

FLORIDA BUILDING CODE, ENERGY CONSERVATION
Residential Building Thermal Envelope Approach
FORM R402-2017 Climate Zone

Scope: Compliance with Section R401.2(1) of the *Florida Building Code, Energy Conservation*, shall be demonstrated by the use of Form R402 for single- and multiple-family residences of three stories or less in height, additions to existing residential buildings, alterations, renovations and building systems in existing buildings, as applicable. To comply, a building must meet or exceed all of the energy efficiency requirements on Table R402A and all applicable mandatory requirements summarized in Table R402B of this form. If a building does not comply with this method, or by the UA Alternative method, it may still comply under Section R405 of the *Florida Building Code, Energy Conservation*.

PROJECT NAME AND ADDRESS: OWNER:	BUILDER: PERMITTING OFFICE: JURISDICTION NUMBER: PERMIT NUMBER:
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General Instructions:

1. Fill in all the applicable spaces of the "To Be Installed" column on Table R402A with the information requested. All "To Be Installed" values must be equal to or more efficient than the required levels.
2. Complete page 1 based on the "To Be Installed" column information.
3. Read the requirements of Table R402B and check each box to indicate your intent to comply with all applicable items.
4. Read, sign and date the "Prepared By" certification statement at the bottom of page 1. The owner or owner's agent must also sign and date the form.

<ol style="list-style-type: none"> 1. New construction, addition, or existing building 2. Single-family detached or multiple-family attached 3. If multiple-family, number of units covered by this submission 4. Is this a worst case? (yes/no) 5. Conditioned floor area (sq. ft.) 6. Windows, type and area <ol style="list-style-type: none"> a) U-factor: b) Solar Heat Gain Coefficient (SHGC) c) Area 7. Skylights <ol style="list-style-type: none"> a) U-factor: b) Solar Heat Gain Coefficient (SHGC) 8. Floor type, area or perimeter, and insulation: <ol style="list-style-type: none"> a) Slab-on-grade (R-value) b) Wood, raised (R-value) c) Wood, common (R-value) d) Concrete, raised (R-value) e) Concrete, common (R-value) 9. Wall type and insulation: <ol style="list-style-type: none"> a) Exterior: <ol style="list-style-type: none"> 1. Wood frame (Insulation R-value) 2. Masonry (Insulation R-value) b) Adjacent: <ol style="list-style-type: none"> 1. Wood frame (Insulation R-value) 2. Masonry (Insulation R-value) 10. Ceiling type and insulation <ol style="list-style-type: none"> a) Attic (Insulation R-value) b) Single assembly (Insulation R-value) 11. Air distribution system: <ol style="list-style-type: none"> a) Duct location, insulation b) AHU location c) Total duct leakage. Test report attached. 12. Cooling system: <ol style="list-style-type: none"> a) type b) efficiency 13. Heating system: <ol style="list-style-type: none"> a) type b) efficiency 14. HVAC sizing calculation: attached 15. Water heating system: <ol style="list-style-type: none"> a) type b) efficiency 	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;">1. _____</td><td style="width: 50%;">_____</td></tr> <tr><td>2. _____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td></tr> <tr><td>6a. _____</td><td>_____</td></tr> <tr><td>6b. _____</td><td>_____</td></tr> <tr><td>6c. _____</td><td>_____</td></tr> <tr><td>7a. _____</td><td>_____</td></tr> <tr><td>7b. _____</td><td>_____</td></tr> <tr><td>8a. _____</td><td>_____</td></tr> <tr><td>8b. _____</td><td>_____</td></tr> <tr><td>8c. _____</td><td>_____</td></tr> <tr><td>8d. _____</td><td>_____</td></tr> <tr><td>8e. _____</td><td>_____</td></tr> <tr><td>9a1. _____</td><td>_____</td></tr> <tr><td>9a2. _____</td><td>_____</td></tr> <tr><td>9b1. _____</td><td>_____</td></tr> <tr><td>9b2. _____</td><td>_____</td></tr> <tr><td>10a. _____</td><td>_____</td></tr> <tr><td>10b. _____</td><td>_____</td></tr> <tr><td>11a. _____</td><td>_____</td></tr> <tr><td>11b. _____</td><td>_____</td></tr> <tr><td>11c. _____ cfm/100 s.f.</td><td>Yes <input type="checkbox"/> No <input type="checkbox"/></td></tr> <tr><td>12a. _____</td><td>_____</td></tr> <tr><td>12b. _____</td><td>_____</td></tr> <tr><td>13a. _____</td><td>_____</td></tr> <tr><td>13b. _____</td><td>_____</td></tr> <tr><td>14. _____</td><td>Yes <input type="checkbox"/> No <input type="checkbox"/></td></tr> <tr><td>15a. _____</td><td>_____</td></tr> <tr><td>15b. _____</td><td>_____</td></tr> </table>	1. _____	_____	2. _____	_____	3. _____	_____	4. _____	_____	5. _____	_____	6a. _____	_____	6b. _____	_____	6c. _____	_____	7a. _____	_____	7b. _____	_____	8a. _____	_____	8b. _____	_____	8c. _____	_____	8d. _____	_____	8e. _____	_____	9a1. _____	_____	9a2. _____	_____	9b1. _____	_____	9b2. _____	_____	10a. _____	_____	10b. _____	_____	11a. _____	_____	11b. _____	_____	11c. _____ cfm/100 s.f.	Yes <input type="checkbox"/> No <input type="checkbox"/>	12a. _____	_____	12b. _____	_____	13a. _____	_____	13b. _____	_____	14. _____	Yes <input type="checkbox"/> No <input type="checkbox"/>	15a. _____	_____	15b. _____	_____
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I hereby certify that the plans and specifications covered by this form are in compliance with the *Florida Building Code, Energy Conservation*.
PREPARED BY: _____ **Date:** _____
 I hereby certify that this building is in compliance with the *Florida Building Code, Energy Conservation*.
OWNER/AGENT: _____ **Date:** _____

Review of plans and specifications covered by this form indicate compliance with the *Florida Building Code, Energy Conservation*. Before construction is complete, this building will be inspected for compliance in accordance with Section 553.908, F.S.
CODE OFFICIAL: _____
Date: _____

TABLE R402B MANDATORY REQUIREMENTS			
Component	Section	Summary of Requirement(s)	Check
Air leakage	R402.4	To be caulked, gasketed, weatherstripped or otherwise sealed per Table R402.4.1.1. Recessed lighting: IC-rated as having ≤ 2.0 cfm tested to ASTM E 283. Windows and doors: 0.3 cfm/sq. ft. (swinging doors: 0.5 cfm/sf) when tested to NFRC 400 or AAMA/WDMA/CSA 101/I.S. 2/A440. Fireplaces: Tight-fitting flue dampers & outdoor combustion air.	
Programmable thermostat	R403.1.2	A programmable thermostat is required for the primary heating or cooling system.	
Air distribution system	R403.3.2 R403.3.4	Ducts shall be tested as per Section R403.3.2 by either individuals as defined in Section 553.993(5) or (7), <i>Florida Statutes</i> , or individuals licensed as set forth in Section 489.105(3) (f), (g) or (i), <i>Florida Statutes</i> . Air handling units are not allowed in attics.	
Water heaters	R403.5	Comply with efficiencies in Table C404.2. Hot water pipes insulated to $\geq R-3$ to kitchen outlets, other cases. Circulating systems to have an automatic or accessible manual OFF switch. Heat trap required for vertical pipe risers.	
Swimming pools & spas	R403.10	Spas and heated pools must have vapor-retardant covers or a liquid cover or other means proven to reduce heat loss except if 70% of heat from site-recovered energy. Off/timer switch required. Gas heaters minimum thermal efficiency is 82%. Heat pump pool heaters minimum COP is 4.0.	
Cooling/heating equipment	R403.7	Sizing calculation performed & attached. Special occasion cooling or heating capacity requires separate system or variable capacity system.	
Lighting equipment	R404.1	At least 75% of permanently installed lighting fixtures shall be high-efficacy lamps.	