

IECC Site Inspection Guide (2006)

If The Following Items Are Not Met

Building Officials Must Verify Building Meets Approved Plans & Specifications

Envelope:

Component	Description	Thermal Value/Factor(s)
Ceiling/Roof Assembly	All Construction Types IECC 402.2.1 & 2	Minimum Level R-38
Walls	Wood Framed Walls (2x4)	Minimum Level R-13 + 5 ^(a)
	Wood Framed Walls (2x6)	Minimum Level R-19
	Below Grade (Basement +50% BG) IECC 402.2.6	Minimum Level R-10 or R-13 ^(c)
	Concrete/Masonry (Mass Wall) IECC 402.2.3	Minimum Level R-13
Windows (Glazing)	NFRC Label	Maximum Level U-.35
S Skylights (Glazing)	NFRC Label	Maximum Level U-.60
Floors	Over Unconditioned Spaces IECC 402.2.5	Minimum Level R-30 ^(b)
	Unheated Slab Edge IECC 402.2.7	Minimum Level R-10 (2 feet deep)
	Heated Slab Edge IECC 402.2.7	Minimum Level R-15 (2 feet deep)
Crawl Space Walls	Unvented Areas (Continuous Insulation) IECC 402.2.8	Minimum Level R-10
	Unvented Areas (Framing Cavity Insulation) IECC 402.2.8	Minimum Level R-13

(a) "R13+5" means R-13 cavity insulation plus R-5 insulated sheathing OR (b) Sufficient Insulation to fill the framing cavity (R-19 minimum)

(c) First R value applies to Continuous Insulation, the second to framing cavity insulation; either insulation level meets the requirements.

IECC 402.4 Air Leakage: *The building thermal envelope shall be durably sealed to limit infiltration. The following shall be caulked, gasketed, weatherstripped or otherwise sealed with an air barrier material, suitable film or solid material: All joints, seams and penetrations; site-built windows, door, and skylights; openings between window and door assemblies and their respective jambs and framing; utility penetrations; dropped ceilings or chases adjacent to the thermal envelope; knee walls; walls and ceilings separating a garage from conditioned spaces; behind tubs and showers on exterior walls; common walls between dwelling units; and other sources of infiltration.*

Mechanical Systems:

- All duct systems (joints and connections) are to be securely fastened and sealed with welds, gaskets, mastics (adhesives), mastics+embedded fabric systems. All tapes and mastics used are to be labeled in accordance with UL 181A or UL 181B. **(IECC 403.2.2)**
- Minimum duct insulation levels in unconditioned basements, vented crawls spaces (including framed cavities in the floors), garages, or other unconditioned areas are to be: **R-8 for Supply & R-2 for Return. (IECC 403.2.1)**
- Minimum efficiency level for a forced air (Natural Gas) system is **80% AFUE**.
- Minimum efficiency level for air-cooled air conditioners and heat pumps is **10 SEER**.

Miscellaneous Item – Exterior Doors:

- The default Thermal Value/Factors for doors are: Uninsulated Metal at U-1.2, R-.83; Insulated Metal at U-.60, R-1.67; Wood at U-.50, R-2.0; Insulated non-metal Edged with Double-Pane Glazing at U-.35, R-2.86.

Performance Based Programs & Options:

- EPA **ENERGY STAR®** Homes Program – **ENERGY STAR®** qualified homes are independently verified to be at least 15% more energy efficient than homes built to the current state energy code. These savings are based on heating, cooling, and hot water energy use and are typically achieved through a combination of such things as: building envelope upgrades, high performance windows, controlled air infiltration, upgraded heating and air conditioning systems, tight duct systems and upgraded water-heating equipment. **ENERGY STAR®** also encourages the use of energy-efficient lighting and appliances, as well as features designed to improve indoor air quality and reduce pollution.
- Home Energy Rating Systems **HERS** – **HERS** is a standard measurement of a home's energy efficiency. Home Energy Ratings are used to verify energy performance for the **ENERGY STAR®** homes program, energy efficient mortgages, and energy code compliance.

There are two types of ratings:

Projected Ratings – Ratings performed prior to the construction of a home or prior to the installation of energy improvements to an existing home.

Confirmed Ratings – Ratings completed using data gathered from an on-site inspection, including performance testing (blower door test for air leakage and duct leakage) of the home.

Zone 5 Covers the Following Counties:

Beaver, Box Elder, Davis, Emery, Garfield, Grand, Iron, Juab, Kane, Millard, Piute, Salt Lake, Sanpete, Sevier, Tooele, Utah, Wayne & Weber.

For additional information related to compliance with the International Energy Conservation Code (IECC)

please contact the

Utah Energy Conservation Coalition

at 1.801.765.0034 or by email at info@utahenergy.org

IECC Site Inspection Guide (2006)

If The Following Items Are Not Met

Building Officials Must Verify Building Meets Approved Plans & Specifications

Envelope:

Component	Description	Thermal Value/Factor(s)
Ceiling/Roof Assembly	All Construction Types IECC 402.2.1 & 2	Minimum Level R-30
Walls	Wood Framed Walls	Minimum Level R-13
	Below Grade (Basement +50% BG) IECC 402.2.6	Minimum Level None Specified
	Concrete/Masonry (Mass Wall) IECC 402.2.3	Minimum Level R-5
Windows (Glazing)	NFRC Label	Maximum Level U-.65
Solar Heat Gain Coefficient	NFRC Label (Glazed Fenestration) IECC 402.3.2	Maximum Level U-.40
Skylights (Glazing)	NFRC Label	Maximum Level U-.65
Floors	Over Unconditioned Spaces IECC 402.2.5	Minimum Level R-19
	Unheated Slab Edge IECC 402.2.7	Minimum Level None Specified
	Heated Slab Edge IECC 402.2.7	Minimum Level None Specified
Crawl Space Walls	Unvented Areas (Continuous Insulation) IECC 402.2.8	Minimum Level R-5
	Unvented Areas (Framing Cavity Insulation) IECC 402.2.8	Minimum Level R-13

IECC 402.4 Air Leakage: *The building thermal envelope shall be durably sealed to limit infiltration. The following shall be caulked, gasketed, weatherstripped or otherwise sealed with an air barrier material, suitable film or solid material: All joints, seams and penetrations; site-built windows, door, and skylights; openings between window and door assemblies and their respective jambs and framing; utility penetrations; dropped ceilings or chases adjacent to the thermal envelope; knee walls; walls and ceilings separating a garage from conditioned spaces; behind tubs and showers on exterior walls; common walls between dwelling units; and other sources of infiltration.*

Mechanical Systems:

- All duct systems (joints and connections) are to be securely fastened and sealed with welds, gaskets, mastics (adhesives), mastics+embedded fabric systems. All tapes and mastics used are to be labeled in accordance with UL 181A or UL 181B. **(IECC 403.2.2)**
- Minimum duct insulation levels in unconditioned basements, vented crawls spaces (including framed cavities in the floors), garages, or other unconditioned areas are to be: **R-8 for Supply & R-2 for Return (IECC 403.2.1)**.
- Minimum efficiency level for a forced air (Natural Gas) system is **80% AFUE**.
- Minimum efficiency level for air-cooled air conditioners and heat pumps is **13 SEER**.

Miscellaneous Item – Exterior Doors:

- The default Thermal Value/Factors for doors are: Uninsulated Metal at U-1.2, R-.83; Insulated Metal at U-.60, R-1.67; Wood at U-.50, R-2.0; Insulated non-metal Edged with Double-Pane Glazing at U-.35, R-2.86.

Performance Based Programs & Options:

- EPA **ENERGY STAR®** Homes Program – **ENERGY STAR®** qualified homes are independently verified to be at least 15% more energy efficient than homes built to the current state energy code. These savings are based on heating, cooling, and hot water energy use and are typically achieved through a combination of such things as: building envelope upgrades, high performance windows, controlled air infiltration, upgraded heating and air conditioning systems, tight duct systems and upgraded water-heating equipment. **ENERGY STAR®** also encourages the use of energy-efficient lighting and appliances, as well as features designed to improve indoor air quality and reduce pollution.
- Home Energy Rating Systems (HERS) – **HERS** is a standard measurement of a home's energy efficiency. Home Energy Ratings are used to verify energy performance for the **ENERGY STAR®** homes program, energy efficient mortgages, and energy code compliance.

There are two types of ratings:

Projected Ratings – Ratings performed prior to the construction of a home or prior to the installation of energy improvements to an existing home.

Confirmed Ratings – Ratings completed using data gathered from an on-site inspection, including performance testing (blower door test for air leakage and duct leakage) of the home.

Zone 3 Covers the Following County:

Washington

For additional information related to compliance with the International Energy Conservation Code (IECC)

please contact the

Utah Energy Conservation Coalition

at 1.801.765.0034 or by email at info@utahenergy.org

IECC Site Inspection Guide (2006)

**If The Following Items Are Not Met
Building Officials Must Verify Building Meets Approved Plans & Specifications**

Envelope:

Component	Description	Thermal Value/Factor(s)	
		Minimum Level	
Ceiling/Roof Assembly	All Construction Types IECC 402.2.1 & 2	Minimum Level	R-49
Walls	Wood Framed Walls (2x4)	Minimum Level	R-13 + 5 ^(a)
	Wood Framed Walls (2x6)	Minimum Level	R-19
	Below Grade (Basement +50% BG) IECC 402.2.6	Minimum Level	R-10 or R-13 ^(c)
	Concrete/Masonry (Mass Wall) IECC 402.2.3	Minimum Level	R-15
Windows (Glazing)	NFRC Label	Maximum Level	U-.35
Skylights (Glazing)	NFRC Label	Maximum Level	U-.60
Floors	Over Unconditioned Spaces IECC 402.2.5	Minimum Level	R-30 ^(b)
	Unheated Slab Edge IECC 402.2.7	Minimum Level	R-10 (4 feet deep)
	Heated Slab Edge IECC 402.2.7	Minimum Level	R-15 (4 feet deep)
Crawl Space Walls	Unvented Areas (Continuous Insulation) IECC 402.2.8	Minimum Level	R-10
	Unvented Areas (Framing Cavity Insulation) IECC 402.2.8	Minimum Level	R-13

(a) "R13+5" means R-13 cavity insulation plus R-5 insulated sheathing OR (b) Sufficient Insulation to fill the framing cavity (R-19 minimum)

(c) First R value applies to Continuous Insulation, the second to framing cavity insulation; either insulation level meets the requirements.

IECC 402.4 Air Leakage: *The building thermal envelope shall be durably sealed to limit infiltration. The following shall be caulked, gasketed, weatherstripped or otherwise sealed with an air barrier material, suitable film or solid material: All joints, seams and penetrations; site-built windows, door, and skylights; openings between window and door assemblies and their respective jambs and framing; utility penetrations; dropped ceilings or chases adjacent to the thermal envelope; knee walls; walls and ceilings separating a garage from conditioned spaces; behind tubs and showers on exterior walls; common walls between dwelling units; and other sources of infiltration.*

Mechanical Systems:

- All duct systems (joints and connections) are to be securely fastened and sealed with welds, gaskets, mastics (adhesives), mastics + embedded fabric systems. All tapes and mastics used are to be labeled in accordance with UL 181A or UL 181B. **(IECC 403.2.2)**
- Minimum duct insulation levels in unconditioned basements, vented crawls spaces (including framed cavities in the floors), garages, or other unconditioned areas are to be: **R-8 for Supply & R-2 for Return.** **(IECC 403.2.1)**
- Minimum efficiency level for a forced air (Natural Gas) system is **80% AFUE.**
- Minimum efficiency level for air-cooled air conditioners and heat pumps is **10 SEER.**

Miscellaneous Item – Exterior Doors:

- The default Thermal Value/Factors for doors are: Uninsulated Metal at U-1.2, R-.83; Insulated Metal at U-.60, R-1.67; Wood at U-.50, R-2.0; Insulated non-metal Edged with Double-Pane Glazing at U-.35, R-2.86.

Performance Based Programs & Options:

- EPA **ENERGY STAR®** Homes Program – **ENERGY STAR®** qualified homes are independently verified to be at least 15% more energy efficient than homes built to the current state energy code. These savings are based on heating, cooling, and hot water energy use and are typically achieved through a combination of such things as: building envelope upgrades, high performance windows, controlled air infiltration, upgraded heating and air conditioning systems, tight duct systems and upgraded water-heating equipment. **Energy Star®** also encourages the use of energy-efficient lighting and appliances, as well as features designed to improve indoor air quality and reduce pollution.
- Home Energy Rating Systems HERS – HERS is a standard measurement of a home’s energy efficiency. Home Energy Ratings are used to verify energy performance for the **ENERGY STAR®** homes program, energy efficient mortgages, and energy code compliance.

There are two types of ratings:

Projected Ratings – Ratings performed prior to the construction of a home or prior to the installation of energy improvements to an existing home.

Confirmed Ratings – Ratings completed using data gathered from an on-site inspection, including performance testing (blower door test for air leakage and duct leakage) of the home.

Zone 6 Covers the Following Counties:

Cache, Carbon, Daggett, Duchesne, Morgan, Rich, Summit, Uintah, & Wasatch.

For additional information related to compliance with the International Energy Conservation Code (IECC)

please contact the

Utah Energy Conservation Coalition

at 1.801.765.0034 or by email at: info@utahenergy.org