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<b>Document Title:</b>	DR Response 2 - Attachment 19, Conceptual Outdoor Lighting Control and Management Plan
<b>Description:</b>	This document details the Conceptual Outdoor Lighting Control and Management Plan prepared for the Project
<b>Filer:</b>	Ronelle Candia
<b>Organization:</b>	Dudek
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## **Attachment 19**

### Conceptual Outdoor Lighting Control and Management Plan



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## ELECTRICAL SYMBOLS

### LIGHTING

	FIXTURE TYPE SWITCH ZONE: • UPPERCASE LETTER X INDICATES TIME CLOCK CONTROL • LOWERCASE LETTER x INDICATES LOCAL OCCUPANCY/VACANCY SENSOR CONTROL • (a) INDICATES DAYLIGHT ZONE CONTROLLED BY PHOTOCELL (WHERE SHOWN) FIXTURE IS ON EMERGENCY POWER
	EXIT SIGN, CEILING MOUNT REFER TO ARCHITECTURAL LIFE SAFETY PLAN FOR DIRECTION OF TRAVEL
	EXIT SIGN, WALL MOUNT REFER TO ARCHITECTURAL LIFE SAFETY PLAN FOR DIRECTION OF TRAVEL
	CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY OR VACANCY SENSOR
	DAYLIGHT SENSOR (x,y) INDICATES ZONES CONTROLLED
	LOW VOLTAGE MULTI-BUTTON ON/OFF DIM UP/DOWN SWITCH. x,y = SWITCH LEG(S) CONTROLLED PROVIDE SEPARATE ON/OFF AND DIM UP/DOWN FUNCTIONALITY FOR EACH SWITCH LEG NOTED.
	LOW VOLTAGE TWO-BUTTON ON/OFF SWITCH x,y = SWITCH LEG(S) CONTROLLED PROVIDE SEPARATE ON/OFF FUNCTIONALITY FOR EACH SWITCH LEG NOTED.
	LOW VOLTAGE MULTI-BUTTON SCENE CONTROL SWITCH WITH DIM UP/DOWN
	OCCUPANCY OR VACANCY SENSOR SWITCH WITH ON/OFF AND DIM UP/DOWN FUNCTIONALITY
	OCCUPANCY OR VACANCY SENSOR SWITCH
	ON/OFF TOGGLE SWITCH
	THREE WAY TOGGLE SWITCH ON/OFF SWITCH
	OCCUPANCY SENSOR, IR, CEILING MOUNT
	OCCUPANCY SENSOR, DUAL TECHNOLOGY, WALL MOUNT
	CONTACTOR
	RELAY
	LIGHTING ROOM CONTROLLER - SUBSCRIPT INDICATES NUMBER OF CONTROL ZONES. PROVIDE ONE RELAY FOR EACH CONTROL ZONE.
	LIGHTING ROOM CONTROLLER (DIMMING) - SUBSCRIPT INDICATES NUMBER OF DIMMING ZONES. PROVIDE ONE RELAY FOR EACH DIMMING ZONE.

### ELECTRICAL RISER

	GROUND
	CIRCUIT BREAKER NUMBER INDICATES TRIP SETTING AND NUMBER OF POLES
	ADJUSTABLE TRIP CIRCUIT BREAKER NUMBERS INDICATE FRAME SIZE / TRIP SETTING
	FUSED DISCONNECT SWITCH NUMBERS INDICATE SWITCH SIZE / FUSE SIZE
	PANELBOARD
	CURRENT TRANSFORMER (CT)
	CABLE TO BUS CONNECTION
	AUTOMATIC TRANSFER SWITCH (ATS)
	FEEDER TYPE - REFER TO FEEDER SCHEDULE ON ONE-LINE
	UTILITY METER
	BRANCH CIRCUIT METER
	FEEDER METER
	SURGE PROTECTIVE DEVICE (SPD)
	AVAILABLE SYMMETRICAL FAULT CURRENT IN AMPS

### RECEPTACLES

	DUPLEX RECEPTACLE - NEMA 5-15R (NEMA 5-20R FOR DEDICATED CIRCUIT)
	DUPLEX RECEPTACLE - ABOVE COUNTER. COORDINATE W/ ARCH. ELEVATIONS
	DUPLEX RECEPTACLE - DEDICATED (NEMA 5-20R)
	DUPLEX RECEPTACLE - WEATHERPROOF
	DUPLEX RECEPTACLE - TAMPER RESISTANT
	DUPLEX RECEPTACLE - GROUND FAULT CIRCUIT INTERRUPTER
	DUPLEX RECEPTACLE - UNIVERSAL SERIAL BUS
	DOUBLE DUPLEX RECEPTACLE
	DUPLEX RECEPTACLE - CEILING MOUNTED
	DUPLEX RECEPTACLE WITH TOP OUTLET CONTROLLED
	DUPLEX RECEPTACLE - FULLY CONTROLLED
	ABOVE COUNTER DUPLEX RECEPTACLE WITH TOP OUTLET CONTROLLED
	DOUBLE DUPLEX RECEPTACLE WITH ONE DUPLEX CONTROLLED
	DOUBLE DUPLEX RECEPTACLE - FULLY CONTROLLED
	HOSPITAL GRADE DUPLEX RECEPTACLE - NEMA 5-15R (NEMA 5-20R FOR DEDICATED CIRCUIT)
	HOSPITAL GRADE DUPLEX RECEPTACLE - ABOVE COUNTER. COORDINATE W/ ARCH. ELEVATIONS
	HOSPITAL GRADE DUPLEX RECEPTACLE - DEDICATED (NEMA 5-20R)
	HOSPITAL GRADE DUPLEX RECEPTACLE - WEATHERPROOF
	HOSPITAL GRADE DUPLEX RECEPTACLE - TAMPER RESISTANT
	HOSPITAL GRADE DUPLEX RECEPTACLE - GROUND FAULT CIRCUIT INTERRUPTER
	HOSPITAL GRADE DUPLEX RECEPTACLE - UNIVERSAL SERIAL BUS
	HOSPITAL GRADE DOUBLE DUPLEX RECEPTACLE
	HOSPITAL GRADE DUPLEX RECEPTACLE - CEILING MOUNTED
	HOSPITAL GRADE DUPLEX RECEPTACLE WITH TOP OUTLET CONTROLLED
	HOSPITAL GRADE DUPLEX RECEPTACLE - FULLY CONTROLLED
	ABOVE COUNTER HOSPITAL GRADE DUPLEX RECEPTACLE WITH TOP OUTLET CONTROLLED
	HOSPITAL GRADE DOUBLE DUPLEX RECEPTACLE WITH ONE DUPLEX CONTROLLED
	HOSPITAL GRADE DOUBLE DUPLEX RECEPTACLE - FULLY CONTROLLED
	SPECIAL RECEPTACLE - TYPE AS INDICATED
	CORD REEL
	CONTROLLED RECEPTACLE RELAY

### EQUIPMENT

	PANELBOARD 277/480V
	PANELBOARD 120/208V OR 120/240V
	CABINET - TYPE AS INDICATED ON PLAN
	SWITCHBOARD
	TRANSFORMER - SIZE AND VOLTAGE AS INDICATED ON PLAN
	HORSEPOWER RATED TOGGLE SWITCH WITH OVERLOAD PROTECTION
	COMBINATION STARTER HP RATED, 3-POLE, NEMA 1 MINIMUM UNLESS NOTED OTHERWISE - OVERCURRENT PROTECTION AS REQUIRED
	NON-FUSED DISCONNECT SWITCH - SIZE PER CONNECTED LOAD
	FUSED DISCONNECT SWITCH - SIZE PER CONNECTED LOAD. PROVIDE FUSES PER EQUIPMENT NAMEPLATE.
	EQUIPMENT CONNECTION REFER TO EQUIPMENT CONNECTION SCHEDULE ON GENERAL NOTES SHEET WHEN "XX" IS SHOWN.
	MECHANICAL EQUIPMENT CALLOUT. REFER TO MECHANICAL EQUIPMENT SCHEDULE.
	FLUSH FLOOR BOX
	POKE THRU FITTING
	POKE THRU FITTING WITH FURNITURE FEED
	WALL FURNITURE FEED
	POWER POLE

### RACEWAYS

	RACEWAY CONCEALED IN WALL OR CEILING, EXPOSED IN UNFINISHED AREAS
	RACEWAY CONCEALED BELOW FLOOR
	FLEXIBLE CONDUIT FIXTURE WHIP WITH CONDUCTORS
	BRANCH CIRCUIT WIRING SHOWING CIRCUIT HOME RUN TO PANELBOARD. PROVIDE DEDICATED NEUTRAL FOR EACH CIRCUIT.
	RACEWAY TURNING UP
	RACEWAY TURNING DOWN
	CIRCUIT CONTINUATION
	LOW VOLTAGE WIRING
	JUNCTION BOX
	PULL BOX

ELECTRICAL ABBREVIATIONS					
AF	AMPERE FRAME	FACP	FIRE ALARM CONTROL PANEL	PS	PROJECTION SCREEN
AFF	ABOVE FINISHED FLOOR	FDMPR	FIRE DAMPER	PTR	PRINTER
AHU	AIR HANDLING UNIT	FH	FUME HOOD	PVC	POLY(VINYL CHLORIDE) (PLASTIC)
AIC	AMPERE INTERRUPTING CURRENT	FMT	FLEXIBLE METALLIC TUBING	PWR	POWER
AMP	AMPERE	FU or F	FUSE	QTY	QUANTITY
AS	AMPERE SWITCH	FVNr	FULL VOLTAGE NON-REVERSING	RA FAN	RETURN AIR FAN
ASV	AIR SOLENOID VALVE	G	GROUND	RECEPT	RECEPTACLE
AT	AMPERE TRIP	GALV	GALVANIZED	REF	REFRIGERATOR
ATS	AUTOMATIC TRANSFER SWITCH	GC	GOGGLE CABINET	REQD	REQUIRED
AWG	AMERICAN WIRE GAUGE	GD	GARBAGE DISPOSAL	RH	RANGE HOOD
BAS	BUILDING AUTOMATION SYSTEM	GEC	GROUNDING ELECTRODE CONDUCTOR	RMC	RIGID METAL CONDUIT
BBO	BACKBOARD OPERATOR	GEN	GENERATOR	RNG	RANGE
BL	BLEACHERS	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	RSD	ROLLING STEEL DOOR
BLDG	BUILDING	GSV	GAS SOLENOID VALVE	SDMPR	SMOKE DAMPER
C	CONDUIT	HH	HAND HOSE	SF	SUPPLY FAN
CAB	CABINET	HID	HIGH INTENSITY DISCHARGE	SOLV	SOLENOID VALVE
CB	CIRCUIT BREAKER	HP	HORSEPOWER	SPD	SURGE PROTECTIVE DEVICE
CCTV	CLOSED CIRCUIT TELEVISION	HPF	HIGH POWER FACTOR	SPEC	SPECIFICATION
CLG	CIRCUIT	HPS	HIGH PRESSURE SODIUM	SPST	SINGLE POLE, SINGLE THROW
CKT	CEILING	HT	HEAT TRACE	ST	SHUNT TRIP
CM	COFFEE MAKER	IH	INSTAHOOT	STD	STANDARD
CMU	CONCRETE MASONRY UNIT	IM	ICE MACHINE	STL	STEEL
CO	CONDUIT ONLY	IWD	INTERCOM WALL DISPLAY	SW	SWITCH
COMM	COMMUNICATION	J-BOX	JUNCTION BOX	SWBD	SWITCHBOARD
COP	COPIER	kcmil	THOUSAND CIRCULAR MILS	SWGR	SWITCHGEAR
CT	COOK TOP	kV	KILOVOLT	TEL	TELEPHONE
CT	CURRENT TRANSFORMER	kVA	KILOVOLT AMPERE	TEMP	TEMPORARY
CU	COPPER	kW	KILOWATT	TP	TRAP PRIMER
DCVA	DOUBLE CHECK VALVE ASSEMBLY	kWh	KILOWATT HOUR	TR	TAMPER RESISTANT
DET	DETAIL	MAX	MAXIMUM	TTB	TELEPHONE TERMINAL BOARD
DIA	DIAMETER	MCC	MOTOR CONTROL CENTER	TYP	TYPICAL
DISC	DISCONNECT	MFR	MANUFACTURER	UC	UNDER COUNTER
DISPL	DISPOSAL	MECH	MECHANICAL	UGND	UNDERGROUND
DN	DOWN	MH	MANGNOLIE, METAL HALIDE	UH	UNIT HEATER
DO	DOOR OPERATOR	MIN	MINIMUM	UL	UNDERWRITERS LABORATORIES
DPST	DOUBLE POLE, SINGLE THROW	ML	MAGNETIC LOCK	UN	UNLESS OTHERWISE NOTED
DRY	DRYER	MLO	MAIN LUGS ONLY	UPS	UNINTERRUPTIBLE POWER SUPPLY
DW	DISHWASHER	MTD	MOUNTED	USB	UNIVERSAL SERIAL BUS
DWG	DRAWING	MTG	MOUNTING	V	VOLT
EA	EACH	MW	MICROWAVE	VA	VOLT AMPERE
EF	EXHAUST FAN	NEC	NATIONAL ELECTRICAL CODE	VFD	VARIABLE FREQUENCY DRIVE
EH	ELECTRIC HEATER	NEUT	NEUTRAL	VM	VENDING MACHINE
EHD	ELECTRIC HAND DRYER	NC	NORMALLY CLOSED	W	WATT
ELEC	ELECTRIC	NIC	NOT IN CONTRACT	W/	WITH
ELEV	ELEVATOR	NO	NUMBER, NORMALLY OPEN	WAC	WASHINGTON ADMINISTRATIVE CODE
EMT	ELECTRICAL METALLIC TUBING	NTS	NOT TO SCALE	WAS	WASHER
EPO	EMERGENCY POWER OFF	OD	OVERHEAD (COILING) DOOR	WD	STACKED WASHER / DRYER
EQUIP	EQUIPMENT	OF/CI	OWNER FURNISHED / CONTRACTOR INSTALLED	WF	WASH FOUNTAIN
EW	ELECTRIC WATER COOLER	OF/OI	OWNER FURNISHED / OWNER INSTALLED	WM	WASHING MACHINE
EWB	ELECTRIC WATER HEATER	PF	POWER FACTOR	W/O	WITHOUT
EWS	ELECTRIC WINDOW SHADE	PH or Ø	PHASE	WON	WON DOOR
EXIST	EXISTING	PIV	POST INDICATOR VALVE	WP	WEATHERPROOF, WATERPROOFING
FA	FIRE ALARM	PNL	PANEL	XFMR	TRANSFORMER
FAAP	FIRE ALARM ANNUNCIATOR PANEL	PROJ	PROJECTOR	Z	IMPEDANCE



LEVY ALAMEDA, LLC

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GENERAL NOTES

THE FOLLOWING GENERAL NOTES APPLY TO ALL DRAWINGS

- ITEMS NOTED AS "TYPICAL" ON ANY DRAWING REFERS TO ALL DRAWINGS.
- PROVIDE NYLON PULL STRING IN ALL EMPTY RACEWAYS.
- NO STRUCTURAL MEMBERS SHALL BE CUT OR ALTERED WITHOUT PRIOR APPROVAL OF THE ARCHITECT AND STRUCTURAL ENGINEER.
- ALL RACEWAYS WITHIN THE BUILDING SHALL BE RUN OVERHEAD U.O.N. RACEWAYS SHALL NOT BE RUN UNDER THE FLOOR SLAB UNLESS SPECIFICALLY SHOWN ON THE DRAWINGS.
- NO RACEWAYS SHALL BE RUN IN FLOOR SLABS.
- LOCATIONS OF ALL WALL MOUNTED DEVICES ARE SHOWN SCHEMATICALLY. COORDINATE WITH THE ARCHITECTURAL DRAWINGS, ELEVATIONS AND CASEWORK SUPPLIERS SHOP DRAWINGS FOR EXACT LOCATION OF DEVICES PRIOR TO ROUGH-IN.
- ALL RACEWAYS IN FINISHED SPACES SHALL BE CONCEALED.
- PROVIDE 2" EMT SLEEVES FOR LOW VOLTAGE WIRING RUNNING THROUGH NON-RATED WALLS, FLOORS AND CEILINGS.
- PROVIDE SLEEVES WITH APPROVED FIRE STOPPING AT EACH LOCATION WHERE LOW VOLTAGE WIRING PENETRATES A RATED WALL OR CEILING.
- SEAL ALL PENETRATIONS IN RATED FLOORS AND CEILINGS WITH A UL APPROVED FIRE STOP SYSTEM.
- PROVIDE A COMPLETE DESIGN-BUILD PATHWAY SYSTEM FOR ALL LOW VOLTAGE WIRING. SEE SPECIFICATIONS. QUANTITY AND SIZE OF RACEWAYS SHOWN ON LOW VOLTAGE SYSTEMS PLANS ARE THE MINIMUM TO BE PROVIDED. CONTRACTOR SHALL PROVIDE ALL RACEWAYS AS REQUIRED.
- ALL LOW VOLTAGE WIRING NOT RUN IN A METALLIC RACEWAY SHALL BE PLENUM RATED.
- ALL EQUIPMENT, LUMINAIRES, RACEWAYS, DEVICES, ETC. SHALL BE UL LISTED.
- MOUNT ALL DEVICES ABOVE COUNTERS 6" ABOVE BACKSPASH UNLESS NOTED OTHERWISE.
- ALL CONTROLLED RECEPTACLES SHALL BE PERMANENTLY LABELED AS REQUIRED TO BY THE NEC.
- REFER TO ARCHITECTURAL DRAWINGS FOR DEVICE MOUNTING HEIGHTS.

DEMOLITION PLANS

THE FOLLOWING GENERAL NOTES APPLY TO ALL DEMOLITION PLAN DRAWINGS

- THE CONTRACT DOCUMENTS DO NOT SHOW ALL REQUIRED DEMOLITION WORK. THE CONTRACTOR SHALL SURVEY THE EXISTING CONDITIONS AND ESTABLISH THE EXTENT OF DEMOLITION PRIOR TO BID.
- WHERE "ALL ELECTRICAL SYSTEMS" ARE NOTED TO BE REMOVED FROM AN AREA REMOVE ALL FIXTURES, DEVICES, EQUIPMENT, RACEWAYS, AND WIRING UNLESS OTHERWISE NOTED.
- REMOVE ALL ELECTRICAL DISTRIBUTION EQUIPMENT, RACEWAYS, AND CONDUCTORS AS SHOWN ON THE EXISTING ONE-LINE DIAGRAM.
- REMOVE ALL TEMPORARY WORK INSTALLED DURING THE COURSE OF CONSTRUCTION.
- REMOVE CONNECTIONS TO MECHANICAL EQUIPMENT AS SHOWN ON THE MECHANICAL DEMOLITION PLANS.
- EXISTING DEVICES TO BE DEMOLISHED SHOWN BOLD. REMOVE DEVICE, RACEWAY AND WIRING BACK TO SOURCE, U.O.N.
- WHERE EXISTING RECEPTACLES ARE REMOVED, MAINTAIN CONTINUITY TO RECEPTACLES ON THE SAME CIRCUIT TO REMAIN.
- WHERE EXISTING LUMINAIRES ARE REMOVED, MAINTAIN CONTINUITY TO FIXTURES ON THE SAME CIRCUIT TO REMAIN.
- WHERE EXISTING LOW VOLTAGE DEVICES ARE REMOVED, MAINTAIN CONTINUITY TO OTHER DEVICES.

SITE PLANS

THE FOLLOWING GENERAL NOTES APPLY TO ALL SITE PLAN DRAWINGS

- COORDINATE ROUTING OF UNDERGROUND RACEWAYS WITH ALL NEW AND EXISTING UTILITIES. REFER TO CIVIL DRAWINGS.
- CONTRACT WITH A LOCATOR SERVICE TO MARK THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO EXCAVATION.
- ALL SITE LIGHTING RACEWAYS SHALL BE 1" C. U.O.N.
- ROUTE ALL SITE LIGHTING CIRCUITS VIA LIGHTING CONTROL SYSTEM.
- PROVIDE ALL REQUIRED CUTTING, PATCHING, EXCAVATION, COMPACTION, AND PATCHING FOR INSTALLATION OF UNDERGROUND RACEWAYS AND UTILITY SERVICES.
- BACKFILL ALL TRENCHES (INCLUDING THOSE FOR UTILITY SERVICES) WITH STRUCTURAL BACKFILL OR GRAVEL BORROW PER WSDOT STANDARDS.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL COORDINATION WITH THE SERVING UTILITY COMPANIES INCLUDING COMPLETING AND SUBMITTING ALL NECESSARY APPLICATIONS FOR SERVICE.
- CONTRACTOR TO OBTAIN ALL REQUIRED PERMITS AND EASEMENTS.

DOOR HARDWARE

- PROVIDE ALL RACEWAYS AND WIRING REQUIRED TO INSTALL ELECTRONIC DOOR HARDWARE. REFER TO DOOR HARDWARE SPECIFICATIONS, SCHEDULES AND DIAGRAMS.

LIGHTING CONTROL PANELS (LCP)

- DOWNSTREAM OF A PANELBOARD WITH AN AIC RATING OF 14,000 ASYM OR LESS: LOCATE LCP A MINIMUM OF 2'-0" FROM THE PANELBOARD.
- DOWNSTREAM OF A PANELBOARD WITH AN AIC RATING GREATER THAN 14,000 ASYM: LOCATE A LCP A MINIMUM OF 10'-0" FROM THE PANELBOARD.

LIGHTING REQUIREMENTS

THE FOLLOWING GENERAL NOTES APPLY TO ALL LIGHTING PLAN DRAWINGS

- REFER TO ARCHITECTURAL REFLECTED CEILING PLANS AND ELEVATIONS FOR EXACT LOCATION OF LUMINAIRES.
- WHERE THERE IS A CONFLICT ARCHITECTURAL PLANS SHALL GOVERN.
- COORDINATE THE FINAL LOCATION OF LUMINAIRES IN MECHANICAL ROOMS AND ATTIC SPACES TO AVOID CONFLICTS WITH DUCT WORK, PIPING, AND MECHANICAL EQUIPMENT.
- ROUTE ALL EXTERIOR LIGHTING CIRCUITS VIA LIGHTING CONTROL PANEL.
- INSTALL AND WIRE REMOTE DRIVERS. REFER TO LUMINAIRE SCHEDULE. MOUNT IN ACCESSIBLE LOCATIONS. SHOW LOCATIONS ON THE AS-BUILT DRAWINGS.

POWER REQUIREMENTS

THE FOLLOWING GENERAL NOTES APPLY TO ALL POWER PLAN DRAWINGS

- CIRCUIT ALL FIRE/SMOKE DAMPERS AND SMOKE DAMPERS FROM NEAREST 120V EMERGENCY PANEL WITH 1/2" - 3/12. UTILIZE SPARE 20A-1P BREAKER PROVIDED. RECORD CIRCUITING ON AS-BUILT PANEL SCHEDULES AND DRAWINGS. REFER TO MECHANICAL DRAWINGS FOR DAMPER LOCATIONS.
- COORDINATE LOCATIONS OF BAS CONTROL POWER WITH THE CONTROLS CONTRACTOR PRIOR TO ROUGH-IN.
- PRIOR TO ORDERING EQUIPMENT OR ROUGH-IN, COORDINATE WITH THE MECHANICAL CONTRACTOR TO ESTABLISH THE ACTUAL LOAD AND OVERCURRENT PROTECTION REQUIREMENTS FOR EACH PIECE OF EQUIPMENT.
- REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE FOR EQUIPMENT RATINGS AND FEEDER SIZES.
- PROVIDE DISCONNECT SWITCH OR COMBINATION STARTER FOR EACH PIECE OF EQUIPMENT AS SHOWN ON MECHANICAL EQUIPMENT CONNECTION SCHEDULE.
- PRIOR TO ROUGH-IN OF ALL EQUIPMENT SPECIFIED BY OTHER DIVISIONS, COORDINATE WITH THE EQUIPMENT MANUFACTURER TO ESTABLISH ALL REQUIREMENTS FOR EACH PIECE OF EQUIPMENT.
- ALL EXTERIOR RECEPTACLES SHALL BE WP/GFCI.
- ALL EXTERIOR DISCONNECTS/STARTERS SHALL BE NEMA 3R.
- FEEDER ROUTING SHOWN IS APPROXIMATE. COORDINATE WITH MECHANICAL SYSTEMS AND BUILDING STRUCTURE. PROVIDE OFFSETS AS REQUIRED.
- ALL RECEPTACLES WITHIN 6 FEET OF A SINK SHALL BE GFCI TYPE.
- COORDINATE WITH THE ELEVATOR SHOP DRAWINGS AND THE ELEVATOR INSPECTOR PRIOR TO ROUGH-IN OF THE ELEVATOR MACHINE ROOM.
- ALL HEAT TRACE AND SNOW MELT EQUIPMENT CIRCUITS SHALL BE FED WITH GFPE CIRCUIT BREAKERS.
- PROVIDE 120-1-Ø HARDWIRED CONNECTION TO EACH TRAP PRIMER FROM NEAREST ADJACENT GENERAL RECEPTACLE CIRCUIT UTILIZING 1/2" - 3/12. REFER TO MECHANICAL DRAWINGS FOR LOCATIONS. RECORD CIRCUITING ON AS-BUILT PANEL SCHEDULES AND DRAWINGS.

KITCHEN REQUIREMENTS

- COORDINATE THE EXACT LOCATION OF ALL KITCHEN EQUIPMENT CONNECTIONS WITH FOOD SERVICE ROUGH-IN PLANS AND ARCHITECTURAL ELEVATIONS.
- VERIFY POWER AND ROUGH-IN REQUIREMENTS OF ALL KITCHEN EQUIPMENT WITH THE KITCHEN EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
- ALL 120V AND 208V SINGLE PHASE RECEPTACLES 50 AMPERES OR LESS AND ALL THREE PHASE RECEPTACLE 100 AMPERES OR LESS INSTALLED IN THE KITCHEN SHALL HAVE GFCI PROTECTION AT THE PANEL OR AT THE DEVICE.
- PROVIDE ALL ELECTRICAL CONNECTIONS AND WIRING AS SHOWN ON FOOD SERVICE ROUGH-IN PLANS AND SPECIFICATIONS.
- WIRING METHODS FOR CLASS 1 HOODS SHALL COMPLY WITH NFPA 96.
- ALL DEVICE PLATES SHALL BE STAINLESS STEEL.

EQUIPMENT CONNECTIONS

- PROVIDE ALL RACEWAYS, WIRING AND ANCILLARY EQUIPMENT AS SHOWN ON MANUFACTURER SHOP DRAWINGS.
- PROVIDE HARDWIRED CONNECTION, RECEPTACLE OR FUSED DISCONNECT SWITCH AS SHOWN ON MANUFACTURER SHOP DRAWINGS.

DESIGN BUILD FIRE ALARM SYSTEM

- THE CONTRACTOR SHALL PROVIDE A COMPLETE DESIGN BUILD FIRE ALARM SYSTEM (DEVICES, RACEWAYS AND WIRING) PER THE FIRE MARSHAL'S REQUIREMENTS.
- PROVIDE THE FOLLOWING IN ADDITION TO THE REQUIREMENTS OF THE FIRE MARSHAL:
  - COMPLETE AREA SMOKE DETECTOR COVERAGE. FIRE SPRINKLERS CANNOT BE USED IN LIEU OF SMOKE DETECTORS.
  - PULL STATIONS AT ALL EXITS.
- THE CONTRACTOR'S SCOPE SHALL INCLUDE ALL NEW/REMODELED AREAS AND ANY REQUIRED UPGRADES TO THE EXISTING SITE/BUILDINGS.
- THE DEVICES AND RACEWAYS SHOWN ON THE DRAWINGS ARE FOR GENERAL INFORMATION ONLY TO ASSIST THE CONTRACTOR IN PREPARING HIS BID. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE A COMPLETE DESIGN BUILD SYSTEM.
- THE CONTRACTOR SHALL PROVIDE ALL CUTTING, PATCHING AND PAINTING REQUIRED TO ALLOW FOR INSTALLATION OF THE SYSTEM.
- FIRE ALARM SYSTEM WIRING SHALL BE RUN IN CONTINUOUS METALLIC RACEWAYS.
- PROVIDE ADDRESSABLE DUCT DETECTOR AT EACH FIRE/SMOKE DAMPER (FSD) AND SMOKE DAMPER (SD) LOCATION. REFER TO MECHANICAL DRAWINGS FOR LOCATIONS.
- PROVIDE FA CONNECTION TO FIRE SPRINKLER TAMPER, FLOW, AND PRESSURE SWITCHES. REFER TO MECHANICAL DRAWINGS FOR LOCATIONS.
- PROVIDE EXTERIOR FIRE ALARM BELL AND STROBE AT LOCATION DIRECTED BY FIRE MARSHAL.

LOW VOLTAGE SYSTEMS REQUIREMENTS

THE FOLLOWING GENERAL NOTES APPLY TO ALL LOW VOLTAGE SYSTEMS PLAN DRAWINGS

- MINIMUM RACEWAY SIZE SHALL BE 1" FOR TELECOMMUNICATIONS CABLING AND 3/4" FOR ALL OTHER SYSTEMS.
- ALL SYSTEMS WIRING EXCEPT FIRE ALARM SHALL BE RUN UTILIZING OPEN WIRING METHOD ABOVE ACCESSIBLE CEILINGS. PROVIDE METALLIC RACEWAYS FOR WIRING INSTALLED IN WALLS, ABOVE INACCESSIBLE CEILING, WHERE EXPOSED OR WHERE SUBJECT TO PHYSICAL DAMAGE. RACEWAY FILL SHALL NOT EXCEED 40%.
- PROVIDE 3/4" A-C FIRE RETARDANT PLYWOOD ON ALL FOUR WALLS OF THE MDF AND EACH IDF. MOUNT 8" DIMENSION VERTICAL. PAINT FLAT WHITE.
- PROVIDE 1/4" C. FROM EACH FLOOR BOX OR POKE THRU TO ACCESSIBLE CEILING LOCATION. THIS IS IN ADDITION TO THE RACEWAYS SHOWN ON THE DRAWINGS.
- ALL EXTERIOR DEVICES SHALL BE WEATHERPROOF.
- PROVIDE CONNECTION TO FIRE SPRINKLER DOUBLE CHECK VALVE ASSEMBLIES AND PIVS. REFER TO CIVIL/MECHANICAL DRAWINGS FOR LOCATIONS.
- STAPLES SHALL NOT BE USED TO SECURE LOW VOLTAGE CABLING.

ONE-LINE DIAGRAM

- PROVIDE PULL BOXES AS REQUIRED BY THE NEC.
- SHORT CIRCUIT CURRENTS LESS THAN 10,000 ASYM FOR 208V PANELS AND 14,000 ASYM FOR 480V PANELS ARE NOT SHOWN.
- THE ONE-LINE DIAGRAM IS DIAGRAMMATIC AND DOES NOT SHOW THE ACTUAL ROUTING OF THE RACEWAYS.
- FOR TWO SECTION PANELS PROVIDE FULL SIZE FEEDER CONNECTIONS FROM SECTION 1 TO SECTION 2.
- THE ELECTRICAL DISTRIBUTION SYSTEM SHALL BE FULLY RATED. A SERIES RATED SYSTEM IS NOT ACCEPTABLE.
- ALL TRANSFORMERS ARE 480V 3 PHASE 3 WIRE PRIMARY: 208Y/120V 3 PHASE, 4 WIRE SECONDARY, DOE 2016 RATED, U.O.N.
- NOT ALL CIRCUIT BREAKERS ARE SHOWN. REFER TO PANEL AND SWITCHBOARD SCHEDULES FOR OTHER LOADS SERVED, AND SPARE CIRCUIT BREAKERS.
- CONTRACTOR TO PROVIDE COORDINATION AND ARC FLASH STUDY. ALL DISTRIBUTION SYSTEM EQUIPMENT SHALL BE RATED FOR THE AVAILABLE FAULT CURRENT AND SHALL BE LABELED WITH THE ARC FLASH HAZARD CATEGORY AND AVAILABLE FAULT CURRENT. ALL NEC 700 AND 701 PORTIONS OF THE DISTRIBUTION SYSTEM SHALL BE SELECTIVELY COORDINATED.
- SET ALL OVERCURRENT DEVICES PER THE COORDINATION STUDY.
- TEST ALL GROUND FAULT RELAYS AS REQUIRED BY THE WAC.
- TRANSFORMER SECONDARY CONDUCTORS SHALL BE NO MORE THAN 10-FEET LONG PER NEC ARTICLE 240.21 (C) 2.
- CIRCUIT BREAKERS RATED 800 AMPS OR MORE: PROVIDE ELECTRONIC TRIP UNIT WITH ADJUSTABLE LONG TIME, SHORT TIME AND INSTANTANEOUS (LSI) TRIP FUNCTIONS. PROVIDE GROUND FAULT PROTECTION (G) WHERE CALLED OUT ON THE ONE-LINE DRAWING. TRIP UNITS SHALL BE FIELD REPLACEABLE.
- CIRCUIT BREAKERS RATED 1200 AMPS OR MORE: PROVIDE TRIP UNIT WITH A MAINTENANCE MODE SWITCH WITH LED INDICATOR LIGHT WHICH OVERRIDES THE TRIP SETTINGS IN ORDER TO MINIMIZE THE ARC FLASH HAZARD DURING MAINTENANCE. TRIP UNITS SHALL BE FIELD REPLACEABLE.
- PROVIDE GROUNDING AND BONDING OF ELECTRICAL POWER DISTRIBUTION EQUIPMENT PER NEC ARTICLE 250.
- PROVIDE COMMISSIONING FOR THE ENERGY METERING SYSTEM IN ACCORDANCE WITH C408.6. ENERGY METERING SYSTEM SHALL BE VERIFIED FOR ACCURACY PRIOR TO INTEGRATION WITH THE BMS SYSTEM.
- CONTROLS CONTRACTOR TO INTEGRATE ENERGY METERING WITH THE BMS SYSTEM. COORDINATE WITH THE MECHANICAL CONTROLS CONTRACTOR TO INTEGRATE THE ENERGY METERING SYSTEM INTO THE BMS.

BRANCH CIRCUIT WIRING

THE FOLLOWING GENERAL NOTES APPLY TO ALL DRAWINGS

- IN GENERAL ONLY CIRCUIT NUMBERS HAVE BEEN SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED RACEWAYS AND WIRING.
- SHOW ALL RACEWAYS AND WIRING ON AS-BUILT DRAWINGS.
- MINIMUM RACEWAY SIZE SHALL BE 3/4".
- NO MORE THAN 7 #12 AWG CONDUCTORS SHALL BE INSTALLED IN A RACEWAY.
- HOMERUNS GREATER THAN 75 FEET TO THE FIRST DEVICE SHALL BE NO. 10 AWG.
- LIGHTING, POWER, AND MECHANICAL EQUIPMENT CONDUCTORS SHALL NOT BE COMBINED IN THE SAME RACEWAY.
- PROVIDE A GROUND CONDUCTOR IN ALL RACEWAYS.
- PROVIDE A DEDICATED NEUTRAL CONDUCTOR FOR EACH BRANCH CIRCUIT.
- PROVIDE CONDUCTORS AS REQUIRED TO PROVIDE CIRCUITING AND SWITCHING DUTY AS SHOWN ON THE DRAWINGS.
- FOR OTHER THAN 15 OR 20 AMP SINGLE PHASE RECEPTACLE BRANCH CIRCUITS PROVIDE A DEDICATED HOMERUN TO THE PANEL.
- FOR 30 AMP BRANCH CIRCUITS PROVIDE #10 AWG CONDUCTORS.
- FOR 40 AMP AND LARGER BRANCH CIRCUITS PROVIDE RACEWAYS AND WIRING AS SHOWN ON THE DRAWINGS.
- GENERAL:
  - 120V BRANCH CIRCUIT HOMERUNS GREATER THAN 90 FEET TO THE FIRST DEVICE SHALL HAVE CONDUCTORS INCREASED ONE GAUGE SIZE FOR EVERY 60' OF LENGTH.
  - 208V BRANCH CIRCUIT HOMERUNS GREATER THAN 125 FEET TO THE FIRST DEVICE SHALL HAVE CONDUCTORS INCREASED ONE GAUGE SIZE FOR EVERY 75' OF LENGTH.
  - 277V BRANCH CIRCUIT HOMERUNS GREATER THAN 175 FEET TO THE FIRST DEVICE SHALL HAVE CONDUCTORS INCREASED ONE GAUGE SIZE FOR EVERY 100' OF LENGTH.
  - 480V BRANCH CIRCUIT HOMERUNS GREATER THAN 300 FEET TO THE FIRST DEVICE SHALL HAVE CONDUCTORS INCREASED ONE GAUGE SIZE FOR EVERY 200' OF LENGTH.
- LIGHTING, POWER AND MECHANICAL EQUIPMENT CONDUCTORS SHALL NOT BE COMBINED IN THE SAME RACEWAY.
- PROVIDE A GROUND CONDUCTOR IN ALL RACEWAYS.



1101 2nd Avenue, Suite 400  
Seattle, WA 98101

ph 206.623.0717

www.coffman.com

POTENTIA-VIRIDI  
BATTERY ENERGY  
STORAGE SYSTEM

LEVY ALAMEDA, LLC

NOT FOR  
CONSTRUCTION

REV	DATE	DESCRIPTION
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PROJ. NO. 232059

DRAWN

CHECKED

DATE XX/XX/25



SHEET TITLE:

GENERAL NOTES

SHEET NO:

E-0.2

SHEET OF X



## GENERAL NOTES

1. REFER TO ADDITIONAL NOTES ON DRAWING E0.2.
2. THE UNDERLINED LUMINAIRE IN THE SCHEDULE REPRESENTS THE 'BASIS OF DESIGN'. ALL OTHER MANUFACTURERS LISTED MUST MEET OR EXCEED ALL REQUIREMENTS OF THE BASIS OF DESIGN.
3. VERIFY THE VOLTAGE OF ALL LUMINAIRES. REFER TO PLANS FOR SPECIFIC VOLTAGE REQUIREMENTS.
4. ALL LUMINAIRES TO BE PROVIDED WITH A CUSTOM COLOR/FINISH AS SELECTED BY THE ARCHITECT, UNLESS OTHERWISE NOTED.
5. ALL LUMINAIRES TO BE UL LISTED AND LABELED. EXTERIOR LUMINAIRES TO BE UL "WET" LABELED.
6. LUMINAIRES SHALL BE PROVIDED WITH AN INTERNAL DISCONNECTING MEANS WHICH COMPLIES WITH NEC ARTICLE 410.
7. ALL LUMINAIRES TO HAVE AN INTEGRAL DRIVER UNLESS A REMOTE DRIVER IS SPECIFIED.
8. PROVIDE GLARE SHIELDS FOR ALL POLE MOUNTED LUMINAIRE.
9. REFER TO THE SPECIFICATIONS AND DRAWINGS FOR ADDITIONAL REQUIREMENTS.

1. MINIMUM CRI SHALL BE 80.
2. MANUFACTURER SHALL PROVIDE A 5-YEAR WARRANTY.
3. LUMINAIRES SHALL COMPLY WITH ROHS (RESTRICTION OF THE USE OF HAZARDOUS SUBSTANCES IN ELECTRICAL AND ELECTRONIC EQUIPMENT) REGULATIONS. APPLICABLE FOR LEED PROJECTS ONLY.
4. MINIMUM LUMENS PER WATT EFFICACY SHALL BE 70%.

# LIGHTING TYPE NOMENCLATURE

EXAMPLE DESIGNATION: RA1

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graph LR; RA1 --- FUNCTION; RA1 --- TYPE; TYPE --- VARIANT
```

<p><b>FUNCTION</b></p> <p>E = EMERGENCY (EXIT SIGNS, BUGEYES)</p> <p>C = COVE</p> <p>D = DOWNLIGHT</p> <p>H = HANGING/PENDANT</p> <p>R = RECESSED</p> <p>S = SURFACE</p> <p>U = UNDERCABINET</p> <p>T = TRACK</p> <p>W = WALL</p> <p>P = POLE</p> <p>B = BOLLARD/POST</p> <p>G = IN-GROUND (INGRADE)</p> <p>X = EXEMPT</p> <p>Z = CUSTOM</p>	<p><b>VARIANT</b></p> <p>(1-9)</p> <p><b>TYPE</b></p> <p>(A-Z)</p>
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LEVY ALAMEDA, LLC

NOT FOR  
CONSTRUCTION

REV	DATE	DESCRIPTION

REV	DATE	DESCRIPTION
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PROJ. NO. 23205

DRAWN

CHECKED

DATE XX/XX/2

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SHEET TITLE:

## LUMINAIRE SCHEDULE

SHEET NO:

# E-0.3



LIGHTING LEGEND

- PA1 - POLE MOUNTED LED WITH TYPE III DISTRIBUTION
- PA2 - POLE MOUNTED LED WITH TYPE V DISTRIBUTION
- WA1 - WALL MOUNTED LED

FLAG NOTES

- 1

ILLUMINATION AROUND GENERATOR IS ACCOMPLISHED VIA GENERATOR ENCLOSURE MOUNTED LUMINAIRES PROVIDED BY GENERATOR ENCLOSURE VENDOR.

POTENTIA-VIRIDI  
BATTERY ENERGY  
STORAGE SYSTEM

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SHEET TITLE:

ELECTRICAL SITE  
LIGHTING PLAN

SHEET NO:

E-1.0

SHEET OF X

