

ABBREVIATIONS

⊙	AT	LBS	POUNDS
AFF	ABOVE FINISHED FLOOR	LP	LOW PRESSURE
AR	ARGON	MBH	1000 BTUH
ARCH	ARCHITECTURAL	MECH	MECHANICAL
AS	AIR SEPARATOR	MIN	MINIMUM
BFP	BACK FLOW PREVENTER	MP	MEDIUM PRESSURE
CA	COMPRESSED AIR	NC	NORMALLY CLOSED
CENTRIF	CENTRIFUGAL	NFWH	NON FREEZE WALL HYDRANT
CFH	CUBIC FEET PER HOUR	NO	NUMBER
CO	CLEAN OUT	NPW	NON-POTABLE WATER
CONC	CONCRETE	O2	OXYGEN
CP	CIRCULATOR PUMP	P	PLUMBING FIXTURE
CW	COLD WATER	PH	PHASE
D	DRAIN	PSIG	POUNDS PER SQUARE INCH GAUGE
DCW	DOMESTIC COLD WATER	PRV	PRESSURE REDUCING VALVE
DEG	DEGREE	PVC	POLYVINYL CHLORIDE
DHWR	DOMESTIC HOT WATER RETURN	RECIRC	RECIRCULATED
DHWS	DOMESTIC HOT WATER SUPPLY	RHW	RECIRCULATED HOT WATER
DIA	DIAMETER	RPZ	REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER
DWH	DOMESTIC WATER HEATER	RW	RAIN WATER
DWG	DRAWING	RWL	RAIN WATER LEADER
ET	EXPANSION TANK	RD	ROOF DRAIN
EWH	ELECTRIC HOT WATER HEATER	SAN	SANITARY
F	FAHRENHEIT	SCHD	SCHEDULE
FCO	FLOOR CLEAN OUT	SCW	SOLAR COLLECTOR WATER
FD	FLOOR DRAIN	SF	SQUARE FEET
FOS	FUEL OIL SUPPLY	SOV	SHUT OFF VALVE
FOR	FUEL OIL RETURN	SRV	SAFETY RELIEF VALVE
FP	FIRE PROTECTION	SCWR	SOLAR COLLECTOR WATER RETURN
FT	FOOT/FEET	SCWS	SOLAR COLLECTOR WATER SUPPLY
G	GAS	SYS	SYSTEM
GAL	GALLON	TYP	TYPICAL
GM	GAS METER	V	VENT, VOLT
GPF	GALLONS PER FLUSH	VTR	VENT THROUGH ROOF
GPM	GALLONS PER MINUTE	W	WASTE, WATT
HC	HANDICAPPED ACCESSIBLE	W/	WITH
HP	HORSE POWER	WC	WATER CLOSET
HW	HOT WATER	WCO	WALL CLEANOUT
HZ	HERTZ	WH	WATER HEATER, WALL HYDRANT
HB	HOSEBIB	WHA	WATER HAMMER ARRESTOR
HT	HIGH TEMPERATURE		
IN	INCHES		
INS	INSULATION		

GENERAL NOTES:

- SYMBOLS LIST AND DETAILS ARE APPLICABLE TO DRAWINGS MARKED P-#.
- REFER TO SHEETS P-501 FOR ADDITIONAL PLUMBING DETAILS.
- COMPLY WITH THE MAINE STATE INTERNAL PLUMBING CODE (UNIFORM PLUMBING CODE 2009 EDITION).
- DRAWINGS ARE DIAGRAMMATIC; DETERMINE LOCATIONS OF SYSTEMS AND COMPONENTS IN FIELD.
- ALL AREA FLOOR DRAINS AND SANITARY DRAIN CLEAN-OUTS SHALL BE BY THE SAME MANUFACTURER FOR CONSISTENCY. ZURN OR APPROVED EQUAL.
- COORDINATE WORK OF THIS SECTION WITH THAT OF OTHER SECTIONS.
- WORK SHALL BE COORDINATED WITH TRADES INVOLVED. OFFSETS IN PIPING AND TRANSITIONS AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
- VERIFY EQUIPMENT CONNECTIONS WITH MANUFACTURER'S CERTIFIED DRAWINGS. VERIFY AND PROVIDE PIPE TRANSITIONS TO FURNISHED EQUIPMENT. FIELD VERIFY AND COORDINATE ALL DIMENSIONS BEFORE FABRICATION.
- ACCESS PANELS SHALL BE PROVIDED, WHERE REQUIRED, TO SERVICE VALVES AND ALL CONCEALED PLUMBING EQUIPMENT.
- INSTALL EQUIPMENT AND PIPING AS REQUIRED TO PROVIDE A VIBRATION FREE INSTALLATION AND TO FACILITATE EQUIPMENT ACCESS AS REQUIRED BY EQUIPMENT MANUFACTURER.
- CONTROL WIRE AND CONDUIT SHALL COMPLY WITH NEC SPECIFICATIONS.
- INSULATE PIPING AS SPECIFIED. PERFORM ANY SPECIFIED TESTING AND INSPECTIONS BEFORE INSULATING.
- PROVIDE CLAMPS, OFFSETS, EXPANSION JOINTS, ANCHORS AND GUIDES AS NECESSARY TO PREVENT STRESS ON PIPING.
- PROVIDE VENTS AT HIGH POINTS IN PIPING SYSTEMS AND DRAIN VALVES AT LOW POINTS.
- PITCH DRAINAGE PIPING A MINIMUM OF 1/4" PER FOOT IN DIRECTION OF FLOW FOR PIPING NPS 2-1/2 AND SMALLER; 1/8" PER FOOT IN DIRECTION OF FLOW FOR PIPING NPS 3 AND LARGER.

SPECIFICATIONS

DOMESTIC WATER HEATER:

- COMPACT ELECTRIC WATER HEATERS, SIDE-MOUNTED PLUMBING AND ELECTRICAL CONNECTIONS (OPTIONAL TOP-MOUNTED WATER CONNECTIONS FOR FIELD CONVERSION). TANK CAPACITY OF 6 GALLONS AND SINGLE HEATING ELEMENT WITH DURABLE TAMPER-RESISTANT BRASS DRAIN VALVE.
- ENVIRONMENTALLY-FRIENDLY NON-CFC FOAM INSULATION MINIMIZES HEAT LOSS.
- CODE COMPLIANCE SHALL MEET THE FEDERAL ENERGY EFFICIENCY STANDARDS EFFECTIVE JANUARY 20, 2004, CERTIFIED TO UL 174 FOR HOUSEHOLD ELECTRIC WATER HEATERS.
- WARRANTY: 6-YEAR LIMITED TANK AND PARTS.

INSTALLATION:

- INSTALL ALL EQUIPMENT ACCORDING TO MANUFACTURER'S INSTRUCTIONS
- ACCESS AND CLEARANCE SHALL BE PROVIDED AROUND ALL EQUIPMENT AND DEVICES THAT WILL REQUIRE TESTING, INSPECTION, MAINTENANCE, AND REPAIR.
- UNIONS SHALL BE INSTALLED IN WATER SUPPLY PIPING WITHIN 12 INCHES OF REGULATING, WATER HEATING, AND ANY OTHER EQUIPMENT THAT MAY REQUIRE SERVICE BY REMOVAL OR REPLACEMENT.
- PROVIDE A THERMOSTATIC MIXING VALVE FOR DHW THAT CONFORMS TO ASSE 1070 OR CSA B125.3. MIXING VALVE SHALL PROVIDE TEMPERED WATER AT 110°F (ADJUSTABLE). DHW STORAGE TEMPERATURE SHALL BE SET TO 140°F.
- WATER HAMMER ARRESTORS SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO ANY QUICK-ACTING VALVES TO ABSORB WATER HAMMER IN THE SYSTEM.
- PRESSURE TESTING: HOT AND COLD DOMESTIC WATER SUPPLY SYSTEMS SHALL BE TESTED AND PROVED TIGHT UNDER A POTABLE WATER PRESSURE NOT LESS THAN THE WORKING PRESSURE AND SHALL NOT LEAK FOR A PERIOD OF NOT LESS THAN 15 MINUTES UNDER THESE CONDITIONS.

PIPE MATERIALS AND INSULATION:

- POTABLE HOT AND COLD WATER AND FITTINGS, TYPE L, WITH LEAD FREE SOLDERED JOINTS.
- INDIRECT DRAIN PIPE SERVING WATER ENTRANCE AND DWH SHALL BE COPPER, TYPE L, WITH SOLDERED JOINTS.
- INDIRECT DRAIN PIPE SERVING INDOOR HEAT PUMPS SHALL BE SCHEDULE 40 PVC PIPING.
- SANITARY, STORM, AND VENT PIPING SHALL BE SCHEDULE 40 PVC PIPING. PIPING ENCASED IN CONCRETE SHALL BE SCH 40 CAST IRON.
- VALVES TWO INCHES OR SMALLER SHALL BE BRASS.
- PROVIDE MINIMUM 1.5 INCH THICK INSULATION ON HOT AND COLD WATER PIPING AND CONDENSATE DRAIN PIPING.
- INSTALL PVC PIPE JACKET, 40 MIL THICKNESS, ON EXPOSED PIPING AND PAINT TO MATCH WALL.
- PROTECT ALL EXPOSED PIPING TO COMPLY WITH ADA REQUIREMENTS FOR EXPOSED PIPES AND SURFACES.

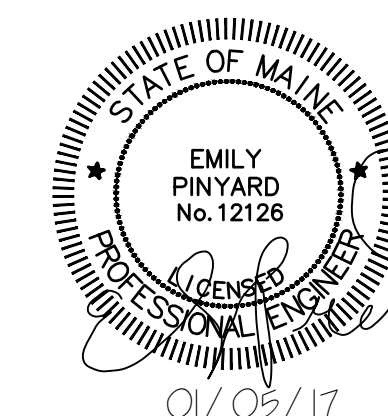
LINE TYPES LEGEND

— — — — —	DOMESTIC COLD WATER
— · — · — · —	DOMESTIC HOT WATER SUPPLY
— · — · — · —	DOMESTIC HOT WATER RECIRCULATION
— — — — —	SANITARY SEWER (ABOVE GRADE)
— · — · — · —	SANITARY SEWER (BELOW GRADE)
— · — · — · —	VENT

PLUMBING SYMBOLS

	AUTOMATIC AIR VENT
	BALL VALVE
	BALANCE VALVE
	CAP
	ELBOW DOWN
	ELBOW UP OR UP AND DOWN
	TEE DOWN
	FLOOR DRAIN
	FLOOR CLEAN OUT
	GATE VALVE
	MIXING VALVE
	T & P RELIEF VALVE
	PRESSURE REGULATOR
	REDUCER/INCRASER
	UNION
	SHOCK ABSORBER/WATER HAMMER ARRESTOR
	VACUUM RELIEF VALVE
	IN-LINE PUMP
	REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER
	CHECK VALVE
	THERMOMETER
	HOSE BIBB

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NOT FOR CONSTRUCTION**
JANUARY 5, 2017



ecomaine 64 BLUEBERRY ROAD, PORTLAND, ME			
SCALE HOUSE WITH INSULATED BLOCK CONSTRUCTION			
PLUMBING LEGEND, ABBREVIATIONS, GENERAL NOTES AND SCHEDULES			
REV	DESCRIPTION	DWN	APP DATE
C	RE-ISSUED FOR BID	MBD	ERP 01/05/17
B	RE-ISSUED FOR BID	MBD	ERP 10/28/16
A	ISSUED FOR BID	MBD	ERP 9/02/16
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