

ELECTRICAL DRAWINGS LIST	
E00	LOAD CALCULATION, PANEL SCHEDULE ELECTRICAL SPECIFICATIONS AND ENERGY CHECKLIST
E10	ELECTRICAL POWER, FIRE ALARM & LIGHTING PLAN

SYMBOLS & LEGENDS LIST	
POWER	
	DUPLEX RECEPTACLE 120V
	GROUND FAULT CIRCUIT INTERRUPTER DUPLEX RECEPTACLE 120V
	JUNCTION BOX SIZE AS REQUIRED
	HANDICAPPED DOOR BUTTON FOR AUTO DOOR OPENER
	ELECTRICAL PANEL
	RECEPTACLES MOUNTED OVER COUNTER
	AUTOMATIC DOOR OPENER MOTOR
	DISCONNECT SWITCH
	DIRECT CONNECTION
	REC-RECESS IN MILLWORK-5-15R
LIGHTING	
	FLUORESCENT TUBE LIGHT(LED)
	STRIP PENDANT LIGHT(LED)
	TRACK LIGHT(LED)
	LED LIGHT STRIP(LED)
	RECESSED DOWNLIGHT(LED)
	PENDANT LIGHT(LED)
	WALL SCONCE LIGHT(LED)
	BAR LATERN
	3' DIAMETER CEILING FAN
	EXHAUST FAN
	EMERGENCY LIGHT WITH BATTERY
	EMERGENCY EXIT SIGH WITH LIGHT
	EMERGENCY EXIT SIGH WITH ARROW
	DIMMABLE SWITCH WITH OCCUPANCY SENSOR
	DIMMABLE SWITCH
	OCCUPANCY SENSOR
	SINGLE POLE TOGGLE SWITCH
FIRE ALARM	
	FIRE ALARM HORN
	MONITORING MODULE
	FIRE ALARM MANUAL STATION
COMMUNICATION	
	DATA/TELEPHONE OUTLET
ANNOTATION	
(E)	DENOTES EXISTING ELECTRICAL DEVICE/EQUIPMENT TO REMAIN
(R)	DENOTES EXISTING DEVICES/EQUIPMENT TO BE RELOCATED
GFI	GROUND FAULT INTERRUPTER
WP	DENOTES WEATHER PROOF

LOAD CALCULATION (PANEL "A&B")						
ITEM #	LOAD DESCRIPTION	HP/W	VA	NOTES		
BASIC LOAD						
1	GENERAL RECEPTACLES	13950	13950			
2	LIGHTING	1583	1759			
EXISTING LOAD						
1	DOOR OPENER	150	187.5	ESTIMATION		
2	FC1 & FC1B	1377	1721.25	ESTIMATION		
MECHANICAL EQUIPMENT						
1	HWT-1	5500	5500			
2	SF-1	746	932.5			
3	DH-1(DUCT HEATER)	20000	20000			
4	EF-1	2238	2797.5			
5	EF-2~6	29	36.25			
KITCHEN EQUIPMENT						
1	OVEN	1176	1470	GAS SUPPLIED		
2	DISHWASHER	10500	13125			
3	WALK-IN FREEZER	3200	4000	ESTIMATION		
4	WALK-IN COOLER	3200	4000	ESTIMATION		
5	UNDERCOUNTER COOLER	322	402.5			
6	UNDERCOUNTER ICE MACHINE	830	1037.5			
7	UNDERCOUNTER COOLER	736	920			
8	BEER FRIDGE	230	287.5			
9	GLASS WASHER	230	287.5			
10	UNDERCOUNTER FREEZER	207	207			
TOTAL CONNECTED LOAD (VA)		72621				
DEMAND FACTOR		0.8				
TOTAL DESIGN LOAD (VA)		58096.8				
DESIGN FEEDER CURRENT (A)		161.2605919				

01 LOAD CALCULATION

E00

SCALE: NOT TO SCALE

PANEL "A"								
DESCRIPTION	LOAD (kW)	BKR SIZE	CCT NO	PH	CCT NO	BKR SIZE	LOAD (kW)	DESCRIPTION
OVEN	15	1	A	2	35			HWT-1
DISHWASHER	60	3	B	4				
UNDERCOUNTER COOLER	15	5	C	6				DH-1(DUCT HEATER)
UNDERCOUNTER ICE MACHINE	15	9	B	10				
UNDERCOUNTER FREEZER	15	11	C	12				
WALK-IN COOLER	20	13	A	14	15			EF-1
WALK-IN FREEZER	20	17	C	18	15			SF-1
	19	A	20	15				GENERAL RECEPTACLES-GFI
UNDERCOUNTER COOLER	15	21	B	22	15			GENERAL RECEPTACLES
GLASS WASHER	20	23	C	24	15			GENERAL RECEPTACLES
BEER FRIDGE	15	27	B	28	15			GENERAL RECEPTACLES
GENERAL RECEPTACLES(ROOF)	15	29	C	30	15			GENERAL RECEPTACLES
LIGHTING ZONE-01	15	31	A	32	15			LIGHTING ZONE-04
LIGHTING ZONE-02	15	33	B	34	15			LIGHTING ZONE-05
LIGHTING ZONE-03	15	35	C	36	15			EXIT SIGN
SPACE	*	37	A	38	*			SPACE
SPACE	*	39	B	40	*			SPACE
SPACE	*	41	C	42	*			SPACE
VOLTAGE: 120/208V, 3PH, 4W	LOAD IN PHASE A (kW):	0.00						
MAIN LUGS: 400A	LOAD IN PHASE B (kW):	0.00						
MAIN BREAKER: 400A	LOAD IN PHASE C (kW):	0.00						
IC: 22KA								
FED FROM: BASE BUILDING ELECTRICAL ROOM								
NOTES:	1. THIS IS AN EXISTING PANE. THIS PANEL SCHEDULE IS FOR INFORMATION ONLY.							

02 PANEL SCHEDULE

E00

SCALE: NOT TO SCALE

ELECTRICAL POWER, LIGHTING, OTHER EQUIPMENT DESIGN (ENERGY)	
VANCOUVER BUILDING BYLAW: 2019	
ELECTRICAL DESIGN:	
ENERGY STANDARD/CODE: ASHRAE 90.1-2016	
POWER COMPLIANCE PATH: PRESCRIPTIVE	
IN ACCORDANCE WITH: SECTION 8 (NC AND FIRST TI)	
LIGHTING COMPLIANCE PATH: PRESCRIPTIVE	
LIGHTING DESIGN METHOD: BUILDING AREA METHOD	
IN ACCORDANCE WITH: SECTION 9 (NC AND FIRST TI)	
OTHER EQUIPMENT PATH: N/A (NO OTHER EQUIP WORK)	
IN ACCORDANCE WITH: N/A	

SPECIFICATIONS:

1.0 GENERAL ELECTRICAL CONDITIONS

- .1 PROVIDE ALL NECESSARY MATERIAL, EQUIPMENT AND LABOUR FOR A COMPLETE AND OPERATIONAL INSTALLATION AS MENTIONED HEREIN, OR INDICATED ON THE DRAWINGS.
- .2 PERFORM ALL WORK NECESSARY TO PROVIDE A FULLY OPERATIONAL INSTALLATION BASED ON PAST EXPERIENCE WHETHER OR NOT ALL WORK NECESSARY IS SHOWN ON THE DRAWINGS.
- .3 THE WORK SHALL BE IN ACCORDANCE WITH LATEST RULES AND REGULATIONS OF ALL AUTHORITIES HAVING LEGAL JURISDICTION OVER THE WORK, INCLUDE ANY SMALL ITEMS OF WORK NOT SPECIFICALLY CALLED FOR BUT REQUIRED TO COMPLETE THE INTENDED INSTALLATION.
- .4 THE ENGINEER RESERVES THE RIGHT TO APPROVE THE QUALITY OF MATERIAL AND WORKMANSHIP, ALSO TO CALL FOR ANY TESTS, WHICH HE DEEMS NECESSARY DURING THE PROGRESS OF THE WORK AND A COMPLETE TEST OF EACH SYSTEM AT THE COMPLETION OF THE WORK. THE COST OF SUCH TESTS IS NOT TO BE CONSIDERED AS EXTRAS.
- .5 ALL ITEMS OR SPECIFICATIONS RELATED TO THE SERVICES INDICATED ON THE DRAWINGS SHALL APPLY TO THE PROJECT.

12.0 GROUNDING

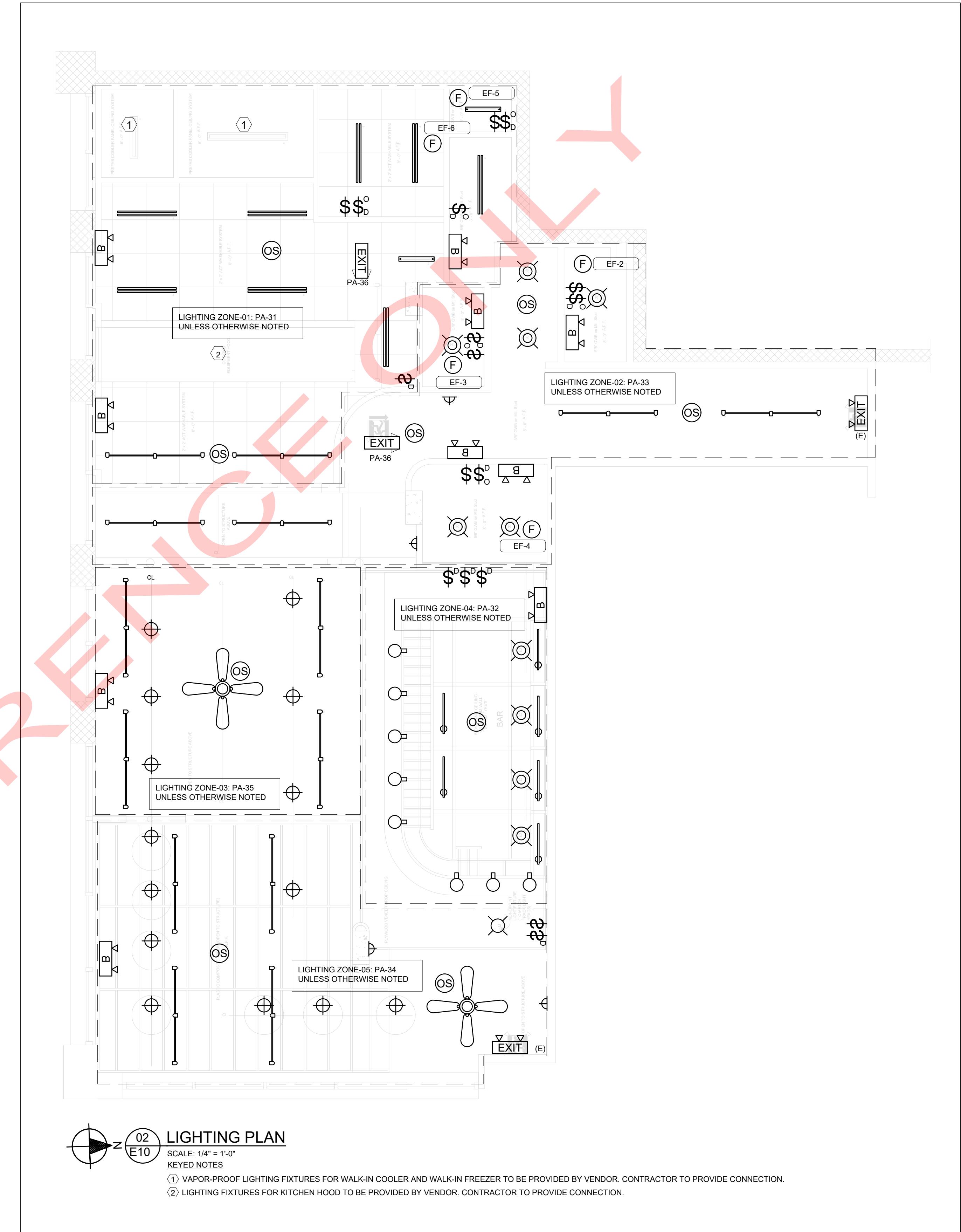
- .1 THE ELECTRICAL SYSTEM SHALL BE GROUNDED AND BONDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CANADIAN ELECTRICAL CODE AND LOCAL UTILITY REQUIREMENTS.
- .2 WHERE TRANSFORMERS ARE USED, THE NEUTRAL POINT OF THE TRANSFORMER SHALL BE GROUNDED WITH AN INSULATED WIRE AS WELL AS THE ENCLOSURE.
- .3 PROVIDE A SEPARATE CODE GAUGE, SUPPLEMENTARY GROUND CONDUCTOR, RUN IN EACH CONDUIT, TERMINATING AT GROUND BLOCK IN THE PANEL BOARD.
- .4 ENSURE GROUND CLAMP IS MECHANICALLY PROTECTED FROM ACCIDENTAL DAMAGE.

13.0 IDENTIFICATION

- .1 IDENTIFY ALL MAJOR PIECES OF EQUIPMENT SUCH AS PANELS, MOTOR STARTERS, SWITCHES, ETC. WITH LAMACOID NAMEPLATES.
- .2 FOR PANELS, PROVIDE TYPE SCHEDULE IDENTIFYING BREAKER LOADS. PROVIDE LAMACOID NAMEPLATE ON THE PANEL COVER IDENTIFYING NAME, VOLTAGE, MAINS RATING AND SOURCE.
- .3 IDENTIFY BRANCH CIRCUIT WIRES AS PER CODE REQUIREMENTS.
- .4 FOR ALL RECEPTACLES AND LIGHT SWITCHES, PROVIDE LABEL ON COVERPLATE IDENTIFYING BRANCH CIRCUIT ASSIGNMENT.

2.0 CODES

- .1 WORK TO MEET OR EXCEED THE MINIMUM STANDARDS OF THE FOLLOWING: A CANADIAN ELECTRICAL CODE, 2021, PART 1, CSA STANDARDS AS ADOPT



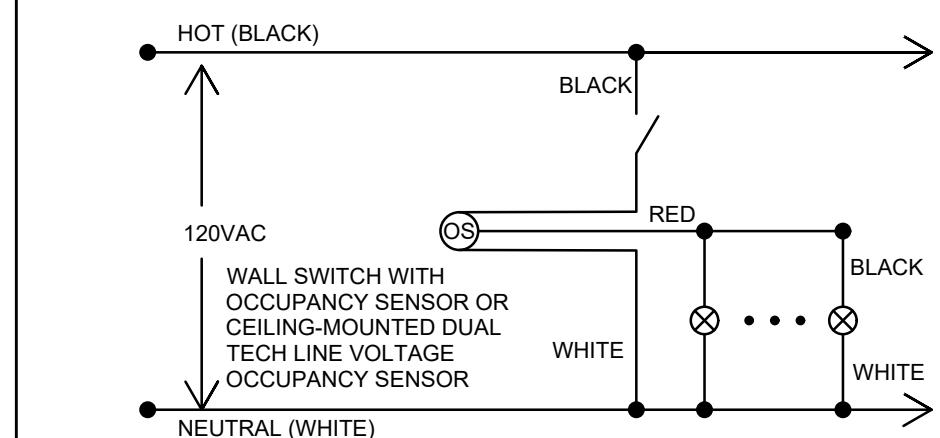
POWER AND FIRE ALARM GENERAL NOTES:

1. RE-ARRANGE CIRCUIT BREAKERS AS INDICATED IN THE PANEL SCHEDULES. INSTALL NEW BREAKERS AS REQUIRED.
2. THE EXISTING POWER RECEPTACLES { DENOTED AS (E)} REMAIN IN USE. THE CIRCUIT NUMBERS ASSIGNED FOR THE EXISTING RECEPTACLES ARE FOR REFERENCE ONLY. THE ELECTRICAL CONTRACTOR MAY RE-ASSIGN CIRCUIT NUMBERS FOR THESE RECEPTACLES BASED ON SITE SITUATIONS.
3. SUPPLY AND INSTALL FEEDERS FOR ALL ELECTRICAL EQUIPMENT AS INDICATED.
4. SUPPLY AND INSTALL NEW WIRES, CONDUITS, FITTINGS, CONNECTORS AND SUPPORTS FOR NEW RECEPTACLES AS REQUIRED.
5. THE ELECTRICAL SERVICES(BREAKER/DISCONNECT SWITCH/FEEDER SIZE) TO EACH INDIVIDUAL MECHANICAL AND KITCHEN EQUIPMENT INDICATED IN THIS DRAWING ARE FOR REFERENCE ONLY. IT IS ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO VERIFY ACTUAL POWER REQUIREMENTS FOR INDIVIDUAL MECHANICAL AND KITCHEN EQUIPMENT ON SITE AND MODIFY THE ELECTRICAL SERVICES TO ACCOMMODATE ANY CHANGES. SUBMIT PROPOSED CHANGES TO BE MADE TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONDUCTING ANY CHANGES.
6. SUPPLY AND INSTALL NEW FIRE ALARM EQUIPMENT AND DEVICE AS INDICATED.
7. SUPPLY AND INSTALL NEW WIRES, CONDUITS, FITTINGS, CONNECTORS AND SUPPORTS FOR NEW FIRE ALARM COMPONENTS. PERFORM FIRE ALARM INSTALLATION AS PER ULC-524 AND FIRE ALARM MANUFACTURER RECOMMENDATIONS.
8. SUPPLY AND INSTALL THE NEW FIRE ALARM MONITORING MODULE AND CONNECT IT TO KITCHEN HOOD FIRE SUPPRESSION SYSTEM AND BASE BUILDING FIRE ALARM SYSTEM WITH A SEPARATE ZONE IN SUCH WAY THAT WHENEVER THERE IS A FIRE SENSED BY THE KITCHEN HOOD FIRE SUPPRESSION SYSTEM , FIRE ALARM SIGNAL WILL BE SENT TO THE BASE BUILDING FIRE ALARM CONTROL PANEL.
9. MODIFY THE BASE BUILDING FIRE ALARM PROGRAMMING TO ACCOMMODATE NEW INSTALLED/ MODIFIED FIRE ALARM EQUIPMENT AND DEVICE.
10. HIRE QUALIFIED FIRE ALARM CONTRACTOR TO PERFORM FIRE ALARM PROGRAMMING TESTING, INSPECTION AND VERIFICATION AS PER ULC-536 AND ULC-537. SUBMIT INSPECTION AND VERIFICATION REPORTS TO ENGINEER AND AHJ FOR REVIEW AND APPROVAL.
11. ALL WORK SHALL CONFORM TO VBBL 2019 , CURRENT EDITION OF CITY BYLAWS, OTHER RELATED STANDARDS AND ACTS; ALL WORK SHALL ALSO MEET THE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.

LIGHTING GENERAL NOTES:

1. DEMOLISH EXISTING LIGHTING FIXTURES UNLESS OTHERWISE NOTED.
2. DEMOLISH UNUSED EXISTING WIRES/CONDUIT BACK TO EXISTING PANEL BOARDS EXCEPT OTHERWISE NOTED.
3. ALL NEW LIGHTING FIXTURES SHALL BE WIRED TO THE DIMMER SWITCH.
4. SUPPLY AND INSTALL NEW LED LIGHTING FIXTURES (INCLUDING EMERGENCY LIGHTS AND EXIT SIGNS), LIGHT SWITCHES WITH OCCUPANCY SENSORS AS INDICATED.
5. SUPPLY AND INSTALL NEW WIRES, CONDUITS, FITTINGS, CONNECTORS AND SUPPORTS FOR NEW LIGHTING FIXTURES AND SWITCHES/OCCUPANCY SENSORS AS REQUIRED.
6. ALL WORK SHALL CONFORM TO VBBL 2019, OTHER RELATED STANDARDS AND ACTS; ALL WORK SHALL ALSO MEET THE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.

TYPICAL LIGHTING CONTROL SCHEMATIC:



ARCUS CONSULTING LTD

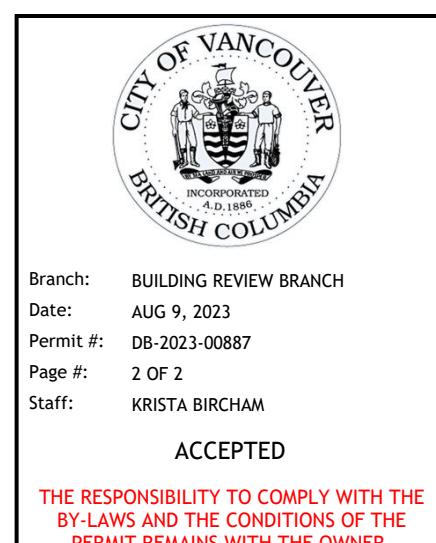
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PRACTICE PERMIT NUMBER:
1000258



NO.	MM/DD/YYYY	DESCRIPTION
6	7/5/2023	RE-ISSUED FOR BUILDING PERMIT
5	2/14/2023	ISSUED FOR BUILDING PERMIT
4	1/26/2023	ISSUED FOR LANDLORD REVIEW
3	1/25/2023	ISSUED FOR LANDLORD REVIEW
2	1/6/2023	ISSUED FOR LANDLORD REVIEW
1	1/5/2023	ISSUED FOR REVIEW

NO.	MM/DD/1111	DESC
PROJECT NAME: 2101 EAST HASTINGS STREET RESTAURANT		

ADDRESS:

DRAWING TITLE:
ELECTRICAL POWER , FIRE ALARM &

CLIENT PROJECT NO. ZIYUTEC PROJECT NO.

N/A		Z2022-103	
DESIGN BY	IH	REVIEWED BY	EL
DRAWN BY	IH	APPROVED BY	GF

DATE: 3/1/23	SCALE: AS NOTED
SHEET: # 2 OF 2	