

**HUMBOLDT COUNTY & CITY OF WINNEMUCCA
BUILDING DEPT.
PRESCRIPTIVE ENERGY CALCULATION WORKSHEET
2009 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)**

Builder Name: _____
 Builder Address: _____
 Project Address: _____
 Submitted by: _____ Phone #: _____

PROPOSED R-VALUE

Description	Min. R- value	Actual	Comments
Ceiling	R-38	R-	
Wall	R-20 (or 13+5)	R-	
Floor over Unconditioned space	R-30*	R-	
Floor over outside air	R-30*	R-	
Basement Wall	R-10/13**	R-	
Slab Floor	R-10; 2 ft.	R-	
Crawl Space wall	R10/13**	R-	

*Or insulation sufficient to fill the framing cavity, R-19 min.

**First number is continuous; second number is cavity fill

U-FACTOR (prevents heat from escaping)

Description	Maximum	Actual	Comments
Glazing	.35		
Opaque door (<50% glazing)	.35		
Skylights	.60		
Window Air leakage	.3 cfm per sf		
Swinging Door Air Leakage	.5 cfm per sf		

DUCT and PIPE INSULATION

Description	Maximum	Actual	Comments
Attic air supply	R-8		
All other ducts	R-6		
Hot Water pipes	R-2		

EQUIPMENT EFFICIENCY

	Efficiency	Make/Model
Heating		
Cooling		

- _____ **LIGHTING** – A min. of 50% of the lamps in permanently installed lighting fixture to be high-efficacy.
 - 15 Watts or Less- Minimum of 40 lumens per watt*
 - 15-40 Watts- Minimum of 50 lumens per watt*
 - Over 40 Watts- Minimum of 60 lumens per watt*

** The lumen is the SI unit of luminous flux, a measure of the perceived power of light. (Wikipedia). A watt is the amount of power used to light the bulb. (Northwest Energy)*

- _____ **Certificate:** A permanent certificate is to be posted on or in the electrical panel of the building (or other approved location). The following shall be included: R-value walls, floors, ceiling/roof, foundation slab, ducts outside conditioned space; U-factors' SHGC, types and efficiencies of heating, cooling and service water heating equipment . Where a gas-fired unvented room heater, electric furnace, or baseboard electric heater is installed in the residence, the cert shall list "gas-fired unvented room heater", "electric furnace" or "baseboard electric heater" (the efficiency does not need to be listed on these. **DO NOT COVER THE CIRCUIT LABELING SCHEDULE IN THE PANEL**

- _____ **IC-RATED Recessed Lighting.** Recessed luminaires installed in the building thermal enveloped must be sealed with a gasket or caulk between the housing and the interior ceiling to limit air leakage – max 2.0 cfm of air movement from the conditioned space to the sealing cavity; and must be IC-rated and labeled as meeting ASTM E 283. This does not include lights that are not located within the separating envelope.

- _____ Joints, penetrations, and all other such openings in the building envelope are sealed.

- _____ Air handlers, filter boxes, and duct connections to flanges of air distribution system equipment or sheet metal fittings are sealed and mechanically fastened.

- _____ Duct joints, seams and connections are made substantially airtight with tapes, gasketing, mastics (adhesives) or other approved closure system. Tapes and mastics are rated UL 181A or UL 181B.

- _____ Thermostats exist for each separate HVAC.

- _____ Markers for blown or sprayed insulation are to be installed for every 300 s.f. throughout the attic space. Each marker is to **face the attic access opening.**

- _____ Verify all mandatory requirements have been met and are documented per IECC Sections IECC 401, 402.4, 402.5, and 403.1, 403.2.2, 403.2.3 and 403.3 through 403.9.