



REScheck Software Version 4.6.5 Compliance Certificate

Project

Energy Code: **2009 IECC**
 Location: **Easley, South Carolina**
 Construction Type: **Single-family**
 Project Type: **New Construction**
 Conditioned Floor Area: **3,755 ft2**
 Glazing Area: **16%**
 Climate Zone: **3 (3040 HDD)**
 Permit Date:
 Permit Number:

Construction Site:
GA

Owner/Agent:
Building Builderson

Designer/Contractor:
Builders Building Plans

Compliance: Passes using UA trade-off

Compliance: **17.9% Better Than Code** Maximum UA: **559** Your UA: **459** Maximum SHGC: **0.30** Your SHGC: **0.25**

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.

Envelope Assemblies

| Assembly | Gross Area or Perimeter | Cavity R-Value | Cont. R-Value | U-Factor | UA |
|---|-------------------------|----------------|---------------|----------|----|
| Ceiling area of home forming top of insulation envelope: Flat Ceiling or Scissor Truss | 1,959 | 30.0 | 0.0 | 0.035 | 69 |
| Front Wall area of home forming sides of insulation envelope: Wood Frame, 16" o.c.:Not Attic Kneewall | 833 | 13.0 | 0.0 | 0.082 | 56 |
| Window area of home using energy efficient units: Vinyl/Fiberglass Frame:Double Pane with Low-E SHGC: 0.25 | 111 | | | 0.300 | 33 |
| Energy efficient door unit: Solid | 21 | | | 0.200 | 4 |
| 20 minute fire door: Solid | 21 | | | 0.200 | 4 |
| Left Wall area of home forming sides of insulation envelope: Wood Frame, 16" o.c.:Not Attic Kneewall | 41 | 13.0 | 0.0 | 0.082 | 3 |
| Back Wall area of home forming sides of insulation envelope: Wood Frame, 16" o.c.:Not Attic Kneewall | 833 | 13.0 | 0.0 | 0.082 | 48 |
| Window area of home using energy efficient units copy 1: Vinyl/Fiberglass Frame:Double Pane with Low-E SHGC: 0.25 | 231 | | | 0.300 | 69 |
| Energy efficient door unit: Glass SHGC: 0.25 | 21 | | | 0.300 | 6 |
| Right Wall area of home forming sides of insulation envelope: Wood Frame, 16" o.c.:Not Attic Kneewall | 799 | 13.0 | 0.0 | 0.082 | 61 |
| Window area of home using energy efficient units: Vinyl/Fiberglass Frame:Double Pane with Low-E SHGC: 0.25 | 51 | | | 0.300 | 15 |
| Slab perimeter of home forming bottom of insulation envelope: Slab-On-Grade:Unheated Insulation depth: 0.0' | 87 | | 0.0 | 1.042 | 91 |

Compliance Statement: The proposed building design described here is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the 2009 IECC requirements in REScheck Version 4.6.5 and to comply with the mandatory requirements listed in the REScheck Inspection Checklist.

Name - Title

Signature

Date






Inspection Checklist

Energy Code: 2009 IECC

Requirements: 0.0% 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 |
|--|---|--|--|--|----------------------|
| 103.2 [PR1] ¹  | Construction drawings and documentation demonstrate energy code compliance for the building envelope. | | | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| 103.2, 403.7 [PR3] ¹  | Construction drawings and documentation demonstrate energy code compliance for lighting and mechanical systems. Systems serving multiple dwelling units must demonstrate compliance with the commercial code. | | | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| 403.6 [PR2] ²  | Heating and cooling equipment is sized per ACCA Manual S based on loads per ACCA Manual J or other approved methods. | Heating: Btu/hr _____ Cooling: Btu/hr _____ | Heating: Btu/hr _____ Cooling: Btu/hr _____ | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <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 |
|-----------------------------------|---|--|--|--|--|
| 402.1.1 [FO1] ¹ | Slab edge insulation R-value. | R-____ <input type="checkbox"/> Unheated <input type="checkbox"/> Heated | R-____ <input type="checkbox"/> Unheated <input type="checkbox"/> Heated | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | <i>See the Envelope Assemblies table for values.</i> |
| 303.2, 402.2.8 [FO2] ¹ | Slab edge insulation installed per manufacturer's instructions. | | | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| 402.1.1 [FO3] ¹ | Slab edge insulation depth/length. | ____ ft | ____ ft | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | <i>See the Envelope Assemblies table for values.</i> |
| 303.2.1 [FO11] ² | A protective covering is installed to protect exposed exterior insulation and extends a minimum of 6 in. below grade. | | | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| 403.8 [FO12] ² | Snow- and ice-melting system controls installed. | | | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <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] ¹ | Door U-factor. | U-____ | U-____ | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 402.1.1, 402.3.1, 402.3.3, 402.5 [FR2] ¹ | Glazing U-factor (area-weighted average). | U-____ | U-____ | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 402.1.1, 402.3.2, 402.3.3, 402.5 [FR3] ¹ | Glazing SHGC value (area-weighted average). | SHGC:____ | SHGC:____ | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 303.1.3 [FR4] ¹ | U-factors of fenestration products are determined in accordance with the NFRC test procedure or taken from the default table. | | | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| 402.4.4 [FR20] ¹ | 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 <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| 402.4.5 [FR16] ² | 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 <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| 403.2.1 [FR12] ¹ | Supply ducts in attics are insulated to ≥R-8. All other ducts in unconditioned spaces or outside the building envelope are insulated to ≥R-6. | R-____ R-____ | R-____ R-____ | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| 403.2.2 [FR13] ¹ | All joints and seams of air ducts, air handlers, filter boxes, and building cavities used as return ducts are sealed. | | | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| 403.2.3 [FR15] ³ | Building cavities are not used for supply ducts. | | | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| 403.3 [FR17] ² | HVAC piping conveying fluids above 105 °F or chilled fluids below 55 °F are insulated to ≥R-3. | R-____ | R-____ | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| 403.4 [FR18] ² | Circulating service hot water pipes are insulated to R-2. | R-____ | R-____ | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| 403.5 [FR19] ² | Automatic or gravity dampers are installed on all outdoor air intakes and exhausts. | | | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |

Additional Comments/Assumptions:

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

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|---|----------------------|---|------------------------|---|---------------------|
| 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 [IN13] ²  | All installed insulation is labeled or the installed R-values provided. | | | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| 402.1.1, 402.2.4, 402.2.5 [IN3] ¹  | 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. | R-_____ <input type="checkbox"/> Wood <input type="checkbox"/> Mass <input type="checkbox"/> Steel | R-_____ <input type="checkbox"/> Wood <input type="checkbox"/> Mass <input type="checkbox"/> Steel | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 303.2 [IN4] ¹  | Wall insulation is installed per manufacturer's instructions. | | | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |

Additional Comments/Assumptions:

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|---|----------------------|---|------------------------|---|---------------------|
| 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, 402.2.1, 402.2.2 [F11] ¹ | Ceiling insulation R-value. Where > R-30 is required, R-30 can be used if insulation is not compressed at eaves. R-30 may be used for 500 ft ² or 20% (whichever is less) where sufficient space is not available. | R-____ <input type="checkbox"/> Wood <input type="checkbox"/> Steel | R-____ <input type="checkbox"/> Wood <input type="checkbox"/> Steel | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 303.1.1.1, 303.2 [F12] ¹ | Ceiling insulation installed per manufacturer's instructions. Blown insulation marked every 300 ft ² . | | | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| 402.2.3 [F13] ¹ | Attic access hatch and door insulation ≥ R-value of the adjacent assembly. | R-____ | R-____ | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| 402.4.2, 402.4.2.1 [F17] ¹ | Building envelope tightness verified by blower door test result of <7 ACH at 50 Pa. This requirement may instead be met via visual inspection, in which case verification may need to occur during Insulation Inspection. | ACH 50 = ____ | ACH 50 = ____ | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| 403.2.2 [F14] ¹ | Post construction duct tightness test result of ≤8 cfm to outdoors, or ≤12 cfm across systems. Or, rough-in test result of ≤6 cfm across systems or ≤4 cfm without air handler. Rough-in test verification may need to occur during Framing Inspection. | ____ cfm | ____ cfm | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| 403.1.1 [F19] ² | Programmable thermostats installed on forced air furnaces. | | | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| 403.1.2 [F110] ² | Heat pump thermostat installed on heat pumps. | | | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| 403.4 [F111] ² | Circulating service hot water systems have automatic or accessible manual controls. | | | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| 404.1 [F16] ¹ | 50% of lamps in permanent fixtures are high efficacy lamps. | | | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| 401.3 [F17] ² | Compliance certificate posted. | | | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |
| 303.3 [F118] ³ | Manufacturer manuals for mechanical and water heating equipment have been provided. | | | <input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable | |

Additional Comments/Assumptions:

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

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



2009 IECC Energy Efficiency Certificate

| Insulation Rating | R-Value |
|----------------------------------|---------|
| Above-Grade Wall | 13.00 |
| Below-Grade Wall | 0.00 |
| Floor | 0.00 |
| Ceiling / Roof | 30.00 |
| Ductwork (unconditioned spaces): | _____ |

| Glass & Door Rating | U-Factor | SHGC |
|---------------------|----------|------|
| Window | 0.30 | 0.25 |
| Door | 0.20 | 0.25 |

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

Name: _____ Date: _____

Comments