

Definitions

NOTE: All definitions listed below refer to the property or item listed as inspected on this report at the time of inspection

A NP NI M D	Acceptable Not Present Not Inspected Marginal Defective	Functional with no obvious signs of defect. Statements provided are typically recommendations and/or provided for future use information. Item not present or not found. Item was unable to be inspected for safety reasons or due to lack of power, inaccessible, or disconnected at time of inspection. Item is not fully functional and requires repair or servicing. Item needs immediate repair or replacement. It is unable to perform its intended function.
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General Information

Property Address 123 Property Street

City City **State** State **Zip** Zip

Contact Name Individual Scheduling Inspection

Phone Scheduler's Phone Number **Fax** Scheduler's Fax Number

E-Mail Contact person's &/or real estate agent's e-mail address(es)

Client Name Mr. & Mrs. Client

Client Address Current Address

City Current City **State** Current State **Zip** Current Zip

Phone Client's current phone number(s) **Fax** Client's current fax number(s)

E-Mail Client's e-mail address(es)

Inspector Name Brian D. Keeler [ASHI Member #200115]

Company Name Atlantic Inspection Services

Company Address 35 Old Bonifant Road

City Silver Spring **State** MD **Zip** 20905-5902

Phone 301-879-0777 **Fax** 301-989-2425

E-Mail AIS@AtlanticInspectionServices.com

File Number B-YYMMDD-#

Amount Received Amount paid

Others Present Those there for any part of the inspection **Property Occupied** Yes

Estimated Age Age in years and year built **For Point of Reference Entrance Faces** For designations used in report

Inspection Date Day of Week, Date and Year

Start Time Hour of the day started **End Time** Hour of the day ended

Electric On Yes

Gas/Oil On Yes

Water On Yes

Temperature in degrees Fahrenheit

Weather Conditions at start of inspection **Soil Conditions** Soil conditions at start of inspection

Space Below Grade none, crawl space &/or basement

Building Type Condo, Townhouse or SFH **Garage** None, Attached &/or Built-in

Sewage Disposal Public or Private **How Verified** How information was obtained

Water Source Public or Private **How Verified** How information was obtained

Additions/Modifications From information provided by client/seller/real estate agent(s).

Permits Obtained From information provided or obtained during inspection. **How Verified** How information was obtained.

Grounds

Promote positive(+) drainage (1 inch per foot is recommended) away from foundation and extend run off from roofing and downspouts a minimum 10 ft from foundation.

A NP NI M D

1. **Driveway:** Asphalt Numerous cracks in surface-recommend sealant in cracks 1/4" and larger to extend life.
2. **Walks:** Concrete Be aware of and correct tripping hazards if/as they develop (e.g., raised/uneven edges of walks or at cracks in concrete). Maintain sidewalks to extend useful life: address ponding water, backfill/place dirt against exposed edges and seal cracks that develop (using concrete sealant and backer rod if/as needed) so water is directed away from sidewalk instead of down under sidewalk

Grounds (Continued)

Walks: (continued)

where it will cause greater movement during freeze/thaw cycles and increase the potential for erosion.

3. **Steps:** Concrete Step(s) is/are greater than the maximum height/riser size of 8" - address/correct so riser/step height is consistent and no greater than 8".
- Properly prepare & caulk/seal at intersection with house to prevent water penetration.
4. **Stoops:** Brick & Concrete Some settlement has occurred. Monitor and maintain grade so water flows properly away from house/foundation/concrete and properly prepare and caulk cracks (if/as they develop) so water flows properly off of and away from concrete surfaces - to prevent movement due to freeze/thaw cycles and accelerated/premature deterioration.
5. **Deck:** Wood Properly prepare/clean (pressure wash) and reseal (using penetrating sealer) annually to decrease deterioration/extend useful life.
6. **Railings:** Metal Maintain paint finish and penetrations into steps/stoop (i.e., prevent water ponding) to extend useful life of railings.
7. **Vegetation:** Trees/Shrubs/Vines Cut back plant life (trees/bushes/vines) to provide a minimum of 12-18 inch clearance to house exterior for proper ventilation. Cut back trees/branches (5-10 feet recommended) to prevent damage to house exterior/gutters/roof. Cutting back trees/shrubs/vines from exterior surface and roof areas will decrease chances of premature deterioration of structure behind finish surfaces/wood surfaces and the formation of algae on siding materials and extend the life of the roofing system simply by allowing proper ventilation. Proper ventilation around the perimeter and on the roof of your home will also assist in preventing the development of excessive moisture problems in your home.
8. **Retaining Walls:** Timber Deterioration of timbers observed and evidence of deterioration/failure (e.g., metal stakes installed to secure timbers in place). Service/maintain to prevent failure. Budget to replace.
- Maintain grade/u-ditch/swale in dirt at high side of retaining wall so water is directed properly away from wall to prevent saturation of soil/wall and premature deterioration/damage to wall.
9. **Grading:** Low Areas Correct low areas or where ponding water is noted after periods of precipitation. Maintain high point of grade against foundation so water is directed/flows properly away from house (installation of waterproofing/damproofing membrane on masonry/concrete, if not present already, is recommended). Also maintaining 6-8" minimum "visual window" from grade/dirt to start of siding or other wood components - so infestation of wood destroying insects can be discovered (i.e., through visualization of termite tubules). One inch slope per foot away from building, for a minimum of 8-10 feet, is recommended. Monitor - especially up against house where settlement is expected to occur - to confirm/maintain proper drainage away from house.
10. **Swale:** Improve/Installation/Reconfiguration Recommended Recommend reconfiguring/re-establishing as necessary to provide proper flow of water away from house (e.g., at left and rear of house) so water drains to open site drain as intended. Monitor/maintain swales to confirm proper water drainage away from house. If swale/drainage trench does not dry from high end to low end then water is not draining properly and requires reconfiguring (ponding water during/soon after heavy precipitation is another indication that servicing is necessary for proper drainage).
11. **Fences:** Wood Recommend maintaining grade/dirt below base of fence (or undercut/elevate bottom of fence), where possible, to provide an air space and thus prevent premature deterioration of fencing members/boards from water saturation/contact with soil.

Exterior Surface and Components

Note: A 6 inch to 8 inch "visual window" should be maintained between the top of the grade/dirt levels and siding/wood components around the perimeter of the structure. Detection or the presence of concealed moisture, mold or wood decay present behind exterior finishes is beyond the scope of this inspection. Seal all penetrations through the exterior walls to prevent the unwanted entry of air, water, insects/vermin.

A NP NI M D

1 Exterior Surface

1. **Type:** Vinyl Siding Properly prepare and seal all openings/penetrations through the exterior surfaces of your home (e.g., at broken/displaced siding and at penetrations through exterior walls). This will decrease the undesirable entry of water, air and other vermin/insects and the potentially damaging affects associated with these elements.

2. **Trim:** Rotten/deteriorated wood (e.g., at garage door jamb) - properly repair/replace & paint or wrap with prefinished metal/vinyl.

Chipped/cracked/peeling paint: Properly prepare (countersink and fill nail heads and wood butt joints) prime and paint to extend life or wrap with metal/vinyl flashing/covering (or budget to replace wood or paint frequently).

3. **Entry Doors:** Composite & Glass Door threshold is adjustable type - monitor and adjust as needed to maintain proper closure/sealing of door.

4. **Patio Door:** Wood w/glass Seal is broken in operable door and hardware (at exterior) is not installed/secured properly (exterior door knob pulls off). Repair/replace.

Service/maintain track free and clear of debris and properly lubricate (silicone/teflon spray or as recommended by manufacturer) to extend or obtain proper/improved operation.

5. **Windows:** Wood Double-hung Properly maintain (follow manufacturer's recommendations/instructions) to maintain in top working condition and prevent premature deterioration/development of windows that are difficult to operate/do not operate properly.

6. **Window Screens:** Mesh (fiberglass/vinyl/metal) Torn/damaged/missing in some windows - repair/replace/install as necessary to provide proper operation.

Roof

Monitor/regularly inspect roofing system and components (i.e., at least twice per year and after each significant storm) so damaged roofing/roof leaks can be repaired prior to the development of (and much more costly repairs due to) water damage within your home. Roof drainage - gutters, downspouts and splash blocks/extensions - are one of the components that should be inspected/maintained to ensure the proper flow of water away from the foundation and to assist in preventing the development of excessive moisture within your home.

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Entire Shingled Roof Area Roof Surface

1. **Method of Inspection:** Using binoculars from the ground

2. **Unable to Inspect:** 25% Due to trees/roof slope.

3. **Material:** 3-tabbed shingle Have a qualified roofer replace missing shingles (e.g., at front right corner of right/south second floor dormer) and inspect for any additional maintenance requirements to prevent water penetration/damage.

4. **Type:** Gable

5. **Approx Age:** 18 years (1988)

6. **Plumbing Vents:** PVC Recommend resealing/sealing raised roof jack/boot flashings at vent pipe penetrations thru roof.

7. **Gutters:** Aluminum Loose spikes/nails - reset and monitor (maintain free of debris) to provide proper operation.

8. **Downspouts:** Aluminum Maintain downspouts and monitor attachment to confirm they are properly secured to house.

9. **Leader/Extension:** and/or Splash Blocks Install and maintain splash blocks (clean free of debris and correct installation so water flows out and away from foundation properly) and/or install extensions (confirm location/grade at ends so they are "self-cleaning" and monitor to correct/confirm proper water drainage) so water is directed properly away from foundation.

Garage

Storage and personal items in the garage may limit the extent of inspection. Concealed issues may exist that are not documented in this report. Recommend performing a thorough inspection when conditions permit (e.g., at presettlement walk thru).

A NP NI M D

1. **Type of Structure:** Front of house **Car Spaces:** 1
2. **Floor/Foundation:** Concrete Mostly concealed by storage items - thoroughly inspect when conditions permit.
3. **Garage Doors:** Wood & Pressboard panels Deteriorated wood/pressboard panels - recommend repair/replacement and installation of safety cables on garage door springs.
4. **Door Operation:** Automatic Door reverses due to drag on tracks. Service door for acceptable operation or replace.
5. **Service Doors:** Metal Note: Threshold is adjustable type and should be adjusted/maintained to prevent premature deterioration of weatherstripping on bottom of door or entry of unconditioned air from garage.

Interior

A NP NI M D

1. **Closets:** Single Service/maintain bifold closet doors and hardware for proper operation.
2. **Ceilings:** Drywall Evidence of previous water penetration/water stain at living room ceiling - not active at time of inspection. Recommend discussing with seller to determine cause and action taken to address. Monitor to determine if the cause has been properly corrected. Address as needed to prevent further water penetration/damage.
3. **Floors:** Carpet Be aware of and address tripping hazards to prevent fall hazard (e.g., loose/improperly installed carpeting).
4. **Doors:** Flush hollow core Some louvered doors are present and require servicing/repairs for proper operation (e.g., at water heater/utility areas).
5. **Windows:** Wood Double-hung Some windows are painted shut and do not operate. Service/address to provide proper operation or budget to replace.
6. **Kitchen Cabinets:** Wood Broken/damaged/missing hardware - have qualified contractor service/repair/replace for proper operation.
7. **Kitchen Counter Tops:** Laminate Recommend sealant/resealing at intersection of countertop/backsplash/wall.
8. **Bathroom Counter Tops:** Cultured marble Properly install/secure countertops that are loose (e.g., at basement bathroom & 1st floor powder room).
9. **Ventilation:** Electric ventilation fan Service - clean/vacuum & lubricate fan - according to manufacturers maintenance instructions (using silicone or teflon spray) to improve/maintain proper operation and prevent future issues relating to elevated moisture content within your home (i.e., mold, mildew).

Appliances

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1. **Ventilator:** General Electric Clean/service/maintain exhaust line/filter according to manufacturer's maintenance instructions for improved/proper operation and to remove fire hazard (i.e., grease buildup).
2. **Disposal:** In-Sink-Erator Clean and maintain free of debris for proper operation. Run water a minimum of 20 seconds after disposal grinding action has ceased.
3. **Dishwasher:** General Electric Leakage at front of dishwasher - have a qualified appliance technician service/correct.
4. **Air Gap Present?** Yes Dishwasher air gap is provided by drain line being secured in loop that rises above sink drain - maintain line in loop above drain to prevent cross connection/contamination of potable/drinking water.
5. **Refrigerator:** General Electric Recommend 0 to 10 degrees Fahrenheit be maintained in freezer (20 degrees Fahrenheit measured at time of inspection) and 35 to 40 degrees Fahrenheit in refrigerator (48 degrees Fahrenheit measured at time of inspection). Have a qualified appliance technician service/address. Budget to replace.

Appliances (Continued)

6. **Dryer Vent:** Flex (Plastic) & Rigid Metal Plastic/foil faced paper exhaust lines are not recommended by most clothes dryer manufacturers - recommend replacement with metal flex duct for improved efficiency/operation. Recommend installing clothes dryer exhaust line with minimal kinks/unnecessary turns (rigid or flex metal is best) to improve efficiency/decrease utility costs. Clean exhaust line regularly to prevent fire hazard & to improve drying efficiency.
7. **Garage Door Opener:** Genie Regularly monitor/inspect door to confirm door reverses on 1 inch object (confirmed defective/not operating properly at time of inspection). Correct/repair/replace if door does not reverse on 1 inch object. Door should be adjusted so it has a maximum downward force of 9 pounds. Electric eyes should be installed at a height of 6 inches maximum off of floor. Regular inspection/confirmation of proper operation (including these safety features) should be verified.

Electrical

Testing of smoke detectors or alarms, timers, low voltage circuits such as door bells, security, pet containment systems are beyond the scope of this inspection. Smoke detectors are recommended to be located in each Bedroom and one per floor level. Smoke alarms should be tested monthly and replaced per manufactures guidelines or every ten years. Recommend grounded and GFCI protected outlets be installed at all Exterior, Kitchen/Wet /Bathroom, Fixed Countertop, Garage and Unfinished Basement outlet locations.

A NP NI M D

1. **Service Size Amps:** 200 AMPS **Volts:** 120-240 VAC
2. **Location of Main Disconnect(s):** In main electric panel
3. **Conductor Type:** Non-Metallic Sheathed Cable
4. **120 VAC Branch Circuits:** Copper
5. **240 VAC Branch Circuits:** Copper & Aluminum
6. **Smoke Detectors:** All Locations Make all smoke detectors operational.
7. **Interior Lighting:**
8. **120 VAC Outlets:** 3-prong grounded Have qualified electrician address/correct loose electric outlets (e.g., in left/rear and right rear bedrooms) and replace electric devices with excessive paint in the outlets.
9. **GFCI:** At GFCI protected receptacles only Recommend upgrading for GFI/GFCI protection at all wet (bathroom/kitchen/unfinished basement/exterior)/counter locations.

Basement- front wall Electric Panel

10. **Manufacturer:** Square D
11. **Max Capacity:** 200 Amps
12. **Main Breaker Size:** 200 AMPS
13. **Breakers:** Single & Double Pole
- Electric Panel**
14. **Breakers:** Single & Double Pole Double taps/wire connections to single pole/wire circuit breakers. Have qualified electrician confirm breakers can handle circuit requirements & correct double taps as required.
15. **Exterior Lighting:** Surface Fixtures Make all light fixtures operational (e.g., at front entry).

Structure

A NP NI M D

1. **Structure Type:** Single Family
2. **Foundation:** Masonry
3. **Differential Movement:** Cracks Observed Horizontal hairline cracks. Recommend correcting grade & drainage around exterior to help alleviate/prevent further deterioration. Monitor and if drastic increase in size is observed, consult structural engineer.
4. **Joists/Trusses:** 2x10
5. **Bearing Walls:** Masonry/frame
6. **Subfloor:** Plywood
7. **Beams:** Steel I-Beam
8. **Piers/Posts:** Masonry & Steel

Structure (Continued)

9. **Floor/Slab:** Concrete
10. **Railings:** Wood & None/Missing Service/maintain (resecure as necessary) railings at landings and graspable handrails at all stairways with 2 or more risers/steps to prevent fall hazards/prevent personal injury.

Basement

- | | A | NP | NI | M | D | |
|----|--------------------------|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--|
| 1. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Unable to Inspect: 40% Some areas of basement concealed. Conduct thorough inspection after removal of furnishings/storage items. |
| 2. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Ventilation: Window(s) & bathroom exhaust Correct/maintain exhaust line(s) (bathroom, cloths dryer, etc.) so they are properly directed to exterior of house/attic, Install with minimal kinks/unnecessary turns in exhaust line. Clean exhaust line regularly to prevent fire hazard & to improve drying efficiency. |
| 3. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Insulation: concealed if present Installation recommended to reduce utility costs (either on foundation walls or between floor joists. Consult with qualified insulation contractor for recommended/less expensive/more efficient application. |
| 4. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Moisture Location: Some wall baseboards and all masonry walls Evidence of previous water saturation at some baseboards and water penetration/efflorescence at masonry walls (not active at time of inspection). Correct gutters/downspouts/splash blocks/extensions/grade &/or swales to prevent future development/reoccurrence. |

Correct/maintain proper drainage/flow of water away from house/foundation (correct gutters/downspouts/splash blocks/extensions/grade &/or swales) to prevent development of excessive moisture and the undesirable issues related to high moisture (e.g., insects, spiders, mold, mildew, etc.).

Crawl Space

Due to insulation installation concealed issues may exist that are not documented in this report.

Advisory: Most crawlspaces experience periodic water penetration. Wood damage may be present in unseen areas. Monitor/maintain moisture barrier on the floor of the crawlspace to assist in preventing excessive moisture issues.

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|----|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|---|
| 1. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Method of Inspection: In crawl space |
| 2. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Access: Doorway From basement area. |
| 3. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Unable to Inspect: 20% Due to storage items/access. |
| 4. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Insulation: Fiberglass Batts |
| 5. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Vapor Barrier: Kraft Paper |
| 6. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Moisture Penetration: None Observed |
| 7. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Moisture Barrier: Plastic/Polyethylene Sheeting |
| 8. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Ventilation: Foundation Vents Maintain ventilation as needed to prevent development of excessive moisture issues: Crawl space ventilation can be decreased as water penetration/humidity levels in the crawl space area decreases and ventilation should be increased as water penetration/humidity levels in the crawl space area increases - to prevent damage to the structure and proliferation of insects, fungus/molds, mildew and other characteristics of areas with excessive moisture. |

Air Conditioning

Unless noted otherwise, mechanical equipment tested for functional operation at time of inspection only. No life expectancy is expressed or implied. Inspection does not determine balancing or sizing of system. The inspection covers only the visible components of the air conditioning system. Hidden problems may exist that are not documented in this report. Annual cleaning and servicing recommended for best performance and life expectancy.

- | | A | NP | NI | M | D | |
|----------------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---|
| Left/North Side AC System | | | | | | |
| 1. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A/C System Operation: Operational at time of inspection As a quick cursory check on system, temperature differential between return air (temperature of air returning from house) and supply air (temperature of conditioned air being supplied to |

Air Conditioning (Continued)

A/C System Operation: (continued)

house) should be a minimum of 15 and as much as 24 degrees. Temperature differential at time of inspection was 17 degrees Fahrenheit as indicated in report. Service calls (contract) recommended at change of season (i.e., heating to cooling).

2. **Condensate Removal:** PVC drainage lines
3. **Exterior Unit:** Carrier Recommend servicing at change of seasons to maintain in top working efficiency/extend useful life.
4. **Area Served:** Whole House **Approximate Age:** 6 years (2000)
5. **Fuel Type:** 240 VAC **Temperature Differential:** 17 degrees Fahrenheit
6. **Type:** Forced Air Split System **Capacity:** 3 Tons
7. **Visible Coil:** Copper core with aluminum fins Maintain 12-18" minimum around exterior of unit and 3-4' at top for a top discharging unit to improve efficiency of unit and extend life. Recommend raising unit/pad above ground (so bottom of pad is on top of ground) to assist in preventing unit/coil damage from corrosion due to accumulation of debris and physical damage when landscape maintenance is performed.
8. **Refrigerant Lines:** Copper liquid & Insulated copper suction lines Maintain seal at connection to interior unit (air handling unit) to improve efficiency and prevent water condensation/dripping at interior and at penetration into house to keep water/air/vermin from entering.
9. **Electrical Disconnect:** Fused pull block Note: Maximum size of overcurrent protection device (according to manufacturer's label) is: 40 Amps. Circuit breaker installed in main electric panel at time of inspection: 40 Amps. Fuses installed in fused pull-block at exterior disconnect at time of inspection: 40 Amps. Keep in mind, if you are unable to make unit operational, it may be due to blown/bad cartridge fuse(s) in exterior disconnect pull block.
10. **Exposed Ductwork:** Metal & Flex Duct Foil tape recommended at all taps/joints/connections to improve efficiency.
11. **Blower Fan/Filters:** Direct drive/disposable Check/change filter monthly. Recommend installation of pleated electrostatic filter in lieu of fiberglass filter so filter removes as much from the air as possible. Monthly inspection/replacement is then even more important since filter will remove more from the air & thus need to be replaced more often for proper air flow & thus conditioned air distribution/delivery to house.
12. **Thermostats:** Individual Mercury Bulb Recommend installation of programmable/setback thermostat for improved efficiency & to extend life of unit. Discuss with qualified HVAC Technician for options available and associated costs for upgrade.

Fireplace/Wood Stove

Chimneys, Fireplaces and related components should be regularly inspected and maintained to prevent excessive water penetration and to prevent conditions that promote chimney fires.

A NP NI M D

Family Room Fireplace

1. **Fireplace Construction:** Masonry Properly repoint/regROUT voids in firebrick mortar/grout joints.
2. **Type:** Wood burner
3. **Flue:** terra cotta Recommend having qualified contractor clean/service annually, depending on usage, to prevent chimney fire.

Chimney

4. **Flue/Flue Cap:** Terra cotta/Masonry/Mortar Have serviced/cleaned to remove nesting materials and soot/creosote to remove fire hazard.
5. **Chimney Flashing:** Metal Monitor/maintain flashing attachment and sealant at intersection with masonry.

Heating System

Unless noted otherwise, mechanical equipment tested for functional operation at time of inspection only. No life expectancy is expressed or implied. Inspection does not determine balancing or sizing of system. The inspection covers only the visible components of the heating system. Hidden problems may exist that are not documented in this report. Annual cleaning and servicing recommended for best performance and life expectancy.

A NP NI M D

Basement Heating System

1. **Heating System Operation:** Not operated due to weather Due to weather conditions at time of inspection, unit was run but not cycled in heating mode. Confirm proper operation/cycling when conditions permit (i.e., at presettlement walk-thru and each fall when servicing/maintenance is performed).
2. **Manufacturer:** Carrier
3. **Type:** Forced air **Capacity:** 100,000 BTU/Hr (input)
4. **Area Served:** Whole House **Approximate Age:** 6 years (2000)
5. **Fuel Type:** Natural gas
6. **Heat Exchanger:** 4 Burner Excessive rust observed at attic furnace. cursory review of heat exchanger did not reveal any obvious cracks. Proper air flow to properly carry heat away from heat exchanger is required to prevent premature failure/cracks from developing. Operating unit with a dirty filter can create such unfavorable conditions. Improper condensate drainage onto furnace can also prematurely deteriorate unit. To ensure heat exchanger is intact recommend having qualified HVAC contractor perform thorough service/cleaning and exhaustive inspection annually to confirm no cracks or deterioration in heat exchanger exist. Deterioration in heat exchanger, exhaust flue or ventilation can cause personal injury/death due to carbon monoxide poisoning. Regularly service/maintain unit and its components (including filter) to extend useful life of unit.
7. **Unable to Inspect:** 90%
8. **Blower Fan/Filter:** Direct drive/disposable Filter is dirty and in need of replacement.

Check/change filter monthly. Recommend installation of pleated electrostatic filter in lieu of fiberglass filter so filter removes as much from the air as possible. Monthly inspection/replacement is then even more important since filter will remove more from the air & thus need to be replaced more often for proper air flow & thus conditioned air distribution/delivery to house.
9. **Distribution:** Metal & Flexduct Address/correct flex duct where drastic turns are present that are likely to choke off or prevent proper air flow (e.g., at truss web in space in front of unit in unfinished area - monitor and address as necessary to provide adequate air flow. Address/resecure distribution duct where detached/improperly supported (e.g., at supply line to room between garage & kitchen area).

Recommend foil tape (e.g., at joints/tap connections) to improve efficiency/operation of unit.
10. **Flue Pipe:** Metal pipe Holes/voids in pipe that allow carbon monoxide into house-repair/replace.
11. **Humidifier:** Aprilaire Service/replace evaporator panel annually for improved efficiency operation.
12. **Thermostats:** Individual Mercury Bulb Recommend installation of programmable/setback thermostat for improved efficiency & to extend life of unit. Discuss with qualified HVAC Technician for options available and associated costs for upgrade.

Plumbing

Water heater tested for functional operation at time of inspection only. No life expectancy is expressed or implied. Recommended maximum water temperature provided by water heater is 120 degrees Fahrenheit to prevent scalding/burns. Water conditioning/filtering systems (if present) are not within the scope of this inspection. Recommended water pressure ranges 55-65 psi.

A NP NI M D

1. **Service Line:** Copper
2. **Main Water Shutoff:** Basement- front wall
3. **Main Gas Shutoff::** at gas meter main line out of ground

Plumbing (Continued)

4. **Water Lines:** Copper5. **Drain Pipes:** PVC6. **Vent Pipes:** PVC**Basement Utility/Furnace Area Water Heater**7. **Water Heater Operation:** Operational at time of inspection Recommend maintaining/lowering water temperature setting to a maximum 120 degrees Fahrenheit to prevent burns/scalding. Note: Measured temperature at time of inspection was 132 degrees Fahrenheit.8. **Manufacturer:** Rheem9. **Type:** Natural gas **Capacity:** 50 gallons10. **Approximate Age:** 14 years (1992)- budget to replace **Area Served:** Whole House11. **Flue Pipe:** Metal pipe- Type B12. **TPRV and Drain Tube:** Copper Pipe Drain tube opening is not within six inches of the floor. Extend to 6 inches maximum off of floor.13. **Faucets/Traps:** Metal/PVC Stopper mechanism not working properly/requires adjustment at some sink locations - adjust/servicel/repair.14. **Sump Pump:** Submersible type Consider installation of emergency power backup system to provide power for sump pump in the event of power outage.15. **Tub/Surround:** Coated Steel/Ceramic Tile Maintain sealant at wall corners & intersection of walls with tub & tub with floor to prevent water penetration/deterioration.16. **Toilets:** Vitreous China Maintain refill line in overflow tube to prevent cross connection/development of contaminated potable water due to backflow of water from toilet tank back in to water supply line.17. **Hose Bibs:** Gate Valve Front hose bib is missing knob/valve - repair/replace. Rear hose bib is winterized/shut off - confirm proper operation when conditions permit. Recommend installation of air gap device at every hose bib to prevent cross connection/contamination of potable/drinking water.18. **Bsmt. Stairwell Drain:** Drainage grate with drain line Regularly monitor/maintain free of debris to ensure proper operation/drainage.19. **Gas Meter:** Rear of house20. **Gas Service Line:** Black Iron21. **Washer Drain:** Laundry Tub Recommend installation of lint trap on end of clothes washer drainage line to prevent laundry tub drain stoppage.

Attic

Recommended insulation levels are R30 to R38. Insulation limits inspectors view. Hidden/concealed issues may exist that are not documented in this report.

A NP NI M D1. **Attic Location** Above Main House2. **Method of Inspection:** In Attic3. **Attic Access:** Ceiling Scuttle4. **Unable to Inspect:** 45% Due to roof line/access.5. **Roof Framing:** 2x4 Trusses6. **Insulation:** Fiberglass (Blown & Batts)7. **Insulation Depth:** 0-10" 0" at access and 10" at most other areas (less than recommended 10" where displaced/compressed). 10"/R-30 recommended at ceilings of all conditioned areas. Recommend redistributing displaced insulation (to evenly distributed 10") and/or having qualified contractor evaluate/estimate/upgrade for improved efficiency.8. **Vapor Barrier:** Kraft Paper**Attic**9. **Ventilation:** Gable and soffit vents Repair/replace deteriorated gable louver (e.g., at left/north gable end of main house) and properly secure/install cable line penetrating through same louver.10. **Insulation Depth:** 0-8" 0" at access and 4 to 8" at other areas. 10"/R-30 recommended at ceilings of all conditioned areas. A qualified contractor is recommended to evaluate and estimate cost & projected energy savings to upgrade.11. **Moisture Penetration:** None observed

Attic (Continued)

12. **Sheathing:** Plywood
13. **Ventilation:** Ridge and soffit vents
14. **Moisture Penetration:** None observed
15. **Bathroom Fan Venting:** Concealed Confirm all bathroom exhaust lines are run/extended to exterior of house/attic space to prevent excessive moisture and resultant undesirable conditions including the potential for development of mold, mildew and fungus and eventual deterioration of structure.

Final Comments

DEFECTS ONLY INSPECTION REPORT:

1- This inspection report reflects those items that were found to be DEFECTIVE; some of the MARGINAL items that were found to need maintenance; and specific items/components that were NOT INSPECTED (for the reason(s) as specified). A summary for each of these three ratings is provided at the end of the report. Comments provided under items found to be ACCEPTABLE are descriptions as required by The ASHI Standards of Practice (unless previously listed under the categories as listed above) or recommendations/for future use/information. This inspection report is a cursory inspection that is visual and not exhaustive or destructive in nature. Accessible areas, systems, components and their related readily openable access covers/doors/panels will be removed where deemed necessary for the scope of this inspection. All of the items (e.g., doors, windows, electrical outlets) may not be inspected but a "representative number" will be inspected to determine the general condition of such components. We will report, to the best of our ability, on the general condition of the buildings systems and its individual inspected components. Where possible, such items that are not inspected will be so indicated - especially if concerns exist or if the item is not readily accessible. This inspection meets the Standards of Practice of the American Society of Home Inspectors ("ASHI"), the oldest and most recognized organization of private inspectors.

To the best of our ability, given the limitations of a cursory inspection, we will provide you with as much information as possible to assist you in determining the condition of the building, systems and components. Due to the nature of a cursory inspection, it should be deduced that any defect reported is likely not the only instance but, more likely, a representation of the typical overall condition found throughout. Where possible, defective conditions that do not appear to be "the norm" will be identified as atypical conditions. When in doubt, when analyzing the general overall condition of any item/system/component, it is recommended you err by assuming the worst.

If questions develop at any time, please do not hesitate contacting us.

2- Any source of water penetration into your home (e.g., roof leak, faulty gutters/downspouts/splash blocks/extensions, improper grading &/or swales) or items that increase moisture/humidity in your home (e.g., cloths dryer or bathroom exhaust lines not properly directed to the exterior of your home) can create conditions favorable for the proliferation of fungi (i.e., molds, mildews) and increased incidence of insects (e.g., centipedes, millipedes, camelback crickets). These are some of the many indicators that the moisture content of your home is excessive and should be addressed immediately to correct the situation. Fungi can have effects on an individuals health (e.g., allergies) as well as on the structural components of a home and more if the conditions are not properly addressed.

3- If it is determined that an addition or significant modification(s) has/have been added since original construction of the home, it is recommended you obtain as much information from seller or local records as possible (i.e., if building permits were obtained, when constructed, by whom, any warranties still in effect, etc.) and act accordingly - be satisfied to the extent that you feel comfortable future potential purchasers will be satisfied when/if you resell the property. Permits Obtained: Any indication/discovery of code enforcement inspection(s) of original construction/additions/modifications to the home - i.e., inspection stickers, etc. - will be flagged/pointed out to you and documented in the inspection report (if/as time permits) for future use/information if directed to do so by the client.

Final Comments (Continued)

4- If your home has a connected garage/carport, wood burning fireplace or any fossil fuel (gas, fuel oil, etc.) fired appliances (i.e., gas fired cooking appliances, fireplace(s), hot water heater, furnace or boiler, etc.) it is highly recommended carbon monoxide detectors be installed as recommended by local authorities (e.g., gas supplier or local/state government consumer safety officials).

5- Lead paint may be present in homes built prior to 1978. Please refer to EPA (Environmental Protection Agency) guidelines (whether federal or state/local agency) as to the procedure(s) that should be followed to properly address lead based paint.

6- Polybutylene is proven to become defective when placed in contact with chlorine. It is recommended any polybutylene (main, distribution or 1/4" plumbing fixture) water piping, if present, be replaced to prevent future damage due to water leaks. Please refer to www.polybutylene.com or www.plumbing911.com for further information.

7- Recommend setting HVAC Thermostat(s) fan control setting to "on" position (in lieu of auto). If thermostat is properly installed this will serve to improve ventilation (reduce favorable conditions for molds/mildew), air filtering and distribution of conditioned air within the house. Since the fan/blower operates on a 120 volt circuit the benefits far outweigh the negligible increase in electric usage. This is beneficial during both heating and cooling seasons.

8- We make every effort to call your attention to defective materials/systems/components we are aware of. With new recalls provided on a daily basis we are not always aware of safety recalls that pertain to you. For this reason it is important for you to be aware of those that may apply to you or to provide information to the Consumer Product Safety Commission (CPSC) regarding safety concerns you have discovered through the use of a particular product. To report a dangerous product or a product-related injury, call CPSC's hotline at (800) 638-2772 or CPSC's teletypewriter at (800) 638-8270, or visit CPSC's web site at www.cpsc.gov/talk.html. To join a CPSC email subscription list, please go to www.cpsc.gov/cpsclist.asp. Consumers can obtain this release and recall information at CPSC's Web site at www.cpsc.gov.

9- Please do not hesitate contacting me with any questions or to discuss any of the above.

Respectfully submitted,
Brian D. Keeler, CES, CMI, CMS
ASHI, VA STATE, NEHA & MDE Certified;
Member: EAA, BBB & MAC-ASHII

Not Inspected Summary

Roof

1. **Entire Shingled Roof Area Roof Surface Unable to Inspect:** 25% Due to trees/roof slope.

Basement

2. **Unable to Inspect:** 40% Some areas of basement concealed. Conduct thorough inspection after removal of furnishings/storage items.

Crawl Space

3. **Unable to Inspect:** 20% Due to storage items/access.

Heating System

4. **Basement Heating System Heating System Operation:** Not operated due to weather Due to weather conditions at time of inspection, unit was run but not cycled in heating mode. Confirm proper operation/cycling when conditions permit (i.e., at presettlement walk-thru and each fall when servicing/maintenance is performed).

Attic

5. **Attic Unable to Inspect:** 45% Due to roof line/access.
6. **Attic Bathroom Fan Venting:** Concealed Confirm all bathroom exhaust lines are run/extended to exterior of house/attic space to prevent excessive moisture and resultant undesirable conditions including the potential for development of mold, mildew and fungus and eventual deterioration of structure.

Marginal Summary

Grounds

1. **Driveway:** Asphalt Numerous cracks in surface-recommend sealant in cracks 1/4" and larger to extend life.
2. **Deck:** Wood Properly prepare/clean (pressure wash) and reseal (using penetrating sealer) annually to decrease deterioration/extend useful life.
3. **Railings:** Metal Maintain paint finish and penetrations into steps/stoop (i.e., prevent water ponding) to extend useful life of railings.
4. **Fences:** Wood Recommend maintaining grade/dirt below base of fence (or undercut/elevate bottom of fence), where possible, to provide an air space and thus prevent premature deterioration of fencing members/boards from water saturation/contact with soil.

Exterior Surface and Components

5. **1 Exterior Surface Entry Doors:** Composite & Glass Door threshold is adjustable type - monitor and adjust as needed to maintain proper closure/sealing of door.
6. **Windows:** Wood Double-hung Properly maintain (follow manufacturer's recommendations/instructions) to maintain in top working condition and prevent premature deterioration/development of windows that are difficult to operate/do not operate properly.

Roof

7. **Plumbing Vents:** PVC Recommend resealing/sealing raised roof jack/boot flashings at vent pipe penetrations thru roof.
8. **Downspouts:** Aluminum Maintain downspouts and monitor attachment to confirm they are properly secured to house.

Garage

9. **Service Doors:** Metal Note: Threshold is adjustable type and should be adjusted/maintained to prevent premature deterioration of weatherstripping on bottom of door or entry of unconditioned air from garage.

Interior

10. **Closets:** Single Service/maintain bifold closet doors and hardware for proper operation.
11. **Floors:** Carpet Be aware of and address tripping hazards to prevent fall hazard (e.g., loose/improperly installed carpeting).
12. **Kitchen Counter Tops:** Laminate Recommend sealant/resealing at intersection of countertop/backsplash/wall.

Appliances

13. **Ventilator:** General Electric Clean/service/maintain exhaust line/filter according to manufacturer's maintenance instructions for improved/proper operation and to remove fire hazard (i.e., grease buildup).
14. **Disposal:** In-Sink-Erator Clean and maintain free of debris for proper operation. Run water a minimum of 20 seconds after disposal grinding action has ceased.

Electrical

15. **Interior Lighting:**

Basement

16. **Ventilation:** Window(s) & bathroom exhaust Correct/maintain exhaust line(s) (bathroom, cloths dryer, etc.) so they are properly directed to exterior of house/attic, Install with minimal kinks/unnecessary turns in exhaust line. Clean exhaust line regularly to prevent fire hazard & to improve drying efficiency.
17. **Insulation:** concealed if present Installation recommended to reduce utility costs (either on foundation walls or between floor joists. Consult with qualified insulation contractor for recommended/less expensive/more efficient application.

Air Conditioning

18. **Left/North Side AC System Refrigerant Lines:** Copper liquid & Insulated copper suction lines Maintain seal at connection to interior unit (air handling unit) to improve efficiency and prevent water condensation/dripping at interior and at penetration into house to keep water/air/vermin from entering.
19. **Exposed Ductwork:** Metal & Flex Duct Foil tape recommended at all taps/joints/connections to improve efficiency.

Marginal Summary (Continued)

- 20. Blower Fan/Filters:** Direct drive/disposable Check/change filter monthly. Recommend installation of pleated electrostatic filter in lieu of fiberglass filter so filter removes as much from the air as possible. Monthly inspection/replacement is then even more important since filter will remove more from the air & thus need to be replaced more often for proper air flow & thus conditioned air distribution/delivery to house.

Fireplace/Wood Stove

- 21. Chimney Chimney Flashing:** Metal Monitor/maintain flashing attachment and sealant at intersection with masonry.

Heating System

- 22. Basement Heating System Humidifier:** Aprilaire Service/replace evaporator panel annually for improved efficiency operation.

Plumbing

- 23. Faucets/Traps:** Metal/PVC Stopper mechanism not working properly/requires adjustment at some sink locations - adjust/servicel/repair.
- 24. Washer Drain:** Laundry Tub Recommend installation of lint trap on end of clothes washer drainage line to prevent laundry tub drain stoppage.

Defective Summary

Grounds

1. **Walks:** Concrete Be aware of and correct tripping hazards if/as they develop (e.g., raised/uneven edges of walks or at cracks in concrete). Maintain sidewalks to extend useful life: address ponding water, backfill/place dirt against exposed edges and seal cracks that develop (using concrete sealant and backer rod if/as needed) so water is directed away from sidewalk instead of down under sidewalk where it will cause greater movement during freeze/thaw cycles and increase the potential for erosion.
2. **Steps:** Concrete Step(s) is/are greater than the maximum height/riser size of 8" - address/correct so riser/step height is consistent and no greater than 8".

Properly prepare & caulk/seal at intersection with house to prevent water penetration.

3. **Stoops:** Brick & Concrete Some settlement has occurred. Monitor and maintain grade so water flows properly away from house/foundation/concrete and properly prepare and caulk cracks (if/as they develop) so water flows properly off of and away from concrete surfaces - to prevent movement due to freeze/thaw cycles and accelerated/premature deterioration.
4. **Vegetation:** Trees/Shrubs/Vines Cut back plant life (trees/bushes/vines) to provide a minimum of 12-18 inch clearance to house exterior for proper ventilation. Cut back trees/branches (5-10 feet recommended) to prevent damage to house exterior/gutters/roof. Cutting back trees/shrubs/vines from exterior surface and roof areas will decrease chances of premature deterioration of structure behind finish surfaces/wood surfaces and the formation of algae on siding materials and extend the life of the roofing system simply by allowing proper ventilation. Proper ventilation around the perimeter and on the roof of your home will also assist in preventing the development of excessive moisture problems in your home.
5. **Retaining Walls:** Timber Deterioration of timbers observed and evidence of deterioration/failure (e.g., metal stakes installed to secure timbers in place). Service/maintain to prevent failure. Budget to replace.

Maintain grade/u-ditch/swale in dirt at high side of retaining wall so water is directed properly away from wall to prevent saturation of soil/wall and premature deterioration/damage to wall.

6. **Grading:** Low Areas Correct low areas or where ponding water is noted after periods of precipitation. Maintain high point of grade against foundation so water is directed/flows properly away from house (installation of waterproofing/damproofing membrane on masonry/concrete, if not present already, is recommended). Also maintaining 6-8" minimum "visual window" from grade/dirt to start of siding or other wood components - so infestation of wood destroying insects can be discovered (i.e., through visualization of termite tubules). One inch slope per foot away from building, for a minimum of 8-10 feet, is recommended. Monitor - especially up against house where settlement is expected to occur - to confirm/maintain proper drainage away from house.
7. **Swale:** Improve/Installation/Reconfiguration Recommended Recommend reconfiguring/re-establishing as necessary to provide proper flow of water away from house (e.g., at left and rear of house) so water drains to open site drain as intended. Monitor/maintain swales to confirm proper water drainage away from house. If swale/drainage trench does not dry from high end to low end then water is not draining properly and requires reconfiguring (ponding water during/soon after heavy precipitation is another indication that servicing is necessary for proper drainage).

Exterior Surface and Components

8. **1 Exterior Surface Type:** Vinyl Siding Properly prepare and seal all openings/penetrations through the exterior surfaces of your home (e.g., at broken/displaced siding and at penetrations through exterior walls). This will decrease the undesirable entry of water, air and other vermin/insects and the potentially damaging affects associated with these elements.
9. **1 Exterior Surface Trim:** Rotten/deteriorated wood (e.g., at garage door jamb) - properly repair/replace & paint or wrap with prefinished metal/vinyl.

Chipped/cracked/peeling paint: Properly prepare (countersink and fill nail heads and wood butt joints) prime and paint to extend life or wrap with metal/vinyl flashing/covering (or budget to replace wood or paint frequently).

Defective Summary (Continued)

- 10. Patio Door:** Wood w/glass Seal is broken in operable door and hardware (at exterior) is not installed/secured properly (exterior door knob pulls off). Repair/replace.

Service/maintain track free and clear of debris and properly lubricate (silicone/teflon spray or as recommended by manufacturer) to extend or obtain proper/improved operation.

- 11. Window Screens:** Mesh (fiberglass/vinyl/metal) Torn/damaged/missing in some windows - repair/replace/install as necessary to provide proper operation.

Roof

- 12. Entire Shingled Roof Area Roof Surface Material:** 3-tabbed shingle Have a qualified roofer replace missing shingles (e.g., at front right corner of right/south second floor dormer) and inspect for any additional maintenance requirements to prevent water penetration/damage.

- 13. Gutters:** Aluminum Loose spikes/nails - reset and monitor (maintain free of debris) to provide proper operation.

- 14. Leader/Extension:** and/or Splash Blocks Install and maintain splash blocks (clean free of debris and correct installation so water flows out and away from foundation properly) and/or install extensions (confirm location/grade at ends so they are "self-cleaning" and monitor to correct/confirm proper water drainage) so water is directed properly away from foundation.

Garage

- 15. Floor/Foundation:** Concrete Mostly concealed by storage items - thoroughly inspect when conditions permit.

- 16. Garage Doors:** Wood & Pressboard panels Deteriorated wood/pressboard panels - recommend repair/replacement and installation of safety cables on garage door springs.

- 17. Door Operation:** Automatic Door reverses due to drag on tracks. Service door for acceptable operation or replace.

Interior

- 18. Ceilings:** Drywall Evidence of previous water penetration/water stain at living room ceiling - not active at time of inspection. Recommend discussing with seller to determine cause and action taken to address. Monitor to determine if the cause has been properly corrected. Address as needed to prevent further water penetration/damage.

- 19. Doors:** Flush hollow core Some louvered doors are present and require servicing/repairs for proper operation (e.g., at water heater/utility areas).

- 20. Windows:** Wood Double-hung Some windows are painted shut and do not operate. Service/address to provide proper operation or budget to replace.

- 21. Kitchen Cabinets:** Wood Broken/damaged/missing hardware - have qualified contractor service/repair/replace for proper operation.

- 22. Bathroom Counter Tops:** Cultured marble Properly install/secure countertops that are loose (e.g., at basement bathroom & 1st floor powder room).

- 23. Ventilation:** Electric ventilation fan Service - clean/vacuum & lubricate fan - according to manufacturers maintenance instructions (using silicone or teflon spray) to improve/maintain proper operation and prevent future issues relating to elevated moisture content within your home (i.e., mold, mildew).

Appliances

- 24. Dishwasher:** General Electric Leakage at front of dishwasher - have a qualified appliance technician service/correct.

- 25. Refrigerator:** General Electric Recommend 0 to 10 degrees Fahrenheit be maintained in freezer (20 degrees Fahrenheit measured at time of inspection) and 35 to 40 degrees Fahrenheit in refrigerator (48 degrees Fahrenheit measured at time of inspection). Have a qualified appliance technician service/address. Budget to replace.

- 26. Dryer Vent:** Flex (Plastic) & Rigid Metal Plastic/foil faced paper exhaust lines are not recommended by most clothes dryer manufacturers - recommend replacement with metal flex duct for improved efficiency/operation. Recommend installing clothes dryer exhaust line with minimal kinks/unnecessary turns (rigid or flex metal is best) to improve efficiency/decrease utility costs. Clean exhaust line regularly to prevent fire hazard & to improve drying efficiency.

- 27. Garage Door Opener:** Genie Regularly monitor/inspect door to confirm door reverses on 1 inch object (confirmed defective/not operating properly at time of inspection). Correct/repair/replace if door does not reverse on 1 inch object. Door should be adjusted so it has a maximum downward force of 9 pounds. Electric eyes should be installed at a

Defective Summary (Continued)

Garage Door Opener: (continued)

height of 6 inches maximum off of floor. Regular inspection/confirmation of proper operation (including these safety features) should be verified.

Electrical

- 28. Electric Panel Smoke Detectors:** All Locations Make all smoke detectors operational.
- 29. 120 VAC Outlets:** 3-prong grounded Have qualified electrician address/correct loose electric outlets (e.g., in left/rear and right rear bedrooms) and replace electric devices with excessive paint in the outlets.
- 30. GFCI:** At GFCI protected receptacles only Recommend upgrading for GFI/GFCI protection at all wet (bathroom/kitchen/unfinished basement/exterior)/counter locations.
- 31. Electric Panel Breakers:** Single & Double Pole Double taps/wire connections to single pole/wire circuit breakers. Have qualified electrician confirm breakers can handle circuit requirements & correct double taps as required.
- 32. Exterior Lighting:** Surface Fixtures Make all light fixtures operational (e.g., at front entry).

Structure

- 33. Differential Movement:** Cracks Observed Horizontal hairline cracks. Recommend correcting grade & drainage around exterior to help alleviate/prevent further deterioration. Monitor and if drastic increase in size is observed, consult structural engineer.
- 34. Railings:** Wood & None/Missing Service/maintain (resecure as necessary) railings at landings and graspable handrails at all stairways with 2 or more risers/steps to prevent fall hazards/prevent personal injury.

Basement

- 35. Moisture Location:** Some wall baseboards and all masonry walls Evidence of previous water saturation at some baseboards and water penetration/efflorescence at masonry walls (not active at time of inspection). Correct gutters/downspouts/splash blocks/extensions/grade &/or swales to prevent future development/reoccurrence.

Correct/maintain proper drainage/flow of water away from house/foundation (correct gutters/downspouts/splash blocks/extensions/grade &/or swales) to prevent development of excessive moisture and the undesirable issues related to high moisture (e.g., insects, spiders, mold, mildew, etc.).

Air Conditioning

- 36. Left/North Side AC System Visible Coil:** Copper core with aluminum fins Maintain 12-18" minimum around exterior of unit and 3-4' at top for a top discharging unit to improve efficiency of unit and extend life. Recommend raising unit/pad above ground (so bottom of pad is on top of ground) to assist in preventing unit/coil damage from corrosion due to accumulation of debris and physical damage when landscape maintenance is performed.

Fireplace/Wood Stove

- 37. Family Room Fireplace Fireplace Construction:** Masonry Properly repoint/regROUT voids in firebrick mortar/grout joints.
- 38. Family Room Fireplace Flue:** terra cotta Recommend having qualified contractor clean/service annually, depending on usage, to prevent chimney fire.
- 39. Chimney Flue/Flue Cap:** Terra cotta/Masonry/Mortar Have serviced/cleaned to remove nesting materials and soot/creosote to remove fire hazard.

Heating System

- 40. Basement Heating System Heat Exchanger:** 4 Burner Excessive rust observed at attic furnace. cursory review of heat exchanger did not reveal any obvious cracks. Proper air flow to properly carry heat away from heat exchanger is required to prevent premature failure/cracks from developing. Operating unit with a dirty filter can create such unfavorable conditions. Improper condensate drainage onto furnace can also prematurely deteriorate unit. To ensure heat exchanger is intact recommend having qualified HVAC contractor perform thorough service/cleaning and exhaustive inspection annually to confirm no cracks or deterioration in heat exchanger exist. Deterioration in heat exchanger, exhaust flue or ventilation can cause personal injury/death due to carbon monoxide poisoning. Regularly service/maintain unit and its components (including filter) to extend useful life of unit.
- 41. Basement Heating System Blower Fan/Filter:** Direct drive/disposable Filter is dirty and in need of replacement.

Defective Summary (Continued)

Blower Fan/Filter: (continued)

Check/change filter monthly. Recommend installation of pleated electrostatic filter in lieu of fiberglass filter so filter removes as much from the air as possible. Monthly inspection/replacement is then even more important since filter will remove more from the air & thus need to be replaced more often for proper air flow & thus conditioned air distribution/delivery to house.

- 42. Basement Heating System Distribution:** Metal & Flexduct Address/correct flex duct where drastic turns are present that are likely to choke off or prevent proper air flow (e.g., at truss web in space in front of unit in unfinished area - monitor and address as necessary to provide adequate air flow. Address/resecure distribution duct where detached/improperly supported (e.g., at supply line to room between garage & kitchen area).

Recommend foil tape (e.g., at joints/tap connections) to improve efficiency/operation of unit.

- 43. Basement Heating System Flue Pipe:** Metal pipe Holes/voids in pipe that allow carbon monoxide into house-repair/replace.

Plumbing

- 44. Basement Utility/Furnace Area Water Heater Water Heater Operation:** Operational at time of inspection Recommend maintaining/lowering water temperature setting to a maximum 120 degrees Fahrenheit to prevent burns/scalding. Note: Measured temperature at time of inspection was 132 degrees Fahrenheit.

- 45. Basement Utility/Furnace Area Water Heater TPRV and Drain Tube:** Copper Pipe Drain tube opening is not within six inches of the floor. Extend to 6 inches maximum off of floor.

- 46. Hose Bibs:** Gate Valve Front hose bib is missing knob/valve - repair/replace. Rear hose bib is winterized/shut off - confirm proper operation when conditions permit. Recommend installation of air gap device at every hose bib to prevent cross connection/contamination of potable/drinking water.

Attic

- 47. Attic Ventilation:** Gable and soffit vents Repair/replace deteriorated gable louver (e.g., at left/north gable end of main house) and properly secure/install cable line penetrating through same louver.

- 48. Attic Insulation Depth:** 0-8" 0" at access and 4 to 8" at other areas. 10"/R-30 recommended at ceilings of all conditioned areas. A qualified contractor is recommended to evaluate and estimate cost & projected energy savings to upgrade.