

# North Carolina 2018 - R402.1.5 Total UA

## Property

TBD 190  
Erwin, NC 28339  
Model: 1720 Aria I-C3\_3  
Community: Masons Mills

## Organization

Performance Point, LLC.  
Rodrigo Torres

## Inspection Status

Results are projected

## Builder

True Homes

Masons Mills 190

True\_Masons Mills 190\_1720 Aria I-C3\_5\_

**This report is based on a proposed design and does not confirm field enforcement of design elements.**

## Building UA


Elements	NC Reference	As Designed
Ceilings	34.2	29.3
Above-Grade Walls	167.2	164.7
Windows, Doors and Skylights	107.6	97.7
Slab Floor:	73.4	73.4
Framed Floors	0.0	0.0
Foundation Walls	0.0	0.0
Rim Joists	9.6	9.4
<b>Overall UA (Design must be equal or lower):</b>	<b>392.0</b>	<b>374.5</b>

## Requirements

✓	R402.1.5	Total UA alternative compliance passes by 4.5%.	The proposed home meets the UA requirement by 4.5%
✓	R402.3.2	Average SHGC: 0.30 Max SHGC: 0.30	Average SHGC of 0.30 is greater than the maximum of 0.30.
✓	R402.4.2.2	Air Leakage Testing	Air sealing is 5.00 ACH at 50 Pa. It must not exceed 5.00 ACH at 50 Pa.
✓	R402.5	Area-weighted average fenestration SHGC	Area-weighted average fenestration SHGC is 0.3. The maximum allowed value is [No Limit].
✓	R402.5	Area-weighted average fenestration U-Factor	
✓	R404.1	Lighting Equipment	
✓	Mandatory Checklist	Mandatory code requirements that are not checked by Ekotrope must be met.	2015 IECC Mandatory Checklist must be checked as complete.
✓	R403.3.1	Duct Insulation	Duct insulation meets the requirements specified in North Carolina 2018 Code Section 403.3.1.
✓	403.3.3	Duct Testing	

**Design exceeds requirements for North Carolina 2018 Prescriptive compliance by 4.5%.**

Name: Rodrigo Torres  
Organization: Performance Point, LLC.

Signature:   
Digitally signed: 8/15/25 at 1:08 PM

## Ekotrope RATER - Version 5.1.0.3691

North Carolina 2018 Prescriptive compliance results calculated using Ekotrope RATER's energy and code compliance algorithm, including appropriate amendments.

Ekotrope RATER is a RESNET Accredited HERS Rating Tool. All results are based on data entered by Ekotrope users.

Ekotrope disclaims all liability for the information shown on this report.

# Energy Code Inspection Checklist


Property	Organization	Inspection Status
TBD 190	Performance Point, LLC.	Results are projected
Erwin, NC 28339	Rodrigo Torres	
Model: 1720 Aria I-C3_3		
Community: Masons Mills	<b>Builder</b>	
	True Homes	
Masons Mills 190		
True_Masons Mills 190_1720 Aria I-C3_5_		

## General Building Information

Conditioned Area (sq ft)	2,218
Conditioned Volume (cubic ft)	20,417
Insulated Shell Area (sq ft)	4,933

The building energy model in Ekotrope reflects the building assemblies and energy features listed below. Sometimes energy features will change in the field from what has been modeled. The inspection process should identify any changes and ensure that the home continues to meet the applicable energy code.

## Slab

	Name: Slab(1,141 s.f., 148 ft. exterior perimeter) R-10 perimeter insulation, R-0 under slab insulation.
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## Framed Floor


None Present


## Foundation Wall

None Present

## Above Grade Wall


	Name: 2x4/ Ambient (2,172.9 s.f.) R-0 continuous insulation, R-15 cavity insulation Insulation Grade: I
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	Name: Niche (2 s.f.) R-3 continuous insulation, R-0 cavity insulation Insulation Grade: I
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	Name: 2x4/ Kneewall - Porch (28.8 s.f.) R-0 continuous insulation, R-15 cavity insulation Insulation Grade: I
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-  Name: 2x6 Ambient (275.3 s.f.)  
R-0 continuous insulation, R-19 cavity insulation  
Insulation Grade: I

## Rim Joist

-  Name: Ambient (136.9 s.f.)  
R: 13.30
-  Name: Attic (35.1 s.f.)  
R: 13.30





## Ceiling / Roof

-  Name: CIng- 7:12 (1,077 s.f.)  
R-28.5 continuous insulation, R-9.5 cavity insulation  
Insulation Grade: I
-  Name: CIng- 6:12 (64 s.f.)  
R-28.5 continuous insulation, R-9.5 cavity insulation  
Insulation Grade: I

## Opaque Door

-  Name: Front Door (20 s.f.)  
R: 7.00


## Glazing

-  Name: Front (75 s.f.), U: 0.330, SHGC: 0.3, Orientation: WEST
-  Name: Front Shd. - PDR 2'x2' Fxd. (4 s.f.), U: 0.330, SHGC: 0.3, Orientation: WEST
-  Name: Right - Loft 2'6"x5' (12.5 s.f.), U: 0.330, SHGC: 0.3, Orientation: SOUTH
-  Name: Back (105 s.f.), U: 0.330, SHGC: 0.3, Orientation: EAST


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True\_Masons Mills 190\_1720 Aria I-C3\_5\_

 Name: Back Door (20 s.f.), U: 0.330, SHGC: 0.3, Orientation: EAST

 Name: Back Door Fxd. (20 s.f.), U: 0.330, SHGC: 0.3, Orientation: EAST

 Name: Left (51 s.f.), U: 0.330, SHGC: 0.3, Orientation: NORTH


## Skylight


None Present

## Mechanical Ventilation

None Present

## Mechanical Equipment

 Water Heating • Electric • 100% Hot Water Load @ 0.91 Energy Factor

 Heat Pump / All • Electric • 100% Heating Load @ 8.2 HSPF, 100% Cooling Load @ 14 SEER

## Air Leakage Control

 Test Status: Blower-door tested  
House is air-sealed as to achieve 1,701 CFM50 (5.00 ACH50) or less at final blower-door test.

Infiltration Requirements for IECC in Climate Zone 4

- 2009 IECC Infiltration limit for the design home is 7 ACH50.
- 2012 IECC Infiltration limit for the design home is 3 ACH50.
- 2015 IECC Infiltration limit for the design home is 3 ACH50.
- 2018 IECC Infiltration limit for the design home is 3 ACH50.
- 2021 IECC Infiltration limit for the design home is 5 ACH50.
- 2024 IECC Infiltration limit for the design home is 4 ACH50.

Note: Under IECC 2021 and later, this home is considered to be in Climate Zone 3

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## Duct Leakage

Duct System 1

NOT entirely within conditioned space, testing required

Leakage to Outside specified as: 4 CFM25 / 100 ft<sup>2</sup>

Total Leakage specified as: 4 CFM25 / 100 ft<sup>2</sup> (Post-Construction)

## Duct Leakage Code Requirements for IECC

2009 IECC:

Postconstruction Leakage Test: Duct Leakage to Outdoors <= 8 CFM25 / 100 sq ft CFA.

Rough in Test with AHU: Total Duct Leakage <= 6 CFM25 / 100 sq ft CFA.

Rough in Test without AHU: Total Duct Leakage <= 4 CFM25 / 100 sq ft CFA.

2012 IECC Mandatory, 2015, 2018, & 2021 IECC Prescriptive Paths:

Postconstruction Leakage Test: Total Duct Leakage <= 4 CFM25 / 100 sq ft CFA.

Rough in Test with AHU: Total Duct Leakage <= 4 CFM25 / 100 sq ft CFA.

Rough in Test without AHU: Total Duct Leakage <= 3 CFM25 / 100 sq ft CFA.

\* Note: IECC 2021 requires Total Duct Leakage <= 8 CFM25 / 100 sq ft CFA when all ducts and air handlers are within the building thermal envelope.

2015 and 2018 IECC Performance Paths (Cost Compliance):

Leakage testing is required UNLESS all ducts and air handlers are located entirely within the thermal envelope.

There is no pass/fail threshold for duct leakage on the performance path.

## Project Notes

JM_08/14/2025_Performance Report	True_1720 Aria I-C3_5
SC_8/15/2025_QC	

## Energy Specifications Label

**TBD 190**

Model: 1720 Aria I-C3\_3

Ekotrope RATER - Version: 5.1.0.3691

### Building Envelope Specs

Ceiling: R-38

Above Grade Walls: R-15

Foundation Walls: N/A

Exposed Floor: N/A

Slab: R-10

Infiltration: 5 ACH50

Duct Insulation: Supply: R8, Return: R8

Duct Lkg to Outdoors: 4 CFM25 / 100 ft<sup>2</sup>

### Window & Door Specs

U-Value: 0.33, SHGC: 0.3

Door: R-7

### Mechanical Equipment Specs

Heating: Air Source Heat Pump • Electric • 8.2 HSPF

Cooling: Air Source Heat Pump • Electric • 14 SEER

Hot Water: Residential Water Heater • Electric • 0.91

Energy Factor

Average Mechanical Ventilation: 0 CFM

### Builder or Design Professional

Signature: \_\_\_\_\_

# Builder Affidavit

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Performance Point, LLC.  
Rodrigo Torres

**Builder**

True Homes

**Inspection Status**

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## Important Notice to Builder

Builder affirms in this affidavit that all building characteristics described in the Building Summary Report accurately reflect this New Home. Builder agrees to allow the Home Energy Rating System (HERS) Provider and/or Rater to verify building characteristics of this New Home fully at the HERS Rater/Provider's discretion. The HERS Provider and Rater do not create or imply any duty or obligations to Builder or any subsequent owner. Builder is responsible for taking any actions necessary to protect Builder's interest. There is no guarantee or warranty whatsoever expressed or implied from the HERS Provider or Rater.

HERS® Index Score:86

Builder Name: True Homes

Builder Signature: \_\_\_\_\_

Name: \_\_\_\_\_ Rodrigo Torres  
Organization: \_\_\_\_\_ Performance Point, LLC.

Signature: \_\_\_\_\_  
Digitally signed: \_\_\_\_\_ 8/15/25 at 1:08 PM