Reviewed for Code Compliance
Inspection Division
Date: 05/17/17

ABBREVIATIONS

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

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
- FCO — FLOOR CLEAN OUT
- GATE VALVE
- MIXING VALVE
- T & P RELIEF VALVE
- PRESSURE REGULATOR
- REDUCER/INCREASER
- UNION
- SHOCK ABSORBER/WATER HAMMER ARRESTOR
- VACUUM RELIEF VALVE
- IN-LINE PUMP
- REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER
- CHECK VALVE
- THERMOMETER
- HOSE BIBB

GENERAL NOTES:

1. SYMBOLS LIST AND DETAILS ARE APPLICABLE TO DRAWINGS MARKED P-#.
2. REFER TO SHEETS P-501 FOR ADDITIONAL PLUMBING DETAILS.
3. COMPLY WITH THE MAINE STATE INTERNAL PLUMBING CODE (UNIFORM PLUMBING CODE 2009 EDITION).
4. DRAWINGS ARE DIAGRAMMATIC; DETERMINE LOCATIONS OF SYSTEMS AND COMPONENTS IN FIELD.
5. ALL AREA FLOOR DRAINS AND SANITARY DRAIN CLEAN-OUTS SHALL BE BY THE SAME MANUFACTURER FOR CONSISTENCY. ZURN OR APPROVED EQUAL.
6. COORDINATE WORK OF THIS SECTION WITH THAT OF OTHER SECTIONS.
7. WORK SHALL BE COORDINATED WITH TRADES INVOLVED. OFFSETS IN PIPING AND TRANSITIONS AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
8. VERIFY EQUIPMENT CONNECTIONS WITH MANUFACTURER'S CERTIFIED DRAWINGS. VERIFY AND PROVIDE PIPE TRANSITIONS TO FURNISHED EQUIPMENT. FIELD VERIFY AND COORDINATE ALL DIMENSIONS BEFORE FABRICATION.
9. ACCESS PANELS SHALL BE PROVIDED, WHERE REQUIRED, TO SERVICE VALVES AND ALL CONCEALED PLUMBING EQUIPMENT.
10. INSTALL EQUIPMENT AND PIPING AS REQUIRED TO PROVIDE A VIBRATION FREE INSTALLATION AND TO FACILITATE EQUIPMENT ACCESS AS REQUIRED BY EQUIPMENT MANUFACTURER.
11. CONTROL WIRE AND CONDUIT SHALL COMPLY WITH NEC SPECIFICATIONS.
12. INSULATE PIPING AS SPECIFIED. PERFORM ANY SPECIFIED TESTING AND INSPECTIONS BEFORE INSULATING.
13. PROVIDE CLAMPS, OFFSETS, EXPANSION JOINTS, ANCHORS AND GUIDES AS NECESSARY TO PREVENT STRESS ON PIPING.
14. PROVIDE VENTS AT HIGH POINTS IN PIPING SYSTEMS AND DRAIN VALVES AT LOW POINTS.
15. 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:

1. 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.
2. ENVIRONMENTALLY-FRIENDLY NON-CFC FOAM INSULATION MINIMIZES HEAT LOSS.
3. CODE COMPLIANCE SHALL MEET THE FEDERAL ENERGY EFFICIENCY STANDARDS EFFECTIVE JANUARY 20, 2004,
4. CERTIFIED TO UL 174 FOR HOUSEHOLD ELECTRIC WATER HEATERS.
5. WARRANTY: 6-YEAR LIMITED TANK AND PARTS.

INSTALLATION:

1. INSTALL ALL EQUIPMENT ACCORDING TO MANUFACTURER'S INSTRUCTIONS
2. ACCESS AND CLEARANCE SHALL BE PROVIDED AROUND ALL EQUIPMENT AND DEVICES THAT WILL REQUIRE TESTING, INSPECTION, MAINTENANCE, AND REPAIR.
3. 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.
4. 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). DWH STORAGE TEMPERATURE SHALL BE SET TO 140°F.
5. WATER HAMMER ARRESTORS SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO ANY QUICK-ACTING VALVES TO ABSORB WATER HAMMER IN THE SYSTEM.
6. 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:

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

ISSUED FOR BID
NOT FOR CONSTRUCTION
JANUARY 5, 2017

STATE OF MAINE
EMILY PINYARD
No. 12126
LICENSED
PROFESSIONAL ENGINEER
01/05/17

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

ecomaine
64 BLUEBERRY ROAD, PORTLAND, ME

SCALE HOUSE WITH INSULATED BLOCK CONSTRUCTION

PLUMBING LEGEND, ABBREVIATIONS, GENERAL NOTES AND SCHEDULES

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Colby Company engineering
47A York Street
Portland, Maine 04101
207.553.7753
colbycoengineering.com

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DATE: 09/02/2016
DES BY: MIF
DWN BY: MBD
CKD BY: ERP

PROJECT NO. 162.002.002
SHEET 32 OF 40

DRAWING NO. P-001

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