Building Envelope Compliance Documentation Part I

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 weather-stripped to minimize air leakage.
- ❑ Air leakage through fenestration and doors is less than 0.4 cfm/ft² (1.0 cfm/ft² 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 ft².
- ❑ Building has revolving doors.
- ❑ Doors for vehicular movement or material handling.

Building Envelope Compliance Documentation

Project Name:					
Contact Person:				Telephone:	

Space Category	5.3.2.3 Exceptions	Window-Wall Ratio	Total	North (Opt.)	Other (Opt.)	Skylight-Roof Ratio	
Nonresidential	☐ North Oriented	Gross Wall Area (ft^2):				Gross Roof Area (ft^2):	
Residential	☐ Overhangs	Window Area (ft^2):				Skylight Area:	
Semi-Heated	☐ Street Level Windows	Window-Wall Ratio:				Skylight-Roof Ratio	

Opaque Surfaces

Description/ Name	Class (Pick one)															Pick one		Pick one		High Reflectance/Emittance Roof	Proposed Insulation *R*-value, *U*-factor, *C*-factor or *F*-factor	Criteria Insulation *R*-value, *U*-factor, *C*-factor, or *F*-factor	Surface Area (ft^2) (optional)
	Roof			Wall					Floor			Slab		Door									
	Insulation Above Deck	Metal Building	Attic and Other	Mass	Metal Building	Steel Framed	Wood Framed / Other	Below-Grade Wall	Mass	Steel Joist	Wood Framed / Other	Unheated	Heated	Swinging	Non-Swinging	*R*-value Option	*U*-factor Option	Appendix A Defaults	Calculations				
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Project Name:	
Contact Person:	Telephone:

Fenestration

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