STATEMENT OF QUALIFICATIONS

RFQ 27-01-DEV-01

Energy Auditor Services for Cochise County
HOME Investment Partnerships Program Grant

Arizona Energy Management & Remodel, LLC

Founded 2001 • Building Science • Residential Energy Auditing • Housing Rehabilitation

602-595-6667 | office@azenergymanagement.com

Prepared for Cochise County Procurement Department and Development Services Department

September 2026

5.1.1 Statement of Qualifications

Qualifications Summary

Arizona Energy Management & Remodel, LLC (AEMR) offers Cochise County a senior, Arizona-based team with extensive experience in residential energy auditing, building diagnostics, housing rehabilitation, weatherization, and community-development programs. AEMR's approach is grounded in building science and focused on producing practical, implementation-ready findings that protect resident health and safety, improve energy performance, and help public and nonprofit housing programs make responsible use of limited rehabilitation resources.

28 Years Ken Pancost: residential energy-audit testing and reporting experience	**22 Years** Brandon LeBaron: construction and residential energy-auditing experience
BPI BA / EA / QCI Senior technical leadership exceeds the County's Building Analyst minimum	**Arizona-Focused** Experience with municipalities, counties, nonprofits, and statewide housing/weatherization programs

AEMR's relevant Arizona client experience includes the City of Tempe Sustainability & Resilience Division, Gila County Housing Services, Community Action Human Resources Agency (CAHRA), City of Casa Grande, City of Phoenix Neighborhood Services Department, Arizona Department of Housing, and AllThrive 365 (formerly Foundation for Senior Living). The two representative work samples selected for this SOQ are CAHRA and Gila County.

A. Experience and Qualifications of the Firm, Project Team, and Team Members

Firm Profile and History

Founded in 2001, Arizona Energy Management & Remodel, LLC (AEMR) is an Arizona-based construction and building-performance firm specializing in building science, energy efficiency, sustainability, forensic investigation, energy auditing, and retrofit/remodeling services for residential and commercial properties. AEMR has spent more than two decades supporting Arizona housing, weatherization, energy-efficiency, and community-development programs with practical field diagnostics and rehabilitation-focused recommendations.

AEMR's residential work is distinguished by the integration of field diagnostics with practical rehabilitation planning. Rather than treating the audit as a stand-alone inspection, AEMR uses observed conditions, diagnostic testing, equipment data, energy analysis, and health-and-safety findings to develop recommendations that can be translated into scopes of work and verified after implementation. This approach is well aligned with Cochise County's HOME-funded rehabilitation program, where technical findings must support safe, practical, and fundable improvements to occupied homes.

AEMR has performed comparable residential energy-auditing and housing/community-development support for Arizona municipalities, counties, nonprofit agencies, and state program partners. This concentration of work in Arizona provides familiarity with local housing stock, manufactured housing, desert-climate performance issues, rehabilitation constraints, program documentation, and the coordination required when serving residents through publicly supported housing programs.

Alignment with Cochise County Scope of Work

Cochise County Requirement	AEMR Relevant Qualification / Experience
Visual walk-through: HVAC, insulation, water heating, controls	Extensive residential audit and retrofit experience in single-family, multifamily, public housing, and manufactured housing; standardized field documentation and photographic records.
Whole-house air leakage / blower-door testing	BPI-certified auditors with decades of field experience using blower-door and pressure diagnostic equipment; representative CAHRA and Gila County projects include initial and final envelope leakage testing.
CO, combustion, ventilation, and safety testing	Experience with ambient and undiluted CO readings, flue-spillage testing, CAZ diagnostics, gas-leak/safety review, and ASHRAE 62.2 ventilation calculations as applicable to the residence.
Equipment and appliance inventory	Documentation of HVAC systems, water heaters, refrigerators, ranges, ventilation equipment, age/condition, nameplate data, and efficiency ratings.
Prioritized energy conservation measures	REM/Design modeling, Savings-to-Investment Ratio review, HVAC efficiency analysis, Manual J load calculations when needed, and development of implementation-ready scopes of work.
Written audit report and rehabilitation support	Standardized diagnostic reports, floor plans, photos, calculations, recommendations, proposed scopes, and post-work verification documentation.
Community-development / program implementation	Longstanding work with Arizona local governments, housing agencies, nonprofit service organizations, and statewide weatherization partners.

Certification and Federal Compliance

Ken Pancost holds BPI Building Analyst, BPI Energy Auditor, and BPI Quality Control Inspector certifications; Brandon LeBaron holds BPI Building Analyst and BPI Energy Auditor certifications. Current certification documentation is available upon request. AEMR is actively registered in SAM.gov and confirms that it has no exclusions. Verification will be provided to Cochise County as required.

Proposed Project Team

Ken W. Pancost — Technical Lead / Senior Energy Auditor

LLC Member • Senior Energy Consultant • Senior Energy Auditor | BPI Building Analyst, Energy Auditor & Quality Control Inspector Certified

Ken Pancost has been with AEMR since 2001 and brings more than 40 years of construction experience encompassing commercial and residential retrofit, new-home construction, public-housing retrofit, and manufactured housing. He also brings 28 years of experience conducting energy-audit testing and reporting in single-family and multifamily properties, including extensive use of building-performance diagnostic equipment and interpretation of test results.

Ken will serve as AEMR's senior technical authority for the Cochise County assignment. His leadership extends beyond individual project delivery: he serves as an Energy Out West Board Member and Trainer and as a member of the Arizona Department of Housing Technical Committee. These roles reinforce his practical understanding of residential building-performance standards, quality expectations, training, and the operating realities of Arizona housing and weatherization programs.

- **Project role:** senior technical direction; field assessment and diagnostic oversight; interpretation of building-performance findings; review of health-and-safety testing; review of prioritized energy conservation measures; and senior quality assurance of reports and deliverables.
- **Licenses/certifications:** B-3 General Remodeling & Repair Contractor; BPI Building Analyst; BPI Energy Auditor; BPI QCI; BPI Training & Testing Proctor with SWBSTC; AHERA Building Inspector; Lead Renovator; OSHA 30.
- **Industry leadership:** Energy Out West Board Member and Trainer; Arizona Department of Housing Technical Committee Member.

Brandon LeBaron — Senior Project Manager / Energy Auditor

BPI Building Analyst & Energy Auditor Certified

Brandon LeBaron brings 22 years of experience in construction and residential energy auditing, including commercial/residential retrofit, new-home construction, public-housing retrofit, and manufactured housing. He has extensive experience conducting diagnostic testing and preparing energy-audit documentation for single-family and multifamily properties and has an in-depth understanding of the equipment and interpretation required for defensible building-performance assessments.

Brandon will provide day-to-day project management while remaining directly involved in technical delivery. The CAHRA and Gila County sample documentation identifies Brandon as the BPI-credentialed technician performing blower-door testing, demonstrating that the proposed project manager has hands-on experience with the same field work Cochise County is procuring.

- **Project role:** County coordination and scheduling; residential field assessments; blower-door and pressure diagnostics; equipment evaluation; interpretation of field findings; development of prioritized recommendations; and audit report preparation/review.
- **Certifications:** BPI Building Analyst; BPI Energy Auditor; AHERA Building Inspector; Lead Renovator; OSHA 30.
- **Additional qualification:** Energy Out West Trainer.

Carrie L. Pancost — Program Manager / Administrator

LLC Member • Program Manager / Administrator

Carrie Pancost has been with AEMR since 2001 and brings nearly 30 years of construction-industry experience encompassing commercial and residential retrofit, new-home construction, public-housing retrofit, and manufactured housing. She also brings 22 years of experience interpreting energy-audit testing and reporting for single-family and multifamily properties.

Carrie's role provides the bridge between technical field delivery and program administration. She will support County communication, scheduling, documentation control, report tracking, and implementation coordination so that audits move efficiently from appointment through final deliverable and into the larger housing rehabilitation process.

- **Project role:** program coordination and administrative oversight; County communication; scheduling; documentation management; report tracking; and support for program implementation activities, including coordination related to the revolving loan component.

Relevant Project Experience

AEMR's strongest differentiator for Cochise County is the depth of comparable work performed within Arizona housing, weatherization, and community-development programs. The two projects below are selected as representative work samples because they demonstrate the audit-to-rehabilitation workflow in detail. Additional Arizona clients are listed afterward to demonstrate breadth of experience and references.

Community Action Human Resources Agency (CAHRA) — Residential Weatherization & Energy Auditing

Florence / Pinal County, Arizona | Representative assignment: 2024–2025

AEMR provides residential diagnostic evaluation, energy-auditing, energy modeling, rehabilitation scope development, and post-improvement verification in support of CAHRA-administered housing and weatherization activities. A representative manufactured-home assignment demonstrates use of Arizona Department of Housing Weatherization Assistance Program documentation and a complete building-science workflow.

- Visual assessment and documentation of insulation, HVAC, water heating, windows, doors, appliances, ventilation, and other building characteristics.
- Blower-door testing, room/zone pressure testing, pressure-pan/duct diagnostics, ASHRAE ventilation evaluation, and combustion/CO safety procedures as applicable.
- Digital floor-plan documentation, HVAC efficiency analysis, REM/Design energy modeling, ACCA Manual J load calculations, and verification of proposed HVAC performance ratings.

- Development of prioritized measures and an implementation-ready scope including duct work, manufactured-home belly/floor repair, ventilation, HVAC, water-heater, lighting, appliance, and shading measures as appropriate to the home.
- Post-work testing and documentation to verify building-performance improvement.

Reference: Monica Cardona, Housing Programs Coordinator, CAHRA | 520-466-1112 | mcardona@cahra.org

Gila County Housing Services — Residential Energy Auditing & Weatherization

Gila County, Arizona | Representative assignment: 2024

AEMR has provided residential energy-auditing, building-performance diagnostic, and weatherization support services for Gila County Housing Services. A representative manufactured-home assignment in Miami, Arizona demonstrates the integration of field diagnostics, health-and-safety testing, energy analysis, scope development, and final verification within an Arizona county-administered housing program.

- Residential diagnostic evaluation of insulation, HVAC systems, water heating, appliances, windows, ventilation, pressure relationships, duct systems, and general building conditions.
- Initial/final blower-door testing, pressure-pan diagnostics, duct-leakage evaluation, room-pressure testing, CAZ testing, and ASHRAE 62.2 ventilation analysis.
- Combustion-safety and carbon-monoxide testing on the gas-fired domestic water heater, including ambient/undiluted CO readings and flue-spillage testing.
- REM/Design analysis and prioritization of energy conservation measures using cost-effectiveness/SIR criteria.
- Development of an actionable work scope including complete duct sealing, floor-system repair, pressure relief, ventilation, CO/smoke protection, filters, and HVAC diagnostics.

Reference: Carrie Nawrocki, Gila County Housing Services Program Coordinator | 928-812-3495 | cnawrocki@gilacountyaz.gov

Additional Arizona Housing and Community-Development Experience

Organization / Program	Relevant Experience	Reference
City of Casa Grande Community Development	Across each of these Arizona organizations, AEMR has provided residential energy-auditing, weatherization, housing-rehabilitation, and community-development support. Services have included building-performance diagnostics, energy-efficiency and health-and-safety assessments, practical energy conservation and rehabilitation recommendations, reporting and documentation, and coordination with public- and nonprofit-sector program staff. This experience reflects AEMR's ability to combine technical building-science expertise with practical program delivery that preserves housing, improves resident safety and comfort, and makes effective use of limited community-development resources.	Mary Allen, Community Development Manager
City of Phoenix – Neighborhood Services Department		Omar Clark, Weatherization Project Manager
City of Tempe – Sustainability & Resilience Division		Andy Escobar, Energy Equity Coordinator
Arizona Department of Housing		Travis Ekenberg, Weatherization Program Manager
AllThrive 365 (formerly Foundation for Senior Living)		Katie Martin, Administrator

Past Performance and References

The following contacts have first-hand knowledge of AEMR's work supporting Arizona housing, energy-efficiency, weatherization, sustainability, and community-development programs. The two detailed representative work samples in this SOQ are CAHRA and Gila County; the remaining references demonstrate the broader depth of AEMR's Arizona program experience.

Organization	Contact / Title	Role in Referenced Work	Phone	Email
Gila County	**Carrie Nawrocki** Housing Services Program Coordinator	Housing program coordinator with firsthand knowledge of AEMR's housing/weatherization work	928-812-3495	cnawrocki@gilacountyaz.gov
Community Action Human Resources Agency (CAHRA)	**Monica Cardona** Housing Programs Coordinator	Program coordinator with firsthand knowledge of AEMR's housing/weatherization work	520-466-1112	mcardona@cahra.org
City of Casa Grande	**Mary Allen** Community Development Manager	Community Development program contact with first-hand knowledge of AEMR's housing/weatherization work	520-560-2272	MKAllen@casagrandeaz.gov
City of Phoenix – Neighborhood Services Department	**Omar Clark** Weatherization Project Manager	Weatherization project manager with firsthand knowledge of AEMR's housing/weatherization work	602-262-7369	omar.clark@phoenix.gov
City of Tempe – Sustainability & Resilience Division	**Andy Escobar** Energy Equity Coordinator	Program contact with firsthand knowledge of AEMR's housing/weatherization work	480-350-8860	andy_escobar@tempe.gov
Arizona Department of Housing	**Travis Ekenberg** Weatherization Program Manager	State weatherization program contact with firsthand knowledge of AEMR's housing/weatherization work	602-771-1071	travis.ekenberg@azhousing.gov
AllThrive 365 (formerly FSL)	**Katie Martin** Administrator	Program/administrative contact with firsthand knowledge of AEMR's work	602-285-0505 ext. 543	kmartin@fsl.org

B. Project Understanding and Approach / Overall Vision

Project Understanding

Cochise County's HOME Investment Partnerships Program energy-auditing assignment is not simply a series of isolated building inspections. The energy auditor must provide technically sound residential assessments that protect resident health and safety, support compliance with applicable energy-efficiency requirements, identify practical rehabilitation opportunities, and produce documentation that County staff can use to make informed program and funding decisions.

AEMR understands that the value of the audit is measured by what happens after the site visit. Diagnostic findings must be consistent and defensible; health-and-safety concerns must be clearly identified; energy conservation measures must be prioritized in a way that reflects real housing conditions; and reports must be usable by the County, rehabilitation partners, and program administrators. AEMR's experience in Arizona housing and weatherization programs has been built around this audit-to-implementation model.

Critical Success Factors

1. Resident Health and Safety

Combustion safety, carbon-monoxide exposure, ventilation, moisture/pressure relationships, and other hazardous conditions must be considered before energy savings. AEMR will document safety findings clearly and identify conditions requiring prompt correction.

2. Consistent, Defensible Field Testing

Each residence should be evaluated using a repeatable methodology, calibrated diagnostic equipment, standardized forms, photographs, and documented test conditions so that results can withstand technical and program review.

3. Practical, Prioritized Recommendations

Recommendations must be implementable within an occupied housing rehabilitation program. AEMR will prioritize measures based on health/safety, program necessity, energy impact, cost-effectiveness, constructability, durability, and resident benefit.

4. Coordination with Rehabilitation Activities

Audit findings must connect directly to the work that follows. AEMR will translate findings into clear scopes/recommendations, identify dependencies among measures, and coordinate technical information so rehabilitation decisions can be made efficiently.

5. Clear Program Documentation

HOME-funded work requires organized records. AEMR will maintain consistent property documentation, testing records, photographs, equipment information, calculations, recommendations, and report tracking.

6. Responsive Service Across Cochise County

Scheduling, travel, resident coordination, and communication must be managed carefully when homes are geographically dispersed. AEMR will use centralized scheduling and program administration to keep audits and deliverables moving without unnecessary disruption to residents or County staff.

Proposed Approach

Phase 1 — Mobilization and Program Alignment	Conduct kickoff with County staff; confirm communication protocols, scheduling, required forms, reporting expectations, applicable program standards, and procedures for urgent health-and-safety findings.
Phase 2 — Pre-Audit Review and Scheduling	Review available property/program information; coordinate access; prepare the auditor for known conditions; and confirm the appropriate diagnostic plan for each home.
Phase 3 — On-Site Residential Energy Assessment	Perform the visual walk-through and document HVAC, insulation, water heating, controls, building envelope, ventilation, appliances/equipment, and relevant housing conditions. Capture standardized photographs and equipment/nameplate information.
Phase 4 — Diagnostic and Safety Testing	Perform blower-door testing where appropriate; pressure/duct diagnostics as warranted; carbon-monoxide, combustion-safety, draft/spillage, and ventilation testing applicable to the home; and document test conditions and results.
Phase 5 — Analysis and Prioritization	Interpret field data; evaluate equipment age/condition/efficiency; develop practical energy conservation measures; and prioritize recommended actions. Where needed, use energy modeling, ventilation calculations, HVAC load analysis, or other supporting calculations to strengthen decision-making.
Phase 6 — Written Audit Report and Rehabilitation Coordination	Prepare a concise, property-specific report documenting the audit, safety findings, diagnostic outcomes, equipment inventory, photographs, and prioritized energy conservation measures. Communicate findings in a format that supports rehabilitation scoping and County review.
Phase 7 — Program / Revolving Loan Implementation Support	Assist County staff with the technical information needed to support marketing and implementation of the revolving loan funds. Support may include plain-language descriptions of recommended measures, explanation of anticipated resident benefits, audit-to-rehabilitation documentation, and coordination with program staff as projects move toward implementation.
Phase 8 — Quality Control and Follow-Up	Apply senior technical review to reports and calculations, resolve questions promptly, and perform follow-up or final diagnostic verification when included in the County's implementation process.

Technology and Innovative Practices

AEMR's technology strategy is practical: use proven tools to improve accuracy, consistency, documentation, and implementation—not technology for its own sake. Based on the methods demonstrated in AEMR's representative Arizona projects, the following tools and practices may be incorporated as appropriate to each Cochise County residence:

- **Digital field documentation and photography:** Standardized electronic forms and photographs capture building conditions, equipment data, diagnostic results, and supporting evidence at the residence, reducing transcription errors and improving report consistency.
- **Blower-door and pressure diagnostics:** Electronic blower-door testing and pressure measurements quantify whole-home leakage and help distinguish envelope, duct, and pressure-balance issues.
- **Combustion-safety / CO diagnostics:** Digital instrumentation and standardized safety procedures support defensible assessment of combustion appliances, ambient CO, draft/spillage, and related resident safety conditions.
- **ASHRAE 62.2 ventilation analysis:** Diagnostic leakage and local-exhaust information can be incorporated into ventilation calculations to determine appropriate mechanical ventilation requirements rather than relying on assumptions.
- **REM/Design energy analysis and SIR prioritization:** Energy modeling can compare existing and improved conditions, estimate energy impact, and support cost-effectiveness prioritization when appropriate to program requirements.
- **ACCA Manual J / HVAC load analysis:** Where HVAC replacement is contemplated, load calculations can be used to support appropriate sizing instead of relying solely on the size of existing equipment.
- **Digital floor plans and equipment inventories:** Floor-plan tools and systematic equipment documentation strengthen audit records, improve calculation inputs, and give rehabilitation teams clearer information for implementation.
- **Senior QA/QC review:** Ken Pancost's BPI QCI background provides an additional level of technical oversight for diagnostic interpretation, recommendations, and final reporting.

Quality Assurance / Quality Control

AEMR will apply a disciplined QA/QC process designed to produce complete, consistent, and useful audit deliverables. Field data will be reviewed for completeness before report finalization; diagnostic results will be checked for internal consistency; photographs and equipment documentation will be matched to findings; and recommendations will be reviewed for technical reasonableness and implementation relevance. Senior technical review will be applied when conditions are unusual, when health-and-safety issues require escalation, or when calculations materially affect rehabilitation decisions.

Overall Vision

Technical expertise with a community-development purpose

AEMR's overall vision is to give Cochise County more than a completed audit form. Each assessment should function as a reliable decision tool—protecting residents, documenting existing conditions, identifying the most important improvements, and helping the County translate limited HOME and revolving-loan resources into durable housing benefits. AEMR's Arizona experience with counties, municipalities, nonprofits, and statewide housing/weatherization partners positions the team to understand both the technical work and the community-development purpose behind it.

Appendix A — Representative Work Samples

To keep the submission focused and responsive, AEMR includes selected representative pages from two comparable Arizona housing/weatherization assignments: CAHRA and Gila County. These excerpts demonstrate the audit-to-implementation workflow discussed in the SOQ, including field assessment, diagnostic testing, energy analysis, scope development, and post-work verification. The other listed references remain in the experience and reference sections to demonstrate the breadth of AEMR's Arizona community-development work.

A-1. CAHRA Representative Residential Weatherization / Energy Audit

Selected representative excerpts are provided below. Resident identifiers are shown only as they appear in the source work sample supplied by AEMR.

A-1.1 Residential Diagnostic Evaluation - auditor and dwelling characteristics

Arizona Department of Housing

Arizona Department of Housing - Weatherization Assistance Program

PRINT FORM

RESIDENTIAL DIAGNOSTIC EVALUATION

Client Name: | Phone#: | Database#: | Agency Internal #:

Client Address:

City: Florence | State: AZ | Zip Code: 85132 | Does Client OWN the Property that will receive weatherization? (●) Yes ( ) No

Prepared for Subgrantee: CAHRA *(click arrow to select subgrantee)*

Initial Auditor: Brandon LeBaron | Final Auditor:

Initial Audit Date: 08/14/2024 | Final Audit Date: | Job Completed?: ( ) Yes ( ) No | Completion Date: | ( ) Walk -Away

Agency Inspector *(if different from auditor)*: | Crew Foreman:

Client Information & House Characteristics

Housing/Project Type: Mobile/Manufactured Home

Mobile Home Dimensions:

Length: 48

Width: 23.75

Total Outrigger Width: 3

(click arrow to select Housing/ProjectType or manually enter if "other")

Primary Heating Fuel Type *(check all that apply):*

( ) Propane ( ) Natural Gas (●) Electric ( ) Other:

Utility Provider *(check all that apply):*

(●) APS ( ) SRP ( ) SWG ( ) TEP ( ) UniSource Gas ( ) UniSource Electric ( ) Other:

# of Bedrooms: 2 | # of Floors: 1 | # of Corners: 4

Foundation: Open Crawl Space | Roof Type: Flat

Number in Household: 1 | Year of Construction: 1978

Conditioned Area: 1140 (ft^2) **x** Avg. Ceiling Height: 8 **=** Volume: 9,120 (ft^3)

Parking: ( ) Carport ( ) Garage: (●) N/A

Combustion Appliances *(check all that apply):*

( ) Furnace ( ) Water Heater ( ) Dryer ( ) Fireplace ( ) Stove ( ) Other:

Dryer Vent:

Is it vented to the outside? During Initial Audit: (●) Yes ( ) No During Final Audit: ( ) Yes ( ) No

Kitchen Exhaust:

Window in Kitchen:	Range Hood Ducted to the Ouside:	Exhaust CFM:

A-1.2 Residential Diagnostic Evaluation - blower door, pressure-pan and diagnostic testing

Blower Door Test

	Flow Ring	House Pressure		Fan Pressure		Flow (CFM50)	
Initial Whole House CFM50	A	-50	Pa	126	Pa	2008	
Whole House CFM50 after Duct Sealing:			Pa		Pa		CFM50 Reduction after Duct Sealing: 2008
Final Whole House CFM50			Pa		Pa		CFM50 Reduction at Final:

Notes:

Pressure Pan Test

	Register Location:	Initial Pressure:	Final Pressure:		Register Location:	Initial Pressure:	Final Pressure:		Register Location:	Initial Pressure:	Final Pressure:
1.	(S) Living 1	1.9		6.	(R) Living 2	12.0		11.	(S) Kitchen	0.7	
2.	(S) Living 2	1.2		7.	(R) Bed 1	11.4		12	(S) Dining	2.0	
3.	(S) Bed 1	2.0		8.	(R) M-Bed	25.5		13	(R) Kitchen	20.8	
4.	(S) M-Bed	1.5		9.	(S) M-Bath	3.0		14	(R) Dining	7.2	
5.	(R) Living 1	10.2		10.	(S) Hall Bath	3.0		15.			

Estimated Duct Leakage at Initial Audit and How it was Determined:

1120cfm with the duct leakage calculator.

Notes:

(S)= Supply locations & (R)= Return locations.

Combustion Safety

Indoor Ambient Air: *(Maximum allowable levels 9 PPM)* Undiluted Flue: *(Tested at 5 minutes of main burner operation.)*

A-1.3 ASHRAE 62.2 ventilation and airflow testing

Client: _____ **Date:** 8/14/24 – 12/10/24

ASHRAE 62.2 2016

Initial

	Yes	No	Recirc		Yes	No		Yes	No		
Kitchen fan	X			Window	X		Ducted to outside	X		CFM	75
M-Bath Fan		X		Window	X		Ducted to outside			CFM	
Hall Bath Fan		X		Window	X		Ducted to outside			CFM	
Bath 3 fan				Window			Ducted to outside			CFM	

Post

	Yes	No	Recirc		Yes	No		Yes	No		
Kitchen fan	X			Window	X		Ducted to outside	X		CFM	75
M-Bath Fan		X		Window	X		Ducted to outside			CFM	
Hall Bath Fan	X			Window	X		Ducted to outside	X		CFM	78
Bath 3 fan				Window			Ducted to outside			CFM	

ASHRAE Test	Location	Flow Ring	Fan Pressure	Fan Flow
After Fan Replacement	Hall Bath	E-2	2.8	35

ASHRAE Calculator= 32.7cfm

HVAC TESP TEST

Inches of water column (IWC)	Supply		Return		Total	
Initial		IWC		IWC		IWC
Final		IWC		IWC		IWC

A-1.4 Initial blower-door / envelope leakage report

Envelope Leakage Test

T·E·C THE ENERGY CONSERVATORY

Testing Company:

Name: Arizona Energy Management
Address: PO Box 83478
Phoenix , AZ 85071
Phone: 602-595-6667

Technician:

Name: Brandon LeBaron
Credentials: BPI ID #5011760
Email: b.lebaron@azenergymanagement.com

Building Information:

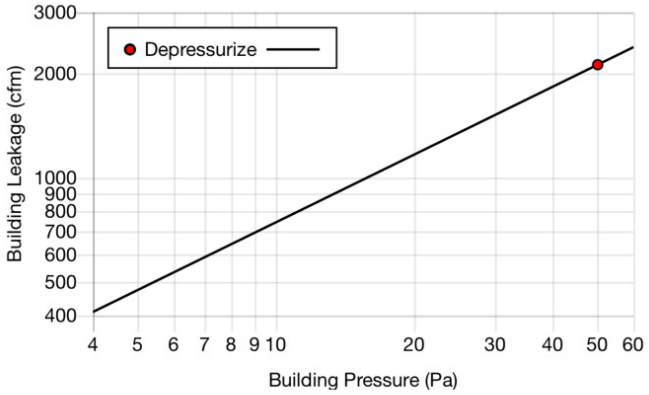
Project ID: [redacted]
Address: [redacted]
Florence, AZ 85132
Year Built: 1978
Geo-Tag Data: Latitude: [redacted]
Longitude: [redacted]
Timestamp: 2024-08-14 13:20:29

Customer Information:

Name: [redacted]
Address: [redacted]
Florence, AZ 85132
Phone: [redacted]

Measured Leakage: 2,115.3 CFM50

Test ID:	WAP Initial Blower Door Report	
Purpose of Test:	Envelope (RESNET 1 Pt)	
Measured ACH50:	13.92	Effective Leakage Area: 116.3 in²
Building Volume:	9,120.0 ft³	Enclosure Surface Area: 1,140.0 ft²
Coefficient (C):	166.4	Exponent (n): 0.650 (assumed)
Test Standard:	RESNET 380 One-Point	Test Mode: Depressurize
Test Characteristics:	Indoor Temp: 78 °F	Outdoor Temp: 102 °F
	Altitude: 1,460.0 ft	Time Average Period: 10 seconds
Test Date and Time:	2024-08-14 13:33:48	10% Adjustment Applied: No



Envelope Leakage Test

Testing Company:

Name: Arizona Energy Management
Address: PO Box 83478
Phoenix , AZ 85071
Phone: 602-595-6667

Technician:

Name: Brandon LeBaron
Credentials: BPI ID #5011760
Email: b.lebaron@azenergymanagement.com

Building Information:

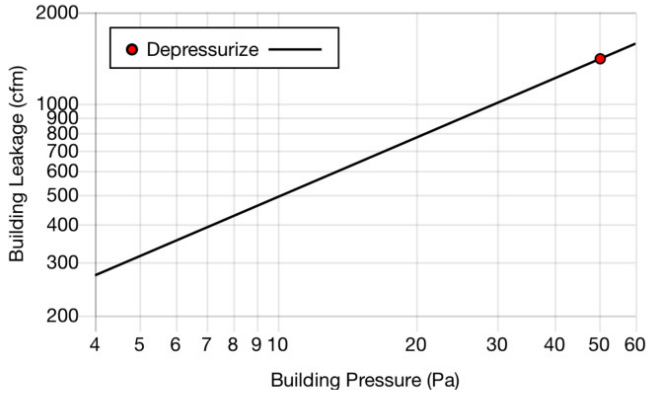
Project ID: [redacted]
Address: [redacted]
Florence, AZ 85132
Year Built: 1978
Geo-Tag Data: Latitude: [redacted]
Longitude: [redacted]
Timestamp: 2024-08-14 13:20:29

Customer Information:

Name: [redacted]
Address: [redacted]
Florence, AZ 85132
Phone: [redacted]

Measured Leakage: 1,401.2 CFM50

Test ID:	WAP Final Blower Door Report	
Purpose of Test:	Envelope (RESNET 1 Pt)	
Measured ACH50:	9.22	Effective Leakage Area: 77.1 in²
Building Volume:	9,120.0 ft³	Enclosure Surface Area: 1,140.0 ft²
Coefficient (C):	110.2	Exponent (n): 0.650 (assumed)
Test Standard:	RESNET 380 One-Point	Test Mode: Depressurize
Test Characteristics:	Indoor Temp: 65 °F	Outdoor Temp: 56 °F
	Altitude: 1,460.0 ft	Time Average Period: 10 seconds
Test Date and Time:	2024-12-10 10:49:49	10% Adjustment Applied: No



A-1.6 REM/Design improvement analysis and modeled energy savings

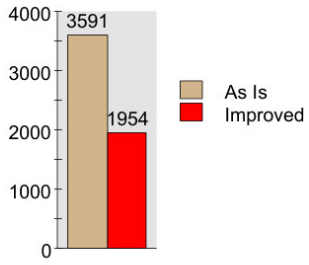
IMPROVEMENT ANALYSIS REPORT

Building Name:	CAHRA	Date:	January 27, 2025
Owner's Name:		Builder's Name:	ADOH
Property		Weather Site:	Casa Grande, AZ
Address:	Florence, AZ 85132	File Name:	BL-Mobile home-16.2.blg

Energy Costs ($/yr)

End-Use	As Is	With All Improvements	Savings
Heating	1483	373	1109
Cooling	950	526	424
Hot Water	314	314	0
Lights and Appliances	848	743	105
Photovoltaics	-0	-0	0
Service Charge	0	0	0
TOTAL	3594	1956	1638

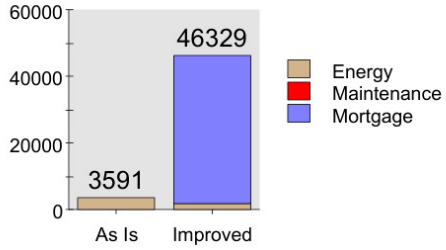
Total Costs ($/yr)



Information For Lenders and Appraisers

Installed Cost of Improvements ($)	44375
Cost Weighted Life of Measure (Years)	20
Mortgage Term (Years)	1
Mortgage Rate (%)	0.000
Downpayment (%)	0.000
Expected Annual Energy Savings ($)	1638
Expected Annual Maintenance Costs ($)	0
Expected Annual Savings ($)	1638
Increased Annual Mortgage Costs ($)	44375
Net Present Value of Savings ($)	-52506
Expected Annual Cash Flow ($)	-42737

Cost Comparison ($/yr)



REM/Design - Residential Energy Analysis Software v16.0.2

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A-1.7 Proposed scope of work translating audit findings into rehabilitation measures

3/14/2020
Updated

CAHRA
PROPOSED SCOPE OF WORK

Client Name: _____ **Address:** _____
Work Order: _____ Florence, AZ 85132
Audit: 8/14/2024 **Phone:** _____

Audit	Perform all necessary auditing, testing and documentation.				
	Travel				
	QCI				
	Lead Test NA (1978)				
Sunscreens	Install approximately 137.5sqft of sunscreens.				
Insulation	Insulate and repair MH belly at approximately 100sqft.				
Ductwork	Cap off floor return locations and install a new central return system. Install new supply plenum at the air handler. Perform a complete duct seal.				
HVAC	Replace the existing split system with new heat pump split system. Provide AZEM with manual J & AHRI certificate.				
Envelope	NA				
Press Relief	Install pressure relief for (2) bedrooms. (Tamarack)				
Baseload	**LED Bulbs**	**QTY**	10	Provide (10) APS donated LED Bulbs.	
	Appliance	**KWH**	972	2001, 21cuft, Top Freezer	
LCNC	**Return Air Filters**	**QTY**	12	Provide (1) year supply of return filters.	
HSD	**CO/Smoke**	**QTY**	1	Install in a central location	
	ASHRAE	**CFM**	1	Hall bathroom. New Install.	
	DWH	Install WH insulation wrap and insulate the water lines.			

Client Approval of Proposed Scope of Work:

Homeowner Signature: _____ Date: _____

Notice to Proceed with Proposed Scope of Work:

Homeowner Signature: _____ Date: _____

Scope of Work Added, Modified or NOT Performed

Work Completed:

Homeowner Signature: _____ Date: _____

A-2. Gila County Representative Residential Energy Audit / Weatherization Project

Appendix Strategy

No work-sample packets are included for the other references. Casa Grande, Phoenix NSD, Tempe, Arizona Department of Housing, and AllThrive 365 remain in the experience/reference sections to demonstrate breadth of comparable Arizona work, while CAHRA and Gila County provide the detailed technical evidence.

Selected representative excerpts are provided below to demonstrate comparable county-administered residential energy-auditing and weatherization work.

A-2.1 Residential Diagnostic Evaluation - auditor and dwelling characteristics

Arizona Department of Housing

Arizona Department of Housing - Weatherization Assistance Program

PRINT FORM

RESIDENTIAL DIAGNOSTIC EVALUATION

Client Name: [redacted] Phone#: [redacted] Database#: Agency Internal #:

Client Address: [redacted]

City: Miami State: AZ Zip Code: 85539 Does Client OWN the Property that will receive weatherization? (●) Yes ( ) No

Prepared for Subgrantee: GILA COUNTY *(click arrow to select subgrantee)*

Initial Auditor: Brandon Lebaron Final Auditor:

Initial Audit Date: 04/10/2024 Final Audit Date: Job Completed?: ( ) Yes ( ) No Completion Date: ( ) Walk -Away

Agency Inspector *(if different from auditor)*: [redacted] Crew Foreman:

Client Information & House Characteristics

Housing/Project Type: Mobile/Manufactured Home

Mobile Home Dimensions:

Length: 60'

Width: 13'10"

Total Outrigger Width: 3

(click arrow to select Housing/ProjectType or manually enter if "other")

Primary Heating Fuel Type *(check all that apply):*

( ) Propane ( ) Natural Gas (●) Electric ( ) Other:

Utility Provider *(check all that apply):*

(●) APS ( ) SRP (●) SWG ( ) TEP ( ) UniSource Gas ( ) UniSource Electric ( ) Other:

# of Bedrooms: 2 # of Floors: 1 # of Corners: 4

Foundation: Open Crawl Space Roof Type:

Number in Household: 1 Year of Construction: 1973

Conditioned Area: 830 (ft^2) **x** Avg. Ceiling Height: 7.4 **=** Volume: 6,142 (ft^3)

Parking: ( ) Carport ( ) Garage: (●) N/A

Combustion Appliances *(check all that apply):*

( ) Furnace (●) Water Heater ( ) Dryer ( ) Fireplace ( ) Stove ( ) Other:

Dryer Vent:

Is it vented to the outside? During Initial Audit: (●) Yes ( ) No During Final Audit: ( ) Yes ( ) No

Kitchen Exhaust:

Window in Kitchen:	Range Hood Ducted to the Ouside:	Exhaust CFM:

Arizona Department of Housing - Weatherization Assistance Program Form Updated 8/24/23 Page 1 of 13

A-2.2 Pressure diagnostics, duct leakage and room/CAZ testing

Client: [redacted] **Date:** 4/10/2024 – 8/26/2024

Pressure Diagnostics

INFILTRATION LEAKAGE TEST

Pressure Diagnostic Test	Flow Ring	House Pressure	Fan Pressure	Flow @ 50pa	Reduction
Initial whole house CFM50	A	-50	65	1460	
Post Duct Sealing	A	-50	44	1206	254
Post Envelope Sealing					
Building leakage reduction					254

HVAC DUCT LEAKAGE TEST

#	Register	Initial	Post	#	Register	Initial	Post	#	Register	Initial	Post
1	Bedroom-1	3.2	0.1								
2	Hall Bathroom	3.1	0.3								
3	Kitchen	2.0	0.3								
4	Living Room-1	2.2	0.6								
5	Living Room-2	1.8	0.6								
6	M-Bedroom	1.9	0.5								
7	Return	21.8	3.1								
	Aver. Press. Pan	5.14	Est. Duct Leakage	700	Aver. Press. Pan		Est. Duct Leakage				

BLOWER DOOR PRESSURE MAPPING

Zone	Initial	Post	Zone	Initial	Post	Zone	Initial	Post
Floor	42.4	42.5						

HVAC PRESSURE MAPPING

Test	Room	Initial	Post	Final	C/O Source
Dominant duct leakage	Main Body	1.8	-0.2	-0.2	
Room pressure	Beroom-1	No door	7.2	3.7	
Room pressure	M-Bedroom	2.6	5.5	2.0	
Room pressure					
Room pressure					
Room pressure					
CAZ test	DWH Closet	0.4	0.0	0.0	DWH
CAZ test					
CAZ test					

HOME PERFORMANCE WITH ENERGY STAR

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A-2.3 Combustion-safety, carbon-monoxide and flue-spillage testing

Client: [redacted] **Date:** 4/10/2024 – 8/26/2024

Combustion Safety Testing

Combustion Appliances (check all that apply):

Furnace		DHW	X	Dryer		Fireplace		Range		Other

Check for gas leaks

	All Electric	X	None Found:		Problems Found:

Ambient CO Readings

Maximum Allowable Levels 9 PPM	Initial Reading	After Servicing	New Installation
Furnace or space heater room:	HP PPM	PPM	PPM
Water heater room:	0 PPM	PPM	PPM
In kitchen after 5 min. oven operation:	Electric PPM	PPM	PPM
Near supply air registers:	HP PPM	PPM	PPM
Other:	NA PPM	PPM	PPM

Undiluted CO Readings

Maximum allowable level is 100 PPM	Initial reading	After servicing	New installation
Furnace or space heater flue:	HP PPM	PPM	PPM
Water heater flue:	37 PPM	PPM	PPM
Oven vent:	Electric PPM	PPM	PPM
Other:	NA PPM	PPM	PPM

Furnace

Location: Interior Hall Closet
Input Kbtu/hr.: Heat Pump
Source and amount of combustion air
Interior ___ Cubic Feet ___
Exterior ___ High ___ Low: ___
Comments:

Water heater

Location: Exterior Closet
Input Kbtu/hr.: 30
Source and amount of combustion air
Interior ___ Cubic Feet ___
Exterior X High 39 Low 39
Comments:

Flue Spillage Test

Furnace		Pass	Fail	
Water heater	X	Pass	Fail	
Other: ___		Pass	Fail	

A-2.4 Initial blower-door / envelope leakage report

Envelope Leakage Test

Testing Company:

Name: Arizona Energy Management
Address: PO Box 83478
Phoenix , AZ 85071
Phone: 602-595-6667

Technician:

Name: Brandon LeBaron
Credentials: BPI ID #5011760
Email: b.lebaron@azenergymanagement.com

Building Information:

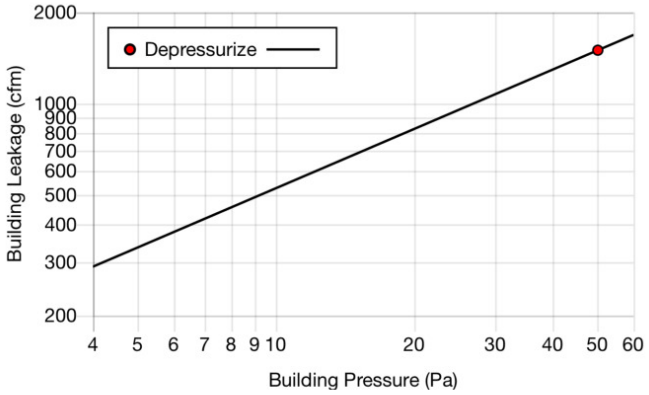
Project ID: [redacted]
Address: [redacted]
Miami, AZ 85539
Year Built: 1973
Geo-Tag Data: Latitude: [redacted]
Longitude: -[redacted]
Timestamp: 2024-04-10 16:05:30

Customer Information:

Name: [redacted]
Address: [redacted]
Miami, AZ 85539
[redacted]

Measured Leakage: 1,497.0 CFM50

Test ID:	WAP Initial Blower Door Report	
Purpose of Test:	50 Pa Env. Leakage	
Measured ACH50:	14.62	Effective Leakage Area: 82.3 in²
Building Volume:	6,142.0 ft³	Enclosure Surface Area: 830.0 ft²
Coefficient (C):	117.7	Exponent (n): 0.650 (assumed)
Test Standard:	RESNET 380 One-Point	Test Mode: Depressurize
Test Characteristics:	Indoor Temp: 75 °F	Outdoor Temp: 77 °F
	Altitude: 3,458.0 ft	Time Average Period: 10 seconds
Test Date and Time:	2024-04-10 16:13:57	



Envelope Leakage Test

Testing Company:

Name: Arizona Energy Management
Address: PO Box 83478
Phoenix , AZ 85071
Phone: 602-595-6667

Technician:

Name: Brandon LeBaron
Credentials: BPI ID #5011760
Email: b.lebaron@azenergymanagement.com

Building Information:

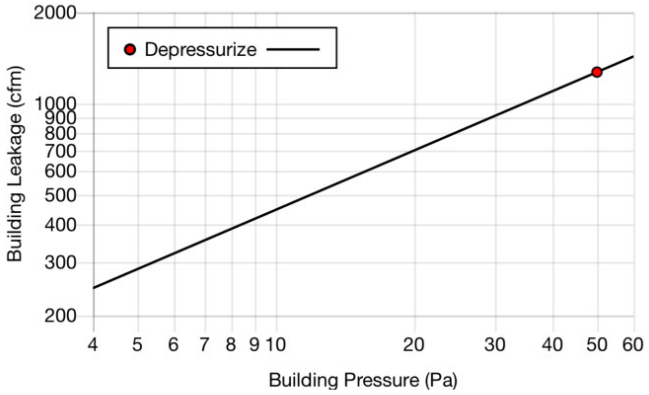
Project ID: [redacted]
Address: [redacted]
Miami, AZ 85539
Year Built: 1973
Geo-Tag Data: Latitude: [redacted]
Longitude: -[redacted]
Timestamp: 2024-04-10 16:05:30

Customer Information:

Name: [redacted]
Address: [redacted]
Miami, AZ 85539
Phone: [redacted]

Measured Leakage: 1,271.4 CFM50

Test ID:	WAP Final Blower Door Report	
Purpose of Test:	Envelope (RESNET 1 Pt)	
Measured ACH50:	12.42	Effective Leakage Area: 69.9 in²
Building Volume:	6,142.0 ft³	Enclosure Surface Area: 830.0 ft²
Coefficient (C):	100.0	Exponent (n): 0.650 (assumed)
Test Standard:	RESNET 380 One-Point	Test Mode: Depressurize
Test Characteristics:	Indoor Temp: 76 °F	Outdoor Temp: 93 °F
	Altitude: 3,458.0 ft	Time Average Period: 10 seconds
Test Date and Time:	2024-08-26 11:02:27	10% Adjustment Applied: No



A-2.6 REM/Design improvement analysis and modeled energy savings

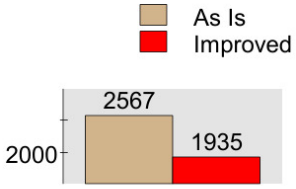
IMPROVEMENT ANALYSIS REPORT

Building Name:	Gila County	Date:	April 24, 2024
Owner's Name:	[redacted]	Builder's Name:	ADOH
Property		Weather Site:	Globe, AZ
Address:	, AZ 85539	File Name:	[redacted]Mobile home.blg

Energy Costs ($/yr)

End-Use	As Is	With All Improvements	Savings
Heating	958	397	560
Cooling	349	310	38
Hot Water	272	272	0
Lights and Appliances	930	896	34
Photovoltaics	-0	-0	0
Service Charge	60	60	0
TOTAL	2569	1936	632

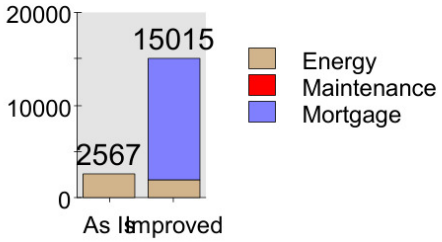
Total Costs ($/yr)



Information For Lenders and Appraisers

Installed Cost of Improvements ($)	13080
Cost Weighted Life of Measure (Years)	25
Mortgage Term (Years)	1
Mortgage Rate (%)	0.000
Downpayment (%)	0.000
Expected Annual Energy Savings ($)	632
Expected Annual Maintenance Costs ($)	0
Expected Annual Savings ($)	632
Increased Annual Mortgage Costs ($)	13080
Net Present Value of Savings ($)	-1865
Expected Annual Cash Flow ($)	-12448

Cost Comparison ($/yr)



REM/Design - Residential Energy Analysis Software v16.0.2

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A-2.7 Proposed scope of work translating audit findings into rehabilitation measures

8/29/2019
Updated

Gila County
PROPOSED SCOPE OF WORK

Client Name: _____ **Address:** _____
Work Order: _____ Miami, AZ 85539
Audit: 4/10/2024 **Phone:** _____

Audit	Perform all necessary auditing, testing and documentation.				
Lead Test	Built: 1973				
Sunscreens	NA - Does not meet SIR.				
Ductwork	Perform complete duct seal to include the furnace closet. Install end caps.				
Insulation	Realign batt and Tyvek the floor system @ 830 SQFT.				
HVAC	See HSD				
Envelope	Cap & seal old ceiling returns & cooler supply registers.				
Press Relief	Install pressure relief door insert for (1) bedroom door.				
Baseload	**LED Bulbs**	**QTY**	8	Provide (8) LED bulbs.	
	Appliance	**kWh**	314	2016 20cuft-No recommendations	
LCNC	**Return Air Filters**	**QTY**	12	Provide (12) RA filters per return.	
	Weatherstrip	**QTY**	NA		
HSD	**CO/Smoke**	**QTY**	1	Centrally located.	
	ASHRAE	**CFM**	1	New install in hall bath.	
	Registers	Install a grill above the A/H closet.			
	Registers	Replace the floor supply registers.			
	HVAC Service	Perform a comprehensive system diagnostics & provide recommendations.			

Comments:

Contact

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Arizona Energy Management & Remodel, LLC
Office: 602-595-6667 | Cell: 602-723-0186 | k.pancost@azenergymanagement.com