Channel, Power Monitoring, Chicago Plenum Enclosure
GLPAC-DIMFLV8-4E: Green Light Integrated Lighting System, 2 Isolated 4-Channel Outputs, UL924 Listed
GLPAC-DIMFLV8-4E-CP: Green Light Integrated Lighting System, 2 Isolated 4-Channel Outputs, UL924 Listed, Chicago Plenum Enclosure
GLPAC-DIMFLV8-4E-PM: Green Light Integrated Lighting System, 2 Isolated 4-Channel Outputs, UL924 Listed, Power Monitoring
GLPAC-DIMFLV8-4E-PM-CP: Green Light Integrated Lighting System, 2 Isolated 4-Channel Outputs, UL924 Listed, Chicago Plenum Enclosure, Power Monitoring

Available Accessories

CNX-B2B Series: Designer Keypads
C2N-CBD-E Series: Cameo® Express Keypads
C2N-CBD-P Series Cameo® Keypads, Standard Mount
C2N-CBF-P Series: Cameo® Keypads, Flush Mount
GLS-SIM: Crestron Green Light® Sensor Integration Module
GLS-LEXT: Crestron Green Light® Photocell, Exterior
GLS-LOL: Crestron Green Light® Photocell, Open-Loop
GLS-LCL: Crestron Green Light® Photocell, Closed-Loop
GLS-ODT-C-CN: Dual-Technology Occupancy Sensor with Cresnet®, 2000 Sq. Ft.
GLS-ODT-C-NS: Dual-Technology Ceiling Mount Occupancy Sensor
GLS-ODT-C-2000: Crestron Green Light® Dual-Technology Ceiling Mount Occupancy Sensor, 2000 Sq. Ft.
GLS-ODT-W-1200: Crestron Green Light® Dual-Technology Wall Mount Occupancy Sensor, 1200 Sq. Ft.
GLS-OIR-C-CN: Passive Infrared Occupancy Sensor with Cresnet®
GLS-OIR-C-NS: Passive Infrared Ceiling Mount Occupancy Sensor
GLS-OIR-W-2500: Crestron Green Light® Passive Infrared Wall Mount Occupancy Sensor, 2500 Sq. Ft.
GLS-PLS-120/277: Power Loss Sensor, 3-Phase, 120 or 277 Volts
DIN-PWS50: DIN Rail 50 Watt Cresnet Power Supply
GLA-PWS50: Wall Mount 50 Watt Cresnet® Power Supply

Notes:

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

The specific patents that cover Crestron products are listed online at: patents.crestron.com.

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering

C.McGuire

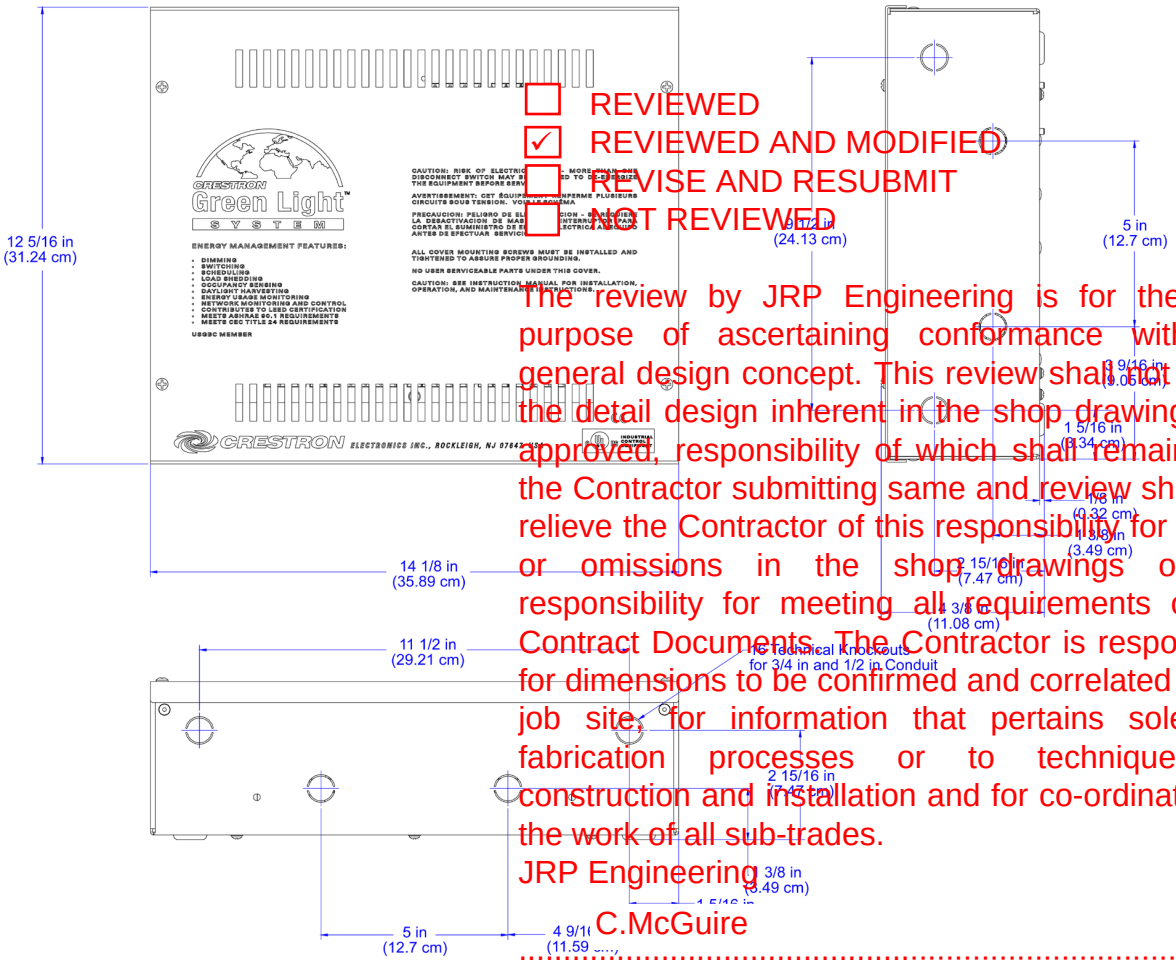
DATE: MAY 17th, 2017

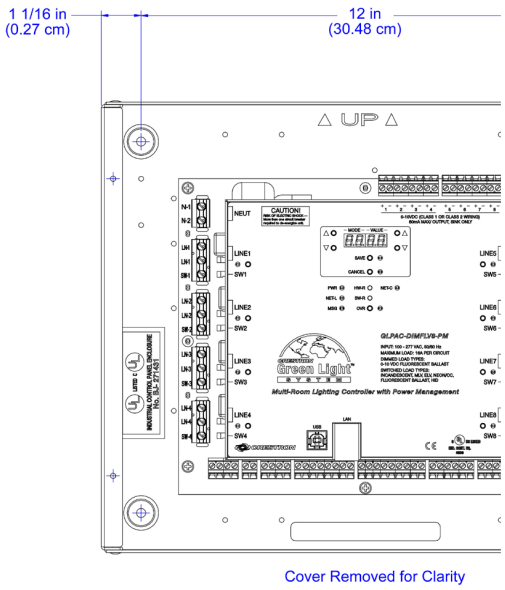
* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

GLPAC-DIMFLV Crestron Green Light® Integrated Lighting System

CAD DRAWING

(GLPAC-DIMFLV8-PM SHOWN)





Cover Removed for Clarity

REVIEWED

☑ REVIEWED AND MODIFIED

REVISE AND RESUBMIT

NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site; for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

.....

DATE: MAY 17th, 2017

* MODIFICATIONS:

1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

GLPAC-DIMFLV Crestron Green Light® Integrated Lighting System

APPLICATION DIAGRAM

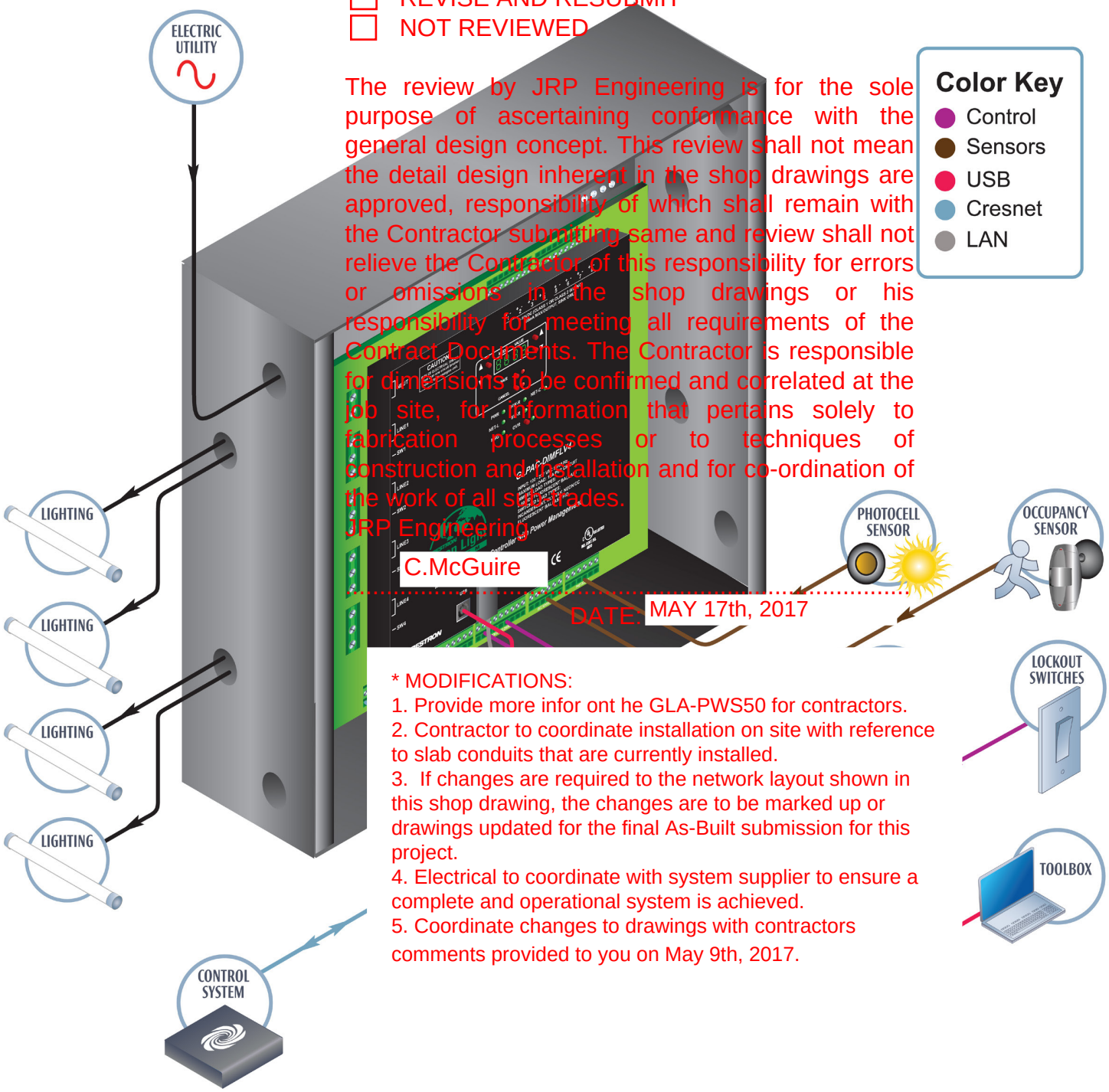
- ☐ REVIEWED
- ☑ REVIEWED AND MODIFIED
- ☐ REVISE AND RESUBMIT
- ☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017



* MODIFICATIONS:

1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

Crestron Electronics, Inc. 15 Volvo Drive | Rockleigh, NJ 07647
Tel: 800.237.2041 / 201.767.3400 | Fax: 201.767.1903
www.crestron.com

GLPP

Crestron Green Light® Power Pack

- *Lighting control for 120-277 Volt AC loads*
- *Ideal for new construction or retrofits*
- *Quick and easy commissioning via optional handheld remote (GLPPA-REMOTE-PRG)*
- *Wired or wireless link to central Crestron® system*
- *1-, 2-, and 3-channel models available*
- *Switched and 0-10V dimming models available*
- *Occupancy sensor and photosensor integration*
- *Support for up to three remote keypads*
- *Easy keypad wiring using existing switch-loop wiring*
- *Optional handheld remote for daily use (GLPPA-REMOTE-USER)*
- *Real-time energy monitoring on select models*
- *Adaptive zero-cross switching for extended life*
- *Seamless integration with Crestron AV systems*
- *CEC Title 24 2013 Compliant*

The Crestron Green Light® Power Pack (GLPP) family delivers affordable room lighting control with essential features for reducing energy usage. Available with up to three channels of switching or 0-10V dimming, each GLPP model includes inputs for a photosensor and for an occupancy sensor for intelligent lighting control based on the amount of natural light and the presence of people in a space. The GLPP Series offers a cost-effective and powerful lighting control solution for classrooms, small offices, and open-plan offices.

Ideal for new construction as well as retrofitting existing buildings, GLPPs are designed to install ar dly and without hassle. Additionally, the GLPP can be connected to a central control system, enabling it to become an integral part of the building energy management system. The dimming models also include built-in power monitoring to track e to assess real power system, the GLPP ca remote (the GLPPA-F

Easy Installation

Designed to mount c boxes, the GLPP is e connections are mac Once installed, each default settings adec

Further commissioni GLPPA-REMOTE-PR use the IR receiver c sensor that is conne commands. If occup GLPPA-IRGW-F flush operation of a GLPP

Energy Efficiency

Occupancy sensor and photosensor inputs drive the potential for significant energy savings. Lights will turn off automatically when the room is vacated, and rooms with adequate daylight will dim automatically. During the simple commissioning process, these cost-saving techniques can be made permanent to prevent users from overriding them

Built-in Power Monitoring

Power monitoring, included on all dimming models,[1] tracks the real time energy usage of each GLPP to help control energy costs. By analyzing real data, organizations can make more educated decisions regarding energy resources, which will have greater impact on the bottom line.

User Interface Options

c scenes or manually adjust lighting in a space with up to three, 4-button GLPPA-KP keypads or the optional handheld user remote. To help promote installation in existing keypads can be installed in place of standard toggle xisting switch-loop wiring.[2]

Switching

st and to extend the life of the connected ballasts proprietary, closed-loop zero-cross switching ures that relay contacts close under no load.

Building Control System

oducts, control goes beyond just a single room. eat single room solution, it is designed to be part of rated building system, linked via wired or wireless central control system. With Crestron Fusion® nagers have total energy monitoring, management, s over all GLPPs and other installed Crestron

REVIEWED
☑ REVIEWED AND MODIFIED
REVISE AND RESUBMIT
NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

GLPP Crestron Green Light® Power Pack

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean that the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

Cresnet® Models - Wired Communications

Robust and reliable communications between the GLPP and a control system is provided over the Cresnet bus. The versatile topology of Cresnet means that installers can home-run, daisy-chain, or mix and match as needed. Cresnet connects to the GLPP via flying leads with wire nuts, eliminating any need for crimpers or connectors and making for a more secure, trouble-free termination.

infiNET EX® Models - Wireless Communications

Ultra-reliable infiNET EX wireless technology provides steadfast 2-way RF communications throughout a residential or commercial structure without the need for physical control wiring. Employing a 2.4 GHz mesh network topology, each infiNET EX device functions as an expander, passing command signals through to every other infiNET EX device within range (approximately 150 feet or 46 meters indoors), ensuring that every command reaches its intended destination without disruption.[3]

The GLPP communicates with a Crestron control system via an infiNET EX Wireless Gateway (model CEN-GWEXER, CEN-RFGW-EX, DIN-AP3MEX, or MC3[4]). Up to 100 infiNET EX devices may coexist on a single wireless network, and every device that is added to the network effectively increases the range and stability of the entire network by providing multiple redundant signal paths.[3]

SPECIFICATIONS

Load Ratings

Number of Dimming or Switching Channels: 1, 2, or 3, depending on model
Per Unit: 16 A
to 80%)
Dim Load Type
drivers; 60 mA
Switch Load T
low-voltage, el
discharge
Relay Lifetime

Power Rec

Power Consur
sensors or key
Wireless Mode
attached
Main Power:
Available Sens
multiple senso

Wired Con

Cresnet[5]

Wireless Communications — infiNET EX® Models Only

RF Transceiver: infiNET EX 2-way RF, 2.4 GHz ISM Channels 11-26 (2400 to 2483.5 MHz), default channel 15; IEEE 802.15.4 compliant
Range (Typical): 150 ft (46 m) indoor, 250 ft (76 m) outdoor, to nearest mesh network device(s); Subject to site-specific conditions and individual device capabilities[3]
Gateway: Requires an infiNET EX gateway[4]

Controls & Indicators

POWER: (1) Green LED, indicates line voltage is supplied to unit
STATUS: (1) Red LED, indicates unit is in Setup mode
STATUS: (1) Recessed push button, toggles Setup mode
IR RECEIVER: (1) IR window, for use with commissioning remote control

Connections (Class 1)

HOT: (1) 14 AWG Class 1 flying lead, black, line in (100-277 VAC)
NEUT: (1) 14 AWG Class 1 flying lead, white
SW HOT: (1, 2, or 3) 14 AWG Class 1 flying lead(s), red, switched hot labeled with channel number
GROUND: (1) 14 AWG Class 1 flying lead, green with yellow stripe

Connections (Class 1) – Dimmer Models Only

0-10V dim(+): (1, 2 or 3) 18 AWG Class 1 flying lead(s), violet, labeled with channel number
0-10V dim(-): (1) 18 AWG Class 1 flying lead, gray

Connections (Class 2)

COM: (1) 18 AWG Class 2 flying lead, black; common for sensors, IR and
24V: (1) 18 AWG Class 2 flying lead, red, sensor power
G Class 2 flying lead, orange, signal for occupancy sensor
WG Class 2 flying lead, yellow, signal for photo sensor
lass 2 flying lead, brown wire, connects to IR terminal
S or GLS-OIR-C-NS occupancy sensor; if sensors are not
vire can also connect with optional flush-mount, external
PA-IRGW-F)
AWG Class 2 flying leads, white with black stripe, supports
LPPA-KP Power Pack Keypads

s (Class 2) – Cresnet Models Only

WG Class 2 flying lead, blue, Cresnet Data Z
WG Class 2 flying lead, white, Cresnet Data Y

s (Class 2) – infiNET EX Models Only

nnection for supplied antenna

ized steel enclosure; designed for mounting to two (2)
d 4" square electrical junction boxes;[6] 3-channel versions require a box depth of 2.125 in (54 mm)

Environmental

Temperature: 32° to 104° F (0° to 40° C)
Humidity: 10% to 90% RH (non-condensing)

GLPP Crestron Green Light® Power Pack

Dimensions

Height: 4.25 in (108 mm)
Width: 8.63 in (219 mm); 9.88 in (251 mm) with antenna at 90° angle (wireless model only)
Depth: 2.00 in (51 mm)

Weight

2 lbs (907 g)

Standards & Certifications

UL916
FCC
Title 24
Relays listed under UL508 Section 41 (Endurance Test) and Section 61C (Electronic Ballasts)
CEC Title 24 2013 Compliant

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering
C.McGuire
DATE: MAY 17th, 2017

Notes:

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

MODELS & ACCESSORIES

Available Models

GLPP-SWCN: Crestron Green Light® Power Pack, 1-Channel Switch w/ Cresnet®
GLPP-1SW2CN: Crestron Green Light® Power Pack, 2-Channel Switch w/ Cresnet®
GLPP-1SW3CN: Crestron Green Light® Power Pack, 3-Channel Switch w/ Cresnet®
GLPP-DIMFLVCN-PM: Crestron Green Light® Power Pack, 1-Channel 0-10V Dimmer w/Cresnet® & Built-
GLPP-1DIMFLV2CN-PM: Crestron 0-10V Dimmer w/Cresnet® & Built-
GLPP-1DIMFLV3CN-PM: Crestron 0-10V Dimmer w/Cresnet® & Built-
GLPP-SWEX: Crestron Green Light infiNET EX® Wireless
GLPP-1SW2EX: Crestron Green Li infiNET EX® Wireless
GLPP-1SW3EX: Crestron Green Li infiNET EX® Wireless
GLPP-DIMFLVEX-PM: Crestron Gre 0-10V Dimmer w/infiNET EX® Wirel
GLPP-1DIMFLV2EX-PM: Crestron 0-10V Dimmer w/infiNET EX® Wirel
GLPP-1DIMFLV3EX-PM: Crestron 0-10V Dimmer w/infiNET EX® Wirel

Available Accessories

GLPPA-KP-W-S: In-wall Keypad fo
GLPPA-KP-B-S: In-wall Keypad fo
GLPPA-KP-A-S: In-wall Keypad for GLPP, Almond Smooth
GLPPA-REMOTE-PROG: Commissioning Remote for GLPP
GLPPA-REMOTE-USER: User Remote for GLPP
GLPPA-IRGW-F: IR Gateway for GLPP, Flush Mount
GLS-ODT-C-NS: Dual-Technology Ceiling Mount Occupancy Sensor
GLS-OIR-C-NS: Passive Infrared Ceiling Mount Occupancy Sensor
GLS-LOL: Crestron Green Light® Photocell, Open-Loop
GLS-LCL: Crestron Green Light® Photocell, Closed-Loop
GLS-LEXT: Crestron Green Light® Photocell, Outdoor
CEN-GWEXER: infiNET EX® & ER Wireless Gateway (Only for: GLPP-1DIMFLV2EX-PM, GLPP-1DIMFLV3EX-PM, GLPP-1SW2EX, GLPP-1SW3EX, GLPP-DIMFLVEX-PM, GLPP-SWEX)
CEN-RFGW-EX: infiNET EX® Wireless Gateway (Only for: GLPP-1DIMFLV2EX-PM, GLPP-1DIMFLV3EX-PM, GLPP-1SW2EX, GLPP-1SW3EX, GLPP-DIMFLVEX-PM, GLPP-SWEX)
CEN-RFGW-EX-PWE: infiNET EX® Wireless Gateway w/PoE Injector (Only for: GLPP-1DIMFLV2EX-PM, GLPP-1DIMFLV3EX-PM, GLPP-1SW2EX, GLPP-1SW3EX, GLPP-DIMFLVEX-PM, GLPP-SWEX)
MC3: 3-Series Control System® w/infiNET EX® (Only for: GLPP-1DIMFLV2EX-PM, GLPP-1DIMFLV3EX-PM, GLPP-1SW2EX, GLPP-1SW3EX, GLPP-DIMFLVEX-PM, GLPP-SWEX)
DIN-AP3MEX: DIN Rail 3-Series® Automation Processor w/infiNET EX® (Only for: GLPP-1DIMFLV2EX-PM, GLPP-1DIMFLV3EX-PM, GLPP-1SW2EX, GLPP-1SW3EX, GLPP-DIMFLVEX-PM, GLPP-SWEX)
GLW-EXPEX-GD-W-T: infiNET EX® Wireless Expander, Ground Pin Down, White Textured (Only for: GLPP-1DIMFLV2EX-PM, GLPP-1DIMFLV3EX-PM, GLPP-1SW2EX, GLPP-1SW3EX, GLPP-DIMFLVEX-PM, GLPP-SWEX)
GLA-EXPEX: Crestron Green Light® Wireless Expander for infiNET EX® Networks (Only for: GLPP-1DIMFLV2EX-PM, GLPP-1DIMFLV3EX-PM, GLPP-1SW2EX, GLPP-1SW3EX, GLPP-DIMFLVEX-PM, GLPP-SWEX)

eypad location to the GLPP.
r functionality will effectively extend the range
ge of the gateway. Battery-powered infiNET
ality. Crestron also offers dedicated infiNET EX
X, sold separately), which may be deployed to fill
nge of the mesh network. Up to 100 infiNET EX
best practices suggest a limit of approximately
support more devices, with a maximum of 16
F conditions allowing).

er.
neet code requirements.

zed Crestron dealer. To find a dealer, please
ur area. A list of sales representatives is available
ling 800-237-2041.

ts are listed online at: patents.crestron.com.

software. For specific information, visit

reen Light, Crestron Fusion, and infiNET EX are
restron Electronics, Inc. in the United States and/
trademarks, and trade names may be used in this
the marks and names or their products. Crestron
disclaims any proprietary interest in the marks and names of others. Crestron is not responsible for errors in typography or photography. Specifications are subject to change without notice.

GLPP Crestron Green Light® Power Pack

CAD DRAWINGS

GLPP-1SW3CN Shown

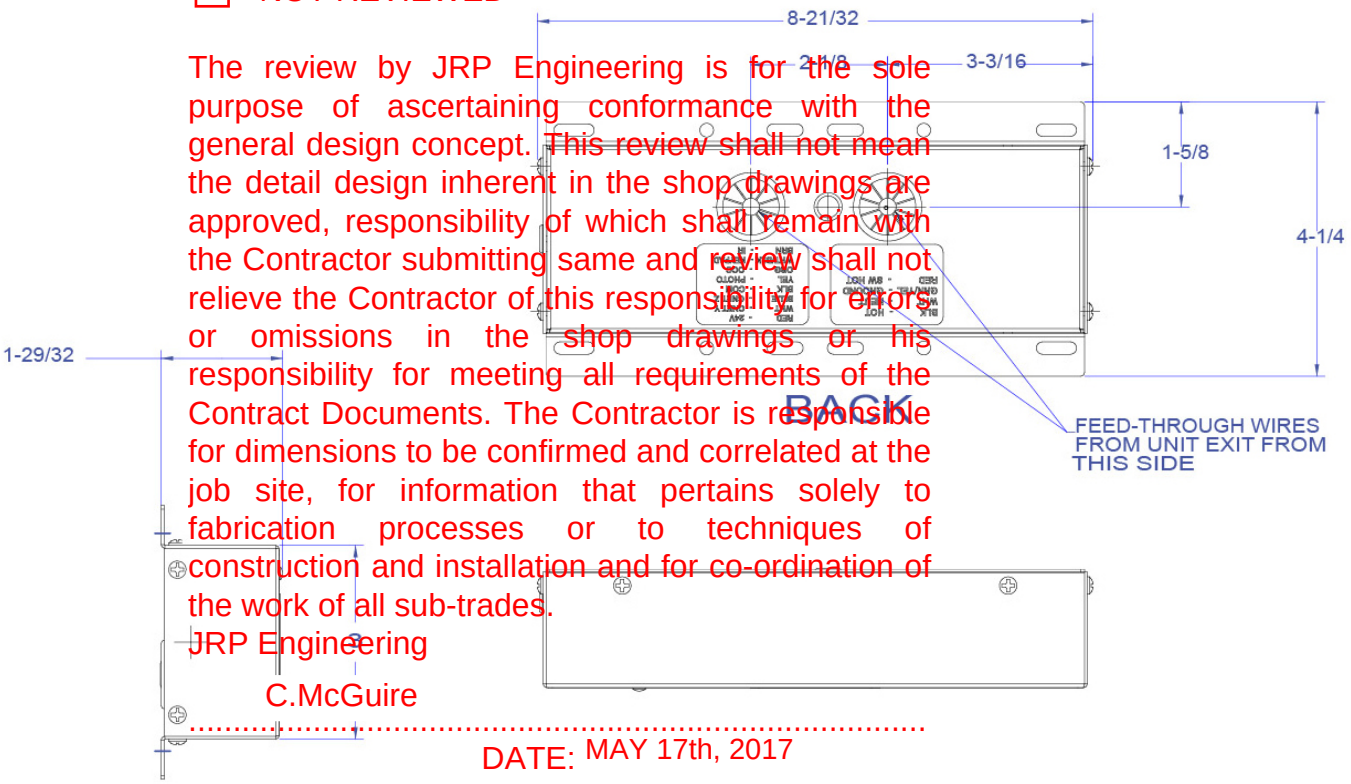
☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

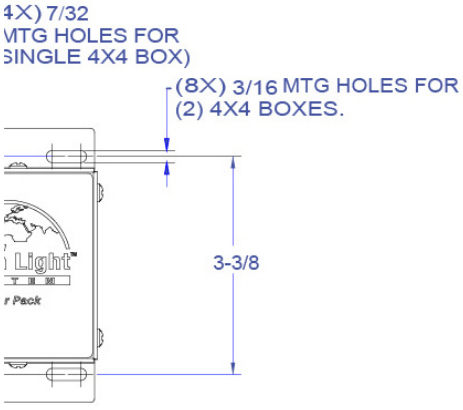
C.McGuire

DATE: MAY 17th, 2017



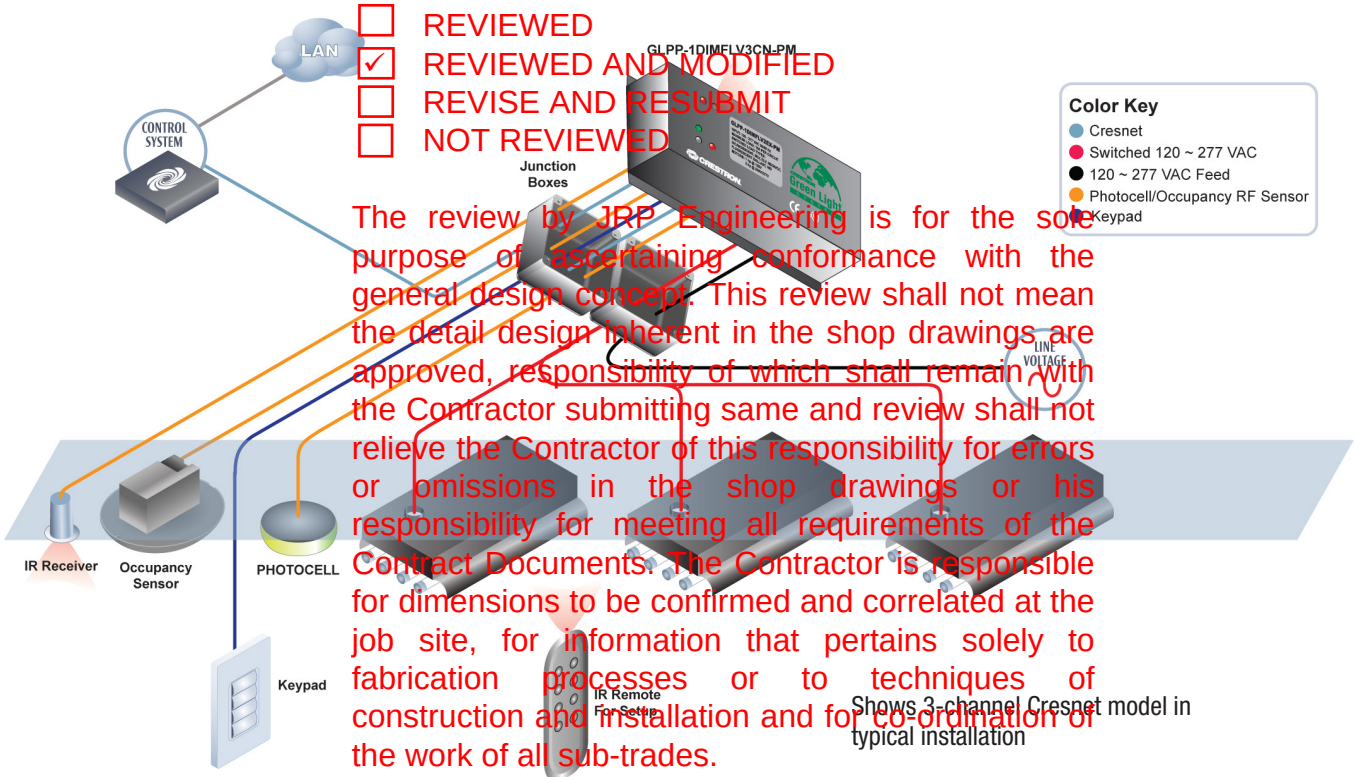
* MODIFICATIONS:

1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.



GLPP Crestron Green Light® Power Pack

APPLICATION DIAGRAMS

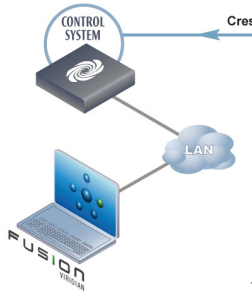


Shows 3-channel Cresnet model in typical installation

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering

C.McGuire
.....
DATE: MAY 17th, 2017



* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

Shows typical multi-room application

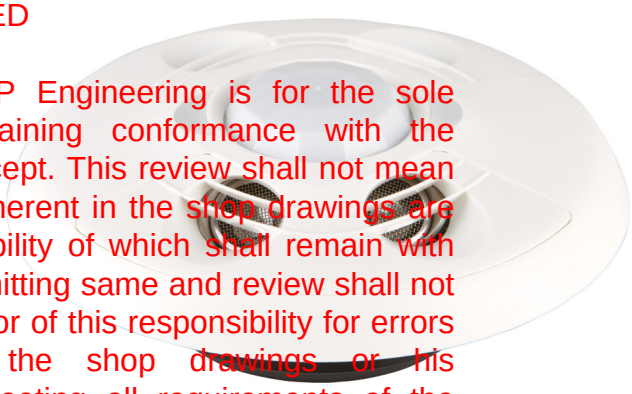
Crestron Electronics, Inc. 15 Volvo Drive | Rockleigh, NJ 07647
Tel: 800.237.2041 / 201.767.3400 | Fax: 201.767.1903
www.crestron.com

GLS-ODT-C-NS

Dual-Technology Ceiling Mount Occupancy Sensor

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

- *Ceiling-mount occupancy sensor for use with standalone lighting systems*
- *Dual-technology motion detection*
- *360 degree coverage pattern*
- *2,000 sq ft coverage area*
- *Versiport or digital input port connection*
- *Discreet, low-profile appearance*
- *Extremely accurate and reliable sensing*
- *Fully digital circuitry for low cost and high reliability*
- *Crestron® control system interface via GLS-SIM (sold separately)*



The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for coordination of the work of all sub trades.

JRP Engineering
C.McGuire
DATE: MAY 17th, 2017

The Crestron® GLS-ODT-C-NS sensor features accurate, dual-technology occupancy detection in a large room or space and delivers a powerful and cost-effective solution for reducing energy consumption and enhancing the functionality of standalone lighting systems. The GLS-ODT-C-NS is a low-profile, ceiling-mounted occupancy sensor designed for areas up to 2,000 square feet, making it great for use in large spaces such as auditoriums, warehouses, and building lobbies. The sensor can connect directly to and be controlled by standalone lighting systems such as the GLPP, GLPAC, or GL-IPAC-SW8. The GLS-SIM Sensor Integration Module provides an interface with a Crestron control system via Cresnet®.

Dual-Technology Occupancy Sensing

Achieving consistent and dependable occupancy sensing is accomplished using a combination of ultrasonic and passive infrared (PIR) sensing technologies. Ultrasonic motion detection is highly sens movements over a large area, while passive infrared se superior immunity to false triggers from vibrations, inar or movement in an adjacent corridor. Ultrasonic motion turned on for Side A, Side B, or both sides of the occup false occupancy readings when the sensor is facing a h The GLS-ODT-C-NS provides independent sensitivity ac sensor type for optimum performance in any space.

Walk-Through Mode

This sensor detects momentary occupancy and automa lights off after 90 seconds with the built-in Walk-Throu unnecessary energy consumption.

Versatile Installation

The GLS-ODT-C-NS achieves a discreet, nearly hidden installed on a typical drywall or droptile ceiling. Hardwa fast and simple mounting in a standard 4-inch octagon created with the help of the provided cutout template.

Cresnet Option[1]

Cresnet provides a simple solution for configuring and wiring keypads and sensors as part of any complete Crestron system. Cresnet is the communications backbone for controlling dimmers, keypads, shades, thermostats, and many other devices. This flexible 4-wire bus provides data communications and 24 Volts DC power for all of the devices on the Cresnet network. Using the optional GLS-SIM Sensor Integration Module, the GLS-ODT-C-NS becomes a full-featured Cresnet device.

IR Remote

A variety of parameters can be set for the GLS-ODT-C-NS by using the

emote eliminates any system. The the remote to ings after

kHz)

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

GLS-ODT-C-NS Dual-Technology Ceiling Mount Occupancy Sensor

IR Remote (Sold Separately)

Parameters and Settings Available Via IR Remote:

- Separate occupancy and vacancy sensitivity settings
- Timeout (30s, 2m, 5m, 10m, 15m, 30m)
- Walk-Through mode "Short Timeout" (Enable/Disable)
- LEDs (Enable/Disable)
- PIR sensitivity (High, Med, Low, OFF), with the option to set separate occupancy and vacancy settings
- US sensitivity (High, Med, Low, OFF), with the option to set separate occupancy and vacancy settings
- US detection (Side A only, Side B only, Both)
- ID of sensor
- Factory Reset
- Force Vacancy
- (4) Custom buttons for future additional features

Connections

(1) 5-pin 3.5 mm detachable terminal block; 16 AWG maximum wire width supported, includes the following terminals:

+24V: DC power input

OCC: Occupancy sensor control signal output; Provides 24 Volts DC to the occupancy sensor when occupancy is detected (both PIR and US must sense occupancy to provide 24 Volt signal, if room is transitioning from a vacant to occupied state; After initial occupancy is detected, either PIR or US detection will trigger the 24 Volt signal to maintain the occupied sta
Short circuit protected;
Connects to a GLS-SIM Integration Module (sold separately)
Crestron® control system

NC: Unused

G: Ground

IR: IR single direction receiver on sensor

Environmental

Temperature: 32° to

Humidity: 10% to 90

Power Requiren

Current Consumption

Cresnet® Power Usag

Enclosure

Housing: Plastic, whi

Mounting: Mounts to diameter hole created Includes mounting scr A 1-1/2" (38 mm) mir

Dimensions

Diameter: 4.80 in (122 mm)

Depth: 2.30 in (59 mm) overall, 0.97 in (25 mm) exposed

Weight

5.1 oz (144 g)

Standards & Certifications

UL 60730-1, FCC, CE, C-Tick, IC, Plenum Rated, California Title 24 Code

MODELS & ACCESSORIES

Available Models

GLS-ODT-C-NS: Dual-Technology Ceiling Mount Occupancy Sensor

Available Accessories

GLS-REMOTE-ODT/OIR: IR Remote for GLS Occupancy Sensors

GLSA-ODT/OIR-FP-500: Occupancy Sensor Lens, 500 sq ft

GLS-SIM: Sensor Integration Module

Notes:

1. The GLS-ODT-C-NS requires a GLS-SIM for Cresnet communications.

This product may be purchased from an authorized Crestron dealer. To find a dealer, please n sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

Crestron products are listed online at: patents.crestron.com.

ain open source software. For specific information, visit .

d Cresnet are either trademarks or registered trademarks of United States and/or other countries. Other trademarks, registered may be used in this document to refer to either the entities claiming products. Crestron disclaims proprietary interest in the marks and ot responsible for errors in typography or photography. ange without notice. ©2016 Crestron Electronics, Inc.

REVIEWED

REVIEWED AND MODIFIED

REVISE AND RESUBMIT

NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings of his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

MAY 17th, 2017

DATE

* MODIFICATIONS:

1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

GLS-ODT-C-NS Dual-Technology Ceiling Mount Occupancy Sensor

CAD DRAWING

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

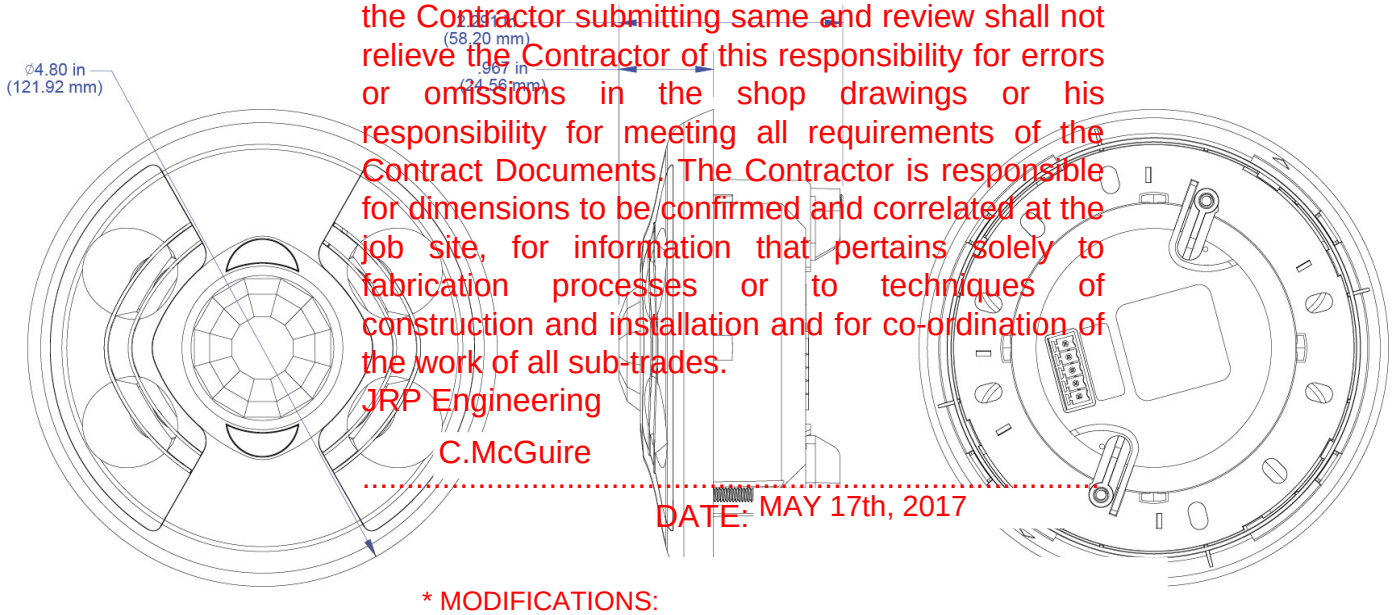
The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

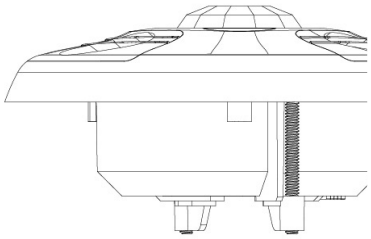
JRP Engineering

C.McGuire

.....

DATE: MAY 17th, 2017





* MODIFICATIONS:

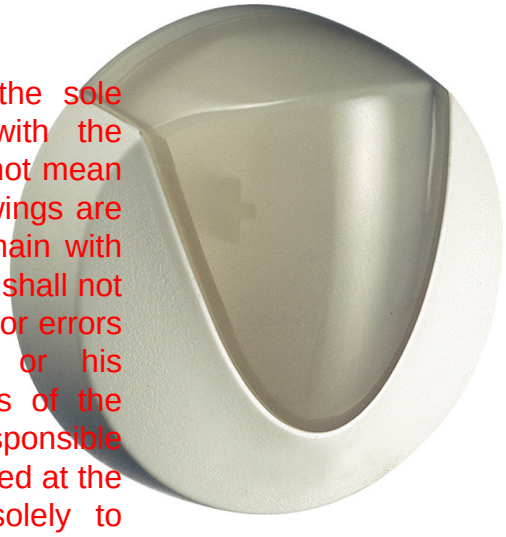
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

Crestron Electronics, Inc. 15 Volvo Drive | Rockleigh, NJ 07647
Tel: 800.237.2041 / 201.767.3400 | Fax: 201.767.1903
www.crestron.com

GLS-LOL

Crestron Green Light® Photosensor, Open-Loop

- > *Ceiling- or wall-mount photosensor*
- > *Measures the light level from a natural daylight source*
- > *Vertical or horizontal surface mounting*
- > *60 degree field of view*
- > *0 to 10 Volts DC analog control output*
- > *Control system interface via Cresnet® or analog input*



The GLS-LOL is a photosensor that measures light in order to achieve the optimal balance of natural and artificial lighting in an indoor space in daylight harvesting applications. Intended for use with an open-loop type system, the GLS-LOL continually monitors the amount of daylight coming through a window or skylight, enabling the control system to dim or switch off room lighting when there is sufficient daylight available to light the space.

Open-loop photosensors provide a cost-effective solution for daylight harvesting, allowing multiple lighting zones to be controlled by a single sensor. In a typical office, classroom, or similar space, the GLS-LOL is installed on the ceiling near a window or in the light well of a skylight, directed toward the incoming daylight and away from any electrical lighting fixtures. The system estimates the total amount of ambient lighting in the room according to the light level measured by the photocell.

The GLS-LOL can be mounted to drywall or to a drop-tile surface. Its simple 3-wire interface allows for direct connection to a Crestron system via a single Versiport I/O or analog input port, with 24 Volt power taken from the Cresnet® co Integration Module, the GLS streamlining the total lightir

Cresnet provides a simpler part of any complete Crestr communications backbone shade motors, sensors, and 4-wire network that provide power for Cresnet devices.

SPECIFICATION

Sensing

Field of View: 60 degree c
Center Axis: 45 degrees fr
Light Sensitivity: 3 to 600

Connections[2,3]

Plus: (1) Captive screw terminal, +24 Volt DC power input
Minus: (1) Captive screw terminal, power and control signal common
Arrow: (1) Captive screw terminal, light level control signal output, 0-10 Volts DC

Controls (Behind Cover)

Light Level Range: Jumper-selectable 3-300, 30-3000, or 60-6000 fc

Power Requirements

Current Consumption: 4 mA at 24 Volts DC
je: 1 Watt[4]

Housing

irectly to drywall or drop-tile

ESSORIES

ht® Photosensor, Open-Loop

ht® Sensor Integration Module

REVIEWED®
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering
C.McGuire
DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

GLS-LOL Crestron Green Light® Photosensor, Open-Loop

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering

C.McGuire

.....

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

Notes:

1. Cresnet communications requires GLS-SIM Sensor Integration Module (sold separately).
2. Recommended Wire Size: 22 AWG.
3. Connects to a GLS-SIM Integration Module or to a Versiport I/O or Analog Input control port on any Crestron control system.
4. Power may be taken from Cresnet bus regardless of interface method.

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

The specific patents that cover Crestron products are listed online at: patents.crestron.com.

Some Crestron products contain open source software. For specific information, visit www.crestron.com/opensource.

C2N-CBD-P

CAMEO®

Cameo® Keypad, Standard Mount

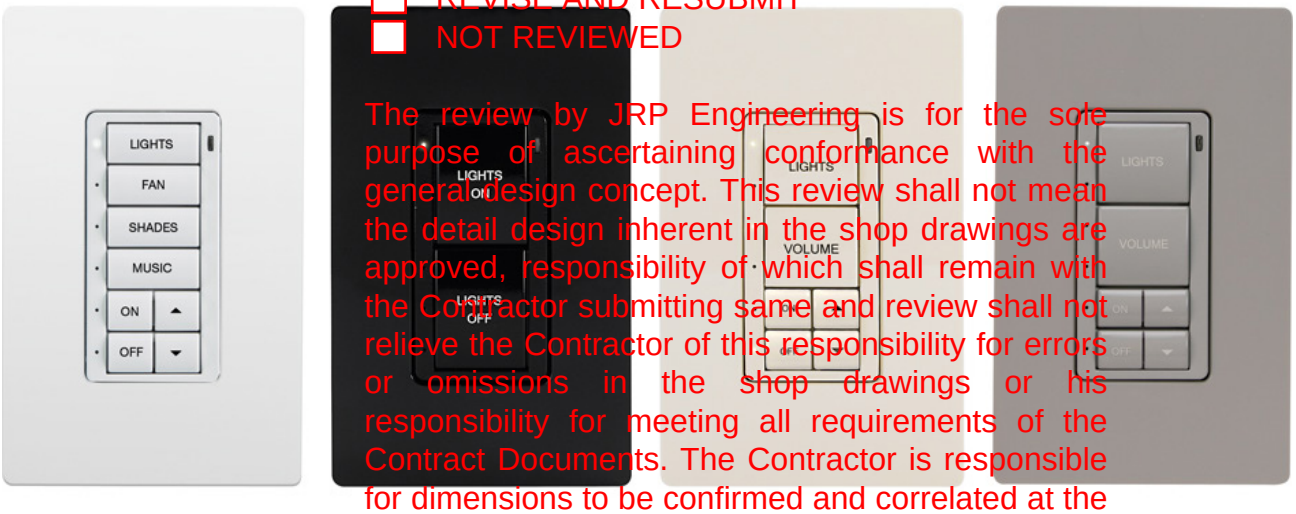
☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017



- > *Stylish and versatile wall-mount keypad*
- > *Standard electrical box installation*
- > *12 color-matched smooth and textured finishes*
- > *Ascent® solid metal faceplates available separately[2]*
- > *Versatile combinations of 2 to 8 pushbuttons*
- > *Installer-configurable with choice of 4 button sizes*
- > *"Split" buttons for "up/down" and "on/off" functi*
- > *"Button Events" enable tap, double-tap, and press and hold functionality*
- > *Customizable backlit button engraving[1]*
- > *White LED feedback indicators*
- > *Built-in LED blinking and bar graph logic*
- > *Auto-dimmable backlight and LED intensity*
- > *Ambient light sensor*
- > *Dual digital/analog input ports for external s*
- > *Quick and easy installation*
- > *Cresnet® wired communications*

The Cameo® Standard Mount Keypad (C2N-CBD-P) from Crestron® presents a fresh innovative concept in keypad design, featuring a highly configurable one-gang wall mount form factor that is at once inviting to the touch and appealing to the eye. The C2N-CBD-P easily installs alongside other low-voltage in-wall devices to deliver an advanced custom keypad control solution as part of a complete Crestron control system.

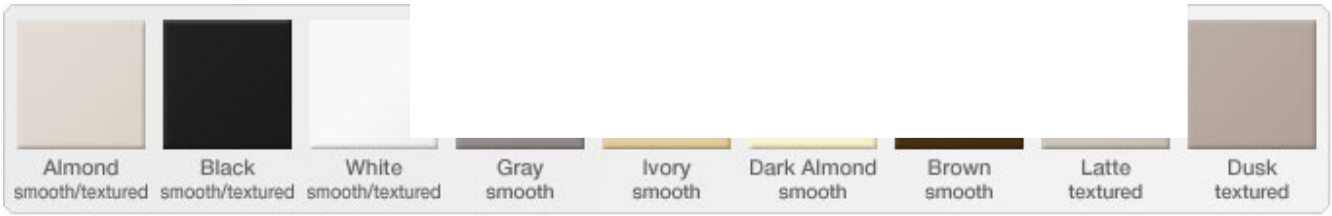
Customizable Buttons

Exquisitel a single Cameo Keypad can be configured easily by the installer to provide from two to eight buttons. Each keypad is actually furnished with an assortment of button caps in four s. Button caps may to clearly designate

d to use "button button by tapping, 'Shift key" e button while tomization for this

mizable button text ilt-in light sensor eve crisp, legible text

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.



Actual colors may vary.

C2N-CBD-P Cameo® Keypad, Standard Mount

Enhanced LED Feedback

Six pinhead-sized white LEDs afford fully customizable feedback to show the status of each button. Ten blinking patterns are built in, enabling blinking LED feedback with simplified programming and reduced traffic on the Cresnet® network. Onboard bar graph logic allows the feedback LEDs to function as a 6-segment bar graph display, providing clear level indication while adjusting lighting and audio settings. Auto-dimming LED intensity ensures optimal visibility under varying lighting conditions.

Ambient Light Sensor

In addition to controlling the backlight and LED intensity, the built-in light sensor can also be utilized by the control system to support basic daylight harvesting and other programmatic functions.

Control Ports

Dual digital/analog input ports onboard the C2N-CBD-P provide a local interface for a range of devices including the Crestron dLS Series Occupancy Sensors and Photosensors or any device providing a contact closure, DC logic, or 0-10 Volts DC analog voltage. Using the control ports, it's possible to add monitoring of room occupancy, ambient light level, door closures, and other conditions without having to home run extra wiring to the central equipment location.

Cresnet

The Cresnet bus is the communications backbone for many Crestron keypads, lighting controllers, shade motors, sensors, and other devices. Cresnet is a simple, yet flexible 4-wire network that provides bidirectional communication and 24VDC power for Cresnet d ports up to 252 keypads and other devices.

Standard Wall Mount

Cameo Standard Mount Keypads are desigr electrical wall box, making them perfect for alongside other low-voltage devices. Availal with "smooth" or "textured" finishes, Came popular off-the-shelf decorator-style facepl

Ascent® Metal Faceplates

For the ultimate in style and elegance, Cres of solid metal faceplates (CBD-FP-ASCENT[3] with a contemporary appearance in a range

SPECIFICATIONS

Buttons

Keypad Buttons: Configurable for 2 to 8 single-action pushbuttons

Button Events: Programmable for Normal, Tap, Double-Tap, and Press and Hold

Button Caps: Includes (2) large, (3) medium, (5) small, and (2 pair) split small button caps;[3]
All button caps are blank; custom-engraved, backlit button caps are available separately

Backlight: White LED backlight for button engraving;
Software-adjustable intensity, auto-dimmable

LED Indicators

Feedback: (6) White LEDs, one per each of 6 small button positions;
Programmable, auto-dimmable, software-adjustable intensity, 10 blinking patterns

Bar Graph: (1) 6-segment bar graph display utilizing the 6 feedback LEDs

Light Sensor

Photosensor for control of auto-dimming function;
Can be configured to report ambient light level to control system

Connectors

NET: 4-pin 3.5mm detachable terminal block;
Cresnet® slave port, connects to Cresnet control network

IN shable terminal block comprising (2) digital/analog input ports (referenced to GND);

npedance 200k Ohms, logic

ted to 24 Volts DC maximum,

tor per pin

24 Volts DC)

rical box or mud ring
late (not included) or Crestron

C2N-CBD-P Cameo® Keypad, Standard Mount

Dimensions

Height: 4.13 in (105 mm) without faceplate
Width: 1.75 in (45 mm) without faceplate
Depth: 1.19 in (31 mm) without connector

Weight

2.3 oz (64 g)

MODELS & ACCESSORIES

Available Models

C2N-CBD-P-A-S: Cameo® Keypad, Standard Mount, Almond Smooth
C2N-CBD-P-A-T: Cameo® Keypad, Standard Mount, Almond Textured
C2N-CBD-P-B-S: Cameo® Keypad, Standard Mount, Black Smooth
C2N-CBD-P-B-T: Cameo® Keypad, Standard Mount, Black Textured
C2N-CBD-P-BRN-S: Cameo® Keypad, Standard Mount, Brown Smooth
C2N-CBD-P-DA-S: Cameo® Keypad, Standard Mount, Dark Almond Smooth
C2N-CBD-P-DSK-T: Cameo® Keypad, Standard Mount, Dusk Textured
C2N-CBD-P-GRY-S: Cameo® Keypad, Standard Mount, Gray Smooth
C2N-CBD-P-IVR-S: Cameo® Keypad, Standard Mount, Ivory Smooth
C2N-CBD-P-LAT-T: Cameo® Keypad, Standard Mount, Latte Textured
C2N-CBD-P-W-S: Cameo® Keypad, Standard Mount, White Smooth
C2N-CBD-P-W-T: Cameo® Keypad, Standard Mount, White Textured

Available Accessories

CB2-BTN: Large Backlit Engravable Button Cap for Cameo Keypads, [Specify Color]
CB3-BTN: Medium Backlit Engravable Button Cap for Cameo Keypads, [Specify Color]
CB6-BTN: Small Backlit Engravable Button Cap for Cameo Keypads, [Specify Color]
CB6S-BTN: Split Small Backlit Engravable Button Cap Pair for Cameo Keypads, [Specify Color]
CBD-FP-ASCENT: Ascent® Solid Metal Faceplate for Cameo® Keypad, Standard Mount [specify button layout and finish]
CCR-L-1: Crestron® Color Ring
CCR-FP-ASCENT-1: Ascent® Color Ring
CRESNET-HP-NP: Cresnet® "High-Power" Control Cable, non-plenum
CRESNET-NP: Cresnet® Control Cable, non-plenum
CRESNET-P: Cresnet® Control Cable, plenum

Notes:

1. Custom engraving sold separately.
2. Item(s) sold separately.
3. Split small buttons may be installed in the bottom two positions only.

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/dealersearch or by calling 800.237-2041.

The specific patents that cover Crestron products are listed online at: patents.crestron.com.

Some Crestron products contain open source software. For specific information, visit www.crestron.com/opensource.

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

C2N-CBD-P Cameo® Keypad, Standard Mount

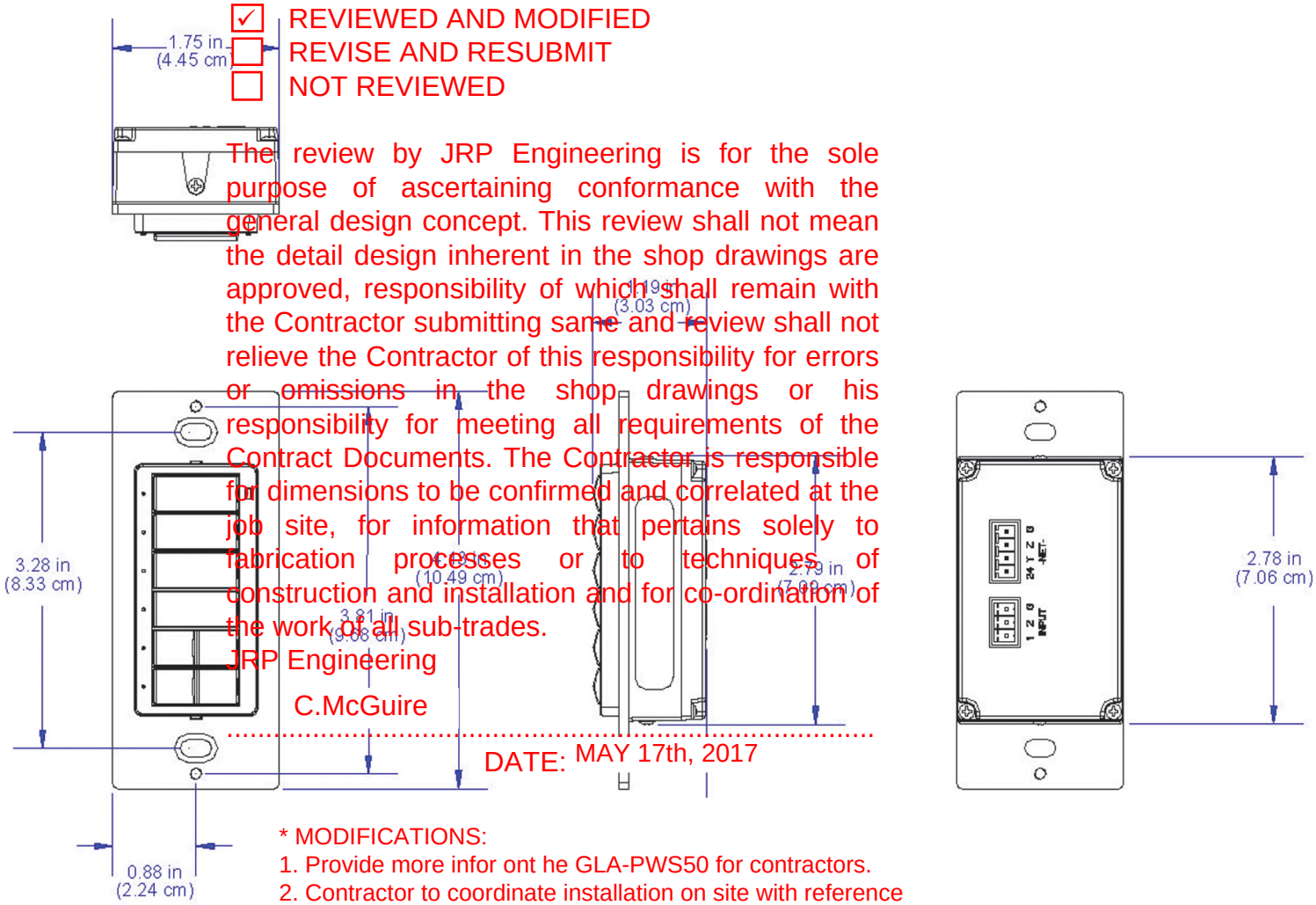
☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017



* MODIFICATIONS:

1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

GLA-PWS50

Wall Mount 50 Watt Cresnet Power Supply

The GLA-PWS50 is a 50 Watt Cresnet Power Supply designed for u with a Crestron Green Light? system, or anywhere a wall-mountable Cresnet power supply is needed. The GLA-PWS50 mounts conveniently ove a 4" square or 2-gang electrical box. All connections are made inside th electrical box via flying leads using twist-on wire connectors. A partition is included to isolate high voltage from Class 2 wiring within the box.

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

> 50 Watt Cresnet power supply
*> Powers the **IPAC** and other Cresnet devices*
> Provides backup power for Crestron Green Light cabinets
> Mounts to a 4" square or 2-gang electrical box
*> Euro/UK mountable version also available (**GLA-PWS50**)*

SPECIFICATIONS

Output Power
Output Power: 50 Watts (2.1 Amps) @ 24 Volts DC, regulated, limited power source
Ripple/Noise: <1%

Power Requirements
Line Power: 1 Amp @ 100-240 Volts AC, 50/60 Hz

Connections
Line Power: (3) 6" flying leads, 18 AWG, line power input;
Hot (black), neutral (white), and ground (green w/yellow) connections
Output: (2) 6" flying leads, 18 AWG, Cresnet power output;
24 Volts DC (red) and Ground (black w/white);
Connects to "24" and "G" connections of the Cresnet control network, or directly to a 24 Volt DC powered Crestron device
Fuse: DC output fuse, T3.15AH;
(5x20mm, 250V, 3.15A, time-lag, ceramic cartridge)

LED Indicators
24VDC: (1) green LED, indicates 24 Volts DC output, extinguishes whe blown

Environmental
Temperature: 32° to 104°F (0° to 40°C)
Humidity: 10% to 90% RH (non-condensing)
Heat Dissipation: 26 BTU/hr

Enclosure
Metal construction, mounts to a 4-inch square or 2-gang electrical bo low-voltage partition

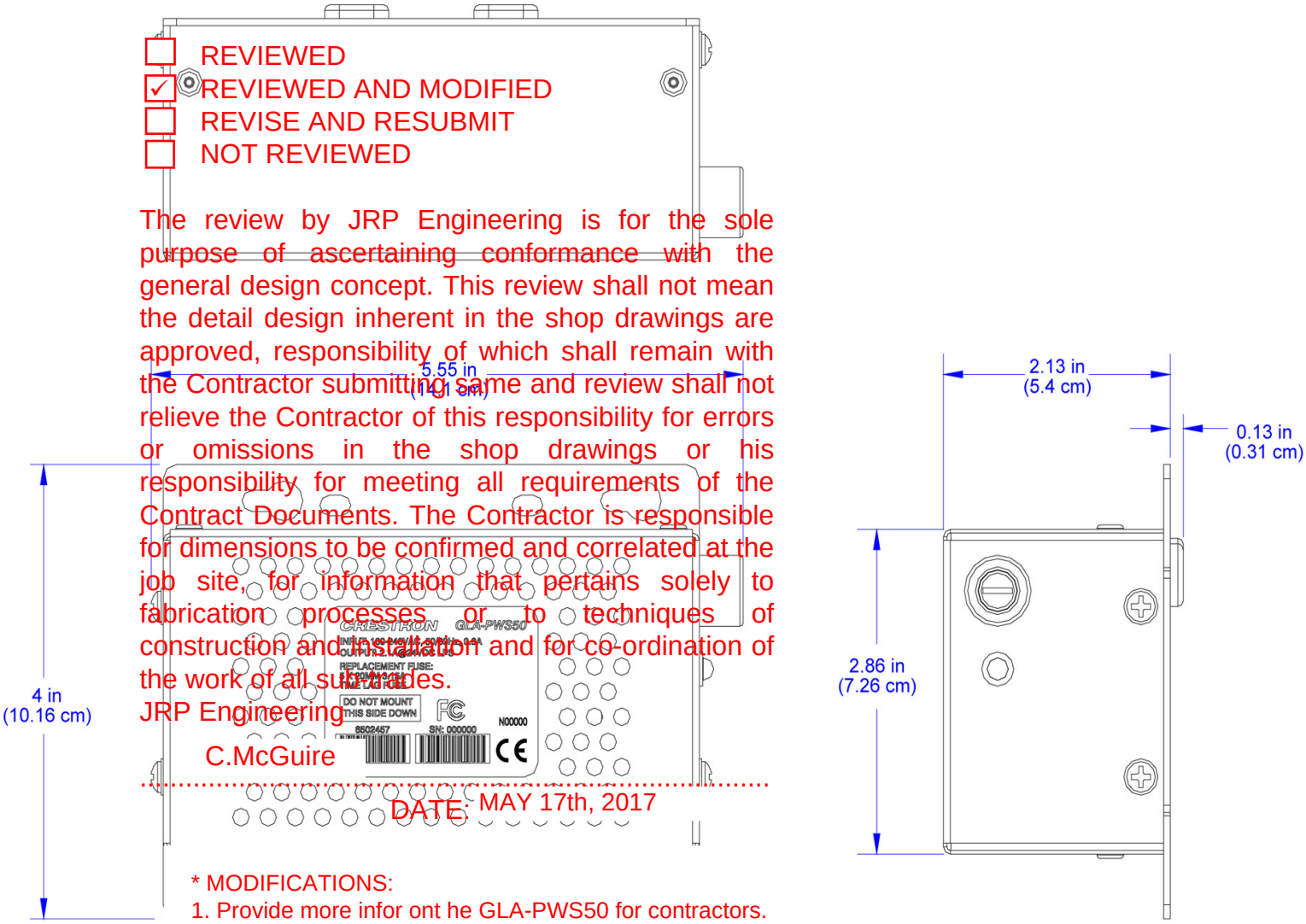
Dimensions
Height: 4.00 in (10.16 cm)
Width: 5.55 in (14.09 cm)
Depth: 2.27 in (5.76 cm) without partition

Weight
1.2 lb (0.54 kg)

Available Models
GLA-PWS50 [6502457] Wall Mount 50 Watt Cresnet Power Supply

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

GLA-PWS50Wall Mount 50 Watt Cresnet Power Supply



☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all subsidies.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:

1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

GLPPA-KP

Keypad for GLPP Systems

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering
C.McGuire
DATE: MAY 17th, 2017

- *In-wall keypads for GLPP systems*
- *Master Scene keypad for multiple scene recall, Zone Keypads for specific zone control with Tuneable Dimming, and Zone Master Keypad for lighting control in single rooms with multiple zones*
- *Seamless integration with GLPP systems*
- *2-conductor wire connection to the bus*
- *Flexible installation with new or existing high-voltage wiring*
- *Non-polarized 2-wire communications bus*
- *Smooth black, white, or almond colors available*
- *Rocker switch and four button caps included, depending on model*
- *Up to 3 GLPPA-KP Series keypads, 2 occupancy sensors, and 1 photosensor can be connected to a single GLPP system*

The GLPPA-KP Series of in-wall keypads feature "plug and play" control of loads connected to a Crestron Green Light™ Power Pack (GLPP) system. This versatile family of keypads offers a simple lighting control solution with out-of-the-box functionality for quick and easy system setup. Use the keypads to turn the load on or off and to set and recall scenes. "Zone Keypad" models connect automatically to the GLPP for individual zone control and do not require any programming. A four-button, multi-zone model keypad provides zoned lighting control from a single interface. The GLPPA-KP Series easily connects to the GLPP main unit via a two-wire, low-voltage bus. Available in white, and almond, the GLPPA-KP keypads suit almost any décor.

Flexible Configurations

Crestron® offers several r
easy-to-configure lighting

- The GLPPA-KP Maste
  rocker-switch for on
  The four-button con
  master on and off c
  adjusted by any use
  GLPPA-REMOTE-PR
- Zone Keypad models
  lighting control syst
  is pre-programmed
  example, in a two-z
  automatically contro
- The GLPPA-KP4 four-
  series by providing
  room. The four butt
  3-channel GLPP sys

Up to three GLPPA-KP key

Easy Installation

Two flying leads connect a GLPPA-KP Series keypad to the GLPP system via a non-polarized, low-voltage bus. Use new or existing high-voltage wiring (Class 1) or low-voltage wiring (Class 2) for quick installation. Up to three keypads, two occupancy sensors, and one photosensor can be connected to any single GLPP system.

SPECIFICATIONS

Power Requirements

at 24 Volts DC) supplied by GLPP over proprietary 2-wire bus

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

ble for single rocker switch or (4) single-action

-tap, Press and Hold (not all events trigger

ocker and (4) small button caps with labeling
s Only): Pre-labeled: ALL ON, SCENE 1,

y

-action pushbuttons
nd Hold (not all events trigger actions)
on caps with labeling; Ships with (1) additional

s Only): (5) Pre-labeled button caps: ALL ON, SCENE 1, SCENE 2, SCENE3, ALL OFF

GLPPA-KP Keypad for GLPP Systems

LED Indicators

Feedback (GLPPA-KP Model Only): (1) White LED, illuminates when any load is above 0%

Connections

Communications Bus: (2) 18 AWG Class 2 flying leads, wh with black stripe (non-polarized)

Environmental

Temperature: 32° to 113° F (0° to 45° C)
Humidity: 10% to 90% RH (non-condensing)

Enclosure

Plastic, 1-gang mountable in a standard electrical box; Requires decorator style faceplate (not included)

Dimensions

Height: 4.13 in (105 mm)
Width: 1.75 in (45 mm)
Depth: 1.8 in (46 mm)

Weight

3.6 oz (103 g)

MODELS

Available Models

GLPPA-KP-A-S: In-wall Master Scene Keypad for GLPP, Almond Smooth
GLPPA-KP-B-S: In-wall Master Scene Keypad for GLPP, Blac Smooth
GLPPA-KP-W-S: In-wall Master Scene Keypad for GLPP, Whi
GLPPA-KP1-A-S: In-wall Zone Keypad for GLPP, Almond Sm
GLPPA-KP1-B-S: In-wall Zone Keypad for GLPP, Black Smoo
GLPPA-KP1-W-S: In-wall Zone Keypad for GLPP, White Smo
GLPPA-KP2-A-S: In-wall Zone Keypad for GLPP, Almond Sm
GLPPA-KP2-B-S: In-wall Zone Keypad for GLPP, Black Smoo
GLPPA-KP2-W-S: In-wall Zone Keypad for GLPP, White Smo
GLPPA-KP3-A-S: In-wall Zone Keypad for GLPP, Almond Sm
GLPPA-KP3-B-S: In-wall Zone Keypad for GLPP, Black Smoo
GLPPA-KP3-W-S: In-wall Zone Keypad for GLPP, White Smo
GLPPA-KP4-A-S: In-wall Zone Master Keypad for GLPP, Alm
GLPPA-KP4-B-S: In-wall Zone Master Keypad for GLPP, Blac
GLPPA-KP4-W-S: In-wall Zone Master Keypad for GLPP, Whi

Notes:

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

The specific patents that cover Crestron products are listed online at: patents.crestron.com.

Certain Crestron products contain open source software. For specific information, visit www.crestron.com/opensource.

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering

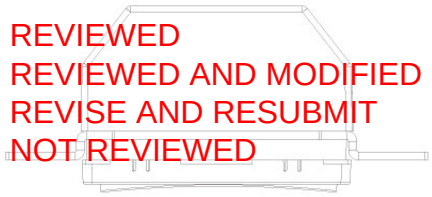
C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

GLPPA-KP Keypad for GLPP Systems

CAD DRAWINGS (GLPPA-KP MODEL SHOWN)



☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

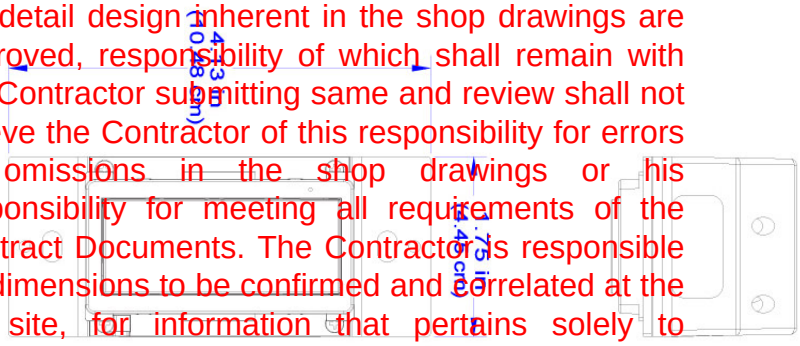
The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

.....

DATE: MAY 17th, 2017



* MODIFICATIONS:

1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

GLS-PART-CN

Cresnet® Partition Sensor

- *Sleek, compact design*
- *Adjustable infrared beam for high accuracy*
- *Sensing distance of up to 4 feet*
- *Cresnet® for power and communications*
- *Crestron® control system integration via Cresnet*
- *Digital output provides either a 24 Volt, 10 mA output or a closure to ground*
- *Visible LED display that indicates sensor status*

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean approval of the detail design inherent in the shop drawings, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the construction documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

The GLS-PART-CN is a sleek, surface-mount partition sensor that utilizes the dependable Cresnet® wired network for power and communications. Designed with hospitality environments in mind, this easily installed sensor uses an infrared (IR) beam to sense the position of movable partitions within a space. The IR beam's signal strength is adjustable and features a sensing distance of up to four feet, making the GLS-PART-CN a versatile partition sensor with optimized sensing accuracy. Three LEDs on the unit provide at-a-glance information on the sensor's state of power, communications, and partition detection. The GLS-PART-CN offers mounting options for round flush-mount or droptile ceilings.

The GLS-PART-CN has plug-in outputs and built-in time delays. Also, the partition sensor easily connects via Cresnet to a Crestron control processor to manage divisible room environments.

Cresnet

The GLS-PART-CN uses the dependable Cresnet wired network for communication between devices. Cresnet provides a simple solution for configuring and wiring sensors as pa[illegible] Crestron system. Cresnet is the communications back[illegible]ghting dimmers, keypads, shades, thermostats, and many other devices. This flexible 4 bus provides data communications and 24 Volts DC power for all of the devices on the Cresnet network.

Versatile Installation

The GLS-PART-CN has a white f ceilings. For droptile ceilings, th 3-1/2 inch deep electrical box. I faceplate[1] can be used to matc room. Only about 20 mm of the making it an unobtrusive additic

Digital Output

This sleek sensor delivers unpa output on the terminal block, wh integration with a Crestron Cont the Cresnet connector provides to ground, perfect for connectio

SPECIFICATIONS

Sensing

Method of Detection: Diffuse reflective
Light Source: Pulse-modulated infrared LED
IR Sensitivity: Adjustable
Sensing Distance: 4 ft (122 cm)

Connectors

NET/EXT: (1) 5-pin 3.5mm detachable terminal block;
Cresnet® slave port and digital output port;
[illegible]ither 24 Volts DC, 10 mA (default) or a closure to ground when partition is detected

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

[illegible]wer is supplied to device; flashes to

[illegible]nset communication status
[illegible]tition detection
[illegible]e sensitivity of IR beam; also used for

[illegible]e sensitivity of IR beam; also used for

[illegible]24 Volts DC

[illegible]° to 55° C)

GLS-PART-CN Cresnet® Partition Sensor

Housing

Construction: Plastic
Mounting: Surface mount; 1-gang mountable in a 3-1/2 inch deep electrical box, fits decorator-style faceplate

Dimensions

Height: 2.23 in (57 mm)
Width: 4.16 in (106 mm)
Depth: 1.35 in (34 mm)

Weight

3.32 oz (94 g)

MODELS & ACCESSORIES

Available Models

GLS-PART-CN-W: Cresnet® Partition Sensor, White

Notes:

1. Sold separately.

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

The specific patents that cover Crestron products are listed online at: patents.crestron.com.

Certain Crestron products contain open source software. For specific information, visit www.crestron.com/opensource.

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

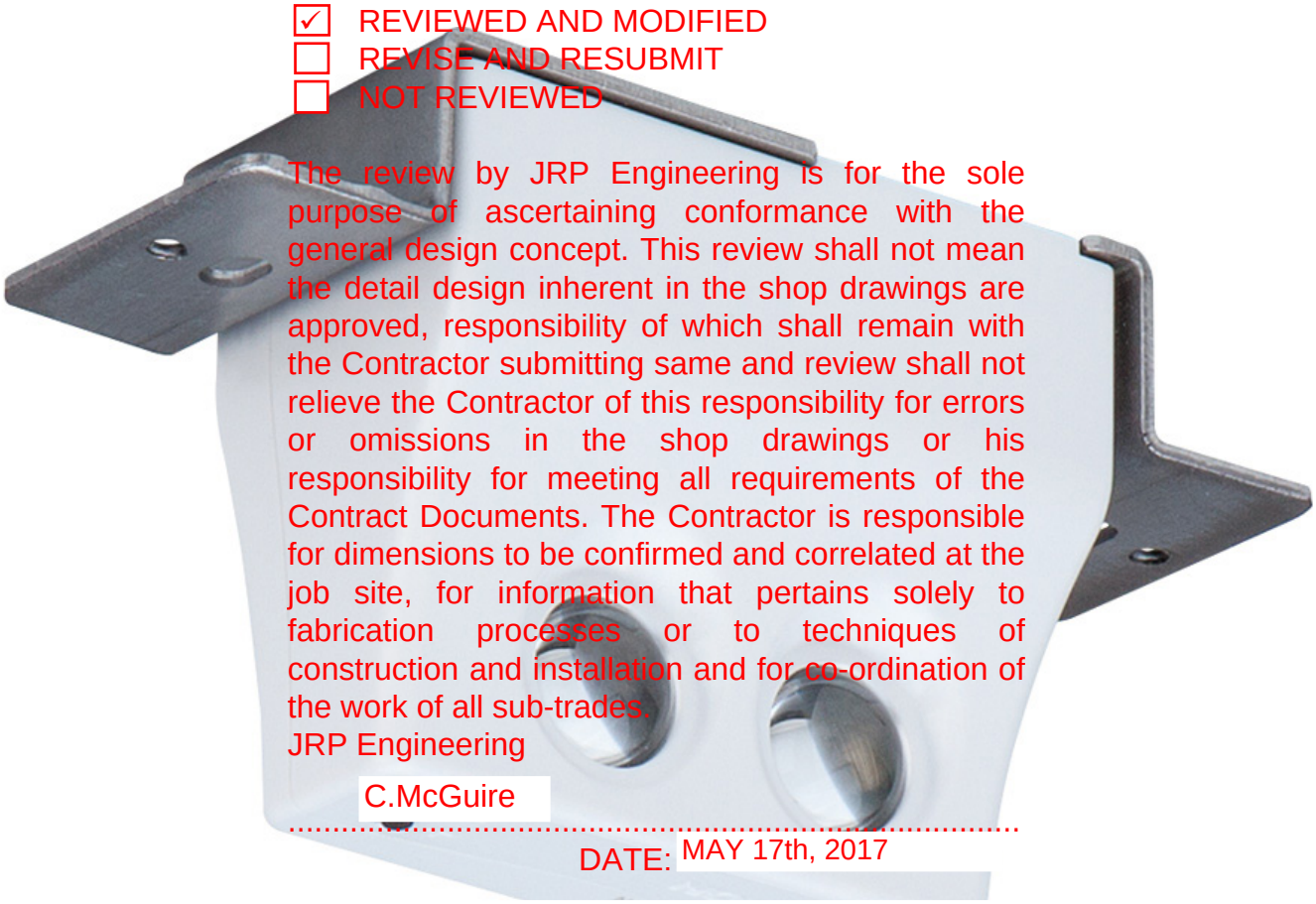
C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

GLS-PART-CN Cresnet® Partition Sensor

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED



The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

.....

DATE: MAY 17th, 2017

* MODIFICATIONS:

1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

Crestron Electronics, Inc. 15 Volvo Drive | Rockleigh, NJ 07647
Tel: 800.237.2041 / 201.767.3400 | Fax: 201.767.1903
www.crestron.com

Specifications subject to change without notice. Revised 09/24/15

TSW-760

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

7” Touch Screen

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

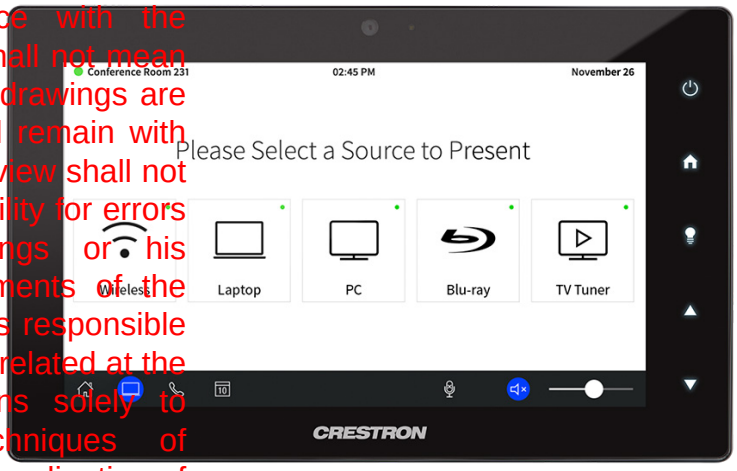
JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

- Ultra clean, modern appearance
- Thin profile and flat design
- Affordable and easy to install
- 7” widescreen active matrix color display
- 1024 x 600 WVGA display resolution
- Capacitive touchscreen technology
- Multi-touch capable
- Smart Graphics™ performance [3]
- Voice recognition capability [1,2]
- H.264 or MJPEG streaming video
- Rava® SIP intercom and phone technology [1]
- Customizable audio feedback
- Built-in web browsing [2]
- On-screen multi-language keyboard
- Customizable screensaver
- Built-in microphone and camera
- 5 soft-touch capaciti omatically adjusting backlight brightness t pletely when backlight is turned off
- Single-wire Ethernet connectivity
- PoE network pov
- SONOS® App inte
- Built-in speakers
- Supports US or E
- Can be mounted
- Compatible with TSW-UMB-60-PI
- Pre-construction
- Available tabletop
- Available in smoc



The TSW-760 delivers the ultimate touch screen experience in an unobtrusive, space-saving design featuring a brilliant 7 inch capacitive touch screen display with Smart Graphics™ and 5 soft-touch buttons. PoE connectivity and a range of mounting options make installation a breeze for both new and retrofit applications. Additional advanced features include control any function using voice commands, view security cameras and other video sources, communicate using built-in intercom nd browse the Internet.[2]

Advanced Touch Scre

A Crestron® touch scre all the technology in yo command center. Touch cluttered wall switches enhancing the way you lighting, shades, HVAC, are fully-customizable and real-time status di browsing, and advanced navigation of digital media servers, tuners, and other devices.[1]

se Smart Graphics to deliver the ultimate user ate value by enabling the creation of dynamically incredible efficiency and unparalleled t Graphics, programmers can swiftly integrate ols, animated feedback, rich metadata, gets, and full-motion video for a deeply engaging screen experience

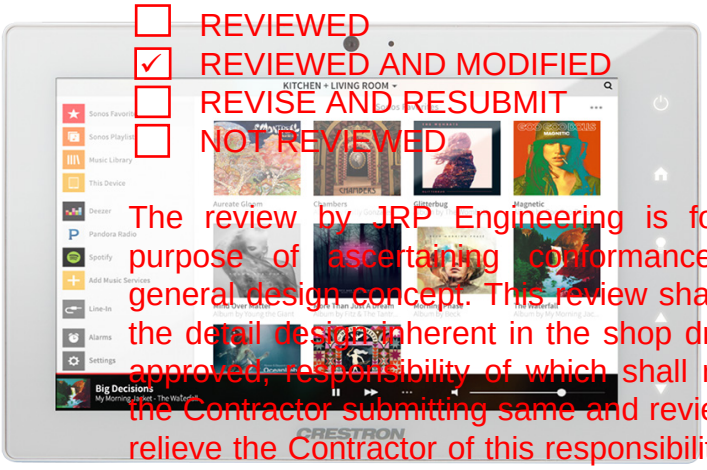
offers these enhancements and more:

l buttons, sliders, knobs, and gauges that are e
ance the feeling of realism, with lists and toolbars ntum at the flick of a fingertip
s that snap into place, offering an easy way to

personalize the touch screen with clocks, ther information [2]
nsaver that allows display of time, temperature, and other text content at a reduced brightness level
- Customizable themes allowing a completely different look and feel for every user, event, or season
- Fully-developed SmartObjects® that enable sophisticated control over complex devices with minimal programming
- A consistent look and feel across multiple touch screens of varying sizes

With its clean, contemporary design highlighted by edge-to-edge glass and stunning color graphics, the Crestron TSW-760 touch screen makes an elegant statement on any wall, tabletop, or lectern. Perfectly at home in the most contemporary residence or modern office building, its high-tech good looks underline its power for simplifying everyday tasks and functions throughout any facility.

TSW-760 7” Touch Screen



TSW-760-W-S – Shown in White

TSW-760-B-S and TSW-760-TTK TableTop Mounting Kit

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

Soft-Touch Buttons

The TSW-760 includes five backlit, soft-touch capacitive buttons for quick access to commonly used functions. The buttons are pre-labeled with icons for “Power”, “Home”, “Lights”, “Up”, and “Down” functions. Each button is programmable via the control system for custom functionality. The buttons’ backlights automatically adjust to the optimal brightness according to the ambient light in the room. The backlight brightness is also customizable through programming. When the backlight is turned off, the buttons disap ice the buttons’ backlighting is controlled on a per-button basis, the five buttons can be hidden or shown in any combination.

Built-in Camera

The built-in came intercom, videocc with loved ones tl video intercom, o another or to see Quick or unexpec TSW-760. For sec camera can be er screens or monito

Voice Recognitic

Some things are and let Crestron provides the abili Voice recognition play a specific m scene, lock the d Simply press the Crestron does the

Streaming Video

High-performance streaming video capability makes it possible to view security cameras and other video sources right on the touch screen. Native support for H.264 and MJPEG formats allows the TSW-760 to display live streaming video from an IP camera, a streaming encoder (Crestron CEN-NVS200, DM-TXRX-100-STR, or similar[4]), or a DigitalMedia™ switcher. Video is delivered to the touch screen over Ethernet, eliminating the need for any extra video wiring.

Rava® SIP Intercom [1]

ntercom Technology enables hands-free VoIP communication with other Rava-enabled touch screens and door stations. Rava works over g 2-way intercom, video intercom,[5] and paging without al wiring. VoIP phone capability is also possible through SIP-compatible IP phone system or SIP server, allowing ne functionality complete with speed-dialing, caller ID, l other enhancements. Built-in echo cancellation affords ance for clear, seamless voice communication using the ed microphone and speakers.

eb browser, the TSW-760 provides quick access to des and other web-based services at the touch of a hanced touch screen control of DVRs and other having to pick up a separate tablet or smartphone. If ntrolled or managed through a web browser, it can be Crestron system through the TSW-760. Of course, the also be used to simply browse the Internet, check traffic up a recipe.[2]

TSW-760 7” Touch Screen

Native Sonos® App

Crestron is proud to feature a native Sonos app on the TSW-760 touch screen. With the app, u s can enjoy the full Sonos experience since it is integrated directly with Crestron Control System®. The easily installed and configured app provides a wide variety of audio content that can be controlled and distributed through the audio system straight from the touch screen. The only app of its kind on the market, the Sonos app brings a versatile library and easy-to-use audio distribution controls to casual listeners and audiophiles alike.

On-Screen Keyboard

Typing in passwords, URLs, and text searches is facilitated using the on-screen multi-language keyboard.

Multi-Touch Support

The TSW-760’s capacitive touch screen affords enhanced capabilities for browsing web pages using multi-touch gestures.

Audio Feedback

Customized audio files can be loaded to add another dimension to the touch screen graphics using personalized sounds, button feedback, and voice prompts.

Single-Wire Connectivity

A simple Ethernet LAN connection is all that is required to wire the TSW-760, containing all control, video, intercom, and power signals within a single wire.

Power over Ethernet

Using PoE technology, the TSW-760 gets its operating power rig through the LAN wiring. PoE (Power over Ethernet) eliminates the need for a local power supply o (PWE-4803RU[4]) simply co location. Crestron PoE swi also be used to provide a

Simple, Versatile Mounti

The TSW-760 is easily ins or a 2-gang European elec drywall and other surfaces H x 86mm W) cutout. Whe mounting surface and latc visible screws for an ultra

Crestron also offers the TS provides a post-constructi modate a variety of currer TSW-760. The TSW-UMB- without having to cut or pa hardware. For a pre-const be used along with a TSW Masonry and concrete ap UMB-60 along with a TSW

Secure Mounting

Every TSW-760 includes an optional security latch for installations in which the physical security of the touch screen is important. When installed, the security latch ensures that a casual passerby cannot remove the TSW-760 from its mounted position in the wall. The latch can only be disengaged through a special removal sequence, protecting the touch screen against theft while still allowing serviceability where required.

Tabletop Option

Using the optional Tabletop Kit (TSW-760-TTK[4]), the TSW-760 becomes a stylish, freestanding touch screen that fits perfectly on a table, desk, or countertop. It can even be permanently attached to the surface using the optional Swivel Mount Kit (TSW-560/760/1060-SMK[4]).

SPECIFICATIONS

Touch Screen Display

Display Type: TFT active matrix color LCD
Size: 7-inch (178 mm) diagonal
Aspect Ratio: 15:9 WVGA
Resolution: 1024 x 600 pixels
Brightness: 350 nits (cd/m²)
Contrast: 1100:1
Color Depth: 24-bit, 16.7M colors
Illumination: Edgelit LED
Viewing Angle: ±80° horizontal, ±80° vertical
Touch Screen: Projected capacitive, 5-point multi-touch capable

Buttons

ected capacitive pushbuttons, programmable, Power”, “Home”, “Lights”, “Up”, and “Down”; l and disabled on a per-button basis utton on rear panel for hardware reset

multi-language web browser,[2] multi- rd, screensaver, single scalable streaming

inese (Simplified), Chinese (Traditional), sh (UK), English (US), Finnish, French, German, talian, Japanese, Korean, Norwegian, Polish, azilian), Romanian, Russian, Slovak, Spanish,

ic, Chinese (Simplified), Croatian, Czech, English (US), Finnish, French (Canada), French ew, Hungarian, Italian, Japanese, Norwegian Russian, Serbian, Spanish, Swedish, Turkish

Voice Recognition: Afrikaans (South Africa); Chinese, Mandarin (China, Simplified); Chinese, Mandarin (Hong Kong, Simplified); Chinese, Mandarin (Taiwan, Traditional); Chinese, Yue (Hong Kong, Traditional); Czech (Czech

REVIEWED
REVIEWED AND MODIFIED
REVISE AND RESUBMIT
NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

TSW-760 7” Touch Screen

Republic); Dutch (Netherlands); English (Australia); English (Canada); English (Generic); English (India); English (New Zealand); English (South Africa); English (UK); English (US); French (France); German (Germany); isiZulu (South Africa); Italian (Italy); Japanese (Japan); Korean (South Korea); Polish (Poland); Portuguese (Brazil); Russian (Russia); Spanish (Spain); Turkish (Turkey)

Web Browser: Arabic, Bulgarian, Catalan, Chinese, Croatian, Czech, Danish, Dutch, English, Filipino, Finnish, French, German, Greek, Hebrew, Hindi, Hungarian, Indonesian, Italian, Japanese, Korean, Latvian, Lithuanian, Norwegian Bokmal, Pashto, Persian, Polish, Portuguese, Romanian, Romansh, Russian, Serbian, Slovak, Slovenian, Spanish, Swedish, Thai, Turkish, Ukrainian, Vietnamese

Memory

DDR3L RAM: 2 GB
Storage: Firmware/Application: 4 GB Class 10 microSD card;[4] System: 4 GB eMMC
Maximum Project Size: 600 MB

Communications

Ethernet: 10/100 Mbps, auto-switching, auto-negotiating, auto-discovery, full/half duplex, TCP/IP, UDP/IP, CIP, DHCP, SSL, TLS, SSH, SFTP (SSH File Transfer Protocol), IEEE 802.1X, SNMP, Auto-IPv6, IEEE 802.3af and 802.3at Type 1 compliant

Streaming Decoder

Video Formats: H.264 (MPEG-4 part 1(
Decodes and displays a maximum of (1) discrete video streaming source
Audio Formats: AAC stereo
Bitrates: Up to 25 Mbps (20 Mbps maximum recommended)
Streaming Input Resolutions: Up
(1920x1080@30fps maximum rec

Audio

Features: Built-in microphone and language voice recognition [1,2]
Audio Feedback Formats: MP3

Camera [1]

Image Size: 5.0 MP
Field of View: 50º horizontal

Connectors

LAN PoE: (1) 8-pin RJ45 with 2 LE
10Base-T/100Base-TX Ethernet po
Green and yellow LEDs indicate Et
USB: (1) USB 2.0 Type A (for future

Power Requirements

Power over Ethernet: IEEE 802.3at Type 1 (802.3af compatible) Class 3 (12.95 W) PoE Powered Device

Environmental

Temperature: 32° to 112° F (0° to 45° C)
Humidity: 10% to 90% RH (non-condensing)
Heat Dissipation: 44 BTU/hr

Enclosure

Construction: Plastic, smooth black or white finish, edge-to-edge glass with black or white surround[3]
Mounting: Surface mount over a 2 or 3-gang electrical box, 2-gang European (DIN 49073) electrical box, 2-gang UK electrical box (minimum 35 mm mounting depth), or 2-3/8” H x 3-3/8” W (60mm H x 86mm W) cutout; Additional wall mount and tabletop options available separately

Dimensions

Height: 4.80 in (122 mm)
Width: 7.62 in (194 mm)
Depth: 1.53 in (39 mm)

Weight

14.1 oz (400 g)

MODELS & ACCESSORIES

Available Models

TSW-760-B-S: 7” Touch Screen, Black Smooth
TSW-760-W-S: 7” Touch Screen, White Smooth
TSW-760-NC-B-S: 7” Touch Screen, w/out Camera/Microphone, Black Smooth

-760
lount Kit for TSW-560-TTK ,

Bracket for TSW-560/760/1060
on Mounting Kit for TSW-UMB-60
Box for TSW-560/760/1060 -

PoE Switch
ner
Transmitter/Receiver

able on TSW-760-B-S and TSW-760-W-S models
760-W-S model only.
ormation, and certain other functions require an

3. Supports Smart Graphics only. Not compatible with “traditional” UI projects.
4. Item(s) sold separately.
5. H.264 compatible IP camera required.

REVIEWED
REVISE AND RESUBMIT
NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and for co-ordination of the work of all sub-trades.
JRP Engineering

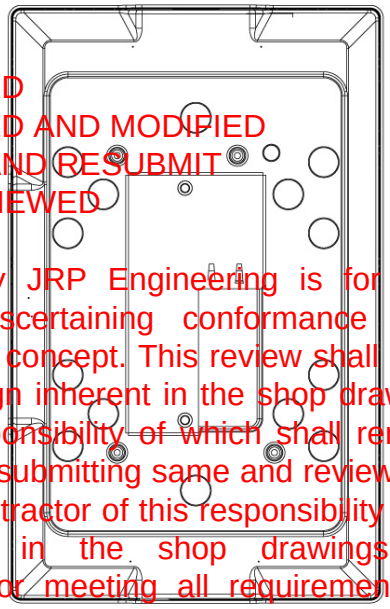
C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

TSW-760 7” Touch Screen

CAD DRAWINGS



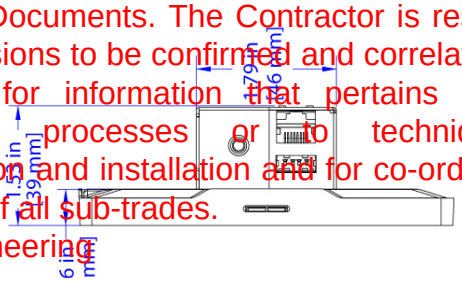
☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

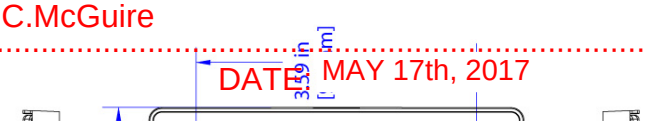
The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017





* MODIFICATIONS:

1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

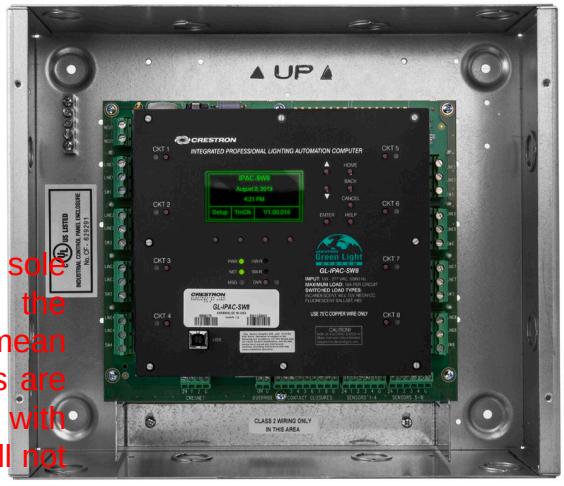
The specific patents that cover Crestron products are listed online at: patents.crestron.com.

Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.

GL-IPAC-SW8

Crestron Green Light® Integrated Switching System

- 8 internal circuits for switched loads
- Expandable to control up to 64 circuits of switched load
- Supports 120 to 277 Volt applications
- 16 Amp load rating per channel
- Built-in astronomical time clock
- Positive air gap at each output
- Phase-independent channels
- Local controls for setup, testing, and verification
- Local and remote override capability
- Non-volatile power failure memory
- Easy access is facilitated from the hinged front cover
- CEC Title 24 2013 Compliant



The GL-IPAC-SW8 switching panel provides internal controls for 8 circuits of switched load and is expandable to support up to 64 circuits of switched load by adding external panels and switching modules. It features local inputs for sensors and keypads, along with a LCD user interface where installers or users can set up the system without having to connect to a computer.

The GL-IPAC-SW8 is perfect for smaller-sized installations, such as retail stores, small office spaces, parking garages, and service stations, which typically require only on/off switching—eliminating the need for a larger, more expensive panel. In addition, the GL-IPAC-SW8 can be easily integrated with Crestron automation solutions, for centralized monitoring and remote control of multiple locations.

Out-of-the-Box Lighti

The GL-IPAC-SW8 comes preconfigured for use as the c processor for a Crestron Green Light® Power Switching system. Right out of the box, the GL- complete switching and two remote ke clock events.

Keypads with as m control lighting loa turn on and off aut feature. Lighting ev at an offset from su may also be imple on room occupanc

Save Energy

Built-in support for balance between d Automatically turn bulb brightness wit sensors can be pla of energy manager

Easy Deployment

Packaged in one metal enclosure, the GL-IPAC-SW8 can be deployed in small spaces, including plenum ceilings. The surface-mount GL-IPAC-SW8 can be affixed to a wall or ceiling rafter, cleanly out of sight. Standard wire-entry knockouts are provided.

SPECIFICATIONS

Load Rating

Switched Channels: 8 internal; expandable up to 64 by adding external panels and modules

I: 16 Amps @ 120 to 277 Volts AC, 50/60 Hz

Switched Load Types: Flourescent Ballast, Incandescent, Magnetic nic Low-Voltage, Neon/Cold Cathode, High-Intensity or

istive rating: 100,000 on/off operations, 50A @ 277 50,000 on/off operations, 16A @ 120/277 VAC

ments

77 Volts AC, 50/60 Hz, via channel 1 (LINE 1, NEUT)

ower: 15 Watts at 24 Volts DC

ass 1)

locks, paralleled, line input neutral

) terminal blocks; 2 connections per channel, easy daisy-chaining; line power inputs

inal blocks, switch channels outputs

ass 2)

3.5mm terminal block; a maximum of 10 GLS-SIMs a the Cresnet® terminal block for occupancy sensors 0 GLS-SIMs for photo sensors; up to 20 occupancy

REVIEWED
☑ REVIEWED AND MODIFIED
REVISE AND RESUBMIT
NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering
C.McGuire
DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

GL-IPAC-SW8 Crestron Green Light® Integrated Switching System

sensors may be supported (16 external Cresnet sensors and 10 external, non-system sensors connected to Cresnet via GLS-SIM); up to 20 photo sensors may be supported (10 external, non-system sensors wired directly to a Cresnet occupancy sensor and 10 external, non-system sensors wired to a GLS-SIM using Cresnet);

OVR: (1) 2-pin 3.5mm terminal block, comprising (2) inputs for external contact closures to trigger the preset Override state

CONTACT CLOSURES: (1) 9-pin 3.5mm terminal block comprising (8) contact closure inputs and (1) GND port

SENSOR INPUT 1-4: (1) 6-pin 3.5mm terminal block comprising (4) sensor inputs for internal, non-system occupancy sensors, (1) +24VDC, and (1) GND port (provides sensors with power)

SENSOR INPUT 5-8: (1) 6-pin 3.5mm terminal block comprising (4) sensor inputs for internal, non-system photo sensors, (1) +24VDC, and (1) GND port (provides sensors with power)

USB: (1) USB Type B console port, for communication with Crestron Toolbox™

LAN: (1) 8-wire RJ45 with 2 LED indicators, 10/100BaseT Ethernet port. Green LED indicates link status; Yellow LED indicates Ethernet activity

LED Display

Green LCD dot matrix, 128x64 resolution, adjustable LED backlight

Controls & Indicators

SELECTION BUTTONS: (2) push-button, adjust menu parameters

ENTER: (1) push-button, s em and stores settings

HOME: (1) push-button, returns to the home page

BACK: (1) push-button, returns to the previous page

CANCEL: (1) push-button, cancels current action without saving

HELP: (1) push-butto

Soft Keys: (4) push-b

PWR: (1) Green LED; NEUT and LINE1

HW-R: (1) Recessed r the processor)

SW-R: (1) Recessed r the program)

OVR: (1) Red LED and override mode

ON/OFF: (8) Red LED manual channel activa

Environmental

Temperature: 32° to

Humidity: 10% to 90

Dimensions

Height: 12.13 in (308

Width: 14.13 in (359 mm)

Depth: 4.06 in (104 mm)

Standards & Certifications

UL Listed Enclosure

CEC Title 24 2013 Compliant

MODELS & ACCESSORIES

Available Models

GL-IPAC-SW8: Crestron Green Light® Integrated Switching System

Available Accessories

CNX-B2B Series: Designer Keypads

C2N-CBD-E Series: Cameo® Express Keypads, Standard Mount

C2N-CBD-P Series: Cameo® Keypads, Standard Mount

C2N-CBF-P Series: Cameo® Keypads, Flush Mount

C2N-DB Series: Decorator Keypads

GLS-SIM: Crestron Green Light® Sensor Integration Module

GLS-LPXT: Crestron Green Light® Photocell, Outdoor

GLS-LOL: Crestron Green Light® Photocell, Open-Loop

GLS-ODT-C-CN: Dual-Technology Occupancy Sensor with Cresnet®, 2000 Sq. Ft.

GLS-OIR-C-CN: Passive Infrared Occupancy Sensor with Cresnet®

GLS-ODT-C-500: Crestron Green Light® Dual-Technology Ceiling Mount Occupancy Sensor, 500 Sq. Ft

GLS-ODT-C-1000: Crestron Green Light® Dual-Technology Ceiling Mount Occupancy Sensor, 1000 Sq. Ft.

00: Crestron Green Light® Dual-Technology Ceiling Mount ensor, 2000 Sq. Ft.

stron Green Light® Dual-Technology Wall Mount 0 Sq. Ft.

on Green Light® Passive Infrared Ceiling Mount Sq. Ft.

tron Green Light® Passive Infrared Ceiling Mount 0 Sq. Ft.

stron Green Light® Passive Infrared Wall Mount 0 Sq. Ft.

ver Loss Sensor, 3-Phase, 120 or 277 Volts

0 Watt Cresnet Power Supply

d from an authorized Crestron dealer. To find a dealer, please esentative for your area. A list of sales representatives is available lesreps or by calling 800-237-2041.

Crestron products are listed online at: patents.crestron.com.

meo, Cresnet, Crestron Green Light, Crestron Toolbox, and Crestron trademarks or registered trademarks of Crestron Electronics, Inc. er countries. Other trademarks, registered trademarks, and trade cument to refer to either the entities claiming the marks and names claims any proprietary interest in the marks and names of others. errors in typography or photography. Specifications are subject to change without notice. ©2014 Crestron Electronics, Inc.

REVIEWED
REVIEWED AND MODIFIED
REVISE AND RESUBMIT
NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean approval of the detail design inherent in the shop drawings are the responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

Crestron Electronics, Inc. 15 Volvo Drive | Rockleigh, NJ 07647
Tel: 800.237.2041 / 201.767.3400 | Fax: 201.767.1903
www.crestron.com

Specifications subject to change without notice. Revised 09/25/14

GLS-SIM

Sensor Integration Module

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The GLS-SIM is a compact interface device designed to allow Crestron Green Light® sensors to be connected directly to a Cresnet control network. Cresnet® is the communications backbone for Crestron sensors, dimmers, keypads, touchpanels, shade controllers, thermostats, and many other devices. This flexible 4-wire bus provides data communications and 24 Volts DC power for all of the devices on the Cresnet network. The GLS-SIM installs easily at the sensor location, mounting conveniently inside the electrical box or exposed above the ceiling. Wiring connections to the network and sensor are facilitated using miniature screw terminals.

The GLS-SIM is compatible with Crestron GLS-series sensors, as well as with most 24 Volt-powered sensors from any manufacturer. Up to 1A @ 24VDC power is available[1] to support multiple sensors in parallel.

The GLS-SIM actually includes two sensing inputs, each capable of sensing a contact closure, logic level, or 0-10V analog signal. When used with a Crestron IPAC or iLux® system, setup is simplified using onboard DIP switches to select the sensor type (i.e. occupancy, photocell, partition sensor, etc.) and operating mode (i.e. normally-open or normally-closed).

> *Provides Cresnet® connectivity for Crestron GLS-series and third-party sensors*
> *Wo... ...ncy sensors, photocells, partition se...*
> *Provides 24 Volts DC to power*
> *Includes 2 independent sensing inputs*
>
> * MODIFICATIONS:
> 1. Provide more infor ont he GLA-PWS50 for contractors.
> 2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
> 3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
> 4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
> 5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

Analog Input: Rated for 0-10 Volts DC, protected to 24 Volts DC maximum, input impedance 20k ohms;
Programmable 5 Volts, 2k ohms pull-up resistor per pin;
Maximum Power Load: 1 Amp @ 24 Volts DC[1]

Controls

LED Indicators

PWR: (1) green LED, indicates 24 Volts DC power supplied from Cresnet control network
NET: (1) yellow LED, indicates communication with Cresnet system

SETUP: (1) red LED, used for touch-settable ID (TSID)

Environmental

Temperature : 32° to 104°F (0° to 40°C)
Humidity : 0% to 95% RH (non-condensing)

Power Requirements

Cresnet Power Usage: 1 Watt (0.04 Amps @ 24 VDC) (Does not include power draw of attached devices.)

Dimensions

Height: 2.00 in (51 mm)
Width: 2.00 in (51 mm)
Depth: 0.86 in (22 mm)

Weight

2 oz (46 g)

Available Models

GLS-SIM [6502480]: Crestron Green Light® Sensor Integration Module

Available Accessories

GLS-LCL [6502415]: Crestron Green Light® Photosensor, Closed-Loop
GLS-LOL [6502416]: Crestron Green Light® Photosensor, Open-Loop
GLS-ODT-C-500: Crestron Green Light® Dual-Technology Ceiling Mount Occupancy Sensor, 500 Sq. Ft [Discontinued]
GLS-ODT-C-1000: Crestron Green Light® Dual-Technology Ceiling Mount Occupancy Sensor, 1000 Sq. Ft. [Discontinued]

GLS-SIMSensor Integration Module

GLS-ODT-C-2000: Crestron Green Light® Dual-Technology Ceiling Mo
Occupancy Sensor, 2000 Sq. Ft. [Discontinued]
GLS-ODT-W-1200 [6502420]: Crestron Green Light® Dual-Technology Wall Mount Occupancy Sensor, 1200 Sq. Ft.
GLS-OIR-C-450: Crestron Green Light® Passive Infrared Ceiling Mount Occupancy Sensor, 450 Sq. Ft. [Discontinued]
GLS-OIR-C-1500: Crestron Green Light® Passive Infrared Ceiling Mount Occupancy Sensor, 1500 Sq. Ft. [Discontinued]
GLS-OIR-W-2500 [6502423]: Crestron Green Light® Passive Infrared Wall Mount Occupancy Sensor, 2500 Sq. Ft.
CRESNET-HP-NP-TL-SP1000 [6500492]: Cresnet® "High-Power" Control Cable, non-plenum, teal, 1000 ft spool
CRESNET-HP-NP-TL-SP500 [6500489]: Cresnet® "High-Power" Control Cable, non-plenum, teal, 500 ft spool
CRESNET-NP-BK-B500 [6500494]: Cresnet® Control Cable, Non-Plenum, Black, 500 ft (152 m) box
CRESNET-NP-OR-B500 [6500495]: Cresnet® Control Cable, Non-Plenum, Orange, 500 ft (152 m) box
CRESNET-NP-TL-B250 [6500410]: Cresnet® Control Cable, Non-Plenum, Teal, 250 ft (76 m) box
CRESNET-NP-TL-B500 [6500719]: Cresnet® Control Cable, Non-Plenum, Teal, 500 ft (152 m) box
CRESNET-NP-TL-SP1000 [6500794]: Cresnet® Control Cable, Non-Plenum, Teal, 1000 ft (304 m) spool
CRESNET-NP-TL-SP500 [6500183]: Cresnet® Control Cable, Non-Plenum, Teal, 500 ft (152 m) spool
CRESNET-NP-YL-B500: Cresnet® Control Cable, non-plenum, yellow, 500 ft box [Discontinued]
CRESNET-P-BK-SP500 [6500184]: Cresnet® Control Cable, Plenum-Rated, Black, 500 ft (152 m) spool
CRESNET-P-OR-SP500 [6500185]: Cresnet® Control Cable, Plenum-Rated, Orange, 500 ft (152 m) spool
CRESNET-P-TL-SP1000 [6500941]: Cresnet® Control Cable, Plenum-Ra Teal, 1000 ft (304 m) spool
CRESNET-P-TL-SP500 [6500098]: Cresnet® Control Cable, Plenum-Rate Teal, 500 ft (152 m) spool
CRESNET-P-YL-SP500: Cresnet® Control Cable, plenum, yellow, 500 ft spool [Discontinued]

Notes:
1.
Actual load capability dependent upon the amount of available Cresnet power in the system.
This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at **www.crestron.com/salesreps** or by calling 800-237-2041. Specifications subject to change without notice. Crestron is not responsible for errors in typography or photography.

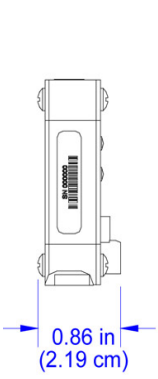
The specific patents that cover Crestron products are listed online at: **patents.** crestron.com.

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering
C.McGuire
DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

GLS-SIMSensor Integration Module



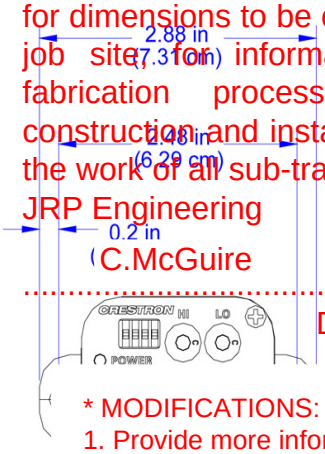
☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

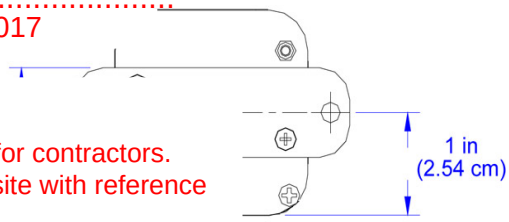
The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

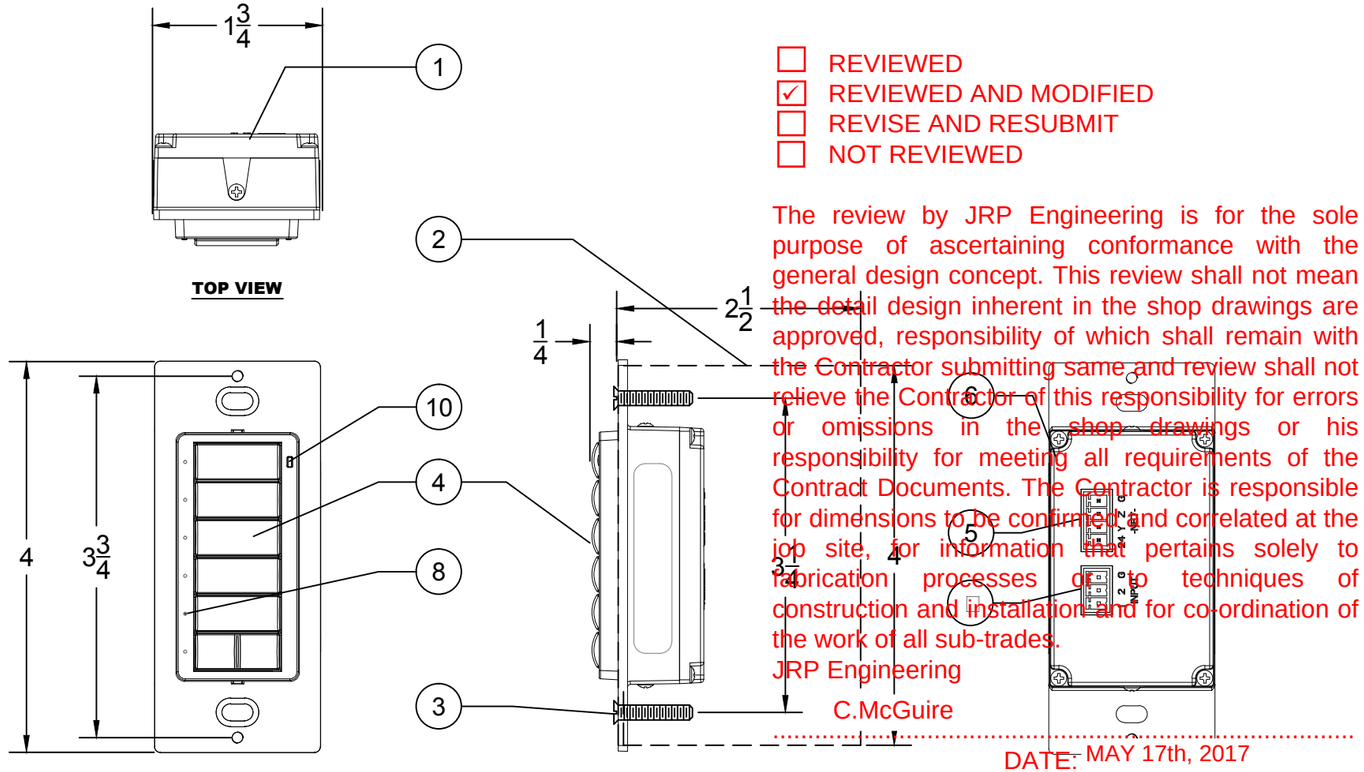
DATE: MAY 17th, 2017





* MODIFICATIONS:

1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.



☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering
C.McGuire
DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

IMPORTANT:
SEE INSTALLATION AND OPERATION MANUAL FOR KEYPAD ASSEMBLY INSTRUCTIONS AND BUTTON CONFIGURATION INSTRUCTIONS.

IMPORTANT:
KEYPADS WILL SHIP FROM THE FACTORY WITH NO BUTTONS INSTALLED. ALL KEYPADS SHIP WITH A COMPLETE SET OF BUTTONS TO FORM ANY OF THE LAYOUTS SHOWN ON THE "MODIFIED" DETAIL PAGE. ANY INFORMATION PROVIDED FOR ENGRAVING OR PROGRAMMING INFORMATION WILL NOT BE IMPLEMENTED UNTIL AFTER SYSTEM COMMISSIONING IS COMPLETE, AT WHICH TIME REPLACEMENT BUTTONS WITH THE SPECIFIED ENGRAVING WILL BE PROVIDED.

NOTES KEY

1. #C2N-CBD-P CAMEO SERIES CONTROL STATION WITH LED INDICATORS.
2. SINGLE GANG ELECTRICAL BOX WITH NECESSARY ACCESSORIES, 2.5" DEEP MINIMUM (NOT BY CRESTRON).
3. 0.1 IN PAN HEAD SCREW (TYP OF (2) PER STATION). PROVIDED WITH CONTROL STATION BY CRESTRON.
4. CUSTOM ENGRAVEABLE AND CONFIGURABLE KEYPAD BUTTONS. SEE MANUAL FOR ASSEMBLY INSTRUCTIONS.
5. CRESNET CONNECTION PORT FOR CONTROL VIA 2-SERIES CONTROL SYSTEM.
6. GROUNDING WIRE FOR KEYPAD TO ELECTRICAL ENCLOSURE.
7. NOT SHOWN: TO BE USED WITH ANY DECORA STYLE FACEPLATE. FURNISHED BY OTHERS.
8. LED INDICATORS - INDICATE SELECTED SCENE
- ☐ 3-PIN 3.5MM DETACHABLE TERMINAL BLOCK. COMPRISES OF (2) VERSIPORT INPUTS.
10. PHOTOSENSOR FOR CONTROL OF AUTO-DIMMING FUNCTION. CAN BE CONFIGURED TO REPORT AMBIENT LIGHT LEVEL TO CONTROL SYSTEM.

NOTE:
KEYPAD IS COMPATIBLE WITH STANDARD DECORA-STYLE FACEPLATE, **NOT** PROVIDED BY CRESTRON.

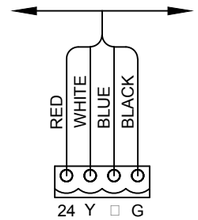
WIRING NOTES:

CAUTION: POSSIBLE EQUIPMENT DAMAGE IF MISWIRED

1. DO NOT POWER UP SYSTEM UNTIL ALL WIRING IS VERIFIED. CARE SHOULD BE TAKEN TO ENSURE DATA (Y,☐) AND POWER (24,G) CONNECTIONS ARE NOT CROSSED.
2. GROUND SHIELD AT CONTROL SYSTEM END **ONLY**.
3. STRIP ONLY THE MINIMUM AMOUNT OF JACKETING FROM THE WIRES, AND INSULATE EXPOSED CONDUCTORS/ DRAIN WIRES WITH HEAT SHRINK TUBING.
4. GENUINE CRESNET CONTROL CABLE IS RECOMMENDED FOR CONNECTION OF CRESTRON COMMERCIAL LIGHTING SYSTEMS.
5. WHEN DAISY CHAINING NETWORK UNITS, ALWAYS TWIST THE ENDS OF THE INCOMING WIRE AND THE OUTGOING WIRE THAT SHARE A PIN ON THE NETWORK CONNECTOR. IF NECESSARY USE A PIGTAIL WHEN LANDING MORE THAN TWO CONDUCTORS ON A SMALL CONNECTOR.

CRESNET CONTROL WIRING

TO LAST CONTROL STATION, PROCESSOR, OR CRESNET DEVICE. (SEE CONTROL RISER)



TO NEXT CONTROL STATION, PROCESSOR, OR CRESNET DEVICE. (SEE CONTROL RISER)

C2N-CBD-P KEYPAD

CRESTRON Green Light SYSTEM

PART #: C2N-CBD-P
DESCRIPTION: C2N-CBD-P KEYPAD
REVISION: 006
DATE: 7/22/2013
NOTES:

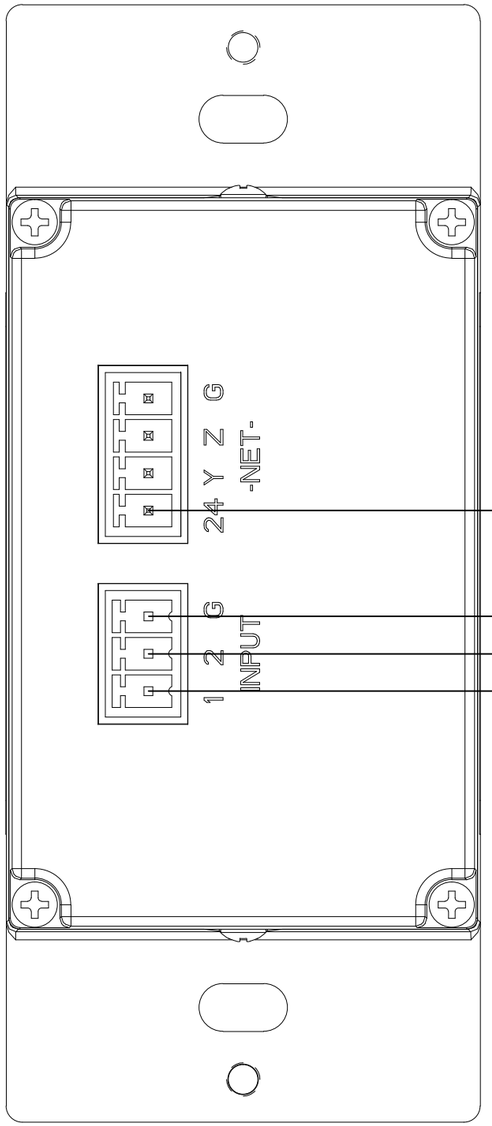
CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

DEVICE:
C2N-CBD-P CAMEO KEYPAD
PHYSICAL DETAILS

DRAWING:
1 OF 5

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering
C.McGuire
DATE: MAY 17th, 2017



24VDC
G
2
SENSOR 2

24VDC
G
1
SENSOR 1

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

WIRING FOR OPTIONAL VERSIPORT SENSOR INPUTS

WHERE CONVENIENT AND APPROPRIATE, VERSIPORT INPUTS MAY BE USED TO CONNECT OCCUPANCY SENSORS OR PHOTOCELLS TO CRESNET NETWORK RATHER THAN USING GLS-SIM INTERFACE MODULE.

Green Light SYSTEM

PART #: C2N-CBD-P
DESCRIPTION: C2N-CBD-P VERSIPORT WIRING
REVISION: 003
DATE: 3/6/12
NOTES:

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

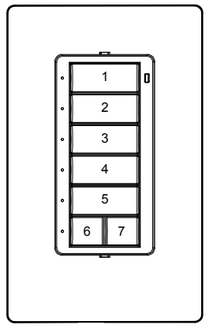
DEVICE:
C2N-CBD-P CAMEO KEYPAD
VERSIPORT WIRING

DRAWING:
2 OF 5

C2N-CBD-P KEYPAD ENGRAVING & CONTROL DETAIL SHEET.
STANDARD KEYPAD LAYOUTS

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering
C.McGuire
DATE: MAY 17th, 2017

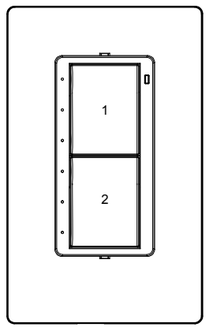


7 BUTTON CONFIGURATION

ENGRAVING SCHEDULE	
BUTTON ID	ENGRAVING
1	ON
2	SCENE 1
3	SCENE 2
4	SCENE 3
5	OFF
6	RAISE
7	LOWER

CONTROL
ZONES TO BE CONTROLLED
RAISE
LOWER

STATION ID(□): _____
LOCATION(□): _____
COLOR: _____
TEXTURE OR SMOOTH (CIRCLE ONE)



2 BUTTON CONFIGURATION

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

PLEASE NOTE:
THIS SHEET AND THE SHEETS FOR "MODIFIED" LAYOUTS THAT FOLLOW DO NOT NEED TO BE RETURNED COMPLETED WITH THE SUBMITTAL PACKAGE FOR THIS PROJECT. THESE SHEETS MUST BE RETURNED NOT LATER THAN YOUR REQUEST FOR SYSTEM COMMISSIONING.

KEYPADS SHIP WITH NO BUTTONS INSTALLED. SEE NOTE ON C2N-CBD-P SHEET 1 OF 5 FOR DETAILS.

INSTRUCTIONS

IF THESE STANDARD LAYOUTS ARE ACCEPTABLE FOR YOUR PROJECT, PLEASE FOLLOW THE INSTRUCTIONS BELOW. IF YOU NEED TO MODIFY THESE LAYOUTS, PLEASE GO TO THE NEXT SHEET "MODIFIED KEYPAD LAYOUTS"

1. MAKE AS MANY COPIES AS YOU NEED OF THIS SHEET TO BE ABLE TO CREATE AS MANY DIFFERENT CONTROL TYPES AS YOU REQUIRE. NOTE THAT IF YOU HAVE SEVERAL STATIONS THAT ARE THE SAME, YOU MAY LIST MULTIPLE STATION ID NUMBERS IN THE APPROPRIATE SPACE, YOU DON'T NEED A SEPARATE SHEET FOR EACH STATION.
2. LOOK AT THE SINGLE-LINE RISER DIAGRAMS EARLIER IN THIS SUBMITTAL PACKAGE. EACH KEYPAD WILL HAVE A "STATION ID". NOTE THAT STATION ID IN THE APPROPRIATE SPACE, AS WELL AS THE DEVICE LOCATION. IF THE DEVICE LOCATION ISN'T SPECIFIED, PLEASE TRY TO UPDATE IT.
3. ON THIS SUBMITTAL'S BILL OF MATERIALS PAGE YOU WILL SEE A LISTING OF ALL KEYPADS, AS WELL AS THEIR COLOR AND FINISH.
4. IF THE KEYPADS HAVE NOT YET BEEN SHIPPED, YOU MAY CHANGE TO COLOR/FINISH FOR NO ADDITIONAL FEE. NOTE THE COLOR YOU WOULD LIKE THE KEYPAD TO BE ON THE "COLOR" LINE, WITH EITHER "SMOOTH" (GLOSS) OR "TEXTURED" (MATTE) ON THE LINE BELOW COLOR.
5. BE AWARE THAT IF THE KEYPADS HAVE SHIPPED AND THE COLOR NEEDS TO CHANGE, RESTOCKING FEES WILL BE APPLIED.
6. IN THE CONTROL TABLE, ENTER THE INFORMATION REQUIRED FOR □ONES TO BE CONTROLLED BY THE BUTTONS.
7. ONCE YOU ARE FINISHED WITH ALL DETAILS, PLEASE SEND THE SHEET(S) TO LIGHTINGCOMMISSIONING□ CRESTRON.COM

AVAILABLE COLORS & FINISHES

WHITE	SMOOTH OR TEXTURED
BLACK	SMOOTH OR TEXTURED
ALMOND	SMOOTH OR TEXTURED
GRAY	SMOOTH
IVORY	SMOOTH
DARK ALMOND	SMOOTH
BROWN	SMOOTH
LATTE	TEXTURED
DUSK	TEXTURED

PLEASE GO TO WWW.CRESTRON.COM FOR PHOTOS OF THESE COLORS, OR CONTACT YOUR CRESTRON PROJECT COORDINATOR FOR SAMPLES

CRESTRON Green Light SYSTEM

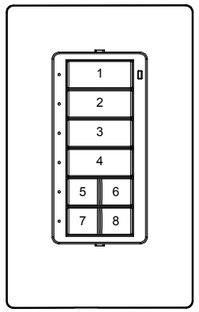
PART #: C2N-CBD-P
DESCRIPTION: C2N-CBD-P KEYPAD STANDARD LAYOUT & ENGRAVING
REVISION: 003
DATE: 3/6/12
NOTES:

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

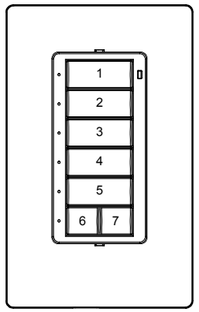
DEVICE:
C2N-CBD-P CAMEO KEYPAD "STANDARD" LAYOUTS

DRAWING:
3 OF 5

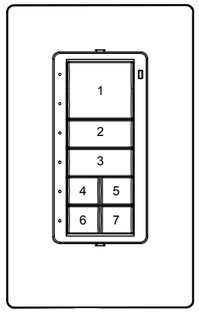
C2N-CBD-P KEYPAD ENGRAVING SHEET
MODIFIED KEYPAD LAYOUTS



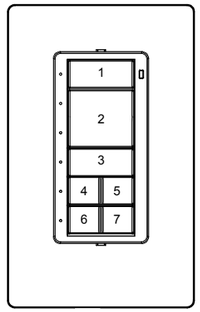
8 BUTTON
STYLE 1



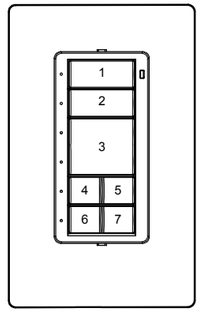
7 BUTTON
STYLE 2



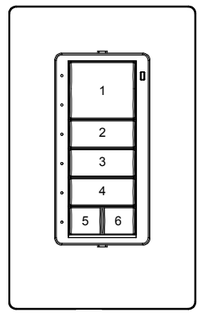
7 BUTTON
STYLE 4



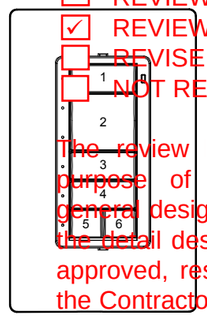
7 BUTTON
STYLE 5



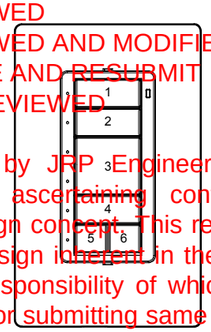
7 BUTTON
STYLE 6



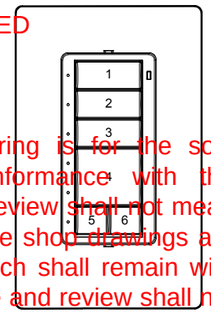
6 BUTTON
STYLE 8



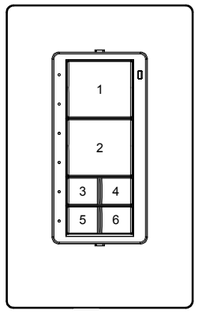
6 BUTTON
STYLE 9



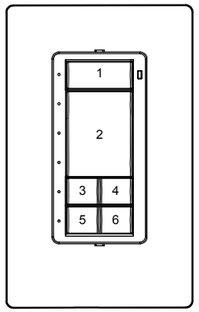
6 BUTTON
STYLE 10



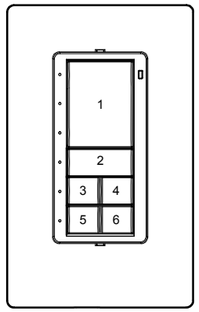
6 BUTTON
STYLE 11



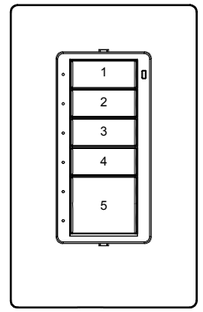
6 BUTTON
STYLE 15



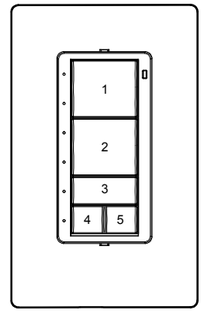
6 BUTTON
STYLE 16



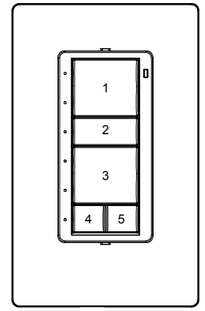
6 BUTTON
STYLE 17



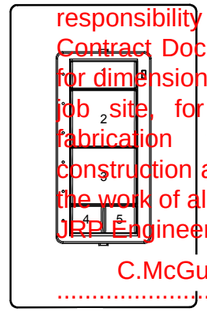
5 BUTTON
STYLE 22



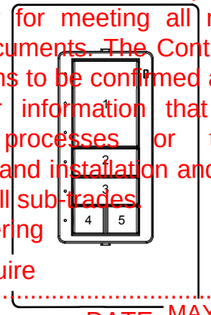
5 BUTTON
STYLE 23



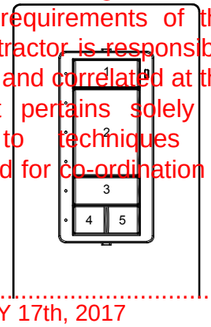
5 BUTTON
STYLE 24



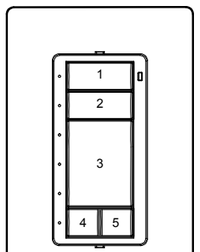
5 BUTTON
STYLE 25



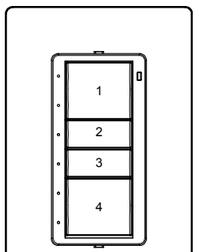
5 BUTTON
STYLE 29



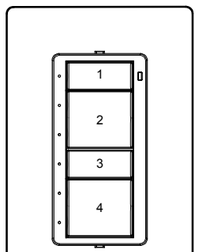
5 BUTTON
STYLE 30



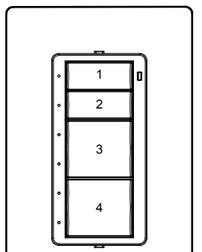
5 BUTTON
STYLE 31



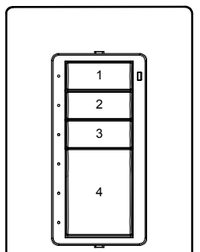
4 BUTTON
STYLE 32



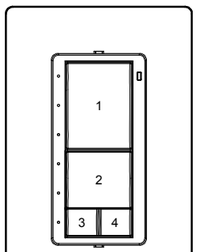
4 BUTTON
STYLE 35



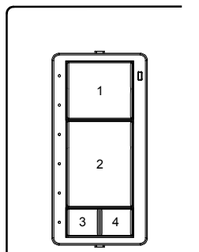
4 BUTTON
STYLE 38



4 BUTTON
STYLE 41



4 BUTTON
STYLE 42



4 BUTTON
STYLE 43

REVIEWED
REVIEWED AND MODIFIED
REVISE AND RESUBMIT
NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean that details designed in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of his responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

PLEASE USE THESE STYLES AS A GUIDE TO FILL OUT THE MODIFIED KEYPAD LAYOUT & ENGRAVING FORMS ON THE NEXT PAGE

NOTE THAT SEVERAL STYLES HAVE BEEN REMOVED FROM THIS SHEET, BUT STYLE NUMBERS ARE UNCHAINED TO MAINTAIN COMPATIBILITY WITH OLDER SHEETS.

Creston Green Light System

PART #: C2N-CBD-P
DESCRIPTION: C2N-CBD-P MODIFIED LAYOUT & ENGRAVING
REVISION: 008
DATE: 1/5/2015
NOTES: UPDATE AVAILABLE STYLES- OTHER STYLES NOT RENUMBERED

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

DEVICE:
C2N-CBD-P CAMEO KEYPAD
"MODIFIED" LAYOUT

DRAWING:
4 OF 5

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

C2N-CBD-P KEYPAD ENGRAVING & CONTROL DETAIL SHEET.
MODIFIED KEYPAD LAYOUTS

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

KEYPAD STYLE: _____
STATION ID: _____
LOCATION: _____
COLOR: _____
TEXTURE OR SMOOTH (CIRCLE ONE)
SEE PREVIOUS SHEET FOR STYLE NUMBERS

BUTTONS ARE CLASSED AS HALF, SINGLE, DOUBLE, OR TRIPLE SPACE. DOUBLE AND TRIPLE SPACE BUTTONS CAN HAVE 2 LINES OF TEXT AND EACH LINE CAN HAVE A MAXIMUM OF 7 CHARACTERS. (SEPARATE LINES WITH /)

STANDARD RAISE ▲ AND LOWER ▼ BUTTONS ARE SHIPPED WITH EACH KEYPAD FOR USE IN THE SPLIT BUTTONS (HALF-WIDTH BUTTONS AT THE BOTTOM). IF YOU WISH ENGRAVING ON THESE BUTTONS ONLY 3-4 CHARACTERS, DEPENDING ON CHARACTER WIDTH, WILL FIT ON THESE BUTTONS.

ENGRAVING SCHEDULE		CONTROL
BUTTON ID	ENGRAVING	ZONES TO BE CONTROLLED
1		
2		
3		
4		
5		
6		
7		
8		

KEYPAD STYLE: _____
STATION ID: _____
LOCATION: _____
COLOR: _____
TEXTURE OR SMOOTH (CIRCLE ONE)
SEE PREVIOUS SHEET FOR STYLE NUMBERS

BUTTONS ARE CLASSED AS HALF, SINGLE, DOUBLE, OR TRIPLE SPACE. DOUBLE AND TRIPLE SPACE BUTTONS CAN HAVE 2 LINES OF TEXT AND EACH LINE CAN HAVE A MAXIMUM OF 7 CHARACTERS. (SEPARATE LINES WITH /)

STANDARD RAISE ▲ AND LOWER ▼ BUTTONS ARE SHIPPED WITH EACH KEYPAD FOR USE IN THE SPLIT BUTTONS (HALF-WIDTH BUTTONS AT THE BOTTOM). IF YOU WISH ENGRAVING ON THESE BUTTONS ONLY 3-4 CHARACTERS, DEPENDING ON CHARACTER WIDTH, WILL FIT ON THESE BUTTONS.

ENGRAVING SCHEDULE		CONTROL
BUTTON ID	ENGRAVING	ZONES TO BE CONTROLLED
1		
2		
3		
4		
5		
6		
7		
8		

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

KEYPAD STYLE: _____
STATION ID: _____
LOCATION: _____
COLOR: _____
TEXTURE OR SMOOTH (CIRCLE ONE)
SEE PREVIOUS SHEET FOR STYLE NUMBERS

BUTTONS ARE CLASSED AS HALF, SINGLE, DOUBLE, OR TRIPLE SPACE. DOUBLE AND TRIPLE SPACE BUTTONS CAN HAVE 2 LINES OF TEXT AND EACH LINE CAN HAVE A MAXIMUM OF 7 CHARACTERS. (SEPARATE LINES WITH /)

STANDARD RAISE ▲ AND LOWER ▼ BUTTONS ARE SHIPPED WITH EACH KEYPAD FOR USE IN THE SPLIT BUTTONS (HALF-WIDTH BUTTONS AT THE BOTTOM). IF YOU WISH ENGRAVING ON THESE BUTTONS ONLY 3-4 CHARACTERS, DEPENDING ON CHARACTER WIDTH, WILL FIT ON THESE BUTTONS.

ENGRAVING SCHEDULE		CONTROL
BUTTON ID	ENGRAVING	ZONES TO BE CONTROLLED
1		
2		
3		
4		
5		
6		
7		
8		

PLEASE NOTE:
THIS SHEET AND THE SHEETS FOR "STANDARD" LAYOUTS THAT PRECEDE IT DO NOT NEED TO BE RETURNED COMPLETED WITH THE SUBMITTAL PACKAGE FOR THIS PROJECT. THESE SHEETS MUST BE RETURNED NOT LATER THAN YOUR REQUEST FOR SYSTEM COMMISSIONING.

KEYPADS SHIP WITH NO BUTTONS INSTALLED. SEE NOTE ON C2N-CBD-P SHEET 1 OF 5 FOR DETAILS.

INSTRUCTIONS

IF YOU WISH TO USE ANY MODIFIED LAYOUTS FOR YOUR PROJECT, PLEASE FOLLOW THE INSTRUCTIONS BELOW. IF YOU WISH STANDARD LAYOUTS ONLY, PLEASE GO TO THE PRIOR SHEET "STANDARD KEYPAD LAYOUTS"

1. MAKE AS MANY COPIES AS YOU NEED OF THIS SHEET TO BE ABLE TO CREATE AS MANY DIFFERENT STATION ENGRAVINGS AS YOU REQUIRE. NOTE THAT IF YOU HAVE SEVERAL STATIONS THAT ARE THE SAME, YOU MAY LIST MULTIPLE STATION ID NUMBERS IN THE APPROPRIATE SPACE, YOU DON'T NEED A SEPARATE SHEET FOR EACH STATION.
2. ENTER THE STYLE NUMBER (SEE PREVIOUS SHEET FOR STYLES) THAT YOU WOULD LIKE FOR A STATION OR TYPE OF STATION.
3. LOOK AT THE SINGLE-LINE RISER DIAGRAMS EARLIER IN THIS SUBMITTAL PACKAGE. EACH KEYPAD WILL HAVE A "STATION ID". NOTE THAT STATION ID IN THE APPROPRIATE SPACE, AS WELL AS THE DEVICE LOCATION. IF THE DEVICE LOCATION ISN'T SPECIFIED, PLEASE TRY TO UPDATE IT.
4. ON THIS SUBMITTAL'S BILL OF MATERIALS PAGE YOU WILL SEE A LISTING OF ALL KEYPADS, AS WELL AS THEIR COLOR AND FINISH.
5. IF THE KEYPADS HAVE NOT YET BEEN SHIPPED, YOU MAY CHANGE TO COLOR/FINISH FOR NO ADDITIONAL FEE. NOTE THE COLOR YOU WOULD LIKE THE KEYPAD TO BE ON THE "COLOR" LINE, WITH EITHER "SMOOTH" (GLOSS) OR "TEXTURED" (MATTE) ON THE LINE BELOW COLOR.
6. BE AWARE THAT IF THE KEYPADS HAVE SHIPPED AND THE COLOR NEEDS TO CHANGE, RESTOCKING FEES WILL BE APPLIED.
7. 5. IN THE ENGRAVING TABLE, ENTER THE TEXT YOU WOULD LIKE TO HAVE ENGRAVED ON THE BUTTONS.
8. ONCE YOU ARE FINISHED WITH ALL ENGRAVING DETAILS, PLEASE SEND THE SHEET(S) TO LIGHTINGCOMMISSIONING□ CRESTRON.COM
9. □ PLEASE ENTER PROGRAMMING INFORMATION FOR EACH STATION- □ONES TO BE CONTROLLED BY EACH BUTTON. CONTROLS LIKE "PROJECTION SCREEN UP" OR OTHER NON-□ONE RELATED ACTIONS MAY ALSO BE NOTED.

AVAILABLE COLORS & FINISHES

WHITE	SMOOTH OR TEXTURED
BLACK	SMOOTH OR TEXTURED
ALMOND	SMOOTH OR TEXTURED
GRAY	SMOOTH
IVORY	SMOOTH
DARK ALMOND	SMOOTH
BROWN	SMOOTH
LATTE	TEXTURED
DUSK	TEXTURED

PLEASE GO TO WWW.CRESTRON.COM FOR PHOTOS OF THESE COLORS, OR CONTACT YOUR CRESTRON PROJECT COORDINATOR FOR SAMPLES

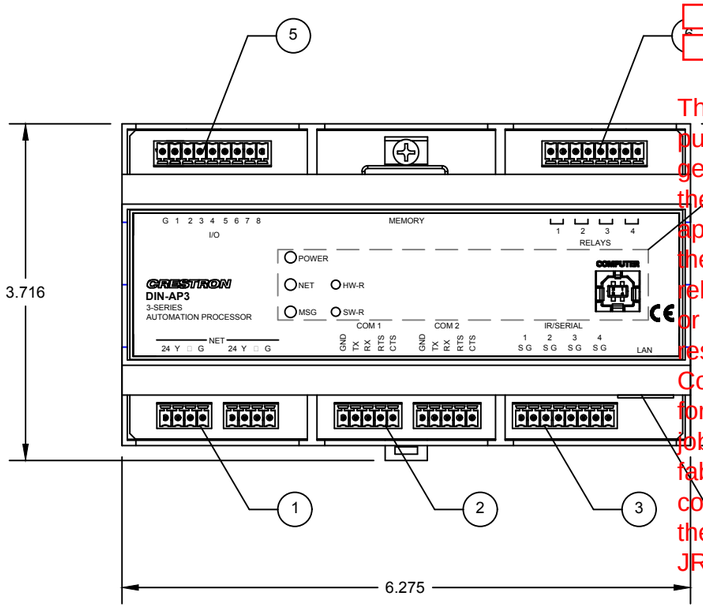
CRESTRON Green Light SYSTEM

PART #: C2N-CBD-P
DESCRIPTION: C2N-CBD-P MODIFIED LAYOUT & ENGRAVING
REVISION: 005
DATE: 1/2/13
NOTES:

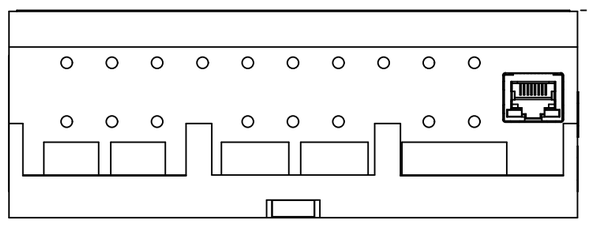
CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

DEVICE:
C2N-CBD-P CAMEO KEYPAD
"MODIFIED" LAYOUT INSTRUCTIONS

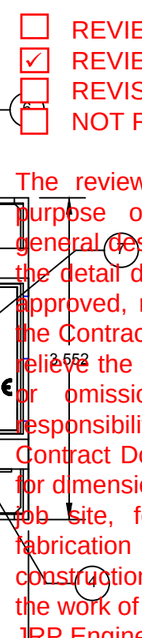
DRAWING:
5 OF 5



Top View



Side View



End View

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

NOTES KEY

(1) **NET:** (2) 4-□i□ 3.5mm det□□□□□e termi□□□□o□□, o□e □□r□□e ed Cre□□et m□□ter □ort. S□□□ort□o□e Cre□□et □e□me□t of (20) de□i□e□□□dditio□□□de□i□e□m□□□e □□□□orted □i□t□e □dditio□ of DIN-HUB(□) or □imi□r "□□□" de□i□e□.

(2) **COM 1 - 2:** (2) DB□ m□□e, □idire□tio□□□RS-232/422/485 □ort□□ U□ to 115.2□ □□□d□□□rdw□re □□d □oftw□re □□□d□□□□i□□ □□□□ort

(3) **IR CONNECTORS**
IR 1 - 4: (1) 8-□i□ det□□□□□e 3.5mm termi□□□□o□□ □om□ri□i□□ (4) IR/Seri□□O□t□□t Port□□IR o□t□□t □□ to 1.2 MH□□

1-w□□ □eri□□TTL/RS-232 (0-5 Vo□t□) □□ to 115.2□ □□□d

I□di□id□□□□i□□□□□e□er□tor □er □ort, □□owi□□ □im□t□□eo□□firi□□ of □□□ort□.

(4) LAN: (1) 8-wire RJ45 □□□□(8P8C mod□□r fem□e)□ 10B□□eT/100B□□eTX Et□er□et □ort

(2) LED□, □ree□ LED i□di□□te□Et□er□et i□□ □t□t□□, □m□er LED i□di□□te□Et□er□et □□ti□it□

(5) **I/O 1 - 8:** (1) □-□i□ 3.5mm det□□□□□e termi□□□□o□□ □om□ri□i□□ (8) di□it□□I□□□t/O□t□□t or A□□o□ I□□□t □ort□ (refere□□ed to GND)□
Di□it□□I□□□t Vo□t□□e R□□□e: 0-24 Vo□t□DC□
Logic Threshold: ≥1.2 Volts DC active/high
Di□it□□O□t□□t: 250mA □i□□from m□□im□m 24 □o□t□DC, □□t□□ diode□for □□e wit□'re□word' □o□d□
A□□o□ I□□□t: R□ted for 0-10 □o□t□DC, □rote□ted to 24 □o□t□DC m□□im□m, i□□□t im□ed□□□e 20□□m□□
Pro□□mm□□□e 5 □o□t□, 2□□o□m□ □□□-□□ re□i□tor □er □i□.

(6) **RELAY 1 - 4:** (1) 8-□i□ 3.5mm det□□□□□e termi□□□□o□□ □om□ri□i□□ (4) □orm□□□o□e□, i□o□ted re□□□□
R□ted 1 Am□, 30 Vo□t□AC/DC□
MOV □r□ □□□□re□□io□ □□ro□□ □o□t□□t□

(7) **FACE PANEL CONNECTORS, INDICATORS AND CONTROLS:**

COMPUTER (front): (1) USB T□□e B fem□e□ USB 2.0 □om□□ter □o□□o□e □ort

PWR: (1) Gree□ LED, i□di□□te□o□er□ti□□ □ower □□□□ied from Cre□□et □etwor□

NET: (1) Am□er LED, i□di□□te□ □omm□□i□□tio□ wit□ □□e Cre□□et □□□tem

MSG: (1) Red LED, i□di□□te□ □o□tro□□□tem □□□ □e□er□ted □□ error me□□□□e.

HW-R: (1) Re□e□□ed □□□□□□tto□ for □□rdw□re re□et

SW-R: (1) Re□e□□ed □□□□□□tto□ for □oftw□re re□et

POWER REQUIREMENTS & ENVIRONMENTAL

Cre□□et Power U□□□e: 8 W□tt□ (0.30 Am□□ □ 24 Vo□t□DC) w□e□ □i□□ Cre□□et □etwor□ □ower

Environmental
Temperature: 32° to 104°F (0° to 40°C)
H□midit□: 10□ to □0□ RH (□o□-□o□de□i□□)

He□t Di□i□□tio□: 26 BTU/□o□r

PLEASE REFER TO INSTALLATION & OPERATIONS GUIDE FOR FURTHER INFORMATION

DIN-AP3 3-SERIES CONTROL AUTOMATION PROCESSOR

CRESTRON Green Light SYSTEM

PART #: DIN-AP3
DESCRIPTION: DIN-AP3 3-SERIES CONTROL SYSTEM
REVISION: 001
DATE: □/10/2013
NOTES:

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

PART #:
DIN-AP3

DRAWING:
1 OF 1

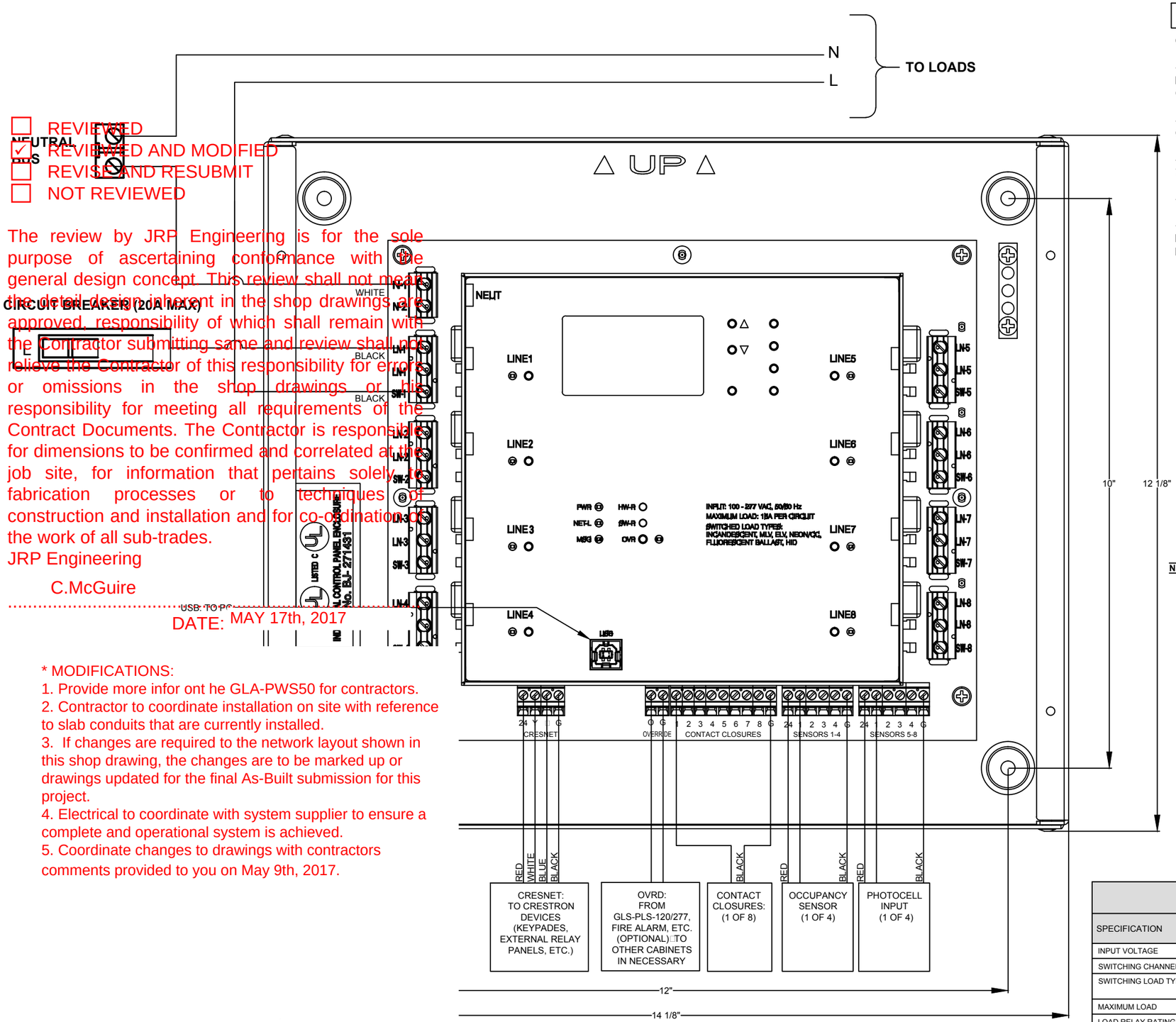
☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean that the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.



INSTALLATION

OBSERVE THE FOLLOWING WHEN INSTALLING THE CABINET:

- THE CABINET MUST BE MOUNTED BY A LICENSED ELECTRICIAN IN ACCORDANCE WITH ALL NATIONAL AND LOCAL CODES.
- ALLOW ADEQUATE CLEARANCE (3' MINIMUM) IN FRONT OF CABINET FOR SERVICING.
- THE CABINET IS DESIGNED FOR SURFACE MOUNTING ON A WALL.
- CABINETS ARE INTENDED FOR INDOOR USE ONLY.
- PANEL DRAWS A SMALL AMOUNT OF CURRENT FROM SWITCH INPUT #1 FOR SYSTEM OPERATION. INPUT #1 MUST BE ENERGI□ED FOR PANEL TO OPERATE.

TORQUE			
TERMINAL	CONN. WIRE RANGE	TORQUE	STRIP LENGTH
LN INPUTS	14-10 AWG	4.42 LB-IN (0.5Nm)	5/16" (8MM)
SW INPUTS	14-10 AWG	4.42 LB-IN (0.5Nm)	5/16" (8MM)
N1, N1 NEUTRAL BUS	14-10 AWG	4.42 LB-IN (0.5Nm)	5/16" (8MM)
GROUND LUG	14-4 AWG	25-45 LB-IN (2.8-5.1Nm)	3/4" (1□MM)
LV CONNECTORS *	26-12 AWG	4.42 LB-IN (0.5Nm)	1/4" (6MM)

* MAY BE WIRED AS CLASS 1 OR CLASS 2

NOTE: UNIT REQUIRES 'LINE1' AND NEUTRAL TO BE CONNECTED TO POWER UP

□ENERAL NOTES

1. DO NOT POWER UP SYSTEM UNTIL ALL WIRING IS VERIFIED. CARE SHOULD BE TAKEN TO ENSURE DATA (Y,□) AND POWER (24,G) CONNECTIONS ARE NOT CROSSED.
2. PANEL REQUIRES OVERCURRENT PROTECTION FROM AN EXTERNAL BREAKER PANEL (F.B.O.).

SPECIFICATIONS

SPECIFICATION	DETAILS
INPUT VOLTAGE	100-277 VAC 50/60 H□
SWITCHING CHANNELS	8
SWITCHING LOAD TYPES	INCANDESCENT, MAGNETIC LOW VOLTAGE, ELECTRONIC LOW VOLTAGE, NEON/COLD CATHODE, HIGH-INTENSITY DISCHARGE, MOTOR
MAXIMUM LOAD	16A PER OUTPUT
LOAD RELAY RATING	277 VAC, 50A
ENVIRONMENTAL TEMPERATURE HUMIDITY	32° TO 104°F (0° TO 40°C) 10□ TO □0□ RH, NON-CONDENSING
AVAILABLE CRESNET POWER	15 WATTS AT 24V DC, SHARED WITH OCCUPANCY AND PHOTOCELL SENSOR PORTS

Green Light SYSTEMS CRESTRON

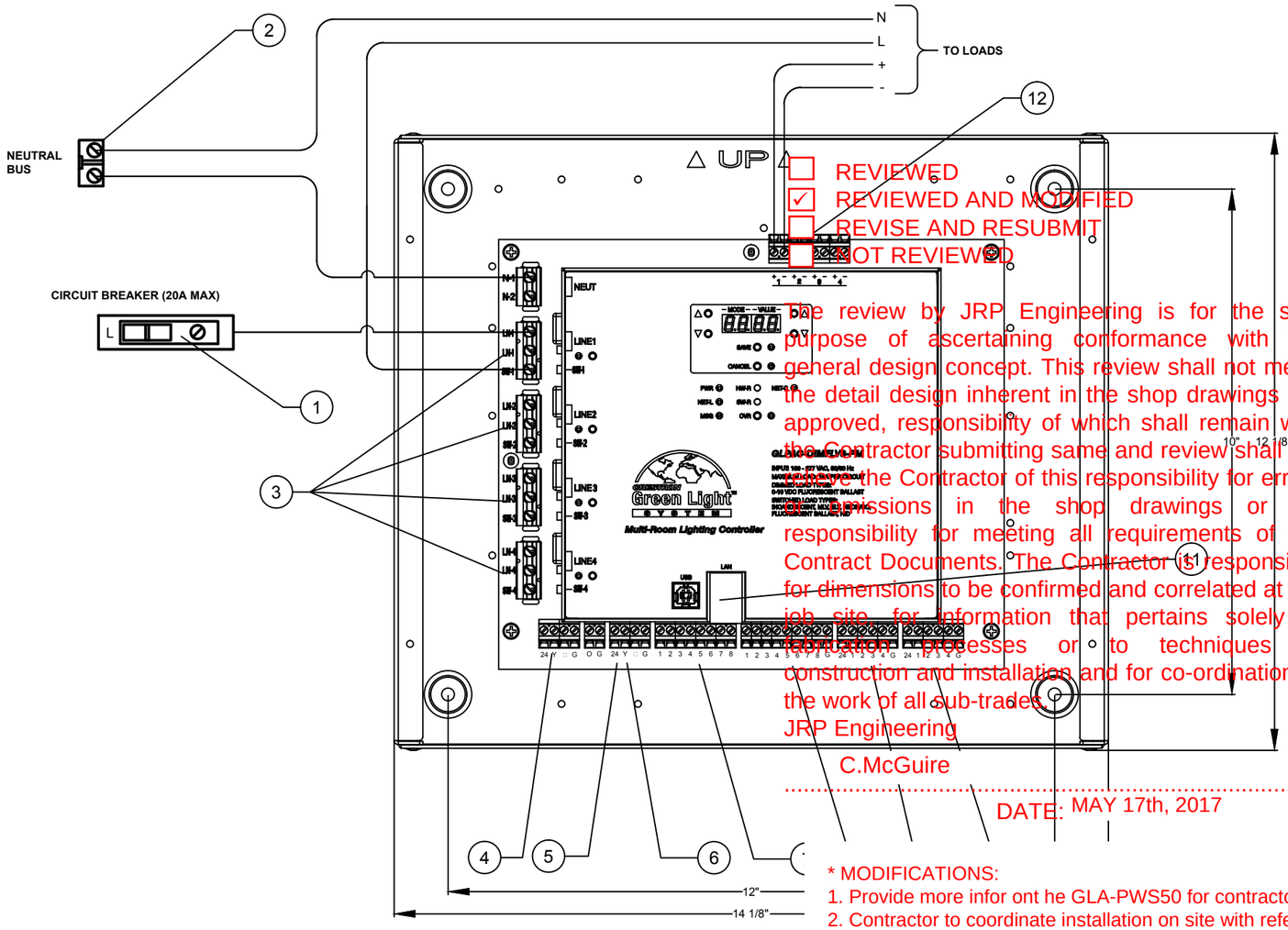
PART #: GL-IPAC-SW8
DESCRIPTION: GL-IPAC-SW8 INTEGRATED RELAY PANEL & CONTROL
REVISION: 001
DATE: 1/21/2014
NOTES:PRELIMINARY

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

PART #:
GL-IPAC-SW8

DRAWING:
1 OF 1

GLPAC-DIMFLV4 DIMMING MODULE



REVIEWED
REVIEWED AND MODIFIED
REVISE AND RESUBMIT
NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering
C.McGuire
DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

SPECIFICATIONS

SPECIFICATION	DETAILS
INPUT VOLTAGE	100-277 VAC 50/60 H□
DIMMER CHANNELS	4
SUPPORTED LOAD TYPES	FLUORESCENT BALLAST, INCANDESCENT, MAGNETIC LOW VOLTAGE, ELECTRONIC LOW VOLTAGE, NEON/COLD CATHODE, HIGH-INTENSITY DISCHARGE, MOTOR
MAXIMUM LOAD	16A PER OUTPUT
LOAD RELAY RATING	277 VAC, 50A
SIGNAL RELAY RATING	1A, 30 VOLTS DC
ENVIRONMENTAL TEMPERATURE HUMIDITY	32° TO 104°F (0° TO 40°C) 10□ TO □0□ RH, NON-CONDENSING
AVAILABLE CRESNET POWER	10 WATTS AT 24V DC, SHARED WITH OCCUPANCY AND PHOTOCELL SENSOR PORTS

NOTES KEY

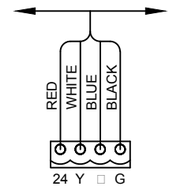
1. CIRCUIT BREAKER (20A MAX) - BREAKER IS FURNISHED BY ELECTRICAL CONTRACTOR.
2. NEUTRAL BUS BAR - BUS BAR IS INTEGRAL TO CIRCUIT BREAKER PANEL BOARD.
3. (2) LINE AND (1) LOAD TERMINAL FOR EACH OF (4) CIRCUITS. **(SCREWS TO BE TORQUED TO 8 IN-LB)**
4. MASTER CRESNET NETWORK CONNECTOR FOR COMMUNICATION TO BUILDING PROCESSOR.
5. EMERGENCY OVERRIDE INPUT FOR UL □24 COMPLIANCE
6. LOCAL CRESNET NETWORK CONNECTOR FOR COMMUNICATION LOCAL DEVICES.
7. SIGNAL RELAYS TO HVAC SYSTEMS (PM VERSION ONLY).
8. CONTACT CLOSURES.
9. (4) OCCUPANCY SENSOR INPUTS. 24V LOW VOLTAGE POWER PROVIDED.
10. (4) PHOTO SENSOR INPUTS. 24V LOW VOLTAGE POWER PROVIDED.
11. ETHERNET CONNECTION FOR SYSTEM CONFIGURATION.
12. 0-10V OUTPUT FOR DIMMING OF FIXTURES. USE CLASS 1 OR CLASS 2 WIRE. 0-10V OUTPUTS MUST CORRESPOND TO LINE OUTPUTS. MINIMUM GAUGE WIRE IS 18AWG.

□ ENERAL NOTES

1. DO NOT POWER UP SYSTEM UNTIL ALL WIRING IS VERIFIED. CARE SHOULD BE TAKEN TO ENSURE DATA (Y,□) AND POWER (24,G) CONNECTIONS ARE NOT CROSSED.
2. MODULE SHIPS FROM WITH FACTORY INSTALLED JUMPERS ON EACH CIRCUIT. JUMPERS MUST BE REMOVED AT COMMISSIONING.
5. PANEL REQUIRES OVERCURRENT PROTECTION FROM AN EXTERNAL BREAKER PANEL (F.B.O.).

□ RESNET □ ONTROL WIRIN□

TO LAST CONTROL STATION, PROCESSOR, OR CRESNET DEVICE. (SEE CONTROL RISER)



TO NEXT CONTROL STATION, PROCESSOR, OR CRESNET DEVICE. (SEE CONTROL RISER)

CRESTRON Green Light SYSTEM

PART #: GLPAC-DIMFLV4
DESCRIPTION: GLPAC-DIMFLV4
REVISION: 000
DATE: 4/13/2011
NOTES:

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

PART #:
GLPAC-DIMFLV4

DRAWING:
1 OF 2

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

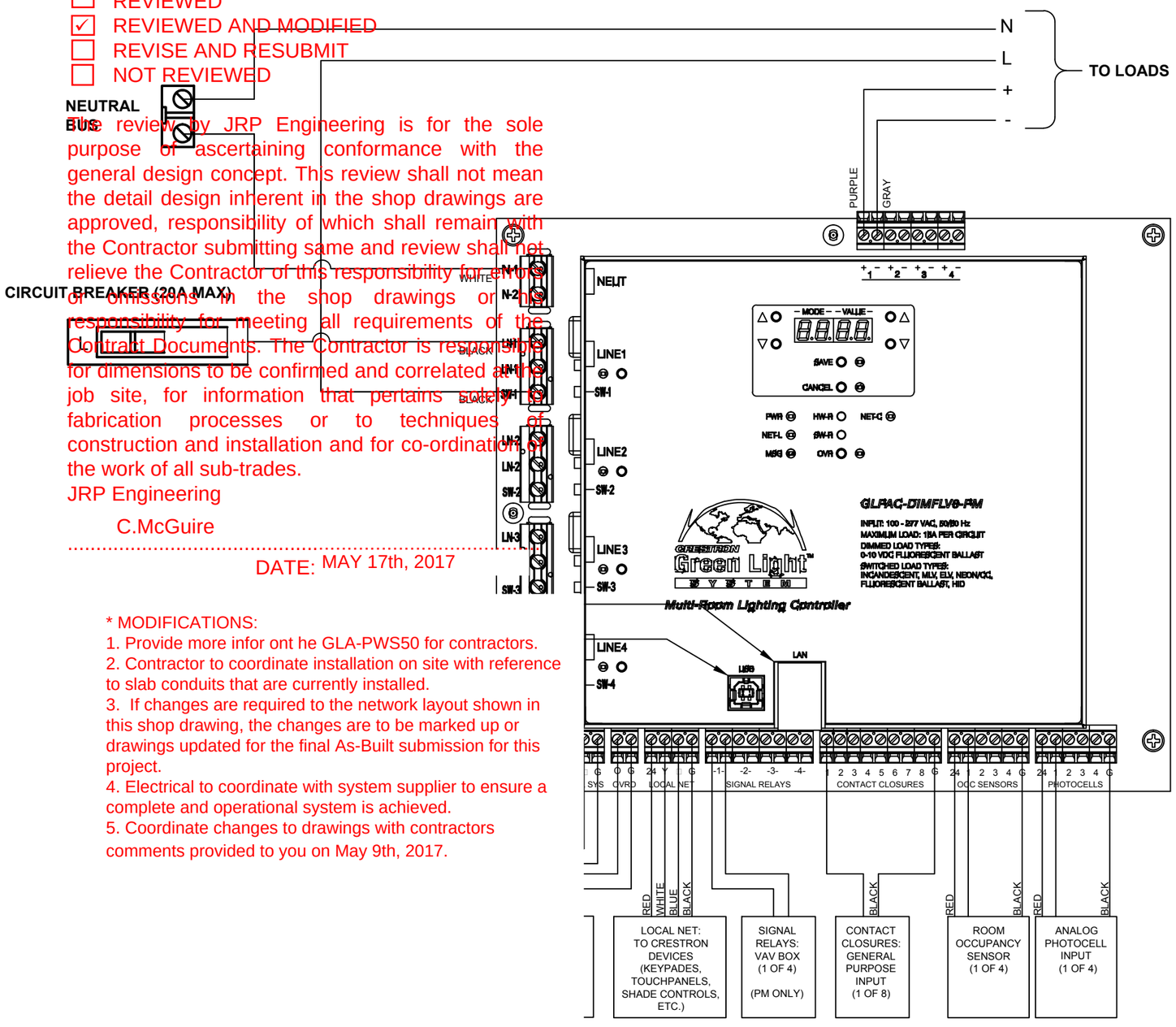
The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.



INSTALLATION

OBSERVE THE FOLLOWING WHEN INSTALLING THE CABINET:

- THE CABINET MUST BE MOUNTED BY A LICENSED ELECTRICIAN IN ACCORDANCE WITH ALL NATIONAL AND LOCAL CODES.
- ALLOW ADEQUATE CLEARANCE (3' MINIMUM) IN FRONT OF CABINET FOR SERVICING.
- THE CABINET IS DESIGNED FOR SURFACE MOUNTING ON A WALL.
- CABINETS ARE INTENDED FOR INDOOR USE ONLY.

TORQUE			
TERMINAL	CONN. WIRE RANGE	TORQUE	STRIP LENGTH
LN INPUTS	14-10 AWG	4.42 LB-IN (0.5Nm)	5/16" (8MM)
SW INPUTS	14-10 AWG	4.42 LB-IN (0.5Nm)	5/16" (8MM)
N1, N1 NEUTRAL BUS	14-10 AWG	4.42 LB-IN (0.5Nm)	5/16" (8MM)
0-10V OUTPUTS*	28-12 AWG	4.42 LB-IN (0.5Nm)	5/16" (8MM)
GROUND LUG	14-4 AWG	25-45 LB-IN (2.8-5.1Nm)	3/4" (1□MM)
LV CONNECTORS *	26-12 AWG	4.42 LB-IN (0.5Nm)	1/4" (6MM)

* MAY BE WIRED AS CLASS 1 OR CLASS 2

LOAD WIRING:

1. TURN OFF ALL CIRCUIT BREAKERS
2. CONNECT THE NEUTRAL BUS AND GROUND LUGS
3. CONNECT THE INCOMING FEED CONNECTORS TO THE 'LINE' AND 'N' INPUT TERMINALS (REFER TO DIAGRAM)

NOTE: WHEN FEEDING FROM A SINGLE BRANCH CIRCUIT, ADDITIONAL LINE TERMINALS ARE PROVIDED TO ALLOW FOR DAISY-CHAINING OF CHANNELS

4. CONNECT 0-10V CONTROL WIRES FOR THE DIMMED LOADS TO THE APPROPRIATE OUTPUT TERMINALS (1-8)
5. TEST THE CIRCUIT FOR ELECTRICAL FAULTS BY TURNING ON EACH CIRCUIT BREAKER, CHECKING THAT THE BREAKERS DO NOT TRIP, AND THAT POWER IS DELIVERED TO THE PROPER LOADS

NOTE: UNIT REQUIRES 'LINE1' AND NEUTRAL TO BE CONNECTED TO POWER UP

INPUT WIRING:

USE CRESTRON CERTIFIED WIRE SUCH AS CRESNET-NP OR CRESNET-P. TO ENSURE OPTIMUM PERFORMANCE OVER THE FULL RANGE OF YOUR INSTALLATION TOPOLOGY, USE CRESTRON CERTIFIED WIRE. FAILURE TO DO SO MAY INCUR ADDITIONAL CHARGES IF SUPPORT IS REQUIRED TO IDENTIFY PERFORMANCE DEFICIENCIES BECAUSE OF USING IMPROPER WIRE.

SEE DIAGRAM TO THE LEFT FOR WIRING OF REPRESENTATIVE DEVICES.

TESTING:

MANUAL CONTROL
LIGHTING LOADS CAN BE MANUALLY CONTROLLED FROM THE FRONT PANEL

OVERRIDE MODE
THE OVERRIDE MODE OVERRIDES THE CONTROL SYSTEM PROGRAM AND SETS ALL OF THE OUTPUT STATES TO THE STORED OVERRIDE VALUES (SEE BELOW)

TO ENABLE OVERRIDE, PRESS AND RELEASE THE 'OVR' BUTTON. THE 'OVR' LED FLASHES SLOWLY

NOTE: IF OVERRIDE MODE WAS ENABLED FROM AN EXTERNAL DEVICE (I.E. A CONTACT CLOSURE ON THE 'OVRD' TERMINALS, THE OVR LED WILL FLASH QUICKLY. PRESSING THE OVR BUTTON HAS NO EFFECT.

TO DISABLE OVERRIDE MODE, PRES THE OVR BUTTON AGAIN. THE OVR LED EXTINGUISHES AND THE OUTPUTS RETURN TO THE STATES SET BY THE CONTROL PROGRAM.

NOTE: IF OVERRIDE STATES HAVE NOT BEEN STORED, THE FACTORY DEFAULT IS "ALL ON"

SAVE OVERRIDE SETTINGS
THE STATE OF ALL OUTPUTS CAN BE SAVED AS AN OVERRIDE SETTING, WHICH IS AUTOMATICALLY RECALLED BY OVERRIDE MODE

NOTE: THE CONTROL SYSTEM PROGRAM CAN BE SET TO PREVENT LOCALLY CHANGING THE OVERRIDE STATE. IF THIS SETTING IS ENABLED, THE DISPLAY WILL SHOW "ERR" WHEN TRYING TO SAVE OVERRIDE STATES.

TO SAVE THE CURRENT STATE OF ALL OUTPUTS AS THE OVERRIDE SETTING, PRESS AND HOLD THE OVR BUTTON FOR 3 SECONDS, UNTIL THE LED BLINKS ONCE.

CRESTRON Green Light SYSTEM

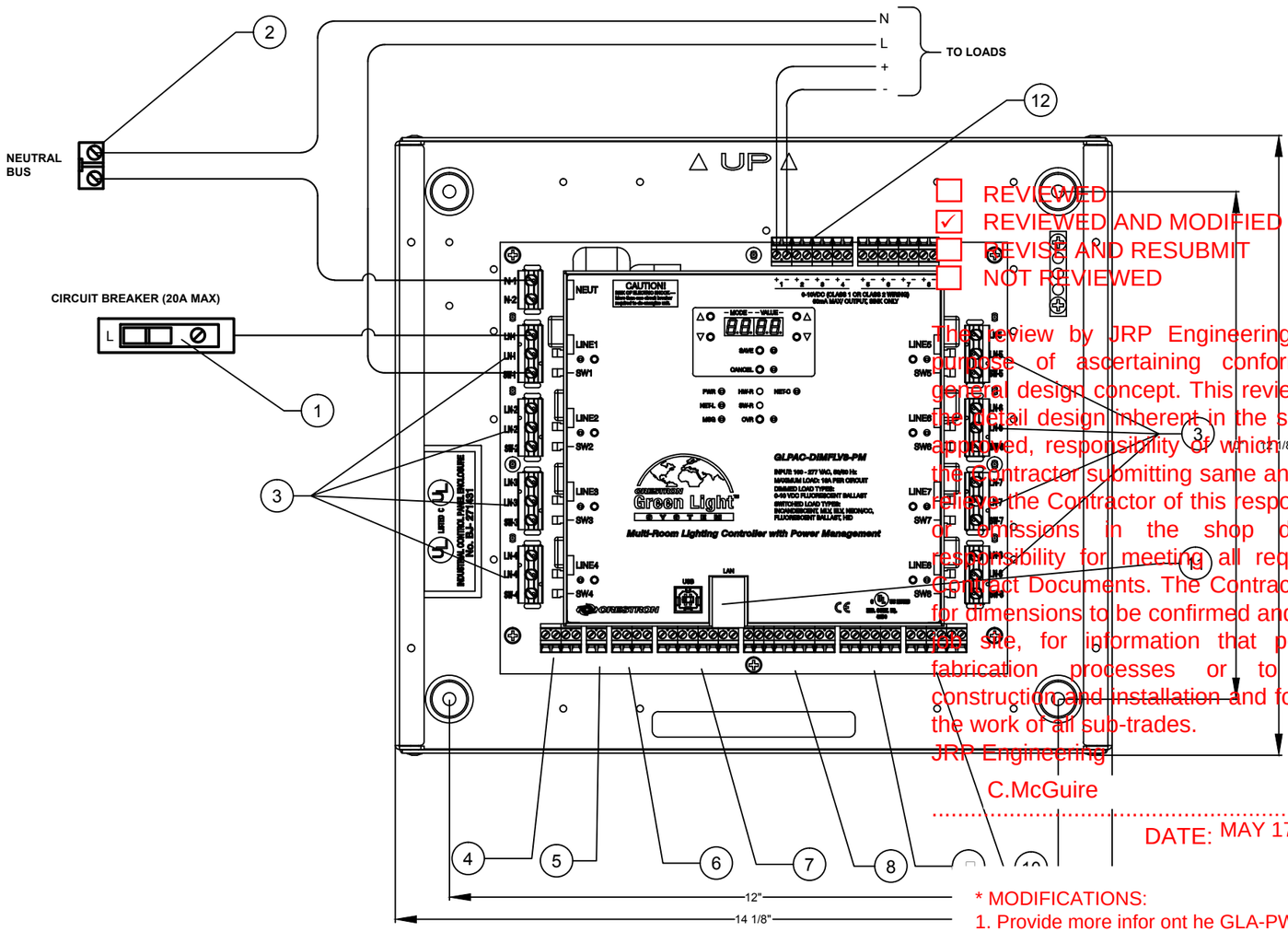
PART #: GLPAC-DIMFLV4
DESCRIPTION: GLPAC-DIMFLV4
REVISION: 000
NOTES:
DATE: 4/13/2011

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

PART #:
GLPAC-DIMFLV4

DRAWING:
2 OF 2

GLPAC-DIMFLV8 DIMMING MODULE



NOTES KEY

1. CIRCUIT BREAKER (20A MAX) - BREAKER IS FURNISHED BY ELECTRICAL CONTRACTOR.
2. NEUTRAL BUS BAR - BUS BAR IS INTEGRAL TO CIRCUIT BREAKER PANEL BOARD.
3. (2) LINE AND (1) LOAD TERMINAL FOR EACH OF (8) CIRCUITS. **(SCREWS TO BE TORQUED TO 8 IN-LB)**
4. MASTER CRESNET NETWORK CONNECTOR FOR COMMUNICATION TO BUILDING PROCESSOR.
5. EMERGENCY OVERRIDE INPUT FOR UL 924 COMPLIANCE
6. LOCAL CRESNET NETWORK CONNECTOR FOR COMMUNICATION LOCAL DEVICES.
7. SIGNAL RELAYS TO HVAC SYSTEMS (PM VERSION ONLY).
8. CONTACT CLOSURES.
9. (4) OCCUPANCY SENSOR INPUTS. 24V LOW VOLTAGE POWER PROVIDED.
10. (4) PHOTO SENSOR INPUTS. 24V LOW VOLTAGE POWER PROVIDED.
11. ETHERNET CONNECTION FOR SYSTEM CONFIGURATION.
12. 0-10V OUTPUT FOR DIMMING OF FIXTURES. USE CLASS 1 OR CLASS 2 WIRE. 0-10V OUTPUTS MUST CORRESPOND TO LINE OUTPUTS. MINIMUM GAUGE WIRE IS 18AWG.

SPECIFICATIONS

SPECIFICATION	DETAILS
INPUT VOLTAGE	100-277 VAC 50/60 H
DIMMER CHANNELS	8
SUPPORTED LOAD TYPES	FLUORESCENT BALLAST, INCANDESCENT, MAGNETIC LOW VOLTAGE, ELECTRONIC LOW VOLTAGE, NEON/COLD CATHODE, HIGH-INTENSITY DISCHARGE, MOTOR
MAXIMUM LOAD	16A PER OUTPUT
LOAD RELAY RATING	277 VAC, 50A
SIGNAL RELAY RATING	1A, 30 VOLTS DC
ENVIRONMENTAL TEMPERATURE HUMIDITY	32° TO 104°F (0° TO 40°C) 10 TO 0 RH, NON-CONDENSING
AVAILABLE CRESNET POWER	10 WATTS AT 24V DC, SHARED WITH OCCUPANCY AND PHOTOCELL SENSOR PORTS

REVIEWED
☑ REVIEWED AND MODIFIED
REVISE AND RESUBMIT
NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

ENERAL NOTES

1. DO NOT POWER UP SYSTEM UNTIL ALL WIRING IS VERIFIED. CARE SHOULD BE TAKEN TO ENSURE DATA (Y,) AND POWER (24,G) CONNECTIONS ARE NOT CROSSED.
2. MODULE SHIPS FROM WITH FACTORY INSTALLED JUMPERS ON EACH CIRCUIT. JUMPERS MUST BE REMOVED AT COMMISSIONING.

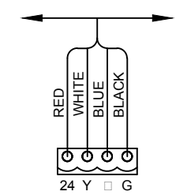
NEL REQUIRES OVERCURRENT PROTECTION FROM AN TERNAL BREAKER PANEL (F.B.O.).

INCLUDING "-4E" IN THE PART NUMBER INCLUDES BARRIERS SEPARATING LEFT & RIGHT SIDES TO R 4 NORMAL AND 4 EMERGENCY CIRCUITS. PANEL UDES "EMERGENCY CIRCUITS" LABEL. CIRCUITS 1-4 SED FOR EMERGENCY CIRCUIT 1 MUST BE LIVE O OPERATE.

: MODELS ARE AVAILABLE WITH EMERGENCY BUT THIS MUST BE SPECIFIED AT THE TIME OF RELEASE FOR LABEL TO BE ADDED.

RESNET ONTROL WIRIN

ROL SOR, ICE. ER)



TO NEXT CONTROL STATION, PROCESSOR, OR CRESNET DEVICE. (SEE CONTROL RISER)

CRESTRON Green Light SYSTEMS

PART #: GLPAC-DIMFLV8
DESCRIPTION: GLPAC-DIMFLV8
REVISION: 003
NOTES:
DATE: 10/2/2015

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

PART #:
GLPAC-DIMFLV8

DRAWING:
1 OF 2

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

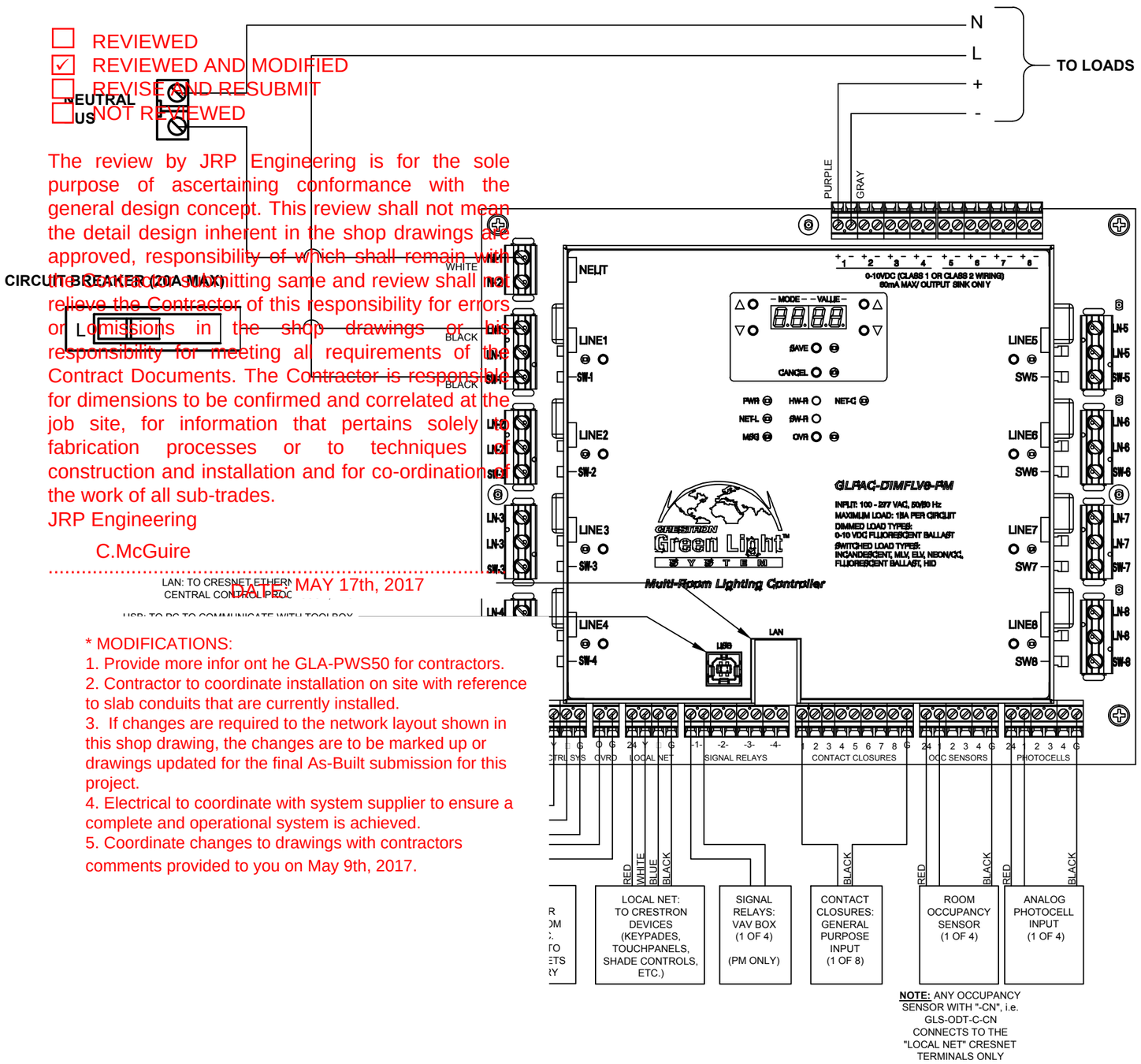
The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.



INSTALLATION

OBSERVE THE FOLLOWING WHEN INSTALLING THE CABINET:

- THE CABINET MUST BE MOUNTED BY A LICENSED ELECTRICIAN IN ACCORDANCE WITH ALL NATIONAL AND LOCAL CODES.
- ALLOW ADEQUATE CLEARANCE (3' MINIMUM) IN FRONT OF CABINET FOR SERVICING.
- THE CABINET IS DESIGNED FOR SURFACE MOUNTING ON A WALL.
- CABINETS ARE INTENDED FOR INDOOR USE ONLY.

TORQUE

TERMINAL	CONN. WIRE RANGE	TORQUE	STRIP LENGTH
LN INPUTS	14-10 AWG	4.42 LB-IN (0.5Nm)	5/16" (8MM)
SW INPUTS	14-10 AWG	4.42 LB-IN (0.5Nm)	5/16" (8MM)
N1, N1 NEUTRAL BUS	14-10 AWG	4.42 LB-IN (0.5Nm)	5/16" (8MM)
0-10V OUTPUTS*	28-12 AWG	4.42 LB-IN (0.5Nm)	5/16" (8MM)
GROUND LUG	14-4 AWG	25-45 LB-IN (2.8-5.1Nm)	3/4" (1□MM)
LV CONNECTORS *	26-12 AWG	4.42 LB-IN (0.5Nm)	1/4" (6MM)

* MAY BE WIRED AS CLASS 1 OR CLASS 2

LOAD WIRING:

1. TURN OFF ALL CIRCUIT BREAKERS
2. CONNECT THE NEUTRAL BUS AND GROUND LUGS
3. CONNECT THE INCOMING FEED CONNECTORS TO THE 'LINE' AND 'N' INPUT TERMINALS (REFER TO DIAGRAM)

NOTE: WHEN FEEDING FROM A SINGLE BRANCH CIRCUIT, ADDITIONAL LINE TERMINALS ARE PROVIDED TO ALLOW FOR DAISY-CHAINING OF CHANNELS

4. CONNECT 0-10V CONTROL WIRES FOR THE DIMMED LOADS TO THE APPROPRIATE OUTPUT TERMINALS (1-8)
5. TEST THE CIRCUIT FOR ELECTRICAL FAULTS BY TURNING ON EACH CIRCUIT BREAKER, CHECKING THAT THE BREAKERS DO NOT TRIP, AND THAT POWER IS DELIVERED TO THE PROPER LOADS

NOTE: UNIT REQUIRES 'LINE1' AND NEUTRAL TO BE CONNECTED TO POWER UP ANY GLPAC INCLUDING "4E" IN THE PART NUMBER IS INTENDED FOR USE WITH LINES 1-4 POWERED FROM EMERGENCY POWER, 5-8 FROM NORMAL POWER.

INPUT WIRING:

USE CRESTRON CERTIFIED WIRE SUCH AS CRESNET-NP OR CRESNET-P. TO ENSURE OPTIMUM PERFORMANCE OVER THE FULL RANGE OF YOUR INSTALLATION TOPOLOGY, USE CRESTRON CERTIFIED WIRE. FAILURE TO DO SO MAY INCUR ADDITIONAL CHARGES IF SUPPORT IS REQUIRED TO IDENTIFY PERFORMANCE DEFICIENCIES BECAUSE OF USING IMPROPER WIRE.

SEE DIAGRAM TO THE LEFT FOR WIRING OF REPRESENTATIVE DEVICES.

TESTING:

MANUAL CONTROL
LIGHTING LOADS CAN BE MANUALLY CONTROLLED FROM THE FRONT PANEL

OVERRIDE MODE
THE OVERRIDE MODE OVERRIDES THE CONTROL SYSTEM PROGRAM AND SETS ALL OF THE OUTPUT STATES TO THE STORED OVERRIDE VALUES (SEE BELOW)

TO ENABLE OVERRIDE, PRESS AND RELEASE THE 'OVR' BUTTON. THE 'OVR' LED FLASHES SLOWLY

NOTE: IF OVERRIDE MODE WAS ENABLED FROM AN EXTERNAL DEVICE (I.E. A CONTACT CLOSURE ON THE 'OVRD' TERMINALS, THE OVR LED WILL FLASH QUICKLY. PRESSING THE OVR BUTTON HAS NO EFFECT.

TO DISABLE OVERRIDE MODE, PRES THE OVR BUTTON AGAIN. THE OVR LED EXTINGUISHES AND THE OUTPUTS RETURN TO THE STATES SET BY THE CONTROL PROGRAM.

NOTE: IF OVERRIDE STATES HAVE NOT BEEN STORED, THE FACTORY DEFAULT IS "ALL ON"

SAVE OVERRIDE SETTINGS
THE STATE OF ALL OUTPUTS CAN BE SAVED AS AN OVERRIDE SETTING, WHICH IS AUTOMATICALLY RECALLED BY OVERRIDE MODE

NOTE: THE CONTROL SYSTEM PROGRAM CAN BE SET TO PREVENT LOCALLY CHANGING THE OVERRIDE STATE. IF THIS SETTING IS ENABLED, THE DISPLAY WILL SHOW "ERR" WHEN TRYING TO SAVE OVERRIDE STATES.

TO SAVE THE CURRENT STATE OF ALL OUTPUTS AS THE OVERRIDE SETTING, PRESS AND HOLD THE OVR BUTTON FOR 3 SECONDS, UNTIL THE LED BLINKS ONCE.

CRESTRON Green Light SYSTEM

PART #: GLPAC-DIMFLV8
DESCRIPTION: GLPAC-DIMFLV8
REVISION: 003
DATE: 10/2/2015
NOTES:

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

PART #:
GLPAC-DIMFLV8

DRAWING:
2 OF 2

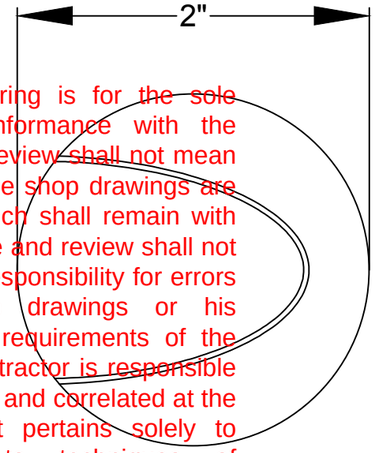
☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

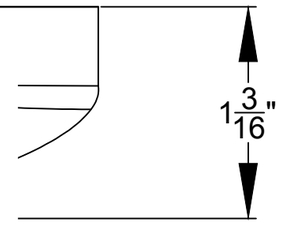
The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.





PHYSICAL DETAILS

□EATURES & INSTALLATION □ASI□S

AN INSTALLATION GUIDE SHIPS WITH EACH SENSOR. PLEASE SEE THAT DOCUMENT FOR FULL INSTRUCTIONS. THIS SHEET IS INTENDED AS AN OVERVIEW OF CAPABILITIES ONLY.

DESCRIPTIONS:
THE **GLS-LOL** IS A PHOTOCELL SENSOR DESIGNED FOR DAYLIGHT HARVESTING APPLICATIONS TO PROVIDE CONTROL OF ROOM LIGHTING BASED ON THE PRESENCE OF NATURAL DAYLIGHT. INTENDED FOR USE WITH AN OPEN-LOOP TYPE SYSTEM, THE **GLS-LOL** CONTINUALLY MONITORS THE AMOUNT OF DAYLIGHT COMING THROUGH A WINDOW OR SKYLIGHT, ALLOWING ROOM LIGHTING TO BE DIMMED OR SWITCHED OFF WHEN THERE IS SUFFICIENT DAYLIGHT AVAILABLE.

THE **GLS-LOL** CAN BE MOUNTED TO A DRYWALL OR DROP-TILE SURFACE. ITS SIMPLE 3-WIRE INTERFACE ALLOWS FOR CONNECTION TO A CRESTRON CONTROL SYSTEM VIA A SINGLE VERSIPORT I/O (AVAILABLE ON **GLS-SIM** INTERFACES, **C2N-CBD-P** "CAMEO" KEYPADS, AS WELL AS CERTAIN PROCESSORS AND OTHER INTERFACE MODULES) OR DIRECT CONNECTION TO **GLPAC-DIMFLV** OR **GLPP** INTEGRATED CONTROL DEVICES.

□ ENERAL NOTES & SPE□ I□I□ ATIONS

1. SENSING:
   FIELD OF VIEW: 60 DEGREE CONE
   CENTER OF AXIS: 45 DEGREES FROM MOUNTING SURFACE
   LIGHT SENSITIVITY: 3 TO 6000 FOOT-CANDLES

2. CONNECTIONS:
   PLUS: (1) CAPTIVE SCREW TERMINAL, +24VDC INPUT
   MINUS: (1) CAPTIVE SCREW TERMINAL, POWER & CONTROL COMMON
   ARROW: (1) CAPTIVE SCREW TERMINAL, 0-10VDC CONTROL OUTPUT

3. CONTROLS: (BEHIND COVER)
   LIGHT LEVEL RANGE: JUMPER-SELECTABLE 3-300M 30-3000, OR 60-6000 FC

4. POWER:
   CURRENT CONSUMPTION: 4mA □ 24 VOLTS DC
   CRESNET POWER USAGE: 1 WATT
   (CRESNET BUS MAY BE USED REGARDLESS OF INTERFACE METHOD)

5. HOUSING:
   CONSTRUCTION: HIGH-IMPACT INJECTION-MOLDED PLASTIC, WHITE
   MOUNTING: SURFACE MOUNT TO DRYWALL OR DROP-TILE

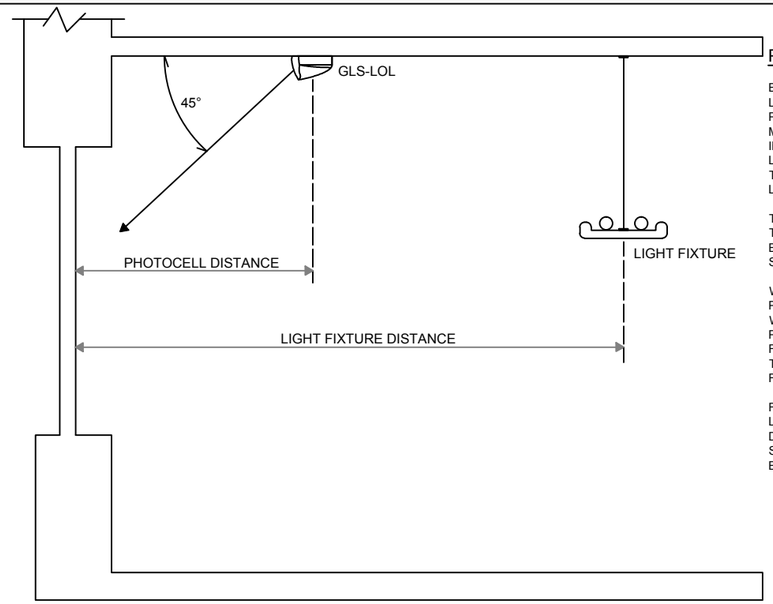
6. DIMENSIONS:
   HEIGHT: 1.20 IN. (3.05 □m)
   DIAMTETER: 2.0 IN, (5.08□m)

PART #: GLS-LOL
DESCRIPTION: OPEN LOOP PHOTOCELL
REVISION: 000
DATE: 7/20/2012
NOTES:

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

PART #:
GLS-LOL
OPEN-LOOP
PHOTOCELL

DRAWING:
1 of 2



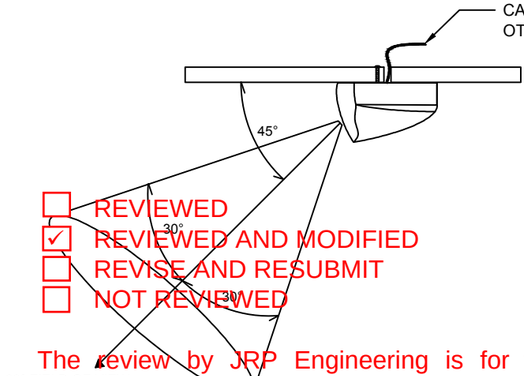
PHOTOCELL PLACEMENT

BEFORE INSTALLING THE PHOTOCELL, VERIFY THE DAYLIGHT LEVELS ON A SUNNY DAY AT THE PROPOSED LOCATION OF THE PHOTOCELL. WITH THE LIGHTS SWITCHED OFF, USE A LIGHT METER TO READ THE DAYLIGHT LEVEL. ORIENT THE LIGHT METER IN THE SAME DIRECTION THE PHOTOCELL WILL VIEW. THE LIGHT LEVELS UNDER SUNNY CONDITIONS MUST BE AT LEAST 35FC. IF THE LIGHT LEVELS ARE LESS, YOU SHOULD SELECT ANOTHER LOCATION OR REORIENT THE PHOTOCELL.

THE PHOTOCELL IS DESIGNED FOR MOUNTING IN A DRY LOCATION THAT IS EXPOSED TO DAYLIGHT. THE PHOTOCELL SHOULD NOT BE EXPOSED TO DIRECT ILLUMINATION FROM AN ELECTRIC LIGHT SOURCE.

WHERE WINDOWS ARE THE PRIMARY SOURCE OF DAYLIGHT, THE PHOTOCELL TYPICALLY MOUNTS ON THE CEILING BETWEEN THE WINDOW AND THE FIRST ROW OF FIXTURES. THE PHOTOCELL POINTS TOWARD THE WINDOW AT APPROXIMATELY A 45° ANGLE. FOR THE BEST RESULTS, THE DISTANCE FROM THE PHOTOCELL TO THE WINDOW SHOULD BE ABOUT 1/3 TO 1/2 OF THE DISTANCE FROM THE FIRST LIGHT FIXTURES TO THE WINDOW.

FOR SKYLIGHT APPLICATIONS, THE PHOTOCELL MOUNTS IN THE LIGHTWELL OF THE SKYLIGHT, ORIENTED TOWARD THE INCOMING DAYLIGHT. TYPICALLY, THE PHOTOCELL IS AIMED TOWARD THE SKYLIGHT. THE LIGHT LEVEL RANGE ADJUSTMENT MAY NEED TO BE CHANGED TO 60-6000 FC FOR SKYLIGHT APPLICATIONS.



☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

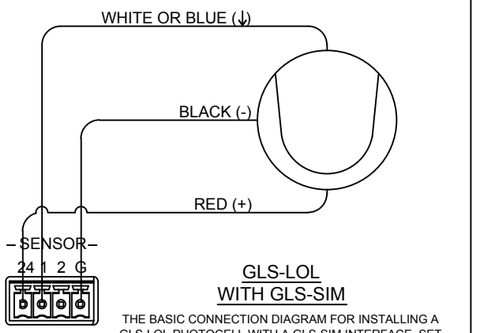
The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

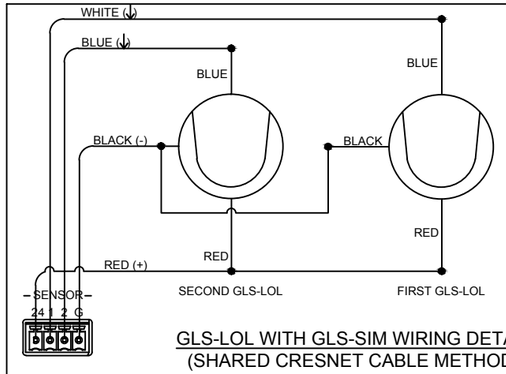
DATE: MAY 17th, 2017

GLS-LOL PLACEMENT



GLS-LOL WITH GLS-SIM

THE BASIC CONNECTION DIAGRAM FOR INSTALLING A GLS-LOL PHOTOCELL WITH A GLS-SIM INTERFACE. SET THE FIRST DIP SWITCH (1 OR 3) FOR THE INPUT "ON" AND THE SECOND DIP SWITCH (2 OR 4) "OFF".

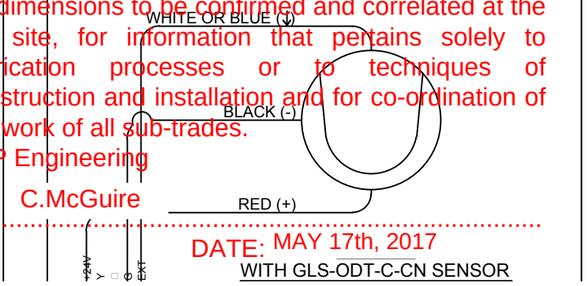


GLS-LOL WITH GLS-SIM WIRING DETAIL (SHARED CRESNET CABLE METHOD)

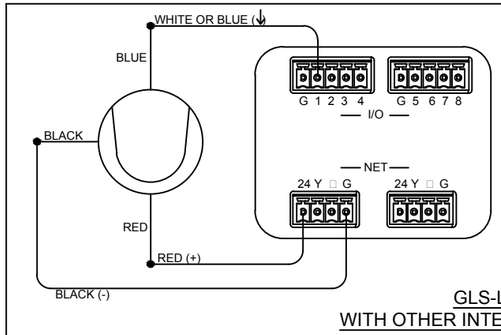
IN THIS EXAMPLE, BOTH GLS-LOL SENSORS ARE CONNECTED TO THE SIM WITH THE SAME CRESNET CABLE, WHICH CONTAINS 4 WIRES. SINCE EACH SENSOR ONLY REQUIRES 3 WIRES THEY MAY USE THE SAME CONDUCTORS FOR POWER (BLACK & RED) WHILE STILL ALLOWING EACH A SEPARATE CONDUCTOR (BLUE OR WHITE) FOR SIGNAL. EACH SENSOR DETECTS DAYLIGHT AND TURNS ON OR OFF ONLY ITS SPECIFIC LIGHTS INDEPENDENT OF THE OTHER SENSOR.

THIS ALLOWS FEWER CABLE RUNS TO SENSORS WITHIN THE SAME PROXIMITY. SPECIAL CARE MUST BE TAKEN WITH THIS METHOD TO INSURE THAT THE TERMINATIONS ARE MADE CORRECTLY OR THE SYSTEM MAY NOT FUNCTION AS DESIRED.

DO NOT CONNECT TWO GLS-LOL SENSORS T THE SAME INPUT. TWO SENSORS CONNECTE TOGETHER MAY PROVIDE CONFLICTING DAT AND RESULT IN THE SYSTEM NOT OPERATIN CORRECTLY.

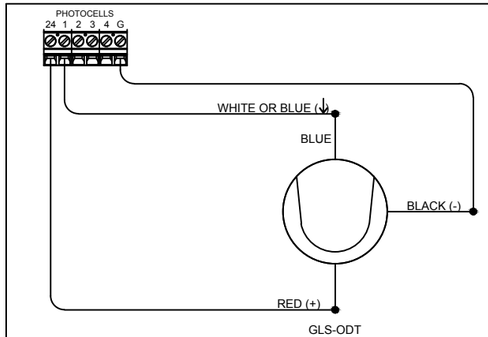


WITH GLS-ODT-C-CN SENSOR



GLS-LOL WITH OTHER INTERFACES TYPES

OTHER INTERFACE TYPES ARE AVAILABLE ON PAC2, DIN-I08, DIN-AP2 AND OTHER DEVICES. ALL FEATURE CONNECTIONS SIMILAR TO THE ONES SHOWN HERE.



GLS-LOL WITH GLPAC WIRING DETAIL

GLPAC PANELS INCLUDE DEDICATED TERMINALS FOR PHOTCELLS AND OTHER SENSORS. FOUR INDEPENDENT TERMINALS ARE PROVIDED.

ALL 24V AND GROUND TERMINALS ARE CONNECTED IN PARALLEL WITH SIMILAR TERMINALS. SHOULD THERE BE INSUFFICIEN OCCUPANCY SENSOR TERMINALS FOR 24V I IS ACCEPTABLE TO USE OTHER 24V TERMINALS WITHIN THE SAME GLPAC.

GLS-LOL WIRING DETAILS

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

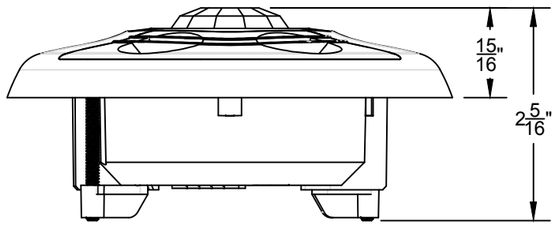
Green Light System

PART #: GLS-LOL
DESCRIPTION: OPEN LOOP PHOTOCELL
REVISION: 002
DATE: 8/28/2014
NOTES:

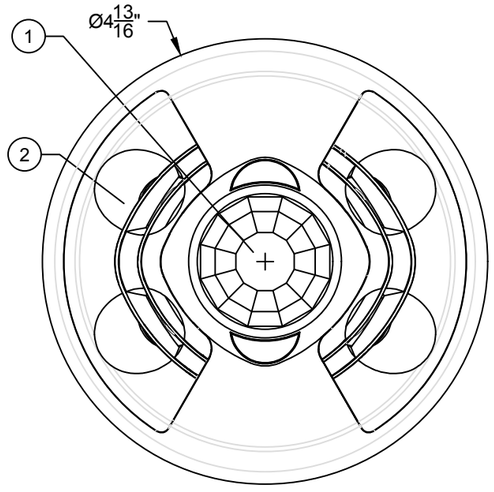
CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

PART #:
GLS-LOL
OPEN-LOOP
PHOTOCELL

DRAWING:
2 of 2



SIDE VIEW



TOP VIEW

PHYSICAL DET

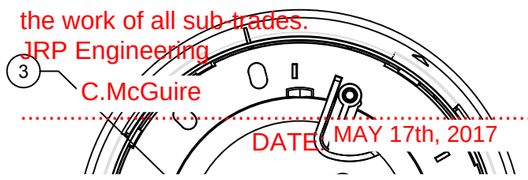
- ☐ REVIEWED
- ☑ REVIEWED AND MODIFIED
- ☐ REVISE AND RESUBMIT
- ☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017



* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

FEATURES & INSTALLATION BASICS

AN INSTALLATION GUIDE SHIPS WITH EACH SENSOR. PLEASE SEE THAT DOCUMENT FOR FULL INSTRUCTIONS. THIS SHEET IS INTENDED AS AN OVERVIEW OF CAPABILITIES ONLY.

MOUNTING OPTIONS:

1. DROP CEILING MOUNT USING SCREWS (INCLUDED- PREINSTALLED).
2. BACK BOX OR SURFACE MOUNT RACEWAY MOUNTING (BOX/RACEWAY & SCREWS FBO).

CRESTRON RECOMMENDS USING AN OCTAGONAL 4" X 1-1/2" DEEP BACK BOX FOR THESE SENSORS. **IF A SQUARE 1900 BACK BOX IS USED, A 7.0 CUBIC INCH ROUND MUD RING IS REQUIRED.**

A GLS-SIM, IF REQUIRED, MAY MOUNT INSIDE THE SAME BACKBOX GIVEN SUFFICIENT DEPTH.

ALL GLS-ODT-C SENSORS ARE DESIGNED FOR OPTIMAL MOUNTING AT 8'. HEIGHTS OF 8'-12' ARE ACCEPTABLE. SPECIAL-ORDER SENSORS MAY BE ADDED TO AN ORDER FOR AN ADDITIONAL CHARGE ALLOWING MOUNTING HEIGHTS OF UP TO 20'.

SEE INSTALLATION INSTRUCTIONS FOR FULL INFORMATION.

NOTE: BEFORE SECURING SENSOR TO THE CEILING, ROTATE THE DEVICE TO ENSURE THAT IT FACES THE DESIRED DIRECTION. REFER TO THE "DETECTION RANGE" SECTION TO CHOOSE THE BEST ORIENTATION. AVOID AREAS WHERE FALSE TRIPPING MAY OCCUR DUE TO OUTSIDE MOTION SUCH AS AN OPEN DOOR. IDENTIFY AND AVOID AREA OF POSSIBLE VIBRATIONS AND AIR CURRENTS (i.e. PROJECTORS, FANS, VENTS" AND MOUNT THE SENSOR AT LEAST 5 FEET AWAY FROM THESE ITEMS.

NOTE: DEPENDING ON INSTALLATION REQUIREMENTS, THE ULTRASONIC SENSORS CAN BE ENABLED OR DISABLED THROUGH THE IR REMOTE. THE ULTRASONIC SENSORS ARE SPLIT INTO TWO BANKS- A & B- WHICH ARE LABELED UNDER THE COVER OF THE SENSOR. IF THE SENSOR IS ALREADY INSTALLED AND THE ORIENTATION OF THE SENSORS IS UNKNOWN, BANK A IS LOCATED ON THE RED LED SIDE OF THE SENSOR AND BANK B IS LOCATED ON THE GREEN LED SIDE OF THE SENSOR.

MODEL/FEATURE BASICS						
MODEL	DESCRIPTION	CURRENT CONSUMPTION	CRESNET POWER	COVERAGE	IR SENSOR	SUGGESTED LOCATION
GLS-ODT-C-NS	2-WAY DUAL TECH	45mA	1.08w	2000 FT² (185.8m²)	IR SENSOR FOR GLPP CONTROL	MOUNT IN CENTER OF ROOM/AREA OR MOUNT IN CORNER*

NOTES KEY

1. IR SENSOR
2. ULTRASONIC SENSORS
3. 5-PIN CONNECTOR
   - 1: +24VDC — 24 VDC POWER FROM CONTROLLER (GLPP, GLPAC, GL-IPAC, GLS-SIM)
   - 2: OCC — CONNECTS TO OCUPANCY SENSOR PORT OF GLPP, GLPAC, GL-IPAC or #1 OR #2 INPUT OF GLS-SIM OR CAMEO KEYPAD
   - 3: N/C — NO CONNECTION
   - 4: GND — CONNECT TO CONTROLER GROUND
   - 5: IR — CONNECT TO IR PORT ON GLPP FOR PROGRAMMING WITHOUT SEPARATE IR SENSOR

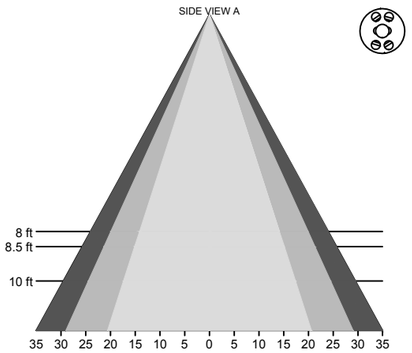
GLS-ODT-C-NS DETAILS

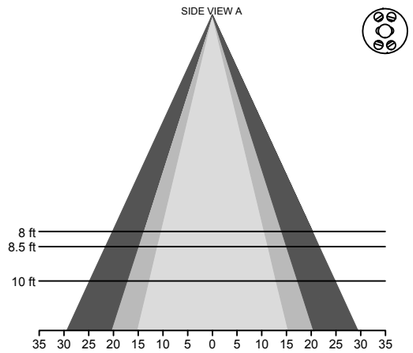
PART #: GLS-ODT-C-NS
DESCRIPTION: DUAL TECHNOLOGY OCCUPANCY SENSOR
REVISION: 001
DATE: 10/20/2015
NOTES:

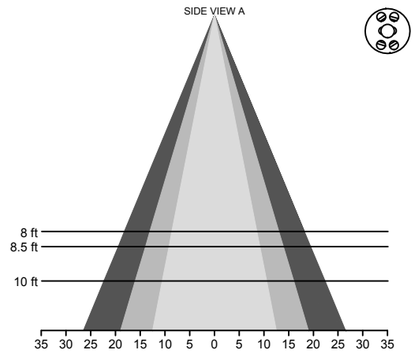
CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

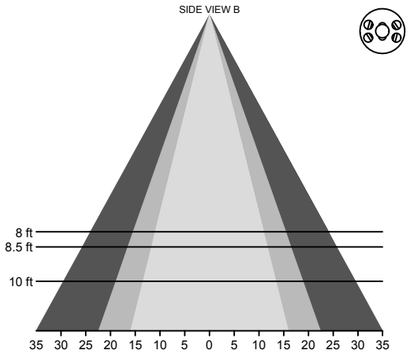
PART #:
GLS-ODT-C-NS
OCCUPANCY SENSOR

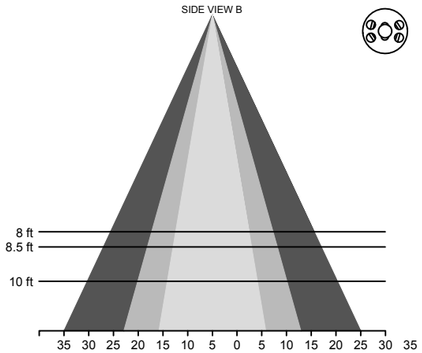
DRAWING:
1 of 2

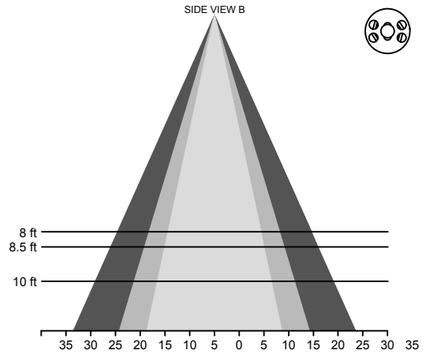


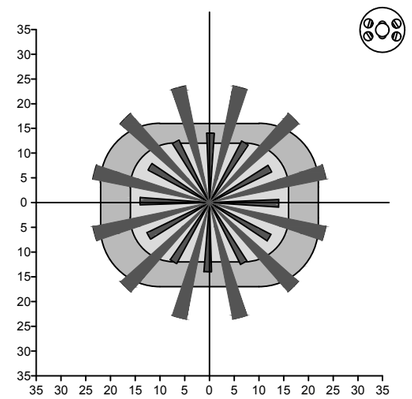




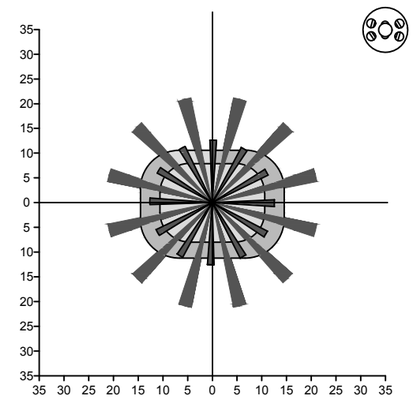




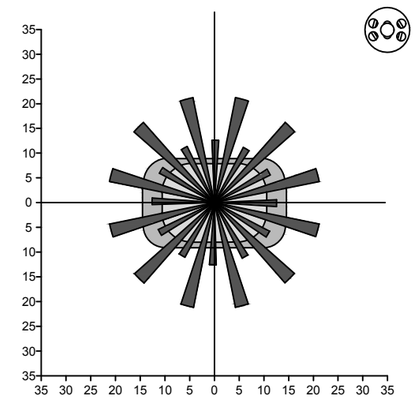




APPROXIMATE COVERAGE
HIGH SENSITIVITY SETTING



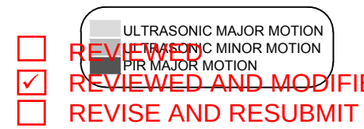
APPROXIMATE COVERAGE
MEDIUM SENSITIVITY SETTING



APPROXIMATE COVERAGE
LOW SENSITIVITY SETTING

NOT TO SCALE

GLS-ODT-C-NS FIELD OF VIEW RANGES



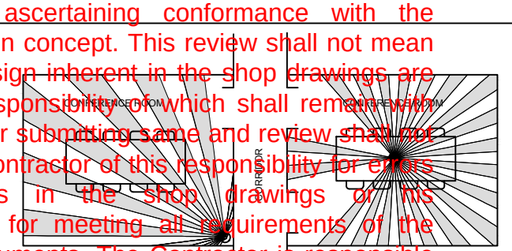
☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility for which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for coordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017



TWO POSSIBLE MOUNTING & MASKING OPTIONS:

IN THE EXAMPLE ABOVE, TWO CONFERENCE ROOMS ARE ALONG A CORRIDOR. IT IS UNDESIRABLE FOR CORRIDOR TRAFFIC TO TURN ON THE LIGHTS IN THE CONFERENCE ROOMS. IN THE ROOM ON THE LEFT, AN OCCUPANCY SENSOR IS MOUNTED IN A CORNER WITH ONE ULTRASONIC SENSOR BANK TURNED OFF, COVERING THE ROOM BUT NOT THE CORRIDOR. IN THE ROOM ON THE RIGHT, A SENSOR IS LOCATED OVER THE CENTER OF THE ROOM. THIS SENSOR HAS A MASK INSTALLED WHICH PREVENTS THE SENSOR FROM SEEING CORRIDOR TRAFFIC WHILE STILL COVERING MOST OF THE ROOM.

IS SUPPLIED WITH ONE MASK, PERFORATED IN 32° INCREMENTS THAT N PLACE OR REMOVED TO MASK OR REVEAL CERTAIN AREAS, AND ONE SOLID HALF-MASK.

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

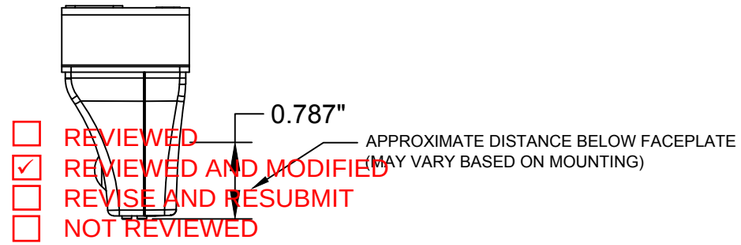
CRESTRON Green Light SYSTEM

PART #: GLS-ODT-C-NS
DESCRIPTION: DUAL TECH OCCUPANCY SENSOR
REVISION: 000
DATE: 7/17/2014
NOTES:

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

PART #:
GLS-ODT-C-NS
OCCUPANCY SENSOR

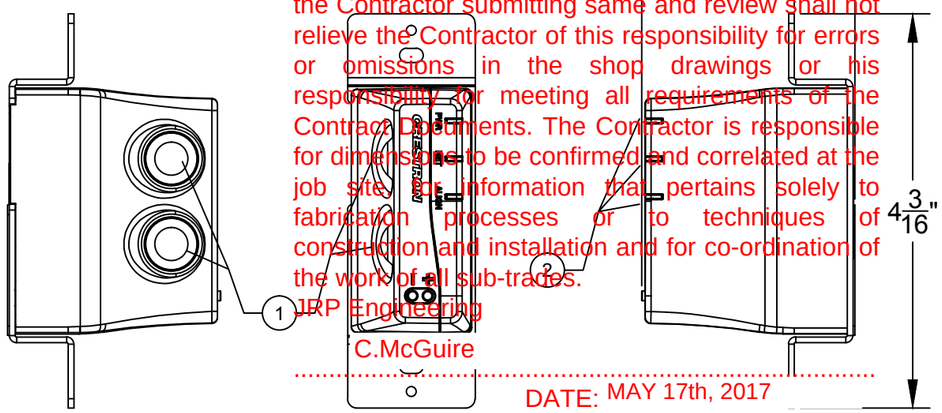
DRAWING:
2 of 2



SIDE VIEW

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering
C.McGuire
DATE: MAY 17th, 2017



SENSING SIDE VIEW

REAR VIEW

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

GLS-PART-CN DETAILS

FEATURES & INSTALLATION ASSISTANCE

AN INSTALLATION GUIDE SHIPS WITH EACH SENSOR. PLEASE SEE THAT DOCUMENT FOR FULL INSTRUCTIONS. THIS SHEET IS INTENDED AS AN OVERVIEW OF CAPABILITIES ONLY.

DEVICE OVERVIEW:

THE GLS-PART-CN IS A SURFACE-MOUNT PARTITION SENSOR THAT UTILIZES THE CRESNET WIRED NETWORK FOR POWER & COMMUNICATIONS. THE SENSOR USES AN INFRARED BEAM TO SENSE THE POSITION OF MOVEABLE PARTITIONS WITHIN A SPACE. THE IR BEAM'S SIGNAL STRENGTH IS ADJUSTABLE AND FEATURES A SENSING DISTANCE OF UP TO FOUR FEET. THREE LED ON THE UNIT PROVIDE AT-A-GLANCE INFORMATION ON THE SENSOR'S STATE OF POWER, COMMUNICATIONS, AND PARTITION DETECTION. THE GLS-PART-CN OFFERS MOUNTING OPTIONS FOR ROOMS WITH FINISHED OR DROP TILE CEILINGS.

THE GLS-PART-CN HAS A WHITE FINISH AND CAN MOUNT DIRECTLY INTO FINISHED CEILINGS. FOR DROP TILE CEILINGS, THE UNIT INSTALLS INTO A 1-GANG 3 1/2" DEEP ELECTRICAL BOX. A DECORATOR (DECORA) FACEPLATE CAN BE USED TO MATCH THE UNIT WITH THE COLOR OF THE ROOM. ONLY ABOUT 20mm (.75") OF THE UNIT IS VISIBLE AFTER INSTALLATION.

THE GLS-PART-CN USES A 5-PIN VERSION OF THE CRESNET CONNECTOR. THE FIFTH PIN PROVIDES EITHER A 24 VOLT 10mA OUTPUT OR A CLOSURE TO GROUND, ALLOWING CONNECTION TO A VERSIPORT OR DIGITAL INPUT PORT.

SENSING:

METHOD OF DETECTION:	DIFFUSE REFLECTIVE
LIGHT SOURCE:	PULSE MODULATED LED
IR SENSITIVITY:	ADJUSTABLE
SENSING DISTANCE:	4 FEET (122 m)

CONNECTORS:

NET/EXT:
(1) 5-PIN 3.5mm DETACHABLE TERMINAL BLOCK
CRESNET AND DIGITAL OUTPUT
DIGITAL OUTPUT IS EITHER 24VDC 10mA (DEFAULT)
OR CLOSURE TO GROUND

CONTROLS & INDICATORS:

PWR:	(1) GREEN LED, INDICATES POWER IS SUPPLIED TO DEVICE FLASHES TO INDICATE SENSITIVITY LEVEL
NET:	(1) YELLOW LED, INDICATED CRESNET COMMUNICATION STATUS
ALIGN:	(1) RED LED, INDICATES PARTITION DETECTION
+:	(1) PUSHBUTTON, USED TO INCREASE SENSITIVITY OF IR OR FOR TOUCH ID
-:	(1) PUSHBUTTON, USED TO DECREASE SENSITIVITY OF IR OR FOR TOUCH ID

POWER REQUIREMENTS:

CURRENT CONSUMPTION:	42mA 24 VOLTS DC
CRESNET POWER USAGE:	1 WATT

ENVIRONMENTAL:

TEMPERATURE:	-13° TO 131° F (-25° TO 55° C)

NOTES KEY

1. SENSING WINDOWS
2. INDICATOR LED (3)
3. CRESNET & EXTERNAL SIGNAL CONNECTOR
   - 24: +24VDC (CRESNET RED)
   - Y: CRESNET Y (CRESNET WHITE)
   - : CRESNET (CRESNET BLUE)
   - G: GROUND (CRESNET BLACK)
   - EXT: EXTERNAL SIGNAL OUTPUT

Green Light System

PART #: GLS-PART-CN
DESCRIPTION: CRESNET PARTITION SENSOR PHYSICAL & WIRING
REVISION: 000
DATE: 6/1 /2015
NOTES:

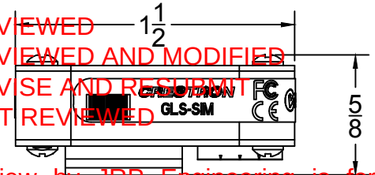
CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

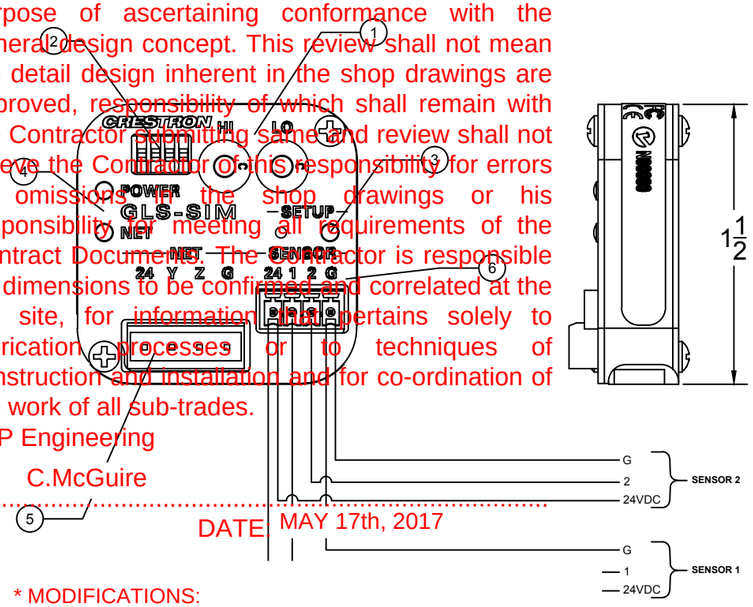
PART #:
GLS-PART-CN

DRAWING:
1 OF 1

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

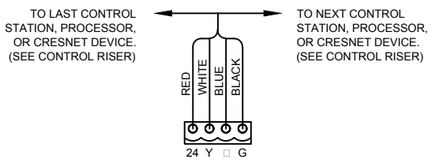
The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of his responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering
C.McGuire
DATE MAY 17th, 2017





* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

□RESNET □ONTROL WIRIN□



A□□RESSIN□ □OR SYSTEMS WIT□ A PRO□ESSOR

PROJECT RISERS SHOULD SHOW AN ADDRESS FOR EACH GLS-SIM SUCH AS "SIM-03" OR "SIM-AD". PLEASE SET THAT ADDRESS VIA THE TWO ROTARY DIP SWITCHES (NOTE 1 THIS SHEET). SYSTEMS WITH MULTIPLE PROCESSORS MAY SHOW DUPLICATE ADDRESSES.

ADDRESSES 00, 01, AND 02 HAVE PRESET FUNCTIONS. 03 IS THE FIRST VALID ADDRESS FOR SYSTEMS WITH A CENTRAL PROCESSOR.

WIRIN□ & A□□RESSIN□ □OR STAN□ ALONE ILU□ SYSTEMS

ILUX (CLS-C6) SYSTEMS WITHOUT A PROCESSOR HAVE SPECIFIC REQUIREMENTS FOR GLS-SIM ADDRESSING & WIRING.

- GLS-SIM MUST BE SET TO ADDRESS "C0" OR "C1" FOR OCCUPANCY & PHOTO SENSING.
- OCCUPANCY SENSORS MAY ONLY CONNECT TO INPUT #1
- PHOTO SENSORS MAY ONLY CONNECT TO INPUT #2

- PARTITION SENSORS MAY ONLY CONNECT TO INPUT #1.
- ADDRESSES FOR PARTITION SENSORS START AT "□0", BUT ADDRESS MUST BE SET PER A CHART ON THE GLS-PART DETAIL SHEET. PLEASE CONTACT YOUR PROJECT ENGINEER TO CONFIRM THE ADDRESS REQUIRED FOR THIS PROJECT IF IT HAS NOT BEEN SUPPLIED ON THE PROJECT RISER DRAWING.

NOTES KEY

1. (2) ROTARY DIP SWITCHES□USED FOR MANUALLY SETTING THE CRESNET ID□'00' SETTING ENABLES TOUCH-SETTABLE ID.
2. (1) 4-POSITION DIP SWITCH□SETS SENSOR TYPE AND OPERATING MODE. SEE CHART BELOW FOR SETTINGS.
3. (1) MINIATURE PUSHBUTTON, USED FOR TOUCH SETTABLE ID.
4. **PWR:** (1) GREEN LED, ILLUMINATES WHEN DC POWER IS APPLIED TO THE NET PORT
   NET: (1) YELLOW LED, INDICATES COMMUNICATION WITH CONTROL PROCESSOR
5. CRESNET NETWORK CONNECTOR TO CONTROL PROCESSOR OR ADDITIONAL MODULES. FACTORY BUILT CABINETS WILL HAVE CRESNET CONNECTIONS WIRED IN FACTORY.
6. (1) 4-PIN 3.5MM DETACHABLE TERMINAL BLOCK□ SENSOR INPUT COMPRISED OF 24VDC POWER OUTPUT AND

   (2) DIGITAL OR ANALOG INPUT PORTS□

   DIGITAL INPUT: RATED FOR 0-24 VOLTS DC, INPUT IMPEDANCE 20□OHMS, LOGIC THRESHOLD 1.25 VOLTS DC□

   ANALOG INPUT: RATED FOR 0-10 VOLTS DC, PROTECTED TO 24 VOLTS DC MAXIMUM, INPUT IMPEDANCE 20□OHMS□ PROGRAMMABLE 5 VOLTS, 2□OHMS PULL-UP RESISTOR PER PIN□ MAXIMUM POWER LOAD: 1 AMP □ 24 VOLTS DC.

DIP SWITCH SETTINGS

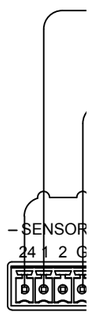
SENSOR INPUT	DIP SWITCH	GLS-PART PARTITION SENSOR	GLS-PART-CN PARTITION SENSOR	OCCUPANCY SENSOR	PHOTOCELL
1	1	OFF	ON	ON	ON
	2	OFF	ON	ON	OFF
2	3	OFF	ON	ON	ON
	4	OFF	ON	ON	OFF

PLEASE NOTE THE DIFFERENCE BETWEEN SETTINGS FOR USE WITH OLDER GLS-PART PARTITION SENSORS AND NEWER GLS-PART-CN PARTITION SENSORS. A GLS-SIM MAY BE REQUIRED FOR USING THESE SENSORS WITH CERTAIN FIRMWARE VERSIONS. CONSULT YOUR PROJECT ENGINEER WITH ANY QUESTIONS.

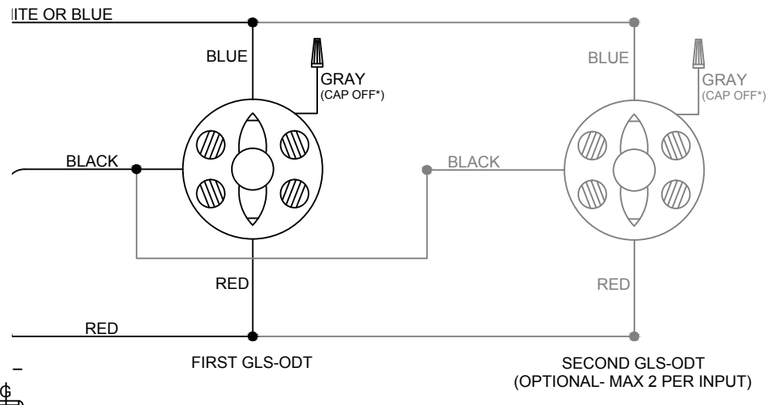
SWITCH SETTINGS ARE SHOWN FOR TYPICAL CRESTRON-PROVIDED DEVICES. NON-CRESTRON DEVICES MAY NOT USE THESE SETTINGS. ALTERNATE MODES ARE AVAILABLE□SEE GLS-SIM INSTALLATION & OPERATION GUIDE FOR FULL DETAILS.

NOTE THAT IF NON-CRESTRON DEVICES ARE BEING USED, CRESTRON REQUIRES THE FOLLOWING INFORMATION PRIOR TO SHIPPING EQUIPMENT:

A COMPLETE ANNOTATED GROUND PLAN INDICATING EACH DEVICE, TO WHICH GLS-SIM IT IS TO CONNECT (REFERENCED BY THE DEVICE ID SHOWN ON PROJECT RISER DIAGRAMS), AND WHAT TYPE OF INPUT IS REQUIRED- CONTACT CLOSURE, 0-10V SENSING, OR CRESTRON DIGITAL LOGIC. FAILURE TO PROVIDE THIS INFORMATION WILL RESULT IN ADDITIONAL CHARGES FOR ONSITE REPROGRAMMING OF THE DEVICE CONFIGURATIONS.



GLS-LOL WIRING DETAIL



GLS-ODT (ALL TYPES) WIRING DETAIL

*GRAY WIRE MAY BE CONNECTED *INSTEAD* OF BLUE WIRE IF USE OF INTERNAL PHOTOSENSOR IS DESIRED. PHOTOSENSOR IS NOT NORMALLY UTILI□ED

SENSOR WIRING DETAILS

GLS-LOL CONNECTIONS ARE VIA SCREW TERMINALS WITHIN DEVICE. GLS-ODT CONNECTIONS ARE VIA FLYING LEADS.
SEE INSTRUCTION SHEETS PROVIDED IN SENSOR PACKAGE FOR FULL INFORMATION.

CRESTRON Green Light SYSTEM

PART #: GLS-SIM
DESCRIPTION: SENSOR INTEGRATION MODULE WITH WIRING DETAILS
REVISION: 005
DATE: 10/□/2015
NOTES:UPDATED FOR GLS-PART-CN

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

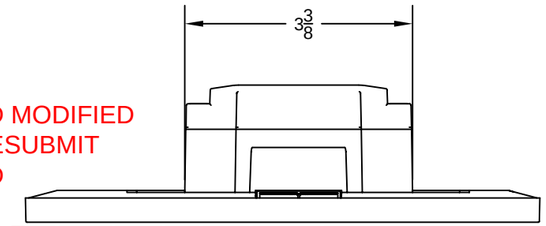
PART #:
GLS-SIM WITH SENSOR WIRING
DRAWING:
1 of 1

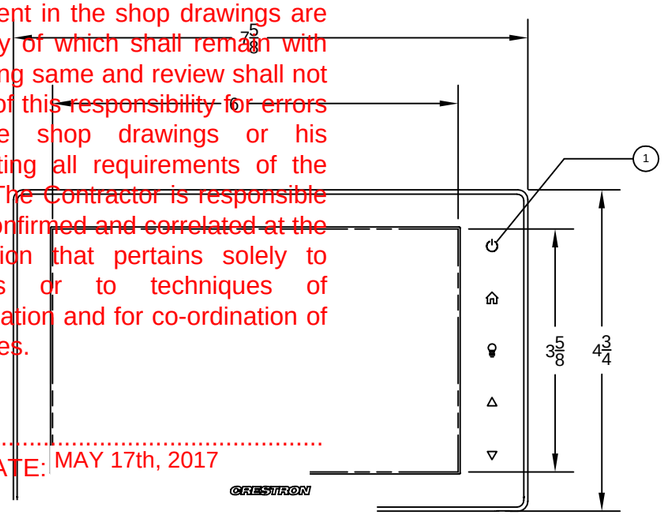
☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

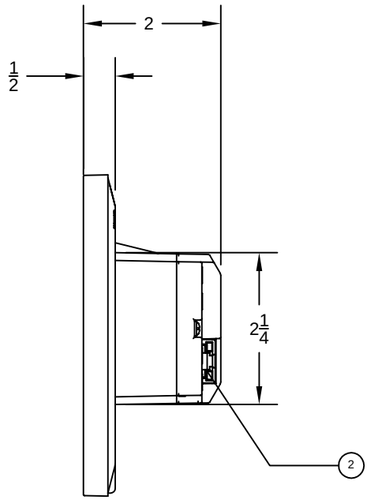
The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering

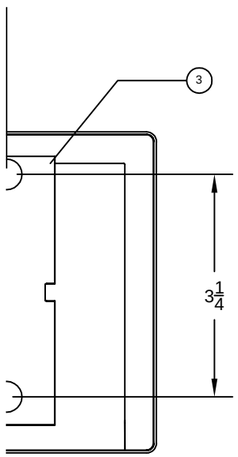
C.McGuire

DATE: MAY 17th, 2017









* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

NOTES KEY

1. HARD KEYS: (5) PROJECTED CAPACITIVE PUSHBUTTONS, PROGRAMMABLE, PRE-LABELED WITH ICONS FOR "POWER", "HOME", "LIGHTS", "UP", AND "DOWN"

   RESET: (1) MINIATURE PUSHBUTTON ON REAR PANEL FOR HARDWARE RESET. (NOT SHOWN)

2. LAN POE PORT: (1) 8-WIRE RJ-45 WITH TWO LED INDICATORS; 10BASE-T/100BASE-TX ETHERNET PORT.

   802.3AF POWER OVER ETHERNET COMPLIANT (CLASS 3: 6.49-12.95w);

   GREEN LED INDICATES LINK STATUS;
   YELLOW LED INDICATES ETHERNET ACTIVITY

PIN	SIGNAL	PIN	SIGNAL
1	TX+	5	N/C
2	TX-	6	RC-
3	RC+	7	N/C
4	N/C	8	N/C

3. MOUNTING: MAGNETICALLY ATTACHES OVER 2-GANG OR 3-GANG US OR 2-GANG EUROPEAN ELECTRICAL BOX. MAY ALSO ATTACH DIRECTLY TO DRYWALL OR OTHER SURFACES OVER THE FRONT OF A 2-3/8"H x 3-3/8"W CUTOUT. PROTRUDES 1/2" FROM THE MOUNTING SURFACE. MAGNETIC ATTACHMENT ELIMINATES ANY VISIBLE SCREWS.

GENERAL NOTES & SPECIFICATIONS

1. REFER TO SPECIFICATION SHEETS AND INSTALL & OPERATIONS MANUAL FOR FURTHER INFORMATION.

2. TOUCH SCREEN DISPLAY:

DISPLAY TYPE:	TFT ACTIVE MATRIX COLOR LCD
SIZE:	7" (178mm) DIAGONAL
ASPECT RATIO:	15:9 WVGA
RESOLUTION:	800x480 PIXELS
BRIGHTNESS:	300 NITS (CD/M²) TYPICAL
CONTRAST:	350:1 TYPICAL
COLOR DEPTH:	18-BIT, 262K COLORS
ILLUMINATION:	EDGELIT LED, AUTO-BRIGHTNESS
VIEWING ANGLE:	+/- 70° HORIZONTAL, +65° VERTICAL
TOUCH SCREEN:	PROJECTED CAPACITIVE

3. MEMORY:

DDR RAM:	1GB
FLASH:	4GB
MAXIMUM PROJECT SIZE:	512MB

4. GRAPHIC ENGINE: CORE 3 UI

5. COMMUNICATIONS: ETHERNET 10/100 Mbps, AUTO-SWITCHING, AUTO-NEGOTIATING, AUTO DISCOVERY, FULL/HALF DUPLEX, DHCP, IEE 802.3af COMPLIANT.

6. POWER: IEEE 802.3af CLASS 3 POWER OVER ETHERNET DEVICE

7. ENVIRONMENTAL:

TEMPERATURE:	32° TO 112°F (0° TO 45°C)
HUMIDITY:	10% TO 90% RH (NON-CONDENSING)
HEAT DISSIPATION:	44 BTU/HR

8. PHYSICAL:

CONSTRUCTION:	PLASTIC
WEIGHT:	14.1 oz (400g)

9. COLORS: AVAILABLE IN BLACK OR WHITE, SMOOTH

TSW-750 7" TOUCH SCREEN

CRESTRON Green Light SYSTEM

PART #: TSW-750
DESCRIPTION: 7" SURFACE MOUNT TOUCH SCREEN
REVISION: 000
DATE: 7/20/2012
NOTES:

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

PART #:
TSW-750

DRAWING:
1 OF 1

1 / E101 GROUND FLOOR – R.C.P
SCALE 1:100

DRAWING IS NOT TO SCALE AND SCHEMATIC IN NATURE.

ETHERNET

CRESNET

DRAWING NOTES:

1. PROVIDE SIDE LIT LED EXIT SIGN C/W DIRECTIONAL ARR(AS INDICATED, ALL ASSOCIATED HARDWARE. EXIT SIGN TC BE TIED INTO EMERGENCY LIGHTING CIRCUIT.
2. LIGHT FIXTURE TO BE TIED INTO EMERGENCY LIGHTING CIRCUIT AND REMAIN UNSWITCHED AT ALL TIMES.
3. PROVIDE LIGHTING FIXTURE, ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
4. FIRE ALARM PANEL, REFER TO RISER DIAGRAM FOR FURTHER DETAILS.
5. PROVIDE FIRE ALARM DEVICE AS INDICATED C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
6. LIGHTING TO BE CONTROLLED BY BAS BUILDING AUTOMATION SYSTEM.
7. LOW VOLTAGE LIGHTING CONTROL PANEL. TO BE MOUNTED AS HIGH AS POSSIBLE. LOCATION TO BE DETERMINED ONSITE.

CRESTRON LIGHTING CONTROLS

- TOUCH SCREEN
- KEYPAD
- WIRELESS KEYPAD
- WIRELESS DIMMER
- GLPP KEYPAD
- TIMER SWITCHES
- WALL OCC SENSOR SWITCH
- DT OCC SENSOR CN
- DT OCC SENSOR NS
- PIR OCC SENSORS
- HIGH BAY OCC SENSORS
- WIRELESS OCC SENSORS
- DT WALL OCC SENSORS
- PIR WALL OCC SENSORS
- EXT PHOTO SENSOR
- PHOTO SENSOR
- CLOSED LOOP PHOTO SENSOR
- WIRELESS PHOTO SENSOR
- PARTITION SENSOR
- ESR
- GLA-EPC-1D
- GLPP-1 DIMMING
- GLPP-2 DIMMING
- GLPP-3 DIMMING
- GLPP-1 SWITCHING
- GLPP-2 SWITCHING
- GLPP-3 SWITCHING
- GLPAC-4
- GLPAC-8
- CLS-C6 (iLUX)
- CLS-EXP-DIM
- CLS-EXP-DIMU
- CLS-EXP-DIMFLV
- CLS-EXP-DIMFDB
- C2N-IO
- C2N-SDC
- SIM
- WIRELESS GATEWAY
- COUNTER
- 0-10V
- MLV
- ELV
- 2WIRE
- 3WIRE
- DALI
- DMX
- EM
- SHADES

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

JRP ENGINEERING
Professional Engineers
9 Holgate Crt, Kanata, Ontario, K2K 1B4
Tel: (613) 627-2462 Email: Admin@jrpeng.com

No	DESCRIPTION	DATE
1	ISSUED FOR PRICING	AUG 29 2016
0	ISSUED FOR PERMIT	AUG 5 2016

REVISIONS

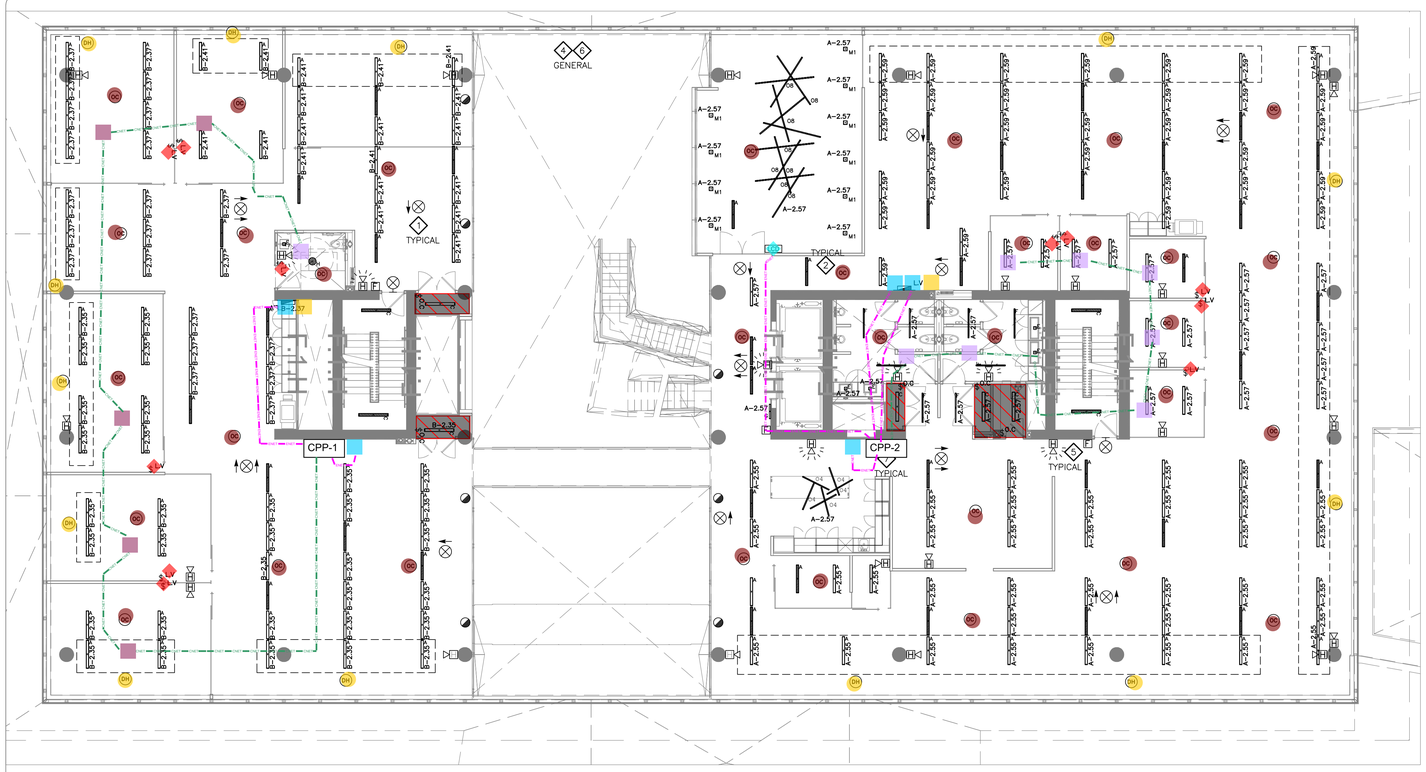
client:
TOMLINSON
5597 POWER RD
OTTAWA, ON
K1G 3N4

project:
TOMLINSON
NEW BUILDING
CITIGATE, OTTAWA

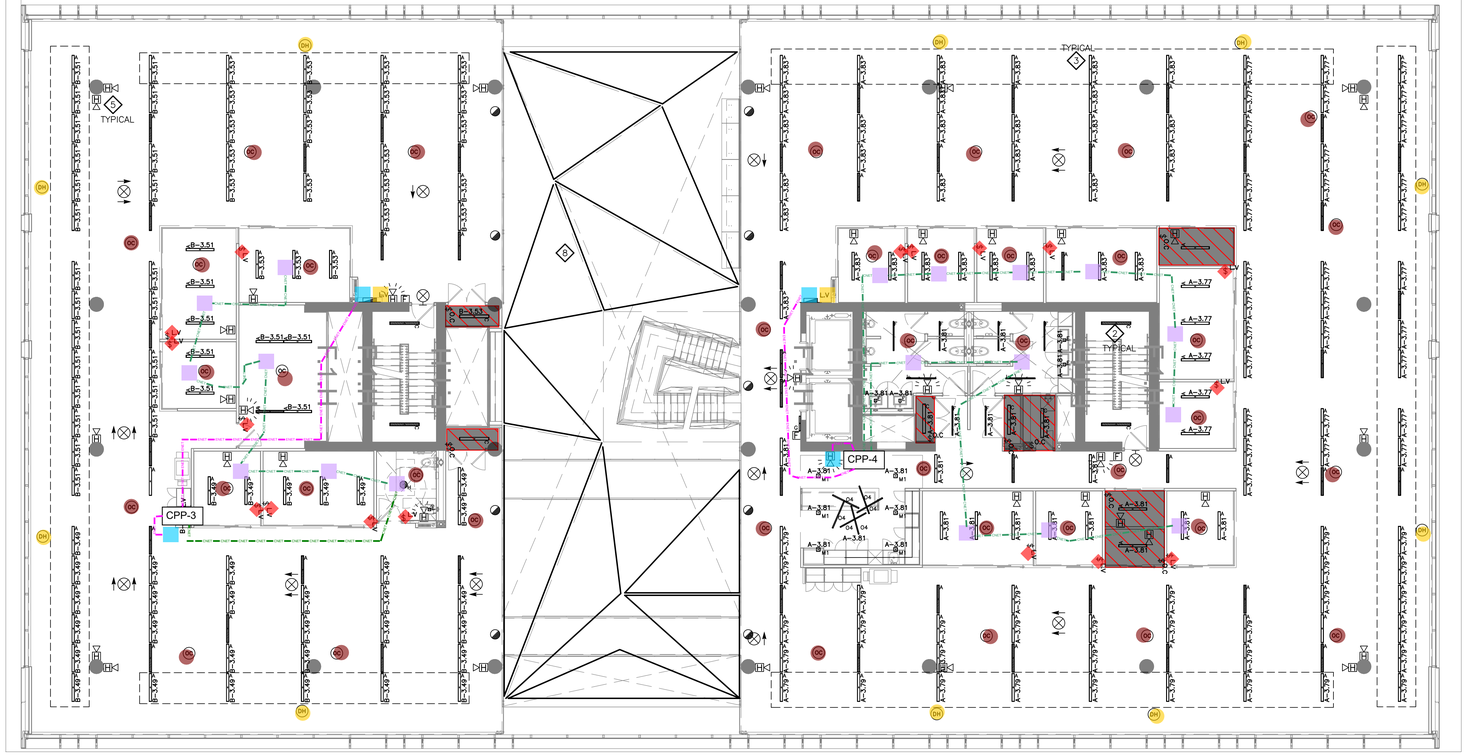
drawing title:
R.C.P
GROUND FLOOR

scale:	AS SHOWN	drawn by:	M.G
designed by:	M.G	reviewed by:	J.R.P.
approved by:	J.R.P.	date:	APR 2016

project no.: 100-16L	drawing no.: E-101
revision: 0	



1 / E102 SECOND FLOOR – R.C.P
SCALE 1:100



2 / E102 THIRD FLOOR – R.C.P
SCALE 1:100

DRAWING IS NOT TO SCALE AND SCHEMATIC IN NATURE.

ETHERNET

CRESNET

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering
C.McGuire
DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

DRAWING NOTES:

1. PROVIDE SIDE LIT LED EXIT SIGN C/W DIRECTIONAL ARROWS AS INDICATED, ALL ASSOCIATED HARDWARE. EXIT SIGN TO BE TIED INTO EMERGENCY LIGHTING CIRCUIT.
2. LIGHT FIXTURE TO BE TIED INTO EMERGENCY LIGHTING CIRCUIT AND REMAIN UNSWITCHED AT ALL TIMES.
3. PROVIDE LIGHTING FIXTURE, ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
4. ATRIUM LIGHTING TO BE TIED INTO EMERGENCY LIGHTING CIRCUITS AND REMAIN UNSWITCHED AT ALL TIMES.
5. PROVIDE FIRE ALARM DEVICE AS INDICATED C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
6. LIGHTING TO BE CONTROLLED BY BAS BUILDING AUTOMATION SYSTEM.
7. LOW VOLTAGE LIGHTING CONTROL PANEL. TO BE MOUNTED AS HIGH AS POSSIBLE. LOCATION TO BE DETERMINED ONSITE.
8. PROVIDE CUSTOM SUSPENDED LIGHT FIXTURE WITH PRE-BUILT ILLUMINATED CORNERS AND CONTINUOUS RUNS OF LIGHTING CREATING THE LOOK OF A SINGLE FIXTURE. COORDINATE SUSPENSION WITH ACOUSTIC PANELS MANUFACTURER/CONTRACTOR. FIXTURES TO BE SELF SUPPORTING.

CRESTRON LIGHTING CONTROLS

- TOUCH SCREEN
- KEYPAD
- WIRELESS KEYPAD
- WIRELESS DIMMER
- GLPP KEYPAD
- TIMER SWITCHES
- WALL OCC SENSOR SWITCH
- DT OCC SENSOR CN
- DT OCC SENSOR NS
- PIR OCC SENSORS
- HIGH BAY OCC SENSORS
- WIRELESS OCC SENSORS
- DT WALL OCC SENSORS
- PIR WALL OCC SENSORS
- EXT PHOTO SENSOR
- PHOTO SENSOR
- CLOSED LOOP PHOTO SENSOR
- WIRELESS PHOTO SENSOR
- PARTITION SENSOR
- ESR
- GLA-EPC-1D
- GLPP-1 DIMMING
- GLPP-2 DIMMING
- GLPP-3 DIMMING
- GLPP-1 SWITCHING
- GLPP-2 SWITCHING
- GLPP-3 SWITCHING
- GLPAC-4
- GLPAC-8
- CLS-C6 (iLUX)
- CLS-EXP-DIM
- CLS-EXP-DIMU
- CLS-EXP-DIMFLV
- CLS-EXP-DIMFDB
- C2N-IO
- C2N-SDC
- SIM
- WIRELESS GATEWAY
- COUNTER
- 0-10V
- ELV
- 3WIRE
- DMX
- SHADES
- MLV
- 2WIRE
- DALI
- EM

JRP ENGINEERING
Professional Engineers
9 Holgate Crt, Kanata, Ontario, K2K 1B4
Tel: (613) 627-2462 Email: Admin@jrpeng.com

No	DESCRIPTION	DATE
1	ISSUED FOR PRICING	AUG 29 2016
0	ISSUED FOR PERMIT	AUG 5 2016

REVISIONS

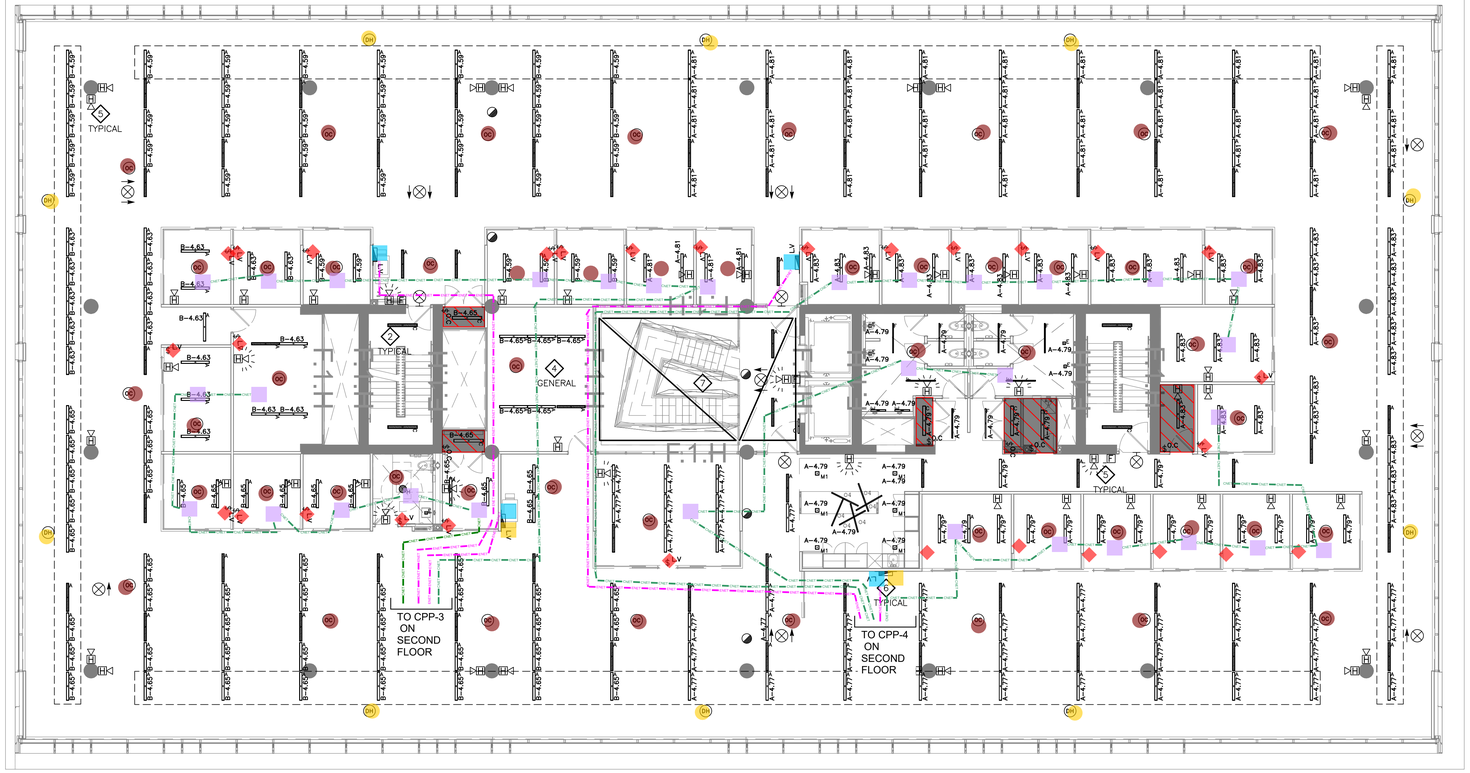
client:
TOMLINSON
5597 POWER RD
OTTAWA, ON
K1G 3N4

project:
TOMLINSON
NEW BUILDING
CITIGATE, OTTAWA

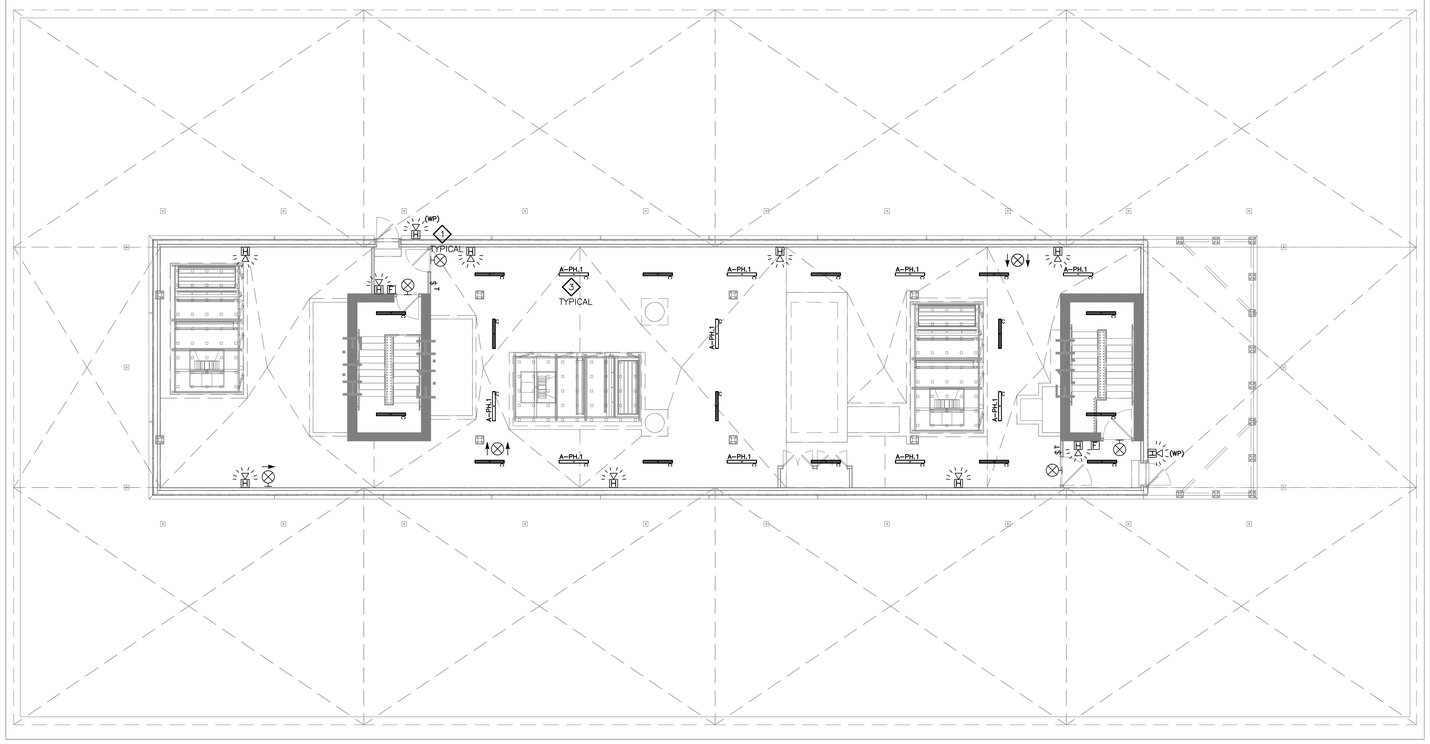
drawing title:
R.C.P.
SECOND & THIRD FLOOR

scale:	AS SHOWN	drawn by:	M.G
designed by:	M.G	reviewed by:	J.R.P.
approved by:	J.R.P.	date:	APR 2016

project no.: 100-16L
drawing no.: E-102
revision: 0



1 E103 FOURTH FLOOR – R.C.P
SCALE 1:100



2 E103 PENTHOUSE – R.C.P
SCALE 1:100

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

DRAWING IS NOT TO SCALE AND SCHEMATIC IN NATURE.

ETHERNET

CRESNET

DRAWING NOTES:

1. PROVIDE LED EXIT SIGN C/W DIRECTIONAL ARROWS AS INDICATED, ALL ASSOCIATED HARDWARE. EXIT SIGN TO BE TIED INTO EMERGENCY LIGHTING CIRCUIT.
2. LIGHT FIXTURE TO BE TIED INTO EMERGENCY LIGHTING CIRCUIT AND REMAIN UNSWITCHED AT ALL TIMES.
3. PROVIDE LIGHTING FIXTURE, ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
4. LIGHTING TO BE CONTROLLED BY BAS BUILDING AUTOMATION SYSTEM.
5. PROVIDE FIRE ALARM DEVICE AS INDICATED C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
6. LOW VOLTAGE LIGHTING CONTROL PANEL. TO BE MOUNTED AS HIGH AS POSSIBLE. LOCATION TO BE DETERMINED ONSITE.
7. PROVIDE CUSTOM SUSPENDED LIGHT FIXTURE WITH PRE-BUILT ILLUMINATED CORNERS AND CONTINUOUS RUNS OF LIGHTING CREATING THE LOOK OF A SINGLE FIXTURE. COORDINATE SUSPENSION WITH ACOUSTIC PANELS MANUFACTURER/CONTRACTOR. FIXTURES TO BE SELF SUPPORTING.

CRESTRON LIGHTING CONTROLS

TOUCH SCREEN	GLPP-1 DIMMING
KEYPAD	GLPP-2 DIMMING
WIRELESS KEYPAD	GLPP-3 DIMMING
WIRELESS DIMMER	GLPP-1 SWITCHING
GLPP KEYPAD	GLPP-2 SWITCHING
TIMER SWITCHES	GLPP-3 SWITCHING
LEVITON WALL OCC SENSOR SWITCH	GLPAC-4
DT OCC SENSOR CN	GLPAC-8
DT OCC SENSOR NS	CLS-C6 (iLUX)
PIR OCC SENSORS	CLS-EXP-DIM
HIGH BAY OCC SENSORS	CLS-EXP-DIMU
WIRELESS OCC SENSORS	CLS-EXP-DIMFLV
DT WALL OCC SENSORS	CLS-EXP-DIMFDB
PIR WALL OCC SENSORS	C2N-IO, C2N-SDC
EXT PHOTO SENSOR	SIM
PHOTO SENSOR	WIRELESS GATEWAY
CLOSED LOOP PHOTO SENSOR	COUNTER
WIRELESS PHOTO SENSOR	0-10V, MLV
PARTITION SENSOR	ELV, 2WIRE
ESR, EPC	3WIRE, DALI
	DMX, EM
	SHADES

JRP ENGINEERING
Professional Engineers
9 Holgate Crt, Kanata, Ontario, K2K 1B4
Tel: (613) 627-2462 Email: Admin@jrpeng.com

No	DESCRIPTION	DATE
1	ISSUED FOR PRICING	AUG 29 2016
0	ISSUED FOR PERMIT	AUG 5 2016

REVISIONS

client:
TOMLINSON
5597 POWER RD
OTTAWA, ON
K1G 3N4

project:
TOMLINSON
NEW BUILDING
CITIGATE, OTTAWA

drawing title:
R.C.P
FOURTH FLOOR
& PENTHOUSE

scale:	AS SHOWN	drawn by:	M.G
designed by:	M.G	reviewed by:	J.R.P.
approved by:	J.R.P.	date:	APR 2016

project no.: 100-16L
drawing no.: E-103
revision: 0

1
E104

TEST FACILITY – R.C.P

SCALE 1:100

DRAWING IS NOT TO SCALE AND SCHEMATIC IN NATURE.

ETHERNET

CRESNET

DRAWING NOTES:

1. PROVIDE LED EXIT SIGN C/W DIRECTIONAL ARROWS AS INDICATED, ALL ASSOCIATED HARDWARE. EXIT SIGN TO BE TIED INTO EMERGENCY LIGHTING CIRCUIT.
2. LIGHT FIXTURE TO BE TIED INTO EMERGENCY LIGHTING CIRCUIT AND REMAIN UNSWITCHED AT ALL TIMES.
3. PROVIDE LIGHTING FIXTURE, ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
4. FIRE ALARM PANEL, REFER TO RISER DIAGRAM FOR FURTHER DETAILS.
5. PROVIDE FIRE ALARM DEVICE AS INDICATED C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
6. LIGHTING TO BE CONTROLLED BY BAS BUILDING AUTOMATION SYSTEM.

CRESTRON LIGHTING CONTROLS

TOUCH SCREEN	GLPP-1 DIMMING
KEYPAD	GLPP-2 DIMMING
WIRELESS KEYPAD	GLPP-3 DIMMING
WIRELESS DIMMER	GLPP-1 SWITCHING
GLPP KEYPAD	GLPP-2 SWITCHING
TIMER SWITCHES	GLPP-3 SWITCHING
WALL OCC SENSOR SWITCH	GLPAC-4
DT OCC SENSOR CN	GLPAC-8
DT OCC SENSOR NS	CLS-C6 (iLUX)
PIR OCC SENSORS	CLS-EXP-DIM
HIGH BAY OCC SENSORS	CLS-EXP-DIMU
WIRELESS OCC SENSORS	CLS-EXP-DIMFLV
DT WALL OCC SENSORS	CLS-EXP-DIMFDB
PIR WALL OCC SENSORS	C2N-IO, C2N-SDC
EXT PHOTO SENSOR	SIM
PHOTO SENSOR	WIRELESS GATEWAY
CLOSED LOOP PHOTO SENSOR	COUNTER
WIRELESS PHOTO SENSOR	0-10V, MLV, ELV, 2WIRE, 3WIRE, DALI, DMX, EM
PARTITION SENSOR	SHADES
ESR, GLA-EPC-1D	

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.
JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

JRP ENGINEERING
Professional Engineers
9 Holgate Crt, Kanata, Ontario, K2K 1B4
Tel: (613) 627-2462 Email: Admin@jrpeng.com

No	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	JUNE 15 2016

REVISIONS

client:
TOMLINSON
5597 POWER RD
OTTAWA, ON
K1G 3N4

project:
TOMLINSON
NEW BUILDING
CITIGATE, OTTAWA

drawing title:
R.C.P
TEST FACILITY

scale:	AS SHOWN	drawn by:	M.G
designed by:	M.G	reviewed by:	J.R.P.
approved by:	J.R.P.	date:	APR 2016

project no.:	drawing no.:
100-16L	E-104
revision: 0	

Date: Feb 9, 2017

Transmittal

BDA Lighting Group
77 Auriga Drive, Unit 6
Ottawa On K2E7Z7
Phone: (613) 727-6223
Toll Free: (855) 606-6223
Website: WWW.BDALG.CA

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

From: Eric Seguin
Contact Ph: (613) 727-6223x234
Email: eseguin@bdalg.ca

Project: **Tomlinson Head Office - LEVITON**
Quote#: BDA17-18161
Location: Ottawa On
To: NEDCO
700 Industrial Ave
Ottawa ON K1G 0Y9
Contact:

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

ATTACHED WE ARE SENDING YOU 1 COPIES OF THE FOLLOWING ITEMS:

☒ Drawings ☐ Specifications ☐ Other:
☐ Prints ☐ Information
☐ Plans ☐ Submittals

THESE ARE TRANSMITTED FOR:

☐ Prior Approval ☐ Resubmittal for Approval ☐ Record
☒ Approval ☐ Corrections Bids due on:
☐ Approval as Submitted ☐ Your Use Other:
☐ Approval as Noted ☐ Review and Comment

Qty	Type	MFG	Part
35	OS SWITCH	Leviton Manufacturing of Canada Ltd	OSSMT-M
2	TIMER SW	Leviton Manufacturing of Canada Ltd	LTB60-1LZ

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

BDA LIGHTING GROUP	**Project Name:** Tomlinson Head Office - LEVITON	**Product Number:** OSSMT-MDW Notes:	**Type:** **OS SWITCH** BDA17-18161

PRODUCT DATA

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

LEVITON®

Decora® Wall Switch Multi-Technology Occupancy Sensor

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

OSSMT-MD/GD

BASIC OPERATION

Occupancy sensors have two tasks: ke
ON while the space is occupied and turning the lights
OFF when unoccupied.

The PIR sensors provide immunity to false ON through
a specialized Fresnel lens which
view into sensor zones. When a p
out of a sensor zone, the sensor
switches the lights ON.

The Ultrasonic (U/S) sensors pro
sitivity and range in difficult sp
shaped rooms and partitions tha
field-of-view. A pair of U/S senso
shifts caused by motion in a sp
OFF. These sensors are more sen
ments since they do not rely on z

SELF-ADAPTIVE TECHNOLOGY

Designed for "install and forget" use, the OSSMT automatical apts to
e

APPLICATIONS

Leviton's OSSMT Multi-Technolog
Occupancy Sensor is used to pro
ing control for energy savings a
variety of commercial application

- Retrofit
- Private and executive offices
- Conference rooms
- Storage areas
- Restrooms
- Classrooms
- Lounges
- Training areas
- Multi-location switching (similar to 3-way)

* MODIFICATIONS:

1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

OSSMT

Leviton Mfg. Co., Inc. Lighting & Energy Solutions
201 N. Service Rd. Melville, NY 11747-3138 Tech Line: 1-800-824-3005 Fax: 1-800-832-9538 www.leviton.com/les

BDA LIGHTING GROUP	**Project Name:** Tomlinson Head Office - LEVITON	**Product Number:** OSSMT-MDW Notes:	**Type:** **OS SWITCH** BDA17-18161

OSSMT

PRODUCT DATA

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

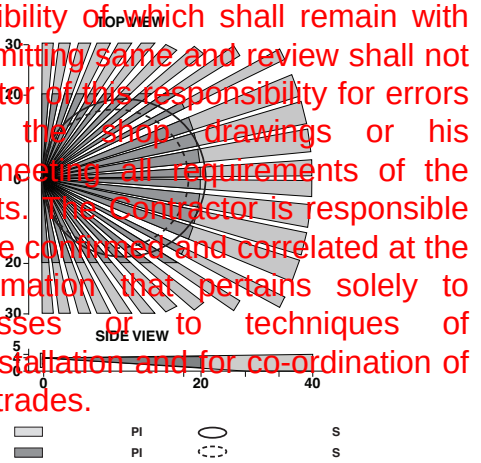
DATE: MAY 17th, 2017

FEATURES

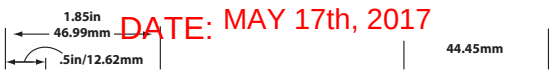
- Fast, simple Installation: Fits in a standard w" box and replaces a single-pole wall-switch; neutral and no neutral options available. Sensor can be ganged together with other units in a multiple-switch wall plate.
- Low-profile design eliminates obtrusive "scanning-device" look. Elegant Decora wallplates complement any interior for sleek aesthetics; uses Decora wallplates and coordinates with Leviton's popular line of Decora wiring devices.
- Convenient Pushbutton provides manual-ON/OFF light switching at any time.
- Segmented Fresnel lens provides optimum sensitivity and performance. Designed with an extended "major motion" area where even slight body movements will be detected.
- Vandal resistant PIR lens.
- Patented Blinders: Adjustable horizontal field-of-view (PIR) may be adjusted between 180° and 60° of arc by using integral blinders located on either side of the lens for masking required.
- Manual-ON/auto-OFF mode for installations where manual-ON switching is required but auto-OFF switching is also desired for CEC Title 24 energy savings.
- To comply with CEC Title 24, LED indicator light flashes when sensor detects motion to verify detection of both Green flashes for ultrasonic, red flashes for PIR.
- Time: The delayed OFF time is preset at 30 minutes in the Auto Adapting mode. A choice of four delayed-OFF time settings are available: 30-seconds (for walking test purposes only), 10, 20, and 30 minutes for fixed time or auto adapting. The LED will flash when the adjusting knob is set to the indicated time value.
- Ambient Light Recognition: Integrated light sensor prevents lights from turning on when the room is adequately illuminated by natural light.
- Self-Adaptive Technology: Callbacks for adjustr eliminated. Time delay and sensitivity settings tinually adjusted to occupant patterns of use adapt mode.
- Exclusive Walk-through Feature provides ir energy savings by not leaving the lights ON extended period after only momentary occupan
- Vacancy Confirmation: When the time out exp the relays turn OFF, a 30 second (OSSMT-G) or 4 (OSSMT-M) vacancy confirmation exists to turn t back on.
- False detection circuitry.
- Small Motion Sensitivity (U/S): Ultrasonic techno vides excellent minor motion sensitivity.
- Ability to disable U/S (OSSMT-M). For added OSSMT-G has the ability to disable both PIR and
- Presentation Mode feature: For slide or film p tions, allows pushbuttons to turn lights OFF a them OFF while the room is occupied.
- Exclusive Leviton H.I.S. Circuitry. Specifically des handle today's high inrush electronic ballast lo offer unmatched durability and service.
- True Zero-Cross Relay switches at the zero cross of the AC power curve to ensure maximum cont and compatibility with electronic ballasts.

FIELD-OF-VIEW

The OSSMT provides a 180° field-of-view with a maximum coverage area of approximately 2400 square feet. The maximum sensing distance in front of the sensor is 40 feet, and side to side is 30 feet. The "minor motion" zone detects relatively small body movements and allows the lights to stay ON even though a person may not be moving or walking around the room. The remainder of the field-of-view, the "major motion" zone, exhibits a lesser degree of sensitivity and requires larger movements.

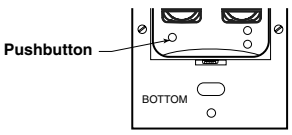


DIMENSIONAL DIAGRAMS



* MODIFICATIONS:

1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.



BDA LIGHTING GROUP	**Project Name:** Tomlinson Head Office - LEVITON	**Product Number:** OSSMT-MDW Notes:	**Type:** **OS SWITCH** BDA17-18161

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

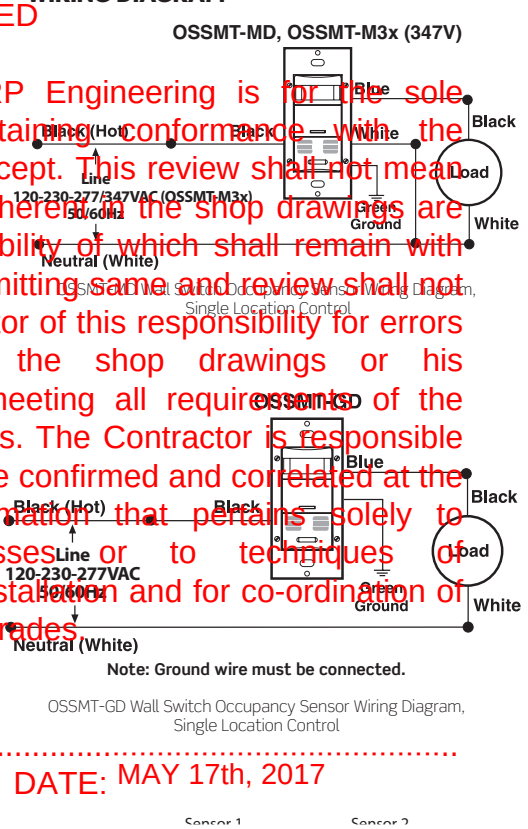
DATE: MAY 17th, 2017

LEVITON®

INSTALLATION

The OSSMT is preset to deliver optim[illegible] performance in a wide variety of applications without requiring any adjustments during installation. Exclusive self-adjusting operating features will automatically compensate for real-time occupancy patterns to provide maximum convenience and energy savings. The unit may replace a single-pole wall switch mounted in a standard wall box. The OSSMT-MD must have a neutral and be properly grounded in order to operate. The OSSMT-GD does not require a neutral for installation. The unit's integral binders may be used to restrict the field of view to prevent unwanted detection of traffic. It should be positioned at least 6 feet away from HVAC registers. Note that whenever the unit is powered up, it will take approximately 1 minute to begin normal operation.

WIRING DIAGRAM



OSSMT-GD Wall Switch Occupancy Sensor Wiring Diagram, Single Location Control

SPECIFICATIONS

ELECTRICAL			
Line Voltage	120-230-277/347 VAC (OSSMT-M3x)		
Power Consumption		**U/S & PIR**	**PIR only**
OSSMT-MD	120V	190mW	190mW
	277V	180mW	270mW
OSSMT-M3x	347V	500mW	350mW
OSSMT-GD	120V	310mW	310mW
	277V	340mW	310mW
Operational Frequency	50/60Hz		
Ultrasonic Operating Frequency	40kHz		
Wire Designation	Line-Black Neutral- Load-Blue Ground-Green		
Load Rating	Incandescent/Tungsten: 800W @ 120V Fluorescent: 1200VA @ 120V 2700VA @ 277V , 1500VA @ 120V		

ENVIRONMENTAL	
Operating Temperature Range	32°F to
Storage Temperature Range	14°F to
Relative Humidity	20% to

OTHER	
Listings	OSSMT-MD = UL/cUL OSSMT- OSSMT-M3 = cETL Listed, CSA CEC Title 24 Compliant, FCC Con
Warranty	Limited Five-Year Warranty

ORDERING INFORMATION

CAT. NO. *	DESCRIPTION
OSSMT-MDx	Multi-Technology Wall Swit
OSSMT-GDx	No Neutral, Multi-Technolo Occupancy Sensor
OSSMT-M3x	Multi-Technology Wall Swit 347V

* Replace x with (-W) White, (-I) Ivory, (-T) Light Almo
NOTE: OSSMT-M3x model available in (-W) White
* NAFTA compliant and Made in USA models availal

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

OSSMT

Leviton Mfg. Co., Inc. Lighting & Energy Solutions
201 N. Service Rd. Melville, NY 11747-3138 Tech Line: 1-800-824-3005 Fax: 1-800-832-9538 www.leviton.com/les

BDA LIGHTING GROUP	**Project Name:** Tomlinson Head Office - LEVIT	**Product Number:** OSSMT-MDW	**Type:** **OS SWITCH**
	☐ REVIEWED ☑ REVIEWED AND MODIFIED ☐ REVISE AND RESUBMIT ☐ NOT REVIEWED	Notes:	BDA17-18161

PRODUCT DATA

LEVITON®

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

.....

DATE: MAY 17th, 2017

* MODIFICATIONS:

1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

OSSMT

LEVITON SPECIFICATION

JOB NAME:

JOB NUMBER:

Leviton Manufacturing Co., Inc. Lighting & Energy Solutions
201 N. Service Rd. Melville, NY 11747-3138 Tech Line: 1-800-824-3005 Fax: 1-800-832-9538 www.leviton.com/les

Leviton Manufacturing of Canada, Ltd.
165 Hymus Boulevard, Pointe Claire, Quebec H9R 1E9 • Telephone: 1-800-469-7890 • FAX: 1-800-563-1853

Leviton S. de R.L. de C.V.
Lago Tana 43, Mexico DF, Mexico CP 11290 • Tel. (+52) 55-5082-1040 • FAX: (+52) 5386-1797 • www.leviton.com.mx

Visit our Website at: www.leviton.com/les

BDA LIGHTING GROUP	**Project Name:** Tomlinson Head Office - LEVITON	**Product Number:** LTB60-1LZ Notes:	**Type:** TIMER SW BDA17-18161

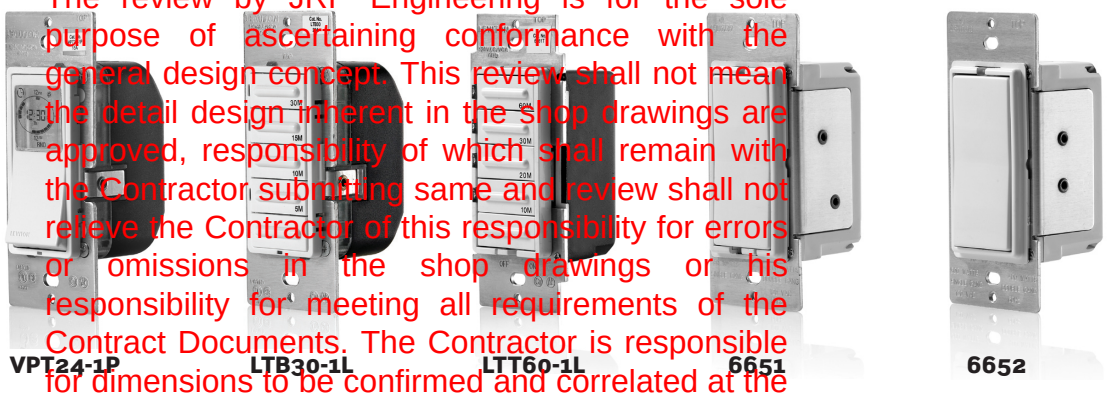
☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

PRODUCT SPECIFICATIONS

LEVITON®

decora®

Timer Switches for Energy Management



Better than ever, Leviton Decora Timer Switches offer advanced features, superior accuracy and contemporary aesthetics. Our robust selection provides convenient timed control of lighting and appliances in residences, and hotel rooms and other small commercial applications. An easy upgrade, automatic timers help reduce energy costs, improve security and add convenience. Homeowners can set lights to turn on and off for a lived-in look while they are away, or automate cont l pumps or bathroom fans. Our versatile se programmable and preset timers in popular styles and colors. All are backed b long history of quality and reliability.

APPLICA
- Resident
- Ventilati
- Heaters,

FEATURI
- Single pc
- Replaces for selec
- Soothing
- Coordina

New Vizia
For indoor
- Easy to p
- Timer se
- Flexibility or any cc
- Astronor sunrise/
- Automat
- Recharge power ou
- Three co
- Color change kits available

New 5-Button Decora Timer Switches (neutral required)
For lighting, heat lamps, hot tubs, attic and exhaust fans
- Improved 15-, 30-, or 60-minute timers, plus 12- and new 4-hour timers
- Four preset buttons and OFF
- Simple press and hold override timer function
- Flexibility to program timer to convert to any other timer interval
- Color/Timer change kits available
- Three colors in one box

a Timer Switches
For incandescent indoor and outdoor lighting

e timer function

Switch
ndoor/outdoor

FF control option
1 hour increments

nory in event of power outage

ial indoor/outdoor
ng fans
on of settings,

F control option
is ON
annunciator sound indicates

Leviton Mfg. Co., Inc.
201 North Service Road Melville, NY 11747 Tech Line: 1-800-824-3005 Fax: 1-800-832-9538 www.leviton.com

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

Decora® Timer Switches for Energy Management

BDA LIGHTING GROUP	**Project Name:** Tomlinson Head Office - LEVITON	**Product Number:** LTB60-1LZ Notes:	**Type:** **TIMER SW** BDA17-18161

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

Decora® Timer Switches for Energy Management

AGENCY STANDARDS AND COMPLIANCE

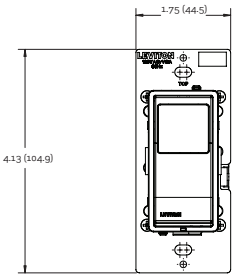
- Complies with FCC Part 15, Class B
- CSA Certified (File #152105)
- UL Listed VPT24, LTBxx Series and LTTxx Series (File #E-328809)
- UL Listed 6651 and 6652 (File #E-148771)

WARRANTY INFORMATION

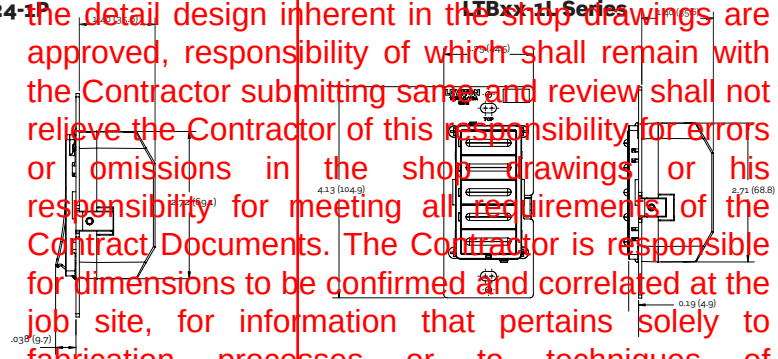
- Limited Five-Year Warranty

DIMENSIONAL DRAWINGS

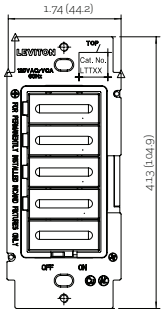
VPT24-1P

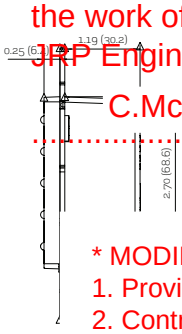


LTBxx-1L Series

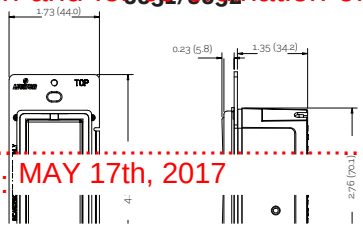


LTTxx-1L Series





6651/6652

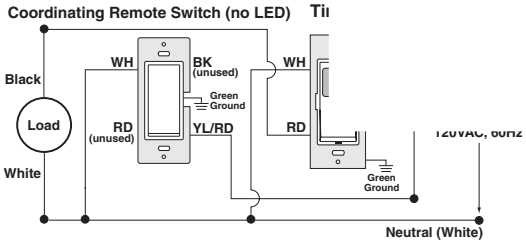


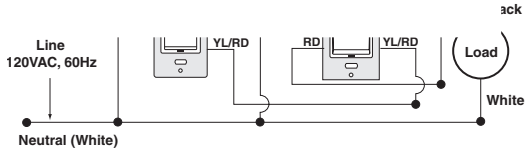
* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

WIRING DIAGRAMS

Vizia + Programmable Timer Switch

VPT24-1P
3-Way Wiring with Coordinating Remo
VP0SR-10 (no LED) Application





Leviton Mfg. Co., Inc.
201 North Service Road Melville, NY 11747 Tech Line: 1-800-824-3005 Fax: 1-800-832-9538 www.leviton.com

BDA LIGHTING GROUP	**Project Name:** Tomlinson Head Office - LEVITON	**Product Number:** LTB60-1LZ Notes:	**Type:** **TIMER SW** BDA17-18161

LEVITON®

☐ REVIEWED
☑ REVIEWED AND MODIFIED
☐ REVISE AND RESUBMIT
☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

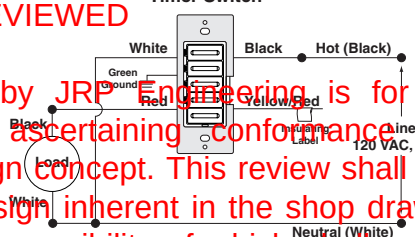
C.McGuire

DATE: MAY 17th, 2017

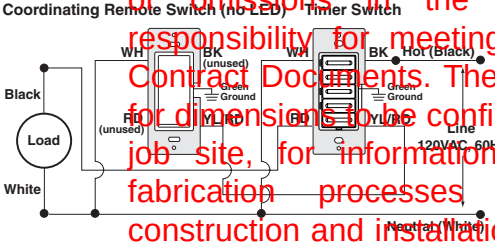
WIRING DIAGRAMS

5-Button Timer Switches

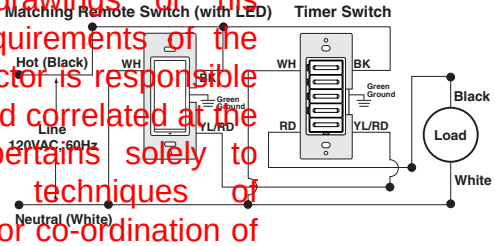
LTBxx Series
Single Pole Wiring Application
Timer Switch



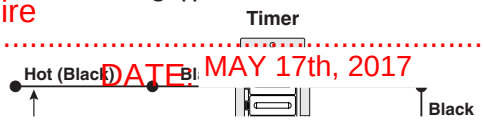
LTBxx Series
3-Way Wiring with Coordinating Remote Switch, VP0SR-10 (no LED) Application



LTBxx Series
3-Way Wiring with Matching Remote Switch, VP0SR-1L (w/LED) Application



LTBxx Series
Single Pole Wiring Application
Timer

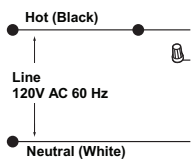


* MODIFICATIONS:

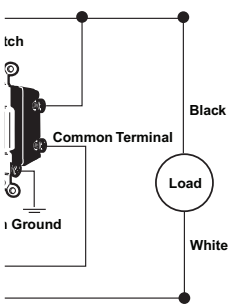
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

6651/6652

Single Pole



Switch



Decora® Timer Switches for Energy Management

Leviton Mfg. Co., Inc.
201 North Service Road Melville, NY 11747 Tech Line: 1-800-824-3005 Fax: 1-800-832-9538 www.leviton.com

BDA LIGHTING GROUP	**Project Name:** Tomlinson Head Office - LEVITON	**Product Number:** LTB60-1LZ Notes:	**Type:** **TIMER SW** BDA17-18161

LEVITON®

DERATING/MAXIMUM CAPACITY

In multi-gang installations, all devices must be derated in accordance with the following chart:

Cat No.	Single Gang	Double Gang	Triple Gang or More
VPT24-1P	No derating required	No derating required	No derating required
6651	No derating required	No derating required	No derating required
6652	No derating required	No derating required	No derating required
LTBxx Series	Resistive: 20A (2000W) Incandescent: 1800W Inductive: 20A, Motor: 1HP	Resistive: 16A (1920W) Incandescent: 1800W Inductive: 16A, Motor: 1HP	Resistive: 16A (1920W) Incandescent: 1800W Inductive: 16A, Motor: 1HP
LTTxx Series	600W	500W	400W

REVIEWED

☑ REVIEWED AND MODIFIED

☐ REVISE AND RESUBMIT

☐ NOT REVIEWED

The review by JRP Engineering is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean the detail design inherent in the shop drawings are approved, responsibility of which shall remain with the Contractor submitting same and review shall not relieve the Contractor of this responsibility for errors or omissions in the shop drawings or his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

JRP Engineering

C.McGuire

DATE: MAY 17th, 2017

ORDERING INFORMATION

Decora® Timer Switches - Programmable Electronic Timer Switches, Single Pole or 3-Way

Cat. No.	Description	Rating	Color*
VPT24-1L	Vizia +® 24 Hour, with astronomical clock, neutral required	1800W Incandescent, 15A Resistive/Inductive, 1 HP @ 120VAC	Z
6651	14 hour programmable in 1 hour intervals	500W Incandescent @ 120VAC	W, I
6652	Variable countdown, 1 minute to 18 hour intervals, neutral required	500W Incandescent, 500VA Rapid Start Ballast (only 1/6 HP 120 VAC, 60 Hz	W, I, A

5-Button Timer Switches - Four Preset Button Configurations
Single Pole or 3-Way, Neutral Required, 1800W Incandescent, 20A Resistive/Inductive, 1 HP @ 120VAC

Cat. No.	Description	Interval	Color*
LTB15-1L	15 minute	2-5-10-15 minutes	Z
LTB30-1L	30 minute	5-10-15-30 minutes	Z
LTB60-1L	60 minute	10-20-30-60 minutes	Z
LTB02-1L	2 hour, Title 24 Compliant	15M-30M-1HR-2 hours	Z
LTB12-1L	12 hour	1-4-8-12 hours	Z

Single Pole, Neutral Not Required, 600W Incandescent, 5A Resistive

Cat. No.	Description	Interval	Color*
LTT30	30 minute	5-10-15-30 minutes	I, W, T
LTT60	60 minute	10-20-30-60 minutes	I, W, T

Color Change Kits

Cat. No.	Description	Color*
VPTKT	Vizia + 24 Hour Timer Color Change Kit	
LTBKT	5-Button Timer Color Change Kit	W, I, I, E, B

*To order colors, add suffix to basic Cat.
Products with suffix –Z are packaged 3 C

Color Change Kits in White (-W), Ivory (-I),

* MODIFICATIONS:
1. Provide more infor ont he GLA-PWS50 for contractors.
2. Contractor to coordinate installation on site with reference to slab conduits that are currently installed.
3. If changes are required to the network layout shown in this shop drawing, the changes are to be marked up or drawings updated for the final As-Built submission for this project.
4. Electrical to coordinate with system supplier to ensure a complete and operational system is achieved.
5. Coordinate changes to drawings with contractors comments provided to you on May 9th, 2017.

Decora® Timer Switches for Energy Management

Leviton Manufacturing Co., Inc.
201 North Service Road, Melville, NY 11747-3138
Telephone: 1-800-323-8920 • Fax: 1-800-832-95

Leviton Manufacturing of Canada, I
165 Hymus Boulevard, Pointe Claire, Quebec HgF

Leviton S. de R.L. de C.V.
Lago Tana 43, Mexico DF, Mexico CP 11290 • Tel

ISO 9001 REGISTERED