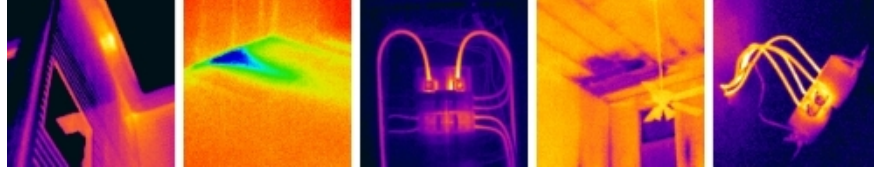


David A. Andersen & Associates

Home Inspection Report



123 N. Red St., Nashville TN, 37026
Inspection prepared for: Joe Smith
Inspection Date: 6/4/2008 Time: 9:30 a.m.
Age: 1937 Size: 1742 ft.²
Weather: sunny, hot

Inspector: David A. Andersen
HI License #40, IR Level I Thermographer# 1958
4772 Chester Harris Rd., Woodlawn TN, 37191
Phone: (615) 406-6808
Email: Anderseninspections@charter.net

State of Tennessee Home Inspection Law, Limitations and Exclusions

A home inspection is intended to assist in evaluation of the overall condition of the dwelling. The content of this report describes the condition of the inspected property at the time and date of the inspection. It should be noted that any mechanical device can fail at any time and its life expectancy cannot be determined. This report should not be considered a warranty or insurance of any kind. A home inspection will not reveal every problem that exists or ever could exist, but only those material defects observed on the day of the inspection.

This report identifies and describes the components of the property as prescribed in the Standards of Practice set by the Tennessee Commissioner of Commerce and Insurance.

This inspection is limited as a **non-intrusive inspection** of visible and accessible components only. No component will be inspected if there is a potential for damage to the property or of potential injury to the inspector. A copy of these Standards is available at: <http://www.state.tn.us/commerce//boards/hic/index.html>

“Tennessee Home Inspector License Act of 2005”, T.C.A. § 62-6-301 : The report addresses only systems or components inspected that, in the opinion of the inspector, **is significantly deficient** or near the end of the system or component's service life. This report does not address environmental hazards, including: Lead-based paint; Radon; Asbestos; Cockroaches; Rodents; Pesticides; Treated lumber; Fungus; Mercury; Carbon monoxide; or Other similar environmental hazards. This report also does not address wood destroying insects and organisms and does not address subterranean systems or system components (operational or non-operational), including: Sewage disposal; Water supply; or Fuel storage or delivery.

General exclusions. Home Inspectors are not required to report on: life expectancy of any component or system; the cause(s) of the need for a repair; the methods, materials and costs of correction; the suitability of the property for any specialized use; compliance or noncompliance with adopted codes, ordinances, statutes, regulatory requirements or restrictions; market value of the property or its marketability; the advisability or inadvisability of the purchase of the property; any component or system that was not inspected; the presence or absence of pests such as wood damage and organisms, rodents, or insects; cosmetic damage, underground items or items not permanently installed.

Home Inspectors are not required to: offer warranties or guarantees of any kind; calculate the strength, adequacy, or efficiency of any system or component; enter any area or perform any procedure that may damage the property or its components or be dangerous to or adversely affect the health or safety of the home inspector or other persons; operate any system or component that is shut down or otherwise inoperable; operate any system or component that does not respond to normal operating controls; move personal items, panels, furniture, equipment, plant life, soil, snow, ice, or debris that obstructs access or visibility; determine the effectiveness of any system installed to control or remove suspected hazardous substances; predict future condition, including but not limited to failure of components; project operating costs of components; evaluate acoustical characteristics of any system or component; or inspect special equipment or address issues that are not listed as components to be inspected by the Commissioner. Home Inspectors shall not: offer or perform any act or service contrary to law; or offer or perform engineering, architectural, plumbing, electrical or any other job function requiring a license in the state of Tennessee for the same client unless the client is advised thereof and consents thereto.

The scope of any ancillary inspections (outside the basic home inspection) are limited to that which is provided in this written report. No standard for testing is accepted or implied. The test results are based on the readings obtained from the test equipment operated in accordance with the manufacturer's operating procedures. These results may not be definitive and have not been verified. The results are to be utilized as indicators of adverse conditions based upon differential measurements taken. These are non-intrusive inspection devices intended to extend our ability to detect conditions within this limited non-intrusive inspection. Our goal is to provide testing which verifies latent conditions which would otherwise be inaccessible without destructive and intrusive inspection procedures which is outside the scope of this inspection.

General Information

1. Persons in Attendance

Buyers • Buyers Agent • The client present for a post inspection walk-through.

2. Occupancy

The Property is occupied

Inspection of the Exterior grounds includes the surface drainage, grading, some fencing, gates, sidewalks, patios, driveways, and retaining walls adjacent to the structure. This inspection is not intended to address or include any geological conditions or site stability information. For information concerning these conditions, a geologist or soils engineer should be consulted. Any reference to grade is limited to only areas around the exterior of the exposed foundation or exterior walls. This inspection is visual in nature and does not attempt to determine drainage performance of the site or the condition of any underground piping, including municipal water and sewer service piping or septic systems. The grading of the soil should allow for surface and roof water to flow away from the foundation.

All windows are inspected but not all are operated. Windows considered an important source of ventilation such as in the kitchen and bathrooms will be operated. Determining the condition of insulated glass windows is not always possible due to temperature, weather and lighting conditions. Check with owners for further information.

Exterior

1. Driveway Condition

Materials: Concrete

2. Walkway Conditions

Materials: Concrete

3. Exterior Door Conditions

Materials: wood door • without storm door

Observations: A door is required with direct access to the exterior (not through the garage). This door should be a minimum 3 ft. hinged door. All doors require keyless operation from the interior. [IRC 311. (x)] • There are keyed deadbolts installed at both front and rear entry doors. This is a potential safety concern in the event of a fire as these deadbolts cannot be easily operated in the event of emergency. Keyless deadbolts should be installed at these locations or the keys left in the locks while the building is occupied. At least two avenues of unrestricted regress are required besides the garage entry.

- This condition adversely affects the habitability of the dwelling.

4. Porch Condition

Materials: Concrete

5. Stair Condition

Observations: riser differential exceeds 3/8 of an inch standard; potential trip hazard • This condition requires subsequent observation.

6. Lot Grade and Drainage Conditions



Negative grade below the deck towards the foundation. Potential source of moisture intrusion to the basement. Discharging gutter adjacent to this location.

7. Gutter Condition

Materials: aluminum

Observations: Debris blocked downspouts observed, suggest cleaning gutters and downspouts, which should be a regular part of maintenance. • Downspout discharges water at foundation. Recommend installation of extension to ensure proper drainage away from foundation to prevent seepage. • Gutters are sagging, improperly pitched. • Suggest gutters be cleaned out as a part of a normal maintenance routine to ensure proper drainage. • This component does not function as intended.



Indication of back flowing gutter; tree debris.



Inadequate downspout diversion potential against foundation. Monitor.



No gutter downspout diversion to remove rainwater away from the foundation.



Gutters clogged with tree debris. Improper nailing of the rolled roofing.

8. Trim Conditions

Materials: aluminum, Wood

9. Exterior Wall Siding Condition

Materials: Brick, Metal Siding

Observations: Brick has been painted. • cracking with displacement observed. • This condition requires subsequent observation.



Settling crack with lateral movement. No indication of current activity.



Historical reference.



Minor step crack.

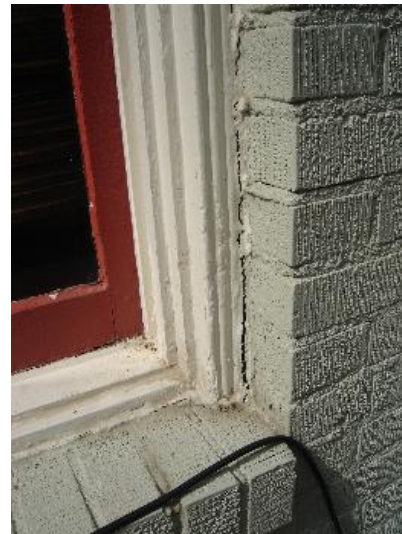
10. Window/Frame Conditions

Materials: double hung/single pane • without screens

Observations: Peeling paint observed, suggest scraping and painting as necessary. • There is no openable window in a bathroom. This is the only source of ventilation in this bathroom. This window should be operational to control moisture or a ventilation fan should be installed. • This condition requires repair.



Paint maintenance required. Potential lead paint issue.



Inadequate seal between window open and wall. Potential source of moisture intrusion and window damage. A source of water to the interior wall.

11. Electric Meter Condition

Location: Right Side

12. Gas Meter Condition

Location: Left Side

13. Exterior Faucet Conditions

Location: Left Side

Observations: No water flow, may be turned off inside or removed from service, recommend review. • This component does not function as intended.

14. Deck Condition

Materials: Wood

Observations: Deck railing is noncompliant as it offers "climbing bars" which will allow children to climb over railing. Recommend replacement by railing with vertical spacing not exceeding 4". • Spacing between guardrails appears larger than 4 inches which may allow small children to crawl through the space. Client may wish to reduce spacing as a child safety enhancement. • Joists hangers or ledger boards are not installed; joists are end nailed • This condition adversely affects the habitability of the dwelling.



Balusters spacing exceeds 4 inch requirement.



Irregular step riser; potential trip hazard.



Deck joist installation inadequate. No joist hangers are installed. No ledger board installed.



Joists are end nailed with three small pneumatic nails. Deck failure potential under load. Joist hanger installation required.

15. Foundation Conditions

Type: Basement/Crawlspace

The inspection of the roof system includes a visual examination of the surface materials, connections, penetrations and roof drainage systems. We examine the roofing material for damage and deterioration. We examine the roof system for possible leaks, damage and conditions that suggest limited remaining service life. We may offer opinions concerning repair and/or replacement if warranted. Opinions stated herein concerning the roofing material are based on the general condition of the roof system as evidenced by our visual inspection. These do not constitute a warranty that the roof is or will remain, free of leaks. All roofing systems require annual maintenance. Failure to perform routine

maintenance will usually result in leaks and accelerated deterioration of the roof covering and flashings. When provided, our estimates of the roof's life expectancy are based on the assumption that the roof will be properly maintained during that period. The only way to determine whether a roof is absolutely watertight is to observe it during a prolonged rainfall. Many times, this situation is not present during the inspection and we cannot confirm this condition. We suggest that an annual inspection of the Attic area be performed where accessible to identify if any leaks are evident. The inspector will not: A. Walk on any roof surface. B. Predict the service life expectancy.

Roof

1. Methods Used to Inspect Roof

How Inspected: The roof was examined from the ground using binoculars and from the interior of the attic space.

2. Roof Material/Condition

Materials: Asphalt Composition Shingles • Clay Tile • Rolled roofing

Observations: Roof appeared serviceable at time of inspection. No prediction of future performance or warranties can be offered.



Inadequate overlap of rolled roofing material layers for a low pitched roof. No drip edge flashing installed.



Wind damage at the leading edge of the rolled roofing. Inadequate flashing.



Deterioration of roofing cement at nail heads. Potential water damage to the sub-roofing.

3. Roof Flashing Condition

Observations: Flashings are mastic covered, recommend monitoring all through the roof vents and projections as a part of routine maintenance.



No drip edge or rake flashing installed. Exposed oriented strand board; will deteriorate from water damage.



Nonstandard roof shingle to wall application.

4. Roof Surface Conditions

Observations: **Lifting at laps observed.** • This condition requires repair.

Chimney

1. Chimney Comments

Type: Masonry Fireplace Chimney

2. Chimney Condition

Observations: Brick and mortar deterioration observed; repair advised.



Chimney brick requires pointing; counter flashing/flashings not visible.

3. Flue Condition

Materials: Clay

Observations: No damper installed; efficiency concern as conditioned air will draft a the chimney during winter months.



No flue damper in the fireplace. Efficiency concern.

4. Flashing Conditions

Observations: Not observable • Flashing is covered with roofing cement

5. Spark Arrester/Raincap Condition

No rain cap or screen installed

Observations: No chimney rain cap observed, suggest installing a chimney raincap to prevent the entrance of the elements and local wildlife and to preserve the life of the chimney as well as minimize maintenance. • This condition requires repair.

Inspection of stand alone refrigerators, freezers and built-in ice makers are outside the scope of the inspection. No opinion is offered as to the adequacy of dishwasher operation. Ovens, self or continuous cleaning operations, cooking functions, clocks, timing devices, lights and thermostat accuracy are not tested during this inspection. Appliances are not moved during the inspection to inspect below or behind them. Portable dishwashers are not inspected, as they require connection to facilitate testing and are sometimes not left with the home.

Kitchen

1. Dishwasher Condition

Observations: The dishwasher is not secured to the counter top. This may allow the appliance to tip outwards with a load of dishes over the open door (or a small child leaning on the open door). There are often sharp objects in this appliance and is a safety concern. The appliance should be properly secured. • This condition requires repair.



Dishwasher not secured to the countertop. Appliance falls outwards with weight on the door. Personal injury concern.

2. Kitchen Electrical Condition

Observations: No GFCI protection present, suggest installing GFCI protected receptacles for safety. • This condition adversely affects the habitability of the dwelling.

3. Stove Cooktop Conditions

Style: Electric

Observations: operated

4. Oven Conditions

Style: Electric

Observations: operated

5. Hood Fan Condition

Recirculating

Observations: operated

6. Microwave

Observations: operated

7. Garbage Disposal

Observations: Garbage disposal is noisy.

Bathroom

1. Bathroom Location

Location: Main Floor, Upper Level

2. Bathroom Windows Condition

Style: Double Hung

Observations: Window painted shut. • An operable window are power ventilation is required in bath areas. • This condition requires repair.

3. Electrical Condition

Observations: GFCI in place and operational

4. Toilet Condition

Observations: A loose toilet and/or loose/soft sub-flooring was observed. This can indicate damage to the sub-flooring beneath the fixture and floor covering. This condition is not visible or fully accessible to the inspector without destructive investigation. Client is advised to seek further review by a licensed plumbing contractor prior to closing for repairs/replacement as required. • This condition requires repair.



First floor toilet extremely loose at the floor. Remove and examined subflooring and replace wax seal. This toilet did not properly flush. Waste drain restriction or toilet restriction present.

5. Bathroom Exhaust Fan Condition

Observations: None observed, we recommend an exhaust fan be installed in all bathrooms for proper ventilation and moisture control.

6. Sink Faucet Condition

Observations: Low water flow observed. Loss of pressure noted when two or more fixtures are operated at the same time. • This condition warrants further investigation by a specialist.

7. Tub Faucet Condition

Observations: Faucet is loose in the wall. • This condition requires repair.



First floor bathtub filled stall pulls from the wall. Moisture intrusion into the wall. Shower valve diverter knob fell off.

8. Shower Faucet Condition

Observations: Faucet handle is missing. • The shower valve is not secured to the interior wall framing as required. • This condition requires repair. • Low water flow observed. Loss of pressure noted when two or more fixtures are operated at the same time. • The fill spout at the 1st floor bathtub is separated from the tub surround. Water will infiltrate into the finished wall and below the bathtub through this pipe penetration. This pipe should be caulked to prevent this occurrence.

Laundry Area

Inspection of the Interior includes a visual inspection of the readily accessible portions of the walls, ceilings, floors, doors, cabinetry, countertops, steps, stairways, balconies and railings. Please note that a representative sample of the accessible windows and electrical receptacles are inspected. These features are examined for proper function, excessive wear and general state of repair. In some cases, all or portions of these components may not be visible because of furnishings and personal items. In these cases some of the items may not be inspected. The condition of walls behind wall coverings, paneling and furnishings cannot be judged. Only the general condition of visible portions of floors is included in this inspection. As a general rule, cosmetic deficiencies are considered normal wear and tear and are not reported. Determining the source of odors or like conditions is not a part of this inspection. Floor covering damage or stains may be hidden by furniture. The condition of floors underlying floor coverings is not inspected.

Other Interior Areas

1. Wall Condition

Observations: patched areas • small cracking

2. Ceiling Conditions

Observations: Active leaks observed at the time of inspection. • This condition requires repair.



Moisture leakage in the living room ceiling from a leaking HVAC unit above.



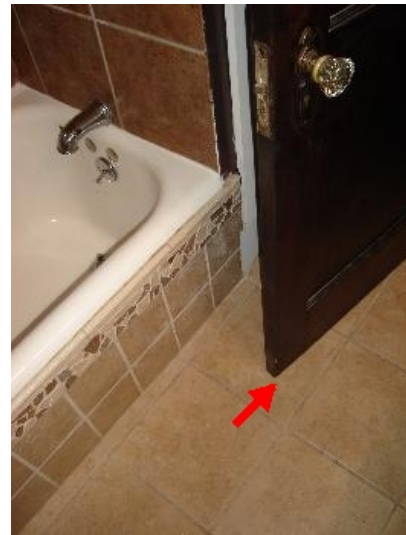
Structural design of the second-floor creates an increase cooling load on HVAC equipment. Construction design must be taken into account when appropriately sizing the equipment. All walls, and ceilings are against unconditioned spaces. There is no attic space above to adequately ventilate the heat above the ceiling.

3. Door Conditions

Observations: Door does not latch, needs adjustment. Due to the age of construction, this can be expected. Repair of doors may reduce their antique value. Selective repair is advised.



First floor bathroom entry door does not close, latch, or secure. Privacy is expected at bathroom locations.



First floor bathroom entry door strikes the tile floor when open. May potentially damage the door.



The knee wall access door to HVAC equipment is hollow core and not insulated. Excessive heat build up in the attic area will increase the cooling load from heat transfer through the uninsulated door.

4. Stair Conditions

Observations: Stairs are narrow. • Stairs have inadequate headroom, this is a safety concern. • missing railing • Stair header at the bottom of the basement stair in less than 6'8".



No handrail at the top risers of the second-floor stair system.



Stair system is less than 3 feet wide. Staircase header less than 6'8" high.

Due to liability insurance issues, no fires were started in fireplaces. If a pilot is lit at the time of inspection, gas logs will be operated. This inspection addresses safety conditions of the visible components. It does not evaluate the performance or the structural integrity of the interior chimney/flue. These components can be evaluated with photographic equipment by a chimney specialist. Fireplace: All fireplaces should be cleaned and inspected on a regular basis to make sure that no cracks have developed. Large fires in the firebox can overheat the firebox and flue liners, sometimes resulting in internal damage.

Fireplace

1. Fireplace Location

Location: The fireplace is located in the Family Room. • excessive creosote build up • damper nonoperational

2. Firepalce Coments

Observations: There is no damper installed in the chimney flue. • This component does not function as intended.

Examination of the electrical system includes a visual inspection of the exposed and accessible branch circuits, wiring, service panel, over current protection devices, lighting fixture, switches, and receptacles. Service equipment, proper grounding, wiring methods and bonding are focal points. We inspect for adverse conditions such as lack of grounding and bonding, over-fusing, exposed wiring, open-air wire splices, reverse polarity and defective GFCI's. The hidden nature of the electrical wiring prevents inspection of every length of wire or their connections. Operation of time clock motors are not verified. Telephone, video, cable, audio, security systems, intercoms and other low voltage systems were not included in this inspection unless specifically noted. We recommend you have the seller or a specialist demonstrate the serviceability or locations of these systems to you if necessary. Any electrical repairs attempted by anyone other than a licensed electrician should be approached with caution. The power to the entire house should be turned off prior to beginning any repair efforts, no matter how trivial the repair may seem. Aluminum wiring requires periodic inspection and maintenance by a licensed electrician. Inoperative light fixtures often lack bulbs or have dead bulbs installed. Light bulbs are not changed during the inspection, due to time constraints.

Electrical

1. Electrical panel Condition

Type / Materials: 200 amp • Service entrance cables are copper • Service Ground connections visible; below meter can

Observations: **circuit breakers not labeled**

2. Main Panel Comments



Main electric service panel not labeled as required.

3. Sub Panelcomments

Observations: Location: interior • Location: exterior • **Double tapping observed. Double tapping (i.e. 2 wires on a single pole breaker) can add to the load of the affected circuit causing a possible overload and tripping breakers, or result in loose connections and overheating of the breaker or connections. Ideally, doubled-up circuits should be independently fused. • Effective January 1, 2002, NFPA 70, The National Electrical Code (NEC), Section 210-12, requires that all branch circuits supplying 125V, single phase, 15- and 20-ampere outlets installed in dwelling unit bedrooms be protected by an arc-fault Circuit interrupter. • Sheet metal screws were used to secure the panel cover. This type screw may drill through an electrical conductor creating an electrical shock hazard. Flat point screws are required. • The panel was not opened due to safty concerns to the inspector.**



Double tapped electrical supply at the new outdoor HVAC unit. Liquid tight connector not properly installed; cross threaded.



Double tapped HVAC disconnect panel. Electrical wiring overheated. No fuse protection for wiring/HVAC equipment on either HVAC subpanel.



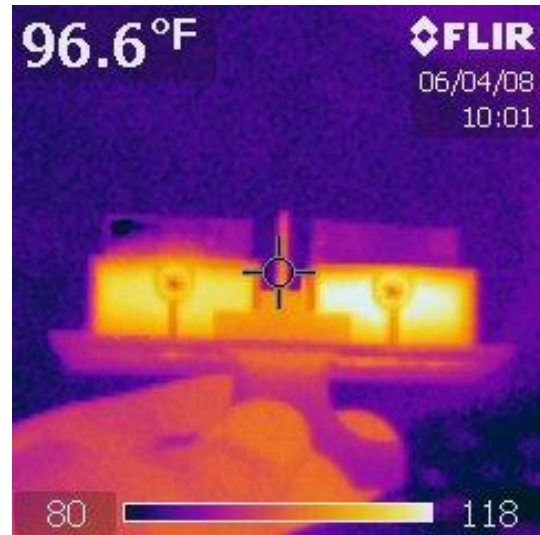
Main electric subpanel not properly labeled. Romex wiring installed on the outside of the finished wall system.



Exposed Romex wiring outside of the finished wall. Improper lighting fixture. Inadequate clearance between in incandescent light fixture any finished wall and ceiling. Light bulb fixtures not protected.



Sheet metal screws utilized on electric subpanel cover. Main electric subpanel was not inspected due to this hazardous condition.



Disconnect plug at the first floor HVAC disconnect shows uneven heating patterns indicating an imbalanced load/electrical supply deficiency/defective disconnect.



Overheated condition of the first floor HVAC disconnect. Disconnect components are overheated as well as double tapped electrical wiring. There is no overload protection for this wiring size observable. Double tapping creates an overloaded condition which is apparent in this case.

4. Branch Circuits

Observations: outlet covers missing, missing fixture globe, exposed connections, spliced and taped wires, exposed romex wires, This condition adversely affects the habitability of the dwelling., Electrical wire nut splices were observed. All electrical splices are required to be made within an enclosed approved electrical box and secured to the wood framing of the structure., Faceplates should be installed on all electrical outlets. [IRC 3902 .5], Open incandescent bulb fixtures are not authorized in clothes closets. [IRC 3903 .11]



Visible spliced wire outside of a junction box in the attic.



Exposed wiring visible in the attic.



Open Junction boxes. Exposed electrical wiring. Uninsulated interior wall.



Exposed high amperage wiring to the HVAC equipment; not installed in an approved junction box or properly attached to the house framing.



Exposed electrical outlet.

5. GFCI

Observations: GFCI protection is required for all counter top receptacles less than 6 ft. from a sink. [NEC 3802.7]



Electrical outlets to the left and to the right of kitchen sink GFCI devices are not connected to the GFCI protected circuit. All kitchen counter outlets require GFCI protection or in accordance with requirements at the time of electrical upgrade.

6. AFCI

Observations: arc fault circuit interrupter(AFCI) breakers have not been upgraded throughout the house, This condition warrants further investigation by a specialist.

7. Main Service Drop Condition

Type: Main Service Drop is overhead

8. Smoke detector comments

Location: Main Floor

Observations: alarm system present not tested

9. Electrical Comments

Observations: The electrical service has been upgraded.

Due to numerous minor code discrepancies, which would not normally be overlooked by the AHJ Inspector, it is recommended that you contact the building codes department and determine what permits have been obtained for this property and for what. Also determine if there are any "open" permits which have yet to be inspected. You may be required to close these permits and incur any expense to meet the code requirements. • This condition warrants further investigation by a specialist.



Electrical ground connections at old Hellenized water pipe which has been disconnected and no longer provides adequate grounding. This grounding clamp should be moved to an active water supply line.

Inspection of the plumbing system includes a visual examination of the exposed portions of the domestic water supply, drain waste, vent, gas lines, faucets, fixtures, valves, drains, traps, exposed pipes and fittings. These items are examined for proper function, excessive or unusual wear, leakage and general state of repair. The hidden nature of piping prevents inspection of every pipe and joint connection, especially in walls, floors and ceiling voids. A sewer lateral test is necessary to determine the condition of the underground sewer lines. This type of test is beyond the scope of this inspection. Our review of the plumbing system does not include landscape irrigation systems, water wells, on site and/or private water supply systems, off site community water supply systems, or private (septic) waste disposal systems unless specifically noted. A qualified specialist prior to the closing of escrow can perform review of these systems.

Plumbing

1. Main Shutoff Location

Materials: Public supply

2. Supply Line Condition

Materials: Copper • Galvanized

Observations: Galvanized supply lines were noted. This was common plumbing at time of construction. Due to nature of galvanized piping, buyer is advised that he/she may experience leakage at plumbing joints as well as reduced water pressure due to mineral deposit buildup. Recommend monitoring and consultation with a qualified contractor should problems arise. • Horizontal Pipe support: • Gas:

½ " every 6 ft.

¾ to 1 " every 8 ft.

• Copper:

< ½ " every 6 ft.

> ¾ " every 10 ft.

• The toilets in the house are loose at the floor. This may allow sewage gasses to enter the living space of the house and there is a potential for a liquid sewage leak. This toilet should be properly reset. There was no evidence of flooring damaged observed below these toilets at the time of inspection • This component does not function as intended.



Cut wall stud not properly drilled or supported. Shower valve not properly secured to the framing to prevent movement/ potential leakage. Uninsulated wall against the shower. Water piping in an unconditioned spaces; potential freeze issue. Excessive scorching of the adjacent wall materials from an adequate soldering procedures.



Galvanized pipe still installed on the upgrade copper piping in the house. Staining of the water at the first floor vanity sink was observed above this location.



Improperly supported plumbing lines. Improper fasteners and inadequate support schedule.

3. Waste Line Conditions

Materials: Public Waste

Observations: A toilet did not properly flush. Several tests were conducted. Further evaluation by a plumber is required to determine inadequate drainage of the fixture. • This component does not function as intended. • This condition warrants further investigation by a specialist.



Waste drain leakage observed



Waste drain is open to the basement atmosphere. No pipe cap installed.

4. Waste Line Condition

Materials: Cast Iron • PVC

Observations: Inadequate slope observed. Waste pipes should slope $\frac{1}{4}$ inch per foot of run to provide proper drainage correction advised. • Leaking observed at . • Open clean out or waste line observed, suggest installing a removable plug to prevent the entrance of sewer gases. • This condition requires repair.



There was no trap in a washing machine drain line observed. Potential infiltration of sewerage gases into living space of the house is possible.

5. Plumbing Comments



Exterior water supply; no water flow.

Water Heater

1. Water Heater

Natural Gas • 47 gallons • Water heater is less than 18" off garage floor. This is a safety concern. Gas fired appliances located in the garage generally require the burner to be 18" above the floor level to ensure separation from combustible materials. Suggest review by a licensed plumber for proper and safe installation prior to closing.

2. Conditions

Materials: galvanized

Observations: discharges above six inches from slab, This condition adversely affects the habitability of the dwelling.

3. Flue Venting Conditions

Materials: Metal

4. Water Heater Comments

Observations: **Water heater is less than 18" off garage floor. This is a safety concern. Gas fired appliances require the burner to be 18" above the floor level to ensure separation from combustible materials. Do not store flammable materials in the basement area.**



Gas-fired water heater is not 18 inches above the floor. Pressure temperature diverter pipe is not installed within 6 inches of the floor.

Inspection of the Attic includes a visual examination of the roof framing, plumbing, electrical, and mechanical systems. There are often heating ducts, bathroom vent ducts, electrical wiring, chimneys and appliance vents in the Attic. We examined these systems and components for proper function, unusual wear and general state of repair, leakage, venting and unusual or improper improvements. When low clearances and deep insulation prohibits walking in an unfinished Attic, inspection will be from the access opening only. Vaulted ceilings cannot be inspected. Inspection of the attic was conducted from accessible areas only. Walking on ceiling joists/trusses will potentially damage the finished ceiling below. Insulation, plumbing and HVAC duct systems block visual access to some components which are therefore outside the scope of inspection in accordance with Standards of Practice.

Attic

1. Methods Used to Inspect

How Inspected: walk-in access • limited space

2. Framing Condition

Style: Rafters

3. Sheathing Condition

Materials: Solid wood plank

4. Insulation Condition

Materials: Blown in insulation • Rolled/Batt insulation

Observations: **Insulation is blocking soffit vents, recommend clearing vents for proper ventilation. • Loose insulation observed, suggest securing as necessary. • Recommend adding additional insulation.**



Missing insulation in the bedroom/attic wall. Unsupported refrigeration lines.

5. Ventilation Conditions

Style: Turbine Vents

Observations: restricted; confined space due to hvac equipment/components • inadequate ventilation • When HVAC equipment and air duct systems are installed in such harsh environments, the efficiency of the equipment is considerably reduced, power consumption dramatically increases and the expected life of the HVAC equipment will decline. Ventilation of the attic where HVAC equipment is installed should be designed to maintain an attic space temperature as close to the outdoor air as possible • Attic ventilation requirements 1/150th of vented area or 1/300 if 50% to 80% of venting near top or vapor barrier installed. [IRC 806.2] • Requirements for attic ventilation does not address the required ventilation when HVAC equipment installed in the attic space and is not designed to the same standard as ventilation to protect the roofing system.



Roof Rafter ventilation is sealed above the knee wall. Baffles are required for adequate ventilation of the roofing system. This also increases heat gain on the cooling system.



Inadequate opening below roof ventilator. Substantially reduces attic ventilation capacity which is insufficient to start with.



Bathroom ventilator discharges directly into the attic. High moisture content of this air will condense on the roof and cool weather in damage the roofing system and framing members, potentially causing mold damage to the structure.

6. Attic Comments

Observations: This attic is insulated between rafters, no ventilation for roofing surface. Shingle life will be shorted with this arrangement. • There was HVAC condensate leaking noted in the attic space • This condition warrants further investigation by a specialist.



Inadequate clearance to the attic access (behind the second bathroom wall). Incandescent light bulb fixtures installed; not appropriate for this application. Inadequate clearance of incandescent light fixture. Inadequate support of Romex wiring at receptacle boxes as required.

Basement

1. Basement Stairs Condition

Observations: Stairs have inadequate headroom, this is a safety concern.

2. Basement Floor Condition

Materials: Dirt

3. Joist Condition

Observations: Bridging installation is incomplete, recommend securely nailing bridging, as necessary, to increase support and stability of the floor system.

4. Beams Condition

Materials: Wood

5. Support Post Comments

Materials: Screw Jacks • Wood

6. Subfloor Condition

Materials: Wood Plank



Organic substance on subfloor framing. This organism may damage structural components. Excessive moisture within the space associated with this condition. Increase validation is recommended.

7. Basement Comments

Observations: Upon entering the basement the inspector noticed a strong odor of sewer gas. Upon investigation the floor drain traps were found to be dry. After filling the traps with water the entrance of sewer gas ceased and the smell dissipated. We recommend pouring water in all floor drains on a regular basis to keep them full. • Air quality in the basement effected this inspectors ability to breath. It is recommended that air quality testing be considered for contaminates such as Radon Gas, Mold. • This condition warrants further investigation by a specialist.

HVAC

1. Distribution Ducting Condition

Type: Ducts and Registers

Observations: There was inadequate air flow at supply air registers. The 1st floor HVAC unit was frozen, restricting air movement.



Return air duct is not insulated. Return air grill is not the appropriate size. There is no return air plenum at the filter grill as required for proper operation. Air duct causes limited access (confined space) to the HVAC equipment and attic space. Romex wiring not properly secured as required. Uninsulated sheet rock wall.



Return air duct is not secured to the unit. No return air plenum box constructed/attached to the unit.



Only a small hole in the side of the unit for return air connection. This will not used full capacity of the coil and reduce the systems capacity. This will freeze the coil. Duct connections should be installed in accordance with equipment manufacturers requirements. Debris in the air handling unit.

2. Condensate Drain

Observations: no drain trap installed on HVAC drain, inadequate support of piping, This condition requires repair.,
Condensate drain leaking



Condensate water on foundation from drain above. Excessive moisture intrusion into the crawlspace. Potential structural damage from expansive soils and hydraulic pressure.



HVAC unit not properly level. Condensate leakage at drain connection. Condensate leakage from flooded interior unit. Auxiliary drain pan cut to facilitate drain. The unit should be raised above this level. Condensate leak out the pan. Condensate drain pan is not level. Condensate drain pan overflow piping not installed. Condensate drain does not have a trap installed as required (this will cause the coil pan to overflow during operation; it is also an efficiency concern as unconditioned outdoor air will be drawn in through the pipe.). Obvious water leakage on the attic flooring (resulting in ceiling damage below). No drain pan safety switch installed to shut down the unit in the event of an overflowing pan due to a condensate leak.



Water damage on attic flooring. A towel was present (apparently the leak was known earlier).



Improper condensate drain line termination from HVAC equipment.

3. Condensate Pan

Observations: improper level, no shut off safety device installed

4. HVAC Comments

Observations: The gas furnace should be evaluated by licensed HVAC Contractor after the defective components are replaced. • There is a considerable amount of condensate water leaking on the interior of the HVAC unit. • There should be a switched light at the HVAC unit in a crawlspace. This light should be switched at the access entrance. [IRC 1305.1.4.3] • There should be a solid floor from the HVAC unit located in the attic to the access entrance, minimum 24 inch width. There should be a minimum 30 in. deep platform in front of the firebox. [IRC 1305.1.3] • The HVAC unit is quite old and is beyond it's expected life. Annual maintenance is essential to obtain maximum life from this appliance. • The refrigeration suction line insulation is not insulated up to the HVAC unit. This will cause excessive condensation and potential water damage issues. This pipe should be insulated with foam tape. • Suction line insulation on the right HVAC unit in the attic is not sealed from contact with the ambient air. This is located over the finished ceiling and will potentially damage the ceilings below. These refrigeration lines should be properly sealed. • Armor flex insulation on the selection refrigerant line to the second-floor HVAC unit located in the attic is damaged and piping is exposed (see photograph 6287). This refrigerant pipe operates at 40° which is below the dew point temperature of the ambient air and will produce considerable condensation which may cause water damage to the finish ceilings below. This insulation should be repaired by replacement or gluing with the appropriate contact cement for this application. • There is a considerable amount of condensate water leaking on the interior of the HVAC unit.



HVAC unit out of level. Condensate flooding the interior of the unit. Indication of freezing evaporator coil. Condensate leaking from service panel. Crushed air duct good between unit and building; source of water intrusion into the crawlspace.



Leaking condensate/drain pan/frozen coil.



No drip leg on gas piping.



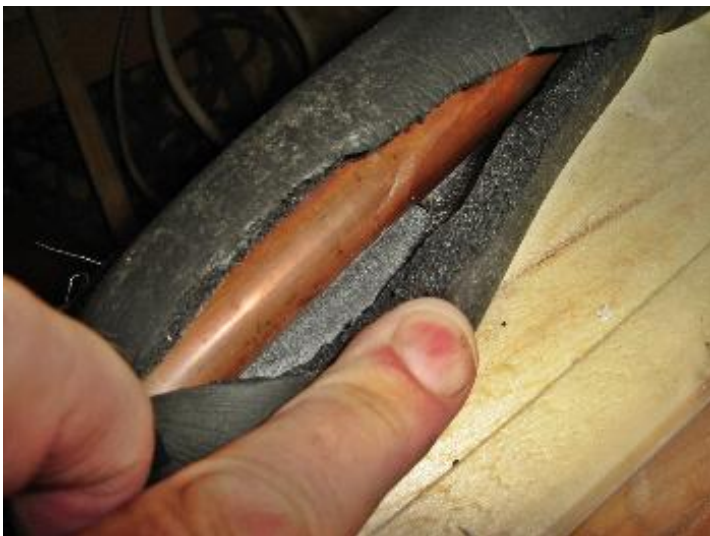
Duct hood openings will allow rodents to enter the crawlspace. May potentially nest in the air duct system and destroy it.



Improperly supported refrigeration line sets. Improper termination of the condensate drain line overhead.



HVAC unit is 1.5 tons for the second floor. There is no indication of cooling load calculation compliance. System may or may not be inadequate for required comfort levels on the second floor.



Condensate water inside a cut insulated refrigerant line. All cuts and butt joints connections on refrigerant insulation must be sealed with contact cement appropriate for this application to prevent air contact with the piping. Water will eventually leak out and damage the ceiling below.



Improper wiring connections at equipment case penetration. Vibration may result in a high voltage ground fault. Interior components of this equipment were not inspected due to safety hazards to the inspector. Wiring may not be appropriately sized. Auxiliary heating banks may not be installed/appropriately sized/have adequate wire capacity/have adequate breakers/fuse protection. Investigate further. The equipment electrical disconnect is attached to the roof decking. This does not conform to industry standards. This panel was not further inspected.

Heating

1. Burner Chamber Comments

Observations: Suggest having this unit professionally cleaned and tuned to ensure proper and safe operation.



First floor gas compartment condition.



Gas burner/heat exchanger condition. Excessive rusting inside of the exchanger requires maintenance /further inspection by dismantling the unit.

2. Heating Comments

Observations: Due to rust/corrosion in burner chambers, this unit appears to be at the end of its useful life. A service review is urged immediately for the safety of occupant. This unit will likely be red tagged at time of service.

Air Conditioning

1. Air Conditioning Comments

Type: Air Source Heat Pump • Split System • No drain pan safety switch was installed at equipment installed in finished spaces or above finished ceilings. Andersen & Assoc. recommends all auxiliary drain pans under furnaces located above finished ceilings be equipped with "Auxiliary Drain Pan Safety Switches". This device shuts down the A/C unit in the event of condensate drain failure. • Packaged System

Observations: **Unable to determine the age of this unit. • Unable to test. Recommend confirming proper operation prior to close. • Unusual sounds emitted from this unit, servicing may be required. • This condition warrants further investigation by a specialist.**

2. Refrigerant

Observations: **Refrigeration pressures were low for weather conditions. This system appears to be very low on refrigerant. A refrigeration leak test should be conducted on the system, determine the source of the refrigeration leak, repair and recharge the system., The head of the air-conditioning compressor for the second-floor HVAC unit is considerably rusted. This indicates in excessive refrigerant charge or reduced air flow through the evaporator coil. This is potentially due to dirty filters, dirty evaporator coil or inadequate duct system design. This will potentially flush out the oil from the compressor and may result in compressor failure. The unit should be properly charged to the correct super heat specifications set by the equipment manufacturer.**



Frozen first floor air-conditioning compressor. Restricted airflow at coil. Low refrigeration pressures. Equipment requires dismantling/inspection and servicing. Rusted compressor head indicates an ongoing past occurrence of this condition. Evaporator coil is likely restricted.



Low refrigeration pressures. First floor unit.

3. Piping

Observations: The Armorflex insulation on the suction refrigerant line to the air-conditioning unit located in the attic is not properly glued at the butt joints. Exposed copper piping will condense a considerable amount of water during operation. This water will potentially damage ceiling below. This piping should be secured with contact cement designed for this material/application. Duct tape is not an adequate material for this repair. , The insulation of this pipe is not for the control of heat transfer but to prevent contact with the ambient air. Repairs should be air tight to correct this issue. , Refrigerant piping is not properly supported as required. , This condition requires repair.

Report Summary

Exterior		
Page 6 Item: 14	Deck Condition	Deck railing is noncompliant as it offers "climbing bars" which will allow children to climb over railing. Recommend replacement by railing with vertical spacing not exceeding 4". • Spacing between guardrails appears larger than 4 inches which may allow small children to crawl through the space. Client may wish to reduce spacing as a child safety enhancement. • Joists hangers or ledger boards are not installed; joists are end nailed • This condition adversely affects the habitability of the dwelling.
Roof		
Page 8 Item: 4	Roof Surface Conditions	Lifting at laps observed. • This condition requires repair.
Chimney		
Page 9 Item: 5	Spark Arrester/Raincap Condition	No chimney rain cap observed, suggest installing a chimney raincap to prevent the entrance of the elements and local wildlife and to preserve the life of the chimney as well as minimize maintenance. • This condition requires repair.
Kitchen		
Page 10 Item: 1	Dishwasher Condition	The dishwasher is not secured to the counter top. This may allow the appliance to tip outwards with a load of dishes over the open door (or a small child leaning on the open door). There are often sharp objects in this appliance and is a safety concern. The appliance should be properly secured. • This condition requires repair.
Page 10 Item: 2	Kitchen Electrical Condition	No GFCI protection present, suggest installing GFCI protected receptacles for safety. • This condition adversely affects the habitability of the dwelling.
Bathroom		
Page 10 Item: 2	Bathroom Windows Condition	Window painted shut. • An openable window are power ventilation is required in bath areas. • This condition requires repair.
Page 11 Item: 4	Toilet Condition	A loose toilet and/or loose/soft sub-flooring was observed. This can indicate damage to the sub-flooring beneath the fixture and floor covering. This condition is not visible or fully accessible to the inspector without destructive investigation. Client is advised to seek further review by a licensed plumbing contractor prior to closing for repairs/replacement as required. • This condition requires repair.
Page 11 Item: 6	Sink Faucet Condition	Low water flow observed. Loss of pressure noted when two or more fixtures are operated at the same time. • This condition warrants further investigation by a specialist.
Page 12 Item: 7	Tub Faucet Condition	Faucet is loose in the wall. • This condition requires repair.
Page 12 Item: 8	Shower Faucet Condition	Faucet handle is missing. • The shower valve is not secured to the interior wall framing as required. • This condition requires repair. • Low water flow observed. Loss of pressure noted when two or more fixtures are operated at the same time. • The fill spout at the 1st floor bathtub is separated from the tub surround. Water will infiltrate into the finished wall and below the bathtub through this pipe penetration. This pipe should be caulked to prevent this occurrence.
Other Interior Areas		
Page 13 Item: 2	Ceiling Conditions	Active leaks observed at the time of inspection. • This condition requires repair.
Electrical		
Page 15 Item: 1	Electrical panel Condition	circuit breakers not labeled

Page 17 Item: 3	Sub Panelcomments	Double tapping observed. Double tapping (i.e. 2 wires on a single pole breaker) can add to the load of the affected circuit causing a possible overload and tripping breakers, or result in loose connections and overheating of the breaker or connections. Ideally, doubled-up circuits should be independently fused. • Effective January 1, 2002, NFPA 70, The National Electrical Code (NEC), Section 210-12, requires that all branch circuits supplying 125V, single phase, 15- and 20-ampere outlets installed in dwelling unit bedrooms be protected by an arc-fault Circuit interrupter. • Sheet metal screws were used to secure the panel cover. This type screw may drill through an electrical conductor creating an electrical shock hazard. Flat point screws are required. • The panel was not opened due to safety concerns to the inspector.
Page 18 Item: 4	Branch Circuits	outlet covers missing, missing fixture globe, exposed connections, spliced and taped wires, exposed romex wires, This condition adversely affects the habitability of the dwelling., Electrical wire nut splices were observed. All electrical splices are required to be made within an enclosed approved electrical box and secured to the wood framing of the structure., Faceplates should be installed on all electrical outlets. [IRC 3902 .5], Open incandescent bulb fixtures are not authorized in clothes closets. [IRC 3903 .11]
Page 19 Item: 5	GFCI	GFCI protection is required for all counter top receptacles less than 6 ft. from a sink. [NEC 3802.7]
Page 19 Item: 6	AFCI	arc fault circuit interrupter(AFCI) breakers have not been upgraded throughout the house, This condition warrants further investigation by a specialist.
Page 20 Item: 9	Electrical Comments	The electrical service has been upgraded. Due to numerous minor code discrepancies, which would not normally be overlooked by the AHJ Inspector, it is recommended that you contact the building codes department and determine what permits have been obtained for this property and for what. Also determine if there are any "open" permits which have yet to be inspected. You may be required to close these permits and incur any expense to meet the code requirements. • This condition warrants further investigation by a specialist.
Plumbing		
Page 21 Item: 2	Supply Line Condition	Galvanized supply lines were noted. This was common plumbing at time of construction. Due to nature of galvanized piping, buyer is advised that he/she may experience leakage at plumbing joints as well as reduced water pressure due to mineral deposit buildup. Recommend monitoring and consultation with a qualified contractor should problems arise. • Horizontal Pipe support: • Gas: ½ " every 6 ft. ¾ to 1 " every 8 ft. • Copper: < ½ " every 6 ft. > ¾ " every 10 ft. • The toilets in the house are loose at the floor. This may allow sewage gasses to enter the living space of the house and there is a potential for a liquid sewage leak. This toilet should be properly reset. There was no evidence of flooring damaged observed below these toilets at the time of inspection • This component does not function as intended.
Page 22 Item: 3	Waste Line Conditions	A toilet did not properly flush. Several tests were conducted. Further evaluation by a plumber is required to determine inadequate drainage of the fixture. • This component does not function as intended. • This condition warrants further investigation by a specialist.
Page 22 Item: 4	Waste Line Condition	Inadequate slope observed. Waste pipes should slope ¼ inch per foot of run to provide proper drainage correction advised. • Leaking observed at . • Open clean out or waste line observed, suggest installing a removable plug to prevent the entrance of sewer gases. • This condition requires repair.
Water Heater		
Page 24 Item: 4	Water Heater Comments	Water heater is less than 18" off garage floor. This is a safety concern. Gas fired appliances require the burner to be 18" above the floor level to ensure separation from combustible materials. Do not store flammable materials in the basement area.

Attic		
Page 25 Item: 4	Insulation Condition	Insulation is blocking soffit vents, recommend clearing vents for proper ventilation. • Loose insulation observed, suggest securing as necessary. • Recommend adding additional insulation.
Page 26 Item: 5	Ventilation Conditions	inadequate ventilation • When HVAC equipment and air duct systems are installed in such harsh environments, the efficiency of the equipment is considerably reduced, power consumption dramatically increases and the expected life of the HVAC equipment will decline. Ventilation of the attic where HVAC equipment is installed should be designed to maintain an attic space temperature as close to the outdoor air as possible • Attic ventilation requirements 1/150th of vented area or 1/300 if 50% to 80% of venting near top or vapor barrier installed. [IRC 806.2] • Requirements for attic ventilation does not address the required ventilation when HVAC equipment installed in the attic space and is not designed to the same standard as ventilation to protect the roofing system.
Page 26 Item: 6	Attic Comments	This attic is insulated between rafters, no ventilation for roofing surface. Shingle life will be shorted with this arrangement. • There was HVAC condensate leaking noted in the attic space • This condition warrants further investigation by a specialist.
Basement		
Page 27 Item: 7	Basement Comments	Upon entering the basement the inspector noticed a strong odor of sewer gas. Upon investigation the floor drain traps were found to be dry. After filling the traps with water the entrance of sewer gas ceased and the smell dissipated. We recommend pouring water in all floor drains on a regular basis to keep them full. • Air quality in the basement effected this inspectors ability to breath. It is recommended that air quality testing be considered for contaminates such as Radon Gas, Mold. • This condition warrants further investigation by a specialist.
HVAC		
Page 28 Item: 1	Distribution Ducting Condition	There was inadequate air flow at supply air registers. The 1st floor HVAC unit was frozen, restricting air movement.
Page 29 Item: 2	Condensate Drain	no drain trap installed on HVAC drain, inadequate support of piping, This condition requires repair., Condensate drain leaking
Page 29 Item: 3	Condensate Pan	improper level, no shut off safety device installed
Page 31 Item: 4	HVAC Comments	The gas furnace should be evaluated by licensed HVAC Contractor after the defective components are replaced. • There is a considerable amount of condensate water leaking on the interior of the HVAC unit. • There should be a switched light at the HVAC unit in a crawlspace. This light should be switched at the access entrance. [IRC 1305.1.4.3] • There should be a solid floor from the HVAC unit located in the attic to the access entrance, minimum 24 inch width. There should be a minimum 30 in. deep platform in front of the firebox. [IRC 1305.1.3] • The HVAC unit is quite old and is beyond it's expected life. Annual maintenance is essential to obtaine maximum life from this appliance. • The refrigeration suction line insulation is not insulated up to the HVAC unit. This will cause excessive condensation and potential water damage issues. This pipe should be insulated with foam tape. • Suction line insulation on the right HVAC unit in the attic is not sealed from contact with the ambient air. This is located over the finished ceiling and will potentially damage the ceilings below. These refrigeration lines should be properly sealed. • Armor flex insulation on the selection refrigerant line to the second-floor HVAC unit located in the attic is damaged and piping is exposed (see photograph 6287). This refrigerant pipe operates at 40° which is below the dew point temperature of the ambient air and will produce considerable condensation which may cause water damage to the finish ceilings below. This insulation should be repaired by replacement or gluing with the appropriate contact cement for this application. • There is a considerable amount of condensate water leaking on the interior of the HVAC unit.
Air Conditioning		
Page 32 Item: 1	Air Conditioning Comments	Unable to determine the age of this unit. • Unable to test. Recommend confirming proper operation prior to close. • Unusual sounds emitted from this unit, servicing may be required. • This condition warrants further investigation by a specialist.

Page 33 Item: 2	Refrigerant	Refrigeration pressures were low for weather conditions. This system appears to be very low on refrigerant. A refrigeration leak test should be conducted on the system, determine the source of the refrigeration leak , repair and recharge the system., The head of the air-conditioning compressor for the second-floor HVAC unit is considerably rusted. This indicates in excessive refrigerant charge or reduced air flow through the evaporator coil. This is potentially due to dirty filters, dirty evaporator coil or inadequate duct system design. This will potentially flush out the oil from the compressor and may result in compressor failure. The unit should be properly charged to the correct super heat specifications set by the equipment manufacturer.
Page 33 Item: 3	Piping	The Armorflex insulation on the suction refrigerant line to the air-conditioning unit located in the attic is not properly glued at the butt joints. Exposed copper piping will condense a considerable amount of water during operation. This water will potentially damage ceiling below. This piping should be secured with contact cement designed for this material/application. Duct tape is not an adequate material for this repair. , The insulation of this pipe is not for the control of heat transfer but to prevent contact with the ambient air. Repairs should be air tight to correct this issue. , Refrigerant piping is not properly supported as required. , This condition requires repair.