

23 HAMPSHIRE STREET

**SUPPLEMENTAL
SUBMISSION
TO
JEANIE BOURKE,
INSPECTION SERVICES DIVISION
DIRECTOR**



Buck Consulting Group, LLC
89 Elm Street, Suite 201
PO Box 1367
Camden, ME 04843
(207) 236-9970



REScheck Software Version 4.0.1

Compliance Certificate

Report Date: 10/11/07

Data filename: Untitled.rck

Energy Code: **2003 IECC**
Location: **Portland, Maine**
Construction Type: **Multifamily**
Glazing Area Percentage: **10%**
Heating Degree Days: **7378**

Construction Site:

Owner/Agent:

Designer/Contractor:

Compliance: **Passes** Maximum UA: **777** Your Home UA: **686** --> **11.7% Better Than Code (UA)**

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Glazing or Door U-Factor	UA
Ceiling 1: Flat Ceiling or Scissor Truss:	941	38.0	0.0		28
Wall 1: Solid Concrete or Masonry:Interior Insulation:	3813	13.0	0.0		282
Window 1: Metal Frame with Thermal Break:Double Pane:	368			0.330	121
Door 1: Solid:	42			0.500	21
Floor 1: All-Wood Joist/Truss:Over Unconditioned Space:	941	0.0	0.0		234
Boiler 1: Other (Except Gas-Fired Steam): 82.4 AFUE					

Compliance Statement: The proposed building design described here is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the 2003 IECC requirements in REScheck Version 4.0.1 and to comply with the mandatory requirements listed in the REScheck Inspection Checklist.

Name - Title

Signature

Date



REScheck Software Version 4.0.1 Compliance Certificate

Report Date: 10/11/07

Data filename: Untitled.rck

Energy Code: 2003 IECC
 Location: Portland, Maine
 Construction Type: Multifamily
 Glazing Area Percentage: 10%
 Heating Degree Days: 7378

Construction Site:

Owner/Agent:

Designer/Contractor:

Compliance: **Passes** Maximum UA: 777 Your Home UA: 686 --> **11.7% Better Than Code (UA)**

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Glazing or Door U-Factor	UA
Ceiling 1: Flat Ceiling or Scissor Truss:	941	38.0	0.0		28
Wall 1: Solid Concrete or Masonry: Interior Insulation:	3813	13.0	0.0		282
Window 1: Metal Frame with Thermal Break: Double Pane:	368			0.330	121
Door 1: Solid:	42			0.500	21
Floor 1: All-Wood Joist/Truss: Over Unconditioned Space:	941	0.0	0.0		234
Boiler 1: Other (Except Gas-Fired Steam): 82.4 AFUE					

Compliance Statement: The proposed building design described here is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the 2003 IECC requirements in REScheck Version 4.0.1 and to comply with the mandatory requirements listed in the REScheck Inspection Checklist.

Name - Title

KURT MAGNUSSON, P.E.

Signature

Date

10/11/07



REScheck Software Version 4.0.1 Inspection Checklist

Date: 10/11/07

Ceilings:

- ☐ Ceiling 1: Flat Ceiling or Scissor Truss, R-38.0 cavity insulation

Comments: _____

Above-Grade Walls:

- ☐ Wall 1: Solid Concrete or Masonry: Interior Insulation, R-13.0 cavity insulation

Comments: _____

Windows:

- ☐ Window 1: Metal Frame with Thermal Break: Double Pane, U-factor: 0.330

For windows without labeled U-factors, describe features:

#Panes _____ Frame Type _____ Thermal Break? _____ Yes _____ No

Comments: _____

Doors:

- ☐ Door 1: Solid, U-factor: 0.500

Comments: _____

Floors:

- ☐ Floor 1: All-Wood Joist/Truss: Over Unconditioned Space, R-0 (uninsulated)

Comments: _____

Heating and Cooling Equipment:

- ☐ Boiler 1: Other (Except Gas-Fired Steam): 82.4 AFUE or higher

Make and Model Number: _____

Air Leakage:

- ☐ Joints, penetrations, and all other such openings in the building envelope that are sources of air leakage are sealed.
- ☐ Recessed lights are 1) Type IC rated, or 2) installed inside an appropriate air-tight assembly with a 0.5" clearance from combustible materials. If non-IC rated, fixtures are installed with a 3" clearance from insulation.

Skylights:

- ☐ Minimum insulation requirement for skylight shafts equal to or greater than 12 inches is R-19.

Vapor Retarder:

- ☐ Installed on the warm-in-winter side of all non-vented framed ceilings, walls, and floors.

Materials Identification:

- ☐ Materials and equipment are installed in accordance with the manufacturer's installation instructions.
- ☐ Materials and equipment are identified so that compliance can be determined.
- ☐ Manufacturer manuals for all installed heating and cooling equipment and service water heating equipment have been provided.
- ☐ Insulation R-values, glazing U-factors, and heating equipment efficiency are clearly marked on the building plans or specifications.
- ☐ Insulation is installed according to manufacturer's instructions, in substantial contact with the surface being insulated, and in a manner that achieves the rated R-value without compressing the insulation.

Duct Insulation:

- ☐ Supply ducts in unconditioned attics or outside the building are insulated to R-8.

- ☐ Return ducts in unconditioned attics or outside the building are insulated to R-4.
- ☐ Supply ducts in unconditioned spaces are insulated to R-8.
- ☐ Return ducts in unconditioned spaces (except basements) are insulated to R-2. Insulation is not required on return ducts in basements.
- ☐ Where exterior walls are used as plenums, the wall is insulated to R-8.

Duct Construction:

- ☐ Duct connections to flanges of air distribution system equipment are sealed and mechanically fastened.
 - ☐ All joints, seams, and connections are securely fastened with welds, gaskets, mastics (adhesives), mastic-plus-embedded-fabric, or tapes. Tapes and mastics are rated UL 181A or UL 181B.
- Exceptions:*

Continuously welded and locking-type longitudinal joints and seams on ducts operating at less than 2 in. w.g. (500 Pa).

- ☐ The HVAC system provides a means for balancing air and water systems.

Temperature Controls:

- ☐ Thermostats exist for each dwelling unit (non-dwelling areas must have one thermostat for each system or zone). A manual or automatic means to partially restrict or shut off the heating and/or cooling input to each room is provided.

Electric Systems:

- ☐ Separate electric meters exist for each dwelling unit.

Service Water Heating:

- ☐ Water heaters with vertical pipe risers have a heat trap on both the inlet and outlet unless the water heater has an integral heat trap or is part of a circulating system.
- ☐ Circulating hot water pipes are insulated to the levels in Table 1.

Circulating Hot Water Systems:

- ☐ Circulating hot water pipes are insulated to the levels in Table 1.

Swimming Pools:

- ☐ All heated swimming pools have an on/off heater switch and a cover unless over 20% of the heating energy is from non-depletable sources. Pool pumps have a time clock.

Heating and Cooling Piping Insulation:

- ☐ HVAC piping conveying fluids above 105 degrees F or chilled fluids below 55 degrees F are insulated to the levels in Table 2.

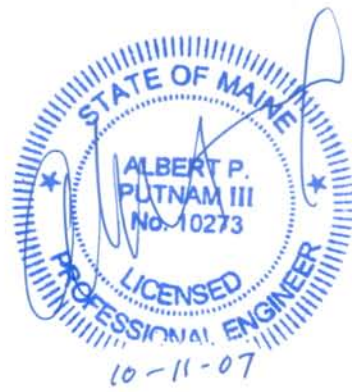
Table 1: *Minimum Insulation Thickness for Circulating Hot Water Pipes*

Heated Water Temperature (°F)	Insulation Thickness in Inches by Pipe Sizes			
	Non-Circulating Runouts		Circulating Mains and Runouts	
	Up to 1"	Up to 1.25"	1.5" to 2.0"	Over 2"
170-180	0.5	1.0	1.5	2.0
140-169	0.5	0.5	1.0	1.5
100-139	0.5	0.5	0.5	1.0

Table 2: *Minimum Insulation Thickness for HVAC Pipes*

Piping System Types	Fluid Temp. Range(°F)	Insulation Thickness in Inches by Pipe Sizes			
		2" Runouts	1" and Less	1.25" to 2.0"	2.5" to 4"
Heating Systems					
Low Pressure/Temperature	201-250	1.0	1.5	1.5	2.0
Low Temperature	106-200	0.5	1.0	1.0	1.5
Steam Condensate (for feed water)	Any	1.0	1.0	1.5	2.0
Cooling Systems					
Chilled Water, Refrigerant and	40-55	0.5	0.5	0.75	1.0
Brine	Below 40	1.0	1.0	1.5	1.5

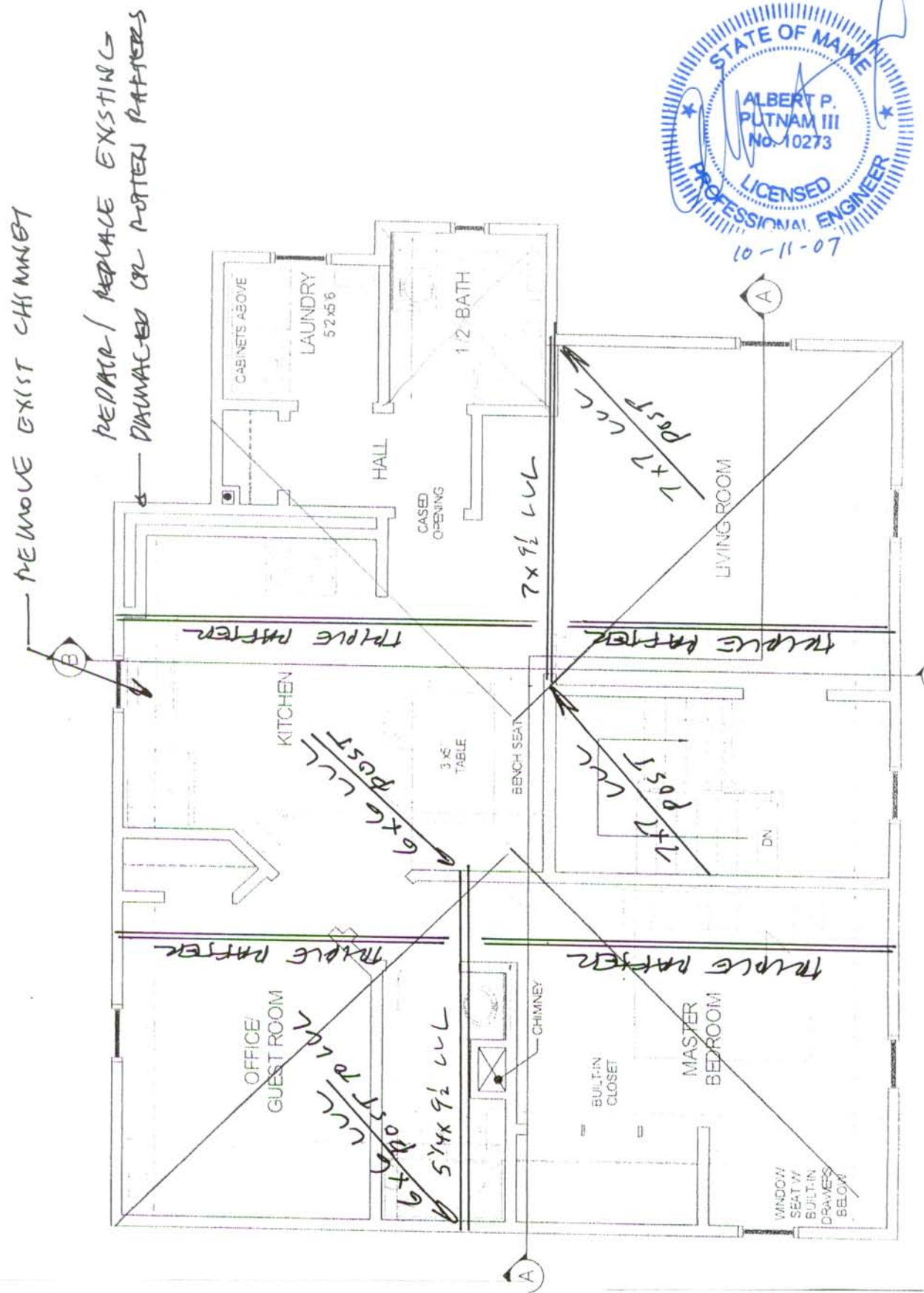
NOTES TO FIELD: (Building Department Use Only)



ALBERT PUTNAM, PE
CONSULTING STRUCTURAL ENGINEER
PO BOX 496
SEARSPORT, MAINE 04974
(207) 548-6230

23 HAMPSHIRE STREET
PORTLAND, MAINE

SK-01
SHEET 1 OF 3
10-11-07



ROOF FRAMING PLAN
3/16" = 1'-0"

ISSUED FOR PERMIT
NOT FOR CONSTRUCTION



ISSUED FOR PERMIT
NOT FOR CONSTRUCTION

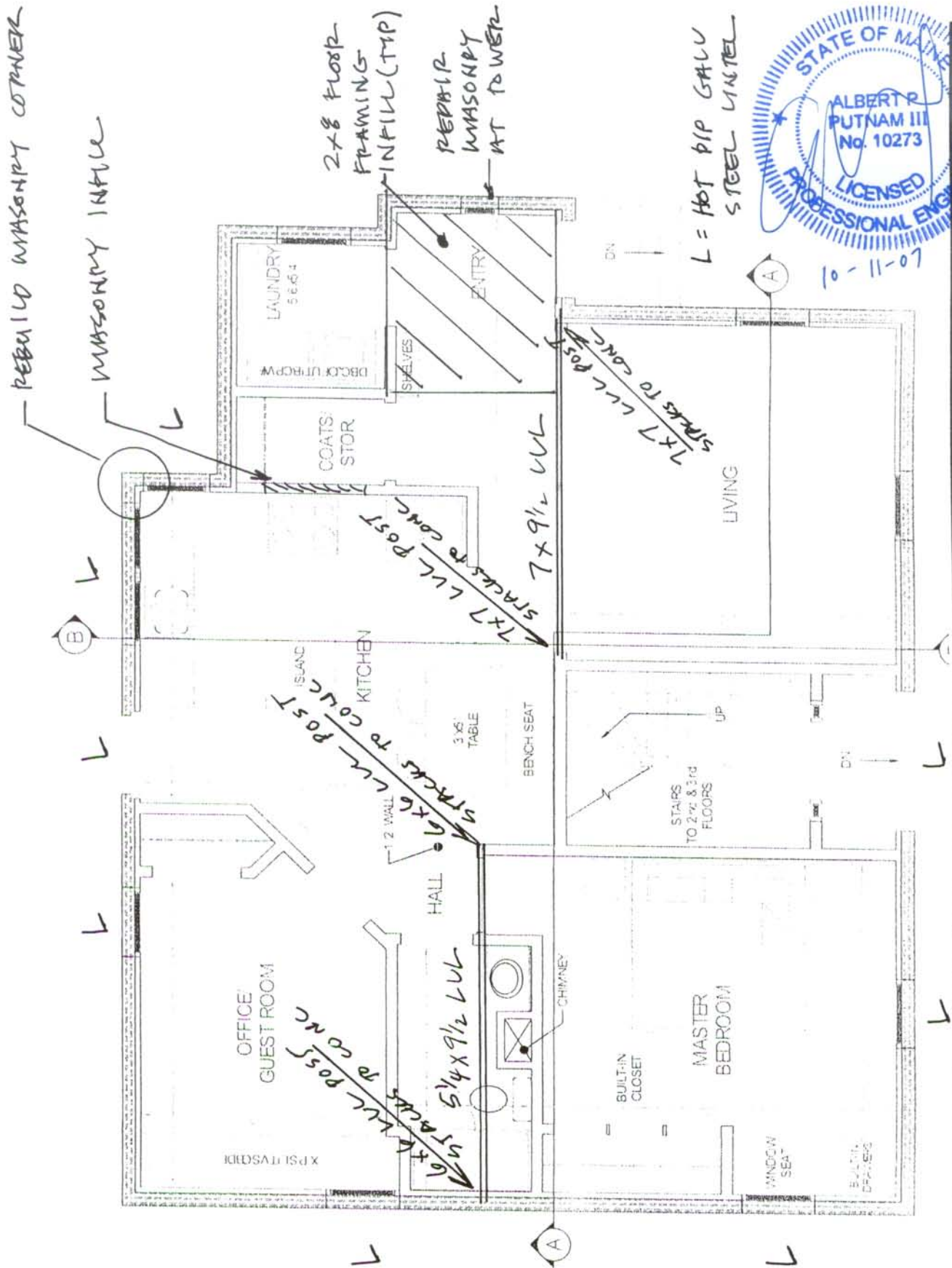
SECOND FLOOR FRAMING PLAN

3/16" = 1'-0"

ISSUED FOR PERMIT
NOT FOR CONSTRUCTION

SK-01

SHEET 3 OF 3
10-11-07



23 HAMPSHIRE STREET
PORTLAND, MAINE

ALBERT PUTNAM, PE
CONSULTING STRUCTURAL ENGINEER
PO BOX 496
SEARSPORT MAINE 04974
(207) 548-6230