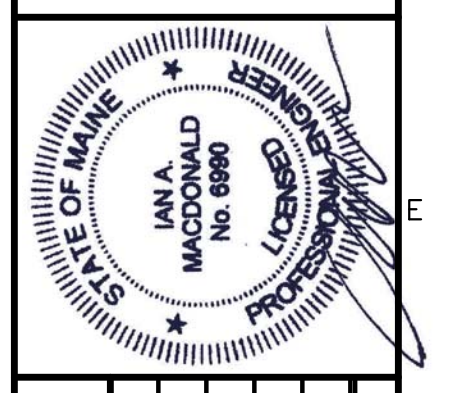


	PIPE ELBOW TURNED DN		GLOBE VALVE		STEAM TRAP (FLOAT & THERMOSTATIC INDICATED T.T. = THERMOSTATIC TRAP, B.T. = BUCKET TRAP)		EXPANSION LOOP		CHANGE IN ELEVATION (UP/DOWN, RISE OR DROP)		MOTORIZED DAMPER		R, G & D TAG DIFFUSER, REGISTER OR GRILLE No. QUANTITY CFM AIR FLOW
	PIPE ELBOW TURNED UP		LOCKABLE BALL VALVE		PUMP ~ POINT OF TRIANGLE INDICATES DIRECTION OF FLOW		EXPANSION LOOP (BRAIDED/MANUFACTURED)		SUPPLY DUCT TURNED UP/DN		FLEXIBLE CONNECTION		FIN TUBE TAG FIN TUBE No. LENGTH GPM
	PIPING TEE DOWN		PLUG VALVE		GAS SHUT-OFF VALVE		FLOOR DRAIN		RETURN DUCT TURNED UP/DN		TEMPERATURE SENSOR OR THERMOSTAT (AS SPECIFIED)		HUMIDISTAT OR HUMIDITY SENSOR (AS SPECIFIED)
	PIPING TEE UP		2-WAY CONTROL VALVE		HOSE END DRAIN VALVE W/CAP		SHOCK ABSORBER (WATER HAMMER ARRESTER)		EXHAUST DUCT TURNED UP/DN		CARBON DIOXIDE SENSOR		VAV TAG VAV No. MINIMUM CFM MAXIMUM CFM GPM
	PIPE RISER		3-WAY CONTROL VALVE		TEMPERATURE/PRESSURE TAP (PETE'S PLUG)		FIRE DEPARTMENT CONNECTION		ROUND DUCT TURNED UP/DN		CARBON MONOXIDE SENSOR		ACCESS PANEL
	45° ELBOW DOWN		LOCK & SHIELD VALVE		THERMOMETER WITH COCK		FREE STANDING FIRE DEPARTMENT CONNECTION		MITERED DUCT ELBOW W/TURNING VANES		DUCT SMOKE DETECTOR		EQUIPMENT TAG TYPE DESIGNATOR NUMBER
	PIPING TO BE REMOVED		CHECK VALVE		SOLENOID VALVE		WATER GONG		RADIUS DUCT ELBOW		ROOFTOP EXHAUST FAN		EQUIPMENT TAG (ON FLOOR/ROOF ABOVE) TYPE DESIGNATOR NUMBER
	CAPPED PIPING		BALANCING VALVE (CIRCUIT SETTER)		ORIFICE FLOWMETER		DUCTWORK TO BE REMOVED		DUCT/PIPE CAP (SINGLE/DOUBLE LINE)		ROOFTOP SUPPLY FAN		DETAIL No. DETAIL REFERENCE SYMBOL SHEET DETAIL LOCATED ON
	CAPPED BELOW FINISHED FLOOR (PETE'S PLUG)		AIR VENT ~ REFER TO SPECIFICATIONS		DIFFERENTIAL PRESSURE TRANSMITTER		SINGLE LINE DUCTWORK TO BE REMOVED		VOLUME DAMPER		CEILING DIFFUSER ~ 4-WAY BLOW CEILING DIFFUSER ~ 3-WAY BLOW CEILING DIFFUSER ~ 2-WAY BLOW CEILING DIFFUSER ~ CORNER BLOW CEILING RETURN GRILLE CEILING EXHAUST GRILLE		SECTION No. SECTION REFERENCE SYMBOL SHEET SECTION LOCATED ON
	CONCENTRIC REDUCER		STRAINER WITH BLOWDOWN VALVE AND CAP		HUMIDIFIER (DUCT/AHU MOUNTED)		DUCT TRANSITION		FIRE DAMPER		POINT OF CONNECTION EXISTING TO NEW		DIRECTION OF AIR FLOW
	ECCENTRIC REDUCER		EXPANSION VALVE (AUTOMATIC)		FINNED TUBE BASEBOARD		SQUARE TO ROUND TRANSITION		SMOKE DAMPER		BACKDRAFT DAMPER		
	DIRECTION OF FLOW		RELIEF/SAFETY VALVE		HOSE BIB/WALL HYDRANT		FLEX DUCT ~ DOUBLE LINE FLEX DUCT ~ SINGLE LINE						
	PIPING PITCHES DOWN		PRESSURE GAUGE WITH COCK		FLOOR CLEANOUT								
	PIPE GUIDE		SIGHT GLASS		FUSIBLE LINK VALVE								
	EXPANSION JOINT		FLOW SWITCH		WALL CLEANOUT								
	PIPE ANCHOR		SELF-CONTAINED TEMP. CONTROL VALVE WITH REMOTE SENSOR		AQUASTAT								
	UNION												
	FLANGED CONNECTION												
	BACKFLOW PREVENTER												
	FLEXIBLE CONNECTION												
	SHUT-OFF/ISOLATION VALVE REFER TO SPECIFICATIONS												
	GATE VALVE ~ OUTSIDE SCREW & YOKE (OS&Y)												

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D1 SYMBOLS LEGEND

NONE

AW	ACID WASTE	LPR	LOW-PRESSURE CONDENSATE
ATV	AIR RELIEF	LPS	LOW-PRESSURE STEAM
BBD	BOILER BLOWDOWN	MA	MEDICAL AIR
BF	BOILER FEED	MPR	MEDIUM-PRESSURE CONDENSATE
C	CONDENSATE (HVAC DRAIN PAN)	MPS	MEDIUM-PRESSURE STEAM
C	CONDENSATE (HVAC DRAIN PAN - BELOW FLOOR)	MU	MAKEUP WATER
CA	COMPRESSED AIR	N2	NITROGEN
CHWR	CHILLED WATER RETURN	NG	NATURAL GAS
CHWS	CHILLED WATER SUPPLY	NO	NITROUS OXIDE
CWS	CONDENSER WATER SUPPLY	NPW	NON-POTABLE WATER
CWR	CONDENSER WATER RETURN	OX	OXYGEN
	DOMESTIC COLD WATER	PC	PUMPED CONDENSATE
	DOMESTIC HOT WATER	PCWR	PROCESSED COLD WATER RETURN
	DOMESTIC WATER RECIRC.	PCWS	PROCESSED COLD WATER SUPPLY
D	DRAIN	RD	REFRIGERANT DISCHARGE
FM	PUMP FORCE MAIN	RL	REFRIGERANT LIQUID
FOF	FUEL OIL FILL	RS	REFRIGERANT SUCTION
FOR	FUEL OIL RETURN	RW	RAIN WATER ABOVE FLOOR
FOS	FUEL OIL SUPPLY	RW	RAIN WATER BELOW GRADE
FOV	FUEL OIL TANK VENT		SANITARY SOIL WASTE (ABOVE FLOOR)
FW	FEEDWATER		SANITARY SOIL WASTE (BELOW FLOOR)
GR	GLYCOL RETURN		SANITARY SOIL VENT (ABOVE FLOOR)
GS	GLYCOL SUPPLY		SANITARY SOIL VENT (BELOW FLOOR)
H	HUMIDIFICATION LINE	SV	SANITARY WASTE & VENT COMBINATION
H2	HYDROGEN GAS	SP	SPRINKLER MAIN PIPING
HPWR	HEAT PUMP WATER RETURN	SWR	SOLAR WATER RETURN
HPWS	HEAT PUMP WATER SUPPLY	SWS	SOLAR WATER SUPPLY
HPC	HIGH-PRESSURE CONDENSATE	TP	TRAP PRIMER PIPING ABOVE GRADE
HPS	HIGH-PRESSURE STEAM	TP	TRAP PRIMER PIPING BELOW GRADE
HTWR	HIGH-TEMP. HOT WATER RETURN	TWR	TEMPERED RETURN WATER
HWR	HOT WATER RETURN	TWS	TEMPERED SUPPLY WATER
HWS	HOT WATER SUPPLY	VAC	VACUUM (AIR)
IND	INDUSTRIAL WASTE	VC	VACUUM CLEANING (HOUSE)
IW	INDIRECT WASTE	VPD	VACUUM PUMP DISCHARGE
LN	LIQUID NITROGEN		
LOX	LIQUID OXYGEN		
LPC	LOW-PRESSURE CONDENSATE		
LP	LIQUID PETROLEUM GAS		

AAV	AUTOMATIC AIR VENT	DN	DOWN	LP	LIQUID PETROLEUM GAS	TP	TRAP PRIMER
AC	ABOVE CEILING	DS	DOWNSPOUT	LPR	LOW PRESSURE STEAM RETURN	TSP	TOTAL STATIC PRESSURE
ACC	AIR COOLED CONDENSER	DT	DROP AND TRANSITION	LPS	LOW PRESSURE STEAM SUPPLY	TTS	TIGHT TO STEEL
ACU	AIR CONDITIONING UNIT	DV	DRAIN VALVE	MAX	MAXIMUM	TV	TURNING VANE
ADA	AMERICANS WITH DISABILITIES ACT	DWG	DRAWING	MBH	1000 BTU/HR.	TW	TEMPERED WATER
AD	ACCESS DOOR	EA	EXHAUST AIR	MFR	MANUFACTURER	TYP	TYPICAL
AE	ACID EXHAUST	EF	EXHAUST FAN	MIN	MINIMUM	UH	UNIT HEATER
AW	ACID WASTE	EG	EXHAUST GRILLE	MOD	MOTOR OPERATED DAMPER	UIC	UP IN CHASE
AFF; A.F.F.	ABOVE FINISHED FLOOR	ELEV	ELEVATION	MPG	MEDIUM PRESSURE GAS	UIW	UP IN WALL
AHU	AIR HANDLING UNIT	ELONG	ELONGATE	MPV	MULTI-PURPOSE VALVE	UV	UNIT VENTILATOR
AP	ACCESS PANEL	ENC	ENCLOSURE	MTD	MOUNTED	V	VENT
APPROX	APPROXIMATE; APPROXIMATELY	ER	EXHAUST REGISTER	MTG	MOUNTING	VAC	VACUUM
APMR	AS PER MFR'S RECOMMENDATIONS	ESP	EXTERNAL STATIC PRESSURE	MUA	MAKE UP AIR	VB	VACUUM BREAKER
ATC	AUTOMATIC TEMPERATURE CONTROL	ET	EXPANSION TANK	N.C.	NORMALLY CLOSED	VCF	VALVE & CAP FOR FUTURE
AV	AIR VENT	(E)	EXISTING	N.O.	NORMALLY OPEN	VD	VOLUME DAMPER - MANUAL
BC	BALANCING COCK	F & T	FLOAT AND THERMOSTATIC	NIC	NOT IN CONTRACT	VLV	VALVE
BDD	BACKDRAFT DAMPER	FBO	FURNISHED BY OTHERS	NPT	NATIONAL PIPE THREAD	VS	VENT STACK
BG	BLAST GATE	FBP	FACE AND BYPASS	NTS	NOT TO SCALE	VTR	VENT THROUGH ROOF
BF	BARRIER FREE	FC	FLEXIBLE CONNECTION	OBD	OPPOSED BLADE DAMPER	W	WASTE
BFP	BACKFLOW PREVENTER	FCO	FLOOR CLEANOUT	OD	OUTSIDE DIAMETER	W	WITH
BHP	BRAKE HORSEPOWER	FD#	FLOOR DRAIN TAG	OED	OPEN ENDED DUCT	WB	WET BULB TEMPERATURE, °F
BLDG	BUILDING	FD	FIRE DAMPER	P-#	PLUMBING FIXTURE TAG	WCO	WALL CLEANOUT
BOD	BOTTOM OF DUCT	FIN	FINISH	PD	PUMPED DISCHARGE	WH	WATER HEATER
B.T.U.	BRITISH THERMAL UNIT	FL	FLOOR	PRS	PRESSURE REDUCING STATION	WHYD	WALL HYDRANT
C; CONV.	CONVECTOR	FTG	FOOTING	PRV	PRESSURE REDUCING VALVE	NTS	NOT TO SCALE
CCW	COUNTER CLOCKWISE	FTR	FINNED TUBE RADIATION	RA	RETURN AIR	Ø	DIAMETER
CCF	CAPPED FOR FUTURE	FS	FLOW SWITCH	RD	ROOF DRAIN	@	AT
CFM	CUBIC FEET PER MINUTE	FM	FORCE MAIN	REC	RECOMMENDATION	&	AND
CLG	CEILING	GC	GENERAL CONTRACTOR	REG	REGULAR	%	PERCENT
CO	CLEANOUT	GPM	GALLONS PER MINUTE	RF	RETURN FAN		
CM	CONSTRUCTION MANAGER	GV	GRAVITY VENTILATOR	RG	RETURN GRILLE		
CNTR	COUNTER; COUNTERTOP	H	HUMIDIFIER	RHC	REHEAT COIL		
CONN	CONNECT; CONNECTION	HB	HOSE BIB	RM	ROOM		
CONT	CONTINUE; CONTINUATION	HC; HDC	HANDICAP ACCESS	RPZ	REDUCED PRESSURE BFP		
COORD	COORDINATE	HGT. HT.	HEIGHT	RR	RETURN REGISTER		
CORR	CORRIDOR	HP	HEAT PUMP	RV	RELIEF VALVE		
CR	CHEMICAL RESISTING	HPU	HEAT RECOVERY UNIT	RW	RAIN WATER		
CT	COOLING TOWER	HTR	HEATER	S	SUPPLY AIR		
CTE	CONNECT TO EXISTING	H & V	HEATING AND VENTILATION	SA-*	SHOCK ABSORBER OF PDI SIZE (*) AS INDICATED		
CTR	CENTER	HVAC	HEATING, VENTILATING, & AIR COND.	SCV	SELF CONTAINED VALVE		
CTRLN	CENTERLINE	HW	HOT WATER	SD	SMOKE DAMPER		
CU	COPPER	HWR	HOT WATER RETURN	SF	SUPPLY FAN		
CUH	CABINET UNIT HEATER	HWS	HOT WATER SUPPLY	SG	SUPPLY GRILLE		
C.V.	CONTROL VALVE	HX	HEAT EXCHANGER	SGL	SINGLE		
CW	COLD WATER/CLOCKWISE	ID	INSIDE DIAMETER	SHT	SHEET		
DB	DRY BULB TEMPERATURE, °F	IN WG	INCHES WATER GAUGE	SPLR	SPRINKLER		
DC	DOUBLE CONTAINED	INCL	INCLUDING	SQ FT; S. F.	SQUARE FEET		
DDC	DIRECT DIGITAL CONTROL	INV EL	INVERT ELEVATION	SR	SUPPLY REGISTER		
DET	DETAIL	IPS	IRON PIPE SIZE	S/O	SHUT OFF		
DIA	DIAMETER	KE-#	KITCHEN EQUIPMENT NUMBER	S.S.	STAINLESS STEEL		
DIC	DOWN IN CHASE	LD	LINEAR DIFFUSER	TG	TRANSFER GRILLE		
DIW	DOWN IN WALL	LE-#	SCIENCE LAB EQUIPMENT NUMBER	TOD	TOP OF DUCT		

**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

A4 ABBREVIATIONS

NONE

**REVISIONS**

NO.	DATE	BY	DESCRIPTION

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Checked By: IAM  
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**PLUMBING AND HVAC ABBREVIATIONS AND LEGENDS**

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