

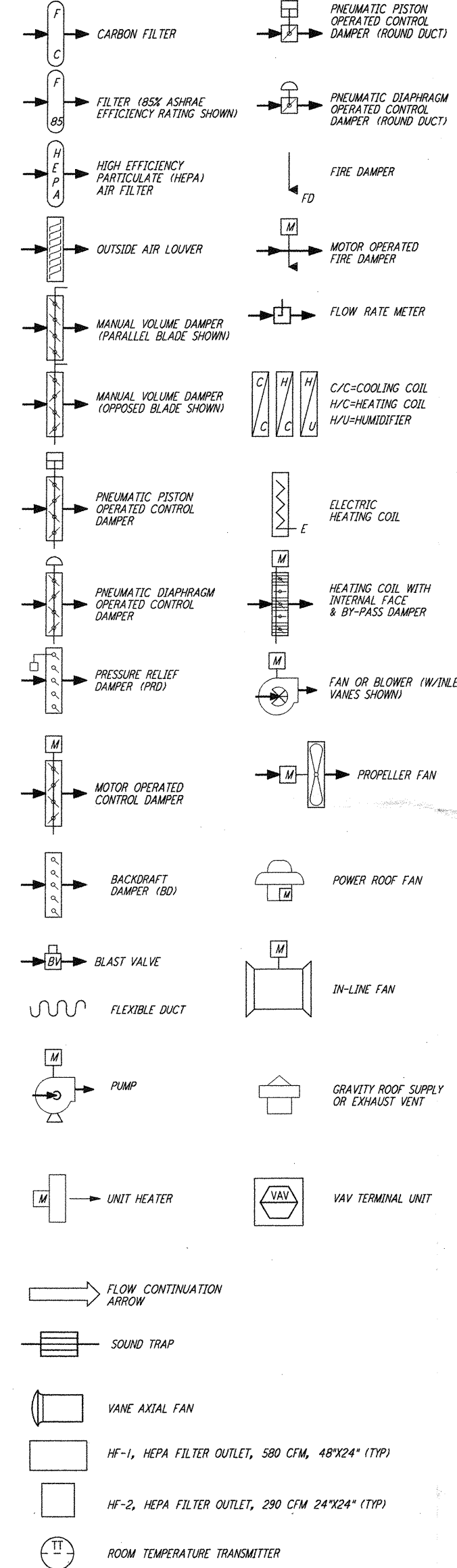
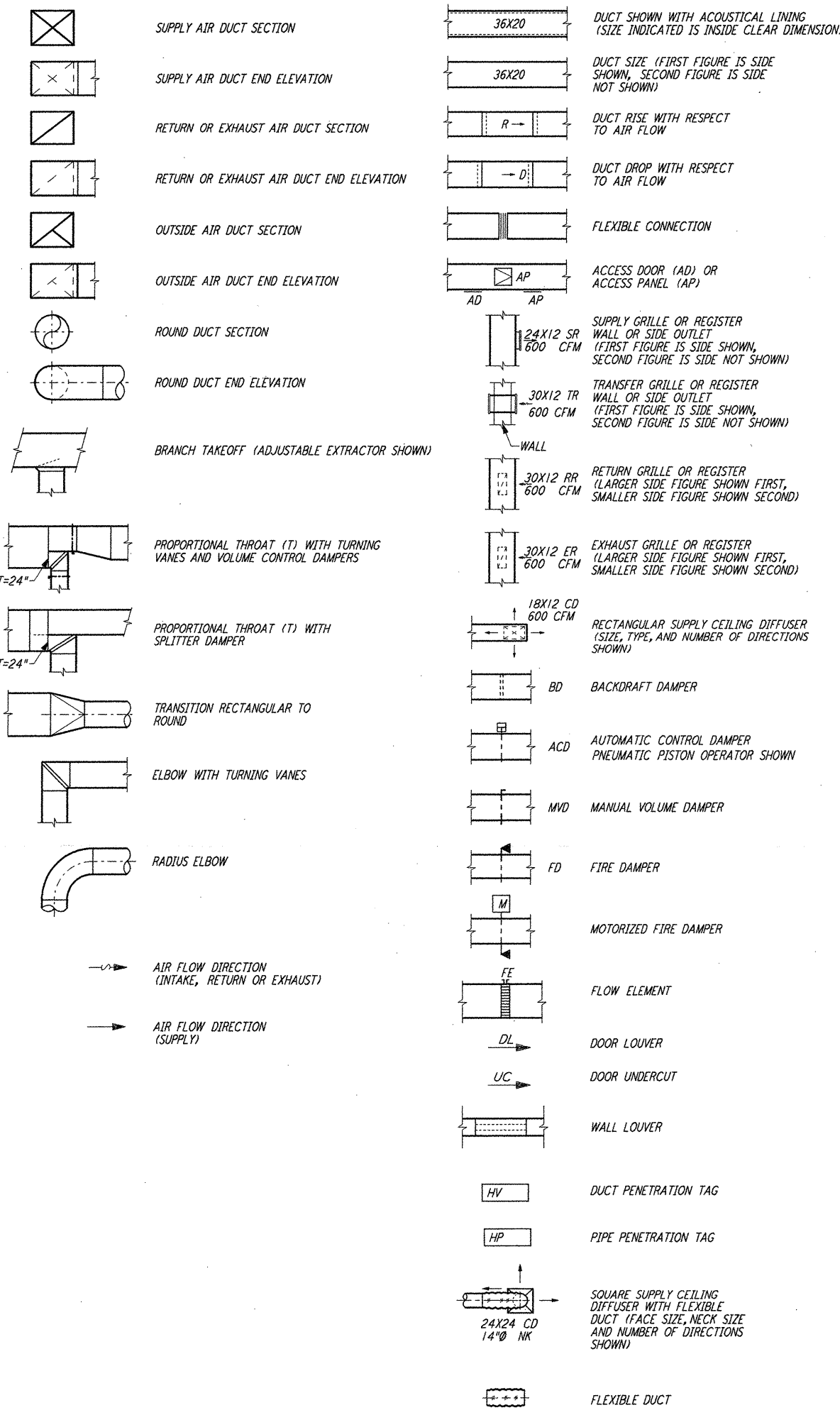
HEATING, VENTILATING AND AIR CONDITIONING LEGEND, SYMBOLS AND ABBREVIATIONS

DOUBLE LINE

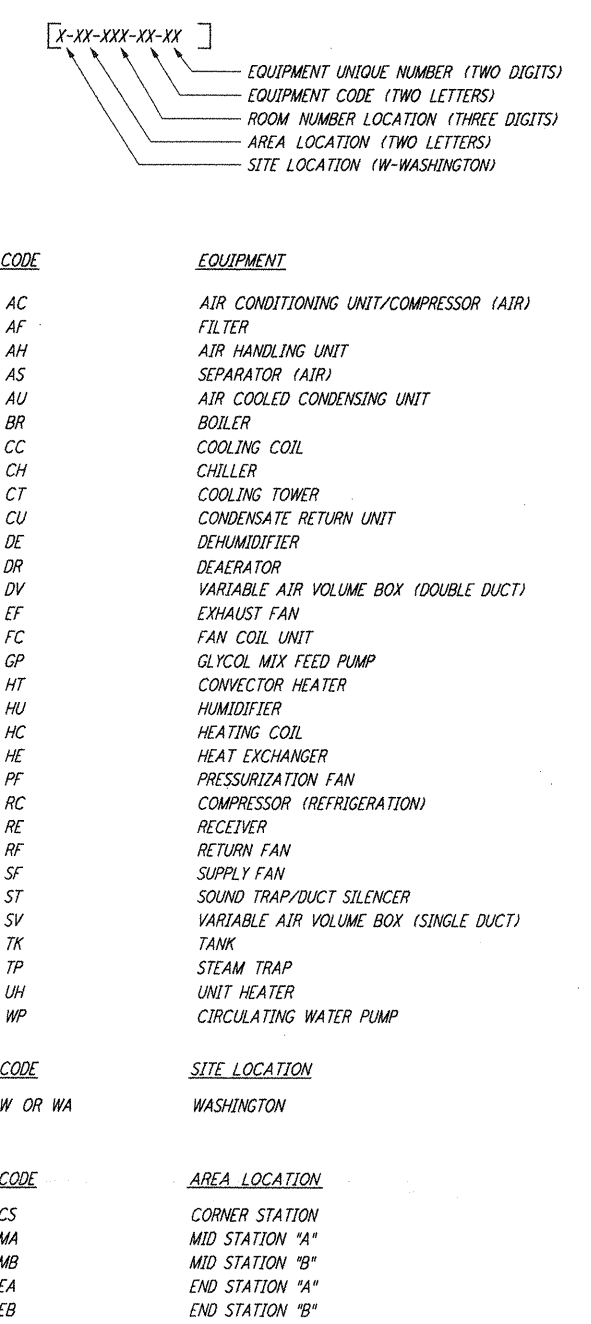
SINGLE LINE

ABBREVIATIONS

EQUIPMENT IDENTIFICATION



| ABBREV | WORD OR TERM | ABBREV | WORD OR TERM |
|-----------------|---|---------|---|
| ABV | ABOVE | IN | INCH |
| AC | AIR CONDITIONING | INFL | INFILTRATION |
| ACFM | ACTUAL CUBIC FEET PER MINUTE | INSTR | INSTRUMENT |
| ACH | AIR CHANGES/HR | INSUL | INSULATION |
| AF | ABOVE FINISHED FLOOR | IN W | INCHES WATER COLUMN |
| AFMS | AIR FLOW MEASURING STATION | IN W | INCHES WATER GAUGE |
| AI | ANALOG IN | KW | KILOWATT |
| AD | ANALOG OUT | L | LONG |
| APPROX | APPROXIMATE | LB | POUND |
| ARCH | ARCHITECTURAL | LG | LEVEL GAUGE |
| ATM | ATMOSPHERE | LGTH | LENGTH |
| AUTO | AUTOMATIC | LRA | LOCKED ROTOR AMPERES |
| BD | BACKDRAFT DAMPER | LVG | LEAVING |
| BELOW | BELOW | MAIN | MAINTENANCE |
| BHP | BRAKE HORSEPOWER | MAX | MAXIMUM |
| BLDG | BUILDING | MBH | THOUSAND BRITISH THERMAL UNITS PER HOUR |
| BO | BOTTOM OF DUCT | MCC | MOTOR CONTROL CENTER |
| BOG | BOTTOM OF GRILLE | MECH | MECHANICAL |
| BOL | BOTTOM OF LOUVER | MFR | MANUFACTURER |
| BOP | BOTTOM OF PIPE | MIN | MINIMUM |
| BOR | BOTTOM OF REGISTER | MTD | MOUNTED |
| BOT | BOTTOM | MTG | MOUNTING |
| BOU | BOTTOM OF UNIT | MTR | MOTOR |
| BTUH | BRITISH THERMAL UNITS PER HOUR | NC | NORMALLY CLOSED |
| CL | CENTER LINE | NEG | NEGATIVE |
| °C | DEGREES CENTIGRADE | NIC | NOT IN CONTRACT |
| C | COMPRESSED AIR | NK | NECK |
| CAP | CAPACITY | NO | NORMALLY OPEN |
| CCMS | CENTRAL CONTROL MONITORING SYSTEM | NO. (#) | NUMBER |
| CCW | COUNTERCLOCKWISE | NPS | NOT TO SCALE |
| CD | CEILING DIFFUSER | OA | OUTSIDE AIR |
| CFH | CUBIC FEET PER HOUR | OBD | OPPOSED BLADE DAMPER |
| CFM | CUBIC FEET PER MINUTE | OC | ON CENTER |
| CG | CYLINDRICAL | OD | OUTSIDE DIAMETER |
| CHR | CHILLED WATER RETURN | ODP | OPEN DRIP PROOF |
| CHS | CHILLED WATER SUPPLY | OPR | OPERATING / OPERATOR |
| CLG | COOLING | OPNG | OPENING |
| CNTFGL | CENTRIFUGAL COLUMN | ORD | ORDER |
| CONC | CONCRETE | PD | PRESSURE DROP |
| COND | CONDENSATE | PENET | PENETRATIONS |
| CONN | CONNECTION | PF | PRE-FILTER |
| CONT | CONTINUATION OR CONTROL | PH | PHASE |
| CR | CEILING REGISTER/CONDENSATE RETURN | PL | PLATE |
| CS | CARBON STEEL (GALVANIZED) | PNEU | PNEUMATIC |
| CW | CLOCKWISE | PNC | PANEL |
| CWR | CONDENSATE WATER RETURN | POC | POINT OF CONNECTION |
| CWS | CONDENSATE WATER SUPPLY | POS | POSITIVE |
| D | DRAIN | PRESS | PRESSURE |
| DA | DIRECT ACTING | PSIG | POUNDS PER SQUARE INCH GAUGE |
| DDC | DIRECT DIGITAL CONTROL | PT | PRESSURE DIFFERENTIAL |
| DDCP | DIRECT DIGITAL CONTROL PANEL | QTY | QUANTITY |
| DET | DETAIL | R | ROWS |
| DI | DIGITAL IN | RA | RETURN AIR |
| DISCH | DISCHARGE | RD | REFRIGERANT DISCHARGE |
| DN | DOWN | REF | REFERENCE |
| DO | DIGITAL OUT | REG | REGISTER |
| DP | DRIP PROOF | REQD | REQUIRED |
| DWG | DRAWING | RET | RETURN |
| Ø / DIA | DIAMETER | RFGT | REFRIGERANT |
| EA | EACH | RG | RETURN GRILLE |
| EFF | EFFICIENCY | RH | RELATIVE HUMIDITY |
| EG | EXHAUST GRILLE | RHC | REFRIGERANT LIQUID |
| ELEV | ELEVATION | RLA | RATED LOAD AMPERES |
| ELB | ELBOW | RM | ROOM |
| ELC | ELECTRICAL | RPM | REVLUTIONS PER MINUTE |
| ENT | ENTERING | RR | RETURN REGISTER |
| EP | EXPLOSION PROOF | RS | REFRIGERANT SUCTION |
| EQUIP | EQUIPMENT | RV | REFRIGERANT VENT |
| ER | EXHAUST REGISTER | SA | SUPPLY AIR |
| ESP | EXTERNAL STATIC PRESSURE | SCFM | STANDARD CUBIC FEET PER MINUTE |
| EXFIL | EXFILTRATION | SCHED | SCHEDULE |
| EXH | EXHAUST | SCED | SMOKE DETECTOR |
| *F | DEGREES FAHRENHEIT | SD | SECONDARY |
| *F DB | DEGREES FAHRENHEIT, DRY BULB (AIR) | SE | SUPPLY FAN |
| *F WB | DEGREES FAHRENHEIT, WET BULB (AIR) | SG | SUPPLY GRILLE |
| FC | FAIL CLOSED | SH | SHEET |
| FD | FIRE DAMPER | SL | SOUND LINING |
| FIN | FINISHED | SP | STATIC PRESSURE |
| FL | FAIL LOCKED | SPEC | SPECIFICATION |
| FLA | FULL-LOAD AMPERES | SR | SUPPLY REGISTER |
| FLEX | FLEXIBLE | SS | STAINLESS STEEL |
| FLG | FLANGE | STD | STANDARD |
| FLR | FLOOR | STL | STEEL |
| FLTR | FILTER | STM | STEAM |
| FO | FAIL OPEN | STRUC | STRUCTURAL |
| FP | FIRE PROTECTION | SV | SOLENOID VALVE |
| FPI | FPI'S PER INCH | SW | SWITCH |
| FPM | FEET PER MINUTE | TA | THROW AWAY |
| FT ² | FEET | TEFC | TOTALLY ENCLOSED FAN COOLED |
| FT ³ | SQUARE FEET | TEMP | TEMPERATURE |
| FURN | FURNISHED | TG | TRANSFER GRILLE |
| FWD CRV | FORWARD CURVED | TOC | TOP OF CONCRETE |
| GA | GAUGE | TOD | TOP OF DUCT |
| GAL | GALLON | TOS | TOP OF STEEL |
| GALV | GALVANIZED | TR | TRANSFER REGISTER |
| GFE | GOVERNMENT FURNISHED EQUIPMENT | TRANSF | TRANSFER |
| GPM | GALLONS PER MINUTE | TSP | TOTAL STATIC PRESSURE |
| H | HIGH | TYP | TYPICAL |
| HD | HEADER | UC | UNDERCUT DOOR |
| HEPA | HIGH EFFICIENCY PARTICULATE AIR FILTER | UG | UNDERGROUND |
| HF | HEPA FILTER OUTLET | UV | UNIT VENTILATOR |
| HOA | HAND/OFF/AUTO | V | VENT |
| HORIZ | HORIZONTAL | VEL | VELOCITY |
| HP | HORSEPOWER | VERT | VERTICAL |
| HR | HOUR | VFD | VARIABLE FREQUENCY DRIVE |
| HT | HEIGHT | VIV | VARIABLE INLET VANES |
| HTG | HEATING | W | WIDE |
| HWAC | HEATING, VENTILATING AND AIR CONDITIONING | W/ | WITH |
| HWR | HEATING HOT WATER RETURN | WC | WATER COLUMN |
| HWS | HEATING HOT WATER SUPPLY | WG | WATER GAUGE |
| HZ | HERTZ | WK | WORK |
| ID | INSIDE DIAMETER | WN | WELD NECK |
| I.E. | THAT IS | WP | WORKING POINT |
| | | WT | WEIGHT |
| | | WTR | WATER |



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| NO. | DATE | BY | CHKD | ENGR | PROJ | DESCRIPTION |
|-----|---------|----|------|------|------|---------------------|
| 1 | 5-15-98 | CP | AA | AA | | ISSUED FOR AS-BUILT |

| | | |
|-------------------------|-----|---------|
| ISSUED FOR CONSTRUCTION | CLP | 6-24-98 |
| CHECKED | MA | 7/31/98 |
| ENGINEER | AA | 7/31/98 |
| PROJ | MDW | 7/8/98 |

AS-BUILT DRAWINGS

| | | | | | | |
|---|---------|----|----|----|--|---------------------|
| 1 | 5-15-98 | CP | AA | AA | | ISSUED FOR AS-BUILT |
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| | | | |
|-----------------|-----------|-----------------|----------------|
| TITLE | SCALE | CONTRACT NUMBER | PROJECT NUMBER |
| | NONE | PP150969 | 8094 |
| SHEET NUMBER | REVISIONS | | |
| WA-H-001 | | | |

HVAC LEGEND & ABBREVIATIONS