

Air Leakage Test Report

In compliance with ASTM E-779-19 ({2019})

PINNACLE INSPECTIONS



FRANK RESIDENCE

Building Address: 3505 LORRAINE RD, LARKSPUR CO 80118

Performed for: EPIC STRUCTURES

Performed by: Robert Stockmann


Test date: 2025-05-08

Associated Test file: 3505 LORRAINE RD-MAIN

PERMIT Number:

Unique Property ID Number:

Summary FRANK RESIDENCE

| | | |
|--|-------------------------------------|--|
|  FanTestic | version: 5.16.94 | licensed to: Pinnacle Inspections - CO |
| Test date: 2025-05-08 | By: Robert Stockmann | |
| Customer: | EPIC STRUCTURES | |
| Building Lot Number: | | |
| Building address: | 3505 LORRAINE RD, LARKSPUR CO 80118 | |

| | |
|--|-----------------------|
| Building and Test Information | |
| Test file name: | 3505 LORRAINE RD-MAIN |
| Building volume [cu ft]: | 44318 |
| Envelope Area [sq ft]: | 8872 |
| Floor Area [sq ft]: | 5096 |
| Building Height (from ground to top) [ft]: | 35 |

| | |
|------------------------------|----------------------------|
| Results | |
| CFM at 50 Pa: | 989.95 |
| Leakage Area (EqLA) [sq in]: | 97.85 |
| Leakage Area (EflA) [sq in]: | 47.88 |
| Air Changes per hour ACH50: | 1.34 |
| Flow per unit envelope area: | 0.112 CFM per sq ft +/-1.0 |

Compliance

PASS

2021 IECC Energy Code reference:

R401.2.1 Prescriptive Compliance Option requires compliance with Sections R401 through R404.

R402.4.1.2 Testing. The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding 3 ACH/50

Exception: When testing individual dwelling units, an air leakage rate not exceeding 0.30 cubic feet per minute per square foot [0.008 m³/(s × m²)] of the dwelling unit enclosure area, tested in accordance with ANSI/RESNET/ICC 380, ASTM E779 or ASTM E1827 and reported at a pressure of 0.2 inch w.g. (50 Pa), shall be permitted in all climate zones for:

Attached single and multiple-family building dwelling units.

Buildings or dwelling units that are 1,500 square feet (139.4 m²) or smaller.

Signed: 

www.PinnacleInspection.com

(719) 888-0565

RESNET HERS Rater-#0787809

ABAA Member #510-1345

IECC Approved 3rd Party Testing & Verification

IECC Residential Energy Inspector/Plans Examiner

IECC/HERS Compliance Specialist-#5301180

Energy Star® Certification & Verifier

Certified Level I Infrared Thermographer

| Test Analysis | Results | Uncertainty |
|--|-------------------------------------|-------------|
| Height x Temperature difference: | 630 ft °F | |
| Air leakage coefficient, C: | 63.8 CFM/Pa ⁿ | +/- 7.93 |
| Exponent, n: | 0.701 | +/- 2.895 |
| Correlation coefficient, r: | 0.99988 | |
| Air flow _{STP} : | 989.95 CFM at 50 Pa | +/-1.0 |
| Air change rate, ACH: | 1.340 air changes per hour at 50 Pa | +/-1.0 |
| Flow per unit floor area: | 0.194 CFM per sq ft | +/-1.0 |
| Flow per unit envelope area: | 0.112 CFM per sq ft | +/-1.0 |
| Equivalent leakage area at 12 Pa [sq in] | 97.85 | +/-2.7 |
| Effective leakage area at 4 Pa [sq in] | 47.88 | +/-5.0 |
| LEED Permeability at 4 Pa [sq in/ 100 sq ft] | 0.5397 | +/-5.0 |

Building Measurements

Building Volume [cu ft]: 44318
 Envelope Area (A_E) [sq ft]: 8872
 (defined as the area of external walls plus the area of the roof and ground floor.)
 Net Floor Area (A_F) [sq ft]: 5096
 Building Height (from ground to top) [ft]: 35

Discussion of Results

Leakage rate

The measured air flow at a test pressure of 50 Pa was 989.95 CFM which equates to an equivalent leakage area of 97.85 sq in, based on adding up the leakage from all the holes and cracks in the exterior.

This leakage also equates to a one inch gap, 8.15 feet long. Your home leaks as if there is one hole this size in the wall.

Air Leakage Test Data Appendix- FRANK RESIDENCE

Depressurize Data Set

Test Dataset Date: 2025-05-08
 Start time: 10:20:30

Average Baseline, ΔP: 0.43 Pa

Test Equipment

The following test equipment was used in the performance of the air leakage tests.

| | Fan | Fan serial | Fan location | Gauge | Gauge serial | Gauge Calibration |
|----|---------------|------------|--------------|-------|--------------|-------------------|
| #1 | Retrotec 5000 | 5FN103098 | FRONT | DM32 | 414087 | 2025-01-28 |