

LIGHTING CONTROL DEVICE SPECIFICATION

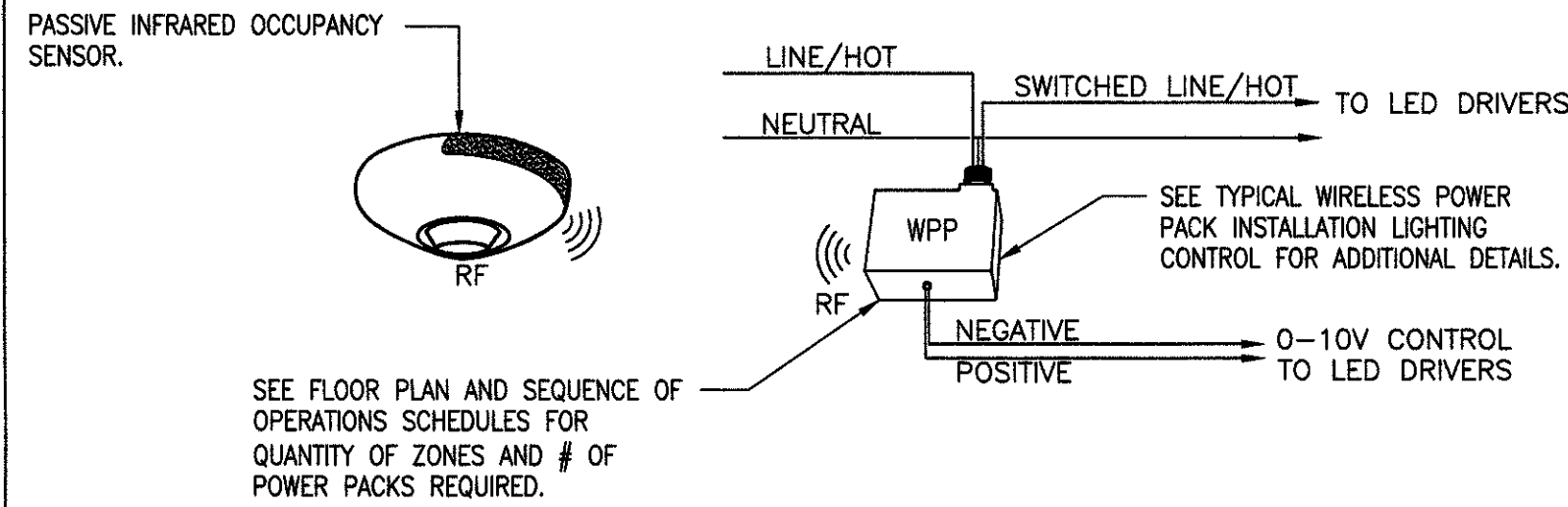
- ② WIRELESS, BATTERY OPERATED PIR CEILING MOUNTED OCCUPANCY SENSOR C/W 360 DEGREE COVERAGE, AND ADJUSTABLE SETTINGS.
- ② WIRELESS, BATTERY OPERATED PIR WALL MOUNTED OCCUPANCY SENSOR, MOUNTED AT 2286mm A.F.F. C/W 45m COVERAGE, ADJUSTABLE SETTINGS.
- ② WIRELESS, BATTERY OPERATED PIR WALL MOUNTED OCCUPANCY SENSOR, MOUNTED AT 2286mm A.F.F. C/W 180 DEGREE AND 15M RANGE COVERAGE, ADJUSTABLE SETTINGS.
- ② WIRELESS, BATTERY OPERATED PIR CORNER WALL MOUNTED OCCUPANCY SENSOR, MOUNTED AT 2286mm A.F.F. C/W 90 DEGREE COVERAGE, ADJUSTABLE SETTINGS.
- ② WIRELESS, BATTERY OPERATED DAYLIGHT SENSOR, MOUNTED AT 2286mm A.F.F. DAYLIGHT SENSORS SHALL BE ONE PER ZONE, AS SHOWN ON DRAWINGS.
- WPP 120V LIGHTING CONTROL POWER RELAY PACK C/W 0-10V DIMMING, 8A MAXIMUM LOAD, LED STATUS INDICATOR, HIGH AND LOW END TRIMMING, AND A POWER FAILURE MEMORY.
- WPPND 120V LIGHTING CONTROL POWER RELAY PACK C/W/ ON/OFF CONTROL, LED STATUS INDICATOR, HIGH AND LOW END TRIMMING, AND A POWER FAILURE MEMORY.
- WPPs and WPPNDs SHALL BE ONE PER ZONE, OR ONE PER LUMINAIRE TYPE AS NEEDED TO SATISFY THE DIFFERENT TYPES OF LUMINAIRES WITHIN A SPACE.
- ② WIRELESS LIGHTING CONTROL HUB STATION, FLUSH MOUNTED IN EXISTING T-BAR CEILING. LIGHTING CONTROL HUB STATION SHALL BE POWERED OFF OF THE UNSWITCHED SIDE OF THE LIGHTING CIRCUIT IN THE SPACE THE HUB IS LOCATED IN.

LIGHTING CONTROL SYSTEM NOTES

1. ALL FIXTURES SHALL BE INSTALLED WITH A PC BASED CUSTOM LIGHTING CONTROL INTERFACE TO PROGRAM LIGHTING OVER THE NETWORK BASED ON TIME OF DAY OPERATION, OCCUPANCY, AND AVAILABLE NATURAL LIGHT. ALL FIXTURES SHALL BE PROGRAMMED TO OPERATE AS DIRECTED BY THE DEPARTMENTAL REPRESENTATIVE AND AS REQUIRED BY THE DEPARTMENTAL REPRESENTATIVE. COST OF ALL SOFTWARE, PROGRAMMING AND COMMISSIONING SHALL BE CARRIED IN THE ELECTRICAL CONTRACTOR'S PRICE.
2. LIGHTING CONTROL WIRING IS DIAGRAMMATIC ONLY TO SHOW INTENT OF THE LIGHTING CONTROL SYSTEM. FINAL WIRING CONFIGURATIONS ARE TO CONFORM WITH THE MANUFACTURER'S PUBLISHED DATA AND SITE SPECIFIC SHOP DRAWINGS, RISERS AND WIRING DIAGRAMS.
3. ALL COMPONENTS OF THE LIGHTING CONTROL SYSTEM SHALL BE BY ONE REPUTABLE MANUFACTURER AND SHALL WORK IN CONJUNCTION WITH THE OTHER COMPONENTS OF THE SYSTEM.
4. THE LIGHTING CONTROL SYSTEM SHALL BE FULLY PROGRAMMED, SETUP AND COMMISSIONED USING A MANUFACTURER TRAINED REPRESENTATIVE. THE SYSTEM SHALL BE COMPLETE WITH ALL NECESSARY HARDWARE, EQUIPMENT, CONTROL INTERFACE, SOFTWARE, AND ACCESSORIES REQUIRED TO MAKE A COMPLETE SYSTEM. SETUP AND COMMISSIONING SHALL INCLUDE OWNER TRAINING.
5. SYSTEM IS DESIGNED AROUND A LUTRON VIVE WIRELESS LIGHTING CONTROL SYSTEM. ADMISSIBLE WIRELESS LIGHTING CONTROL MANUFACTURERS ARE LUTRON VIVE AND ACUITY PLIGHT AIR.

INITIAL SETTINGS:

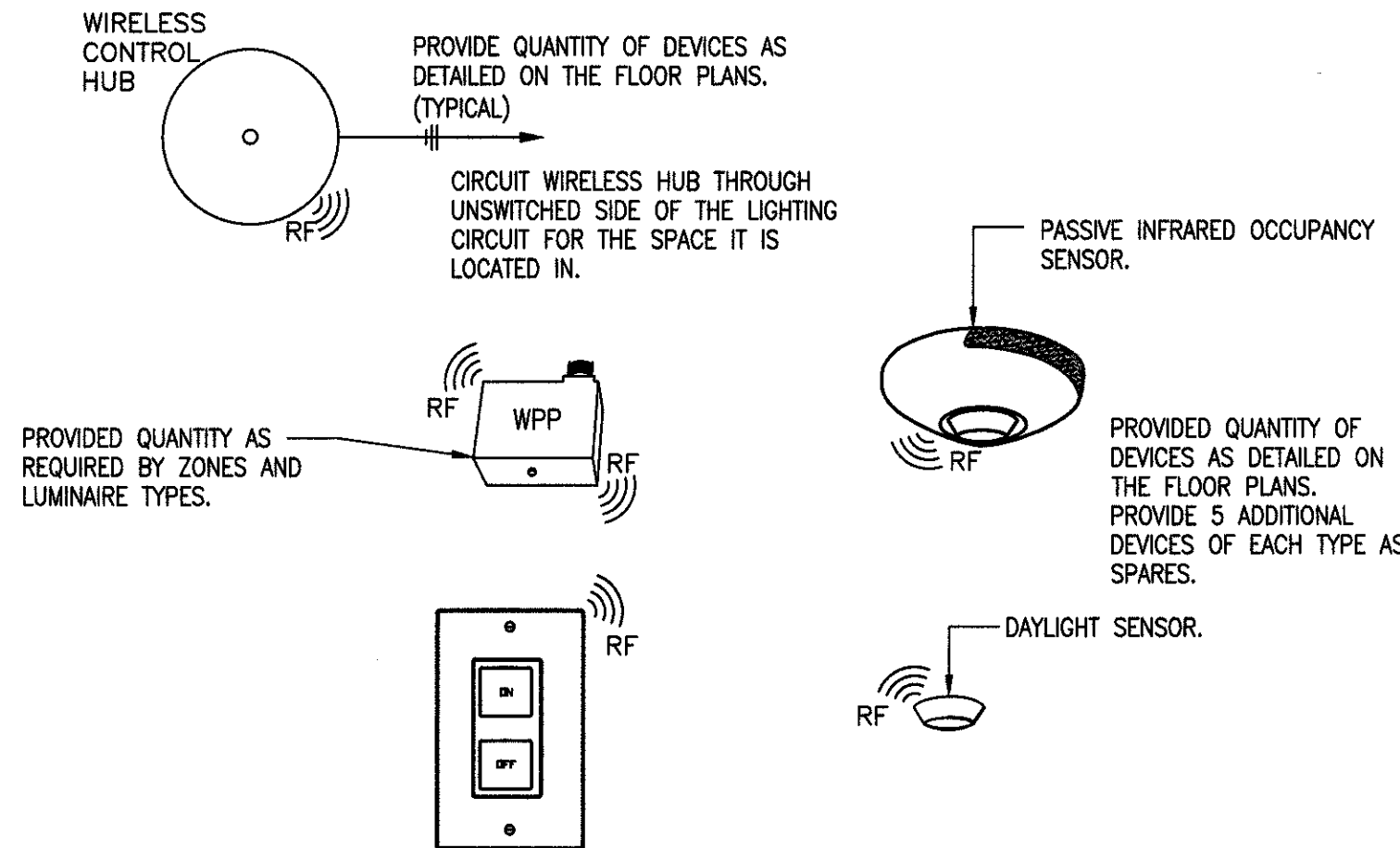
- OCCUPANCY SENSOR SET FOR AUTO ON / AUTO OFF OPERATION BETWEEN 7PM AND 7AM.
- OCCUPANCY SENSOR TIME DELAY SET TO SLOWLY DIM LIGHTS DOWN TO 30% AFTER 10 MINUTES FROM 7AM TO 7PM.
- SEE FLOOR PLAN FOR QUANTITIES OF SENSORS AND WALL STATIONS.



LIGHTING CONTROL – CORRIDOR OCCUPANCY

SCALE : N.T.S.

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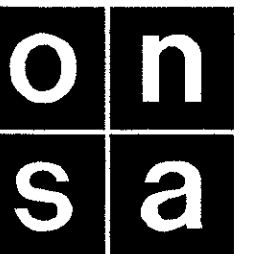


TYPICAL WIRELESS LIGHTING CONTROLS TOPOLOGY

SCALE : N.T.S.

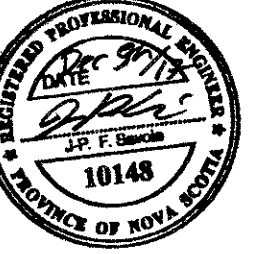
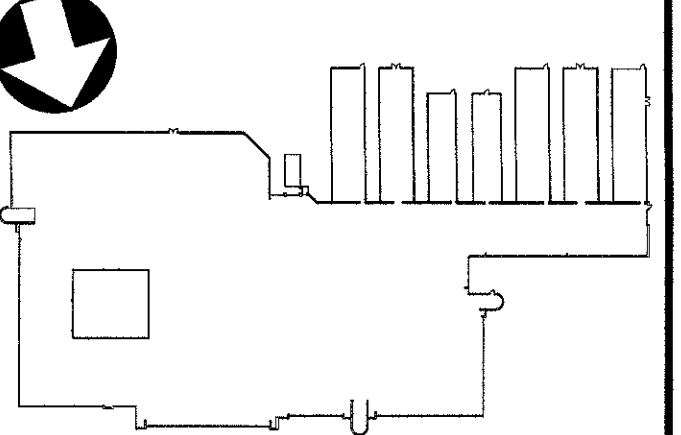
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SEQUENCE OF OPERATIONS								SEQUENCE OF OPERATIONS	DETAIL	NOTES
IDENTIFIER	ROOM NAME	ZONES	LOCAL WALL STATION	OCCUPANCY SENSOR	OCC. SENSOR T.O. (MINUTES)	DAYLIGHT HARVESTING	TIME OF DAY SCHEDULING			
1	OFFICE SPACE	1	YES	YES	10	YES	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF, RAISE/LOWER, FIXTURES ARE ILLUMINATED TO PERCENTAGE REQUIRED TO ACHIEVE TARGET ILLUMINANCE OF 300 LUX	4/E9	
2	LABORATORIES	2	YES	YES	10	NO	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF, RAISE/LOWER.	7/E9	
3	WASHROOMS	1	NO	YES	15	NO	NO	OCCUPANCY SENSOR SET FOR AUTO ON, AUTO OFF.	5/E9	
4	CORRIDORS	1	NO	YES	10	NO	YES	7AM-7PM LIGHTS ARE ON. UPON DETECTION OF OCCUPANCY, LIGHTS TURN ON TO PRESET LEVEL. WHEN THERE IS NO OCCUPANCY, LIGHTS DIM DOWN TO 30%. 7PM-7AM TURN OFF LIGHTS, UPON DETECTION OF OCCUPANCY, LIGHTS TURN ON TO PRESET LEVEL. WHEN THERE IS NO OCCUPANCY TURN OFF LIGHTS.	1/E10	LUMINAIRES ON EMERGENCY POWER ARE NOT TO BE CONTROLLED.
5	STAIRWELLS	N/A	N/A	N/A	N/A	N/A	N/A	STAIRWELLS TO BE UNCONTROLLED ON EMERGENCY TO MEET NBC EGRESS CODES		EXISTING TO REMAIN
6	CAFETERIA	2	YES	YES	10	YES	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF, RAISE/LOWER. FIXTURES ARE ILLUMINATED TO PERCENTAGE REQUIRED TO ACHIEVE TARGET ILLUMINANCE OF 200 LUX	10/E9	
7	OPEN OFFICE AREA	1	YES	YES	10	NO	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF, RAISE/LOWER.	3/E9	
8	FIRST AID STATION	1	YES	YES	10	NO	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF, RAISE/LOWER.	3/E9	
9	STORAGE ROOM	1	NO	YES	10	NO	NO	VACANCY SENSOR SET FOR AUTO ON, AUTO OFF.	5/E9	
10	BOARDROOM	4	YES	YES	10	NO	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF, RAISE/LOWER.	9/E9	
11	RECEPTION DESKS	1	YES	YES	10	NO	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF, RAISE/LOWER.	3/E9	
12	PRESENTATION AREA	4	YES	YES	10	NO	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF, RAISE/LOWER.	9/E9	
13	OFFICE SPACE	1	YES	YES	10	NO	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF, RAISE/LOWER.	3/E9	
14	SUPPLEMENTARY AREA FOR MECHANICAL SPACE	1	YES	NO	N/A	NO	NO	MANUAL ON, MANUAL OFF.		EXISTING LINE VOLTAGE CONTROL TO REMAIN
15	CONFERENCE HALL	3	YES	YES	10	NO	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF, RAISE/LOWER.	8/E9	
16	CONFERENCE HALL	4	YES	YES	10	NO	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF, RAISE/LOWER.	9/E9	
17	OPEN OFFICE AREA	3	YES	YES	10	YES	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF, RAISE/LOWER. FIXTURES ARE ILLUMINATED TO PERCENTAGE REQUIRED TO ACHIEVE TARGET ILLUMINANCE OF 300 LUX	11/E9	
18	COMMS ROOM	1	YES	NO	N/A	NO	NO	MANUAL ON, MANUAL OFF		EXISTING LINE VOLTAGE CONTROL TO REMAIN
19	BOARDROOM	2	YES	YES	10	NO	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF, RAISE/LOWER.	7/E9	
20	MECHANICAL ROOM	1	YES	NO	N/A	NO	NO	MANUAL ON, MANUAL OFF		EXISTING LINE VOLTAGE CONTROL TO REMAIN
21	SHARED OFFICE SPACE	3	YES	YES	10	YES	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF, RAISE/LOWER, FIXTURES ARE ILLUMINATED TO PERCENTAGE REQUIRED TO ACHIEVE TARGET ILLUMINANCE OF 300 LUX	11/E9	
22	STAFF ROOM	1	YES	YES	10	NO	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF.	6/E9	
23	WORKSHOP	1	YES	NO	N/A	NO	NO	MANUAL ON, MANUAL OFF		EXISTING LINE VOLTAGE CONTROL TO REMAIN
24	ELECTRICAL ROOM	1	YES	NO	N/A	NO	NO	MANUAL ON, MANUAL OFF		EXISTING LINE VOLTAGE CONTROL TO REMAIN
25	FOOD SAFETY TESTING WORKSHOP	3	YES	YES	10	YES	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF, RAISE/LOWER, FIXTURES ARE ILLUMINATED TO PERCENTAGE REQUIRED TO ACHIEVE TARGET ILLUMINANCE OF 300 LUX	11/E9	
26	BACK OF HOUSE FOOD PROCESSING AREA	1	YES	YES	10	NO	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF.	6/E9	
27	PRINT/COPY STATION	1	YES	YES	10	NO	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF.	6/E9	
28	LIBRARY	4	NO	YES	10	NO	NO	OCCUPANCY SENSOR SET FOR AUTO ON, AUTO OFF.	5/E9	
29	READING ROOM	2	YES	YES	10	YES	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF, RAISE/LOWER, FIXTURES ARE ILLUMINATED TO PERCENTAGE REQUIRED TO ACHIEVE TARGET ILLUMINANCE OF 300 LUX	10/E9	
30	MAIL ROOM	1	YES	YES	10	NO	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF, RAISE/LOWER.	3/E9	
31	LIBRARIANS AREA	1	YES	YES	10	NO	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF, RAISE/LOWER.	3/E9	
32	SHIPPING AREA	2	YES	YES	10	NO	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF, RAISE/LOWER.	7/E9	
33	GROWTH ROOMS	1	YES	NO	N/A	NO	NO	MANUAL ON, MANUAL OFF		EXISTING LINE VOLTAGE CONTROL TO REMAIN
34	BACK OF HOUSE STORAGE	1	YES	YES	10	NO	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF.	6/E9	
35	ENTRY CHAMBER	1	YES	YES	10	NO	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF.	6/E9	
36	GREEN HOUSE CORRIDOR	1	NO	YES	10	NO	NO	7AM-7PM LIGHTS ARE ON. UPON DETECTION OF OCCUPANCY, LIGHTS TURN ON TO PRESET LEVEL. WHEN THERE IS NO OCCUPANCY, LIGHTS DIM DOWN TO 30%. 7PM-7AM TURN OFF LIGHTS, UPON DETECTION OF OCCUPANCY, LIGHTS TURN ON TO PRESET LEVEL. WHEN THERE IS NO OCCUPANCY TURN OFF LIGHTS.	1/E10	
37	GREEN HOUSE WORKSTATIONS	1	YES	YES	10	NO	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF, RAISE/LOWER.	3/E9	
38	ATRIUM	1	YES	YES	10	NO	YES	7AM-7PM LIGHTS ARE ON. 7PM-7AM TURN OFF LIGHTS, UPON DETECTION OF OCCUPANCY, LIGHTS TURN ON. WHEN THERE IS NO OCCUPANCY TURN OFF LIGHTS.	12/E9	
39	TESTING ROOM	1	YES	YES	10	NO	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF, RAISE/LOWER.	3/E9	
40	SEMINAR ROOM	3	YES	YES	10	YES	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF, RAISE/LOWER.	11/E9	
41	2ND FLOOR MEETING ROOM	3	YES	YES	10	NO	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF, RAISE/LOWER.	8/E9	
42	STAFF ROOM	1	YES	YES	10	NO	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF, RAISE/LOWER.	3/E9	
43	BIOHAZARD LAB	1	YES	YES	10	NO	NO	VACANCY SENSOR SET FOR MANUAL ON, AUTO OFF, RAISE/LOWER.	7/E9	



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NOVA SCOTIA

drawing

ELECTRICAL PLANS – LIGHTING CONTROLS

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date DEC. 5 2017

drown B. DOUCET EIT dessiné

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date DEC. 5 2017

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