

Building Inspection Report



St. Louis, MO 63109

Prepared by: Wessling Home Inspection Services LLC
5725 Holly Hills
St. Louis, MO 63109
314-520-1103

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Definitions

NOTE: All definitions listed below refer to the property or item listed as inspected on this report at the time of inspection. Comments represent the opinions of the inspector based upon experience and training.

Acceptable	Functional element with no obvious signs of defect with consideration of normal wear and tear.
Important	Item is of urgent structural nature, major defective issue, significant life safety issue, relatively costly item to repair, and/or an item that in Inspector's opinion should not be ignored or delayed. All Important items appear under another category as well. [BOLD print in body of report]
Not Present	Item not present or not found.
Not Inspected	Item was unable to be inspected for safety reasons or due to lack of power, inaccessible, shut off, or disconnected at time of inspection.
Defective	Item needs immediate repair or replacement. It is unable to perform its intended function. [Appears in RED print in body of report]
Safety	Recommended item to improve personal safety or health issue. Item may have been acceptable at the time of construction & local building authority may continue to allow the status quo. [Appears in GREEN print in body of report]
Minor Repair	Defect requiring low investment to repair and is not critical to the performance of any particular system of the home. [Appears in BROWN print in body of report]
Marginal	Item is not fully functional and requires repair or servicing or item is near end of expected service life. [Appears in BLUE print in body of report]

General Information

Property Information

Property Address
City St. Louis State MO Zip 63109

Client Information

Client Name
Phone Fax n/a

Inspection Company

Inspector Name John Wessling
Company Name Wessling Home Inspection Services LLC
Address 5725 Holly Hills
City St. Louis State MO Zip 63109
Phone 314-520-1103 Fax manual operation
E-Mail john@wesslinginspections.com
Amount Received see contract

Conditions

Others Present Property Occupied No, Vacant
Estimated Age 96 years Entrance Faces South for purposes of this inspection
Inspection Date 11/08/2017
Electric On Yes
Gas/Oil On Yes
Water On Yes
Temperature 40-45
Weather Sunny Soil Conditions Damp from recent rain
Space Below Grade Basement
Building Type Single family Garage None
Additions/Modifications Modifications are observed, please consult with local authority for permits.

Lots and Grounds

1. Acceptable Driveway: Concrete. Concrete Parking pad at rear of property
2. Minor Repair Walks: Concrete. - Some slabs are cracked and sealing with a urethane caulk is recommended to help prevent ice/water related damages.
3. Acceptable Steps: Concrete
4. Acceptable Stair Hand & Guard Rails: Consider adding handrails for safety where absent: - Recommend adding grippable handrail for improved safety. Modern construction requirements include having grippable rail along all steps with more than three risers. Recommend adding a grippable (~1-1/2" diameter) handrail along at least one side of the steps for improved safety.
5. Marginal Porch: Concrete. Brick.
- Some surface cracks are present. Recommend chip away any loose debris and apply urethane caulk as needed to maintain a water resistant surface.

- The joint between the brick and concrete porch slab has been beveled and sealed with a concrete product. In the future, repair with a flexible material such as urethane will provide a longer lasting seal.

- SEE ALSO EXTERIOR SURFACE--BRICK for additional notes
6. Acceptable Porch Columns: Masonry/Stone/Brick.
7. Acceptable Grading: Appears appropriate along majority of foundation, Flat City lot - with slope down to street.
8. Acceptable Vegetation: No observed issues - - Be sure to maintain ivy, shrubs, and trees to prevent growing against and rubbing the sides of the home and roof. Overgrown vegetation can shelter insects and hold moisture against the structure.
9. Minor Repair Basement Stairwell: Concrete -
- Some slabs/stair treads are cracked and sealing with a urethane caulk is recommended to help prevent ice/water related damages.
10. Acceptable Basement Stairwell Drain: Be sure to keep clean to promote drainage
11. Safety Bsmt. Stair Hand & Guard Rails: Handrail is absent -
- Modern construction requirements include having grippable rail along all steps with more than three risers. Recommend adding a grippable (~1-1/2" diameter) handrail along at least one side of the steps for improved safety.

Exterior Surface and Components

MAIN BUILDING Exterior Surface

1. Marginal Type: Brick -
- Several stairstep separations and cracks have developed through the brickwork along the walls of the front porch, the west side front room windows, the west rear window and at the southwest corner of the home.
- This type of cracking could indicate building movement (especially when considered with the condition of the wall on the adjacent neighboring building) and/or issues with the brick archway at the window openings. Additional review and repair by a qualified masonry contractor/structural specialist is recommended prior to the close of your inspection period. At a minimum, the gaps in the mortar should be tuckpointed to prevent moisture entry and allow monitoring for any change in condition. Movement cannot be predicted or entirely prevented. A goal should be to maintain consistent soil moisture content around the home. Positive drainage should be provided, especially from along the west side where it appears moisture is puddling.

Exterior Surface and Components (Continued)

Type: (continued)

- Tuckpointing an entire home can be costly. Costs vary widely and usually are related to the preparatory work performed to provide a quality long-term result. When choosing a tuckpointer, be sure to understand whether the tuckpointer is grinding out all joints deeply to obtain a proper bond of the new mortar and if color matching is included in the work. The type of mortar should match that originally used for the home's construction (types include O, S, & M, which relate to the material mix and hardness/softness). Our experience is that the cheaper tuckpointers tend to smear thin layers of mortar over the joints, which may look good immediately but tends to become detached in a very short number of years. This type of tuckpointing should be avoided.



REAR ADDITION Exterior Surface

2. Minor Repair Type: Vinyl siding -

- Plastic covers an area along the west wall. A cut out in the siding is present. The reason is unknown to this inspector. Repair to install a weather resistant siding material properly flashed along the edges for a weather tight is recommended.



3. Minor Repair Fascia & Trim: Aluminum. - Some caulk joints are aging and gaps have developed. Periodic maintenance is required of these joints to remove the old caulk and replace to provide a watertight building envelope.

- Paint is weathered and flaking at some window frames. Maintenance should include scrape all exposed wood, undercoat, and paint. Be aware that EPA has implemented rules starting in 2010 covering activities that have the potential to release hazardous lead dust from lead-based paint.

- The trim is gapped and pulled at the side living room window. Repair to maintain a weather tight surface is recommended.

- Several sections of aluminum fascia are loose, especially at the corner of the home. One section of fascia is absent along the front gable. Repair to secure all fascia and installation of new fascia where absent is recommended for cosmetic appeal and to maintain weather resistant building surfaces.



Exterior Surface and Components (Continued)

- 4. Minor Repair Soffits: Aluminum/Metal.
 - Soffit material is loose/absent along several areas of the addition. Sections are loose around the main house. Some sections are absent near the rear corner of the main house. Nesting material is observed at the rear corner of the house. This inspector recommends replacing all absent soffit sections and securing any loose soffit against wind and animal related damages. Be sure to remove any nesting material as part of any soffit repair.



- 5. Acceptable Door Bell: Operated properly at time of inspection
- 6. Acceptable Hose Bibs: Non-frost proof type -
 - FYI, non-frost proof type valves will need to be winterized annually (valves shut off in basement and lines drained) to prevent freezing. In the alternative, a plumber could replace with modern frost-free type.
- 7. Acceptable Main Entry Door(s): Operated and latched properly
- 8. Marginal Rear Entry Door(s): Metal, Operated and latched properly - - Light is visible along the perimeter. Recommend weather strip be installed to help keep insects out of the home and for increased energy efficiency.



WEST REAR OF MAIN HOUSE Chimney

- 9. Acceptable Chimney: Brick with parge coating
- 10. Acceptable Chimney Cap/Crown: Solid material with parge sealant
- 11. Acceptable Chimney Flashing: Metal and roof material -

EAST SIDE OF HOME Chimney

- 12. Minor Repair Chimney: Brick with parge coating -
 Efflorescence noted at some surface cracks in the chimney surface (white discoloring) indicating moisture is evaporating through the chimney walls. Moisture can enter the chimney from gaps/cracks along the surface, improper venting of combustion gases and between clay flue tiles. - Recommend repair as necessary to the flue and/or chimney system by a qualified tuckpointer or chimney sweep. A good tuckpointer can dye the mortar/parge so that the repair is not visible from the street.



- 13. Acceptable Chimney Cap/Crown: Parge coated

Exterior Surface and Components (Continued)

14. Safety Rain Cap/Spark Screen: Metal -
- There is a round metal cap beneath the visible rain cap. This round cap sits on the upper edge of the clay flue, restricting the venting of combustion gases from the water heater and furnace. Prompt repair is advised to ensure proper venting of gases, prevent damage from moisture buildup within the chimney system and to prevent carbon monoxide from accumulating within the home.
15. Acceptable Chimney Flashing: Metal and roof material -



Roof

ENTIRE DWELLING Roof Surface

1. Method of Inspection: Walk on roof

2. Marginal Material: 3 Tab fiberglass shingle - Blemishes are present that may be related to small hail damages or shingles damaged during application. Several depressions approximately the size of a nickel are present. Most merely impacted and bruised the outer shingle surface.

- Shingles are torn and damaged at the rear corner of the addition. Replacement of the damaged shingle is advised to prevent leakage into the structure.

- A small number of nails are raised, which can cause the overlying shingles to become punctured. Recommend driving down nails properly to prevent shingle damage. Several shingle have been damaged to the fiberglass mat and should be replaced to prevent further damage from the sun and possible moisture entry.

- The shingle have not been evenly spaces and woven together at the transition between the main house and the addition. The non-typical spacing between tabs increases the possibility of water leakage into the structure.

- Granular loss is observed in several areas. This indicates weather related wear or damage due to rubbing (front porch roof--tree branch) Anticipate the rate of deterioration to increase as the underlayment is exposed to the elements.

- Due to the issues above, this inspector recommends planning to replace this roof in the next few years.

- The screws at the satellite dish penetrations need periodic maintenance to provide a water resistant surface and should be caulked as needed to prevent moisture entry.

- You may want to ask Seller, or your insurance company via a CLUE report, whether a claim for hail damage has ever been filed.

- Consider having a qualified roofing contractor provide cost and repair/replacement options prior to the close of your inspection period.

Roof (Continued)

Material: (continued)



3. Approximate Age: 13-15 years

4. Acceptable Type: Gable

5. Minor Repair Flashing: Edge flashing is not present as desired - along the rear addition roof edges. Installation of edge flashing is recommended to help prevent water from wicking beneath the shingle and to direct the drainage of water out over the siding material.

Proper step and counter flashing where the porch roof meets the brick wall is absent. Mastic/tar has been used and will require constant maintenance.

- step flashing is required to prevent moisture entry where roof at an incline meets walls.
- step flashing should be installed according to the "Roofing and Waterproofing Manual" published by the National Roofing Contractors Association, the national trade group organization.
- Portions of the shingles will need to be removed in order to properly install step flashing. Due to the condition of the shingles, this work should be performed concurrently with the replacement of the roof.

Roof (Continued)

Flashing: (continued)



6. Minor Repair Plumbing Vents:

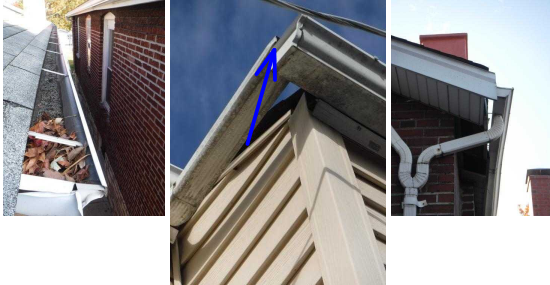
- Rubber is split at the stack, which can permit moisture entry into attic. Recommend have rubber boot and integral metal flashing replaced.



7. Marginal Gutters: Aluminum.

- the northwest gutter is loose and pulled away from the roof edge. Prompt repair is recommended to provide proper drainage of water out and away from the structure.

- Several gutter sections have negative slope and could hold water. Repair is recommended to provide secure gutters properly sloped for drainage.



8. Minor Repair Downspouts: Aluminum. Be sure to keep the splash pads properly positioned to help prevent erosion and to direct water out and away from the foundation and sidewalks.



9. Minor Repair Downspout Splash Pads: Be sure to maintain proper positioning to direct water out and away from foundation. Recommend the addition of spout extensions to better direct moisture out and away from foundation & to prevent erosion.

Structure

1. Marginal

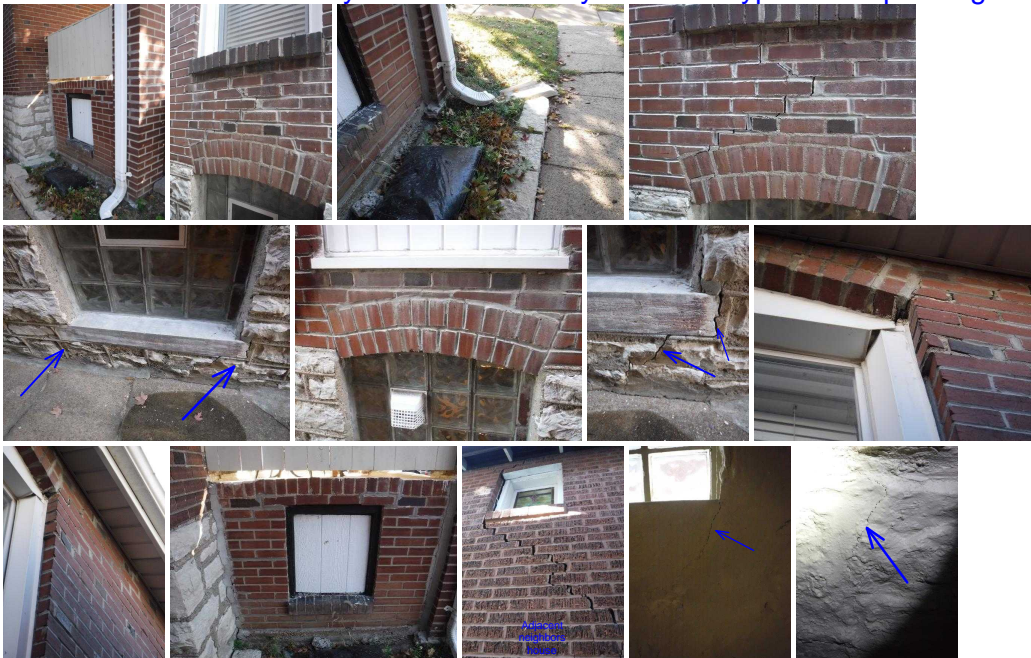
Foundation: Stone -

- Typical of old stone foundations and flat city lots, anticipate natural wicking of moisture through the stones. No active moisture entry was observed at the time of the inspection. It cannot be determined if moisture entry is an ongoing issue. The Sellers Disclosure Statement should be reviewed for any known moisture entry problems.



- Gaps and separations have developed through the stonework at the southwest corner of the home. This type of cracking could indicate building movement (especially when considered with the condition of the wall on the adjacent neighboring building). Additional review and repair by a qualified masonry contractor/structural specialist is recommended prior to the close of your inspection period. At a minimum, the gaps in the mortar should be tuckpointed to prevent moisture entry and allow monitoring for any change in condition. Movement cannot be predicted or entirely prevented. A goal should be to maintain consistent soil moisture content around the home. Positive drainage should be provided, especially from along the west side where it appears moisture is puddling.

- Spot tuckpointing can be performed and is recommended whenever and where ever gaps are observed to seal out moisture and prevent ice/water related damages.

- Tuckpointing an entire home can be costly. Costs vary widely and usually are related to the preparatory work performed to provide a quality long-term result. When choosing a tuckpointer, be sure to understand whether the tuckpointer is grinding out all joints deeply to obtain a proper bond of the new mortar and if color matching is included in the work. The type of mortar should match that originally used for the home's construction (types include O, S, & M, which relate to the material mix and hardness/softness). Our experience is that the cheaper tuckpointers tend to smear thin layers of mortar over the joints, which may look good immediately but tends to become detached in a very short number of years. This type of tuckpointing should be avoided.



Structure (Continued)

2. Minor Repair Foundation: Concrete Block - - A few hairline cracks are observed at the rear corner of the addition.
We suggest repair as described in EXTERIOR SURFACE--BRICK.
- 
3. Acceptable Beams: Timber.
4. Acceptable Support Columns/Posts: Timber.
5. Acceptable Floor Joists: Timber.
6. Minor Repair Subfloor: Timber Planks. - Some stains from leakage are present but no damage requiring repair.
7. Marginal Rafters: 2x rafter framing, no collar ties are present - - Consider the addition of collar ties to the roof structure. Collar ties are typically located in the upper third of the rafter span and increase stability and help prevent spreading of the roof system.
- Recommend flash over openings at plumbing stacks visible from basement for improved fire safety using minimum 20 gauge metal (aluminum is not acceptable). This would prevent a possible fire from burning within a wall cavity that the fire department could not easily extinguish.
- Split rafter member observed above the bath area, (Near the attic access), Repair by a qualified contractor is recommended to ensure the rafters can carry the intended design load. Failure to repair could result in additional damages to this and surrounding rafters, including possible failure under load.
- 
8. Acceptable Trusses: Manufactured trusses at REAR ADDITION - - No damage requiring repair was visible. However, stains are present on the wood members from leakage through the roof.
9. Acceptable Roof Sheathing: Timber Planks.
- Sheathing is not readily visible at the rear addition.

Attic

OVER MAIN LIVING AREA Attic

1. Method of Inspection: Entered the attic at the scuttle
2. Acceptable Access: Scuttle Panel.
3. Not Inspected Unable to Inspect: 20% away from opening due to depth of insulation - lack of visible stepping points and concealed knob and tube wiring
4. Acceptable Ventilation Type: Gable End Louvers.
5. Acceptable Insulation Type: Fiberglass, Blown.



Attic (Continued)

6. Safety

Insulation Depth: 8-10" avg Approx. Insulation Value: R-25+ -
- Insulation has been improperly installed over knob and tube wiring. SEE ALSO ELECTRICAL--KNOB AND TUBE



7. Acceptable Bathroom Fan Venting: Vented with window and exhaust fan
AT REAR ADDITION Attic

8. Method of Inspection: Walk in attic

9. Acceptable Access: Door/Vertical Panel.

10. Not Inspected Unable to Inspect: EAST KNEEWALL SPACE, SPACE OVER LOFT -
- no access provided for entry for this section of the attic.



11. Safety

Insulation Type: Fiberglass, Batts.
- POLYSTYRENE

This foam insulation produces toxic gasses when burned. For improved safety, this inspector recommends either removal of all visible polystyrene foam board or covering it with a non-combustible material such as drywall.



12. Acceptable

Insulation Depth: 5-6" average Approx. Insulation Value: R-17+

Basement

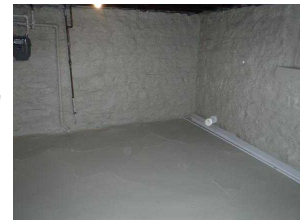
The recently painted basement could conceal wall and floor issues, including cracks and stains. This inspection is visual and non-invasive, the inspector cannot comment on things that are not able to be seen.

Under entire living area Basement

- 1. Acceptable Basement Stairs: Wood
- 2. Safety Basement Railing/Guard: Wood -
- Recommend add grippable handrail (~1-1/2" diameter) along steps where absent for improved safety.



- 3. Acceptable Floors: Concrete. - Some patched and uneven areas are present on the floor in both sides of the structure. Some cracks run parallel to the foundation and bearing wall. It is possible that over the life of the building, some amount of motion/movement has occurred creating these cracks. Should you be concerned, a Structural Engineered could be consulted to conduct a detailed analysis of the basement floors and foundation.



- 4. Acceptable Floor Drain: Grate cover
- 5. Not Present Sump Pump:
- 6. Minor Repair Moisture Location: No evidence of moisture entry through walls is present.
- The recent application of a paint/sealant has covered any evidence of seepage.

- Stone foundations typically seep due to porous stone and old lime type mortar. Stone foundations were never intended to be watertight. Basement has no odor or mustiness from moisture entry. The frequency and severity of any moisture entry problems cannot be determined. See Sellers Disclosure.

- Moisture entry can many times be reduced by the addition of topsoil sloping away from the foundation and ensuring gutters are clean, the downspouts are open, splash blocks/pads are properly positioned, or the pipes that drain underground are not clogged.
- 7. Not Present Radon Mitigation System: Not Present, A test is being conducted as part of this home sale.

Electrical

We recommend having a licensed electrician involved for the repair of all electrical issues.

- 1. Service Size Amps: 200 Volts: 120-240 VAC
- 2. Acceptable Service: Overhead



- 3. Marginal Conductor Type: Aluminum Service Conductor for the Service Entrance Cable
- 4. The predominant conductor type visible is/are

Electrical (Continued)

5. Copper Romex. Knob & Tube.

- Fairly common in houses built before 1930, the system uses porcelain insulators (knobs) for running wires through unobstructed spaces. Porcelain tubes protect wires that run through studs and joists. Some of the safety features of the system are:

The porcelain knobs suspend the wire in open air to dissipate heat.

The wiring was usually installed along the center of joists and studs away from potential nail punctures.

Additional protection is provided by porcelain tubes where it passes through wood.

The hot and neutral wires are always separated by at least 3 inches except near a connection to a box or fixture. At these places, an additional protective woven sleeve, or was used from the last knob.

Splices were joined by wrapping one wire around another and then soldering the joint. Knobs were then placed within 6" of the splices to prevent stress on the connection.

- The two main weaknesses of this vintage wiring are:

The lack of a ground conductor

Switches were often placed on the neutral wire, turning off the circuit, but not the current

- Improper alterations & splices are the most consistent problem with knob and tube wiring, which are often not visible during a visual inspection, which may pose a safety hazard. Additional branches improperly added to the original wiring is one of the common problems. When additional branches or fixtures are added, the capacity of the circuit may be overextended, which poses a safety problem.

- Age and heating of knob & tube wires causes the insulation protecting the wire to become brittle, and eventually to disintegrate. Bare wire would then pose a fire and personal safety risk.

- There is a growing concern about this old wiring from some homeowner insurance companies.

- For peace of mind and to prevent problems with any concealed or latent issues, you may want to consider having the knob & tube wiring replaced to modern wiring practices.

6. Acceptable Electric Mast: Appears properly secured

Basement Electric Panel

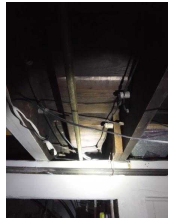
7. Minor Repair Manufacturer: Murray.

- Possible mismatch with the main breaker size and the Service Entrance Cable. The cable appears to be undersized for the 150 Amp breaker, this could result in overheated service cable. Further evaluation by a licensed electrician is recommended to determine if the cable is properly sized for use with this breaker.

8. Acceptable Maximum Panel Capacity: 200 Amp

9. Acceptable Main Breaker Size: 150 Amps

10. Acceptable Breakers: All appear properly sized for wire gauge



Electrical (Continued)

11. Minor Repair Panel wiring Sheathing is cut outside of the enclosure.
 - the sheathing is improperly cut, sheathing outside of the panel enclosure should not be cut. Repair as necessary to ensure all conductors are properly protected is recommended.

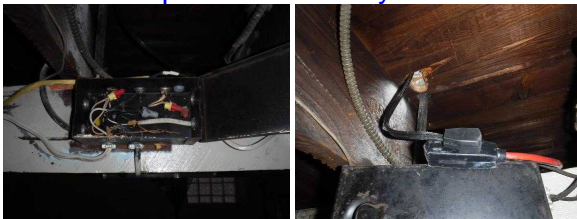


12. Acceptable Ground: Plumbing ground visible -
 - This inspector recommends review by an electrician to ensure the ground conductor is properly sized for the electrical panel. Typically a 4 AWG stranded conductor is used.

13. Is the panel bonded? Yes

ON MAIN BEAM in basement Electric Panel

14. Marginal Panel wiring Improper wire entry at old enclosure now used as junction -
 - cloth covered conductors and knob and tube type conductor enter through the same wire clamp/box knock out. This is not proper, knob and tube wire must enter from opposite sides of the box. Repair as necessary is advised.



15. Minor Repair GFCI: For improved safety we recommend:
 - the hall bath, GFCI outlets test as Hot/Neutral reversed. Correction by a qualified contractor is recommended for improved safety.

- With the light switch located above the vanity, this inspector recommends the installation of GFCI protection.

16. Safety Outlet 3 Prong type tests not properly grounded and repair or replacement is recommended: most of the 3 prong outlets in the main home. - Recommend correction by a licensed electrician. Possible repairs include: replace outlet served with a 2 wire type polarized correctly, protect with GFCI outlet & mark outlet as "No Equipment Ground Available GFI Protected", or rewire with a modern 3 - wire line.



17. Safety Wiring Issues require proper repair - on ceiling in various locations and at the range receptacle should be corrected by rerouting the wires through the joists, running in conduit, or protecting by other allowed methods. Surface wiring of small gauge wires was never permitted as far as we are aware.

- Improper wire types used in the kitchen cabinets, window bay seating bench and basement. Lamp cord and extension cords have been used as permanent wiring. This is not proper. The lamp cord/extension cord should be replaced with the proper size of Romex type wire.

Electrical (Continued)

Wiring (continued)



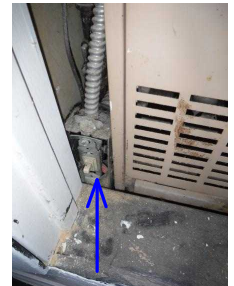
18. Marginal

Knob & Tube Wiring Present in basement and attic -
 - This wiring is covered with insulation and touching insulation. We recommend immediately removing all insulation, rewire the attic entirely, and replace the insulation. Knob and tube wiring must be exposed to 'open air' for proper dispersal of heat.
 Unknown if other knob and tube wiring is present within the walls and ceilings. This old style of wiring has cloth or rubber sheath on the wires which becomes brittle with age and handling. There is an inherent risk of fire and electrocution if the wires become bare.



19. Minor Repair

Cover Plates Absent:
 - at basement outlets, Installation of cover plate is recommended



20. Minor Repair

Light Fixtures Not operating properly (may be a bulb) - at the kitchen counter. Repair as necessary is advised

- At the rear addition stairway--Three way switches should be used for the loft area stair light. The switches did not function properly. Repair is recommended to provide operating three-way switches at the top and bottom of the stairway.

21. Minor Repair

Ceiling Fan: All operated and appeared properly secured -
 - Fan did not turn on in the front room. It is possible that fan operates with remote control feature. Remote was not observed. This inspector recommends asking the seller for any information regarding remote features.

22. Safety

Smoke Detectors: Absent from some desired areas - - Be sure to maintain one per floor, each hallway and in every bedroom, change batteries per the manufacturer's instructions, and test at least annually. Consider adding Photoelectric type detectors for improved safety. Most smoke detectors lose effectiveness after 10 years and should be replaced - the age of the existing detectors is unknown.

23. Safety

CO Detectors For increased safety whenever gas appliances are present - we recommend the use of carbon monoxide detectors. Please follow manufacturer's guidelines for installation and maintenance.

Air Conditioning

CENTRAL AIR for MAIN HOUSE AC System

1. Not Inspected A/C System Operation: Did not operate air conditioner mode.
Too cold within past 24 hours to safely test operation. - This inspector does not run air conditioner compressors unless the temperature is above 65 degrees for a minimum of 24 hours prior to the inspection.
2. Acceptable Condensate Removal: Clear plastic tubing
3. Acceptable Exterior Unit: Pad mounted
4. Manufacturer: Ingersol Rand/American Standard
5. Type: Central A/C Capacity: 2.5 Ton
6. Acceptable Compressor Fins: Routine maintenance includes cleaning debris from fins. - A garden hose is normally sufficient to clean.
7. Acceptable Approx. Age 2 years
8. Acceptable Refrigerant Lines: Serviceable condition
9. Acceptable Electrical Disconnect: Pull switch

CENTRAL AIR for REAR ADDITION AC System

10. Not Inspected A/C System Operation: Did not operate air conditioner mode.
Too cold within past 24 hours to safely test operation. - This inspector does not run air conditioner compressors unless the temperature is above 65 degrees for a minimum of 24 hours prior to the inspection.
11. Not Inspected Condensate Removal: Not accessible for inspection
12. Acceptable Exterior Unit: Pad mounted
13. Manufacturer: Ruud
14. Type: Central A/C Capacity: 2 Ton estimated due to worn tags
15. Acceptable Compressor Fins: Routine maintenance includes cleaning debris from fins. - A garden hose is normally sufficient to clean.
16. Marginal Approx. Age 25-30 years estimated -
- Compressor is at its expected service life. Anticipate the need to replace at any time. - Tag data is worn. Size and age are estimated.
17. Minor Repair Refrigerant Lines: Insulation is absent from portion of line on exterior - - Recommend it be replaced during next routine maintenance call for increased efficiency.
18. Acceptable Electrical Disconnect: Pull switch

Heating System

1. Acceptable Thermostat: Programmable

BASEMENT Heating System

2. Acceptable Heating System Operation: Operated properly at time of inspection



3. Acceptable Combustion Air Appears adequate with open basement
4. Manufacturer: Payne
5. Type: Forced air Capacity: 110,000 BTUHR
6. Acceptable Area Served: Whole home Age: 7 years - - No permit sticker is present, we recommend verifying with the seller that the new water heater was installed with a permit. The City of St

Heating System (Continued)

Area Served: (continued)

Louis began to enforce mechanical and plumbing permits in July 2010.

- 7. Fuel Type: Natural gas
- 8. Acceptable Heat Exchanger: No evidence of rusting associated with wall thinning
- 9. Unable to Inspect: 80%
- 10. Acceptable Blower Fan: Shut off as required when blower door was removed
- 11. Acceptable Filter Size: 16 x 25 x 1



- 12. Acceptable Filter Type: Disposable - Changing the filter several times per year is considered to be routine maintenance and can help to extend the life of the furnace system, increase efficiency and provide cleaner indoor air.
- 13. Acceptable Distribution: Heat is present in all habitable rooms
- 14. Safety Flue Pipe:

- Flue repair is advised. SEE ALSO EXTERIOR SURFACE--CHIMNEY. Metal cap is not properly aligned.

15. Suspected Asbestos: No

HALL CLOSET Heating System

- 16. Acceptable Heating System Operation: Operated properly at time of inspection
- 17. Acceptable Combustion Air Appears adequate with low and high mounted vent
- 18. Manufacturer: RUUD
- 19. Type: Forced air Capacity: 75,000 BTUHR
- 20. Marginal Area Served: REAR ADDITION Age: 30 years -
- Unit is beyond its expected service life. Anticipate the need to replace at any time.
- 21. Fuel Type: Natural gas
- 22. Marginal Heat Exchanger: A fair quantity of rust flakes are present in heat exchanger - - Recommend further evaluation by a qualified HVAC contractor. - Anticipate the need to replace in a short number of years due to its advanced age and rusted condition.



- 23. Unable to Inspect: 80%
- 24. Acceptable Blower Fan: Shut off as required when blower door was removed
- 25. Minor Repair Filter Size: - Filter was not located. This inspector recommends the installation of a readily accessible filter and filter slot.
- 26. Acceptable Distribution: Heat is present in all habitable rooms

Heating System (Continued)

27. Safety Flue Pipe: Single wall at furnace to double wall B vent through/above roof

flue is within 1" of combustible material (paper on insulation batts), posing a fire risk. Recommend repair be performed by a qualified contractor to gain the proper clearance or modify the installation with appropriate materials to reduce the clearance.



- Metal cap is not properly positioned at the chimney. SEE ALSO EXTERIOR SURFACE--CHIMNEY for important information.

Plumbing

1. Acceptable Main Water Shutoff: BASEMENT



2. Acceptable Main Size: 3/4"

3. Acceptable Water Pipe Materials: Copper. Galvanized.

- Galvanized water line is connected directly to copper water line without a dielectric union, which is required to prevent corrosion from dissimilar metals touching. Recommend have dielectric union added between the pipes wherever they meet or replace the galvanized with copper (to prevent rusting, clogging of valves, bitter taste, and reduction in flow due to rust).

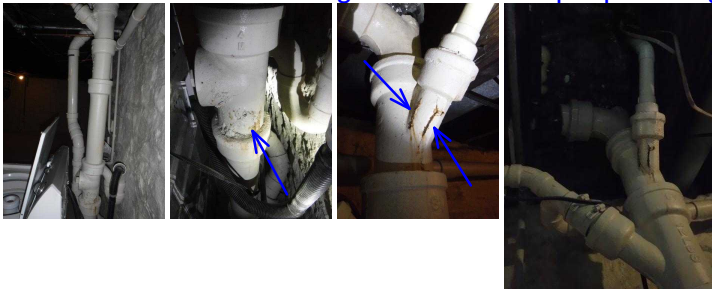
4. Marginal Drain Pipes:

- Some rust nodules are present on 4" stack in basement. Cracks were observed at the branch fitting.

- Rust nodules are caused by long-term wall thinning from caustic sewer gases and waste from the inside out. The nodules are from leakage that has self-sealed. If pipe is not replaced, anticipate worsening and multiplication of the rusting that leads to active leakage.

- Due to the deteriorated condition and age of the pipe we recommend that a licensed plumber replace all visible pipe in the 4" stack and connected branch line.

- Some municipalities do not allow drain pipe to be painted as it may be used to cover defects. We recommend consulting with the municipal plumbing authority for local requirements.



5. Not Inspected Underground Sewer: Recommend - have qualified plumber camera ("aka "scope") the sewer to the main to ascertain its condition for clogs, separations, or any damage. Condition of the pipe cannot be determined from a visual home inspection. Repairs of subgrade pipe is typically expensive due to need to dig in yard or below basement floor to make appropriate repairs.

Plumbing (Continued)

- 6. Acceptable Gas Meter: Basement
- 7. Acceptable Main Gas Valve: At gas meter



- 8. Important, Safety Gas Service Lines: Black Pipe - Leaking. The odor of gas was observed at the laundry service pipe / valve, electrical tape was observed covering the pipe end. Prompt repair is advised to prevent possible damage to the structure due to the presence of a gas leak. Both the Listing and Buyers Agents were notified of this issue as soon as it was discovered.



- 9. Acceptable Bathroom Bathroom fixtures performed as expected except as reported below
- 10. Marginal Bathroom FIRST FLOOR BATH: (ADDITION) - - Be sure to keep all joints in and near the tub, shower and sink sealed with a quality caulk to prevent water entry into the wall and floor cavity.

- Installation of shower pan is not standard. The weep ledge is visible, typically the weeps are positioned behind the surround surface to provide a drain for any seepage that may occur through the tile wall. Removal and replacement of the wall surface would be necessary to repair this issue.



- 11. Minor Repair Bathroom: HALL BATH: - Be sure to keep all joints in and near the tub, shower and sink sealed with a quality caulk to prevent water entry into the wall and floor cavity.

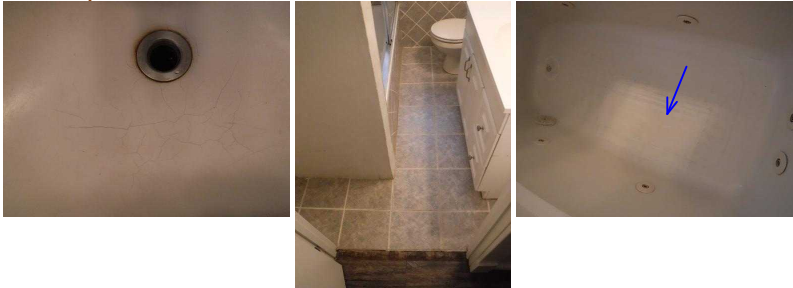
- The tub surface is damaged.. A tub re-fitter may be able to repair the surface to prevent sharp edges, possible foot injury and potential leakage.
- Tub stopper is absent. Installation of a stopper would be necessary for use with the jetted tub.
- Jetted tub did not respond to tub control. Repair as necessary is recommended.
- Shower diverter does not release to allow use of the spigot. This may be due to dry minerals at the valve that formed during several months of non use or it could be from a worn valve. If the situation does not improve with use, we recommend replacing the shower diverter assembly.
- Sink contains numerous cosmetic surface cracks. Such cracks are caused by thermal shock. Cracks do not extend through the bowl.
- No sink stopper is present, we recommend installation for your convenience and to help prevent items from being dropped down the drain.

Plumbing (Continued)

Bathroom: (continued)

- Non-standard walking clearance in the bath area. This layout would not meet modern construction standards,

- Tile grout is cracked at shower wall near the window, likely permitting moisture entry into wall cavity with unknown related damage. Recommend remove tile, evaluate, repair as necessary, and replace tile.



BASEMENT Water Heater

- 12. Acceptable Water Heater Operation: Functional at time of inspection
- 13. Manufacturer: General Electric
- 14. Type: Natural gas Capacity: 40 Gal.
- 15. Acceptable Approx. Age 4 years - - No permit sticker is present, we recommend verifying with the seller that the new water heater was installed with a permit. The City of St Louis began to enforce mechanical and plumbing permits in July 2010.
- 16. Minor Repair Flue Pipe: Single wall at water heater to metal lined flue in wall to roof
 - Screws are not present in all joints. We recommend the installation of 3 evenly spaced screws at all flue joints to secure the sections together.
- 17. Acceptable TPRV and Drain Tube: 3/4" Copper pipe
- 18. Not Present Pressure Absorption Tank: Absent - - All water heaters should be accompanied by the proper installation of a thermal expansion tank. We recommend that this device be installed by a licensed plumber when the tank is upgraded as per local ordinance and many water heater manufacturer's guidelines.

Kitchen

1st Floor Kitchen

- 1. Not Present Range: Electric - - Electric plug is older 3-wire style. Modern ranges require a 4-wire circuit and therefore an electrician would need to run a new wire from the main panel and install a proper outlet or a 3-wire would need to be obtained
- 2. Not Present Microwave: Built in microwave is not present
- 3. Not Present Ventilator:
- 4. Acceptable Refrigerator: Frigidaire -
 - Refrigerator and freezer cooled properly at time of inspection.
- 5. Acceptable Dishwasher: Frigidaire -
 - Operated properly through one complete cycle.
- 6. Air Gap Present? No
 - Recommend review manufacturer's data to determine whether an anti-siphon device is present and if not, strap dishwasher drain hose under countertop higher than hose inlet at disposal drain to prevent the possibility of sewage back flowing onto clean dishes.
- 7. Not Present Disposal:

Kitchen (Continued)

- 8. Acceptable Sink: Stainless Steel
- 9. Minor Repair Plumbing/Fixtures: Faucet & spray wand operated properly at time of inspection - - An "S" trap is present. These traps are subject to siphoning themselves dry, which would allow entry of sewer gases. An S-trap may not be permitted in this jurisdiction
 - We recommend replacement with a proper P-trap.

 - Dampness was observed on the center connection point on the faucet assembly. Repair as necessary is advised to prevent water damage to the home.



- 10. Acceptable Counter Tops: No issues requiring repair were observed, Laminate
- 11. Acceptable Cabinets: Wood - The shelf board in the cabinet below the sink has been replaced.

Laundry Room/Area

BASEMENT Laundry Room/Area

- 1. Acceptable Washer Standpipe: PVC
- 2. Acceptable Washer Hose Bib: On wall, not tested.
- 3. Minor Repair Dryer Vent: Corrugated plastic. - Upon moving in, we recommend replacing with rigid metal or metal flex duct, particularly if a gas dryer is used.
- 4. Acceptable Dryer Exhaust Hood: Plastic hood.
- 5. Acceptable Dryer Hookup Present: GAS & ELECTRIC
 - Electric plug is older 3-wire style. Newer dryers require a 4-wire circuit. Therefore an electrician would need to run a new wire from the main panel and install a proper outlet or the dryer plug may need to be changed to match.

Living Space

- 1. Acceptable Floor: Carpet. Ceramic/Stone. Hard/soft wood. -The hard/soft wood is discolored in a few areas, several patched areas are present. A flooring specialist could help repair these areas and blend for a uniform color while refinishing the wood surface.

 - thresholds are not present at all surface transitions. Consider the installation of thresholds for improved cosmetic appeal.

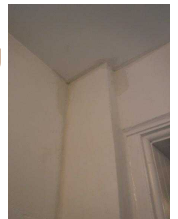
 - A raised section of flooring is present in the living room, likely where the hearth is located for the original ornamental fireplace.

Living Space (Continued)

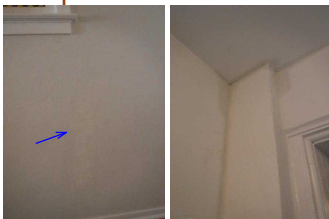
Floor: (continued)



2. Minor Repair Ceilings: Drywall. Plaster. - Some cracks, discolored areas and blisters are present throughout the home. This is common to observe in a house of this age. A painting contractor could easily repair these areas and paint to match.



3. Minor Repair Walls: Drywall. Plaster. - Some common plaster cracks and patched areas are present. This is common to observe in a house of this age. A painting contractor could easily repair these areas and paint to match.



4. Acceptable Closet: All in proper order, no defects observed

5. Minor Repair Doors: All operated and latched closed properly except -

- The hall bath door hits the wall. If this is a concern, consider the installation of Bi-fold or French Doors to improve function/clearance in the hallway

6. Minor Repair Windows: All operated & latched properly except as noted below -

- Some caulk joints are aging and gaps have developed. Periodic maintenance is required of these joints to remove the old caulk and replace to provide a watertight building envelope.

- Aluminum frame windows can be prone to condensation during cold weather and high room humidity, monitor the indoor moisture and if condensation is observed along window frames, reduce the indoor humidity level.

- Moisture present inside the layers of glass at most addition windows indicating the thermal seal has failed- typically this is a cosmetic issue however, such panes should be replaced or repaired in place (one company in St. Louis has a patent for this process) for maximum efficiency and enjoyment.

- Two of the stained glass windows are damaged. The lead caning is bent and parted. A stained glass company could assist with repair.

- The glass in one living room window is cracked/broken. Replacement of the glass is recommended.

- Consider the fabrication and installation of exterior storm windows to protect the stained glass windows from the elements and for increased energy efficiency.

Living Space (Continued)

Windows: (continued)

- The side front room window is not square in the opening, the wood frame is not square and plumb, the window sash is not square and plumb. One security latch is not able to be engaged on this window. This issue is likely related to the cracking observed in the brick wall around this window. Repair as necessary is advised for increased security and for proper window function.



7. Safety

Stair Rails/Guards: Wood. - One side of stairs is open. Recommend adding guardrails with 4" maximum spacing for improved safety.



8. Acceptable

Stair Treads: Wood.

Crawl Space

Crawl spaces can often have molds, mildews, fungi and other organic growth as well as pesticides and other chemical residue. If this is a concern for you, consider environmental testing by a qualified testing agency or industrial hygienist.

BENEATH THE ADDITON Crawl Space

1. Method of Inspection: Viewed from access panel
2. Not Inspected Unable to Inspect: 90% due to lack of clearance -
- HVAC duct prevented access



3. Not Inspected Access: Partially blocked -
- Consider the installation of a floor hatch for improved access to this crawl space.
4. Minor Repair Moisture Penetration: Crawl space smells musty from high humidity and accumulation of moisture
5. Minor Repair Moisture Barrier: No barrier was observed - - A plastic vapor barrier should be placed across the floor of the crawl space to minimize moisture entering the space from the soil. It is good practice to cover the vapor barrier with a layer of river gravel to prevent damage to the plastic from foot traffic.
6. Minor Repair Ventilation: 1 vent is present along north wall - - All unconditioned crawl spaces should be provided with flow-through ventilation with side vents to the exterior. This inspector recommends the addition of a vent opening in the crawl space cover to provide flow through ventilation of the crawl space. The vent screen should be a minimum 1/8x1/8" metal hardware mesh to help

Crawl Space (Continued)

Ventilation: (continued)

prevent the entry of insects and rodents.

7. Minor Repair Insulation: Fiberglass batts with paper face in joist cavities -

- All of the insulation has been installed with the paper facing down, which is improper because moisture can be trapped along the underside of the floor, which can lead to mold growth and deterioration of the wood. None of the insulation was disturbed during this inspection.

* We recommend remove the paper face or turn the insulation with the paper face against the underside of the floor. The insulation will require netting or springy insulation retaining rods (aka "tiger teeth", "wirestays", and "lightning rods") along the underside of the joists to retain it in position.

- some batts are hanging from joist cavities - We recommend strapping in position for comfort and reduction in energy consumption.

BELOW FRONT PORCH Crawl Space

8. Method of Inspection: Crawled in the crawl space



9. Acceptable Access: Wood door



10. Minor Repair Moisture Barrier: No barrier was observed - - A plastic vapor barrier should be placed across the floor of the crawl space to minimize moisture entering the space from the soil. It is good practice to cover the vapor barrier with a layer of river gravel to prevent damage to the plastic from foot traffic.



11. Marginal Ventilation: Absent - - All unconditioned crawl spaces should be provided with flow-through ventilation with side vents to the exterior. The existing panels could be removed and replaced with a new frame and screen sized for the opening or vents could be cut into the existing panels to allow air to flow through the crawl space. The screen should be a minimum 1/8x1/8" metal hardware mesh to help prevent the entry of insects and rodents.

Final Comments

LIMITATIONS & EXCLUSIONS

The scope of the inspection is to discover the functionality, safety hazards, and major defects and concerns with the home and its major systems, to report on the apparent condition of the visible portions of those systems and equipment, and whether those items inspected were performing their intended function at the time of the inspection or were in need of repair. This was a visual inspection of the readily accessible items performed in conformance with the ASHI (American Society of Home Inspectors) Standards of Practice. Concealed and latent defects are excluded from the inspection. The inspection and report are not intended to diagnose issues or recommend specific repairs, although this service is sometimes included due to Inspector's experience in certain matters. Recommendations are general guidelines, intended to be performed by qualified, skilled, and competent persons using proper tools and repair procedures in a safe and workmanlike manner following manufacturer's installation instructions where applicable. A recommendation does not preclude repair using another method.

This was not a technically exhaustive inspection and therefore no guarantee is made that every conceivable deficiency or issue has been addressed. Occupied homes and those containing furniture and possessions may prevent inspecting items under rugs, behind furniture, concealed behind stored things, and blocked by boxes. Inspector attempts to inspect all major elements of the building. We do not move furniture, dismantle components, remove drop ceiling panels, or use force beyond that normally expected to operate an item. We cannot be held responsible for deterioration and defects in subgrade portions of the dwelling and inaccessible portions of crawl spaces, attics, etc. Basements and crawl spaces are often dry when inspected and inspector cannot be expected to predict that moisture entry at other times may occur. Inspector cannot predict the remaining life of any item or foresee issues such as leakage and moisture entry where no evidence is present at the time of the inspection of such conditions. If this inspection was performed for a Buyer, the Seller was aware of this inspection and should have made elements accessible prior to this inspection including attic accesses, garages, furnaces and boilers, water heaters, & electric panels. Pilots for all gas operated appliances must be lit for a proper inspection. For our safety and yours, we do not and will not light pilot lights.

This was not an inspection to determine if an element meets or does not meet current building codes or regulations of any kind, although modern building codes often provide the impetus for a recommendation to improve functionality, longevity, or safety. If an item is called out as possibly not meeting certain requirements or qualities of proper workmanship, Inspector may suggest evaluation, repair, or improvement work be performed by a skilled contractor or licensed individual as appropriate. The existence of visible items that are not properly installed or operating leaves open the possibility of concealed items constructed in a like manner, which is but one reason to have a qualified contractor verify or certify certain things are done properly during the home purchase process and when repairs are performed.

Minor deficiencies, cosmetic items, and maintenance issues are reported as a courtesy only. Maintenance and minor items are reported upon that in opinion of Inspector would be a nuisance in some manner to the average person. It is impossible to report on each and every minor issue and we provide no assurance that all such issues have been identified. You may be able to negotiate to have the Seller address a portion of these things or, as with any home, be aware of them and address as you desire upon taking ownership.

Items that may be present and outside the scope of this inspection include: in-wall portion of central vacuum system; low voltage systems including stereo, telephone, television cable, satellite dish, intercom, data cable, security, alarm, and pet containment systems; complex electronic items; self-cleaning feature of ovens; coffee/espresso machine; washers and dryers; swimming pools, filters, and heaters; saunas; hot tubs; septic systems; wells; propane tanks; remote controls for built-in items; sprinkler system and backflow valves; and small storage buildings. We suggest contacting the Seller, installer, system designer, or manufacturer's literature for the routing and purpose of cabling and proper and safe operation of such systems.

Final Comments (Continued)

Please refer to the Authorization & Contract for Inspection Services you were provided for further details.

Asbestos Warning :

Asbestos was used in numerous products incorporated in residential construction including siding, flooring, ceiling materials, and pipe wrap and tape. Asbestos identification is beyond the scope of this inspection. Inspector may provide a warning in the report of items possibly containing asbestos. Absence of such a warning does not imply possibly asbestos-containing items are absent. Suspected asbestos containing items should be presumed to contain asbestos unless testing proves otherwise. Do not disturb. Inspector recommends follow the advice of a qualified firm to deal with any asbestos issue or concern. Lab testing of the suspected material is required to determine the presence of asbestos. This firm is not qualified to assess any asbestos issues and specifically excludes anything related to asbestos from our inspection. If you are concerned, a state licensed individual should be consulted.

Carbon Monoxide:

A visual inspection of the flues and other venting systems was performed to determine that they functioned properly. The inspection covers only the portion visible. Hidden problems may exist that cannot be observed or detected by Inspector. In their service territory Laclede Gas is required to perform a gas safety inspection as part of real estate sales transaction: check with your agent on this provision in your sale contract. We recommend installing and maintaining carbon monoxide detectors per the manufacturer's instructions if the home contains an attached garage, operable fireplace, and/or gas combustion device. We do not test installed carbon monoxide detectors.

Lead in Paint and Water:

Lead based paint was in common use through the 1970's. According to the Federal Department of Housing and Urban Development, a lead hazard can be present in a house of this age from deteriorating old paint. It is believed that the primary danger would be to small children who may somehow ingest chips or dust of lead-based paint. A qualified EPA certified Renovation, Repair, and Painting contractor is recommended to evaluate and provide proper scope for repairs of items involving older paint. This firm is not qualified to test for lead and specifically excludes anything related to lead in paint from our services.

Lead in water may have two primary sources, one being the pipe system delivering water to the structure built prior to 1930, the other being the pipe solder within the structures prior to 1988. Many faucets, plumbing fitting, check valves, and well pumps contain some percentage of lead that can be leached in to water. This firm is not qualified to test for lead in water and specifically excludes anything related to lead in water from our services.

Meth Labs:

Due to a growing issue Missouri was one of the first states in the country to develop a meth lab task force during the mid-1990s. The meth lab problem has continued to dramatically increase and has spread across the country. The home inspection does not detect nor offer any guidance or advice for the presence or removal of any potential risk to human health from the production of meth. Additional information for the understanding of meth chemicals, testing and decontamination can be found widely on the Internet. Additional inspection and testing would be required to confirm toxic chemicals were used in meth manufacture in any home. This firm is not qualified to perform meth related inspections and testing.

Mold:

Inspector does not inspect or test for the presence of mold. If moisture entry appears problematic or you are concerned about the possible presence of mold in the home or health affects of mold, contact a qualified mold specialist or industrial hygienist. Anything related to mold is specifically beyond the scope of this home inspection.

Radon:

Radon gas is naturally occurring in our environment from deposits of uranium in soil and rock. The danger occurs

Final Comments (Continued)

when the gas percolates through the ground and enters an enclosed structure through fissures or cracks in a foundation. The gas can become concentrated when trapped in confined spaces. The Environmental Protection Agency and the Surgeon General recommend all homes be tested for radon. Inspector can provide additional information and testing in accordance with Environmental Protection Agency protocols if desired. Testing for radon is beyond the scope of an ASHI home inspection. A separate charge applies for radon testing service. Testing requires a 48 hour minimum test period.

Remodeling and repair work:

Permits for building, remodeling and some repair work may be required by county, and/or local municipalities at the time the work was performed. This inspection is not intended to inspect for code compliant issues. This inspection will document the design and type of some materials used at the time of construction/updates and will note if functional or defective at the time of the inspection. Local code officials and the fire marshal, and not a home inspector, may make the determination if existing conditions are approved by locally adopted codes. An occupancy inspection may be required prior to moving in to this property, which is a municipal or county and not a home inspection function. Non-compliant issues should be addressed as part of the inspection performed by code enforcement official(s).

Be aware that EPA implemented rules effective April 22, 2010 covering activities that have the potential to release hazardous lead dust from lead-based paint. Companies and workers performing renovation activities involving lead-based paint must be certified by the EPA. The requirements apply to renovation, repair or painting activities. The rule does not apply to minor maintenance or repair activities where less than six square feet of lead-based paint is disturbed in a room or where less than 20 square feet of lead-based paint is disturbed on the exterior. Window replacement is not minor maintenance or repair. More information can be found at the EPA website:
<http://www.epa.gov/lead/pubs/renovation.htm>

Urea Formaldehyde Foam Insulation:

U.F.F.I. is Urea Formaldehyde Foam Insulation. This type of insulation was used throughout the country as a method of installing some retrofit insulation in existing homes and in new construction. It is a foam material that was injected into wall voids. It has been discovered that this type of insulation may off-gas formaldehyde fumes, given the right conditions, long after its installation. Formaldehyde gas usually dissipates with time and proper ventilation. However, this gas is now known to be, at the least, a respiratory irritant, particularly to infants and older people. The Environmental Protection Agency recommends caution to exposure. Inspecting for Formaldehyde is beyond the scope of a home inspection.

Thank you for selecting Wessling Home Inspection Services, LLC for your inspection needs.

- John Wessling, ACI 249060

Important Summary

Item is of urgent structural nature, major defective issue, significant life safety issue, relatively costly item to repair, and/or an item that in Inspector's opinion should not be ignored or delayed. All Important items appear under another category as well.

Plumbing

1. Gas Service Lines: Black Pipe - Leaking. The odor of gas was observed at the laundry service pipe / valve, electrical tape was observed covering the pipe end. Prompt repair is advised to prevent possible damage to the structure due to the presence of a gas leak. Both the Listing and Buyers Agents were notified of this issue as soon as it was discovered.

Safety Summary

This summary is not the entire report. The complete report may include additional information of concern to the client. It is recommended that the client read the complete report.

Lots and Grounds

1. Bsmt. Stair Hand & Guard Rails: Handrail is absent -
- Modern construction requirements include having grippable rail along all steps with more than three risers. Recommend adding a grippable (~1-1/2" diameter) handrail along at least one side of the steps for improved safety.

Exterior Surface and Components

2. EAST SIDE OF HOME Chimney Rain Cap/Spark Screen: Metal -
- There is a round metal cap beneath the visible rain cap. This round cap sits on the upper edge of the clay flue, restricting the venting of combustion gases from the water heater and furnace. Prompt repair is advised to ensure proper venting of gases, prevent damage from moisture buildup within the chimney system and to prevent carbon monoxide from accumulating within the home.

Attic

3. OVER MAIN LIVING AREA Attic Insulation Depth: 8-10" avg R-25+ -
- Insulation has been improperly installed over knob and tube wiring. SEE ALSO ELECTRICAL--KNOB AND TUBE
4. AT REAR ADDITION Attic Insulation Type: Fiberglass, Batts.
- POLYSTYRENE
This foam insulation produces toxic gasses when burned. For improved safety, this inspector recommends either removal of all visible polystyrene foam board or covering it with a non-combustible material such as drywall.

Basement

5. Under entire living area Basement Basement Railing/Guard: Wood -
- Recommend add grippable handrail (~1-1/2" diameter) along steps where absent for improved safety.

Electrical

6. Outlet 3 Prong type tests not properly grounded and repair or replacement is recommended: most of the 3 prong outlets in the main home. - Recommend correction by a licensed electrician. Possible repairs include: replace outlet served with a 2 wire type polarized correctly, protect with GFCI outlet & mark outlet as "No Equipment Ground Available GFI Protected", or rewire with a modern 3 - wire line.
7. Wiring Issues require proper repair - on ceiling in various locations and at the range receptacle should be corrected by rerouting the wires through the joists, running in conduit, or protecting by other allowed methods. Surface wiring of small gauge wires was never permitted as far as we are aware.

- Improper wire types used in the kitchen cabinets, window bay seating bench and basement. Lamp cord and extension cords have been used as permanent wiring. This is not proper. The lamp cord/extension cord should be replaced with the proper size of Romex type wire.
8. Smoke Detectors: Absent from some desired areas - - Be sure to maintain one per floor, each hallway and in every bedroom, change batteries per the manufacturer's instructions, and test at least annually. Consider adding Photoelectric type detectors for improved safety. Most smoke detectors lose effectiveness after 10 years and should be replaced - the age of the existing detectors is unknown.
9. CO Detectors For increased safety whenever gas appliances are present - we recommend the use of carbon monoxide detectors. Please follow manufacturer's guidelines for installation and maintenance.

Safety Summary (Continued)

Heating System

10. BASEMENT Heating System Flue Pipe:

- Flue repair is advised. SEE ALSO EXTERIOR SURFACE--CHIMNEY. Metal cap is not properly aligned.

11. HALL CLOSET Heating System Flue Pipe: Single wall at furnace to double wall B vent through/above roof flue is within 1" of combustible material (paper on insulation batts), posing a fire risk. Recommend repair be performed by a qualified contractor to gain the proper clearance or modify the installation with appropriate materials to reduce the clearance.

- Metal cap is not properly positioned at the chimney. SEE ALSO EXTERIOR SURFACE--CHIMNEY for important information.

Plumbing

12. Gas Service Lines: Black Pipe - Leaking. The odor of gas was observed at the laundry service pipe / valve, electrical tape was observed covering the pipe end. Prompt repair is advised to prevent possible damage to the structure due to the presence of a gas leak. Both the Listing and Buyers Agents were notified of this issue as soon as it was discovered.

Kitchen

13. 1st Floor Kitchen Air Gap Present? No

- Recommend review manufacturer's data to determine whether an anti-siphon device is present and if not, strap dishwasher drain hose under countertop higher than hose inlet at disposal drain to prevent the possibility of sewage back flowing onto clean dishes.

Living Space

14. Stair Rails/Guards: Wood. - One side of stairs is open. Recommend adding guardrails with 4" maximum spacing for improved safety.

Minor Repair Summary

This summary is not the entire report. The complete report may include additional information of concern to the client. It is recommended that the client read the complete report.

Lots and Grounds

1. Walks: Concrete. - Some slabs are cracked and sealing with a urethane caulk is recommended to help prevent ice/water related damages.
2. Basement Stairwell: Concrete -
- Some slabs/stair treads are cracked and sealing with a urethane caulk is recommended to help prevent ice/water related damages.

Exterior Surface and Components

3. MAIN BUILDING Exterior Surface Type: Vinyl siding -
- Plastic covers an area along the west wall. A cut out in the siding is present. The reason is unknown to this inspector. Repair to install a weather resistant siding material properly flashed along the edges for a weather tight is recommended.
4. Fascia & Trim: Aluminum. - Some caulk joints are aging and gaps have developed. Periodic maintenance is required of these joints to remove the old caulk and replace to provide a watertight building envelope.

- Paint is weathered and flaking at some window frames. Maintenance should include scrape all exposed wood, undercoat, and paint. Be aware that EPA has implemented rules starting in 2010 covering activities that have the potential to release hazardous lead dust from lead-based paint.

- The trim is gapped and pulled at the side living room window. Repair to maintain a weather tight surface is recommended.

- Several sections of aluminum fascia are loose, especially at the corner of the home. One section of fascia is absent along the front gable. Repair to secure all fascia and installation of new fascia where absent is recommended for cosmetic appeal and to maintain weather resistant building surfaces.
5. Soffits: Aluminum/Metal.
- Soffit material is loose/absent along several areas of the addition. Sections are loose around the main house. Some sections are absent near the rear corner of the main house. Nesting material is observed at the rear corner of the house. This inspector recommends replacing all absent soffit sections and securing any loose soffit against wind and animal related damages. Be sure to remove any nesting material as part of any soffit repair.
6. EAST SIDE OF HOME Chimney: Brick with parge coating -
Efflorescence noted at some surface cracks in the chimney surface (white discoloring) indicating moisture is evaporating through the chimney walls. Moisture can enter the chimney from gaps/cracks along the surface, improper venting of combustion gases and between clay flue tiles. - Recommend repair as necessary to the flue and/or chimney system by a qualified tuckpointer or chimney sweep. A good tuckpointer can dye the mortar/parge so that the repair is not visible from the street.

Roof

7. Flashing: Edge flashing is not present as desired - along the rear addition roof edges. Installation of edge flashing is recommended to help prevent water from wicking beneath the shingle and to direct the drainage of water out over the siding material.

Proper step and counter flashing where the porch roof meets the brick wall is absent. Mastic/tar has been used and will require constant maintenance.

- step flashing is required to prevent moisture entry where roof at an incline meets walls.

Minor Repair Summary (Continued)

Flashing: (continued)

- step flashing should be installed according to the "Roofing and Waterproofing Manual" published by the National Roofing Contractors Association, the national trade group organization.
- Portions of the shingles will need to be removed in order to properly install step flashing. Due to the condition of the shingles, this work should be performed concurrently with the replacement of the roof.

8. Plumbing Vents:

- Rubber is split at the stack, which can permit moisture entry into attic. Recommend have rubber boot and integral metal flashing replaced.

9. Downspouts: Aluminum. Be sure to keep the splash pads properly positioned to help prevent erosion and to direct water out and away from the foundation and sidewalks.

10. Downspout Splash Pads: Be sure to maintain proper positioning to direct water out and away from foundation. Recommend the addition of spout extensions to better direct moisture out and away from foundation & to prevent erosion.

Structure

11. Foundation: Concrete Block - - A few hairline cracks are observed at the rear corner of the addition. We suggest repair as described in EXTERIOR SURFACE--BRICK.

12. Subfloor: Timber Planks. - Some stains from leakage are present but no damage requiring repair.

- Recommend flash over openings at plumbing stacks visible from basement for improved fire safety using minimum 20 gauge metal (aluminum is not acceptable). This would prevent a possible fire from burning within a wall cavity that the fire department could not easily extinguish.

Basement

13. Under entire living area Basement Moisture Location: No evidence of moisture entry through walls is present. - The recent application of a paint/sealant has covered any evidence of seepage.

- Stone foundations typically seep due to porous stone and old lime type mortar. Stone foundations were never intended to be watertight. Basement has no odor or mustiness from moisture entry. The frequency and severity of any moisture entry problems cannot be determined. See Sellers Disclosure.

- Moisture entry can many times be reduced by the addition of topsoil sloping away from the foundation and ensuring gutters are clean, the downspouts are open, splash blocks/pads are properly positioned, or the pipes that drain underground are not clogged.

Electrical

14. Basement Electric Panel Manufacturer: Murray.

- Possible mismatch with the main breaker size and the Service Entrance Cable. The cable appears to be undersized for the 150 Amp breaker, this could result in overheated service cable. Further evaluation by a licensed electrician is recommended to determine if the cable is properly sized for use with this breaker.

15. Basement Electric Panel Panel wiring Sheathing is cut outside of the enclosure.

- the sheathing is improperly cut, sheathing outside of the panel enclosure should not be cut. Repair as necessary to ensure all conductors are properly protected is recommended.

16. GFCI: For improved safety we recommend:

- the hall bath, GFCI outlets test as Hot/Neutral reversed. Correction by a qualified contractor is recommended for improved safety.

- With the light switch located above the vanity, this inspector recommends the installation of GFCI protection.

Minor Repair Summary (Continued)

- 17. Cover Plates Absent:
 - at basement outlets, Installation of cover plate is recommended
- 18. Light Fixtures Not operating properly (may be a bulb) - at the kitchen counter. Repair as necessary is advised
 - At the rear addition stairway--Three way switches should be used for the loft area stair light. The switches did not function properly. Repair is recommended to provide operating three-way switches at the top and bottom of the stairway.
- 19. Ceiling Fan: All operated and appeared properly secured -
 - Fan did not turn on in the front room. It is possible that fan operates with remote control feature. Remote was not observed. This inspector recommends asking the seller for any information regarding remote features.

Air Conditioning

- 20. CENTRAL AIR for REAR ADDITION AC System Refrigerant Lines: Insulation is absent from portion of line on exterior - - Recommend it be replaced during next routine maintenance call for increased efficiency.

Heating System

- 21. HALL CLOSET Heating System Filter Size: - Filter was not located. This inspector recommends the installation of a readily accessible filter and filter slot.

Plumbing

- 22. Bathroom: HALL BATH: - Be sure to keep all joints in and near the tub, shower and sink sealed with a quality caulk to prevent water entry into the wall and floor cavity.
 - The tub surface is damaged.. A tub re-fitter may be able to repair the surface to prevent sharp edges, possible foot injury and potential leakage.
 - Tub stopper is absent. Installation of a stopper would be necessary for use with the jetted tub.
 - Jetted tub did not respond to tub control. Repair as necessary is recommended.
 - Shower diverter does not release to allow use of the spigot. This may be due to dry minerals at the valve that formed during several months of non use or it could be from a worn valve. If the situation does not improve with use, we recommend replacing the shower diverter assembly.
 - Sink contains numerous cosmetic surface cracks. Such cracks are caused by thermal shock. Cracks do not extend through the bowl.
 - No sink stopper is present, we recommend installation for your convenience and to help prevent items from being dropped down the drain.
 - Non-standard walking clearance in the bath area. This layout would not meet modern construction standards,
 - Tile grout is cracked at shower wall near the window, likely permitting moisture entry into wall cavity with unknown related damage. Recommend remove tile, evaluate, repair as necessary, and replace tile.
- 23. BASEMENT Water Heater Flue Pipe: Single wall at water heater to metal lined flue in wall to roof - Screws are not present in all joints. We recommend the installation of 3 evenly spaced screws at all flue joints to secure the sections together.

Minor Repair Summary (Continued)

Kitchen

24. 1st Floor Kitchen Plumbing/Fixtures: Faucet & spray wand operated properly at time of inspection - - An "S" trap is present. These traps are subject to siphoning themselves dry, which would allow entry of sewer gases. An S-trap may not be permitted in this jurisdiction
- We recommend replacement with a proper P-trap.
- Dampness was observed on the center connection point on the faucet assembly. Repair as necessary is advised to prevent water damage to the home.

Laundry Room/Area

25. BASEMENT Laundry Room/Area Dryer Vent: Corrugated plastic. - Upon moving in, we recommend replacing with rigid metal or metal flex duct, particularly if a gas dryer is used.

Living Space

26. Ceilings: Drywall. Plaster. - Some cracks, discolored areas and blisters are present throughout the home. This is common to observe in a house of this age. A painting contractor could easily repair these areas and paint to match.
27. Walls: Drywall. Plaster. - Some common plaster cracks and patched areas are present. This is common to observe in a house of this age. A painting contractor could easily repair these areas and paint to match.
28. Doors: All operated and latched closed properly except -
- The hall bath door hits the wall. If this is a concern, consider the installation of Bi-fold or French Doors to improve function/clearance in the hallway
29. Windows: All operated & latched properly except as noted below -
- Some caulk joints are aging and gaps have developed. Periodic maintenance is required of these joints to remove the old caulk and replace to provide a watertight building envelope.
- Aluminum frame windows can be prone to condensation during cold weather and high room humidity, monitor the indoor moisture and if condensation is observed along window frames, reduce the indoor humidity level.
- Moisture present inside the layers of glass at most addition windows indicating the thermal seal has failed-typically this is a cosmetic issue however, such panes should be replaced or repaired in place (one company in St. Louis has a patent for this process) for maximum efficiency and enjoyment.
- Two of the stained glass windows are damaged. The lead caning is bent and parted. A stained glass company could assist with repair.
- The glass in one living room window is cracked/broken. Replacement of the glass is recommended.
- Consider the fabrication and installation of exterior storm windows to protect the stained glass windows from the elements and for increased energy efficiency.
- The side front room window is not square in the opening, the wood frame is not square and plumb, the window sash is not square and plumb. One security latch is not able to be engaged on this window. This issue is likely related to the cracking observed in the brick wall around this window. Repair as necessary is advised for increased security and for proper window function.

Minor Repair Summary (Continued)

Crawl Space

30. BENEATH THE ADDITON Crawl Space Moisture Penetration: Crawl space smells musty from high humidity and accumulation of moisture
31. BENEATH THE ADDITON Crawl Space Moisture Barrier: No barrier was observed - - A plastic vapor barrier should be placed across the floor of the crawl space to minimize moisture entering the space from the soil. It is good practice to cover the vapor barrier with a layer of river gravel to prevent damage to the plastic from foot traffic.
32. BENEATH THE ADDITON Crawl Space Ventilation: 1 vent is present along north wall - - All unconditioned crawl spaces should be provided with flow-through ventilation with side vents to the exterior. This inspector recommends the addition of a vent opening in the crawl space cover to provide flow through ventilation of the crawl space. The vent screen should be a minimum 1/8x1/8" metal hardware mesh to help prevent the entry of insects and rodents.
33. BENEATH THE ADDITON Crawl Space Insulation: Fiberglass batts with paper face in joist cavities -
- All of the insulation has been installed with the paper facing down, which is improper because moisture can be trapped along the underside of the floor, which can lead to mold growth and deterioration of the wood. None of the insulation was disturbed during this inspection.
* We recommend remove the paper face or turn the insulation with the paper face against the underside of the floor. The insulation will require netting or springy insulation retaining rods (aka "tiger teeth", "wirestays", and "lightning rods") along the underside of the joists to retain it in position.
- some batts are hanging from joist cavities - We recommend strapping in position for comfort and reduction in energy consumption.
34. BELOW FRONT PORCH Crawl Space Moisture Barrier: No barrier was observed - - A plastic vapor barrier should be placed across the floor of the crawl space to minimize moisture entering the space from the soil. It is good practice to cover the vapor barrier with a layer of river gravel to prevent damage to the plastic from foot traffic.

Marginal Summary

This summary is not the entire report. The complete report may include additional information of concern to the client. It is recommended that the client read the complete report.

Lots and Grounds

1. Porch: Concrete. Brick.
 - Some surface cracks are present. Recommend chip away any loose debris and apply urethane caulk as needed to maintain a water resistant surface.
 - The joint between the brick and concrete porch slab has been beveled and sealed with a concrete product. In the future, repair with a flexible material such as urethane will provide a longer lasting seal.
 - SEE ALSO EXTERIOR SURFACE--BRICK for additional notes

Exterior Surface and Components

2. MAIN BUILDING Exterior Surface Type: Brick -
 - Several stairstep separations and cracks have developed through the brickwork along the walls of the front porch, the west side front room windows, the west rear window and at the southwest corner of the home.
 - This type of cracking could indicate building movement (especially when considered with the condition of the wall on the adjacent neighboring building) and/or issues with the brick archway at the window openings. Additional review and repair by a qualified masonry contractor/structural specialist is recommended prior to the close of your inspection period. At a minimum, the gaps in the mortar should be tuckpointed to prevent moisture entry and allow monitoring for any change in condition. Movement cannot be predicted or entirely prevented. A goal should be to maintain consistent soil moisture content around the home. Positive drainage should be provided, especially from along the west side where it appears moisture is puddling.
 - Tuckpointing an entire home can be costly. Costs vary widely and usually are related to the preparatory work performed to provide a quality long-term result. When choosing a tuckpointer, be sure to understand whether the tuckpointer is grinding out all joints deeply to obtain a proper bond of the new mortar and if color matching is included in the work. The type of mortar should match that originally used for the home's construction (types include O, S, & M, which relate to the material mix and hardness/softness). Our experience is that the cheaper tuckpointers tend to smear thin layers of mortar over the joints, which may look good immediately but tends to become detached in a very short number of years. This type of tuckpointing should be avoided.
3. Rear Entry Door(s): Metal, Operated and latched properly - - Light is visible along the perimeter. Recommend weather strip be installed to help keep insects out of the home and for increased energy efficiency.

Roof

4. ENTIRE DWELLING Roof Surface Material: 3 Tab fiberglass shingle - Blemishes are present that may be related to small hail damages or shingles damaged during application. Several depressions approximately the size of a nickel are present. Most merely impacted and bruised the outer shingle surface.
 - Shingles are torn and damaged at the rear corner of the addition. Replacement of the damaged shingle is advised to prevent leakage into the structure.
 - A small number of nails are raised, which can cause the overlying shingles to become punctured. Recommend driving down nails properly to prevent shingle damage. Several shingle have been damaged to the fiberglass mat and should be replaced to prevent further damage from the sun and possible moisture entry.
 - The shingle have not been evenly spaces and woven together at the transition between the main house and

Marginal Summary (Continued)

Material: (continued)

the addition. The non-typical spacing between tabs increases the possibility of water leakage into the structure.

- Granular loss is observed in several areas. This indicates weather related wear or damage due to rubbing (front porch roof--tree branch) Anticipate the rate of deterioration to increase as the underlayment is exposed to the elements.

- Due to the issues above, this inspector recommends planning to replace this roof in the next few years.

- The screws at the satellite dish penetrations need periodic maintenance to provide a water resistant surface and should be caulked as needed to prevent moisture entry.

- You may want to ask Seller, or your insurance company via a CLUE report, whether a claim for hail damage has ever been filed.

- Consider having a qualified roofing contractor provide cost and repair/replacement options prior to the close of your inspection period.

5. Gutters: Aluminum.

- the northwest gutter is loose and pulled away from the roof edge. Prompt repair is recommended to provide proper drainage of water out and away from the structure.

- Several gutter sections have negative slope and could hold water. Repair is recommended to provide secure gutters properly sloped for drainage.

Structure

6. Foundation: Stone -

- Typical of old stone foundations and flat city lots, anticipate natural wicking of moisture through the stones. No active moisture entry was observed at the time of the inspection. It cannot be determined if moisture entry is an ongoing issue. The Sellers Disclosure Statement should be reviewed for any known moisture entry problems.

- Gaps and separations have developed through the stonework at the southwest corner of the home. This type of cracking could indicate building movement (especially when considered with the condition of the wall on the adjacent neighboring building). Additional review and repair by a qualified masonry contractor/structural specialist is recommended prior to the close of your inspection period. At a minimum, the gaps in the mortar should be tuckpointed to prevent moisture entry and allow monitoring for any change in condition. Movement cannot be predicted or entirely prevented. A goal should be to maintain consistent soil moisture content around the home. Positive drainage should be provided, especially from along the west side where it appears moisture is puddling.

- Spot tuckpointing can be performed and is recommended whenever and where ever gaps are observed to seal out moisture and prevent ice/water related damages.

- Tuckpointing an entire home can be costly. Costs vary widely and usually are related to the preparatory work performed to provide a quality long-term result. When choosing a tuckpointer, be sure to understand whether the tuckpointer is grinding out all joints deeply to obtain a proper bond of the new mortar and if color matching is included in the work. The type of mortar should match that originally used for the home's construction (types include O, S, & M, which relate to the material mix and hardness/softness). Our experience is that the cheaper tuckpointers tend to smear thin layers of mortar over the joints, which may look good immediately but tends to

Marginal Summary (Continued)

Foundation: (continued)

become detached in a very short number of years. This type of tuckpointing should be avoided.

7. Rafters: 2x rafter framing, no collar ties are present - - Consider the addition of collar ties to the roof structure. Collar ties are typically located in the upper third of the rafter span and increase stability and help prevent spreading of the roof system.

- Split rafter member observed above the bath area, (Near the attic access), Repair by a qualified contractor is recommended to ensure the rafters can carry the intended design load. Failure to repair could result in additional damages to this and surrounding rafters, including possible failure under load.

Electrical

8. Conductor Type: Aluminum Service Conductor for the Service Entrance Cable
9. ON MAIN BEAM in basement Electric Panel Panel wiring Improper wire entry at old enclosure now used as junction -
- cloth covered conductors and knob and tube type conductor enter through the same wire clamp/box knock out. This is not proper, knob and tube wire must enter from opposite sides of the box. Repair as necessary is advised.
10. Knob & Tube Wiring Present in basement and attic -
- This wiring is covered with insulation and touching insulation. We recommend immediately removing all insulation, rewire the attic entirely, and replace the insulation. Knob and tube wiring must be exposed to 'open air' for proper dispersal of heat.
Unknown if other knob and tube wiring is present within the walls and ceilings. This old style of wiring has cloth or rubber sheath on the wires which becomes brittle with age and handling. There is an inherent risk of fire and electrocution if the wires become bare.

Air Conditioning

11. CENTRAL AIR for REAR ADDITION AC System Approx. Age 25-30 years estimated -
- Compressor is at its expected service life. Anticipate the need to replace at any time. - Tag data is worn. Size and age are estimated.

Heating System

12. HALL CLOSET Heating System Area Served: REAR ADDITION 30 years -
- Unit is beyond its expected service life. Anticipate the need to replace at any time.
13. HALL CLOSET Heating System Heat Exchanger: A fair quantity of rust flakes are present in heat exchanger -
- Recommend further evaluation by a qualified HVAC contractor. - Anticipate the need to replace in a short number of years due to its advanced age and rusted condition.

Plumbing

14. Drain Pipes:
- Some rust nodules are present on 4" stack in basement. Cracks were observed at the branch fitting.
- Rust nodules are caused by long-term wall thinning from caustic sewer gases and waste from the inside out. The nodules are from leakage that has self-sealed. If pipe is not replaced, anticipate worsening and multiplication of the rusting that leads to active leakage.
- Due to the deteriorated condition and age of the pipe we recommend that a licensed plumber replace all visible pipe in the 4" stack and connected branch line.

- Some municipalities do not allow drain pipe to be painted as it may be used to cover defects. We recommend consulting with the municipal plumbing authority for local requirements.

Marginal Summary (Continued)

15. Bathroom FIRST FLOOR BATH: (ADDITION) - - Be sure to keep all joints in and near the tub, shower and sink sealed with a quality caulk to prevent water entry into the wall and floor cavity.
- Installation of shower pan is not standard. The weep ledge is visible, typically the weeps are positioned behind the surround surface to provide a drain for any seepage that may occur through the tile wall. Removal and replacement of the wall surface would be necessary to repair this issue.

Crawl Space

16. BELOW FRONT PORCH Crawl Space Ventilation: Absent - - All unconditioned crawl spaces should be provided with flow-through ventilation with side vents to the exterior. The existing panels could be removed and replaced with a new frame and screen sized for the opening or vents could be cut into the existing panels to allow air to flow through the crawl space. The screen should be a minimum 1/8x1/8" metal hardware mesh to help prevent the entry of insects and rodents.