FORM R405-2020

# FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

| | | | |
|---|---|---|---|
| Project Name: | Adams Homes orest Country Lot 13 plan 2265 | Builder Name: | Adams Homes |
| Street: | | Permit Office: | |
| City, State, Zip: | Lake City, FL, 32024 | Permit Number: | |
| Owner: | | Jurisdiction: | |
| Design Location: | FL, Gainesville | County: | Columbia(Florida Climate Zone 2) |

| | |
|---|---|
| 1. New construction or existing | New (From Plans) |
| 2. Single family or multiple family | Detached |
| 3. Number of units, if multiple family | 1 |
| 4. Number of Bedrooms | 4 |
| 5. Is this a worst case? | No |
| 6. Conditioned floor area above grade (ft²) | 2265 |
| Conditioned floor area below grade (ft²) | 0 |

| 7. Windows(224.0 sqft.) | Description | Area |
|---|---|---|
| a. U-Factor: | Dbl, U=0.55 | 213.17 ft² |
| SHGC: | SHGC=0.60 | |
| b. U-Factor: | Sgl, U=0.55 | 10.83 ft² |
| SHGC: | SHGC=0.60 | |
| c. U-Factor: | N/A | ft² |
| SHGC: | | |
| Area Weighted Average Overhang Depth: | | 3.085 ft |
| Area Weighted Average SHGC: | | 0.600 |

| 8. Skylights | Description | Area |
|---|---|---|
| U-Factor:(AVG) | N/A | N/A ft² |
| SHGC(AVG): | N/A | |

| 9. Floor Types | Insulation | Area |
|---|---|---|
| a. Slab-On-Grade Edge Insulation | R= 0.0 | 2265.00 ft² |
| b. N/A | R= | ft² |
| c. N/A | R= | ft² |

| 10. Wall Types(1757.3 sqft.) | Insulation | Area |
|---|---|---|
| a. Face Brick - Wood, Exterior | R=13.0 | 1757.30 ft² |
| b. N/A | R= | ft² |
| c. N/A | R= | ft² |
| d. N/A | R= | ft² |

| 11. Ceiling Types(2265.0 sqft.) | Insulation | Area |
|---|---|---|
| a. Flat ceiling under att (Vented) | R=30.0 | 2265.00 ft² |
| b. N/A | R= | ft² |
| c. N/A | R= | ft² |

| 12. Ducts, location & insulation level | R | ft² |
|---|---|---|
| a. Sup: Attic, Ret: Attic, AH: Main | 6 | 453 |
| b. | | |
| c. | | |

| 13. Cooling Systems | kBtu/hr | Efficiency |
|---|---|---|
| a. Central Unit | 35.0 | SEER:16.00 |

| 14. Heating Systems | kBtu/hr | Efficiency |
|---|---|---|
| a. Electric Heat Pump | 34.6 | HSPF:8.50 |

| 15. Hot Water Systems | |
|---|---|
| a. Electric | Cap: 50 gallons |
| | EF: 0.920 |
| b. Conservation features | None |
| 16. Credits | CF |

Glass/Floor Area: 0.099

Total Proposed Modified Loads: 54.08

Total Baseline Loads: 54.81

**PASS**

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.

PREPARED BY: _____

DATE: 5-9-22 DC Williams

I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

OWNER/AGENT: Francine Riale

DATE: 5/10/2022

Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes.

BUILDING OFFICIAL: _____

DATE: _____

**- Compliance requires certification by the air handler unit manufacturer that the air handler enclosure qualifies as certified factory-sealed in accordance with R403.3.2.1.**

**- Default duct leakage does not require a Duct Leakage Test Report.**

**- Compliance requires an Air Barrier and Insulation Inspection Checklist in accordance with R402.4.1.1 and this project requires a PERFORMANCE envelope leakage test report with envelope leakage no greater than 9.83 ACH50 (R402.4.1.2).**

FORM R405-2020

# INPUT SUMMARY CHECKLIST REPORT

## PROJECT

| | | | | | |
|---|---|---|---|---|---|
| Title: | Adams Homes orest Country Lot 13 plan 2265 | | | Address type: | Street Address |
| Building Type: | User | Bedrooms: | 4 | Lot #: | --- |
| Owner: | | Conditioned Area: | 2265 | Block/SubDivision: | --- |
| | | Total Stories: | 1 | PlatBook: | --- |
| Builder Name: | Adams Homes | Worst Case: | No | Street: | |
| Permit Office: | | Rotate Angle: | 0 | County: | Columbia |
| Jurisdiction: | | Cross Ventilation: | | City, State, Zip: | Lake City, |
| Family Type: | Detached | Whole House Fan: | | | FL, 32024 |
| New/Existing: | New (From Plans) | Terrain: | Suburban | | |
| Year Construct: | | Shielding: | Suburban | | |
| Comment: | | | | | |

## CLIMATE

| √ | Design Location | Tmy Site | Design Temp 97.5% | Design Temp 2.5% | Int Design Temp Winter | Int Design Temp Summer | Heating Degree Days | Design Moisture | Daily temp Range |
|---|---|---|---|---|---|---|---|---|---|
| ___ | FL, Gainesville | FL_GAINESVILLE_REGIONA | 32 | 92 | 70 | 75 | 1305.5 | 51 | Medium |

## BLOCKS

| √ | Number | Name | Area | Volume |
|---|---|---|---|---|
| ___ | 1 | Block1 | 2265 | 18120 cu ft |

## SPACES

| √ | Number | Name | Area | Volume | Kitchen | Occupants | Bedrooms | Finished | Cooled | Heated |
|---|---|---|---|---|---|---|---|---|---|---|
| ___ | 1 | Main | 2265 | 18120 | Yes | 4 | 4 | Yes | Yes | Yes |

## FLOORS (Total Exposed Area = 2265 sq.ft.)

| √ | # | Floor Type | Space | Exposed Perim | Perimeter R-Value | Area | U-Factor | Joist R-Value | Tile | Wood | Carpet |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ___ | 1 | Slab-On-Grade Edge Ins | Main | 219 | 0 | 2265 ft | 0.379 | --- | 0.00 | 0.35 | 0.65 |

## ROOF

| √ | # | Type | Materials | Roof Area | Gable Area | Roof Color | Rad Barr | Solar Absor. | SA Tested | Emitt | Emitt Tested | Deck Insul. | Pitch (deg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ___ | 1 | Gable or shed | Composition shingles | 2454 ft² | 472 ft² | Medium | N | 0.96 | No | 0.9 | No | 0 | 22.62 |

## ATTIC

| √ | # | Type | Ventilation | Vent Ratio (1 in) | Area | RBS | IRCC |
|---|---|---|---|---|---|---|---|
| ___ | 1 | Full attic | Vented | 300 | 2265 ft² | N | N |

## CEILING (Total Exposed Area = 2265 sq.ft.)

| √ | # | Ceiling Type | Space | R-Value | Ins. Type | Area | U-Factor | Framing Frac. | Truss Type |
|---|---|---|---|---|---|---|---|---|---|
| ___ | 1 | Flat ceiling under attic(Vented) | Main | 30.0 | Blown | 2265.0ft² | 0.030 | 0.11 | Wood |

FORM R405-2020

# INPUT SUMMARY CHECKLIST REPORT

## WALLS (Total Exposed Area = 1757 sq.ft.)

| √ # | Ornt | Adjacent To | Wall Type | Space | Cavity R-Value | Width Ft | Width In | Height Ft | Height In | Area sq.ft. | U-Factor | Sheath R-Value | Frm. Frac. | Solar Absor. | Below Grade |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ___ 1 | N | Exterior | Face Brick - Wood | Main | 13.0 | 22.0 | 0 | 8.0 | 0 | 176.0 | 0.086 | | 0.23 | 0.75 | 0 % |
| ___ 2 | N | Exterior | Face Brick - Wood | Main | 13.0 | 20.0 | 11 | 8.0 | 0 | 167.3 | 0.086 | | 0.23 | 0.75 | 0 % |
| ___ 3 | N | Exterior | Face Brick - Wood | Main | 13.0 | 13.0 | 1 | 8.0 | 0 | 104.7 | 0.086 | | 0.23 | 0.75 | 0 % |
| ___ 4 | E | Exterior | Face Brick - Wood | Main | 13.0 | 45.0 | 10 | 8.0 | 0 | 366.7 | 0.086 | | 0.23 | 0.75 | 0 % |
| ___ 5 | S | Exterior | Face Brick - Wood | Main | 13.0 | 13.0 | 6 | 8.0 | 0 | 108.0 | 0.086 | | 0.23 | 0.75 | 0 % |
| ___ 6 | S | Exterior | Face Brick - Wood | Main | 13.0 | 23.0 | 9 | 8.0 | 0 | 190.0 | 0.086 | | 0.23 | 0.75 | 0 % |
| ___ 7 | S | Exterior | Face Brick - Wood | Main | 13.0 | 18.0 | 9 | 8.0 | 0 | 150.0 | 0.086 | | 0.23 | 0.75 | 0 % |
| ___ 8 | W | Exterior | Face Brick - Wood | Main | 13.0 | 61.0 | 10 | 8.0 | 0 | 494.7 | 0.086 | | 0.23 | 0.75 | 0 % |

## DOORS (Total Exposed Area = 40 sq.ft.)

| √ # | Ornt | Adjacent To | Door Type | Space | Storms | U-Value | Width Ft | Width In | Height Ft | Height In | Area |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ___ 1 | S | Exterior | Insulated | Main | None | 0.46 | 3.00 | 0 | 6.00 | 8 | 20.0ft² |
| ___ 2 | S | Exterior | Insulated | Main | None | 0.46 | 3.00 | 0 | 6.00 | 8 | 20.0ft² |

## WINDOWS (Total Exposed Area = 224 sq.ft.)

| √ # | Ornt | Wall ID | Frame | Panes | NFRC | U-Factor | SHGC | Imp | Storm | Total Area (ft²) | Same Units | Width (ft) | Height (ft) | --Overhang-- Depth (ft) | Sep. (ft) | Interior Shade | Screen |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ___ 1 | N | 2 | Vinyl | Low-E Double | Y | 0.55 | 0.60 | N | N | 30.0 | 1 | 6.00 | 5.00 | 1.0 | 2.0 | Drapes/blinds | None |
| ___ 2 | N | 2 | Vinyl | Low-E Double | Y | 0.55 | 0.60 | N | N | 6.7 | 1 | 1.00 | 6.67 | 1.0 | 2.0 | Drapes/blinds | None |
| ___ 3 | N | 2 | Vinyl | Low-E Double | Y | 0.55 | 0.60 | N | N | 6.7 | 1 | 1.00 | 6.67 | 1.0 | 2.0 | Drapes/blinds | None |
| ___ 4 | N | 3 | Vinyl | Low-E Double | Y | 0.55 | 0.60 | N | N | 30.0 | 1 | 6.00 | 5.00 | 1.0 | 2.0 | Drapes/blinds | None |
| ___ 5 | E | 4 | Vinyl | Low-E Double | Y | 0.55 | 0.60 | N | N | 15.0 | 1 | 3.00 | 5.00 | 1.0 | 2.0 | Drapes/blinds | None |
| ___ 6 | N | 3 | Vinyl | Low-E Double | Y | 0.55 | 0.60 | N | N | 9.0 | 1 | 3.00 | 3.00 | 1.0 | 2.0 | Drapes/blinds | None |
| ___ 7 | S | 5 | Vinyl | Low-E Double | Y | 0.55 | 0.60 | N | N | 30.0 | 1 | 6.00 | 5.00 | 1.0 | 2.0 | Drapes/blinds | None |
| ___ 8 | S | 6 | Vinyl | Low-E Double | Y | 0.55 | 0.60 | N | N | 30.0 | 1 | 6.00 | 5.00 | 9.2 | 2.0 | Drapes/blinds | None |
| ___ 9 | S | 6 | Vinyl | Low-E Double | Y | 0.55 | 0.60 | N | N | 10.8 | 1 | 2.17 | 5.00 | 9.2 | 2.0 | Drapes/blinds | None |
| ___ 10S | | 6 | Vinyl | Low-E Single | Y | 0.55 | 0.60 | N | N | 10.8 | 1 | 2.17 | 5.00 | 9.2 | 2.0 | Drapes/blinds | None |
| ___ 11S | | 7 | Vinyl | Low-E Double | Y | 0.55 | 0.60 | N | N | 15.0 | 1 | 3.00 | 5.00 | 2.0 | 2.0 | Drapes/blinds | None |
| ___ 12W | | 8 | Vinyl | Low-E Double | Y | 0.55 | 0.60 | N | N | 15.0 | 1 | 3.00 | 5.00 | 2.0 | 2.0 | Drapes/blinds | None |
| ___ 13W | | 8 | Vinyl | Low-E Double | Y | 0.55 | 0.60 | N | N | 15.0 | 1 | 3.00 | 5.00 | 2.0 | 2.0 | Drapes/blinds | None |

## INFILTRATION

| √ # | Scope | Method | SLA | CFM50 | ELA | EqLA | ACH | ACH50 | Space(s) | Infiltration Test Volume |
|---|---|---|---|---|---|---|---|---|---|---|
| ___ 1 | Wholehouse | Proposed ACH(50) | 0.00050 | 2967 | 162.80 | 305.64 | 0.1925 | 9.8 | All | 18120 cu ft |

## GARAGE

| √ # | Floor Area | Roof Area | Exposed Wall Perimeter | Avg. Wall Height | Exposed Wall Insulation |
|---|---|---|---|---|---|
| ___ 1 | 440 ft² | 440 ft² | 64 ft | 8 ft | 1 |

## MASS

| √ # | Mass Type | Area | Thickness | Furniture Fraction | Space |
|---|---|---|---|---|---|
| ___ 1 | Default(8 lbs/sq.ft.) | 0 ft² | 0 ft | 0.30 | Main |

FORM R405-2020

# INPUT SUMMARY CHECKLIST REPORT

## HEATING SYSTEM

| √ | # | System Type | Subtype/Speed | AHRI # | Efficiency | Capacity kBtu/hr | ----Geothermal HeatPump---- Entry | Power | Volt | Current | Ducts | Block |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ___ | 1 | Electric Heat Pump | None/Single | | HSPF: 8.50 | 34.6 | | 0.00 | 0.00 | 0.00 | sys#1 | 1 |

## COOLING SYSTEM

| √ | # | System Type | Subtype/Speed | AHRI # | Efficiency | Capacity kBtu/hr | Air Flow cfm | SHR | Duct | Block |
|---|---|---|---|---|---|---|---|---|---|---|
| ___ | 1 | Central Unit | None/Single | | SEER:16.0 | 35.0 | 1050 | 0.75 | sys#1 | 1 |

## HOT WATER SYSTEM

| √ | # | System Type | Subtype | Location | EF(UEF) | Cap | Use | SetPnt | Fixture Flow | Pipe Ins. | Pipe length |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ___ | 1 | Electric | None | Garage | 0.92 (0.92) | 50.00 gal | 70 gal | 120 deg | Standard | None | 99 |

| | Recirculation System | Recirc Control Type | Loop length | Branch length | Pump power | DWHR | Facilities Connected | Equal Flow | DWHR Eff | Other Credits |
|---|---|---|---|---|---|---|---|---|---|---|
| ___ | 1 No | | NA | NA | NA | No | NA | NA | NA | None |

## DUCTS

| √ | Duct # | ---------Supply--------- Location | R-Value | Area | ---------Return--------- Location | R-Value | Area | Leakage Type | Air Handler | CFM 25 TOT | CFM 25 OUT | QN | RLF | HVAC # Heat | Cool |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ___ | 1 | Attic | 6.0 | 453 ft² | Attic | 6.0 | 113 ft² | Default Leakage | Main | (Default) | (Default) | | | 1 | 1 |

## TEMPERATURES

Programable Thermostat: N  Ceiling Fans: N

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cooling | [ ] Jan | [ ] Feb | [ ] Mar | [ ] Apr | [ ] May | [X] Jun | [X] Jul | [X] Aug | [X] Sep | [ ] Oct | [ ] Nov | [ ] Dec |
| Heating | [X] Jan | [X] Feb | [X] Mar | [ ] Apr | [ ] May | [ ] Jun | [ ] Jul | [ ] Aug | [ ] Sep | [ ] Oct | [X] Nov | [X] Dec |
| Venting | [ ] Jan | [ ] Feb | [X] Mar | [X] Apr | [ ] May | [ ] Jun | [ ] Jul | [ ] Aug | [ ] Sep | [X] Oct | [X] Nov | [ ] Dec |

| √ | Thermostat Schedule: HERS 2006 Reference Schedule Type | | Hours 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ___ | Cooling (WD) | AM | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 |
| | | PM | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 |
| ___ | Cooling (WEH) | AM | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 |
| | | PM | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 |
| ___ | Heating (WD) | AM | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| | | PM | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| ___ | Heating (WEH) | AM | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| | | PM | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |

FORM R405-2020

# ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

## ESTIMATED ENERGY PERFORMANCE INDEX* = 99

The lower the EnergyPerformance Index, the more efficient the home.

Forest Country Lot 13 plan 2265,Lake City,FL,32024

| | | |
|---|---|---|
| 1. New construction or existing | | New (From Plans) |
| 2. Single family or multiple family | | Detached |
| 3. Number of units, if multiple family | | 1 |
| 4. Number of Bedrooms | | 4 |
| 5. Is this a worst case? | | No |
| 6. Conditioned floor area above grade (ft²) | | 2265 |
| Conditioned floor area below grade (ft²) | | 0 |

| 7. Windows** | Description | Area |
|---|---|---|
| a. U-Factor: | Dbl, U=0.55 | 213.17 ft² |
| SHGC: | SHGC=0.60 | |
| b. U-Factor: | Sgl, U=0.55 | 10.83 ft² |
| SHGC: | SHGC=0.60 | |
| c. U-Factor: | N/A | ft² |
| SHGC: | | |
| Area Weighted Average Overhang Depth: | | 3.085 ft |
| Area Weighted Average SHGC: | | 0.600 |

| 8. Skylights | Description | Area |
|---|---|---|
| U-Factor:(AVG) | N/A | N/A ft² |
| SHGC(AVG): | N/A | |

| 9. Floor Types | Insulation | Area |
|---|---|---|
| a. Slab-On-Grade Edge Insulation | R= 0.0 | 2265.00 ft² |
| b. N/A | R= | ft² |
| c. N/A | R= | ft² |

| 10. Wall Types(1757.3 sqft.) | Insulation | Area |
|---|---|---|
| a. Face Brick - Wood, Exterior | R=13.0 | 1757.30 ft² |
| b. N/A | R= | ft² |
| c. N/A | R= | ft² |
| d. N/A | R= | ft² |

| 11. Ceiling Types(2265.0 sqft.) | Insulation | Area |
|---|---|---|
| a. Flat ceiling under att (Vented) | R=30.0 | 2265.00 ft² |
| b. N/A | R= | ft² |
| c. N/A | R= | ft² |

| 12. Ducts, location & insulation level | R | ft² |
|---|---|---|
| a. Sup: Attic, Ret: Attic, AH: Main | 6 | 453 |
| b. | | |
| c. | | |

| 13. Cooling Systems | kBtu/hr | Efficiency |
|---|---|---|
| a. Central Unit | 35.0 | SEER:16.00 |

| 14. Heating Systems | kBtu/hr | Efficiency |
|---|---|---|
| a. Electric Heat Pump | 34.6 | HSPF:8.50 |

| | |
|---|---|
| 15. Hot Water Systems | |
| a. Electric | Cap: 50 gallons<br>EF: 0.920 |
| b. Conservation features | None |
| 16. Credits | CF |

I certify that this home has complied with the Florida Energy Efficiency Code for Building Construction through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL Display Card will be completed based on installed Code compliant features.


Builder Signature: Francine Riale Date: 5/10/2022

Address of New Home: Forest Country Lot 13 plan 2265 City/FL Zip: Lake City,FL,32024

*Note: This is not a Building Energy Rating. If your Index is below 70, your home may qualify for energy efficient mortgage (EEM) incentives if you obtain a Florida Energy Rating. For information about the Florida Building Code, Energy Conservation, contact the Florida Building Commission's support staff.

**Label required by Section R303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.