## **Building Envelope Compliance Documentation**

Project Name:				
Project Address:	Date:			
Designer of Record:		Telephone:		
Contact Person:	Telephone:			
City:	HDD65:	CDD50:	Criteria Table:	

### **Mandatory Provisions Checklist**

#### Insulation (§ 5.2.1)

- Insulation Materials are installed in accordance with manufacturer's recommendations and in such a manner as to achieve rated *R*-value of insulation
  - Exception: for metal building roofs or metal building walls.
- Loose-fill insulation is not used in attic roof spaces when the slope of the ceiling is more than three in twelve.
- Attic eave vents have baffling to deflect the incoming air above the surface of the insulation.
- Insulation is installed in a permanent manner in substantial contact with the inside surface.
- Batt insulation installed in floor cavities is supported in a permanent manner by supports no greater than 24 in. o.c.
- □ Lighting fixtures, HVAC, and other equipment are not be recessed in ceilings in such a manner to affect the insulation thickness unless.

#### Exceptions:

- The recessed area is less than one percent.
- The entire roof, wall, or floor is covered with insulation to the full depth required.
- The effects of reduced insulation are included in calculations using an area weighted averages.
- Roof insulation is not installed over suspended ceiling with removable ceiling panels.
- Exterior insulation is covered with a protective material to prevent damage. Insulation is protected in attics and mechanical rooms where access is needed.
- □ Foundation vents do not interfere with the insulation.
- Insulation materials in ground contact have a water absorption rate no greater than 0.3 percent.

#### Fenestration and Doors (§ 5.2.2)

U-factors are determined in accordance with NFRC 100. U-factors for skylights shall be determined for a slope of 20° above the horizontal.

#### Exceptions:

- U-factors are taken from A.8.1 for glazed wall systems in vertical fenestration and/or skylights.
- U-factors are taken from A.8.2 other fenestration products.
- U-factors are taken from A.7 for opaque doors.
- □ *U*-factors are derived from NAGDM 105 for garage doors.
- Solar heat gain coefficient (SHGC) is determined in accordance with NFRC 200.

#### Exceptions:

- SHGC is determined by multiplying the shading coefficient (SC) by 0.86. Shading coefficient is determined using a spectral data file determined in accordance with NFRC 300.
- SHGC for the center of glass is used. SHGC is determined using a spectral data file determined in accordance with NFRC 300.
- □ SHGC is taken from A.8.1 for glazed wall systems in vertical fenestration and skylights.
- Visible light transmittance is determined in accordance with NFRC 200.

#### Air Leakage (§ 5.2.3)

- The building envelope is sealed, caulked, gasketed, and/or weatherstripped to minimize air leakage.
- Air leakage through fenestration and doors is less than 0.4 cfm/ft<sup>2</sup> (1.0 cfm/ft<sup>2</sup> for glazed swinging entrance doors and for revolving doors) when tested in accordance with NFRC 400.

#### Exceptions:

- □ Field fabricated fenestration and doors.
- □ For garage *doors* tested in accordance with NAGDM 105.

Cargo doors and loading dock doors are equipped with weatherseals in climates with more than 3,600 HDD65.

Entrance doors have vestibules.

#### Exceptions:

- Climate has less than 1,800 HDD65.
- Building is less than four stories.
- Doors not intended as building entrance.
- Doors open from dwelling unit(s).
- Doors open from spaces smaller than 3,000 ft<sup>2</sup>.
- Building has revolving doors.
- Doors for vehicular movement or material handling.



# **Building Envelope Compliance Documentation**

### Part II, Page 1

Project Name:						
Contact Person:						Telephone:
Space Category Nonresidential Residential Semi-Heated	5.3.2.3 Exceptions North Oriented Overhangs Street Level Windows	Window-Wall Ratio Gross Wall Area (ft <sup>2</sup> ): Window Area (ft <sup>2</sup> ): Window-Wall Ratio:	Total	North (Opt.)	Other (Opt.)	Skylight-Roof Ratio Gross Roof Area (ft <sup>2</sup> ): Skylight Area: Skylight-Roof Ratio

## **Opaque Surfaces**

	Class (Pick one)					Pick one	Pick one	Roof				
Description/	Roof	Wall	-	Floor	Slab	Door			ittance F	Proposed	Criteria	Surface
Name	Insulation Above Deck Metal Buildling Attic and Other		Wood Framed / Other Below-Grade Wall	Mass Steel Joist Wood Framed / Other	5	Swinging Non-Swinging	R-value Option U-factor Option	Appendix A Defaults Calculations	High Reflectance/Emittance Roof	Insulation <i>R</i> -value, <i>U</i> -factor, <i>C</i> -factor or <i>F</i> -factor	Insulation <i>R</i> -value, <i>U</i> -factor, <i>C</i> -factor, or <i>F</i> -factor	Area (ft²) (optional)
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# **Building Envelope Compliance Documentation**

### Part II, Page 2

Project Name:

Contact Person:

Telephone:

### **Fenestration**

	Class (Pick one)		Proposed Fenestration							Criteria		
Description/ Name	Window. North. Operable Window, North, Fixed Window, Other, Operable Window, Other, Fixed Skylight, Curb, Glass Skylight, Curb, Plastic Skyliaht. No Curb	NFRC Ratina Appendix A Defaults	Area	<i>U</i> -factor	Solar Heat Gain Coefficient (SHGC)	Overhang	Projection Factor	Overhang Multiplier	Adjusted Solar Heat Gain Coefficient (SHGC)	<i>U</i> -factor	Solar Heat Gain Coefficient (SHGC)	
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