



D1 SYMBOLS LEGEND

NONE		NONE	
<p>AW ACID WASTE</p> <p>ATV AIR RELIEF</p> <p>BBD BOILER BLOWDOWN</p> <p>BF BOILER FEED</p> <p>C CONDENSATE (HVAC DRAIN PAN)</p> <p>C CONDENSATE (HVAC DRAIN PAN - BELOW FLOOR)</p> <p>CA COMPRESSED AIR</p> <p>CHWR CHILLED WATER RETURN</p> <p>CHWS CHILLED WATER SUPPLY</p> <p>CWS CONDENSER WATER SUPPLY</p> <p>CWR CONDENSER WATER RETURN</p> <p>DOMESTIC COLD WATER</p> <p>DOMESTIC HOT WATER</p> <p>DOMESTIC WATER RECIRC.</p> <p>D DRAIN</p> <p>FM PUMP FORCE MAIN</p> <p>FOF FUEL OIL FILL</p> <p>FOR FUEL OIL RETURN</p> <p>FOS FUEL OIL SUPPLY</p> <p>FOV FUEL OIL TANK VENT</p> <p>FW FEEDWATER</p> <p>GR GLYCOL RETURN</p> <p>GS GLYCOL SUPPLY</p> <p>H HUMIDIFICATION LINE</p> <p>H2 HYDROGEN GAS</p> <p>HPWR HEAT PUMP WATER RETURN</p> <p>HPWS HEAT PUMP WATER SUPPLY</p> <p>HPC HIGH-PRESSURE CONDENSATE</p> <p>HPS HIGH-PRESSURE STEAM</p> <p>HTWR HIGH-TEMP. HOT WATER RETURN</p> <p>HWR HOT WATER RETURN</p> <p>HWS HOT WATER SUPPLY</p> <p>IND INDUSTRIAL WASTE</p> <p>IW INDIRECT WASTE</p> <p>LN LIQUID NITROGEN</p> <p>LOX LIQUID OXYGEN</p> <p>LPC LOW-PRESSURE CONDENSATE</p> <p>LP LIQUID PETROLEUM GAS</p> <p>LPR LOW-PRESSURE CONDENSATE</p> <p>LPS LOW-PRESSURE STEAM</p> <p>MA MEDICAL AIR</p> <p>MPR MEDIUM-PRESSURE CONDENSATE</p> <p>MPS MEDIUM-PRESSURE STEAM</p> <p>MU MAKEUP WATER</p> <p>N2 NITROGEN</p> <p>NG NATURAL GAS</p> <p>NO NITROUS OXIDE</p> <p>NPW NON-POTABLE WATER</p> <p>OX OXYGEN</p> <p>PC PUMPED CONDENSATE</p> <p>PCWR PROCESSED COLD WATER RETURN</p> <p>PCWS PROCESSED COLD WATER SUPPLY</p> <p>RD REFRIGERANT DISCHARGE</p> <p>RL REFRIGERANT LIQUID</p> <p>RS REFRIGERANT SUCTION</p> <p>RW RAIN WATER ABOVE FLOOR</p> <p>RW RAIN WATER BELOW GRADE</p> <p>SAW SANITARY SOIL WASTE (ABOVE FLOOR)</p> <p>SBSW SANITARY SOIL WASTE (BELOW FLOOR)</p> <p>SAWV SANITARY SOIL VENT (ABOVE FLOOR)</p> <p>SBSWV SANITARY SOIL VENT (BELOW FLOOR)</p> <p>SWW SANITARY WASTE & VENT COMBINATION</p> <p>SP SPRINKLER MAIN PIPING</p> <p>SWR SOLAR WATER RETURN</p> <p>SWS SOLAR WATER SUPPLY</p> <p>TP TRAP PRIMER PIPING ABOVE GRADE</p> <p>TP TRAP PRIMER PIPING BELOW GRADE</p> <p>TWR TEMPERED RETURN WATER</p> <p>TWS TEMPERED SUPPLY WATER</p> <p>VAC VACUUM (AIR)</p> <p>VC VACUUM CLEANING (HOUSE)</p> <p>VPD VACUUM PUMP DISCHARGE</p>	<p>AAV AUTOMATIC AIR VENT</p> <p>AC ABOVE CEILING</p> <p>ACC AIR COOLED CONDENSER</p> <p>ACU AIR CONDITIONING UNIT</p> <p>ADA AMERICANS WITH DISABILITIES ACT</p> <p>AD ACCESS DOOR</p> <p>AE ACID EXHAUST</p> <p>AW ACID WASTE</p> <p>AFF, A.F.F. ABOVE FINISHED FLOOR</p> <p>AHU AIR HANDLING UNIT</p> <p>N2 NITROGEN</p> <p>AP ACCESS PANEL</p> <p>APPROX APPROXIMATE; APPROXIMATELY</p> <p>APMR AS PER MFR'S RECOMMENDATIONS</p> <p>ATC AUTOMATIC TEMPERATURE CONTROL</p> <p>AV AIR VENT</p> <p>BC BALANCING COCK</p> <p>BDD BACKDRAFT DAMPER</p> <p>BG BLAST GATE</p> <p>BF BARRIER FREE</p> <p>BFP BACKFLOW PREVENTER</p> <p>BHP BRAKE HORSEPOWER</p> <p>BLDG BUILDING</p> <p>BOD BOTTOM OF DUCT</p> <p>B.T.U. BRITISH THERMAL UNIT</p> <p>C; CONV. CONVECTOR</p> <p>CCW COUNTER CLOCKWISE</p> <p>CFP CAPPED FOR FUTURE</p> <p>CFM CUBIC FEET PER MINUTE</p> <p>CLG CEILING</p> <p>CO CLEANOUT</p> <p>CM CONSTRUCTION MANAGER</p> <p>CNTR COUNTER; COUNTERTOP</p> <p>CONN CONNECT; CONNECTION</p> <p>CONT CONTINUE; CONTINUATION</p> <p>COORD COORDINATE</p> <p>CORR CORRIDOR</p> <p>CR CHEMICAL RESISTING</p> <p>CT COOLING TOWER</p> <p>CTE CONNECT TO EXISTING</p> <p>CTR CENTER</p> <p>CTRLN CENTERLINE</p> <p>CU COPPER</p> <p>CUH CABINET UNIT HEATER</p> <p>C.V. CONTROL VALVE</p> <p>CW COLD WATER/CLOCKWISE</p> <p>DB DRY BULB TEMPERATURE, °F</p> <p>DC DOUBLE CONTAINED</p> <p>DDC DIRECT DIGITAL CONTROL</p> <p>DET DETAIL</p> <p>DIA DIAMETER</p> <p>DIC DOWN IN CHASE</p> <p>DIW DOWN IN WALL</p> <p>DN DOWN</p> <p>DS DOWNSPOUT</p> <p>DT DROP AND TRANSITION</p> <p>DV DRAIN VALVE</p> <p>DWG DRAWING</p> <p>EA EXHAUST AIR</p> <p>EF EXHAUST FAN</p> <p>EG EXHAUST GRILLE</p> <p>ELEV ELEVATION</p> <p>ELONG ELONGATE</p> <p>ENC ENCLOSURE</p> <p>ER EXHAUST REGISTER</p> <p>ESP EXTERNAL STATIC PRESSURE</p> <p>ET EXPANSION TANK</p> <p>(E) EXISTING</p> <p>F & T FLOAT AND THERMOSTATIC</p> <p>FBO FURNISHED BY OTHERS</p> <p>FBP FACE AND BYPASS</p> <p>FC FLEXIBLE CONNECTION</p> <p>FCO FLOOR CLEANOUT</p> <p>FD# FLOOR DRAIN TAG</p> <p>FD FIRE DAMPER</p> <p>PD PUMPED DISCHARGE</p> <p>FIN FINISH</p> <p>FL FLOOR</p> <p>FTG FOOTING</p> <p>FTR FINNED TUBE RADIATION</p> <p>FS FLOW SWITCH</p> <p>FM FORCE MAIN</p> <p>GC GENERAL CONTRACTOR</p> <p>GPM GALLONS PER MINUTE</p> <p>GV GRAVITY VENTILATOR</p> <p>H HUMIDIFIER</p> <p>HB HOSE BIB</p> <p>HC; HDC HANDICAP ACCESS</p> <p>HGT, HT. HEIGHT</p> <p>HP HEAT PUMP</p> <p>HRU HEAT RECOVERY UNIT</p> <p>HTR HEATER</p> <p>H & V HEATING AND VENTILATION</p> <p>HVAC HEATING, VENTILATING, & AIR COND.</p> <p>HW HOT WATER</p> <p>HWR HOT WATER RETURN</p> <p>HWS HOT WATER SUPPLY</p> <p>HX HEAT EXCHANGER</p> <p>ID INSIDE DIAMETER</p> <p>IN WG INCHES WATER GAUGE</p> <p>INCL INCLUDING</p> <p>INV EL INVERT ELEVATION</p> <p>IPS IRON PIPE SIZE</p> <p>KE-# KITCHEN EQUIPMENT NUMBER</p> <p>LD LINEAR DIFFUSER</p> <p>LE-# SCIENCE LAB EQUIPMENT NUMBER</p> <p>LP LIQUID PETROLEUM GAS</p> <p>LPR LOW PRESSURE STEAM RETURN</p> <p>LPS LOW PRESSURE STEAM SUPPLY</p> <p>MAX MAXIMUM</p> <p>1000 BTU/HR. 1000 BTU/HR.</p> <p>MFR MANUFACTURER</p> <p>MIN MINIMUM</p> <p>MOD MOTOR OPERATED DAMPER</p> <p>MPG MEDIUM PRESSURE GAS</p> <p>MPV MULTI-PURPOSE VALVE</p> <p>MTD MOUNTED</p> <p>MTG MOUNTING</p> <p>MUA MAKE UP AIR</p> <p>N.C. NORMALLY CLOSED</p> <p>N.O. NORMALLY OPEN</p> <p>NIC NOT IN CONTRACT</p> <p>NPT NATIONAL PIPE THREAD</p> <p>NTS NOT TO SCALE</p> <p>OA OUTSIDE AIR</p> <p>OBD OPPOSED BLADE DAMPER</p> <p>OD OUTSIDE DIAMETER</p> <p>OED OPEN ENDED DUCT</p> <p>P-# PLUMBING FIXTURE TAG</p> <p>PD PUMPED DISCHARGE</p> <p>PRS PRESSURE REDUCING STATION</p> <p>PRV PRESSURE REDUCING VALVE</p> <p>RA RETURN AIR</p> <p>RD ROOF DRAIN</p> <p>REC RECOMMENDATION</p> <p>REG REGULAR</p> <p>RF RETURN FAN</p> <p>RG RETURN GRILLE</p> <p>RHC REHEAT COIL</p> <p>RM ROOM</p> <p>RPZ REDUCED PRESSURE BFP</p> <p>RR RETURN REGISTER</p> <p>RV RELIEF VALVE</p> <p>RW RAIN WATER</p> <p>S SUPPLY AIR</p> <p>SA-# SHOCK ABSORBER OF PDI SIZE (") AS INDICATED</p> <p>SCV SELF CONTAINED VALVE</p> <p>SD SMOKE DAMPER</p> <p>SF SUPPLY FAN</p> <p>SG SUPPLY GRILLE</p> <p>SGL SINGLE</p> <p>SHT SHEET</p> <p>SPLR SPRINKLER</p> <p>SQ FT; S. F. SQUARE FEET</p> <p>SR SUPPLY REGISTER</p> <p>S/O SHUT OFF</p> <p>S.S. STAINLESS STEEL</p> <p>TG TRANSFER GRILLE</p> <p>TOD TOP OF DUCT</p> <p>TP TRAP PRIMER</p> <p>TSP TOTAL STATIC PRESSURE</p> <p>TTS TIGHT TO STEEL</p> <p>TV TURNING VANE</p> <p>TW TEMPERED WATER</p> <p>TYP TYPICAL</p> <p>UH UNIT HEATER</p> <p>UIC UP IN CHASE</p> <p>UIW UP IN WALL</p> <p>UV UNIT VENTILATOR</p> <p>V VENT</p> <p>VAC VACUUM</p> <p>VB VACUUM BREAKER</p> <p>VCFB VALVE & CAP FOR FUTURE</p> <p>VD VOLUME DAMPER - MANUAL</p> <p>VLV VALVE</p> <p>VS VENT STACK</p> <p>VTR VENT THROUGH ROOF</p> <p>W WASTE</p> <p>W/ WITH</p> <p>WB WET BULB TEMPERATURE, °F</p> <p>WCO WALL CLEANOUT</p> <p>WH WATER HEATER</p> <p>WHYD WALL HYDRANT</p> <p>NTS NOT TO SCALE</p> <p>Ø DIAMETER</p> <p>@ AT</p> <p>& AND</p> <p>% PERCENT</p>		

NOTE
 ALL GENERAL NOTES, SYMBOL LEGENDS, AND DETAILS ARE TO BE CONSIDERED AS APPLICABLE TO ALL PLUMBING AND HVAC DRAWINGS FOR THIS PROJECT. SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY AND DO NOT INDICATE THEIR INCORPORATION INTO THE DESIGN.

A1 PIPING LINETYPE LEGEND

NONE	
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A4 ABBREVIATIONS

NONE	
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Design Firm

Consultant

Allied Engineering
 Structural Mechanical Electrical Commissioning

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Project Title

Luther Bonney Heating Upgrades
 USM Luther Bonney Hall
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Issue/Revision	Date	Description
Project ID		
CAD File	13102 M	
Drawn By	SCL	
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Reviewed By		
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1 of 9