



# REScheck Software Version 4.7.2 Compliance Certificate

Project Klinefelter Residence

Energy Code: **2015 IECC**  
 Location: **Ogden, Utah**  
 Construction Type: **Single-family**  
 Project Type: **New Construction**  
 Conditioned Floor Area: **5,536 ft2**  
 Glazing Area: **20%**  
 Climate Zone: **5 (5557 HDD)**  
 Permit Date:  
 Permit Number:

Construction Site:  
 Lot 79  
 Eden, UT 84310

Owner/Agent:  
 Kelsey Klinefelter  
 CA

Designer/Contractor:  
 MacKay-Lyons Sweetapple  
 Architects  
 2188 Gottingen Street  
 Halifax, NS, Ontario  
 1-902-429-1867

## Compliance: Passes using UA trade-off

Compliance: **23.1% Better Than Code** Maximum UA: **1224** Your UA: **941**

The % Better or Worse Than Code Index reflects how close to compliance the house is based on code trade-off rules. It DOES NOT provide an estimate of energy use or cost relative to a minimum-code home.

NOTE: Slab-on-grade tradeoffs are no longer considered in the UA or performance compliance path in REScheck. Each slab-on-grade assembly in the specified climate zone must meet the minimum energy code insulation R-value and depth requirements.

## Envelope Assemblies

| Assembly  | Gross Area or Perimeter | Cavity R-Value | Cont. R-Value | Prop. U-Factor | Req. U-Factor | Prop. UA | Req. UA |
|---|-------------------------|----------------|---------------|----------------|---------------|----------|---------|
| W Building Roof: Cathedral Ceiling<br>Comment: RA 1                   | 1,296                   | 48.0           | 8.0           | 0.018          | 0.026         | 23       | 33      |
| skylight 01: Metal Frame with Thermal Break:Double Pane               | 11                      |                |               | 0.320          | 0.550         | 4        | 6       |
| W Buiding Basement Terrace Soffit: Other Ceiling<br>Comment: SA 1     | 79                      |                |               | 0.028          | 0.026         | 2        | 2       |
| W Buiding North EL Wood Frame: Wood Frame, 16" o.c.<br>Comment: EWA 1 | 246                     | 36.0           | 12.0          | 0.026          | 0.060         | 6        | 14      |
| w09: Metal Frame with Thermal Break:Double Pane with Low-E            | 8                       |                |               | 0.320          | 0.320         | 3        | 3       |
| W Building West EL Wood Frame: Wood Frame, 16" o.c.<br>Comment: EWA 1 | 723                     | 36.0           | 12.0          | 0.026          | 0.060         | 16       | 36      |
| w02: Metal Frame with Thermal Break:Double Pane with Low-E            | 24                      |                |               | 0.320          | 0.320         | 8        | 8       |
| w01: Metal Frame with Thermal Break:Double Pane with Low-E            | 7                       |                |               | 0.320          | 0.320         | 2        | 2       |
| w03A & W03B: Metal Frame with Thermal Break:Double Pane with Low-E    | 85                      |                |               | 0.320          | 0.320         | 27       | 27      |

| Assembly  | Gross Area or Perimeter | Cavity R-Value | Cont. R-Value | Prop. U-Factor | Req. U-Factor | Prop. UA | Req. UA |
|---|-------------------------|----------------|---------------|----------------|---------------|----------|---------|
| W Building South EL Wood Frame: Wood Frame, 16" o.c.<br>Comment: EWA 1  | 476                     | 36.0           | 12.0          | 0.026          | 0.060         | 8        | 20      |
| w05: Metal Frame with Thermal Break:Double Pane with Low-E  | 150                     |                |               | 0.320          | 0.320         | 48       | 48      |
| W Building East EL Wood Frame: Wood Frame, 16" o.c.<br>Comment: EWA 1   | 895                     | 36.0           | 12.0          | 0.026          | 0.060         | 15       | 34      |
| w07: Metal Frame with Thermal Break:Double Pane with Low-E  | 151                     |                |               | 0.320          | 0.320         | 48       | 48      |
| w8: Metal Frame with Thermal Break:Double Pane with Low-E   | 28                      |                |               | 0.320          | 0.320         | 9        | 9       |
| w29: Metal Frame with Thermal Break:Double Pane with Low-E  | 151                     |                |               | 0.320          | 0.320         | 48       | 48      |
| W Building Hearth Wall: Solid Concrete or Masonry:Interior Insulation<br>Comment: EWA 5   | 262                     | 27.0           | 0.0           | 0.056          | 0.065         | 15       | 17      |
| W Building North EL Basement: Solid Concrete or Masonry<br>Wall height: 8.5'<br>Depth below grade: 5.5'<br>Insulation depth: 8.5'<br>Comment: EWA 3 | 181                     | 20.0           | 7.0           | 0.036          | 0.050         | 7        | 9       |
| W Building West EL Basement: Solid Concrete or Masonry<br>Wall height: 8.5'<br>Depth below grade: 5.5'<br>Insulation depth: 8.5'<br>Comment: EWA 3  | 272                     | 20.0           | 7.0           | 0.036          | 0.050         | 9        | 13      |
| w04: Metal Frame with Thermal Break:Double Pane with Low-E  | 11                      |                |               | 0.320          | 0.320         | 4        | 4       |
| W Building South EL Basement: Solid Concrete or Masonry<br>Wall height: 8.5'<br>Depth below grade: 5.5'<br>Insulation depth: 8.5'<br>Comment: EWA 3 | 181                     | 20.0           | 7.0           | 0.036          | 0.050         | 4        | 6       |
| w06: Metal Frame with Thermal Break:Double Pane with Low-E  | 43                      |                |               | 0.320          | 0.320         | 14       | 14      |
| dB: Solid   | 27                      |                |               | 0.340          | 0.320         | 9        | 9       |
| W Building East EL Basement: Solid Concrete or Masonry<br>Wall height: 8.5'<br>Depth below grade: 5.5'<br>Insulation depth: 8.5'<br>Comment: EWA 3  | 200                     | 20.0           | 7.0           | 0.036          | 0.050         | 7        | 10      |
| W Building Crawl Space: Solid Concrete or Masonry<br>Wall height: 6.5'<br>Depth below grade: 4.0'<br>Insulation depth: 6.5'<br>Comment: EWA 4       | 264                     | 0.0            | 27.0          | 0.034          | 0.055         | 6        | 10      |
| Entry Knuckle Roof: Flat Ceiling or Scissor Truss<br>Comment: RA 3  | 141                     | 48.0           | 10.0          | 0.021          | 0.026         | 3        | 4       |
| Entry Knuckle South EL: Wood Frame, 16" o.c.<br>Comment: EWA 6  | 98                      | 36.0           | 12.0          | 0.026          | 0.060         | 1        | 2       |
| w12: Metal Frame with Thermal Break:Double Pane with Low-E  | 41                      |                |               | 0.320          | 0.320         | 13       | 13      |
| w12 (door): Glass   | 22                      |                |               | 0.320          | 0.320         | 7        | 7       |
| Entry Knuckle West EL: Wood Frame, 16" o.c.   | 82                      | 36.0           | 12.0          | 0.026          | 0.060         | 1        | 2       |

| Assembly  | Gross Area or Perimeter | Cavity R-Value | Cont. R-Value | Prop. U-Factor | Req. U-Factor | Prop. UA | Req. UA |
|---|-------------------------|----------------|---------------|----------------|---------------|----------|---------|
| w11: Metal Frame with Thermal Break:Double Pane with Low-E  | 50                      |                |               | 0.032          | 0.320         | 2        | 16      |
| Entry Knuckle North EL: Wood Frame, 16" o.c.  | 123                     | 36.0           | 12.0          | 0.026          | 0.060         | 1        | 3       |
| w10: Metal Frame with Thermal Break:Double Pane with Low-E  | 49                      |                |               | 0.320          | 0.320         | 16       | 16      |
| dA: Solid   | 26                      |                |               | 0.340          | 0.320         | 9        | 8       |
| C Building Roof: Cathedral Ceiling<br>Comment: RA 2   | 667                     | 48.0           | 8.0           | 0.018          | 0.026         | 12       | 17      |
| skylight 02: Metal Frame with Thermal Break:Double Pane with Low-E  | 11                      |                |               | 0.320          | 0.550         | 4        | 6       |
| Skylight 03: Metal Frame with Thermal Break:Double Pane with Low-E  | 11                      |                |               | 0.320          | 0.550         | 4        | 6       |
| C Buiding North EL Wood Frame: Wood Frame, 16" o.c.<br>Comment: EWA 1   | 420                     | 36.0           | 12.0          | 0.026          | 0.060         | 10       | 23      |
| w015A: Metal Frame with Thermal Break:Double Pane with Low-E  | 15                      |                |               | 0.320          | 0.320         | 5        | 5       |
| w015B: Metal Frame with Thermal Break:Double Pane with Low-E  | 15                      |                |               | 0.320          | 0.320         | 5        | 5       |
| C Building West EL Wood Frame: Wood Frame, 16" o.c.<br>Comment: EWA 1   | 674                     | 36.0           | 12.0          | 0.026          | 0.060         | 17       | 39      |
| w15C: Metal Frame with Thermal Break:Double Pane with Low-E   | 12                      |                |               | 0.320          | 0.320         | 4        | 4       |
| w29: Metal Frame with Thermal Break:Double Pane with Low-E  | 11                      |                |               | 0.320          | 0.320         | 4        | 4       |
| C Building South EL Wood Frame: Wood Frame, 16" o.c.<br>Comment: EWA 1  | 532                     | 36.0           | 12.0          | 0.026          | 0.060         | 10       | 24      |
| w13: Metal Frame with Thermal Break:Double Pane with Low-E  | 64                      |                |               | 0.320          | 0.320         | 20       | 20      |
| w14: Metal Frame with Thermal Break:Double Pane with Low-E  | 72                      |                |               | 0.320          | 0.320         | 23       | 23      |
| C Building East EL Wood Frame: Wood Frame, 16" o.c.<br>Comment: EWA 1   | 393                     | 36.0           | 12.0          | 0.026          | 0.060         | 10       | 23      |
| w033: Metal Frame with Thermal Break:Double Pane with Low-E   | 12                      |                |               | 0.320          | 0.320         | 4        | 4       |
| C Building North EL Basement: Solid Concrete or Masonry<br>Wall height: 8.5'<br>Depth below grade: 5.5'<br>Insulation depth: 8.5'<br>Comment: EWA 3 | 171                     | 20.0           | 7.0           | 0.036          | 0.050         | 6        | 9       |
| C Building West EL Basement: Solid Concrete or Masonry<br>Wall height: 8.5'<br>Depth below grade: 5.5'<br>Insulation depth: 8.5'<br>Comment: EWA 3  | 155                     | 20.0           | 7.0           | 0.036          | 0.050         | 6        | 8       |
| C Building East EL Basement: Solid Concrete or Masonry<br>Wall height: 8.5'<br>Depth below grade: 5.5'<br>Insulation depth: 8.5'<br>Comment: EWA 3  | 155                     | 20.0           | 7.0           | 0.036          | 0.050         | 6        | 8       |

| Assembly  | Gross Area or Perimeter | Cavity R-Value | Cont. R-Value | Prop. U-Factor | Req. U-Factor | Prop. UA | Req. UA |
|---|-------------------------|----------------|---------------|----------------|---------------|----------|---------|
| C Building Crawl Space: Solid Concrete or Masonry<br>Wall height: 6.5'<br>Depth below grade: 4.0'<br>Insulation depth: 6.5'<br>Comment: EWA 4       | 201                     | 0.0            | 27.0          | 0.034          | 0.055         | 5        | 8       |
| Garage Knuckle Roof: Flat Ceiling or Scissor Truss<br>Comment: RA 3   | 72                      | 36.0           | 10.0          | 0.024          | 0.026         | 2        | 2       |
| Garage Knuckle South EL: Wood Frame, 16" o.c.   | 43                      | 36.0           | 7.5           | 0.031          | 0.060         | 0        | 1       |
| w008: Metal Frame with Thermal Break:Double Pane with Low-E   | 27                      |                |               | 0.320          | 0.320         | 9        | 9       |
| Garage Knuckle North EL: Wood Frame, 16" o.c.   | 34                      | 36.0           | 7.5           | 0.031          | 0.060         | 0        | 0       |
| w015: Metal Frame with Thermal Break:Double Pane with Low-E   | 27                      |                |               | 0.320          | 0.320         | 9        | 9       |
| E Buiding North EL Wood Frame: Wood Frame, 16" o.c.<br>Comment: EWA 1   | 438                     | 36.0           | 12.0          | 0.026          | 0.060         | 6        | 14      |
| w25: Metal Frame with Thermal Break:Double Pane with Low-E  | 47                      |                |               | 0.320          | 0.320         | 15       | 15      |
| Garage Doors: Solid   | 166                     |                |               | 0.340          | 0.320         | 56       | 53      |
| E Building Roof: Cathedral Ceiling<br>Comment: RA 2   | 1,248                   | 48.0           | 8.0           | 0.018          | 0.026         | 22       | 32      |
| skylight 04: Metal Frame with Thermal Break:Double Pane with Low-E  | 11                      |                |               | 0.320          | 0.550         | 4        | 6       |
| skylight 05: Metal Frame with Thermal Break:Double Pane with Low-E  | 11                      |                |               | 0.320          | 0.550         | 4        | 6       |
| Skylight 06: Metal Frame:Double Pane with Low-E   | 11                      |                |               | 0.320          | 0.550         | 4        | 6       |
| E Buiding Basement Terrace Soffit: Other Ceiling<br>Comment: SA 1   | 79                      |                |               | 0.028          | 0.026         | 2        | 2       |
| E Building West EL Wood Frame: Wood Frame, 16" o.c.<br>Comment: EWA 1   | 740                     | 36.0           | 12.0          | 0.026          | 0.060         | 16       | 37      |
| w17: Metal Frame with Thermal Break:Double Pane with Low-E  | 22                      |                |               | 0.320          | 0.320         | 7        | 7       |
| w18: Metal Frame with Thermal Break:Double Pane with Low-E  | 106                     |                |               | 0.320          | 0.320         | 34       | 34      |
| E Building South EL Wood Frame: Wood Frame, 16" o.c.<br>Comment: EWA 1  | 477                     | 36.0           | 12.0          | 0.026          | 0.060         | 8        | 18      |
| w011: Metal Frame with Thermal Break:Double Pane with Low-E   | 97                      |                |               | 0.320          | 0.320         | 31       | 31      |
| w030: Metal Frame with Thermal Break:Double Pane with Low-E   | 75                      |                |               | 0.320          | 0.320         | 24       | 24      |
| E Building East EL Wood Frame: Wood Frame, 16" o.c.<br>Comment: EWA 1   | 1,093                   | 36.0           | 12.0          | 0.026          | 0.060         | 27       | 61      |
| w22: Metal Frame with Thermal Break:Double Pane with Low-E  | 36                      |                |               | 0.320          | 0.320         | 12       | 12      |
| w23: Metal Frame with Thermal Break:Double Pane with Low-E  | 11                      |                |               | 0.320          | 0.320         | 4        | 4       |
| w24A & w24B: Metal Frame with Thermal Break:Double Pane with Low-E  | 23                      |                |               | 0.320          | 0.320         | 7        | 7       |
| E Building North EL Basement: Solid Concrete or Masonry<br>Wall height: 8.5'<br>Depth below grade: 5.5'<br>Insulation depth: 8.5'<br>Comment: EWA 3 | 179                     | 20.0           | 7.0           | 0.036          | 0.050         | 6        | 9       |





# Inspection Checklist

Energy Code: 2015 IECC

Requirements: 36.0% were addressed directly in the REScheck software

Text in the "Comments/Assumptions" column is provided by the user in the REScheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

| Section # & Req.ID                     | Pre-Inspection/Plan Review   | Plans Verified Value                       | Field Verified Value                       | Complies?  | Comments/Assumptions     |
|--|--|--|--|--|--------------------------|
| 103.1, 103.2 [PR1] <sup>1</sup>        | Construction drawings and documentation demonstrate energy code compliance for the building envelope. Thermal envelope represented on construction documents.  |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met. |
| 103.1, 103.2, 403.7 [PR3] <sup>1</sup> | Construction drawings and documentation demonstrate energy code compliance for lighting and mechanical systems. Systems serving multiple dwelling units must demonstrate compliance with the IECC Commercial Provisions. |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                          |
| 302.1, 403.7 [PR2] <sup>2</sup>        | Heating and cooling equipment is sized per ACCA Manual S based on loads calculated per ACCA Manual J or other methods approved by the code official.   | Heating: Btu/hr____<br>Cooling: Btu/hr____ | Heating: Btu/hr____<br>Cooling: Btu/hr____ | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                          |

**Additional Comments/Assumptions:**

|                        |                          |                       |
|------------------------|--------------------------|-----------------------|
| 1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3) |
|------------------------|--------------------------|-----------------------|

| Section # & Req.ID           | Foundation Inspection   | Plans Verified Value   | Field Verified Value   | Complies?  | Comments/Assumptions                          |
|------------------------------|---|--|--|--|---|
| 402.1.2 [FO1] <sup>1</sup>   | Slab edge insulation R-value.   | R-____<br><input type="checkbox"/> Unheated<br><input type="checkbox"/> Heated | R-____<br><input type="checkbox"/> Unheated<br><input type="checkbox"/> Heated | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 402.1.2 [FO3] <sup>1</sup>   | Slab edge insulation depth/length.  | ____ ft  | ____ ft  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 402.1.1 [FO4] <sup>1</sup>   | Conditioned basement wall insulation R-value. Where interior insulation is used, verification may need to occur during Insulation Inspection. Not required in warm-humid locations in Climate Zone 3. | R-____<br>R-____   | R-____<br>R-____   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 303.2 [FO5] <sup>1</sup>     | Conditioned basement wall insulation installed per manufacturer's instructions.   |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 402.2.9 [FO6] <sup>1</sup>   | Conditioned basement wall insulation depth of burial or distance from top of wall.  | ____ ft  | ____ ft  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 402.2.11 [FO7] <sup>1</sup>  | Unvented crawl space wall insulation R-value.   | R-____<br>R-____   | R-____<br>R-____   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 303.2 [FO8] <sup>1</sup>     | Unvented crawl space wall insulation installed per manufacturer's instructions.   |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 402.2.11 [FO9] <sup>1</sup>  | Unvented crawl space continuous vapor retarder installed over exposed earth, joints overlapped by 6 in. and sealed, extending at least 6 in. up and attached to the wall.                             |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 402.2.11 [FO10] <sup>1</sup> | Unvented crawl space wall insulation depth of burial or distance from top of wall.  | ____ in.   | ____ in.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 303.2.1 [FO11] <sup>2</sup>  | A protective covering is installed to protect exposed exterior insulation and extends a minimum of 6 in. below grade.   |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met.                      |
| 403.9 [FO12] <sup>2</sup>    | Snow- and ice-melting system controls installed.  |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |


**Additional Comments/Assumptions:**

1 High Impact (Tier 1)    2 Medium Impact (Tier 2)    3 Low Impact (Tier 3)

| Section # & Req.ID                                  | Framing / Rough-In Inspection  | Plans Verified Value | Field Verified Value | Complies?  | Comments/Assumptions                          |
|---|--|----------------------|----------------------|--|---|
| 402.1.1, 402.3.4 [FR1] <sup>1</sup>                 | Door U-factor.   | U-____               | U-____               | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 402.1.1, 402.3.1, 402.3.3, 402.5 [FR2] <sup>1</sup> | Glazing U-factor (area-weighted average).  | U-____               | U-____               | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 303.1.3 [FR4] <sup>1</sup>                          | U-factors of fenestration products are determined in accordance with the NFRC test procedure or taken from the default table.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met.                      |
| 402.1.1, 402.3.3, 402.3.6, 402.5 [FR5] <sup>1</sup> | Skylight U-factor.   | U-____               | U-____               | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 402.4.1.1 [FR23] <sup>1</sup>                       | Air barrier and thermal barrier installed per manufacturer's instructions.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met.                      |
| 402.4.3 [FR20] <sup>1</sup>                         | Fenestration that is not site built is listed and labeled as meeting AAMA /WDMA/CSA 101/I.S.2/A440 or has infiltration rates per NFRC 400 that do not exceed code limits.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met.                      |
| 402.4.5 [FR16] <sup>2</sup>                         | IC-rated recessed lighting fixtures sealed at housing/interior finish and labeled to indicate ≤2.0 cfm leakage at 75 Pa.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met.                      |
| 403.3.1 [FR12] <sup>1</sup>                         | Supply and return ducts in attics insulated ≥ R-8 where duct is ≥ 3 inches in diameter and ≥ R-6 where < 3 inches. Supply and return ducts in other portions of the building insulated ≥ R-6 for diameter ≥ 3 inches and R-4.2 for < 3 inches in diameter. |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 403.3.5 [FR15] <sup>3</sup>                         | Building cavities are not used as ducts or plenums.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 403.4 [FR17] <sup>2</sup>                           | HVAC piping conveying fluids above 105 °F or chilled fluids below 55 °F are insulated to ≥R-3.   | R-____               | R-____               | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 403.4.1 [FR24] <sup>1</sup>                         | Protection of insulation on HVAC piping.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |

1 High Impact (Tier 1)    2 Medium Impact (Tier 2)    3 Low Impact (Tier 3)



| Section # & Req.ID   | Framing / Rough-In Inspection   | Plans Verified Value | Field Verified Value | Complies?  | Comments/Assumptions     |
|--|---|----------------------|----------------------|--|--------------------------|
| 403.5.3 [FR18] <sup>2</sup><br> | Hot water pipes are insulated to $\geq R-3$ .                                       | R-_____              | R-_____              | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                          |
| 403.6 [FR19] <sup>2</sup>  | Automatic or gravity dampers are installed on all outdoor air intakes and exhausts. |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met. |

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|


| Section # & Req.ID                                    | Insulation Inspection   | Plans Verified Value   | Field Verified Value   | Complies?  | Comments/Assumptions                          |
|---|---|--|--|--|---|
| 303.1<br>[IN13] <sup>2</sup>                          | All installed insulation is labeled or the installed R-values provided.   |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met.                      |
| 402.1.1,<br>402.2.6<br>[IN1] <sup>1</sup>             | Floor insulation R-value.   | R-____<br><input type="checkbox"/> Wood<br><input type="checkbox"/> Steel                                  | R-____<br><input type="checkbox"/> Wood<br><input type="checkbox"/> Steel                                  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 303.2,<br>402.2.7<br>[IN2] <sup>1</sup>               | Floor insulation installed per manufacturer's instructions and in substantial contact with the underside of the subfloor, or floor framing cavity insulation is in contact with the top side of sheathing, or continuous insulation is installed on the underside of floor framing and extends from the bottom to the top of all perimeter floor framing members. |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 402.1.1,<br>402.2.5,<br>402.2.6<br>[IN3] <sup>1</sup> | Wall insulation R-value. If this is a mass wall with at least 1/2 of the wall insulation on the wall exterior, the exterior insulation requirement applies (FR10).  | R-____<br><input type="checkbox"/> Wood<br><input type="checkbox"/> Mass<br><input type="checkbox"/> Steel | R-____<br><input type="checkbox"/> Wood<br><input type="checkbox"/> Mass<br><input type="checkbox"/> Steel | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 303.2<br>[IN4] <sup>1</sup>                           | Wall insulation is installed per manufacturer's instructions.   |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met.                      |

**Additional Comments/Assumptions:**

|                        |                          |                       |
|------------------------|--------------------------|-----------------------|
| 1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3) |
|------------------------|--------------------------|-----------------------|

| Section # & Req.ID  | Final Inspection Provisions   | Plans Verified Value  | Field Verified Value  | Complies?  | Comments/Assumptions                             |
|---|---|---|---|--|--|
| 402.1.1,<br>402.2.1,<br>402.2.2,<br>402.2.6<br>[FI1] <sup>1</sup> | Ceiling insulation R-value.   | R-____<br><input type="checkbox"/> Wood<br><input type="checkbox"/> Steel | R-____<br><input type="checkbox"/> Wood<br><input type="checkbox"/> Steel | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values.    |
| 303.1.1.1,<br>303.2<br>[FI2] <sup>1</sup>                         | Ceiling insulation installed per manufacturer's instructions. Blown insulation marked every 300 ft <sup>2</sup> .   |   |   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met.                         |
| 402.2.3<br>[FI22] <sup>2</sup>                                    | Vented attics with air permeable insulation include baffle adjacent to soffit and eave vents that extends over insulation.  |   |   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | <b>Exception:</b> Requirement is not applicable. |
| 402.2.4<br>[FI3] <sup>1</sup>                                     | Attic access hatch and door insulation ≥R-value of the adjacent assembly.   | R-____  | R-____  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met.                         |
| 402.4.1.2<br>[FI17] <sup>1</sup>                                  | Blower door test @ 50 Pa. ≤=5 ach in Climate Zones 1-2, and ≤=3 ach in Climate Zones 3-8.   | ACH 50 = ____   | ACH 50 = ____   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met.                         |
| 403.3.4<br>[FI4] <sup>1</sup>                                     | Duct tightness test result of ≤=4 cfm/100 ft <sup>2</sup> across the system or ≤=3 cfm/100 ft <sup>2</sup> without air handler @ 25 Pa. For rough-in tests, verification may need to occur during Framing Inspection.   | ____ cfm/100 ft <sup>2</sup>  | ____ cfm/100 ft <sup>2</sup>  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 403.3.3<br>[FI27] <sup>1</sup>                                    | Ducts are pressure tested to determine air leakage with either: Rough-in test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the system including the manufacturer's air handler enclosure if installed at time of test. Postconstruction test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the entire system including the manufacturer's air handler enclosure. | ____ cfm/100 ft <sup>2</sup>  | ____ cfm/100 ft <sup>2</sup>  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 403.3.2.1<br>[FI24] <sup>1</sup>                                  | Air handler leakage designated by manufacturer at ≤=2% of design air flow.  |   |   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 403.1.1<br>[FI9] <sup>2</sup>                                     | Programmable thermostats installed for control of primary heating and cooling systems and initially set by manufacturer to code specifications.   |   |   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 403.1.2<br>[FI10] <sup>2</sup>                                    | Heat pump thermostat installed on heat pumps.   |   |   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 403.5.1<br>[FI11] <sup>2</sup>                                    | Circulating service hot water systems have automatic or accessible manual controls.   |   |   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |

1 High Impact (Tier 1)    2 Medium Impact (Tier 2)    3 Low Impact (Tier 3)

| Section # & Req.ID   | Final Inspection Provisions   | Plans Verified Value | Field Verified Value | Complies?  | Comments/Assumptions                             |
|--|---|----------------------|----------------------|--|--|
| 403.6.1 [FI25] <sup>2</sup>  | All mechanical ventilation system fans not part of tested and listed HVAC equipment meet efficacy and air flow limits.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 403.2 [FI26] <sup>2</sup>  | Hot water boilers supplying heat through one- or two-pipe heating systems have outdoor setback control to lower boiler water temperature based on outdoor temperature.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 403.5.1.1 [FI28] <sup>2</sup>  | Heated water circulation systems have a circulation pump. The system return pipe is a dedicated return pipe or a cold water supply pipe. Gravity and thermos-syphon circulation systems are not present. Controls for circulating hot water system pumps start the pump with signal for hot water demand within the occupancy. Controls automatically turn off the pump when water is in circulation loop is at set-point temperature and no demand for hot water exists. |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 403.5.1.2 [FI29] <sup>2</sup>  | Electric heat trace systems comply with IEEE 515.1 or UL 515. Controls automatically adjust the energy input to the heat tracing to maintain the desired water temperature in the piping.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 403.5.2 [FI30] <sup>2</sup>  | Water distribution systems that have recirculation pumps that pump water from a heated water supply pipe back to the heated water source through a cold water supply pipe have a demand recirculation water system. Pumps have controls that manage operation of the pump and limit the temperature of the water entering the cold water piping to 104°F.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 403.5.4 [FI31] <sup>2</sup>  | Drain water heat recovery units tested in accordance with CSA B55.1. Potable water-side pressure loss of drain water heat recovery units < 3 psi for individual units connected to one or two showers. Potable water-side pressure loss of drain water heat recovery units < 2 psi for individual units connected to three or more showers.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 404.1 [FI6] <sup>1</sup>   | 75% of lamps in permanent fixtures or 75% of permanent fixtures have high efficacy lamps. Does not apply to low-voltage lighting.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 404.1.1 [FI23] <sup>3</sup><br> | Fuel gas lighting systems have no continuous pilot light.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | <b>Exception:</b> Requirement is not applicable. |

1 High Impact (Tier 1)    2 Medium Impact (Tier 2)    3 Low Impact (Tier 3)

| Section # & Req.ID        | Final Inspection Provisions   | Plans Verified Value | Field Verified Value | Complies?  | Comments/Assumptions     |
|---------------------------|---|----------------------|----------------------|--|--------------------------|
| 401.3 [F17] <sup>2</sup>  | Compliance certificate posted.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met. |
| 303.3 [F118] <sup>3</sup> | Manufacturer manuals for mechanical and water heating systems have been provided. |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                          |

**Additional Comments/Assumptions:**

|                        |                          |                       |
|------------------------|--------------------------|-----------------------|
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|------------------------|--------------------------|-----------------------|



# 2015 IECC Energy Efficiency Certificate

| Insulation Rating                | R-Value |
|----------------------------------|---------|
| Above-Grade Wall                 | 48.00   |
| Below-Grade Wall                 | 27.00   |
| Floor                            | 27.00   |
| Ceiling / Roof                   | 56.00   |
| Ductwork (unconditioned spaces): | _____   |

| Glass & Door Rating | U-Factor | SHGC |
|---------------------|----------|------|
| Window              | 0.32     |      |
| Door                | 0.34     |      |
| Skylight            | 0.32     |      |

| Heating & Cooling Equipment | Efficiency |
|-----------------------------|------------|
| Heating System: _____       | _____      |
| Cooling System: _____       | _____      |
| Water Heater: _____         | _____      |

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Comments