

ELECTRICAL SYMBOLS LIST

LIGHTING SYMBOLS

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| | 2x1/2 RECESSED FLUORESCENT CEILING MOUNTED FIXTURE X = FIXTURE TYPE Y = CONTROLLED BY SWITCH 'Y' |
| | SIMILAR TO ABOVE, EXCEPT WIRED TO LIFE SAFETY CIRCUIT X = FIXTURE TYPE |
| | SIMILAR TO ABOVE, EXCEPT WIRED CRITICAL POWER CIRCUIT X = FIXTURE TYPE |
| | WALL MOUNTED FLUORESCENT LIGHT FIXTURE X = FIXTURE TYPE Y = CONTROLLED BY SWITCH 'Y' |
| | FLUORESCENT STRIP FIXTURE-TYPE AS NOTED X = FIXTURE TYPE Y = CONTROLLED BY SWITCH 'Y' |
| | UNDERCABINET LIGHT FIXTURE X = FIXTURE TYPE |
| | RECESSED CEILING MOUNTED FIXTURE X = FIXTURE TYPE Y = CONTROLLED BY SWITCH 'Y' |
| | SIMILAR TO ABOVE, EXCEPT WIRED TO LIFE SAFETY CIRCUIT X = FIXTURE TYPE |
| | WALL MOUNTED LIGHT FIXTURE X = FIXTURE TYPE Y = CONTROLLED BY SWITCH 'Y' |
| | SIMILAR TO ABOVE, EXCEPT WIRED TO LIFE SAFETY CIRCUIT X = FIXTURE TYPE |
| | ACCENT LIGHT OR WALL WASHER X = FIXTURE TYPE Y = CONTROLLED BY SWITCH 'Y' |
| | SIMILAR TO ABOVE, EXCEPT WIRED TO LIFE SAFETY CIRCUIT X = FIXTURE TYPE |
| | CEILING MOUNTED EXIT LIGHT, TYPE 'X' - DIRECTIONAL ARROWS WHERE INDICATED - SHADDED AREAS INDICATE ILLUMINATED FACEPLATES |
| | WALL MOUNTED EXIT LIGHT, TYPE 'X' - DIRECTIONAL ARROWS WHERE INDICATED - SHADDED AREAS INDICATE ILLUMINATED FACEPLATES |

POWER SYMBOLS

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| | SINGLE POLE SWITCH 2 = DOUBLE POLE 3 = THREE-WAY 4 = FOUR-WAY a = CONTROLLING OUTLET 'W' D = DOOR K = KEY OPERATED M = MOMENTARY CONTACT T = TIME SWITCH P = PILOT LIGHT |
| | DISCONNECT SWITCH - TOGGLE TYPE MOTOR RATED, 20A, 1P, 120V |
| | WALL MOUNTED DIMMER PROVIDE LUTRON DIVA SERIES FOR ALL 0-10V APPLICATIONS 2 = 3 WAY DIMMER (---) |
| | OCCUPANCY SENSOR, CEILING MOUNTED |
| | OCCUPANCY SENSOR, WALL MOUNTED |
| | PHOTO CONTROL SWITCH |
| | TRANSFORMER |
| | 20A, 125V DUPLEX RECEPTACLE - FLUSH WALL MOUNTED TP = TAMPER PROOF XP = EXPLOSION PROOF CR = WIRES TO CRITICAL POWER SYSTEM CX = CONNECTION TO PYXIS MACHINE CC = CONNECTION TO CRASH CART TV = CONNECTION TO TELEVISION MN = CONNECTION TO MONITOR TO = CONNECTION TO TOASTER OVEN REF = CONNECTION TO REFRIGERATOR UCR = CONNECTION TO UNDERCOUNTER REFRIGERATOR MIC = CONNECTION TO MICROWAVE COFF = CONNECTION TO COFFEE MAKER |
| | 20A, 125V QUADRUPLEX RECEPTACLE - FLUSH WALL MOUNTED |
| | 20A, 125V DUPLEX RECEPTACLE FLUSH WALL MOUNTED, GFI TYPE |
| | SINGLE RECEPTACLE - FLUSH WALL MOUNTED WC = WATER COOLER XR = X-RAY |
| | SPECIAL PURPOSE RECEPTACLE - FLUSH WALL MOUNTED A = INDICATES TYPE |
| | REWIRED SURFACE METAL RACEWAY - LETTERS INDICATES TYPE PROVIDE SPECIAL PURPOSE RECEPTABLES & DATA OUTLETS WHERE INDICATED AL1 = WIREMOLD MODEL #AL43800 WITH RECEPTABLES 24" O.C. AL2 = WIREMOLD MODEL #AL4800 WITH RECEPTABLES 24" O.C. GFI = PROVIDED WITH GFI TYPE RECEPTABLES |
| | FLUSH FLOOR MOUNTED MULTI-SERVICE FIRE RATED POLE THRU WITH (4) 20A-125V RECEPTABLES AND (4) PROVISIONS FOR TELLERIA DEVICES. HUBBELL 3000V/1000V/1000V/1000V FINISH BY ARCHITECT OR APPROVED EQUAL |

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| | PEDESTAL MOUNTED 20A, 125V DUPLEX RECEPTACLE |
| | PEDESTAL MOUNTED 20A, 125V QUADRUPLEX RECEPTACLE |
| | PEDESTAL MOUNTED JUNCTION BOX OR POKE-THRU FOR ELECTRIFIED FURNITURE POWER FEED |
| | PEDESTAL MOUNTED SPECIAL PURPOSE RECEPTACLE LETTERS INDICATES TYPE |
| | HOMERUN NUMERAL WHERE USED INDICATES CIRCUIT NUMBER FOR REFERENCE ONLY #12-1#12G-34°C FOR ONE CKT. HOMERUN, U.O.N. #412-1#12G-34°C FOR TWO CKT. HOMERUN, U.O.N. #912-1#12G-34°C FOR THREE CKT. HOMERUN, U.O.N. |
| | HOMERUN - NUMERAL WHERE USED INDICATES CIRCUIT NUMBER FOR REFERENCE ONLY |
| | MOTOR CONTROLLER |
| | COMBINATION MOTOR CONTROLLER AND DISCONNECT SWITCH SWITCH AMP(S) OF POLES, VOLTAGE RATING AS REQUIRED |
| | UNFUSED DISCONNECT SWITCH SWITCH AMP(S) OF POLES, VOLTAGE RATING AS REQUIRED |
| | FUSED DISCONNECT SWITCH SWITCH AMP(S)/FUSE AMP(S) # OF POLES, VOLTAGE RATING AS REQUIRED |
| | ENCLOSED CIRCUIT BREAKER TRIP AMP(S) OF POLES, VOLTAGE RATING AS REQUIRED |
| | SURFACE MOUNTED LIGHTING PANELBOARD |
| | FLUSH MOUNTED LIGHTING PANELBOARD |
| | SURFACE MOUNTED POWER PANELBOARD |
| | FLUSH MOUNTED POWER PANELBOARD |
| | SURFACE MOUNTED POWER DISTRIBUTION PANELBOARD |
| | CEILING MOUNTED JUNCTION BOX WITH FINAL EQUIPMENT CONNECTION |
| | FLUSH WALL MOUNTED JUNCTION BOX WITH FINAL EQUIPMENT CONNECTION |
| | FLUSH FLOOR MOUNTED JUNCTION BOX |
| | CONNECTION TO AUTOMATIC DOOR |
| | CONNECTION TO PNEUMATIC TUBE STATION |
| | CONNECTION TO FIRE/SMOKE DAMPER |
| | CONNECTION TO AUTOMATIC TEMPERATURE CONTROL |
| | PULLBOX |
| | POWER POLE |
| | EXISTING CONDUIT TO BE REMOVED |
| | EXISTING CONDUIT/EQUIPMENT TO REMAIN |
| | NEW CONCEALED CONDUIT |
| | NEW EXPOSED CONDUIT |
| | NEW UNDERGROUND/IN SLAB CONDUIT |
| | CONDUIT TURNING UP |
| | CONDUIT TURNING DOWN |
| | CONDUIT STUB-UP WITH FLEXIBLE EQUIPMENT CONNECTION |
| | FLEXIBLE EQUIPMENT CONNECTION |
| | CAPPED CONDUIT |

SINGLE LINE DIAGRAM SYMBOLS

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| | POWER TRANSFORMER VOLTAGES, WINDINGS AND SIZE AS INDICATED |
| | AUTOMATIC TRANSFER SWITCH ATS = AUTOMATIC TRANSFER MTS = MANUAL TRANSFER POLES AND RATING AS NOTED |
| | MOTOR |
| | GENERATOR |
| | DIGITAL MULTIMETER |

FIRE ALARM SYSTEM

| | |
|--|---|
| | CEILING MOUNTED SPACE SMOKE DETECTOR E = FOR ELEVATOR RECALL |
| | REMOTE SPACE SMOKE DETECTOR ALARM LIGHT - WALL MOUNTED |
| | DUCT SMOKE DETECTOR |
| | THERMAL DETECTOR RATE-OF-RISE F = FIXED TEMPERATURE |
| | SPRINKLER WATER FLOW SWITCH |
| | SPRINKLER TAMPER SWITCH |
| | SPRINKLER PRESSURE SWITCH |
| | MOTORIZED SMOKE DAMPER, FBO |
| | FIRE ALARM PULL STATION |

ELECTRICAL ABBREVIATIONS

| | |
|--------|--------------------------------------|
| 1P | SINGLE POLE |
| 2P | TWO POLE |
| 3P | THREE POLE |
| A | AMPERE |
| AC | ABOVE COUNTER |
| ACB | AIR CIRCUIT BREAKER |
| AFF | ABOVE FINISHED FLOOR |
| ANC | AMPERE INTERRUPTING CAPACITY |
| AL | ALUMINUM |
| ALM | ALARM |
| AMM | AMMETER |
| ASST | ADJUST |
| ARF | ABOVE RAISED FLOOR |
| ASYM | ASYMMETRICAL |
| ATS | AUTOMATIC TRANSFER SWITCH |
| AUTO | AUTOMATIC |
| AV | AUDIO VISUAL |
| AWG | AMERICAN WIRE GAUGE |
| BG | BREAK GLASS SWITCH |
| BL | BASIC IMPULSE LEVEL |
| BLDG | BUILDING |
| C | CONDUIT |
| CAB | CABINET |
| CAT | CATALOG |
| CB | CIRCUIT BREAKER |
| CCV | CLOSED CIRCUIT TELEVISION |
| CKT | CIRCUIT |
| CL | CENTER LINE |
| CLS | CEILING |
| CLOS | CLOSET |
| CO | CONDUIT ONLY |
| COMM | COMMUNICATION |
| CONN | CONNECTED |
| CONT | CONTINUATION |
| CT | CURRENT TRANSFORMER |
| CTL | CONTROL |
| CU | COPPER |
| CUH | CABINET UNIT HEATER |
| DB | DECIBEL |
| DE | DOUBLE ENDED SUBSTATION |
| DEG | DEGREE |
| DF | DRINKING FOUNTAIN |
| DIA | DIAMETER |
| DISC | DISCONNECT |
| DIV | DIVISION |
| DN | DOWN |
| DP | DISTRIBUTION PANEL BOARD |
| DT | DUST TIGHT |
| DWG | DRAWING |
| °C | DEGREE CELSIUS |
| °F | DEGREE FAHRENHEIT |
| (E) | EXISTING TO REMAIN |
| (ER) | EXISTING TO BE REMOVED |
| (ERR) | EXISTING TO BE REMOVED AND RELOCATED |
| EM | EMPTY CONDUIT |
| EA | EACH |
| EL | ELECTRICAL CONTRACTOR |
| ELC | ELEVATION |
| ELEV | ELECTRICAL |
| EMEREM | EMERGENCY |
| EQUIP | EQUIPMENT |
| ERC | ELECTRIC REHEAT COIL |
| EW | ELECTRIC WATER COOLER |
| EXIST | EXISTING |
| EXT | EXTERIOR |
| FA | FIRE ALARM |
| FACP | FIRE ALARM CONTROL PANEL |
| FAP | FIRE ALARM ANNUNCIATOR PANEL |
| FBO | FURNISHED BY OTHER DIVISION OF WORK |
| FCU | FAN COIL UNIT |
| FEEDER | FEEDER |
| FDS | FUSED DISCONNECT SWITCH |
| FIXT | FIXTURE |
| FL | FULL LOAD AMPERES |
| FLX | FLEXIBLE |
| FLUOR | FLUORESCENT |
| FM | FLOOR MACHINE |
| FRZ | FREEZER |
| FSP | FAN SHUTDOWN PANEL |
| FT | FEET OR FOOT |
| G | GROUND |
| GEN | GENERATOR |
| GFI | GROUND FAULT INTERRUPTER |
| HC | HUNG CEILING |
| HH | HAND HOLE |
| HID | HIGH INTENSITY DISCHARGE |
| HN | HALF NEUTRAL |
| HP | HORSE POWER |
| HV | HIGH VOLTAGE |
| HZ | HERTZ |
| IC | INTERRUPTING CAPACITY |
| ID | INSIDE DIAMETER |
| IG | ISOLATED GROUND |
| INCAND | INCANDESCENT |
| INST | INSTRUMENT |
| IPC | ISOLATED POWER CENTER |
| IPX | ISOLATED POWER CENTER X-RAY |
| JB | JUNCTION BOX |
| KCML | THOUSAND CIRCULAR MILS |
| KV | KILOVOLT |

ELECTRICAL ABBREVIATIONS

| | |
|--------|--|
| + | SPECIAL MOUNTING HEIGHT, COORDINATE LOCATION WITH ARCHITECTURAL ELEVATIONS |
| 1P | SINGLE POLE |
| 2P | TWO POLE |
| 3P | THREE POLE |
| A | AMPERE |
| AC | ABOVE COUNTER |
| ACB | AIR CIRCUIT BREAKER |
| AFF | ABOVE FINISHED FLOOR |
| ANC | AMPERE INTERRUPTING CAPACITY |
| AL | ALUMINUM |
| ALM | ALARM |
| AMM | AMMETER |
| ASST | ADJUST |
| ARF | ABOVE RAISED FLOOR |
| ASYM | ASYMMETRICAL |
| ATS | AUTOMATIC TRANSFER SWITCH |
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| AV | AUDIO VISUAL |
| AWG | AMERICAN WIRE GAUGE |
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| CAB | CABINET |
| CAT | CATALOG |
| CB | CIRCUIT BREAKER |
| CCV | CLOSED CIRCUIT TELEVISION |
| CKT | CIRCUIT |
| CL | CENTER LINE |
| CLS | CEILING |
| CLOS | CLOSET |
| CO | CONDUIT ONLY |
| COMM | COMMUNICATION |
| CONN | CONNECTED |
| CONT | CONTINUATION |
| CT | CURRENT TRANSFORMER |
| CTL | CONTROL |
| CU | COPPER |
| CUH | CABINET UNIT HEATER |
| DB | DECIBEL |
| DE | DOUBLE ENDED SUBSTATION |
| DEG | DEGREE |
| DF | DRINKING FOUNTAIN |
| DIA | DIAMETER |
| DISC | DISCONNECT |
| DIV | DIVISION |
| DN | DOWN |
| DP | DISTRIBUTION PANEL BOARD |
| DT | DUST TIGHT |
| DWG | DRAWING |
| °C | DEGREE CELSIUS |
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| (E) | EXISTING TO REMAIN |
| (ER) | EXISTING TO BE REMOVED |
| (ERR) | EXISTING TO BE REMOVED AND RELOCATED |
| EM | EMPTY CONDUIT |
| EA | EACH |
| EL | ELECTRICAL CONTRACTOR |
| ELC | ELEVATION |
| ELEV | ELECTRICAL |
| EMEREM | EMERGENCY |
| EQUIP | EQUIPMENT |
| ERC | ELECTRIC REHEAT COIL |
| EW | ELECTRIC WATER COOLER |
| EXIST | EXISTING |
| EXT | EXTERIOR |
| FA | FIRE ALARM |
| FACP | FIRE ALARM CONTROL PANEL |
| FAP | FIRE ALARM ANNUNCIATOR PANEL |
| FBO | FURNISHED BY OTHER DIVISION OF WORK |
| FCU | FAN COIL UNIT |
| FEEDER | FEEDER |
| FDS | FUSED DISCONNECT SWITCH |
| FIXT | FIXTURE |
| FL | FULL LOAD AMPERES |
| FLX | FLEXIBLE |
| FLUOR | FLUORESCENT |
| FM | FLOOR MACHINE |
| FRZ | FREEZER |
| FSP | FAN SHUTDOWN PANEL |
| FT | FEET OR FOOT |
| G | GROUND |
| GEN | GENERATOR |
| GFI | GROUND FAULT INTERRUPTER |
| HC | HUNG CEILING |
| HH | HAND HOLE |
| HID | HIGH INTENSITY DISCHARGE |
| HN | HALF NEUTRAL |
| HP | HORSE POWER |
| HV | HIGH VOLTAGE |
| HZ | HERTZ |
| IC | INTERRUPTING CAPACITY |
| ID | INSIDE DIAMETER |
| IG | ISOLATED GROUND |
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| IPC | ISOLATED POWER CENTER |
| IPX | ISOLATED POWER CENTER X-RAY |
| JB | JUNCTION BOX |
| KCML | THOUSAND CIRCULAR MILS |
| KV | KILOVOLT |

| | |
|------------|--|
| KVA | KILOVOLT AMPERE |
| KW | KILOWATT |
| KWH | KILOWATT HOUR |
| LCP | LOCAL CONTROL PANEL |
| LIM | LINE ISOLATION MONITOR |
| LTG | LIGHTING |
| MAP | MECHANICAL ALARM PANEL |
| MAX | MAXIMUM |
| MCA | MINIMUM CIRCUIT AMPERES |
| MCB | MAIN CIRCUIT BREAKER |
| MCC | MOTOR CONTROL CENTER |
| MDP | MAIN DISTRIBUTION PANEL |
| MECH | MECHANICAL |
| MER | MECHANICAL EQUIPMENT ROOM |
| MFS | MAIN FUSED SWITCH |
| MH | MANHOLE |
| MIC | MICROPHONE |
| MIN | MINIMUM |
| MLO | MAIN FUG ONLY |
| MOPO/MOCP | MAXIMUM OVERCURRENT PROTECTION |
| MTD | MOUNTED |
| MTG | MOUNTING |
| MTS | MANUAL TRANSFER SWITCH |
| MULFS | MAIN UNFUSED SWITCH |
| N | NEUTRAL |
| NC | NOT IN CONTRACT |
| NOC | NORMALLY CLOSED |
| NO | NORMALLY OPEN |
| NP | NETWORK PROTECTOR |
| NTS | NOT TO SCALE |
| OC | ON CENTER |
| OCB | OLE CIRCUIT BREAKER |
| OD | OUTSIDE DIAMETER |
| P | POLE |
| PA | PUBLIC ADDRESS |
| PAP | PUBLIC ADDRESS PANEL |
| PB | PULL BOX |
| PBS | PUSH BUTTON SWITCH |
| PHC | PIPE HEATING CABLE |
| PNL | PANEL |
| PR | PRINTER |
| PS | PRESSURE SWITCH |
| PT | POTENTIAL TRANSFORMER |
| PWR | POWER |
| ø | PHASE |
| (RE) | RELOCATED EXISTING |
| (RNO) | EXISTING TO BE REMOVED AND RETURN TO OWNER |
| RCS | REMOTE CONTROL SWITCH |
| RDCP | REMOTE DATA COLLECTION PANEL |
| RECEPT.REC | RECEPTACLE |
| REF | REFRIGERATOR |
| REQ | REQUIRED |
| RFL | RAISED FLOOR |
| RG | ROOM GROUND POINT |
| RM | ROOM |
| RO | RACEWAY ONLY |
| RP | REFERENCE GROUND POINT |
| SAP | SPRINKLER ALARM PANEL |
| SBST | SUBSTATION |
| SCHED.SCH | SCHEDULE |
| SD | SMOKE DETECTOR |
| SDP | SMOKE DETECTION PANEL |
| SEC | SINGLE ENDED SUBSTATION |
| SECT | SECTION |
| SISM | SIGNAL |
| SN | SOLID NEUTRAL |
| SP | SINGLE POLE |
| SPEC | SPECIFICATION |
| SPKLR | SPRINKLER |
| SPKR | SPEAKER |
| SV | SOLENOID VALVE |
| SW | SWITCH |
| SWBD | SWITCHBOARD |
| SWGR | SWITCHGEAR |
| SYM | SYMMETRICAL |
| SYS | SYSTEMS |
| TB | TROUBLE BELL |
| TBD | TO BE DETERMINED |
| TEL | TELEPHONE |
| TEMP | TEMPERATURE |
| THERM | THERMOSTAT |
| TLD | TERMINAL BOARD |
| TP | TAMPER PROOF |
| TRANSF.XMR | TRANSFORMER |
| TS | TAMPER SWITCH |
| TV | TELEVISION |
| TVSS | TRANSIENT VOLTAGE SURGE SUPPRESSION |
| TYP | TYPICAL |
| UFD | UNDERFLOOR DUCT |
| UH | UNIT HEATER |
| UNF | UNFUSED |
| UNON | UNLESS OTHERWISE NOTED |
| V | VOLT OR VOLTAGE |
| VA | VOLT AMPERE |
| VP | VAPORPROOF |
| WFD | VARIABLE FREQUENCY DRIVE |
| WLMTR | WATTMETER |
| W | WATT |
| WS | WATERFLOW SWITCH |
| WHM | WATT HOUR METER |
| WP | WEATHERPROOF |
| WT | WATER TIGHT |
| XP | EXPLOSION PROOF |

VOICE/DATA/P.A. SYMBOLS

| | |
|--|--|
| | WALL MOUNTED PUBLIC ADDRESS SPEAKER D = DUAL HORN |
| | CEILING MOUNTED PUBLIC ADDRESS SPEAKER D = DUAL HORN |
| | VOICE & DATA OUTLET LOCATION WITH 3/4" CONDUIT TERMINATED IN A 90 DEG. BEND 6" INTO NEAREST ACCESSIBLE CEILING |
| | VOICE OUTLET LOCATION WITH 3/4" CONDUIT TERMINATED IN A 90 DEG. BEND 6" INTO NEAREST ACCESSIBLE CEILING P = PUBLIC F = FAX |
| | DATA OUTLET LOCATION WITH 3/4" CONDUIT TERMINATED IN A 90 DEG. BEND 6" INTO NEAREST ACCESSIBLE CEILING |
| | TELEVISION OUTLET LOCATION WITH 3/4" CONDUIT TERMINATED IN A 90 DEG. BEND 6" INTO NEAREST ACCESSIBLE CEILING |
| | PEDESTAL MOUNTED VOICE OUTLET |
| | VOICE OUTLET - FLUSH FLOOR MOUNTED |
| | PEDESTAL |