



Powering Business Worldwide

Eaton's Cooper Controls
Business
203 Cooper Circle
Peachtree City, GA 30269
tel: 800-553-3879
fax: 800-954-7016

Submittal Transmittal

Date: Oct 26, 2016 8:40 AM CDT

Transmitted To:

Eaton Lighting Systems
Eaton's Cooper Lighting
203 Cooper Circle
Peachtree City, GA 30269

Transmitted By:

Kendra Shell
Eaton's Cooper Lighting
203 Cooper Circle
Peachtree City, GA 30269

Project

Newington Forest Elementary

Remarks

- 1 This is a complete shop drawing submittal with lighting controls added to lighting plan as follows:
 - 1.1 *Added boundary for each control zone*
 - 1.2 *Existing notes and lighting control symbols have been replaced with Eaton's Cooper Lighting notes and symbols*
- 2 Additional Drawings have also been added by Eaton's Cooper Lighting:
 - 2.1 *Device Wiring Diagrams*
 - 2.2 *Lighting Riser Diagrams*
- 3 Contractor must install each device supplied by Eaton's Cooper Lighting as per the "Device Wiring Diagrams" above.
- 4 Contractor to terminate all lighting control wires as per the "Schedules" provided.
- 5 Contractor to test and verify the operation of all lighting controls as per the "Testing and Startup Procedures" provided in this submittal.



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Table of Contents

1. Cover Page
2. Transmittal Form
3. Table of Contents
4. Submittal & Order Release
5. Bill of Materials
6. Device Placement Drawings
7. Riser Diagram
8. Wiring Diagrams
9. Factory Start-up
10. Commissioning Test Procedures
11. Training
12. Startup Checklist
13. Panel Schedules
14. Spec Sheets
15. Warranty Information



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Submittal & Order Release

Job Name: Newington Forest Elementary

Please forward this form and a copy of the bill of material page to Eaton's Cooper Controls releasing **PO** for manufacturing and shipment. Please verify the bill of material, quantities, voltages and switches and wall plate configurations, colors, and finishes are correct. Please make any changes required on this sheet or on the bill of materials page. If the information provided is not correct and has been built for this order or shipped you may incur restocking or handling fees.

The order will not be released without this form.

_____ Bill of Material Is Correct, please release.

_____ Bill of Material Is Not Correct. Please see notes below or attached sheet and release.

Notes:

Signature

Company Name

Date

Notes

Quote based on drawings EL3.01, E3.02, E3.03, E3.04, E3.05 dated 3.14.16.
If newer drawings become available, please contact Eaton Controls for a requote.

Items not included on this quotation are not included in this price.

If the Bill of Materials changes please contact Cooper Controls for a re-quote.

Adders are not included in the quote total.

Quoted startup amount covers commissioning during normal business hours M-F. After hours commissioning will require a revised quote

No receptacle control included in this quote

No site lighting included in this quote

No DMX integration included in this quote.

No metering included in this quote.

All dimming is assumed to be 0-10V.

Standard warranty applies

Standard submittals apply

No spare relays included in this quote

No graphical interface included in this quote

No spare hardware included in this quote.

Relays are not individually replaceable.

Factory startup broken into 3 phases per drawings.

Cooper Lighting

by **EATON**

Bill of Materials

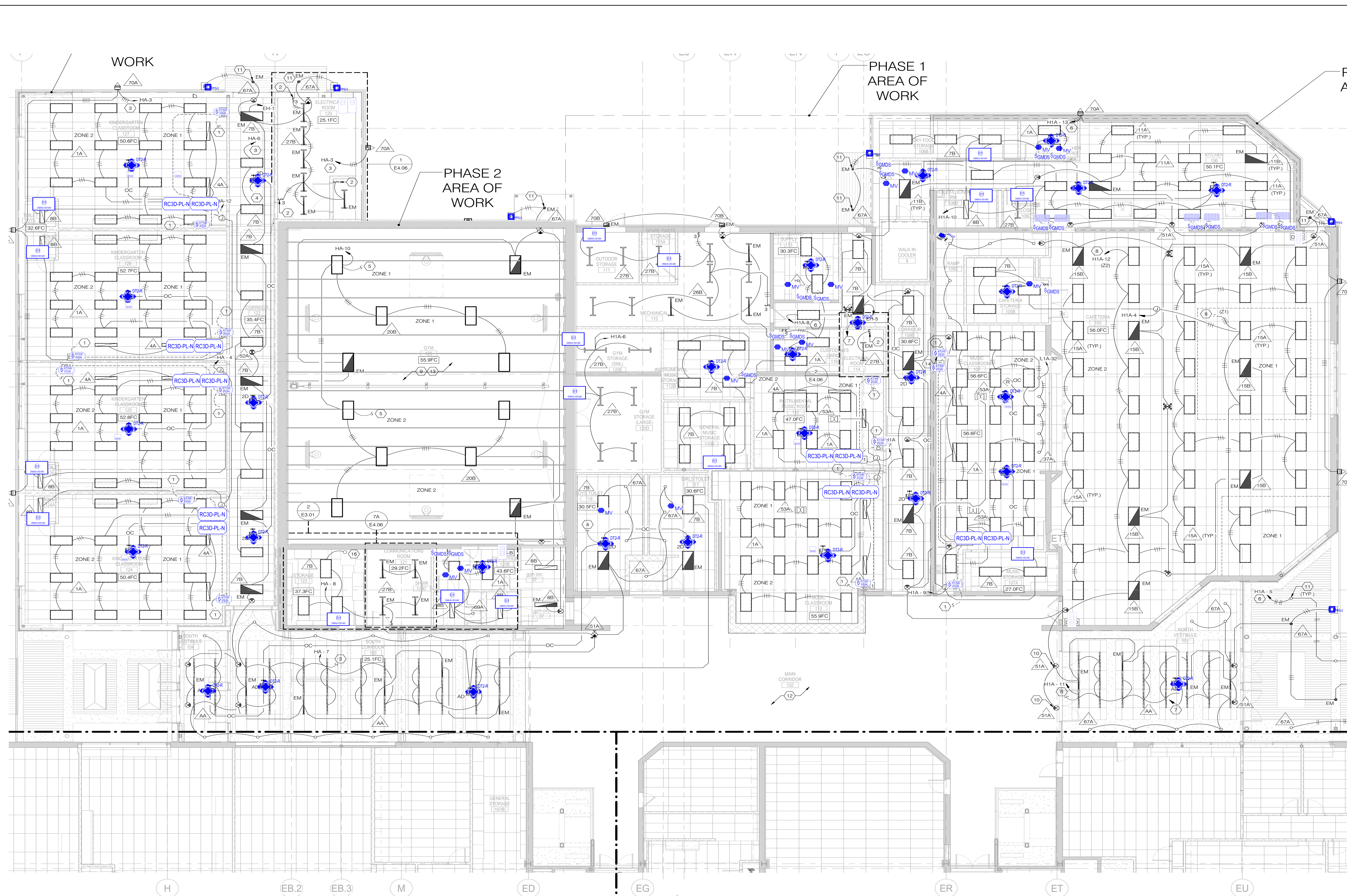
Newington Forest Elementary

Quantity	Brand	Catalog #/ Line Comments
15	Greengate Panels	CK4A-SLRC ControlKeeper 4A 0-10V dimming panel with latching relays
3	Greengate Panels	DF10P-C1 Decorator Dimmer 0-10V, 120/277 VAC, w/ White, Ivory and Almond faceplate color kit
2	Greengate Panels	GDS-2TLB-W GDS 2 Large button White
2	Cooper Controls	ENGRV-2BTNL-W 2 Large Button White Requires Custom Text Order Form
2	Greengate Panels	GDS-3TLB-W GDS 3 Large button White
2	Cooper Controls	ENGRV-3BTNL-W 3 Large Button White Requires Custom Text Order Form
3	Greengate Panels	GDS-5TSB-W GDS 5 Small button White
3	Cooper Controls	ENGRV-5BTNS-W 5 Small Button White Requires Custom Text Order Form
2	Greengate Panels	GDS-6TSB-W GDS 6 Small button White
1	Cooper Controls	ENGRV-6BTNS-W 6 Small Button White Requires Custom Text Order Form
5	Greengate Panels	GDS-I-KIT GDS Integrator KIT
71	Greengate Occupancy Sensors	SP20-MV Switchpack Heavy Duty, 120/277V
79	Greengate Panels	GMDS-W Momentary Decorator Switch - White
137	Greengate Occupancy Sensors	OAC-DT-2000-R MicroSet Dual Technology 2000 sq ft ceiling sensor w/BAS Relay & Daylight Sensor
47	Greengate Panels	OCC-RJ45 RJ45 to standard Greengate Low Voltage Occupancy Sensor also BMS and Egress output Device
86	Greengate Panels	RC3D-PL-N 3 Relay + 3 Dimmers Room Controller Network 120/277VAC
86	Greengate Panels	PDR-RC-6TSB White 6 Small Button Station Custom
55	Greengate Occupancy Sensors	ONW-D-1001-MV-W White Dual Technology Single Level Switch Sensor 120/277

install white, provide other color plates to owner for storage (BGA)



10	Greengate Occupancy Sensors	OSP20-RDH Pack w/Dry Contact & Override Inputs
4	Greengate Panels	PC-I Analog Indoor Photosensor
10	Greengate Panels	PPS-5 Contact Input Outdoor Photosensor
1	Greengate Panels	KEEPER NW KIT Network Keeper Enterprise Includes Cable Kit
1	Greengate Panels	EIM (EIM) Ethernet Interface Module Requires buliding LAN connection
1	Greengate Panels	FPC-N34-1130 BMS Pro.BACnet
1	Greengate Panels	HHPR-RC Personal Control/Scene Programmer
3	Greengate Occupancy Sensors	OAWC-DT-120W-R OAWC-DT Dual Technology Wall/Corner Sensor 1200 sq ft w/BAS
10	Greengate Panels	PDR-RC-6TSB (SPARE) White 6 Small Button Station Custom
2	Greengate Panels	RPTR Network Repeater



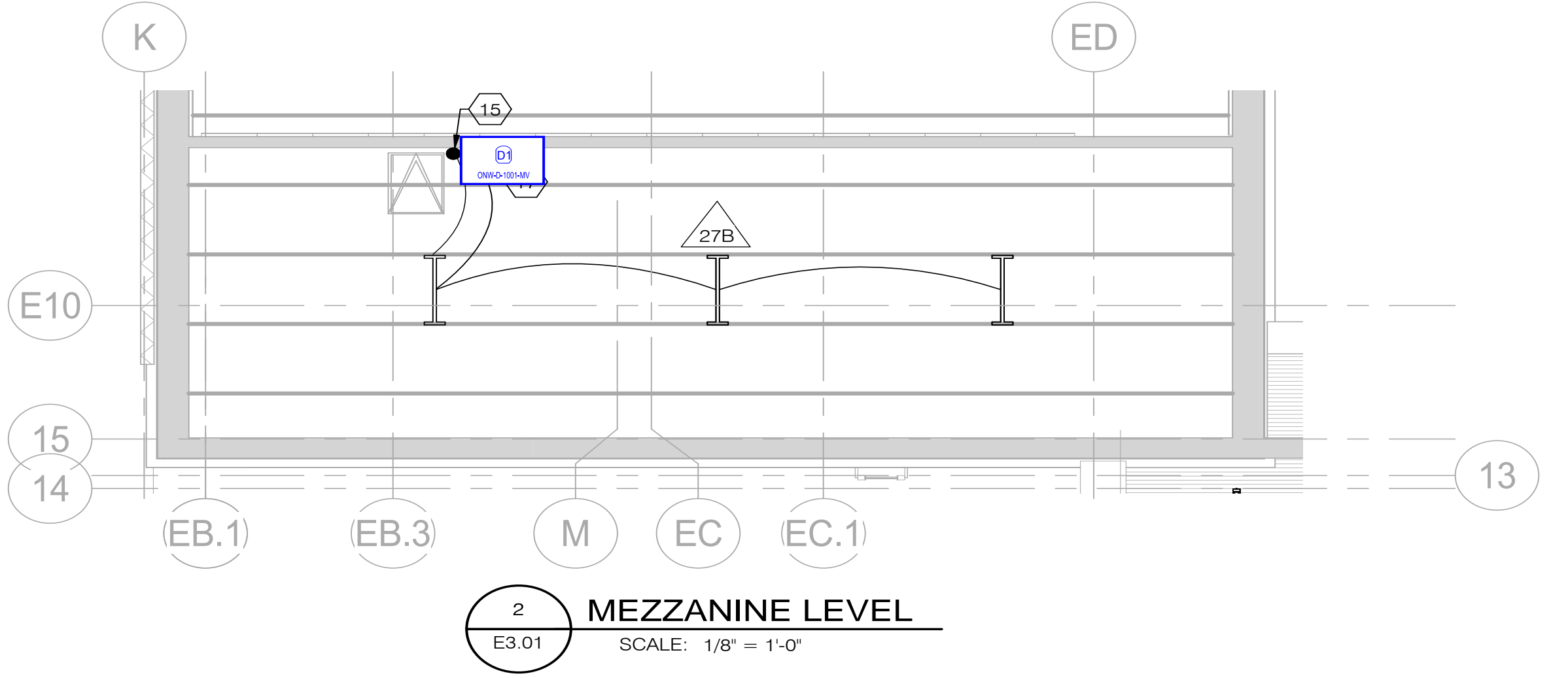
GENERAL NOTES

SENSOR NOTES:
 1. LOCATION OF ALL SENSORS IS APPROXIMATE. REVIEW INSTALLATION INSTRUCTIONS BEFORE INSTALLING SENSORS.
 2. TO PREVENT FALSE ACTIVATION, ULTRASONIC CEILING MOUNT SENSORS SHOULD BE MOUNTED AWAY FROM THE PATH OF STRONG AIR TURBULENCE. IN NORMAL AIRFLOW CONDITIONS SENSORS SHOULD BE MOUNTED FOUR TO SIX FEET AWAY FROM SOURCE. FOR TYPICAL PLACEMENT, REFER TO LOCATION DIAGRAMS. IN LOCATIONS WITH STRONG AIR TURBULENCE A PIR CEILING SENSOR SHOULD BE CONSIDERED.
 3. CONTRACTOR IS RESPONSIBLE FOR PROPER TIME DELAY AND SENSITIVITY ADJUSTMENTS WHEN APPLICABLE.
 4. CONTRACTOR SHOULD FOLLOW MANUFACTURER'S RECOMMENDED PLACEMENT AND VERIFY CIRCUITS WITH RESPECT TO SWITCHPACKS NEEDED IN THE FIELD.
 5. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF THE NUMBER OF SWITCHPACKS NEEDED. ONE SWITCHPACK PER CIRCUIT.
 6. MULTIPLE CIRCUITS MAY BE CONTROLLED BY ONE SENSOR BY USING ADDITIONAL SWITCHPACKS. MAXIMUM OF TEN SWITCHPACKS PER SENSOR.

SENSOR LEGEND

QTY	SYMBOL	MODEL/DESCRIPTION
6		PPS-5 Contact Input Outdoor Photosensor
29		QAC07-2000-R MicroSeal Dual Technology 2000 eq ft ceiling sensor w/SAS Relay & Daylight Sensor
1		QAC07-2000-R QAC07 Dual Technology Wall Corner Sensor 1200 eq ft w/SAS
17		DW0-1001-M/V PIR Dual Technology Single Level Switch Sensor 100277
14		SP20-MV Switchpack Heavy Duty, 120/277V
6		QSP20-RDH Pack w/Dry Contact & Override Inputs
14		RC3D-PL-N 3 Relay + 3 Dimmers Room Controller Network 120/277VAC
9		OCU-RS 64K Enhanced Occupancy Low Voltage Occupancy Sensor 6in/6in and Eyes Output Device
15		PDR-RC-6T5B White 6 Small Button Station Custom (Refer to BSA)
18		GMDS-W Momentary Decorator Switch - White (Refer to BSA)
2		GDS-2TLB-W GDS-2 Large button White (Refer to BSA)
1		GDS-6T5B-W GDS-6 Small button White (Refer to BSA)
2		GDS-6T5B-W GDS-6 Small button White (Refer to BSA)

1 FIRST FLOOR LIGHTING PLAN AREA A-NEW WORK
 SCALE: 1/8" = 1'-0"



2 MEZZANINE LEVEL
 SCALE: 1/8" = 1'-0"

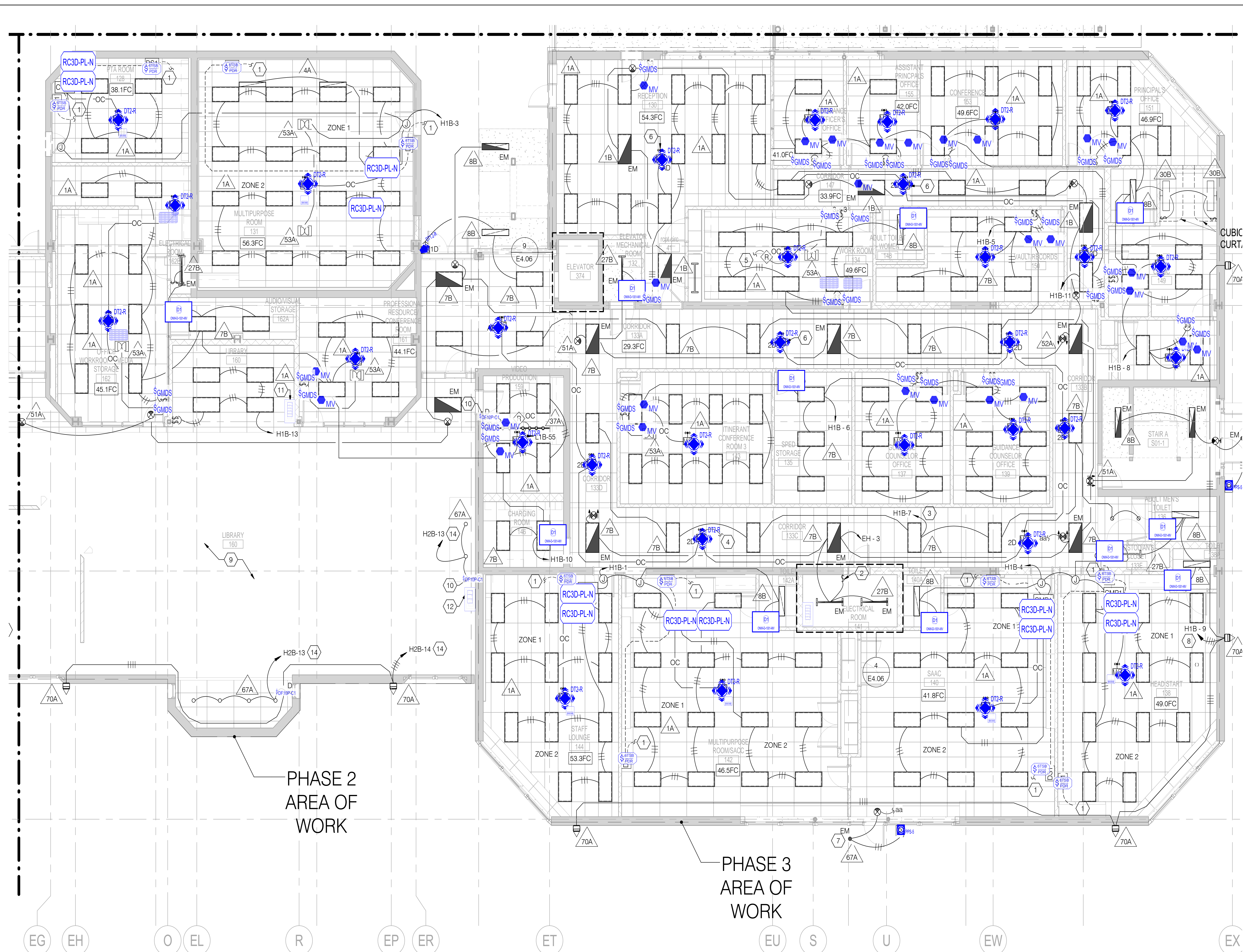
Newington Forest Elementary School
 Spec. No. 16505.02 Submitted No. 140
 Revised for general acceptance only. This review does not relieve the subcontractor of the responsibility for making the work conform to the requirements of the contract. The subcontractor is responsible for all drawings, coordination, NO EXCEPTION TAKEN, MAKE CORRECTIONS NOTED, REVISE & RESUBMIT, REJECTED.
MERIDIAN CONSTRUCTION CO., INC.
 By: [Signature] Date: 11/30/16

- KEY NOTES**
- TO THE NEXT DIGITAL SWITCH. SEE TYPICAL CLASSROOM LIGHTING DETAIL ON DWG. E3.06 FOR CONNECTION OF CLASSROOM LIGHTS AND SWITCHES.
 - LIGHT SWITCH NOTED LIGHT CONTROLS LIGHTS IN THIS ROOM ONLY.
 - RUN BRANCH CIRCUIT WIRING VIA LIGHTING CONTROL PANEL LCP-F IN ELEC. RM. 129. SEE LIGHTING CONTROL RISER DIAGRAM AND SCHEDULE ON DRAWINGS E3.06 AND E3.07.
 - CORRIDOR LIGHTING CONTROL OCCUPANCY SENSOR HOMERUN CABLE TO CONTACT CLOSURE INPUT DEVICE IN LCP-M LOCATED IN COMM. RM. 121. SEE LIGHTING CONTROL RISER DIAGRAM AND SCHEDULES ON DRAWINGS E3.06 AND E3.07.
 - RUN RELAY CONTROL LEG VIA LIGHTING CONTROL PANEL LCP-F IN ELEC. RM. 129. SEE LIGHTING CONTROL RISER DIAGRAM AND SCHEDULE ON DRAWINGS E3.06 AND E3.07.
 - RUN BRANCH CIRCUIT WIRING VIA LIGHTING CONTROL PANEL LCP-A IN ELEC. RM. 114. SEE LIGHTING CONTROL RISER DIAGRAM AND SCHEDULE ON DRAWINGS E3.06 AND E3.07.
 - CORRIDOR LIGHTING CONTROL OCCUPANCY SENSOR HOMERUN CABLE TO CONTACT CLOSURE INPUT DEVICE IN LCP-A LOCATED IN ELEC. RM. 114. SEE LIGHTING CONTROL RISER DIAGRAM AND SCHEDULES ON DRAWINGS E3.06 AND E3.07.
 - RUN RELAY CONTROL LEG VIA LIGHTING CONTROL PANEL LCP-A IN ELEC. RM. 114. CONTROL RISER DIAGRAM AND SCHEDULE ON DRAWINGS E3.06 AND E3.07.
 - ALL PENDANT MOUNTED LIGHT FIXTURES SHALL BE SUSPENDED AT MINIMUM OF 1' FINISHED CEILING TO THE TOP OF THE FIXTURE. REFER TO ARCHITECTURAL DWGS FOR FIXTURE MOUNTING AND SCHEDULE ON DRAWINGS E3.06 AND E3.07.
 - REFER TO ARCHITECTURAL DWGS FOR FIXTURE MOUNTING AND CONDUIT ROUTING.
 - MOUNTING SHALL BE MADE WATERTIGHT.
 - EXPOSED CONDUITS/SURFACE MOUNTED RACEWAYS ARE NOT PERMITTED IN THIS SPECIFICALLY DIRECTED OTHERWISE.
 - ALL EXIT SIGNS AND CONTROL DEVICES IN THIS SPACE SHALL BE PROVIDED WITH 1".
 - DIMMER SWITCH SHALL NOT BE GANGED WITH STANDARD SWITCHES.
 - REFER TO DETAIL #1 ON THIS SHEET FOR CONTINUATION OF CIRCUIT.
 - REFER TO DETAIL #2 ON THIS SHEET FOR CONTINUATION OF CIRCUIT.
 - CONTRACTOR TO COORDINATE WITH ARCHITECT FOR EXACT SWITCH LOCATION.

EATON
 Eaton's Cooper Controls Business
 1-800-553-3879 Phone
 1-800-954-7016 Fax
 203 Cooper Circle
 Peachtree City, GA 30269

Newington Forest Elementary

DATE	SHEET
SCALE 1/8" = 1'-0"	REVISION 0.0



- GENERAL NOTES**
- SENSOR NOTES:
1. LOCATION OF ALL SENSORS IS APPROXIMATE. REVIEW INSTALLATION INSTRUCTIONS BEFORE INSTALLING SENSORS.
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SENSOR LEGEND

QTY	SYMBOL	MODEL/DESCRIPTION
2		PPS-5 Contact Input Outdoor Photosensor
31		QAC-07-0300R MicroSi Dual Technology 2000 sq ft ceiling sensor w/545 Relay & Daylight Sensor
1		QAC-07-0300-R QAC-07 Dual Technology Wall/Corner Sensor 1200 sq ft w/545
11		QM1-C-1051-M-W White Dual Technology Single Level Switch Sensor 12027
27		SP20-MV Switchpack Heavy Duty, 12027TV
4		OSP20-RDH Pack w/Dry Contact & Override Inputs
12		RC3D-PL-N 3 Relay x3 Dimmer Room Control Network 12027/142
6		OCC-PL-6 RLS to standard Greenleaf Low Voltage Occupancy Sensor also 545 and 545 relay device
11		PDR-RC-6T5B White 6 Small Button Station Custom
33		SGMDS-W Momentary Decorator Switch - White
2		GDS-5TLB-W GDS 2 Large button White
2		GDS-5TSB-W GDS 5 Small button White
3		SP1P-C1 Decora Dimmer 0-10V, 120/277 VAC, w/ White, Ivory and Almond faceplate color kit

PHASE 2
AREA OF
WORK

PHASE 3
AREA OF
WORK

1 FIRST FLOOR LIGHTING PLAN AREA B-NEW WORK
E3.02 SCALE: 1/8" = 1'-0"

Newington Forest Elementary School
Spec. Sec. 16505.02 Submittal No. 140
Reviewed for general acceptance only. This review does not release the subcontractor of the responsibility for meeting the work contract to the requirements of the contract. The subcontractor is responsible for all dimensions, coordination, correct installation and accurate to within the work of all other trades.
NO EXCEPTION TAKEN
MAKE CORRECTIONS NOTED
REVISE & RESUBMIT
REJECTED
By: _____ Date: 11/30/16
MERIDIAN CONSTRUCTION CO., INC.

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SENSOR LEGEND

QTY	SYMBOL	MODEL/DESCRIPTION
1		PPS-5 Contact Input Outdoor Photosensor
23		DT2R-2000R MicroSonic Dual Technology 2000 w/ calling sensor w/84S Relay & Daylight Sensor
1		DT2R-2000R MicroSonic Dual Technology Wall/Corner Sensor 1200 w/1 w/84S
15		D1-1021-M1111 White Dual Technology Single Level Switch Sensor 120277
11		SP30-MV Switchpack Heavy Duty, 120227V
20		RC3D-PL-N 3 Relay + 3 Dimmer Room Controller Network 120274C
10		OC2-R45 Non-Contact Overrange Low Voltage Occupancy Sensor Also BMS and Egges output Device
20		PDR-RC-6T5B White 6 Small Button Station Custom
11		GMDS-W Momentary Decorator Switch - White

PHASE 1
AREA OF
WORK

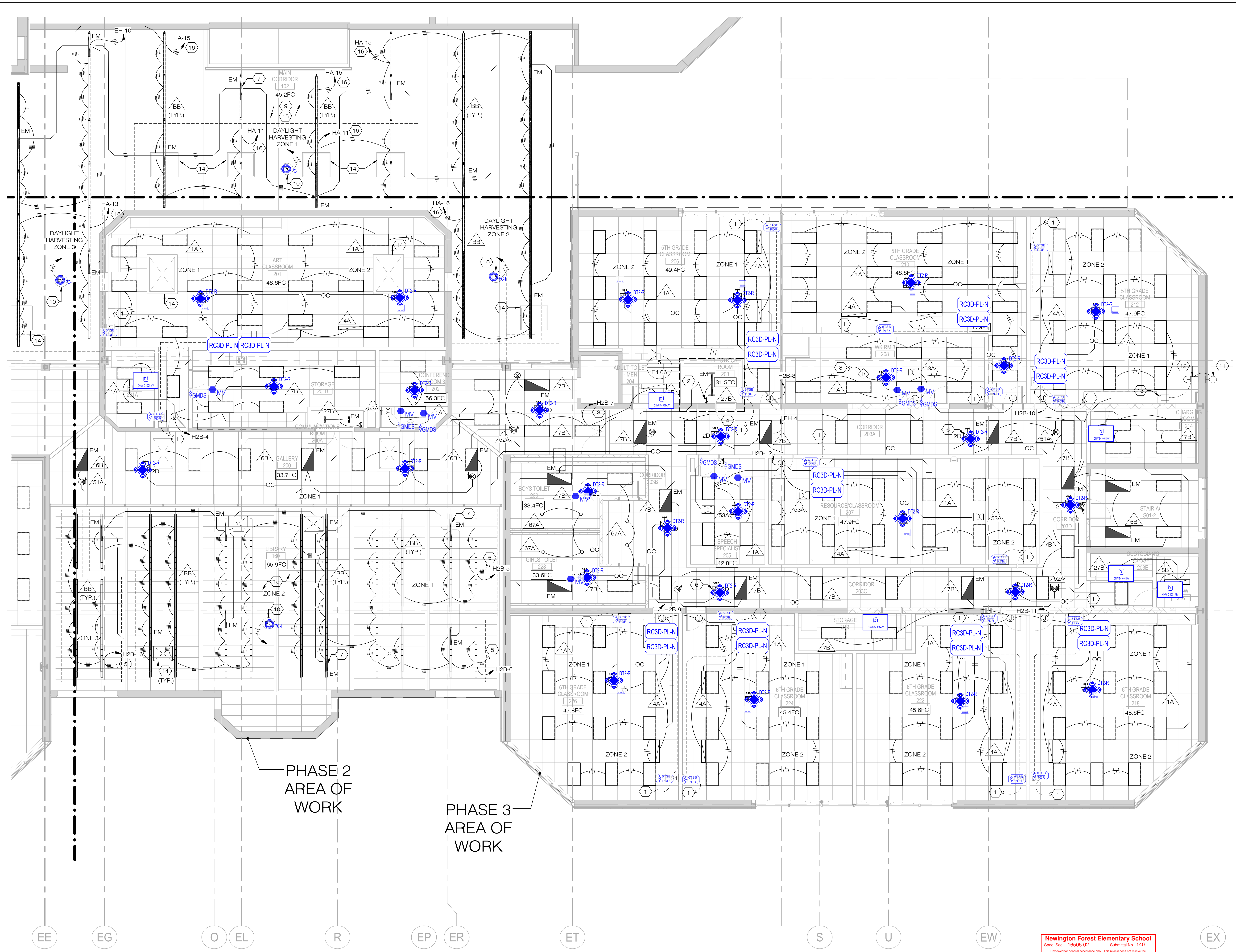
1 FIRST FLOOR LIGHTING PLAN AREA C-NEW WORK
E3.03 SCALE: NOT TO SCALE

Newington Forest Elementary School
Spec. No. 16505.02 Submittal No. 140
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MAKE CORRECTIONS NOTED
REVISE & RESUBMIT
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MERIDIAN CONSTRUCTION CO., INC.
By: [Signature] Date: 11/30/16

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REVISION 0.0	



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SENSOR LEGEND

QTY	SYMBOL	MODEL/DESCRIPTION
		-R = isolated relay -N = Neutral required
27		DT2R-2000R Microfit Dual Technology 2000 ft-cd ceiling sensor w/845 Relay & Daylight Sensor
4		PC-1 Analog Indoor Photosensor
6		B1-1001-MV-11 White Dual Technology Single Level Switch Sensor 120277
9		SP30-MV Switchpack Heavy Duty, 120227V
18		RC3D-PL-N Relay + 3 Dimmer Room Controller Network 12027VAC
11		OC2-R45 High Sensitivity Overrange Low Voltage Occupancy Sensor also BMS and Egress output Device
18		PDR-RC-6T5B White 6 Small Button Station Custom
7		GMD5-W Momentary Decorator Switch - White

EATON
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REVISION	0.0

1 SECOND FLOOR LIGHTING PLAN AREA B-NEW WORK
SCALE: 1/8" = 1'-0"

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MAKE CORRECTIONS NOTED
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PHASE 1
AREA OF
WORK

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SENSOR LEGEND

QTY	SYMBOL	MODEL DESCRIPTION
		-R = isolated relay -N = Neutral required
27		DAC-DT-2000-R MicroSet Dual Technology 2000 rch ceiling sensor w/8AS Relay & Daylight Sensor
6		DND-100-MV-W Dual Dual Technology Single Level Switch Sensor 100277
10		SGP3-MV Switchpack Heavy Duty, 120/277V
22		RC3D-PL-N Relay + 3 Dimmers Room Control Network 120277/AC
11		DCC-R45 Relay Standard Occupancy Low Voltage Occupancy Sensor 45-862 and 863 w/ 8AS output Device
22		PDR-RC-6TSB White 6 Small Button Station Custom
10		SGMDS-W Momentary Decorator Switch - White

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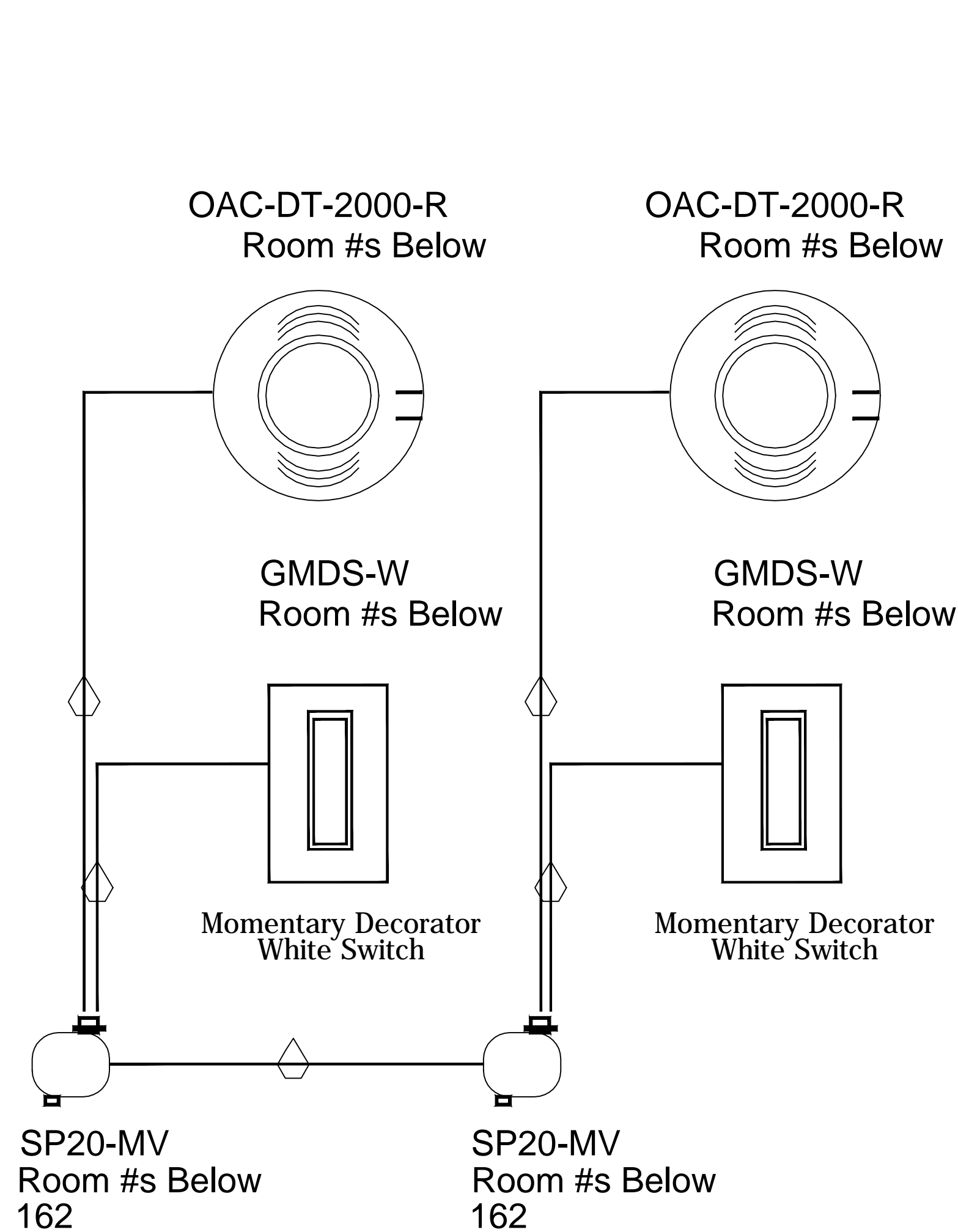
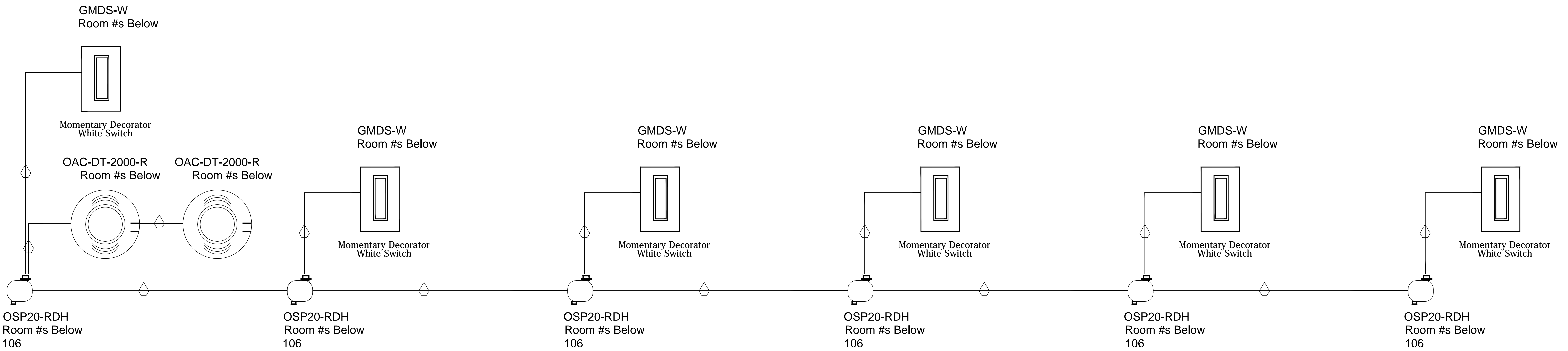
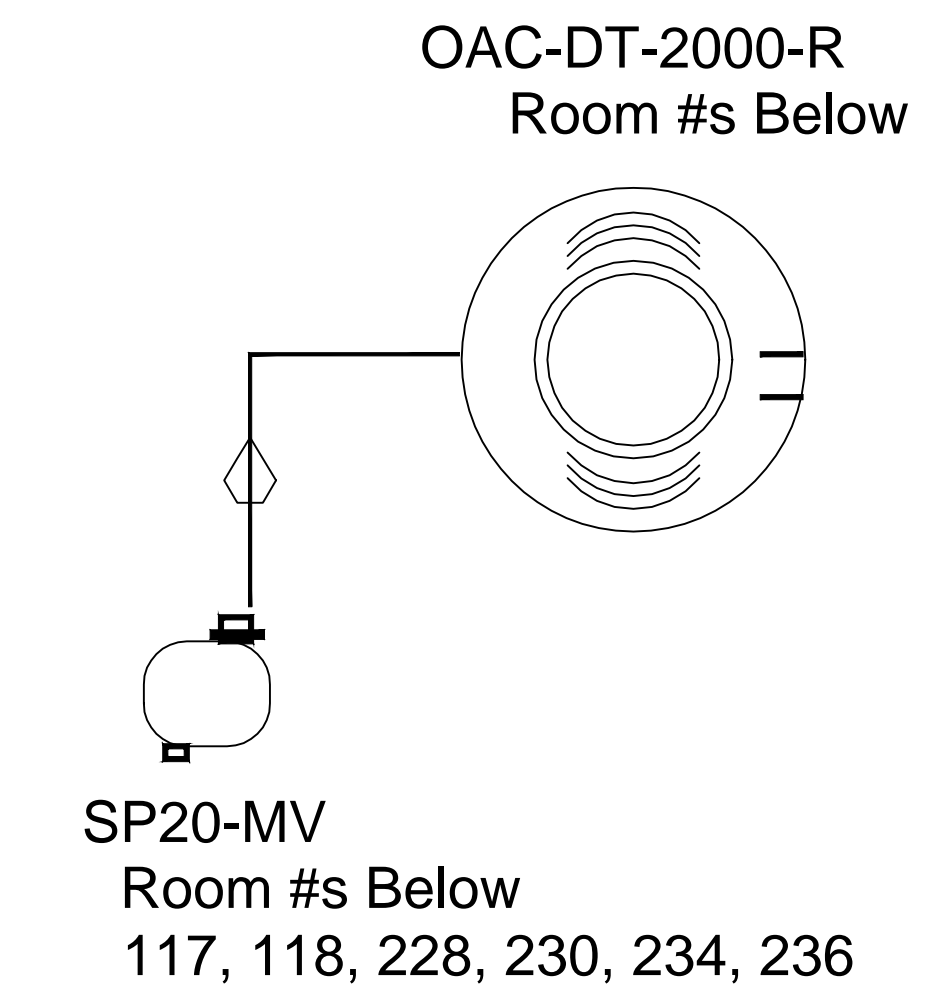
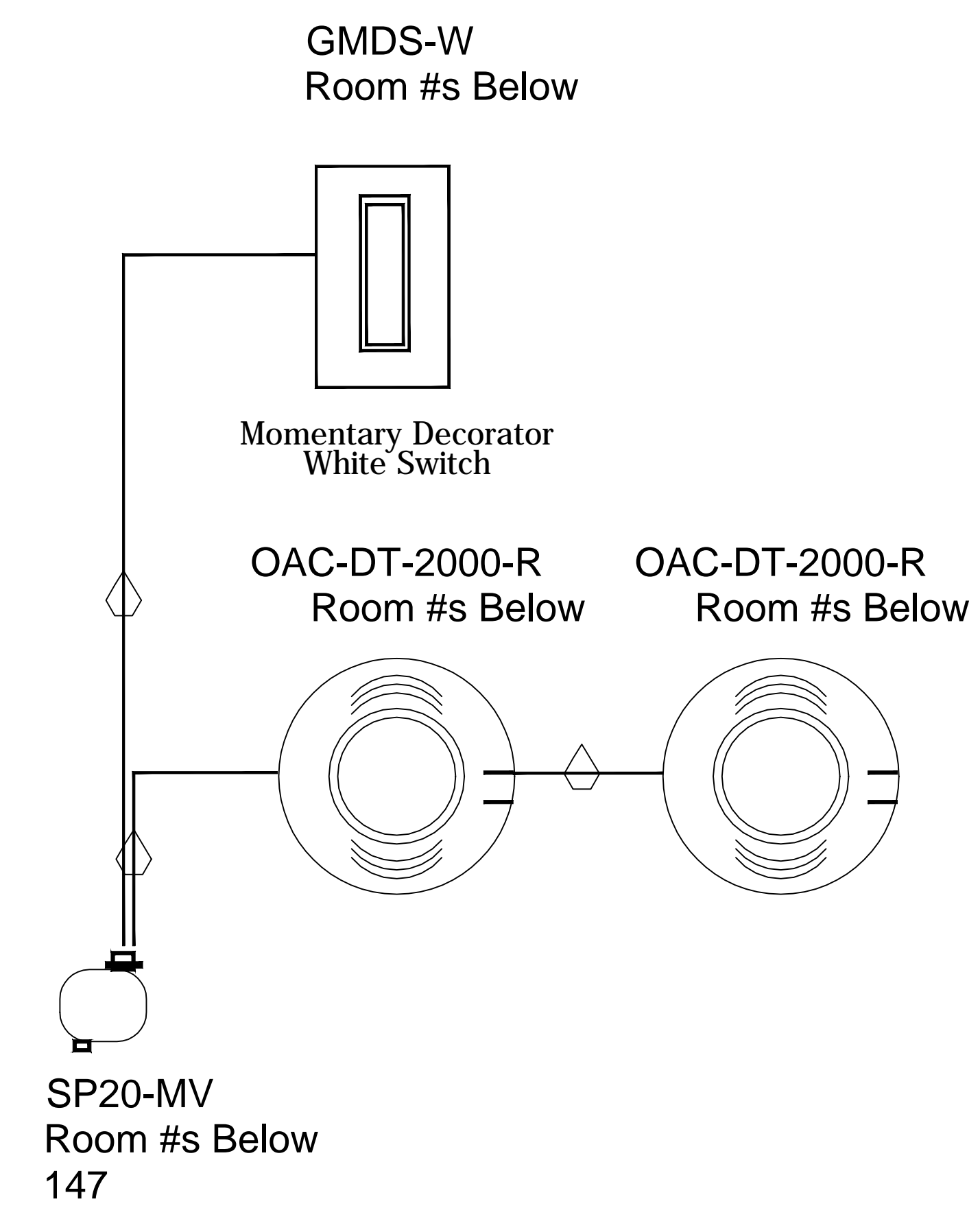
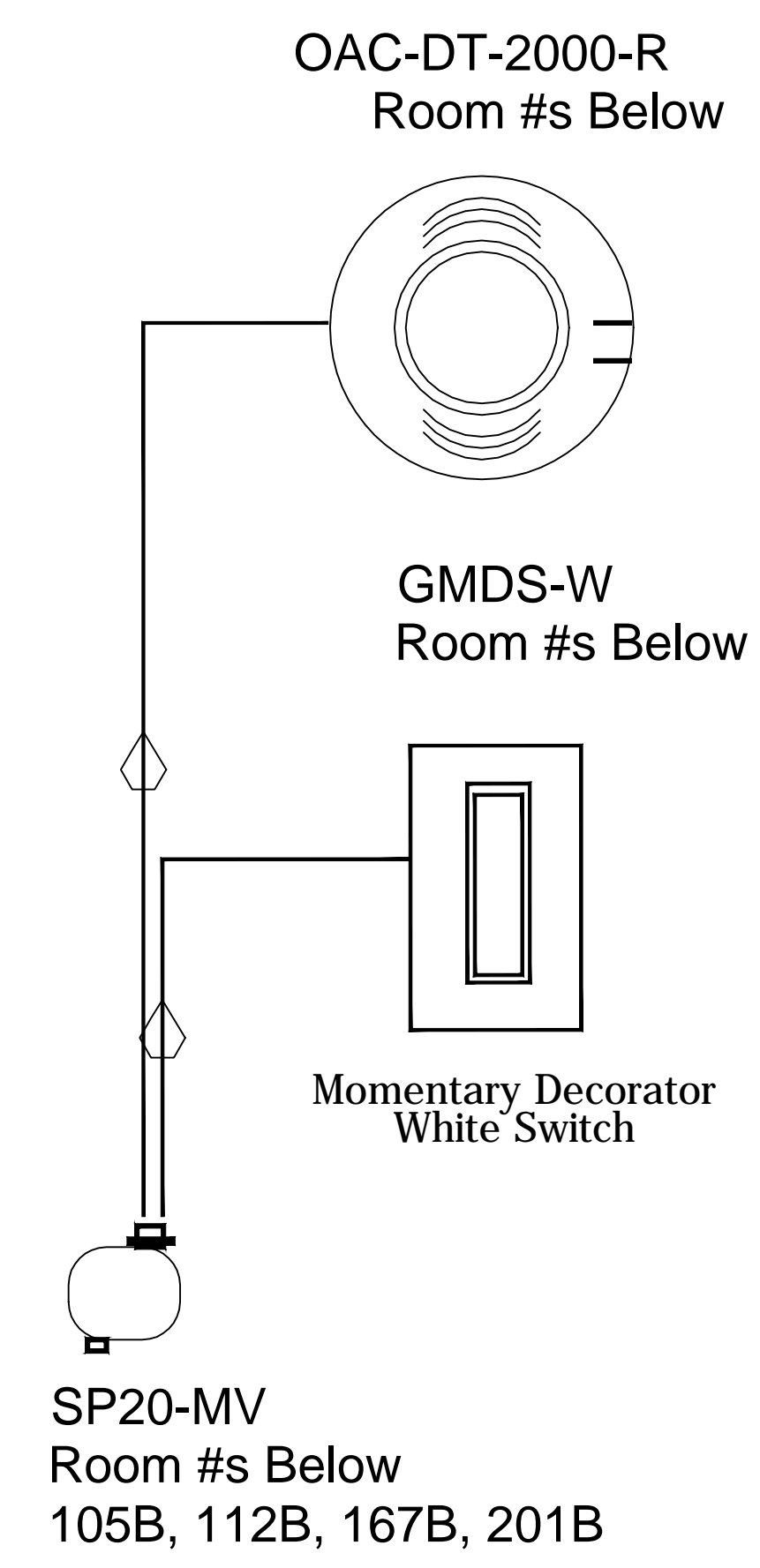
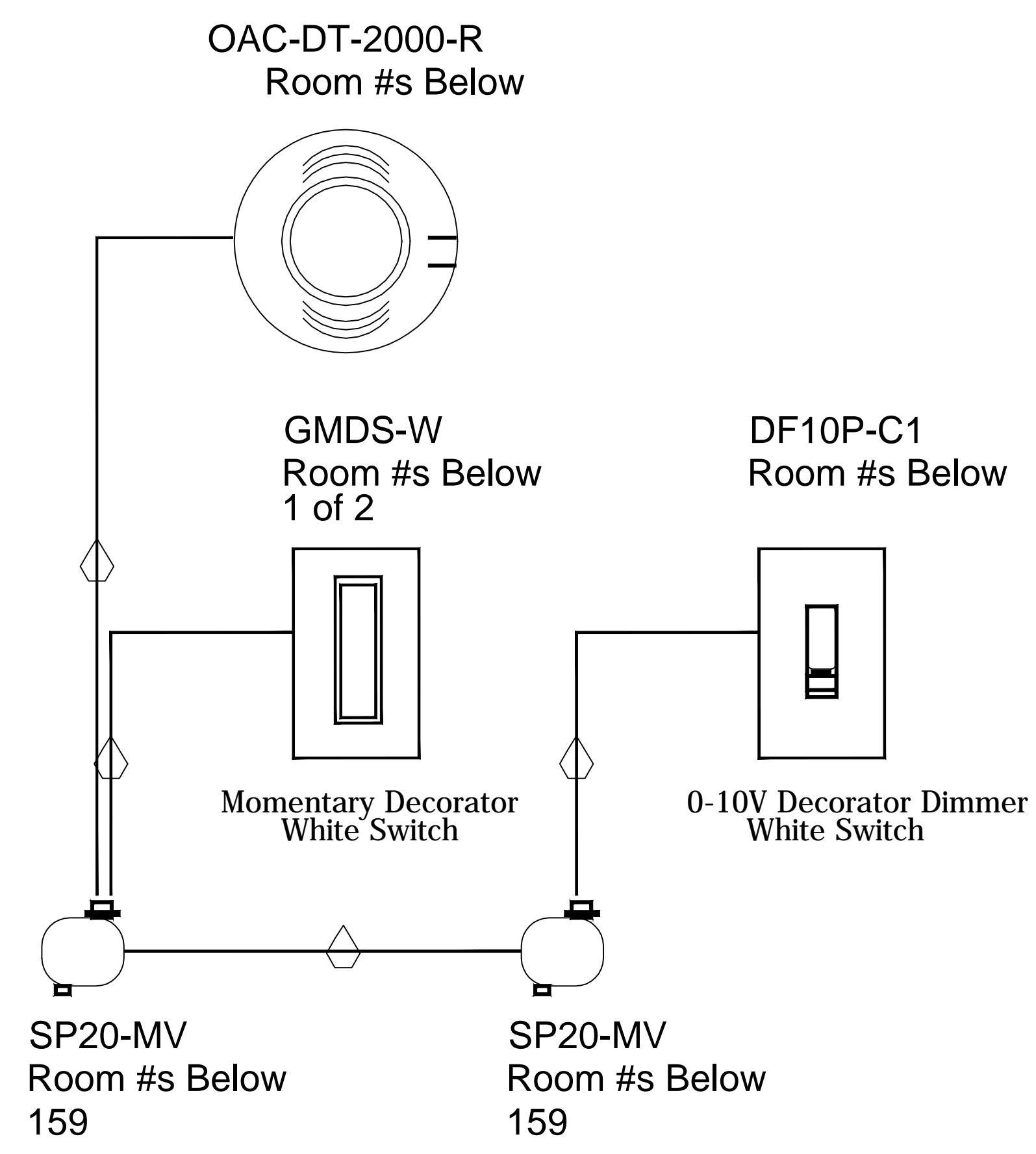
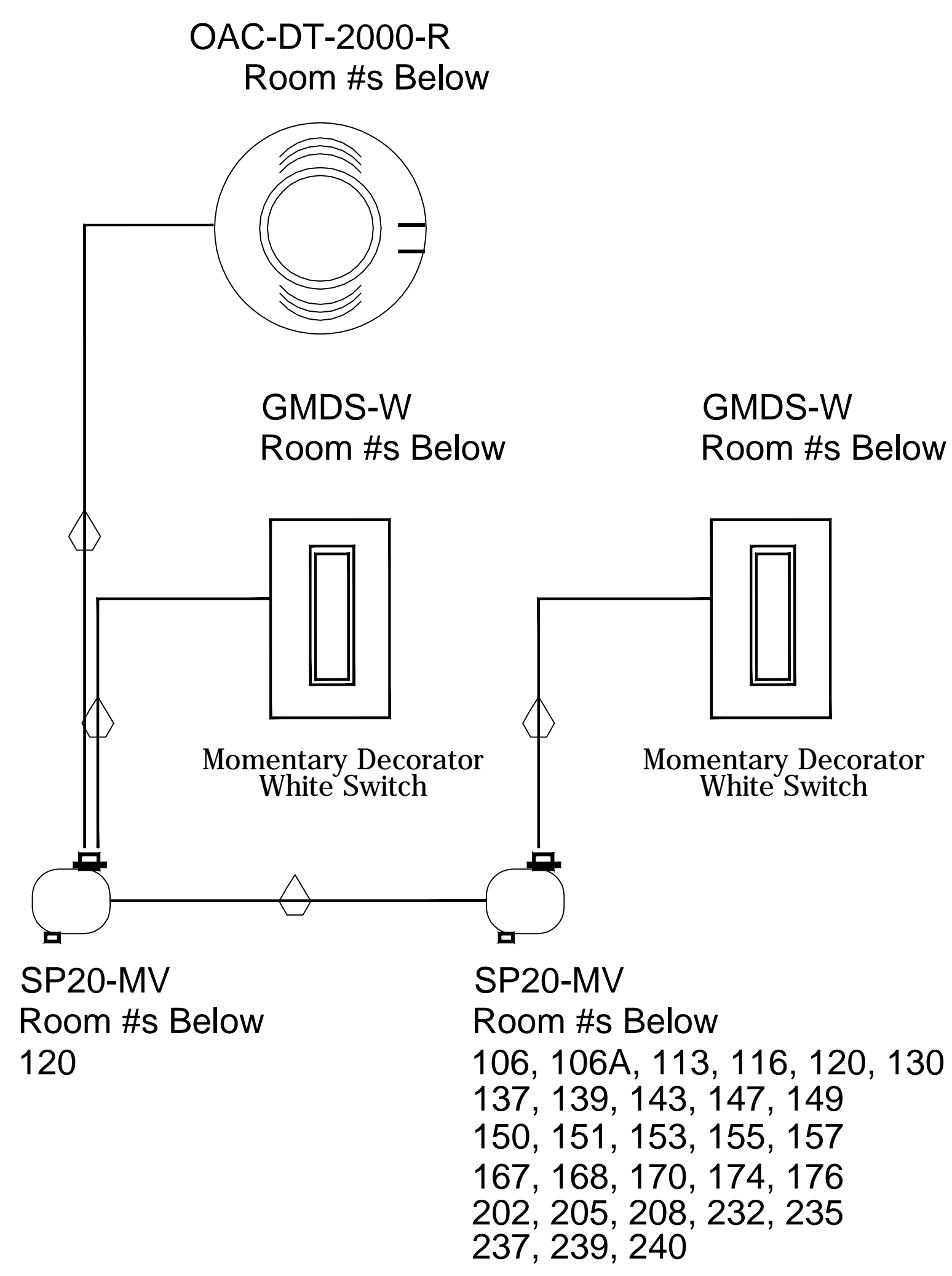
DATE	SHEET
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NO EXCEPTION TAKEN **XX**
MAKE CORRECTIONS NOTED
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REJECTED
MERIDIAN CONSTRUCTION CO., INC.
By: _____ Date: 11/30/16

1 SECOND FLOOR LIGHTING PLAN AREA C-NEW WORK
E3.05 SCALE: 1/8" = 1'-0"

C EA EB J L EB.3 M EC N ED EE

Riser and Wiring Diagrams



ONW-D-1001-MV-W
(55)
1 of Mezzanine
Typical of 16 1st Floor Area A
Typical of 11 1st Floor Area B
Typical of 15 1st Floor Area C
Typical of 6 2nd Floor Area B
Typical of 6 2nd Floor Area C

Notes

1	This one-line drawing is for concept only. Every wire is not shown. Wire according to the product installation / wiring instructions .
2	Refer to plans for locations, size and quantity.
3	Refer to all manufacturers installation instructions for correct wiring information

Cables

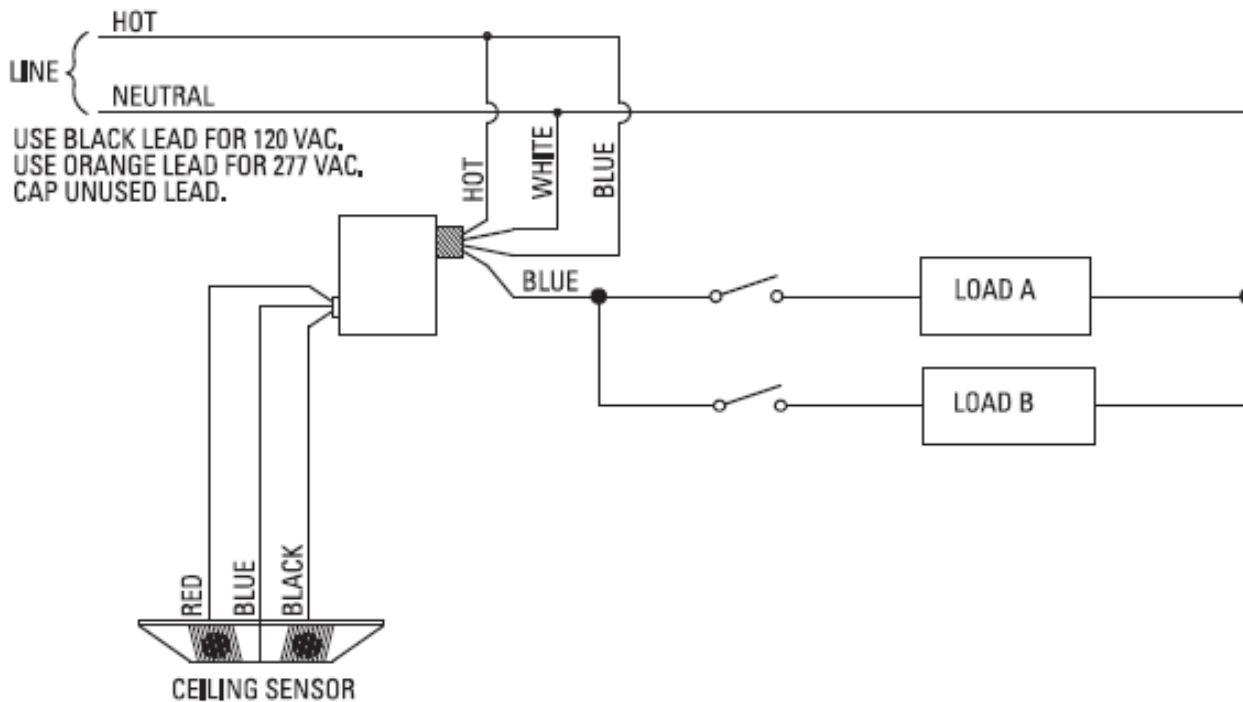
◇	RS485	RS-485 Network Cable, Eaton GG9841(Non Plenum), Eaton GG89841(Plenum) or equivalent
□	RS232	RS-232 Cable (6 feet), provided with product
○	CAN	Use Eaton Lighting systems LCCNP non-plenum cable or LCCP plenum cable.
◇	LV3	Low Voltage Input wire - #18 AWG, 3 conductor wire
○	LAN	LAN Cable, Category 5 cable provided by others
○	QC	Quick Connect Cable, Pre-Terminated RJ45 - Category 5 cable

Newington Forest Elementary School
Spec. Sec. 16505.02 Submittal No. 140
Reviewed for general compliance only. This review does not release the
subcontractor of the responsibility for making the work conform to the requirements
of the contract. This subcontractor is responsible for all drawings, coordination,
correct fabrication and accurate fit within the work of all other trades.

NO EXCEPTION TAKEN
MAKE CORRECTIONS NOTED
REVISE & RESUBMIT
REJECTED

MERIDIAN CONSTRUCTION CO., INC.
By: _____ Date: 11/30/16

A/B Switching



Title: Wiring Details

Product: (SP15 & SP20)

Heavy Duty Switchpack

EATON

Powering Business Worldwide

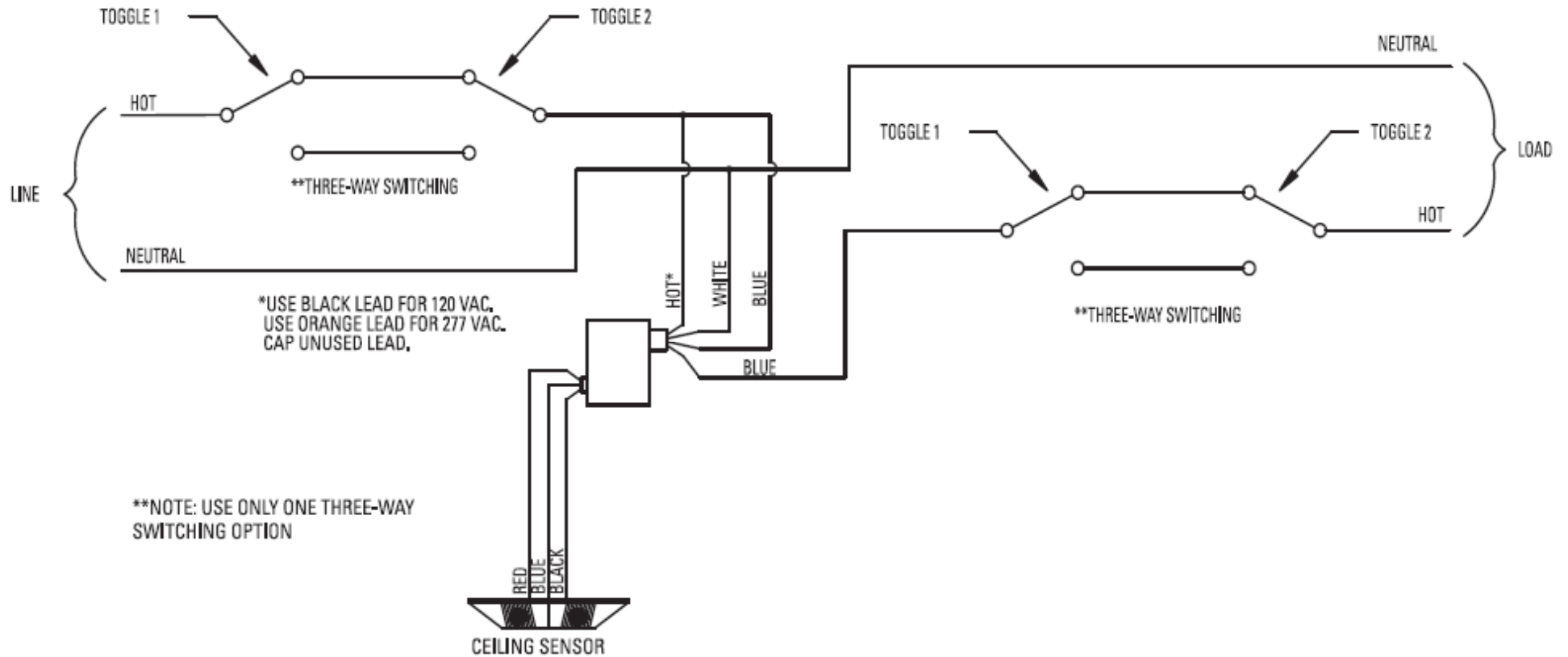
Eaton

1121 Highway 74 South
Peachtree City, GA 30269

Date:

Project:

Three Way Switching



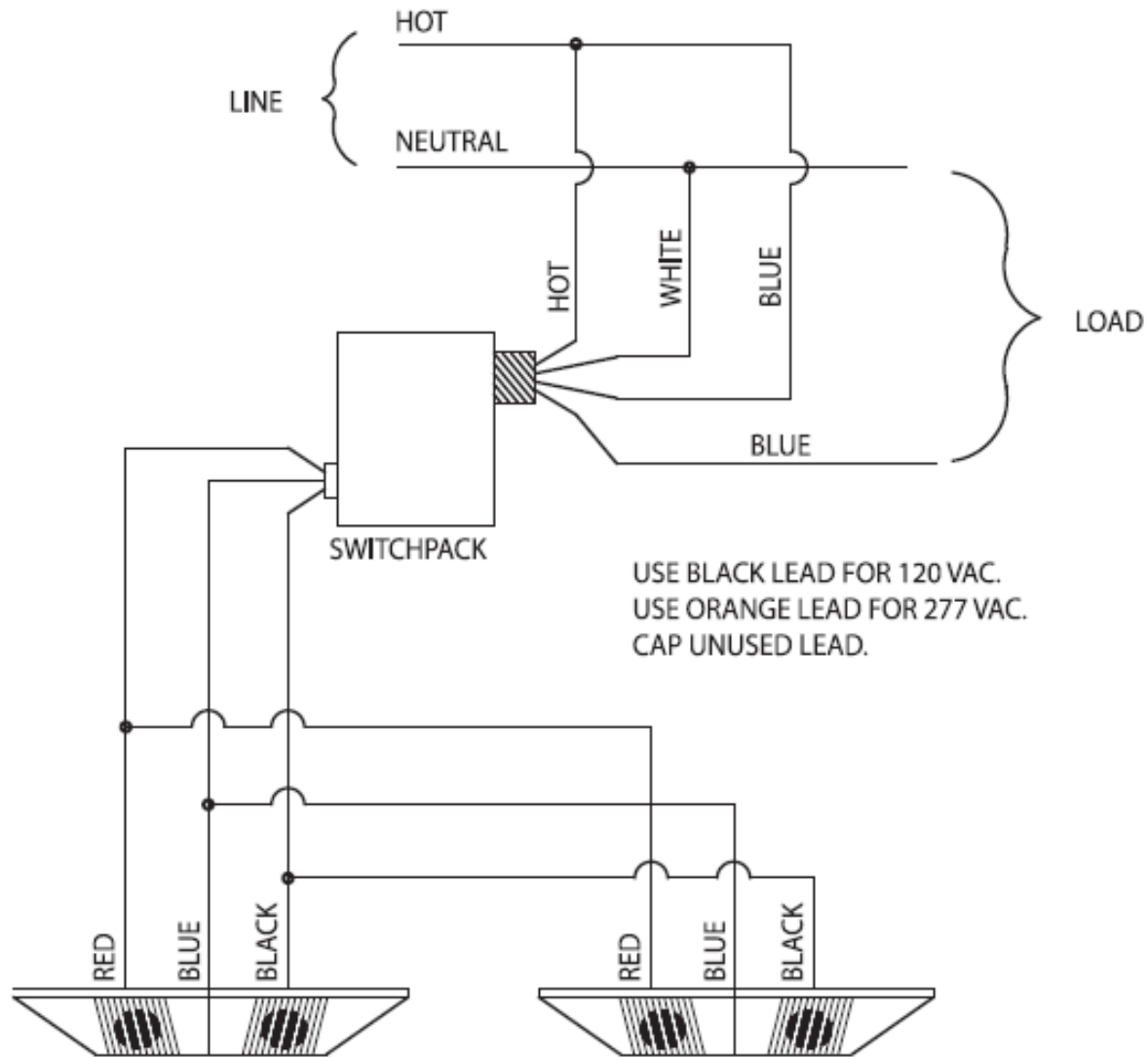
Title: Wiring Details
Product: (SP15 & SP20)
Heavy Duty Switchpack



Eaton
 1121 Highway 74 South
 Peachtree City, GA 30269

Date:
Project:

1 Circuit, 2 or more sensors



Title: Wiring Details
Product: (SP15 & SP20)
Heavy Duty Switchpack



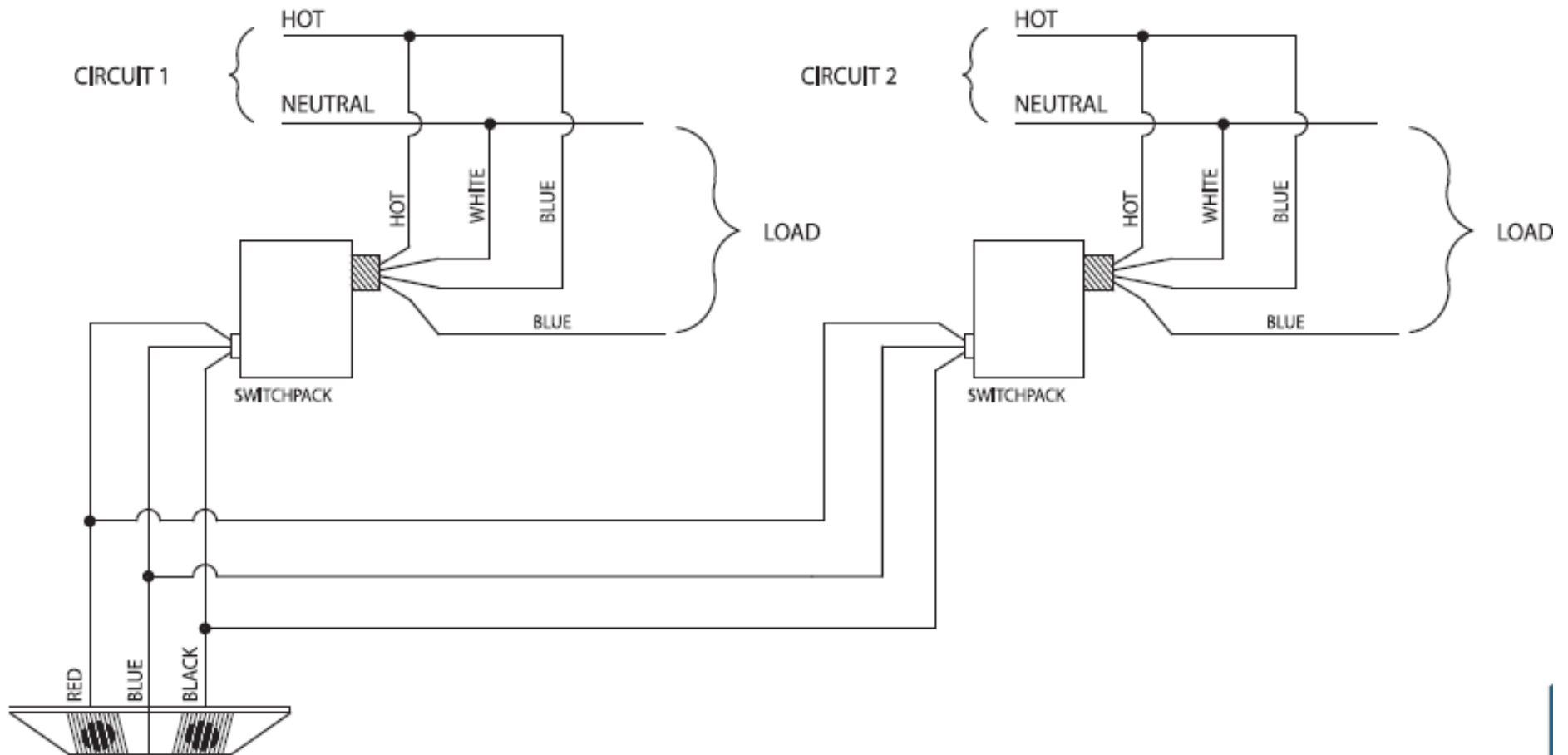
Eaton
1121 Highway 74 South
Peachtree City, GA 30269

Date:
Project:

2 Circuits, 1 Sensor

USE BLACK LEAD FOR 120 VAC.
USE ORANGE LEAD FOR 277 VAC.
CAP UNUSED LEAD.

USE BLACK LEAD FOR 120 VAC.
USE ORANGE LEAD FOR 277 VAC.
CAP UNUSED LEAD.



Title: Wiring Details

Product: (SP15 & SP20)

Heavy Duty Switchpack

EATON

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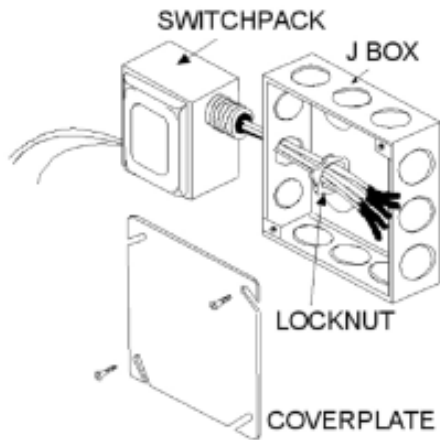
Eaton

1121 Highway 74 South

Peachtree City, GA 30269

Date:

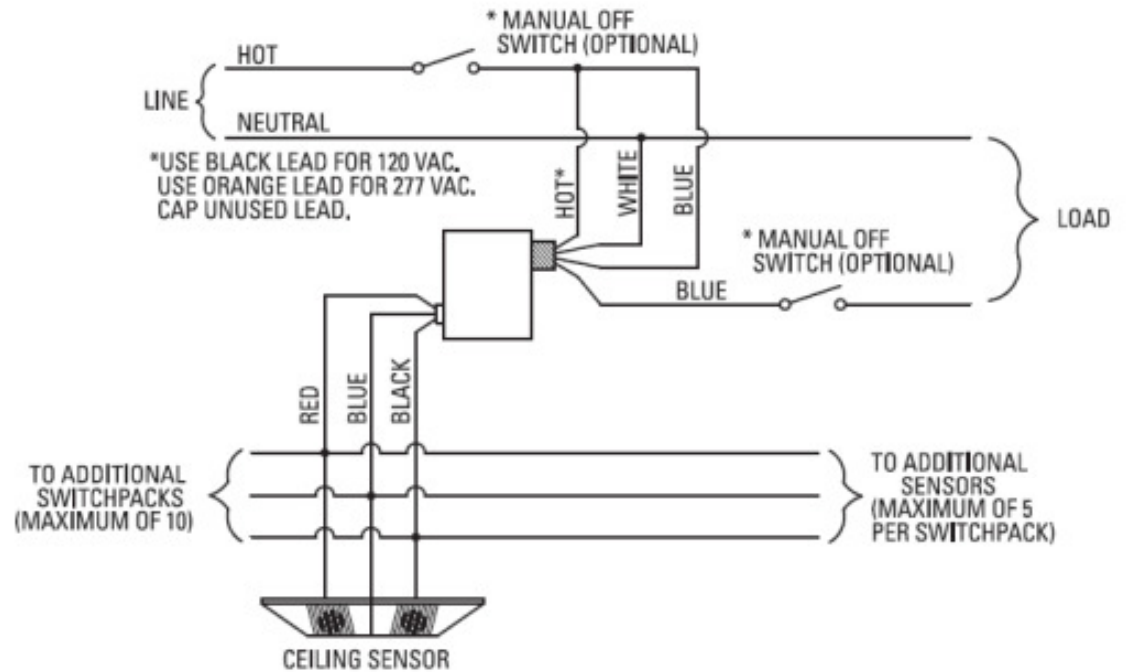
Project:



All connections are made via pigtails with twist-on wire connectors.

NOTE: Connect either the orange or black supply lead to the power source depending upon the power requirements. Cap the unused lead.

Standard Configuration

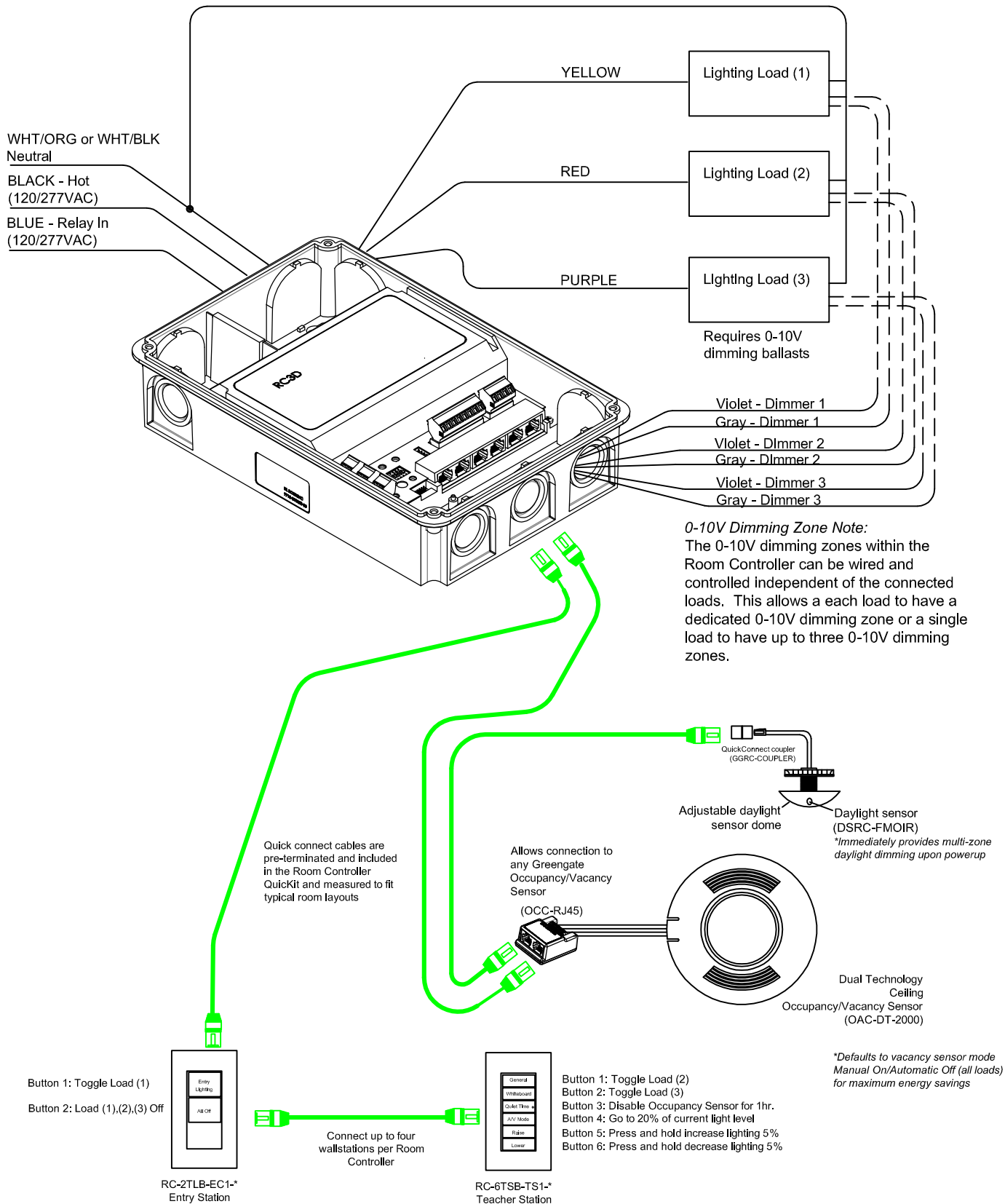


Title: Wiring Details
Product: (SP15 & SP20)
Heavy Duty Switchpack



Eaton
 1121 Highway 74 South
 Peachtree City, GA 30269

Date:
Project:



0-10V Dimming Zone Note:
 The 0-10V dimming zones within the Room Controller can be wired and controlled independent of the connected loads. This allows each load to have a dedicated 0-10V dimming zone or a single load to have up to three 0-10V dimming zones.

Room Controller and Smart Devices use Click & Go technology:

The RC3D will automatically recognize any smart device connected with the quick connect cable (provided) and start working immediately upon power up with no programming required. The RC3D defaults to Manual On/Automatic Off vacancy sensor mode for maximum energy savings. Entry wallstations will provide On/Off control of the Yellow load. Teacher stations provide On/Off control of the Red and Purple loads as well as manual Raise/Lower of all dimmers.

The daylight sensor will automatically on power up provide multi-zone daylight dimming in the space. (remote adjustments can be made later)

*Refer to Room Controller website for more information on other integral no programming required benefits like Demand Response, Solatube Control, Egress Control, BMS Output, Alert Mode, Emergency Lighting Control, and Slider Stations.

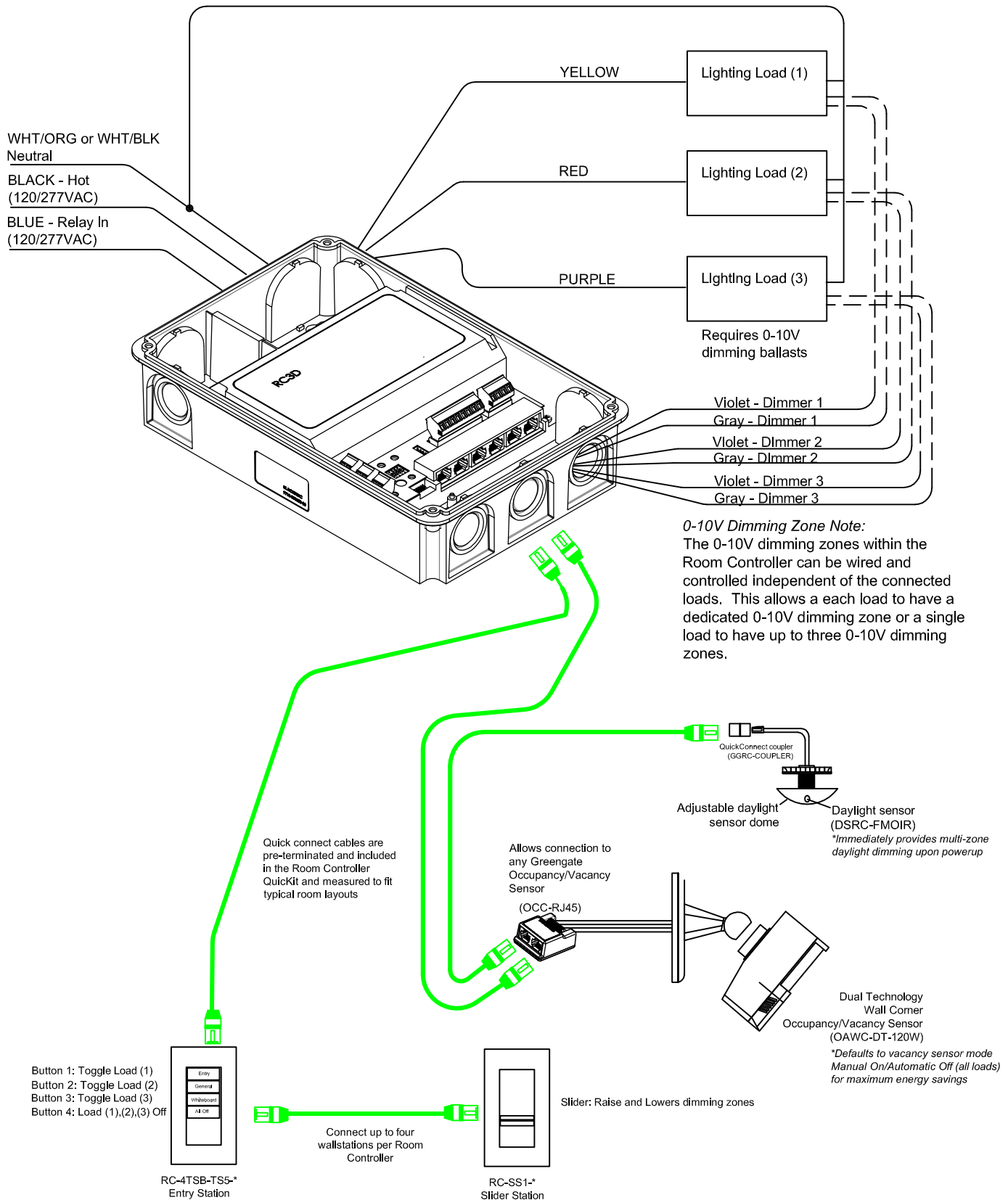
Cooper Controls

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 Fax: +1-800-954-7016
 Email: controls@cooperindustries.com
 Website: www.coopercontrol.com

Room Controller - RC3D
 Three Relay + Three Dimmers Wiring Diagram

Drawing Name:
 RC3D-BasicClassroom.dwg

Drawing Date:
 1/10/2013



Room Controller and Smart Devices use Click & Go technology:

The RC3D will automatically recognize any smart device connected with the quick connect cable (provided) and start working immediately upon power up with no programming required.

The RC3D defaults to Manual On/Automatic Off vacancy sensor mode for maximum energy savings. Entry wallstations will provide On/Off control of the Yellow load. Teacher stations provide On/Off control of the Red and Purple loads as well as manual Raise/Lower of all dimmers.

The daylight sensor will automatically on power up provide multi-zone daylight dimming in the space. (remote adjustments can be made later)

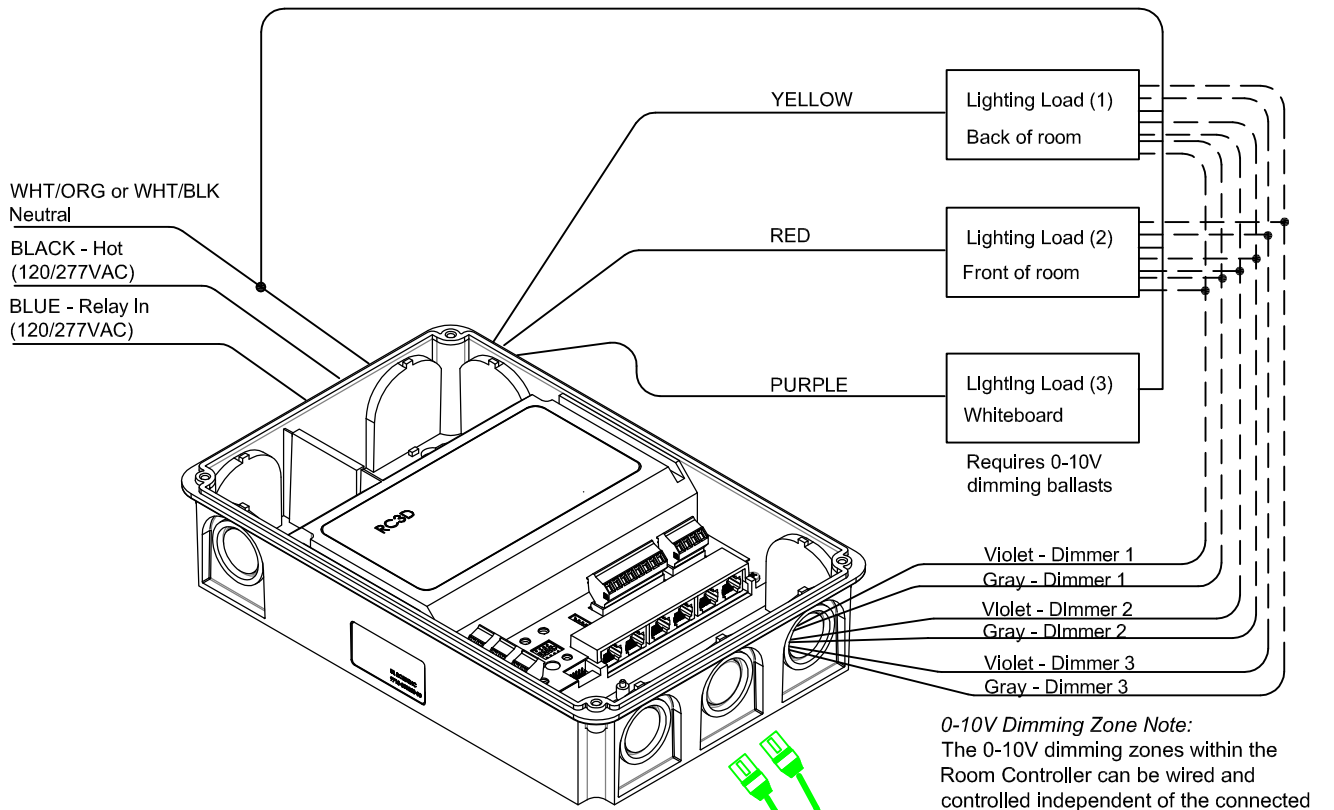
*Refer to Room Controller website for more information on other integral no programming required benefits like Demand Response, Solatube Control, Egress Control, BMS Output, Alert Mode, Emergency Lighting Control, and Slider Stations.

Cooper Controls

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Room Controller - RC3D
 Three Relay + Three Dimmers Wiring Diagram

Drawing Name: RC3D-SliderClassroom.dwg	Drawing Date: 1/10/2013
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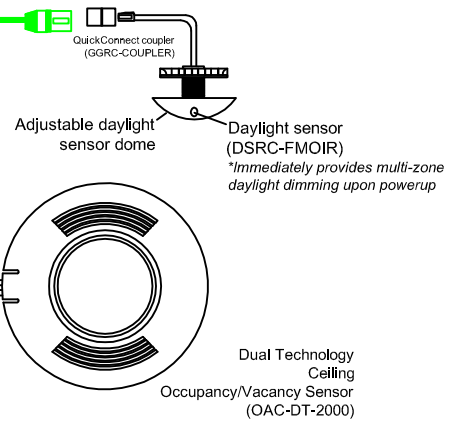


0-10V Dimming Zone Note:
 The 0-10V dimming zones within the Room Controller can be wired and controlled independent of the connected loads. This allows each load to have a dedicated 0-10V dimming zone or a single load to have up to three 0-10V dimming zones.

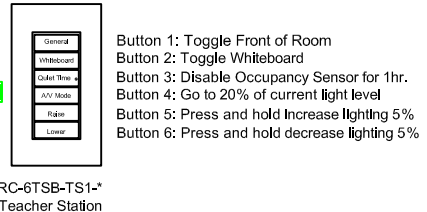
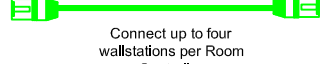
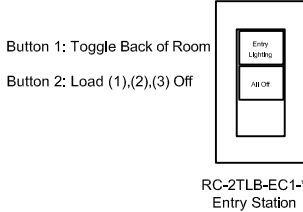
Wiring Notes:
 This application shows two loads associated with all three dimmers. This allows the space to be laid out with a Front and Back On/Off zone or Direct/Indirect and up to three rows of daylighting.

Quick connect cables are pre-terminated and included in the Room Controller QuickKit and measured to fit typical room layouts

Allows connection to any Greengate Occupancy/Vacancy Sensor (OCC-RJ45)

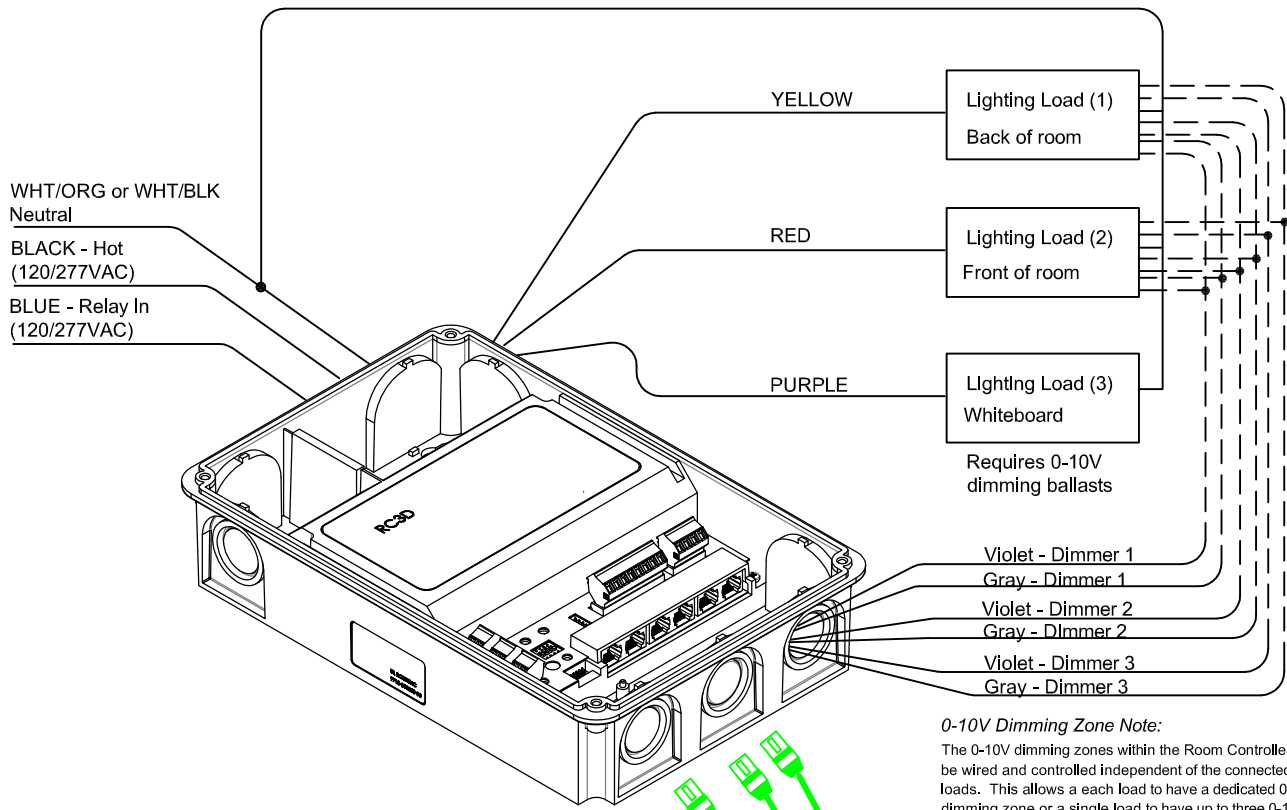


*Defaults to vacancy sensor mode
 Manual On/Automatic Off (all loads)
 for maximum energy savings



Room Controller and Smart Devices use Click & Go technology:
 The RC3D will automatically recognize any smart device connected with the quick connect cable (provided) and start working immediately upon power up with no programming required. The RC3D defaults to Manual On/Automatic Off vacancy sensor mode for maximum energy savings. Entry wallstations will provide On/Off control of the Yellow load. Teacher stations provide On/Off control of the Red and Purple loads as well as manual Raise/Lower of all dimmers. The daylight sensor will automatically on power up provide multi-zone daylight dimming in the space. (remote adjustments can be made later)
 *Refer to Room Controller website for more information on other integral no programming required benefits like Demand Response, Solatube Control, Egress Control, BMS Output, Alert Mode, Emergency Lighting Control, and Slider Stations.

<h1>Cooper Controls</h1>	
203 Cooper Circle Peachtree City, GA 30269. USA	Tel: +1-800-553-3879 Fax: +1-800-954-7016 Email: controls@cooperindustries.com Website: www.coopercontrol.com
Room Controller - RC3D Three Relay + Three Dimmers Wiring Diagram	
Drawing Name: RC3D-FrontBackClassroom.dwg	Drawing Date: 1/10/2013



0-10V Dimming Zone Note:

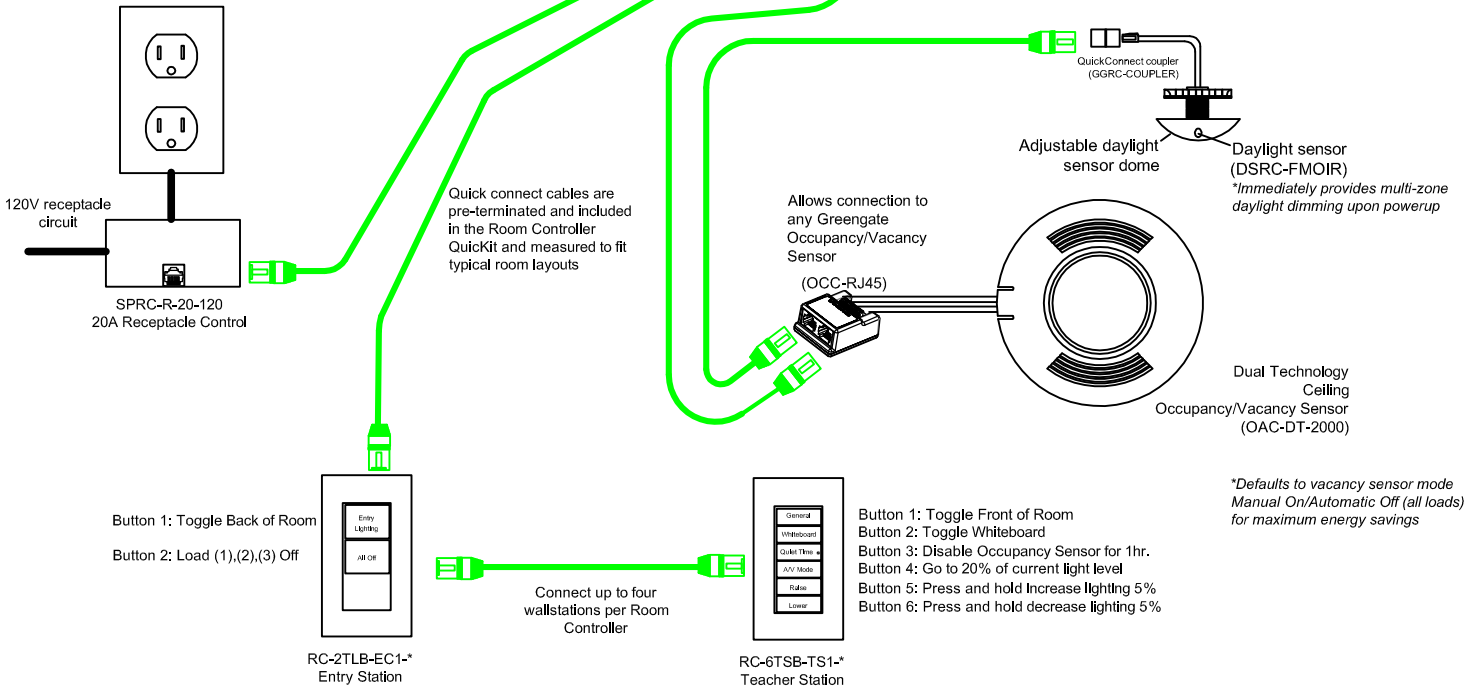
The 0-10V dimming zones within the Room Controller can be wired and controlled independent of the connected loads. This allows each load to have a dedicated 0-10V dimming zone or a single load to have up to three 0-10V dimming zones.

Wiring Notes:

This application shows two loads associated with all three dimmers. This allows the space to be laid out with a Front and Back On/Off zone or Direct/Indirect and up to three rows of daylighting.

Receptacle Control:

20Amp 120VAC receptacle control immediately works upon power up and connection to the Room Controller. Receptacle turns On by button press or occupancy and Off when space is vacant.



Room Controller and Smart Devices use Click & Go technology:

The RC3D will automatically recognize any smart device connected with the quick connect cable (provided) and start working immediately upon power up with no programming required.

The RC3D defaults to Manual On/Automatic Off vacancy sensor mode for maximum energy savings. Entry wallstations will provide On/Off control of the Yellow load. Teacher stations provide On/Off control of the Red and Purple loads as well as manual Raise/Lower of all dimmers.

The daylight sensor will automatically on power up provide multi-zone daylight dimming in the space. (remote adjustments can be made later)

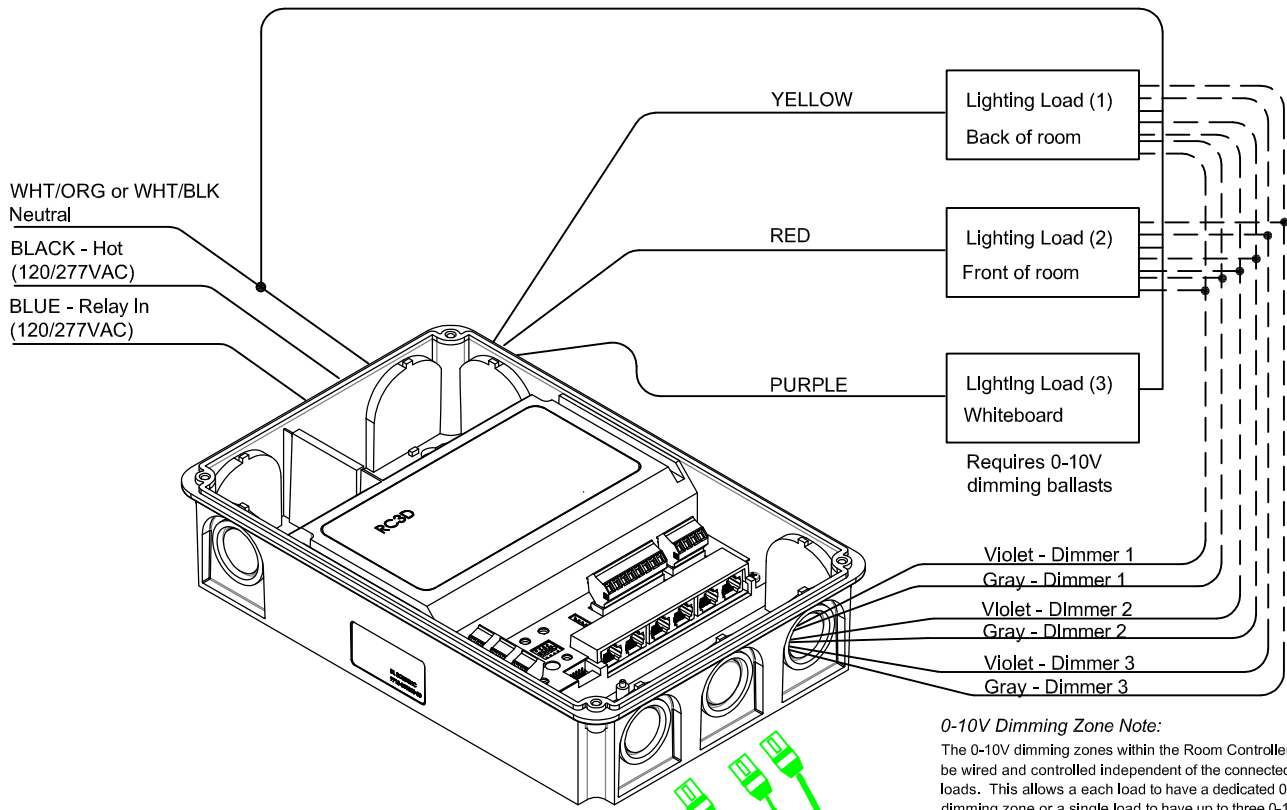
*Refer to Room Controller website for more information on other integral no programming required benefits like Demand Response, Solatube Control, Egress Control, BMS Output, Alert Mode, Emergency Lighting Control, and Slider Stations.

Cooper Controls

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Room Controller - RC3D
 Three Relay + Three Dimmers Wiring Diagram

Drawing Name: RC3D-ClassroomReceptacle.dwg	Drawing Date: 1/10/2013
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0-10V Dimming Zone Note:

The 0-10V dimming zones within the Room Controller can be wired and controlled independent of the connected loads. This allows a each load to have a dedicated 0-10V dimming zone or a single load to have up to three 0-10V dimming zones.

Wiring Notes:

This application shows two loads associated with all three dimmers. This allows the space to be laid out with a Front and Back On/Off zone or Direct/Indirect and up to three rows of daylighting.

BMS/ Egress Output:

Occupancy status output to the Building Management System or other 3rd party system require no programming of the Room Controller and occurs when ever there is occupancy in the room regardless of light output status.

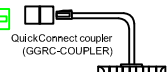


(OCC-RJ45)

Quick connect cables are pre-terminated and included in the Room Controller QuickKit and measured to fit typical room layouts

Allows connection to any Greengate Occupancy/Vacancy Sensor

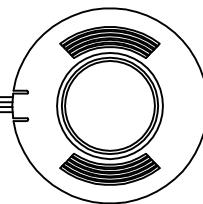
(OCC-RJ45)



Adjustable daylight sensor dome

Daylight sensor (DSRC-FMOIR)

*Immediately provides multi-zone daylight dimming upon powerup



Dual Technology Ceiling Occupancy/Vacancy Sensor (OAC-DT-2000)

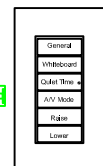
*Defaults to vacancy sensor mode Manual On/Automatic Off (all loads) for maximum energy savings

- Button 1: Toggle Back of Room
- Button 2: Load (1),(2),(3) Off



RC-2TLB-EC1-*
Entry Station

Connect up to four wallstations per Room Controller



RC-6TSB-TS1-*
Teacher Station

- Button 1: Toggle Front of Room
- Button 2: Toggle Whiteboard
- Button 3: Disable Occupancy Sensor for 1hr.
- Button 4: Go to 20% of current light level
- Button 5: Press and hold Increase lighting 5%
- Button 6: Press and hold decrease lighting 5%

Room Controller and Smart Devices use Click & Go technology:

The RC3D will automatically recognize any smart device connected with the quick connect cable (provided) and start working immediately upon power up with no programming required.

The RC3D defaults to Manual On/Automatic Off vacancy sensor mode for maximum energy savings. Entry wallstations will provide On/Off control of the Yellow load. Teacher stations provide On/Off control of the Red and Purple loads as well as manual Raise/Lower of all dimmers.

The daylight sensor will automatically on power up provide multi-zone daylight dimming in the space. (remote adjustments can be made later)

*Refer to Room Controller website for more information on other integral no programming required benefits like Demand Response, Solatube Control, Egress Control, BMS Output, Alert Mode, Emergency Lighting Control, and Slider Stations.

Cooper Controls

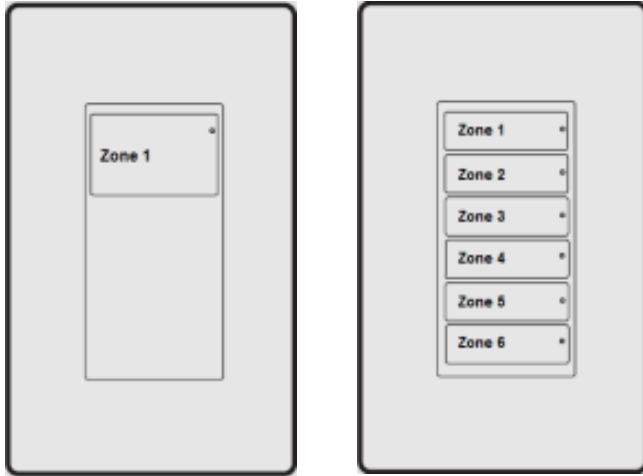
203 Cooper Circle
Peachtree City,
GA 30269, USA
Tel: +1-800-553-3879
Fax: +1-800-954-7016
Email: controls@cooperindustries.com
Website: www.coopercontrol.com

Room Controller - RC3D
Three Relay + Three Dimmers Wiring Diagram

Drawing Name: RC3D-ClassroomBMS-Egress.dwg	Drawing Date: 1/10/2013
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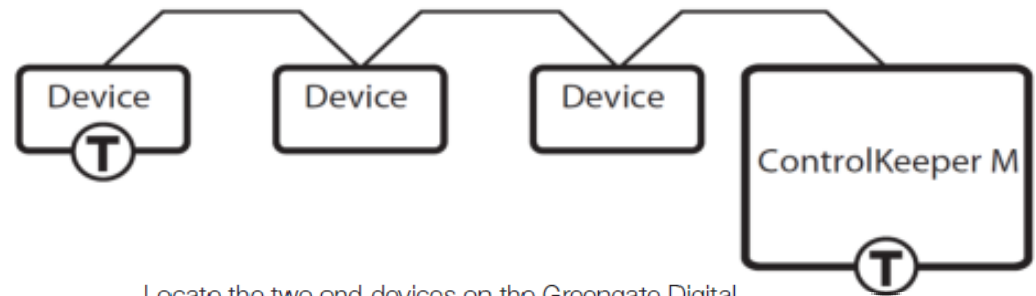
General information

ControlKeeper M lighting panels are compatible with Greengate Digital Switches (GDS). Greengate Digital Switches are networkable, intelligent, low-voltage switches. Greengate Digital Switches are proprietary to Cooper Controls. Digital switches from other manufacturers are not compatible with the system. GDS Stations are available in large button and small button configurations which offer 1 to 6 buttons per station.

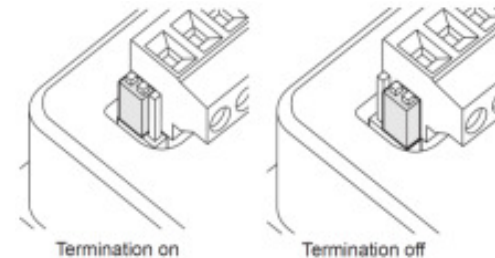


Each ControlKeeper M panel has a connection terminal block which allows one GDS switch network to connect directly to the motherboard. Each GDS switch network is capable of powering and supporting up to 32 GDS stations over a 1000 foot (300 meter) distance.

The GDS network is a daisy chain configuration with two distinct ends. The two end devices will be terminated using onboard termination jumpers. Prior to wiring, map out the proposed wiring route to ensure correct installation.



Locate the two end devices on the Greengate Digital Switch network. These two devices should have their termination jumpers in the 'Terminated' position. The remaining devices on the GDS network should have their termination jumpers in the OFF position. Termination jumpers are located on the back of the GDS switch directly next to the GDS network terminal block. On the ControlKeeper M, the termination jumper is below the GDS network wiring terminal block.



Title: General/Network Detail

Product: Greengate Digital Switch



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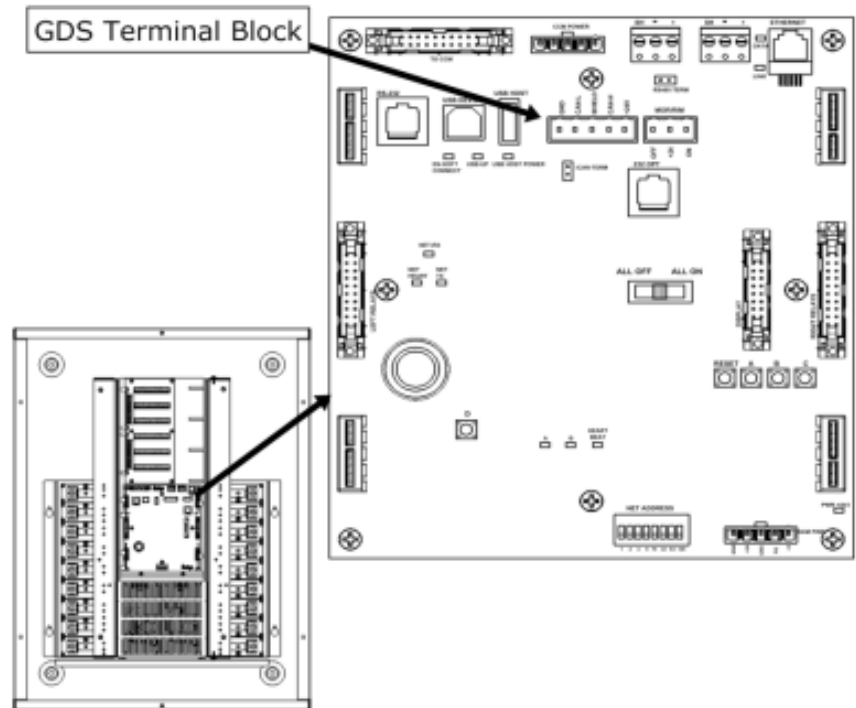
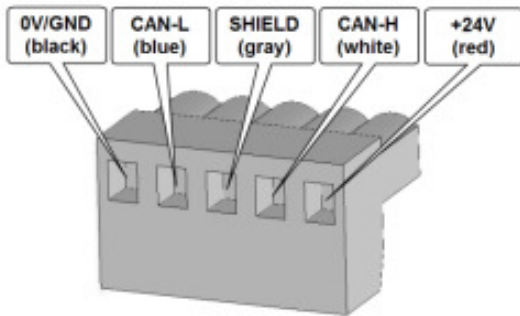
Date:

Project:

The ControlKeeper M can be wired into the GDS daisy chain anywhere within the network. All GDS wiring should be done using Cooper LCCNP (non plenum), Cooper LCCP (plenum), Belden 1502R (non-plenum) or 1502P (plenum) cable. For best network performance, one of the suggested cables should be used. If the specified cable is not used and communications problems occur that require troubleshooting assistance, additional charges will apply.

All stations and the CKM terminal block follow the same wiring scheme:

- +24V = Red Wire
- CAN-H = White Wire
- Shield = Shield Wire
- CAN-L = Blue Wire
- GND/0V = Black Wire



Title: Network Wiring Detail

Product: Greengate Digital Switch



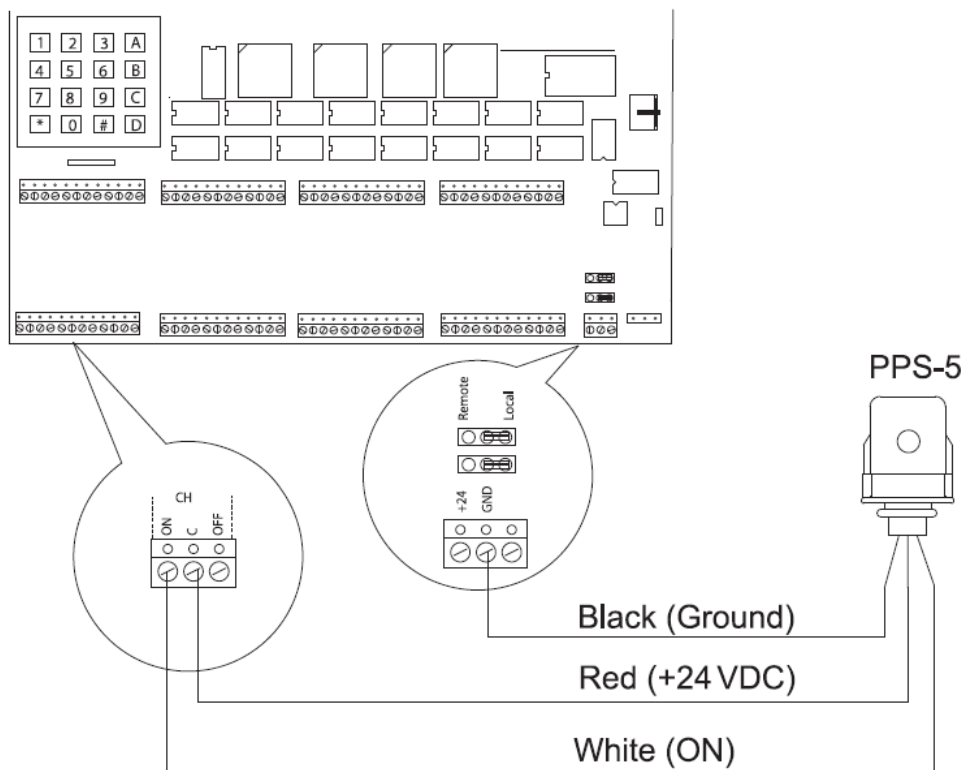
Eaton
1121 Highway 74 South
Peachtree City, GA 30269

Date:

Project:

The Outdoor Contact Input Photosensor (PPS-5) can be used with any Greengate lighting controller. It is made with a weatherproof casing allowing outdoor application and can operate with temperatures from -40° to 158° F.

The photosensor is powered directly from the Greengate Lighting Controller 24VDC peripheral power terminal.



Title: General Information

Product: Contact Input Photocells

COOPER Controls

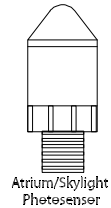
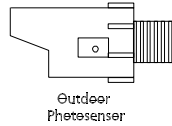
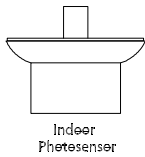
203 Cooper Circle
Peachtree City,
GA 30269. USA

Tel: +1-800-553-3879
Fax: +1-800-954-7016
Email: controls@cooperindustries.com

Date:

Project:

PC-I	Indoor Photosensor
PC-O	Outdoor Photosensor
PC-S	Skylight Photosensor
PC-A	Atrium Photosensor



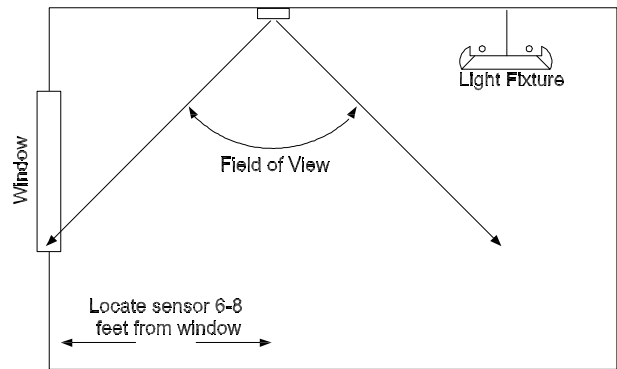
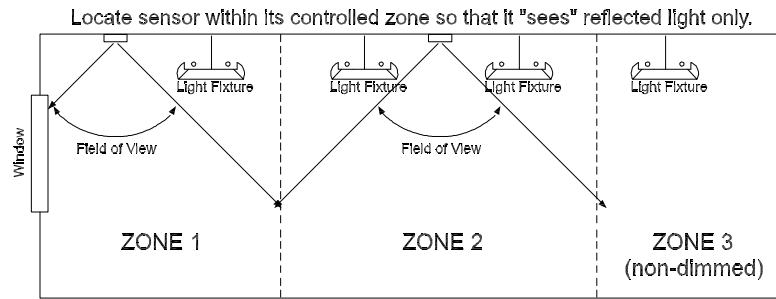
Title: Photocell Type Diagrams
Application: Analog Photocells


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Fax: +1-800-954-7016
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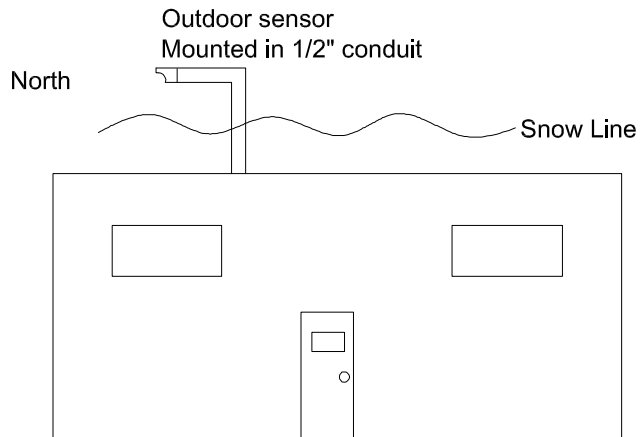
Date:
Project:



Title: Photocell Placement Diagrams
 Application: Analog Photocells

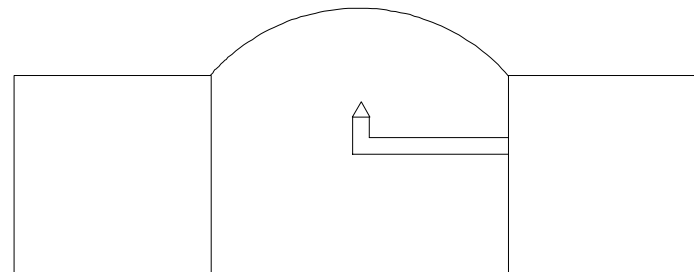
COOPER Controls
 203 Cooper Circle Tel: +1-800-553-3879
 Peachtree City, GA 30269. USA Fax: +1-800-954-7016
 Email: controls@cooperindustries.com

Date:
 Project:

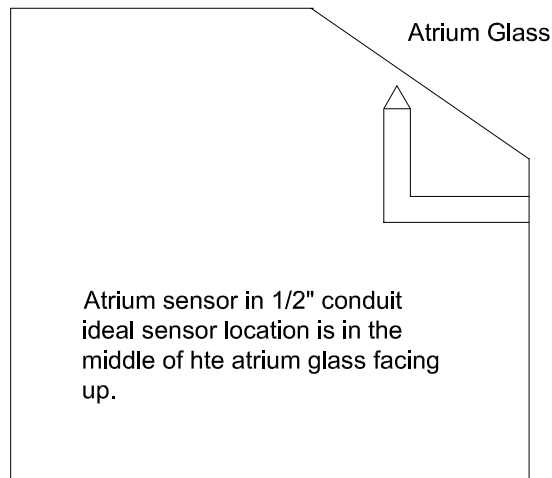


Outside sensor mounted horizontally on roof or equal, facing northern sky.

Hooded portion on top, facing away from any nighttime light sources.



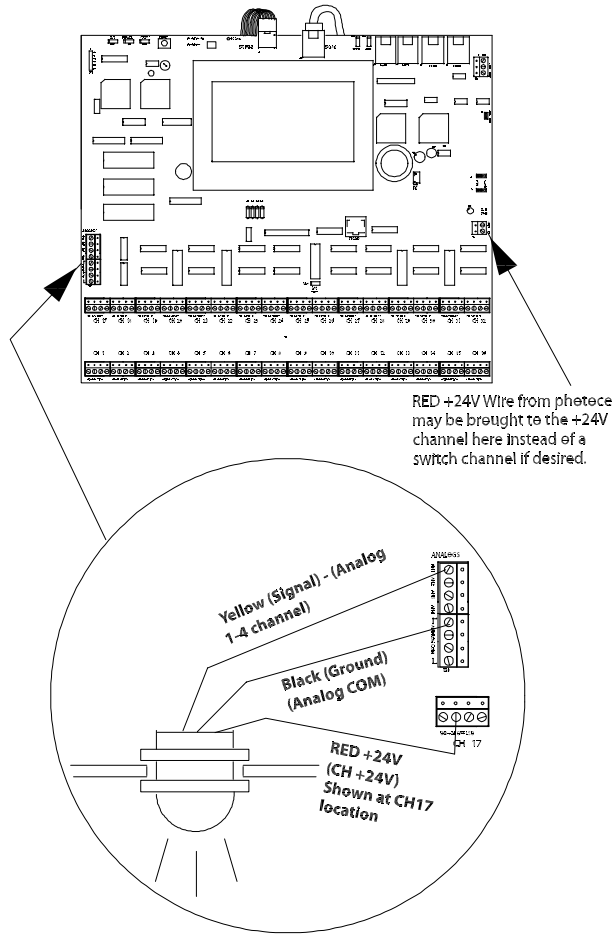
Skylight sensor in 1/2" conduit.
Sensor must be at least 12" from side of skylight and facing up.



Title: Photocell Placement Diagrams
Application: Analog Photocells

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Peachtree City, Fax: +1-800-954-7016
GA 30269. USA Email: controls@cooperindustries.com

Date:
Project:



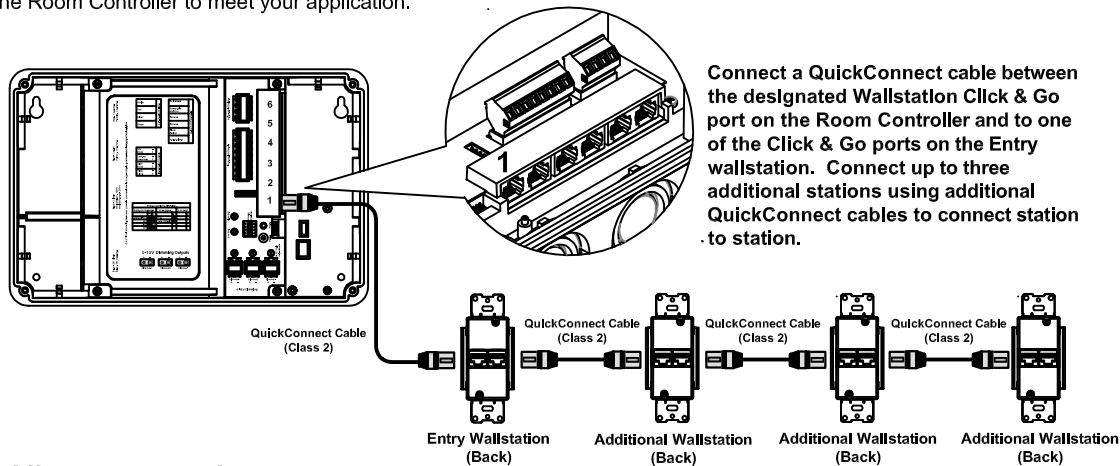
Title: Photocell CK T Wiring Diagrams
 Application: Analog Photocells



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 Peachtree City, Fax: +1-800-954-7016
 GA 30269. USA Email: controls@cooperindustries.com

Date:
 Project:

Mount wallstations to a single gang wallbox with a minimum internal depth of 2 in. (51mm). Up to four wallstations may be connected to the Room Controller to meet your application.



Office Wallstation Operations

Program No.	Button Text	Control Type	Function (Unless daylight is disabled, dimmer level will be controlled by the daylight sensor only unless target level is indicated)
9	Half Lights	Preset	Load 1 (yellow) ON, Load 2 (red) OFF All dimmers 50% [†] Solatube Open (RC3DE only)
10	Full Lights	Preset	Load 1 (yellow) ON, Load 2 (red) ON All dimmers 100% [†]
11	Undercabinet	Toggle	Load 3 (purple) ON and OFF
6	Raise	Raise	Raise all dimmers* [†]
7	Lower	Lower	Lower all dimmers*
16	All ON	Preset	Load 1 (yellow) ON, Load 2 (red) ON, Load 3 (purple) ON All dimmers 100% [†]
8	All OFF	Preset	Load 1 (yellow) OFF, Load 2 (red) OFF, Load 3 (purple) OFF Solatube Close (RC3DE only)
Slider		Slider	Raise and Lower all dimmers [†]

Classroom Wallstation Operations

Program No.	Button Text	Control Type	Function (Unless daylight is disabled, dimmer level will be controlled by the daylight sensor only unless target level is indicated)
1	Entry Row 1 Uplights	Toggle	Load 1 (yellow) ON and OFF Solatube Open (RC3DE only)
2	General Row 2 Downlights	Toggle	Load 2 (red) ON and OFF
3	Whiteboard Row 3 Accent	Toggle	Load 3 (purple) ON and OFF
4	AV Mode	Toggle	Toggles between A/V mode and normal mode. In A/V mode relays will stay in their previous configuration. Dimmers will be reduced to maintain light levels at 20%. [†]
5	Quiet Time	Toggle	Disables occupancy sensors for 60 minutes. Toggle allows for re-enabling of normal mode prior to the timer expiring.
6	Raise	Raise	Raise all dimmers* [†]
7	Lower	Lower	Lower all dimmers*
8	All OFF		Load 1 (yellow) OFF, Load 2 (red) OFF, Load 3 (purple) OFF Solatube Close (RC3DE only)
Slider		Slider	Raise and Lower all dimmers [†]

Wallstation Operation

The Room Controller wallstations are pre-labeled and preconfigured for their intended function. They work as soon as they are connected to the Room Controller. Below is a description of the functions of each wallstation button for Office, Classroom and Conference Room configurations. Each button is assigned to a specific program number for how that button should operate. Program numbers may be used for several buttons that accomplish the same goal but may have different engraving. These charts may be used during the checkout process to verify that wallstations are operating properly.

Cooper Controls

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Email: controls@cooperindustries.com
Website: www.coopercontrol.com

Room Controller -
Wallstations

Drawing Name:
RC-Wallstation1.dwg

Drawing Date:
1/10/2013

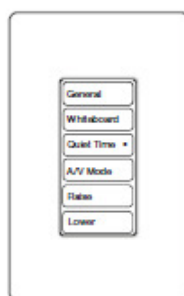
Conference Room Wallstation Operations

Program No.	Button Text	Control Type	Function (Unless daylight is disabled, dimmer level will be controlled by the daylight sensor only unless target level is indicated)
12	General	Preset	Load 1 (yellow) ON, Load 2 (red) ON, Load 3 (purple) ON Dimmer 1: 100% [†] , Dimmer 2: 80% [†] , Dimmer 3: 100% [†] Solatube Open (RC3DE only)
13	Meeting	Preset	Load 1 (yellow) ON, Load 2 (red) ON, Load 3 (purple) ON Dimmer 1: 80% [†] , Dimmer 2: 20% [†] , Dimmer 3: 100% [†] Solatube Open (RC3DE only)
11	Whiteboard	Preset	Load 1 (yellow) ON, Load 2 (red) ON, Load 3 (purple) ON Dimmer 1: 50% [†] , Dimmer 2: 100% [†] , Dimmer 3: 25% [†] Solatube Close (RC3DE only)
15	Presentation	Preset	Load 1 (yellow) ON, Load 2 (red) ON, Load 3 (purple) ON Dimmer 1: 30% [†] , Dimmer 2: 0% [†] , Dimmer 3: 25% [†] Solatube Close (RC3DE only)
6	Raise	Raise	Raise all dimmers* [†]
7	Lower	Lower	Lower all dimmers*
16	All ON	Preset	Load 1 (yellow) ON, Load 2 (red) ON, Load 3 (purple) ON All dimmers 100% [†]
8	All OFF	Preset	Load 1 (yellow) OFF, Load 2 (red) OFF, Load 3 (purple) OFF Solatube Close (RC3DE only)
Slider		Slider	Raise and Lower all dimmers [†]

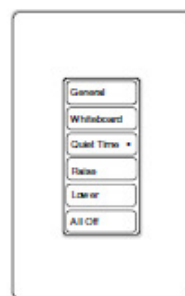
Wallstation Images



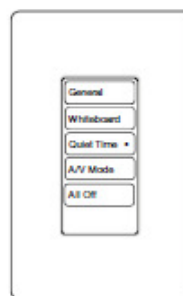
RC-2TLB-ES1



RC-6TSB-TS1



RC-6TSB-TS2



RC-5TSB-TS3



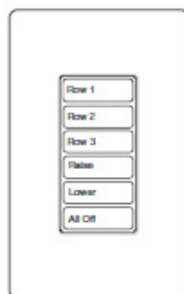
RC-6TSB-TS4



RC-4TSB-TS5



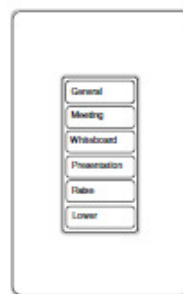
RC-6TSB-TS6



RC-6TSB-TS7



RC-6TSB-TS8



RC-6TSB-CR1



RC-4TSB-HC1



RC-6TSB-HC2



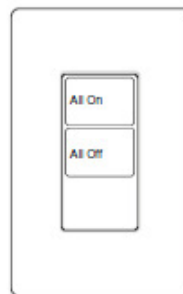
RC-3TLB-OS1



RC-5TSB-OS2



RC-6TSB-OS3



RC-2TLB-OS4

Wallstation Operation

The Room Controller wallstations are pre-labeled and preconfigured for their intended function. They work as soon as they are connected to the Room Controller. Below is a description of the functions of each wallstation button for Office, Classroom and Conference Room configurations. Each button is assigned to a specific program number for how that button should operate. Program numbers may be used for several buttons that accomplish the same goal but may have different engraving. These charts may be used during the checkout process to verify that wallstations are operating properly.

Cooper Controls

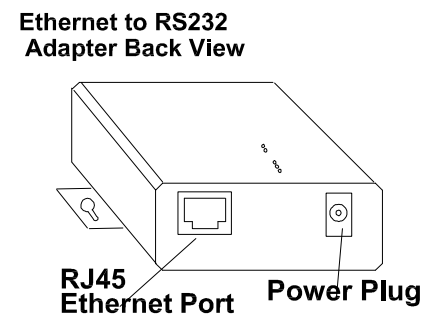
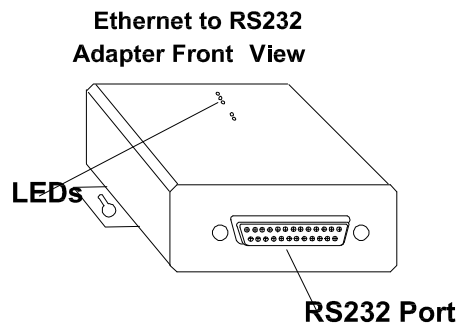
203 Cooper Circle
Peachtree City,
GA 30269, USA

Tel: +1-800-553-3879
Fax: +1-800-954-7016
Email: controls@cooperindustries.com
Website: www.coopercontrol.com

Room Controller -
Wallstations

Drawing Name:
RC-Wallstation2.dwg

Drawing Date:
1/10/2013



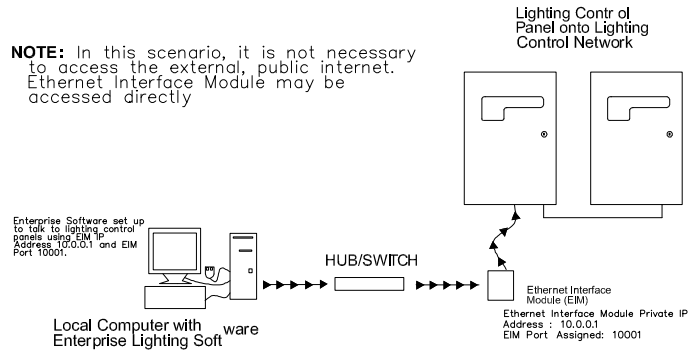
Title: EIM Diagram
Application: Ethernet Interface Module


COOPER Controls

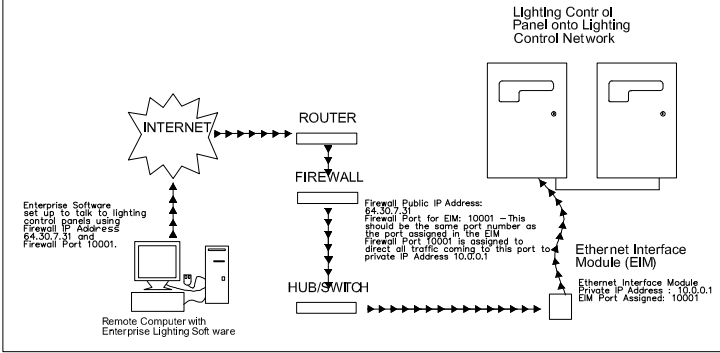
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Peachtree City, Fax: +1-800-954-7016
GA 30269, USA Email: controls@cooperindustries.com

Date:
Project:

TCP/IP Intranet Connection from a Local Location



TCP/IP Internet Connection from a Remote Location



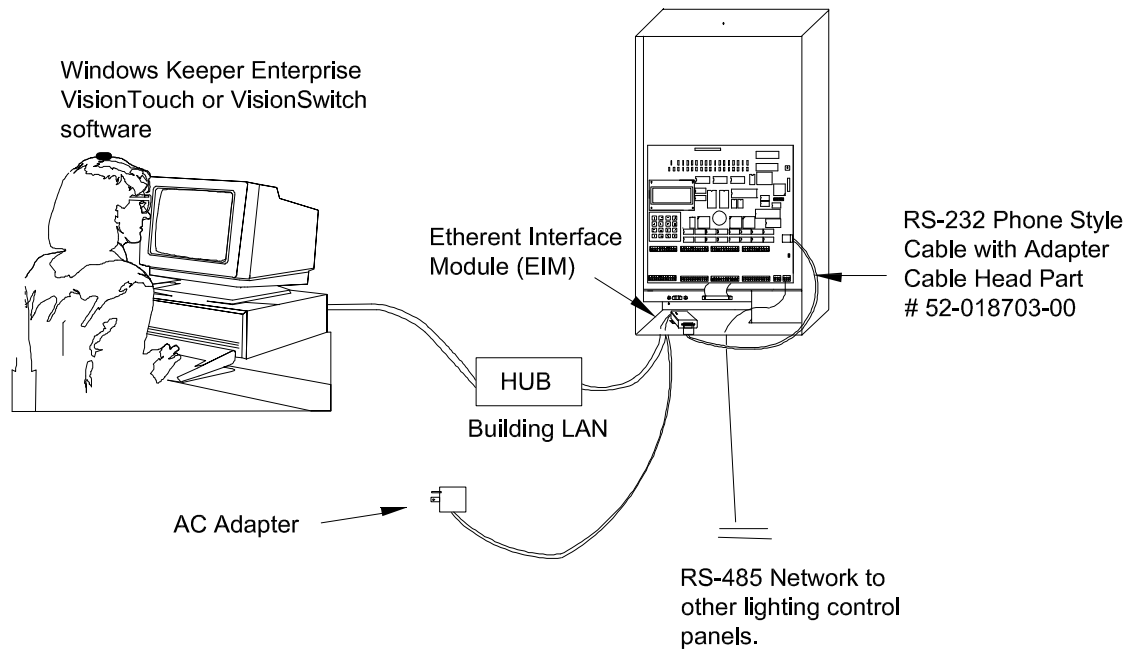
Title: EIM Wiring Diagram
Application: Ethernet Interface Module


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GA 30269, USA Email: controls@cooperindustries.com

Date:
Project:

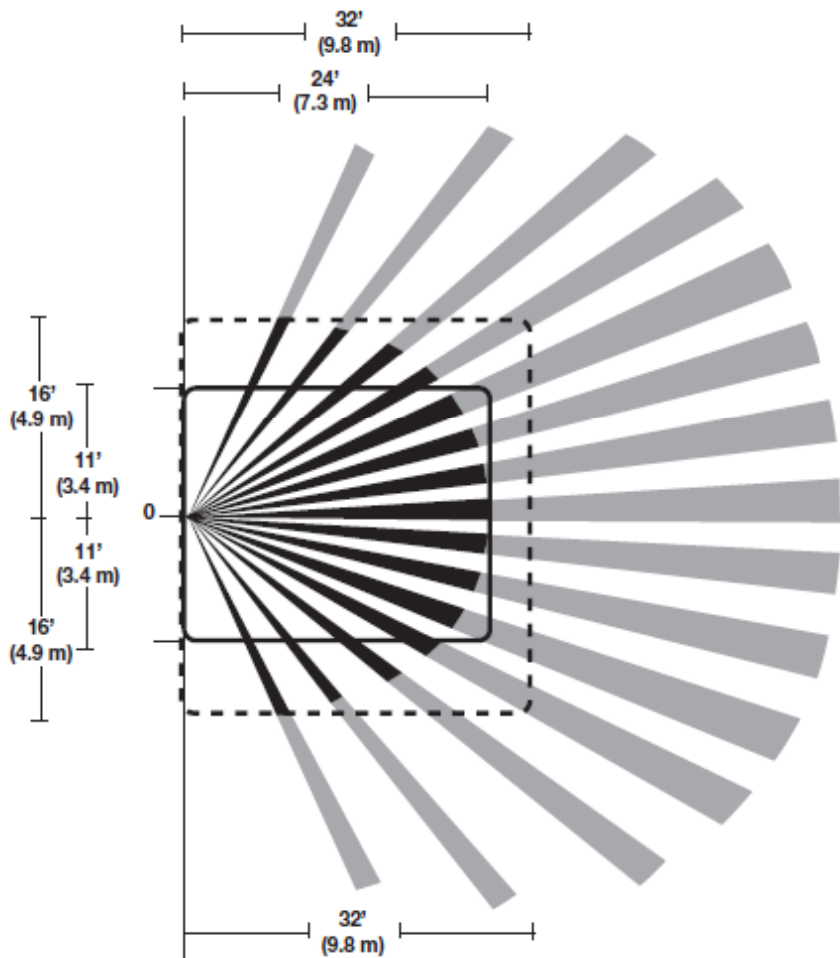
The Ethernet Interface Module (EIM) can be connected to any controller in the network







Title: EIM Wiring Diagram
Application: Ethernet Interface Module

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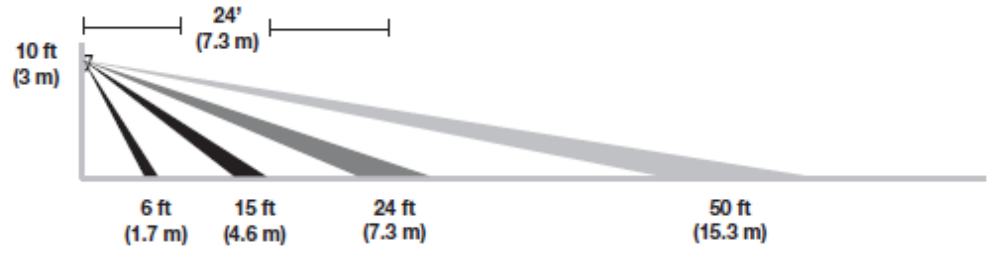
Date:
Project:



- Minor Motion, IR 
- Major Motion, IR 
- Minor Motion, Ultrasonic 
- Major Motion, Ultrasonic 

Maximum coverage area may vary somewhat according to room shape and the presence of obstacles.

The NEMA WD 7 Guide and robotic method were utilized to verify coverage patterns.



Title: General/Coverage Information
Product: (OAWC-DT)
Dual Tech Wall/Corner Mount

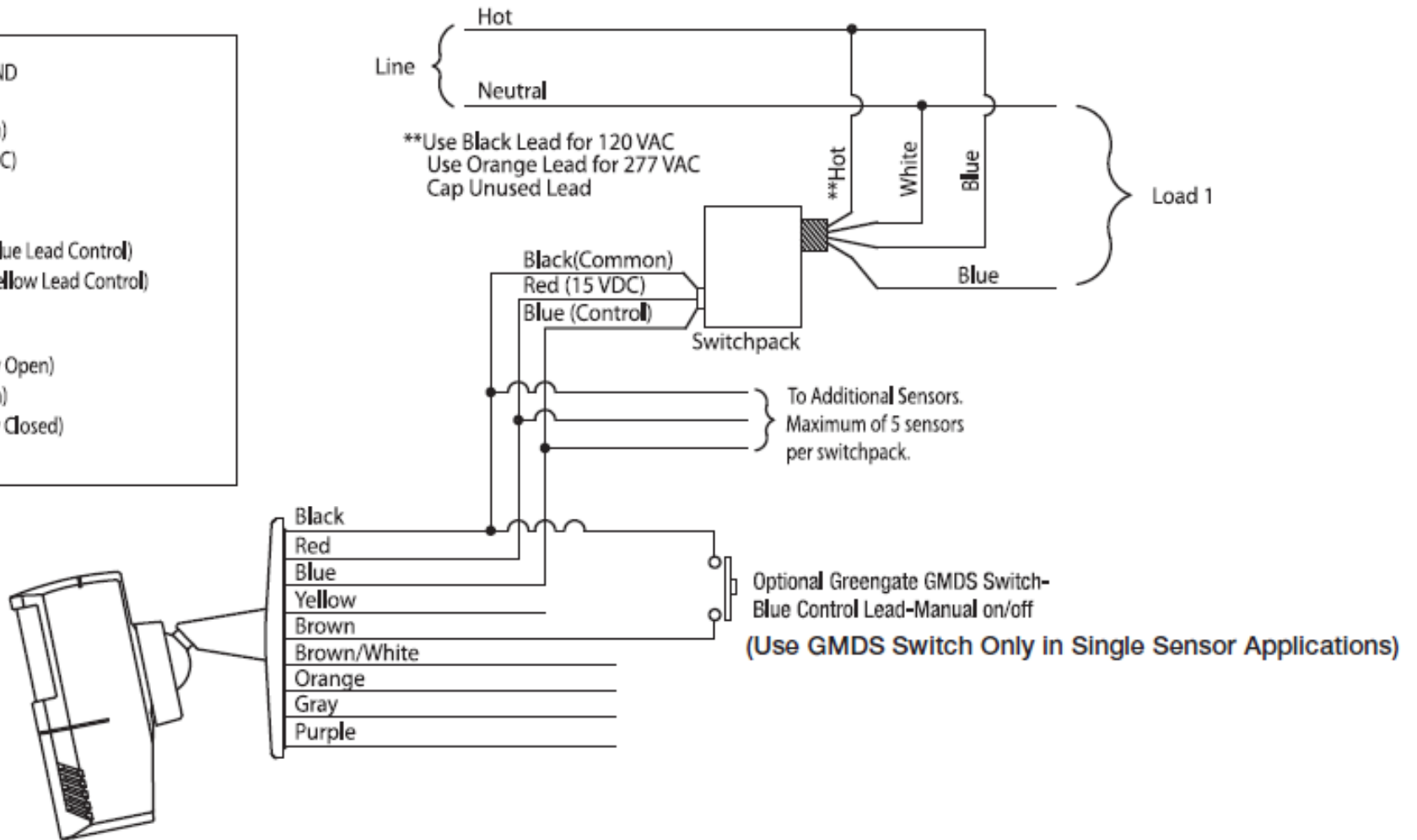


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Date:
Project:

One Sensor, One Switchpack

SENSOR WIRE LEAD LEGEND	
Black	(Common)
Red	(10-30 VDC)
Blue	(Control)
Yellow	(Control)
Brown	(Switch-Blue Lead Control)
Brown/White	(Switch-Yellow Lead Control)
Sensor's Isolated Relay	
Orange	(Normally Open)
Gray	(Common)
Purple	(Normally Closed)



Recommended Wire: 18-3 AWG stranded non-shielded

Title: Wiring Details
Product: (OAWC-DT)
Dual Tech Wall/Corner Mount



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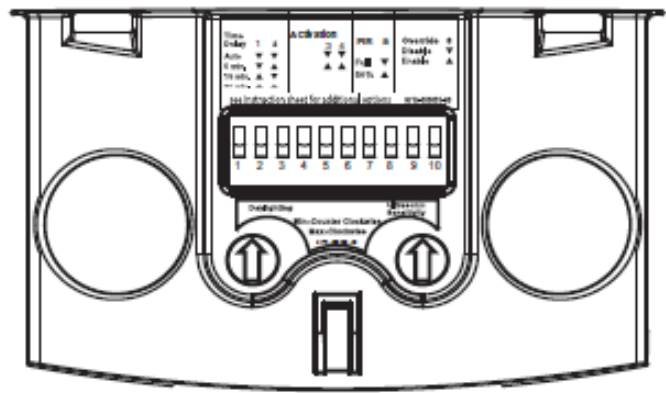
Date:
Project:

DIP Switch Legend

DIP Switch	Time Delay		Activation	Activation	PIR Sensitivity	Walk-Through Mode	LEDs	Override	Lighting Sweep	Daylighting Mode
	1	2	Power Pack One	Power Pack Two	5	6	7	8	9	10
Auto*	▼	▼	Auto ▼	Auto ▼	Full ▼	Disable ▼	Enable ▼	Disable ▼	Disable ▼	Hold ▼
5 Minutes	▼	▲	Manual ▲	Manual ▲	50% ▲	Enable ▲	Disable ▲	Enable ▲	Enable ▲	Full ▲
15 Minutes	▲	▼	(-R model only)				(-R model only)			
30 Minutes	▲	▲								

*Self-Adjusts to 10 min. user made

Default =



Title: DIP Switch Information
Product: (OAWC-DT)
Dual Tech Wall/Corner Mount

COOPER Controls

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 GA 30269, USA Email: controls@cooperindustries.com

Date:
Project:

ProtoNode
 (Catalog # FPC-N34 - BACnet)
 (Catalog # FPC-N35 - LON)

Features and Benefits :

Feature Benefit

Programming UI

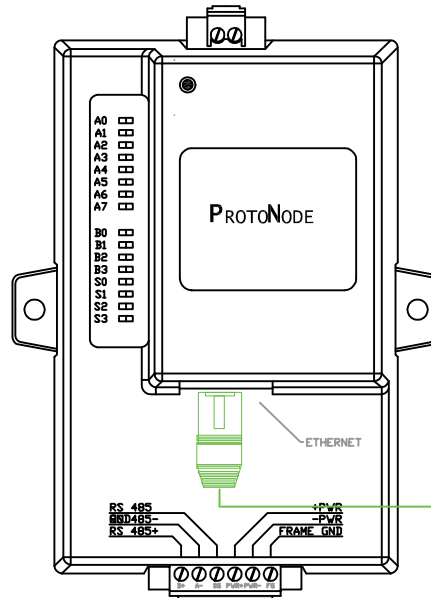
Built in web browser for easy configuration
 Intuitive and easy-to-use screen layout

Quick and Easy Setup

Device protocol and points pre-loaded for
 immediate recognition of device and automatic
 BAS/BMS integration

BAS Protocol user selectable

All protocols are factory loaded and available at
 time of setup



Ethernet Cable to building LAN
 Access to BAS/BMS and
 Lighting Control Panels

General Specifications

Supported Serial (RS-485) Protocols BACnet MS/TP Modbus RTU

Supported Ethernet Protocols BACnet IP Modbus TCP/IP

Supported Electrical Connections (1) 6 pin Phoenix Connector
 (1) RS-485 +/- Ground port Power +/- Frame Ground port
 (1) Ethernet -10/100 Ethernet port
 (1) FTT-10 LonWorks® port (LonWorks® Version)
 Power Requirements 9-30 VDC or 12-24VAC Current draw @ 12V = 240 mA

Operating environment Indoor use only
 -40°C to 75°C (-40°F to 167°F)
 Relative humidity (non-condensing): 5 % to 90%
 Dimensions 4.52 x 3.25 x 1.60 inches (LxWxH) / (11.49 x 8.25 x 4.06 cm)

Approvals BACnet Testing Labs (BTL) B-ASC
 LonMark 3.4 Certified
 TUV approved to UL 916 standard and CSA C22-2
 RoHS Compliant
 CE Mark

Warranty Five-year limited

Power connections to the ProtoNode

Power	ProtoNode Pin #	Pin Source
Power In (+)	Pin 4	V+ (auxiliary power from ControlKeeper or 3rd party power source)
Power In (-)	Pin 5	V- (auxiliary GND from ControlKeeper or 3rd party power source)
Frame Ground	Pin 6	Frame Ground

Catalog #	Total Point Capacity	Network Series	Panel Supported	Point Count Per Panel
FPC-N34-1130 (supports BACnet, Modbus BAS/BMS protocols)	10,000	Greengate	Room Controller	115
			ControlKeeper 2	161
			ControlKeeper 4	161
			ControlKeeper 4A	181
			ControlKeeper T	213
		ControlKeeper M/ MB	225	
		iLumin	SCUN	Based on imported Virtual Area file
			SCUN-FT	
			SCRIP	
			SCRIPB	
FPC-N35-1131 (Supports LON BAS/BMS protocol)	4,096	Greengate	Room Controller	115
			ControlKeeper 2	161
			ControlKeeper 4	161
			ControlKeeper 4A	181
			ControlKeeper T	213
		ControlKeeper M/ MB	225	
		iLumin	SCUN	Based on imported Virtual Area file
			SCUN-FT	
			SCRIP	
			SCRIPB	

ProtoNode Description and Operation:

The ProtoNode provides up to 10,000 points of control and can communicate to multiple panel types on the lighting control network. Each ProtoNode can be programmed to communicate to either a Greengate or iLumin network and a single Ethernet access point (either the EIM or EG2-NA).

For Greengate lighting control networks the ProtoNode will automatically find all network lighting control panels and pre-populate the BACnet, Modbus, or LON points of control for each panel.

For iLumin lighting control networks you upload the iLumin Virtual Area file to load the Areas, Scenes and Channels programmed into the system. These are automatically mapped to BACnet, Modbus or LON points of control.

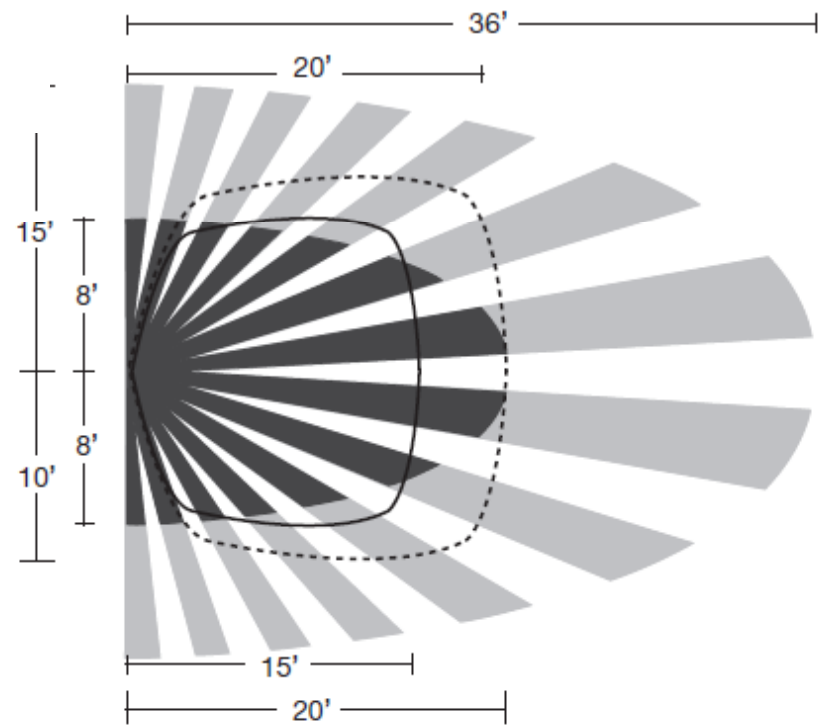
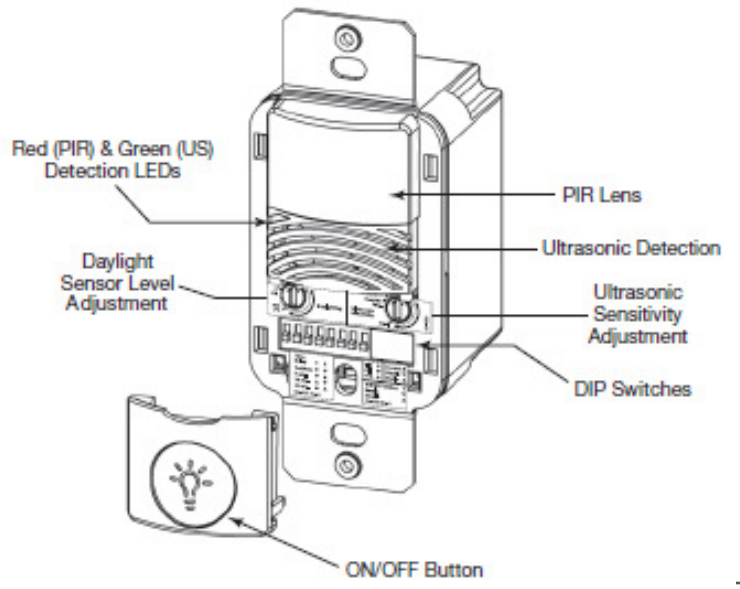
The ProtoNode uses a 9–30VDC power input and can be powered from auxiliary power generated from most lighting control panels. If auxiliary power is not available a separate power supply should be provided.

ProtoNode WIRING DIAGRAM	
TITLE:	LIGHTING CONTROLS ProtoNode Diagram



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DRAWN: MAL	DATE: 8/16/14	PROJ:				
CH'KD: X.X.	SCALE: NTS					
APPR: X.X.	SHEET: 1/1	DWG #:	E3			
	SIZE:					
			DATE	REV	DESCRIPTION	BY
					REVISION TABLE	



- Minor Motion, IR
- Major Motion, IR
- Minor Motion, Ultrasonic
- Major Motion, Ultrasonic

Maximum coverage area may vary somewhat according to room shape and the presence of obstacles

The NEMA WD 7 Guide and robotic method were utilized to verify coverage patterns.

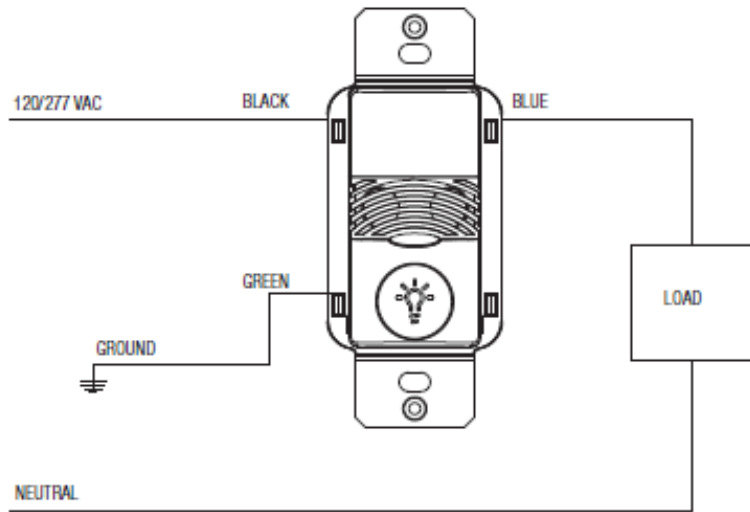
Title: General/Coverage Information
Product: NeoSwitch (ONW-D)
Dual Tech Single Level (Ground Required)



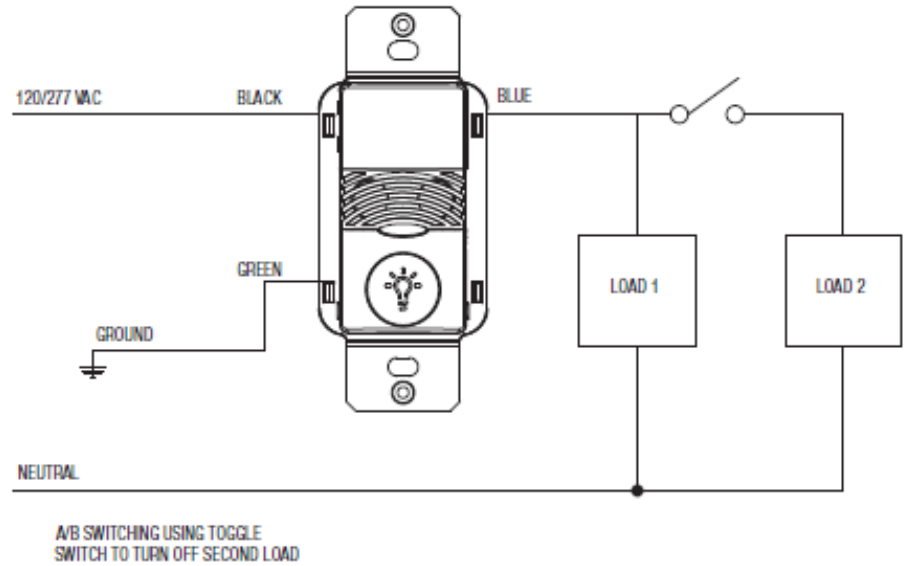
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 GA 30269, USA Email: controls@cooperindustries.com

Date:
Project:

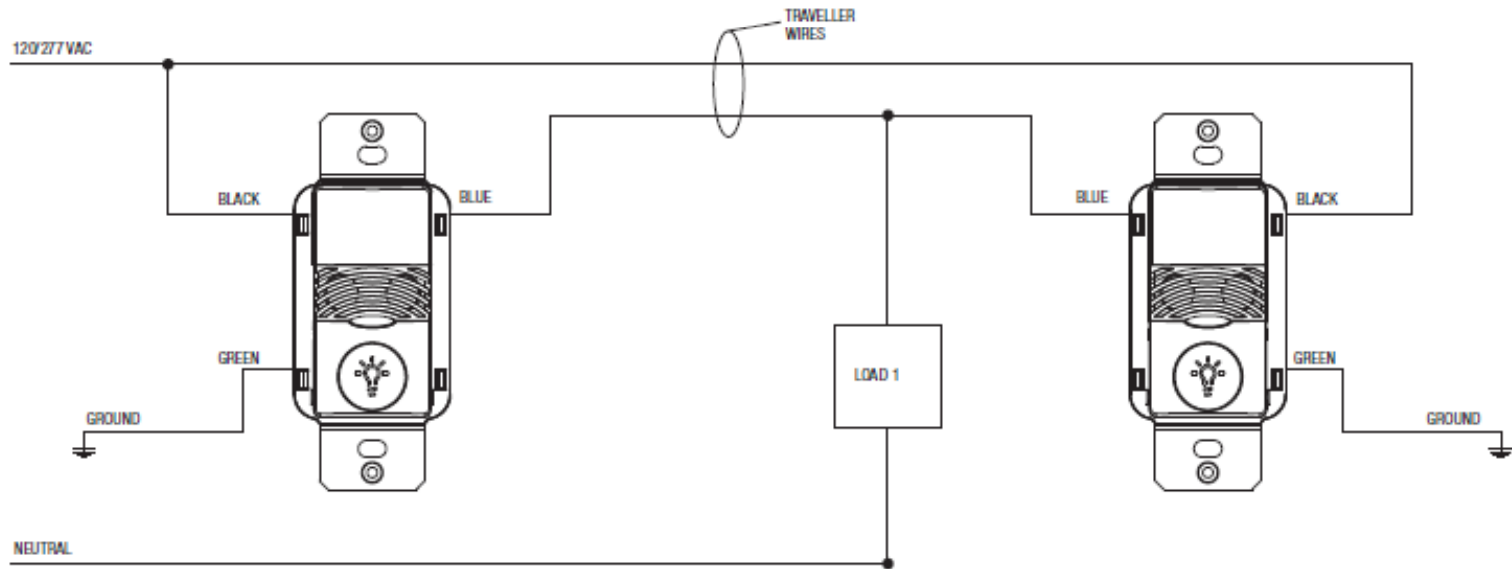
Single Level Switching—Single Circuit



Dual Level Switching—using additional toggle switch



Three-way wiring diagram: Lights will turn-off automatically when sensor that detected motion last, times out.



Title: Wiring Details
Product: NeoSwitch (ONW-D)
Dual Tech Single Level (Ground Required)



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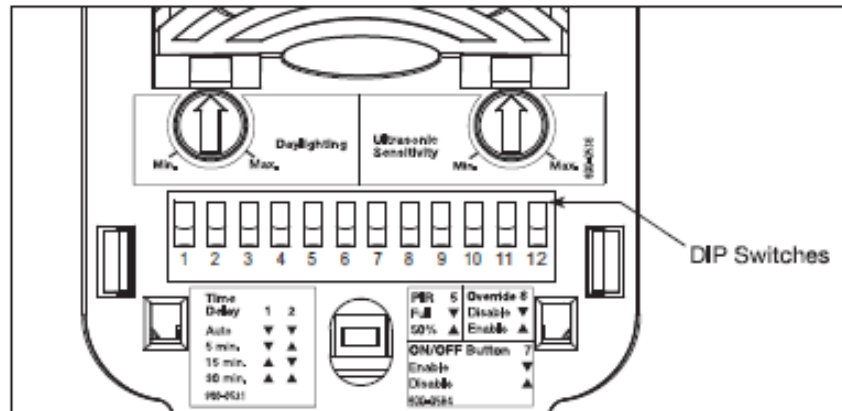
Date:
Project:

DIP Switch Legend

DIP Switch	Time Delay		Activation		PIR Sensitivity	Walk-Through Mode	ON/OFF Button	Override	Not Used	Maintain Lights On	Not Used	
	1	2	Relay 1 3	Not Used 4							5	6
15 Sec. Test/Auto*	▼	▼	Auto ▼		Full ▼	Disable ▼	Enable ▼	Disable ▼		Either ▼		
5 Minutes	▼	▲	Manual ▲		50% ▲	Enable ▲	Disable ▲	Enable ▲		Both ▲		
15 Minutes	▲	▼										
30 Minutes	▲	▲										

*Self-Adjusts to 10 min. user mode

Default =

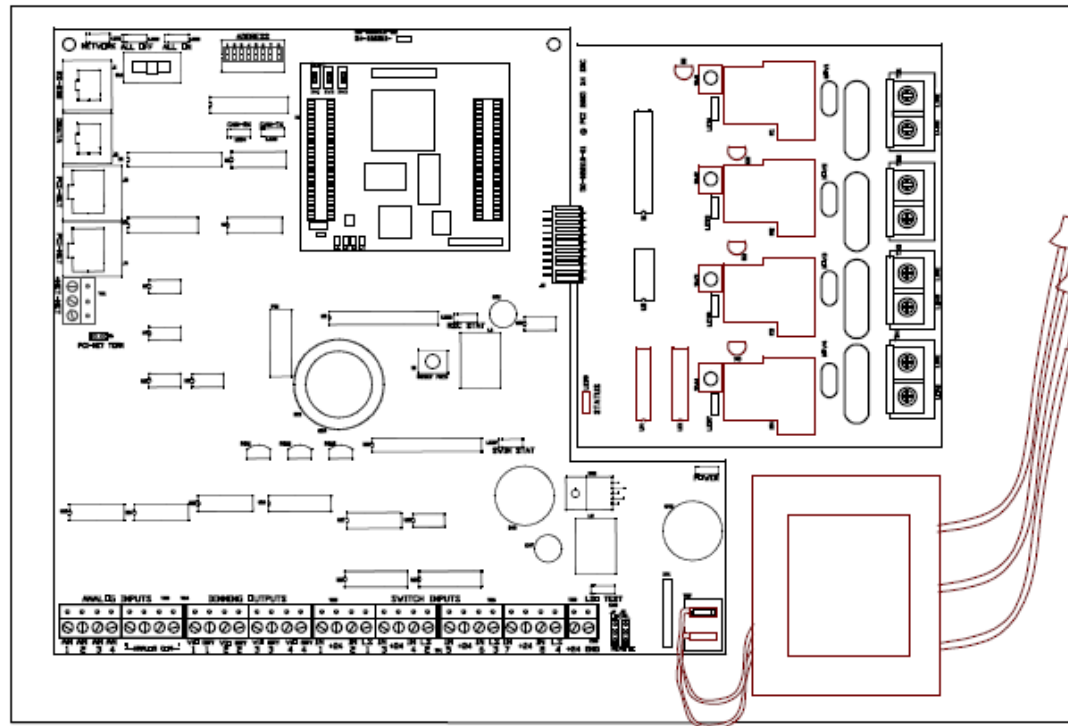


Title: DIP Switch Information
Product: NeoSwitch (ONW-D)
Dual Tech Single Level (Ground Required)



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Date:
Project:



Title: Enclosure/Interior Reference

Product: ControlKeeper 4A



Eaton
 1121 Highway 74 South
 Peachtree City, GA 30269

Date:

Project: