



# Home Energy Assessment with ARUS Consulting

Your Vision, Our Expertise: Transforming Houses into Homes



# Parker Lahti

- President and Owner of ARUS Consulting
- Two decades of experience in the field of Building Science
- Over 5,500 Assessments
- Founded ARUS Consulting in 2017
- Started Blue Sky Training in 2023



# Chance Bertolami

- Chance Bertolami is our Field Team Manager.
- Chance is responsible for onboarding new ARUS assessors as well as managing our current ARUS field assessor team.
- He also provides support to the EW program through QC/QA inspections for retrofits done through the program.
- Conducts in field assessments all over the state of Colorado.



# OUR MISSION



## Education & Expertise

Equipping clients with comprehensive energy efficiency knowledge and insights from our certified experts.



## Tailored Solutions

Providing clients with personalized energy-efficiency-saving strategies and recommendations to meet their unique needs.



## Unwavering Support

Guiding clients throughout their energy-saving saving journeys, from assessments to implementation and beyond.

By empowering our clients with education, expertise, and ongoing support, ARUS dedicated to positively impacting communities through energy efficiency.

# Goal-Driven Assessment Process

- Advisor acts as a guide
- From an Idea to Installation

The idea may be as simple as a cold room



# Assessment Process

- Interview Customer
- Collect Home Data
- Compile Findings
- Identify Incentives



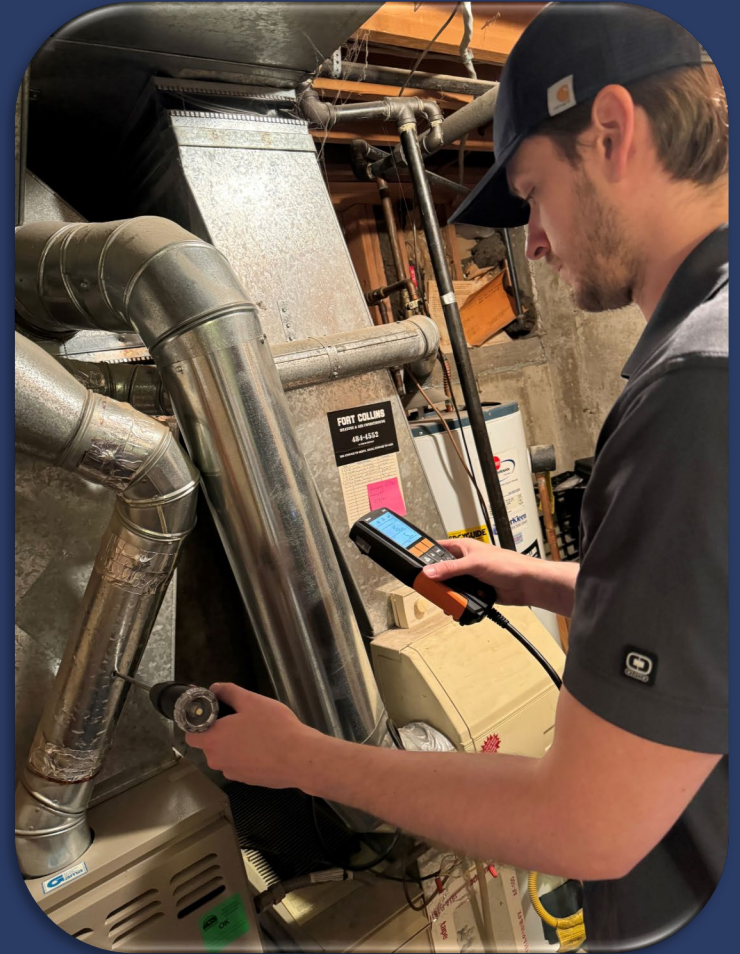


# Blower Door Testing



# Full Spectrum CAZ Testing

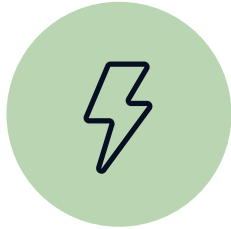
- Carbon Monoxide Testing
- Draft Pressure
- Static Pressure Testing
- Ambient CO Monitoring







# Scope of Services



Comprehensive energy  
assessments



Rebate and incentive



In depth advising sessions



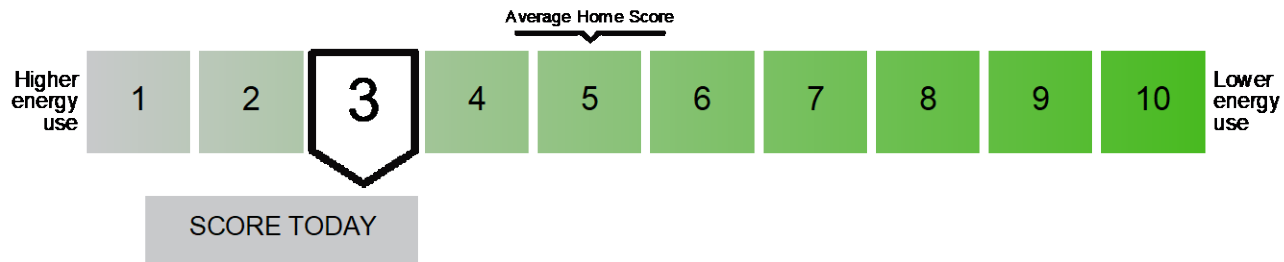
Home Energy Scores and Re-Scores  
Scores

ARUS Consulting delivers comprehensive residential energy services to help homeowners improve comfort, save reduce their environmental impact.

YEAR BUILT: 1900  
CONDITIONED FLOOR AREA: 1,692 FT<sup>2</sup>

225 Whedbee St  
Fort Collins CO 80524

SCORE TODAY **3**



The U.S. Department of Energy's Home Energy Score assesses the energy efficiency of a home based on its structure and heating, cooling, and hot water systems. For more information visit [HomeEnergyScore.gov](https://www.homeenergyscore.gov).

ASSESSMENT: Initial | Aug 24, 2023 | ID# 439721

# An Unbiased Third Party: Building Trust and Accountability

## Professionalism and Meticulousness

ARUS Consulting's unwavering commitment to professionalism and meticulous execution of its services builds trust with clients.

## Effective Communication

The company's dedication to clear, transparent, and responsive communication allows clients to feel informed and confident throughout the process.

## Extensive Expertise

ARUS Consulting's team of certified experts in BPI standards and the DOE's Home Energy Score brings unparalleled knowledge to every project.

## Proven Track Record

The company's outstanding success in energy efficiency programs, programs, such as Efficiency Works, Works, demonstrates our capabilities capabilities.

## We Are Not Salesmen

By communicating to the homeowner that ARUS does not make money off any retrofits they decide to move forward with, it helps to demonstrate we are there to truly truly help the customer make the best decision for their home.

## Efficiency Works Streamlined Contractor Work Order Ultimate Package

**Customer Information:**

Poling Chan	<b>Heat fuel:</b>	NG	<b>Auditor:</b> Chance Bertolami
2800 Claremont Dr	<b>DHW fuel:</b>	NG	<b>Phone #</b> (970) 966-3205
Fort Collins, CO 80526	<b>CFM<sub>50</sub></b>	1,850	
1/31/2024	<b>ACH<sub>50</sub></b>	6.6	<b>VOLUME</b> 16,713
970-481-7397	<b>HHI</b>	#VALUE!	Btu's/ft <sup>2</sup> /HDD <sub>65</sub>
poling_chan@hotmail.com	<b>COOLING</b>	#VALUE!	Btu's/ft <sup>2</sup> /CDD <sub>65</sub>

Measure	Qty.	unit	\$/unit	TOTAL	REBATE
Exterior Top Plates	77	lineal ft.	\$ 7.83	\$ 602.91	\$ -
Attic Vacuum (full)	1349	sq. ft.	\$ 1.48	\$ 1,996.52	\$ -
Attic Air Sealing	1349	sq. ft.	\$ 0.62	\$ 836.38	\$ -
Insulate Flat Attic R-60	1349	sq. ft.	\$ 2.66	\$ 3,588.34	\$ 1,038.73
Seal recessed lights (top hat)	5	each	\$ 32.00	\$ 160.00	\$ -
Attic Hatch & Dam	1	each	\$ 403.00	\$ 403.00	\$ -
Drywall repair (firtape)	28.5	sq. ft.	\$ 20.12	\$ 573.42	\$ -
Cantilevered Floor Dense Pack (less than 1.5 feet from ground, remove siding)	12	sq. ft.	\$ 16.90	\$ 202.80	\$ 13.92
Seal Garage to House Air Leaks	1	each	\$ 268.00	\$ 268.00	\$ -
Spray Foam Crawl Space Rim Joists	154	lineal ft.	\$ 7.37	\$ 1,134.98	\$ 178.64
Insulate Crawl Space Walls	1337	sq. ft.	\$ 7.37	\$ 9,853.69	\$ 1,550.92
Install Moisture/Soil Gas Barrier in Crawl Space	1337	sq. ft.	\$ 1.73	\$ 2,313.01	\$ -
Glue Moisture/Soil Gas Barrier to Stem Walls (per lineal foot)	154	lineal ft.	\$ 0.67	\$ 103.18	\$ -
Remove Batt Insulation from Crawl Space Walls	539	sq. ft.	\$ 1.48	\$ 797.72	\$ -
Duct sealing (high priority if bsmt or crawl depressurize)	1	each	\$ 201.00	\$ 201.00	\$ -
					\$ -
					\$ -
			<b>Totals:</b>	<b>\$ 23,034.95</b>	<b>\$ 2,782.21</b>
<b>Total Job Cost:</b>	<b>\$</b>	<b>23,034.95</b>			
<b>Applied Instant Rebate:</b>	<b>\$</b>	<b>2,782.21</b>			
<b>Total Paid by Homeowner (loan or cash):</b>	<b>\$</b>	<b>20,252.74</b>			

**Contractor Notes:**

## Contractor Bidding Assistance

SEPARATE BASE COST FROM ADD-ONS

DETAILED BREAKDOWN OF SCOPE OF WORK

EVIDENCE-BASED UPGRADE RECOMMENDATIONS

SIDE BY SIDE COMPARISON WITH MULTIPLE CONTRACTOR BIDS



# Tech data sheets

- Our assessors generate a "Tech Data Sheet" once the initial assessment has been completed.
- This data sheet details multiple measurements ranging from ACH-50, exact square footages of the home, cubic volume, insulation values, etc. This sheet contains over 100 different data points.
- This data sheet serves as a valuable resource to contractors doing energy retrofits for the customer.

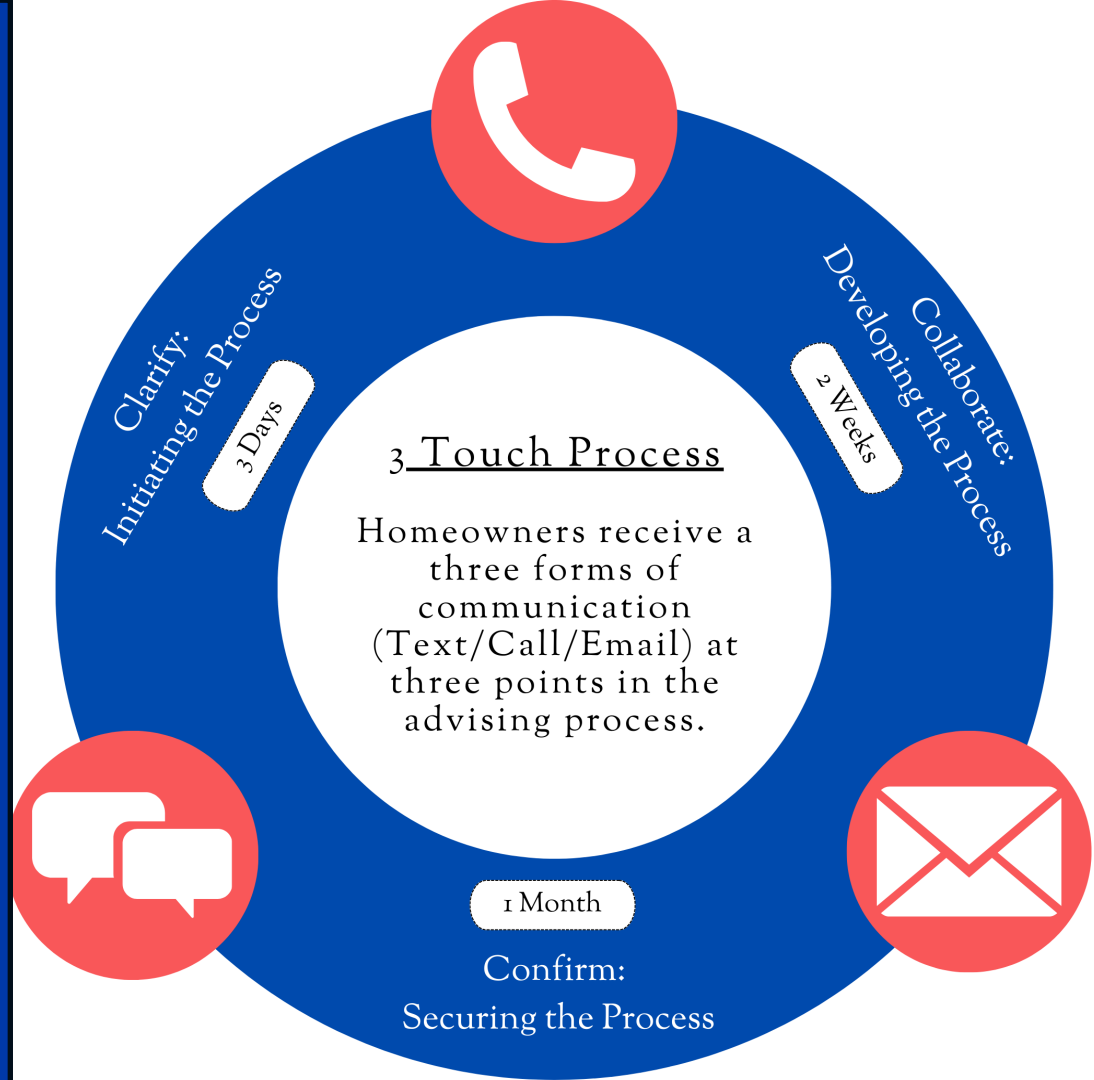
\*The Tech Data Sheet is attached to every report we send the customer\*

Audit Data					
This information is provided as a technical resource for professionals as energy improvements are completed on your home. The numbers may not be meaningful to you but they can be helpful to contractors performing energy efficiency upgrades in your home. Testing is required before and after many energy improvements. Please make this sheet available to contractors performing energy improvements.					
Homeowner Name(s)	Emily		Francis	Audit Type	EPIC Stream
Address	2437 Crabtree Dr		Fort Collins	CO	80521
Green Building Reg.#	CO10145667	Primary Heating Fuel	NG	DHW Fuel	NG
Phone 1	970-769-6446	Prior Certification #	448344	Secondary Heating Fuel	None
Primary Email	egfrancie@gmail.com				
Home Description:					
Year Built	1966	57	Years old	Remodel 1	
Audit Date	10/31/2023	Inside Temp	70	Outside Temp	55
Audit Time	9:00 AM				
House Faces	North				
Advisor Name	Chance Bertolami		Email	chanceb@arusconsulting.com	
Advisor Phone	(970) 966-3205				
Building Description					
(square footage and volume estimated from measurements and assessor records)					
Bedrooms	5	Floors above grade	2.0	n-factor (xcel energy front range)	11.282
Occupants	2	Conditioned Area	2,723	Estimated Volume	23,383
Abr. Grade Floor SF	1,599	Average Above Gr. Ceiling Hgt.	8.0	Crawl Area	0
Basement Area	676	Basement Ceiling Hgt.	8.0	Crawl Height	0.0
Slab-on-grade Area	448	Slab-on-grade Ceiling Hgt.	8.0	Crawl Wall Perimeter LF	0
Popcorn Ceilings	No	Floor Over Garage Area	0	Crawl Type	None
Total ceiling area	1,176	Accessible Cant Floor Area	52	Knee Wall Area 1	75
Flat Attic Area	1,176	Vault Area (Cathedral)	0	Vault Pitch (x/12)	0.0
Exterior Top Plate LF	87	Scissor Truss Area	0	Scissor Ceiling Pitch (x/12)	0.0
Scissor Truss ETP LF	0	Skylight Shaft Wall Area	0	Accessible Basement Rim Joist SF	0
Bathrooms over garage	0	Garage walls common to house (LF)	0	Returns over garage	0
Knee Wall Area 2	0	Knee Wall Area 3	0	Cant Floor (drop soffit)	0
Building Length		Building Width		Cant Floor Area (-1.5')	0
Building Air Tightness Testing					
CFM <sub>50</sub>	1,960	ACH <sub>50</sub>	5.0	XCEL ACH <sub>N</sub>	0.45
Blower Door Location	Front	Baseline		CFM <sub>50</sub> /FT <sup>2</sup> Floor Area	0.72
Advanced Pressure Diagnostics (open-a-door)					
Garage	(41)	CFM w/ door to garage open.	2,486	Garage	Attached
CFM <sub>50</sub> House/Garage	292	CFM <sub>50</sub> Zone/OUTSIDE	783		
CFM <sub>50</sub> Reduction Available	257	PERCENTAGE OF TOTAL LEAKAGE	13%		
Recommended Actions	Interface between house and garage must be air sealed.				
Pressure Diagnostics Notes					
ELA	262 Sq. Inches	1.8	Sq. Feet	16.2 by 16.2 inch square hole	
Nonreturn ELA (P.8 AC154)	156 Sq. Inches	1.1	Sq. Feet	12.5 by 12.5 inch square hole	

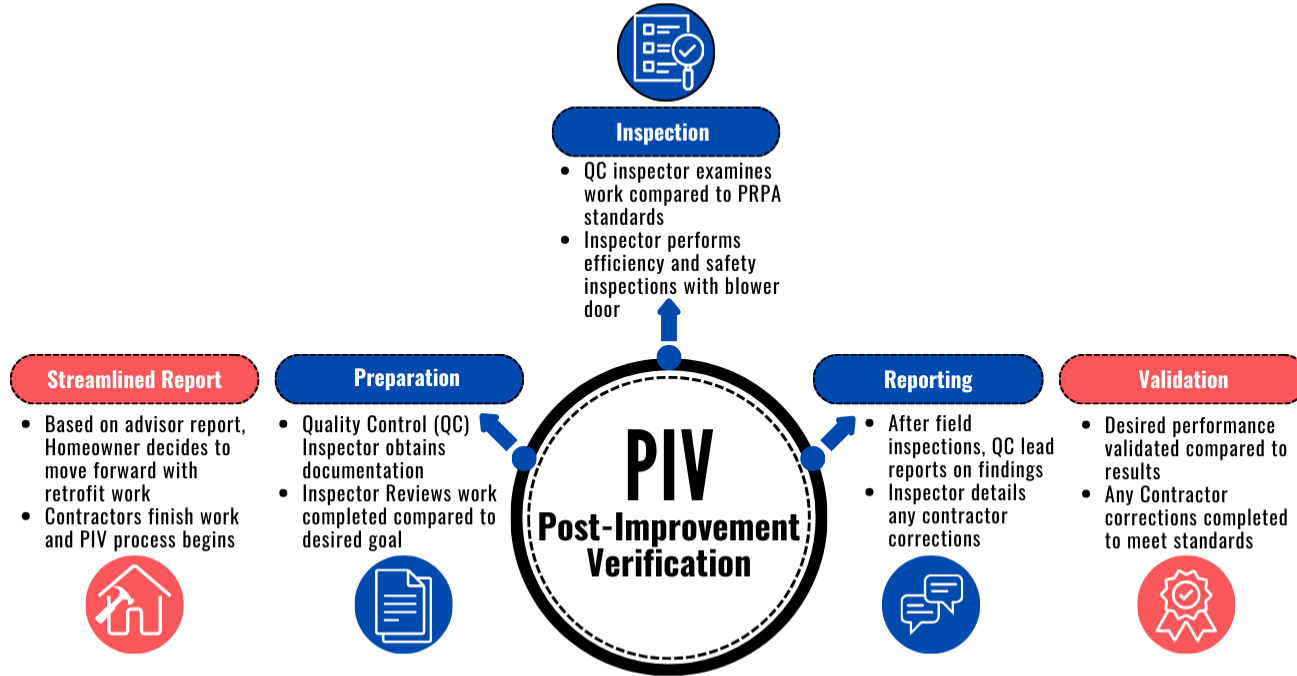
# ARUS CUSTOMER JOURNEY



# Comprehensive Customer Communication



# What about after work has been done?



# How does all of this help the Homeowner?

- Our assessors take the stress out of the energy retrofit process.
- Our data helps guide contractors to make the most quality install possible.
- In depth advising sessions ensure the homeowner is educating on best practices for the home.

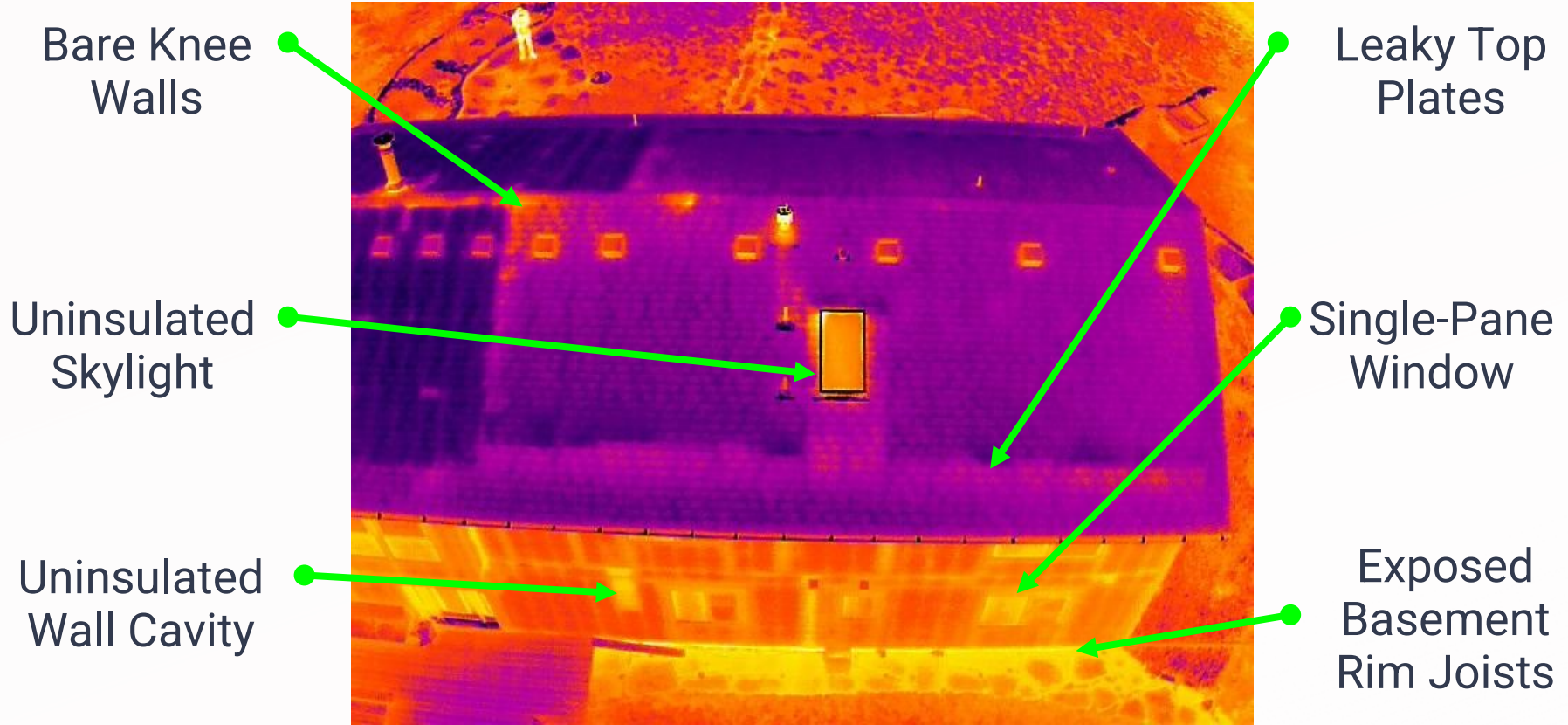




Just A Roof?



# The Interconnected House





# Examples:



Dirt Floor Crawl Space



Radon Mitigation/Crawl Space Insulation



# Attic Air Sealing/Insulation

467 Verdant Cir Longmont CO

☉ 39°NE (T) ☉ 40°10'41"N, 105°4'51"W ±36ft ▲ 5040ft



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471 Verdant Cir Longmont CO

☉ 293°NW (T) ☉ 40°10'41"N, 105°4'51"W ±13ft ▲ 5045ft

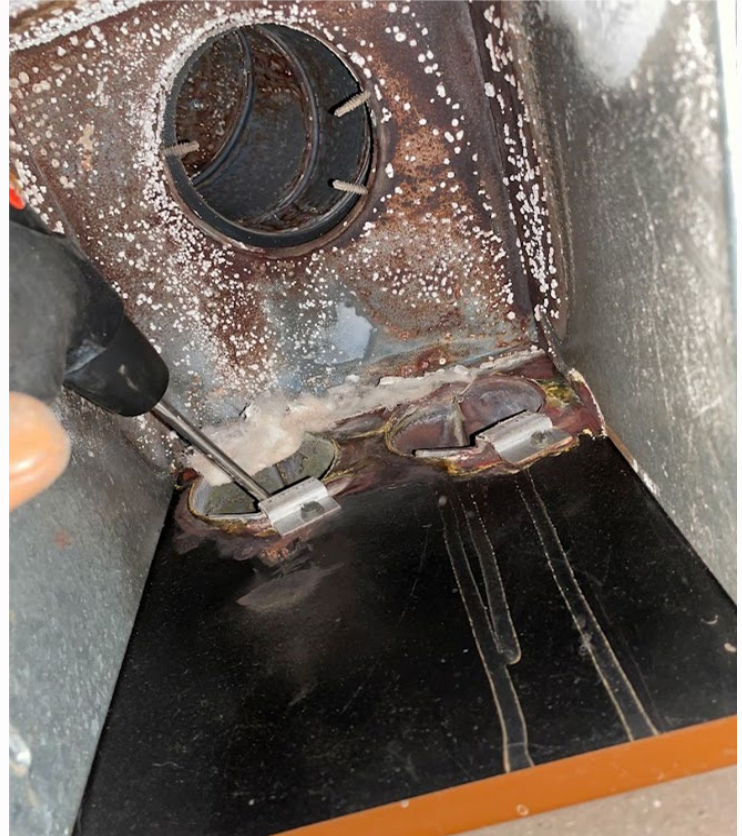


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# Health and Safety Examples:



Unsafe and Inefficient  
Appliances





# Questions/ Response



970-660-3464



efficiencyworks@arusconsulting.com



Arusconsulting.com



blueskytraining.com

