

ELECTRICAL SYMBOL LIST


EXISTING	NEW	DESCRIPTION
	①	LUMINAIRE, WALL MOUNTED (NUMERAL IN CIRCLE CORRESPONDS TO LUMINAIRE SCHEDULE)
	\$ ^a	LIGHT SWITCH, WALL MOUNTED, 1P20A, 120/277V, 1HP MAX., (LETTER INDICATES LUMINAIRES CONTROLLED); M.H. = +36" TO TOP OF DEVICE PLATE
	\$ ₂	TWO POLE SWITCH, 120/277V, 1HP MAX
⊕		DUPLEX RECEPTACLE, PROVIDED WITH PREFABRICATED, PREWIRED GUARD SHACK
⊖		DUPLEX RECEPTACLE, GROUNDING TYPE, NEMA 5-20R
⊕		SINGLE RECEPTACLE, PROVIDED WITH PREFABRICATED, PREWIRED GUARD SHACK
⊕		PANELBOARD, PROVIDED WITH PREFABRICATED, PREWIRED GUARD SHACK
	⊕	GATE ARM CONTROL STATION, CONTROL STATION BY GATE ARM SUPPLIER, INSTALLED BY ELECTRICAL CONTRACTOR
	⊕	JUNCTION BOX, WALL MOUNTED
	⊕	JUNCTION BOX, LARGE, MOUNTED ON COLUMN UNDER BUILDING
---	---	CONDUIT CONCEALED BELOW GRADE OR IN FLOOR SLAB
⊕	⊕	HOMERUN ARROW TO PANELBOARD. LETTER INDICATES PANELBOARD, NUMBERS INDICATES CIRCUITS, HASHMARKS INDICATE QUANTITY OF CURRENT-CARRYING WIRES WITHIN, NO HASHMARKS INDICATE 2 CURRENT-CARRYING WIRES WITHIN
---	---	SURFACE MOUNTED RACEWAY, PROVIDE STRAP 8'-0" ON CENTER MAXIMUM, HASHMARKS INDICATE QUANTITY OF CURRENT-CARRYING WIRES WITHIN, NO HASHMARKS INDICATE 2 CURRENT-CARRYING WIRES WITHIN
		EQUIPMENT TERMINATION WITH FLEXIBLE CONDUIT WHIP
	1 E-X	DETAIL INDICATOR: TOP HALF DENOTES DETAIL NUMBER, BOTTOM HALF DENOTES SHEET NUMBER
	GND	GROUND
	KVA	KILOVOLT-AMPERE
	WP	WEATHERPROOF
	×	DENOTES DEMOLITION/REMOVAL

LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	LAMPS
①	LED WALL PACK, BOTTOM AT +7'-2" TO TOP OF CONCRETE PLATFORM, DIE-CAST ALUMINUM HOUSING, FULLY SHIELDED OPTICS, DARK BRONZE POLYESTER POWDER COAT COASTAL FINISH, IMPACT RESISTANT TEMPERED GLASS LENS, WET LOCATION, TYPE IV ASYMMETRIC FORWARD THROW DISTRIBUTION, 2800K TRUE AMBER WITH LESS THAN 2% BLUE LIGHT CONTENT, 3,700 NOMINAL LUMENS, 120/277V DRIVER GE #EWAS01-44AF-7-28-N-BKBZ OR APPROVED EQUIVALENT	32W

GENERAL ELECTRICAL NOTES:

- ALL WORK SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE (NEC), NATIONAL ELECTRICAL SAFETY CODE AND BUILDING ORDINANCES OF THE CITY AND COUNTY OF HONOLULU. CONSTRUCTION PRACTICES SHALL CONFORM TO THE LATEST EDITION OF AMERICAN ELECTRICIANS' HANDBOOK BY CROFT, AND APPLICABLE INSTRUCTIONS OF MANUFACTURERS OF EQUIPMENT AND MATERIAL SUPPLIED FOR THIS PROJECT.
- THE DRAWINGS DO NOT REFLECT ALL THE EXISTING CONDITIONS THAT MAY BE ENCOUNTERED DURING CONSTRUCTION. VISIT THE PROJECT SITE AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS, THE EXTENT OF ANY DEMOLITION, RELOCATION, RECONNECTION, AND THE NEW WORK PRIOR TO THE START OF ON-SITE CONSTRUCTION ACTIVITIES. REPORT ANY DISCREPANCIES AND/OR DIFFERENCES BETWEEN THE EXISTING CONDITIONS AND THE CONSTRUCTION DOCUMENTS TO THE STATE. RESOLVE ALL DISCREPANCIES AND QUESTIONS PRIOR TO THE START OF WORK. BID SUBMISSION SHALL BE CONSIDERED AS EVIDENCE THAT THE CONTRACTOR HAS VISITED THE SITE AND RESOLVED ALL DISCREPANCIES AND QUESTIONS AND NO EXTRA PAYMENT WILL BE AUTHORIZED FOR WORK REQUIRED BY THE CONTRACTOR'S FAILURE TO DO SO.
- EXISTING DEVICE LOCATIONS, CIRCUIT ASSIGNMENTS, WIRING CONNECTIONS, AND CONDUIT RUNS INDICATED WERE DERIVED FROM AVAILABLE REFERENCE DOCUMENTS AND LIMITED FIELD INVESTIGATION. FIELD VERIFY ALL EXISTING CONDITIONS AND MAKE ANY NECESSARY ADJUSTMENTS TO SATISFY THE INTENT OF THE DRAWINGS AND SPECIFICATIONS.
- RE-ROUTE ALL EXISTING CONDUIT, WIRING AND CABLING TO REMAIN WITHIN THE PROJECT AREA AS NECESSARY TO FACILITATE THE REMOVAL OF EXISTING EQUIPMENT AS WELL AS THE INSTALLATION OF ALL NEW EQUIPMENT. REMOVE AND RE-INSTALL ELECTRICAL EQUIPMENT, INCLUDING LIGHTS, TO REMAIN AS REQUIRED.
- THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
- WORK INCIDENTAL TO THE CONTRACT AND NECESSARY TO COMPLETE THE PROJECT, ALTHOUGH NOT SPECIFICALLY REFERRED TO IN THE CONTRACT DOCUMENTS, SHALL BE FURNISHED AND PERFORMED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE PROJECT.
- THE LOCATION OF ALL ELECTRICAL APPARATUS AND DEVICES ARE APPROXIMATE AND BEFORE INSTALLING, STUDY THE ARCHITECTURAL, STRUCTURAL, AND MECHANICAL DETAILS AND MAKE INSTALLATION IN THE MOST LOGICAL MANNER. ANY PIECE OF EQUIPMENT/DEVICE MAY BE RELOCATED WITHIN 10' BEFORE INSTALLATION AT THE DIRECTION OF THE STATE WITHOUT ADDITIONAL CHARGE TO THE PROJECT.
- SHOULD PROJECT CONDITIONS REQUIRE REARRANGEMENT OF THE PROJECT'S WORK, THE CONTRACTOR SHALL MARK SUCH CHANGES ON THE AS-BUILT DRAWINGS. IF THESE CHANGES REQUIRE AN ALTERNATE METHOD TO THOSE SPECIFIED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL SUBMIT DRAWINGS TO REFLECT THE PROPOSED ALTERNATE METHODS TO THE STATE FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL NOT PROCEED UNTIL APPROVAL IS OBTAINED. REARRANGEMENT OF WORK FOR THE PURPOSE OF COORDINATION SHALL NOT BE CONSIDERED AN ITEM FOR EXTRA COST.
- MAINTAIN CONTINUITY OF ALL CIRCUITS THAT PASS THROUGH THE PROJECT LIMITS AND SERVE OTHER AREAS OR EQUIPMENT INDICATED TO REMAIN. PROVIDE NEW JUNCTION BOXES, CONDUITS & WIRING, AND THE LABOR REQUIRED TO FACILITATE SAID CONTINUITY. BOXES, CONDUITS AND WIRING SHALL BE IN ACCORDANCE WITH THE NEC.
- AN ADHESIVE VINYL NAMEPLATE SHALL BE PROVIDED FOR ALL SWITCHES, RECEPTACLES, POWER CONNECTIONS AND MISCELLANEOUS DEVICES REQUIRING POWER. THE NAMEPLATE SHALL INDICATE THE PANELBOARD SERVING THE DEVICE AND THE CORRESPONDING CIRCUIT ASSIGNMENT. LETTERING SHALL BE A MINIMUM OF 1/4" HIGH. UTILIZE BROTHER "P-TOUCH" LABEL MAKER OR APPROVED SUBSTITUTE.
- A GREEN, EQUIPMENT GROUND CONDUCTOR SIZED IN ACCORDANCE WITH THE NEC ARTICLE 250 SHALL BE INSTALLED IN ALL FEEDER AND BRANCH CIRCUITS WHETHER INDICATED ON CONTRACT DRAWINGS OR NOT.
- DO NOT USE A COMMON NEUTRAL FOR MULTIPLE BRANCH CIRCUITS INSTALLED IN A COMMON CONDUIT. PROVIDE A DEDICATED NEUTRAL FOR EACH INDIVIDUAL CIRCUIT. WHERE MULTIPLE DEDICATED NEUTRALS ARE INSTALLED IN A COMMON CONDUIT, PROVIDE COLOR CODING OF THE DIFFERENT NEUTRAL CONDUCTORS IN ACCORDANCE WITH NEC 2017 ARTICLE 200.6 (WHITE, GRAY, THREE CONTINUOUS WHITE OR GRAY STRIPES, ETC.).
- ALL EXISTING ELECTRICAL EQUIPMENT AND FACILITIES NOT SCHEDULED FOR DEMOLITION SHALL REMAIN OPERATIONAL DURING CONSTRUCTION. CONTRACTOR SHALL MINIMIZE OUTAGES AND COORDINATE WITH THE HARBORS DIVISION CONSTRUCTION ENGINEER, HARBORS DIVISION HAWAII DISTRICT AND ALL USERS AND TENANTS AT LEAST TWO WEEKS PRIOR TO ALL OUTAGES.

 <small>THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION</small> <i>Michele N. Adair</i> <small>ECS REC</small> <small>APRIL 30, 2024</small> <small>EXPIRATION DATE OF LICENSE</small>	REV	DATE	DESCRIPTION	BY	APPROVED
	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS DIVISION				
	JOB TITLE REPAIR GUARD SHACK HILO HARBOR, HAWAII				
	SHEET TITLE ELECTRICAL SYMBOL LIST AND GENERAL ELECTRICAL NOTES				
	DESIGNED BY AM	CHECKED BY IP	DATE FEB, 2023	SCALE AS NOTED	JOB NUMBER H.C. 50173
				SHEET E-1 20 of 22 SHEETS	