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# ELECTRICAL, COMMUNICATION, PROCESS CONTROL, AND ELECTRONIC SAFETY AND SECURITY SYMBOL LEGEND

LIGHTING	POWER DISTRIBUTION	WIRING DEVICES	WIRING DEVICES (CONTINUED)	TELECOMMUNICATION/NETWORK	SECURITY/ACCESS/SURVEILLANCE
<p><b>LIGHT FIXTURE :</b> GENERAL</p> <p>CEILING SURFACE MOUNTED</p> <p>CEILING RECESSED</p> <p>CEILING PENDANT</p> <p>WALL MOUNTED</p> <p><b>NIGHT LIGHT :</b> FIXTURE WITH "NIGHT LIGHT" CONNECTED TO NORMAL OR NORMALEMERGENCY CIRCUIT</p> <p>CEILING SURFACE MOUNTED</p> <p>CEILING RECESSED</p> <p>CEILING PENDANT</p> <p>WALL MOUNTED</p> <p><b>EMERGENCY :</b> LIGHT FIXTURE CONNECTED TO NORMALEMERGENCY, EMERGENCY ONLY OR BATTERY INVERTER CIRCUIT</p> <p>CEILING SURFACE MOUNTED</p> <p>CEILING RECESSED</p> <p>CEILING PENDANT</p> <p>WALL MOUNTED</p> <p><b>EMERGENCY BALLAST :</b> LIGHT FIXTURE WITH EMERGENCY BATTERY BALLAST</p> <p>CEILING SURFACE MOUNTED</p> <p>CEILING RECESSED</p> <p>CEILING PENDANT</p> <p>WALL MOUNTED</p> <p><b>EMERGENCY SOCKET :</b> LIGHT FIXTURE WITH EMERGENCY ONLY SOCKET</p> <p>CEILING SURFACE MOUNTED</p> <p>CEILING RECESSED</p> <p>CEILING PENDANT</p> <p>WALL MOUNTED</p> <p><b>FLOOD OR SPOT LIGHT :</b></p> <p>CLG WALL</p> <p><b>EXIT SIGN :</b></p> <p>ILLUMINATED FACE</p> <p>WALL MOUNTED - DIRECTIONAL ARROW AS REQUIRED</p> <p>SINGLE FACE, CEILING MOUNTED - DIRECTIONAL ARROW AS REQUIRED</p> <p>DUAL FACE, CEILING MOUNTED - DIRECTIONAL ARROWS AS REQUIRED</p> <p><b>EMERGENCY LIGHTING UNIT :</b></p> <p>EMERGENCY LIGHTING UNIT - BATTERY TYPE WITH NUMBER OF HEADS AS INDICATED</p> <p>EMERGENCY LIGHTING UNIT - REMOTE HEAD WITH NUMBER OF HEADS AS INDICATED</p> <p><b>TRACK LIGHTING:</b></p> <p>TRACK MOUNTED LIGHT FIXTURES - WITH FLOOD AND/OR SPOT TYPES</p> <p>FLOOD</p> <p>N - MEDIUM</p> <p>N - NARROW</p> <p>W - WIDE SPOT</p> <p>S - NORMAL</p> <p>FEED END</p> <p>HORIZONTAL/VERTICAL RUN</p>	<p><b>SURFACE FLUSH</b></p> <p>PANELBOARD</p> <p>EQUIPMENT CABINET</p> <p><b>CLG FLOOR WALL</b></p> <p>JUNCTION BOX</p> <p>BLANK OUTLET</p> <p>JUNCTION BOX OR BLANK OUT - ABOVE FLOOR, IN CAST BOX ON RIGID CONDUIT</p> <p>JUNCTION BOX OR BLANK OUT - ABOVE COUNTER</p> <p>CONTACTOR</p> <p>RELAY</p> <p>METER</p> <p>SURGE PROTECTION DEVICE</p> <p>ENCLOSED CIRCUIT BREAKER</p> <p>SAFETY SWITCH - NON-FUSED, 3-POLE, 30A, 600V UNO</p> <p>SAFETY SWITCH - FUSED, 3-POLE, 30A-100V UNO</p> <p>COMBINATION STARTER / DISCONNECT - 3 PHASE</p> <p>MANUAL MOTOR STARTER (HP RATED) THE LETTERS ADJACENT TO THE SYMBOL INDICATE STARTER TYPE</p> <p>M - TOGGLE</p> <p>MK - KEY OPERATED</p> <p>MB - PUSHBUTTON</p> <p>MT - TOGGLE WITH THERMAL OVERLOADS</p> <p>TRANSFORMER - 120V AND GREATER</p> <p>TRANSFORMER - LOW VOLTAGE</p> <p>MOTOR OR EQUIPMENT</p> <p>ELECTRIC SOLENOID VALVE - BY OTHERS (H=HOT WATER, C=COLD WATER, G=GAS)</p> <p>MAST HEAD</p> <p>CONDUIT SLEEVE - QUANTITY AND SIZE AS REQUIRED</p> <p>CABLE TRAY - WALL HUNG</p> <p>CABLE TRAY - CENTER HUNG</p> <p>EMPTY CONDUIT - SEALED &amp; CAPPED</p> <p>CIRCUIT</p> <p>HOMERUN TO PANELBOARD; PROVIDE 3 #12, #12 GRD, 3/4" UNLESS NOTED OTHERWISE ON DRAWING, ON PANEL SCHEDULES, OR ONE LINE DIAGRAMS</p> <p>CIRCUIT - EQUIPMENT ON SAME CIRCUIT BUT SEPARATELY CONTROLLED</p> <p>GROUND BAR</p> <p><b>SITE</b></p> <p>POLE MOUNTED H.I.D. LIGHT FIXTURE - SINGLE HEAD WITH ARM BRACKET</p> <p>POLE MOUNTED H.I.D. LIGHT FIXTURE - DUAL HEAD WITH ARM BRACKET</p> <p>POLE MOUNTED H.I.D. LIGHT FIXTURE - SINGLE HEAD POST MOUNT</p> <p>BUILDING UPLIGHT FIXTURE</p> <p>BOLLARD LIGHT FIXTURE</p> <p>UNDERGROUND ELECTRICAL ENCLOSURE</p> <p>PAD MOUNT TRANSFORMER</p> <p>UTILITY POLE</p> <p>MANHOLE/VAULT</p> <p>UGE UNDERGROUND EMERGENCY/STANDBY GENERATOR SERVICE</p> <p>UPE UNDERGROUND ELECTRIC SERVICE (PRIMARY)</p> <p>USE UNDERGROUND ELECTRIC SERVICE (SECONDARY)</p> <p>UTC UNDERGROUND CATV &amp; TELEPHONE SERVICE</p> <p>SL UNDERGROUND SITE LIGHTING CONDUIT</p> <p>EC UNDERGROUND EMPTY CONDUIT</p> <p>BC UNDERGROUND BRANCH CIRCUIT CONDUIT</p> <p>TC TELECOMMUNICATION CONDUIT</p>	<p><b>SWITCH:</b></p> <p>SINGLE POLE</p> <p>THE LETTERS/NUMBERS ADJACENT TO THE SYMBOL INDICATE SWITCH TYPE. SWITCHES ARE SINGLE POLE UNLESS IDENTIFIED OTHERWISE.</p> <p>3 - THREE-WAY</p> <p>4 - FOUR-WAY</p> <p>B - TOUCHBOLT</p> <p>CK - CARD KEY</p> <p>D - DIMMER - INCANDESCENT</p> <p>DF - DIMMER - FLUORESCENT</p> <p>DL - DIMMER - LOW VOLTAGE</p> <p>ET - ELECTRONIC TAP</p> <p>K - KEY OPERATED</p> <p>MC - MAINTAINED CONTACT</p> <p>P - PILOT LIGHT</p> <p>R - LOCAL REMOTE CONTROL</p> <p>WP - WEATHERPROOF</p> <p>X - EXPLOSION PROOF</p> <p><b>OCCUPANCY SENSOR:</b></p> <p>SWITCH - PIR WITH PUSHBUTTON</p> <p>THE LETTERS/NUMBERS ADJACENT TO THE SYMBOL INDICATE SWITCH SENSOR TYPE. SWITCH SENSORS ARE PIR TYPE UNLESS IDENTIFIED OTHERWISE.</p> <p>OC1 - DUAL TECHNOLOGY WITH 1 PUSHBUTTON</p> <p>OC2 - DUAL TECHNOLOGY WITH 2 PUSHBUTTONS FOR DUAL CONTROL</p> <p>CLG WALL</p> <p>RADIAL - AUTO ON/OFF</p> <p>DIRECTIONAL - AUTO ON/OFF</p> <p>THE LETTERS ADJACENT TO THE SYMBOL INDICATES SENSOR TYPE. WHERE SENSOR SYMBOL IS SHOWN WITHOUT IDENTIFICATION, PROVIDE PIR FOR WALL TYPES AND DT FOR CEILING TYPES.</p> <p>DT - DUAL TECHNOLOGY (COMBINATION PIR &amp; US)</p> <p>ER - EXTENDED RANGE</p> <p>HB - HIGHBAY</p> <p>HH - HIGH HUMIDITY / LOW TEMPERATURE</p> <p>HW - HALLWAY</p> <p>PR - PASSIVE INFRARED</p> <p>R - RELAY</p> <p>US - ULTRASONIC OR MICROPHONIC</p> <p>WP - WEATHERPROOF</p> <p>WV - WIDE VIEW</p> <p>POWER PACT</p> <p><b>PHOTO/DAYLIGHT SENSOR:</b></p> <p>PHOTO SENSOR - WALL MTD (MOUNTED ON NORTH FACE OF BUILDING)</p> <p>PHOTO SENSOR - CEILING MTD</p> <p><b>RECEPTACLE:</b></p> <p>SINGLE</p> <p>DUPLEX</p> <p>DOUBLE DUPLEX</p> <p>GFCI</p> <p>GFCI DOUBLE DUPLEX</p> <p>SPD (ISOLATED GROUND)</p> <p>SPD DOUBLE DUPLEX</p> <p>TAMPER RESISTANT</p> <p>SPLIT WIRED</p> <p>SINGLE PHASE, 480V RATED WITH AMPERAGE AS INDICATED</p> <p>THREE PHASE, 480V RATED WITH AMPERAGE AS INDICATED</p> <p>NUMBER ADJACENT TO SYMBOL INDICATES MOUNTING HEIGHT A.F.F.</p> <p>LETTER "C" ADJACENT TO SYMBOL INDICATES RECEPTACLE ABOVE COUNTER</p> <p>ABOVE FLOOR, IN CAST BOX ON RIGID CONDUIT - RECEPTACLE TYPE AS SHOWN</p>	<p><b>PUSHBUTTON:</b></p> <p>STANDARD</p> <p>THE LETTER ADJACENT TO THE SYMBOL INDICATES TYPE. PUSHBUTTONS ARE STANDARD UNLESS IDENTIFIED OTHERWISE.</p> <p>E - EMERGENCY</p> <p>K - EMERGENCY, KEY OPERATED</p> <p>P - PANIC/ENTRANCE</p> <p><b>MISCELLANEOUS:</b></p> <p>POWER POLE - WITH WIRING DEVICES AS INDICATED</p> <p>POWER/TELECOM POLE - WITH WIRING DEVICES AS INDICATED</p> <p>FURNITURE PEDESTAL - WITH WIRING DEVICES AS INDICATED</p> <p>FIRE RATED POWE-THROUGH - WIRING DEVICES AND TELECOM OUTLETS AS INDICATED</p> <p>FLUSH FLOOR BOX - WIRING DEVICES AND TELECOM OUTLETS AS INDICATED</p> <p>SURFACE RACEWAY WITH WIRING DEVICES AS INDICATED</p> <p>VERTICAL DROP</p> <p>HORIZONTAL RUN</p> <p>SURFACE MOUNTED RACEWAY MOUNTED - WIRING DEVICES AS INDICATED</p> <p><b>FIRE ALARM</b></p> <p>CLG WALL</p> <p>SMOKE DETECTOR</p> <p>HEAT DETECTOR</p> <p>CARBON MONOXIDE DETECTOR</p> <p>NUMBER ADJACENT TO SYMBOL INDICATES ZONE, IF REQUIRED</p> <p>LETTER ADJACENT TO SYMBOL INDICATES PREFERRED DETECTOR TYPE:</p> <p>D - DOOR</p> <p>P - PREACTION</p> <p>R - ELEVATOR RECALL</p> <p>RE - SHUTTLE &amp; EXHAUST ELEVATOR RECALL</p> <p>RS - ELEVATOR RECALL &amp; SPRINKLER ACTIVATION</p> <p>DUCT DETECTOR - SMOKE (NUMBER INDICATES ZONE, IF REQUIRED)</p> <p>DUCT DETECTOR - HEAT (NUMBER INDICATES ZONE, IF REQUIRED)</p> <p>CLG WALL</p> <p>AUDIBLE WITH VISUAL UNIT</p> <p>AUDIBLE ONLY UNIT</p> <p>VISUAL ONLY UNIT</p> <p>MANUAL PULL STATION (NUMBER INDICATES ZONE IF REQUIRED)</p> <p>MANUAL PULL STATION - KEY OPERATED</p> <p>MANUAL PULL STATION WITH CLEAR PROTECTIVE COVER</p> <p>DOOR HOLDER (F-FLOOR, C-CEILING, W-WALL)</p> <p>CONTROL MODULE - ZONE</p> <p>CONTROL MODULE - ADDRESSABLE</p> <p>REMOTE TEST STATION - WALL MTD</p> <p>REMOTE TEST STATION - CEILING MTD</p> <p>LETTER L INDICATES TEST LIGHT</p> <p>FIRE SUPPRESSION FLOW SWITCH - BY OTHERS</p> <p>FIRE SUPPRESSION TAMPER SWITCH - BY OTHERS</p> <p><b>WIRING DIAGRAMS</b></p> <p>WIRES NOT CONNECTED</p> <p>CONNECTING WIRES</p>	<p>CLG FLOOR WALL</p> <p>VOICEDATA OUTLET - BLANK</p> <p>DATA OUTLET - BLANK</p> <p>TELEPHONE (VOICE) OUTLET - BLANK</p> <p>TELEPHONE OUTLET - LETTER "W" ADJACENT TO SYMBOL INDICATES OUTLET FOR WALL HUNG PHONE</p> <p>NUMBER ADJACENT TO SYMBOL INDICATES NUMBER OF ACTIVE PORTS: 2, 4, 6 OR 8</p> <p>LETTER "C" ADJACENT TO SYMBOL INDICATES OUTLET ABOVE COUNTER</p> <p>LETTER "F" ADJACENT TO SYMBOL INDICATES FIBER OPTIC OUTLET</p> <p>NUMBER ADJACENT TO SYMBOL INDICATES MOUNTING HEIGHT A.F.F.</p> <p>VOICEDATA POLE - TELECOM OUTLETS AS INDICATED</p> <p>POWER/TELECOM POLE - TELECOM OUTLETS AS INDICATED</p> <p>FURNITURE PEDESTAL - TELECOM OUTLETS AS INDICATED</p> <p>SURFACE MOUNTED RACEWAY MOUNTED - TELECOM OUTLETS AS INDICATED</p> <p>SURFACE RACEWAY</p> <p>TELECOMNETWORK EQUIPMENT CABINET</p> <p>TELECOMNETWORK EQUIPMENT RACK</p> <p>TELECOMNETWORK BACKBOARD</p> <p><b>PROCESS CONTROL DEVICES</b></p> <p>MOV MTD MCC-3 PNL</p> <p>TYPE LETTER SHOWN IN LIST BELOW</p> <p>NUMBER OF #14 DIGITAL SIGNAL WIRES INCLUDING A #14 GRD IN 3/4" UNO (BLANK IF NONE). CONDUITS TO/FROM SAME AREA MAY BE COMBINED. EC TO CONFORM TO NEC FOR CONDUIT SIZES. 24V AND 120V SHALL BE SEPARATED INTO SEPARATE CONDUITS. WIRES NOT USED ARE SPARES</p> <p>ASSOCIATED POWER SOURCE (BLANK IF NONE)</p> <p>NUMBER OF 2/C #16 TSP ANALOG SIGNAL CABLES IN 3/4" UNO (BLANK IF NONE). CONDUITS TO/FROM SAME AREA MAY BE COMBINED. EC TO CONFORM TO NEC FOR CONDUIT SIZES. CABLES NOT USED ARE SPARES</p> <p>* - SEE INSTRUMENTATION DEVICE LIST ON EACH SHEET FOR DIGITAL AND ANALOG SIGNAL DESTINATION</p> <p>LIST OF COMMON PROCESS DEVICES</p> <p>BTS - BOWL TEMPERATURE SWITCH</p> <p>CSS - COMBUSTIBLE GAS SENSOR/TRANSMITTER</p> <p>CTS - CABINET TEMPERATURE SWITCH</p> <p>DPS - DIFFERENTIAL PRESSURE SWITCH</p> <p>DSD - OVERHEAD DOOR SAFETY DEVICE</p> <p>EL - EMERGENCY STOP LANYARD</p> <p>ESP - EMERGENCY STOP PUSH-BUTTON</p> <p>FLS - FLOODING LEVEL SENSOR</p> <p>FS - FLOW SWITCH</p> <p>GF - GAS FLOW METER</p> <p>LS - LEVEL SWITCH (FLOAT)</p> <p>LTS - LIMIT SWITCH</p> <p>MM - MAGNETIC FLOW METER</p> <p>MOG - MOTOR OPERATED GATE</p> <p>MOV - MOTOR OPERATED VALVE</p> <p>MT - MOTOR TEMPERATURE SWITCH</p> <p>OLS - OIL LEVEL SWITCH</p> <p>POS - POSITION SWITCH</p> <p>PS - PRESSURE SWITCH</p> <p>PT - PRESSURE TRANSMITTER</p> <p>RL - RADAR LEVEL PROBE</p> <p>S - SOLENOID VALVE</p> <p>SL - SUBMERGIBLE LEVEL PROBE</p> <p>SLP - SEAL LEAK PROBE</p> <p>SM - SUCTION MONITOR</p> <p>T - TRANSMITTER</p> <p>TP - TEMPERATURE PROBE</p> <p>UF - ULTRASONIC FLOW METER</p> <p>UL - ULTRASONIC LEVEL PROBE</p> <p>VFM - VENTURI FLOW METER</p> <p>ZS - ZERO SPEED SWITCH</p> <p><b>WIRING DIAGRAMS</b></p> <p>WIRES NOT CONNECTED</p> <p>CONNECTING WIRES</p>	<p>CLG WALL</p> <p>AUDIBLE WITH VISUAL UNIT</p> <p>AUDIBLE ONLY UNIT</p> <p>VISUAL ONLY UNIT</p> <p>THE NUMBER ADJACENT TO THE SYMBOL INDICATES PREFERRED CANDELA VALUE. VISUAL SYMBOL WITHOUT IDENTIFICATION SHALL BE AS FOLLOWS:</p> <p>CORRIDORS / HALLWAYS - 30 CANDELA ROOMS &lt;= 2,000 SQFT - 75 CANDELA ROOMS &gt; 2,000 SQFT - 110 CANDELA</p> <p>CLG WALL</p> <p>MONITOR</p> <p>CAMERA</p> <p>NUMBER ADJACENT TO SYMBOL INDICATES MOUNTING HEIGHT A.F.F.</p> <p>CLG WALL</p> <p>MOTION DETECTOR (NUMBER INDICATES ZONE IF REQUIRED)</p> <p>SPEAKER</p> <p>INTERCOM STATION - PUSH BUTTON</p> <p>INTERCOM STATION - KEYED</p> <p>MAGNETIC DOOR CONTACTS (NUMBER INDICATES ZONE IF REQUIRED)</p> <p>PUSHBUTTON</p> <p>KEYPAD</p> <p>CARD/PROXIMITY READER</p> <p>BIO-METRIC READER</p> <p>MULTIPLEXER</p> <p>ELECTRIC LOCK - BY OTHERS</p> <p>ELECTRIC STRIKE - BY OTHERS</p> <p><b>GENERAL</b></p> <p>RISER, OR ONE LINE NOTE NUMBER (E.G. SEE RISER NOTE NO. E1)</p> <p>SHEET KEYNOTE (NEW CONSTRUCTION)</p> <p>DEMOLITION KEYNOTE</p> <p>REVISION SEQUENCE NUMBER</p> <p>ROOM TAG (ROOM NO NOT ALWAYS SHOWN)</p> <p>ROOM NAME</p> <p>EQUIPMENT TAG</p> <p>SECTION/ ELEVATION REFERENCE</p> <p>VIEW REF - SHEET REF -</p> <p>INTERIOR ELEVATION REFERENCE</p> <p>VIEW REF - SHEET REF -</p> <p>DETAIL / CALLOUT REFERENCE</p> <p>VIEW REF - SHEET REF -</p> <p>BOX TAG/NOTE REFERENCE</p> <p>BOXED TAG(S)/NOTE(S) BELOW THE ROOM NAME/NUMBER OR PLACED IN THE SPACE INDICATE THAT THE INFORMATION IN THE BOX APPLIES TO ALL FIXTURES AND/OR RECEPTABLES IN THE ROOM/SPACE UNLESS NOTED OTHERWISE.</p> <p>PANEL NAME</p> <p>KEY NOTE (TYP.)</p> <p><b>SYMBOLS LEGEND NOTES:</b></p> <p>A. NOT ALL SYMBOLS INDICATED MAY APPEAR ON THESE CONTRACT DRAWINGS.</p> <p>B. DASHED SYMBOLS REPRESENT EXISTING EQUIPMENT OR EQUIPMENT NOT IN CONTRACT.</p>