



Inspection Report for Lindsey and George Evagoras

Property Address: 135 Ludwell Court, Alpharetta, GA



Atlanta Elite Home Inspection

Inspection Date:

9/8/2020

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THE HOUSE IN PERSPECTIVE

This appears to be a fairly well built 31 year old structure (reported age). The maintenance of components for the home appears to have been fairly good in the past. No major repair recommendations or safety issues were identified. Several repairs are needed to bring the home to within acceptable standards. As with all homes, ongoing maintenance is also required and improvements to the systems of the home will be needed over time. The repairs and improvements that are recommended in this report are not considered unusual for a home of this age and location.

CONVENTIONS USED IN THIS REPORT

For your convenience, the following conventions have been used in this report:

Major Concern / Concern: a system or component, which is considered to be significantly deficient or is unsafe. These deficiencies should be corrected immediately and may involve significant expense.

Safety Issue: a condition that relates to the overall safety of occupants, which may require prompt attention.

Repair: a system or component which is missing or which needs corrective action to assure proper and reliable function.

Improve: denotes improvements or repairs, which are recommended but are not immediate in nature.

Monitor: a system or component needing further investigation and/or monitoring in order to determine if repairs are necessary.

Please note that these designations are assigned based on visual observations only at the time of the inspection. After further investigation, these conditions may be more serious than previously assessed. They are given as a guideline only and should not be used solely for the purpose of determining repairs that may or may not be performed by the seller. The directions given in this report (i.e. left side, rear, etc.) are as you are facing the building from the street.

THE SCOPE OF THE INSPECTION

All components designated for inspection in the ASHI Standards of Practice are inspected, except as may be noted in the "Limitations of Inspection" sections within this report. This inspection is visual only. A representative sample of building components is viewed in areas that are accessible at the time of the inspection. No destructive testing or dismantling of building components is performed. Although some references to "code" may be made in this report, the inspection specifically excludes compliance of the property, with any building, fire, or other applicable codes or laws. It is the goal of the inspection to put the purchaser in a more informed position to make a buying decision. All potential repairs may not be identified during this inspection. Unexpected repairs should still be anticipated. The inspection should not be considered a guarantee or warranty of any kind. Use of this report for any reason constitutes acceptance of the terms contained in the "Inspection Agreement", also referenced as Appendix B. Please refer to this contract for a full explanation of the scope of the inspection.

WEATHER CONDITIONS

Sunny weather conditions prevailed at the time of the inspection. The estimated outside temperature was 80-85 degrees F. Weather conditions leading up to the inspection have been relatively dry.

Summary

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Customer

Lindsey and George Evagoras

Address

135 Ludwell Court
Alpharetta GA

REPAIR RECOMMENDATION HIGHLIGHTS / SUMMARY

The following is a synopsis of the immediate and/or more costly repairs needed for the building, some of which may be significant. Other repairs and improvements may also be necessary. Please refer to the body of this report for further details and the photographs on these and other recommendations. **All work should be performed by licensed professionals.**

Repair Items

Structural: Columns / Piers

1. **Repair:** Columns should be bolted to the concrete floor and to the beam they are supporting to limit damage and possible collapse of the structure. The column at the left basement has shifted and should be adjusted and secured.

Roofing: Shingles / Membrane

2. **Repair:** General repairs to the roofing are needed, which should be performed by a qualified roofing contractor. Damaged, loose or missing roofing shingles at the rear should be replaced. All "eyebrows" (shingles that are lifted up by protruding nail heads) should be repaired by lifting the shingles and re-driving the nails in the decking. All holes and exposed nail heads should be caulked and sealed. All roof penetrations should also be examined and sealed as necessary.
3. **Monitor: Possible Concern:** The roofing shingles appear to have experienced hail damage as indicated by "pot" marks on the shingles. A qualified roofing contractor or the seller's insurance company should inspect the roofing to determine if replacement will be necessary. Hail damage greatly inhibits the normal life expectancy of the roofing shingles.

Roofing: Flashings

4. **Repair:** A loose and open flashing component was noted at the rear, which should be re-nailed and sealed by a qualified roofing contractor to prevent leakage. All roofing shingles and flashing components should be examined and sealed as necessary. All exposed nail heads should be caulked.

Roofing: Gutters / Downspouts

5. **Repair:** Damaged sections of gutter helmets at the rear should be replaced as necessary.

Exterior Veneer: General

6. **Repair:** The exhaust vent covers and piping penetrations should be grouted/caulked and sealed against the brick/siding to prevent moisture intrusion into the wall structure.

Exterior Veneer: Siding / Trim Eaves

7. **Repair:** Signs of rot were observed at the soffit and fascia at the rear left and at the window trim at the right dormer, rear window and left window, which should be repaired by a qualified carpenter. Following repair of the damaged areas (which should be combined with exterior painting/maintenance) proper maintenance of the siding and wood trim and control of water from roof or surface runoff can avoid further damage. The carpenter should check all exterior wood components for further damage and repair as necessary.
8. **Repair:** Minor areas of carpenter bee damage were noted in some of the wood components, especially at the left, which should be repaired and repainted as needed to prevent moisture intrusion into the structure.
9. **Repair, Monitor:** Damage to the eaves at the front and rear right corner appears to be the result of rodent activity, which should be repaired as needed. Depending on the nature of this activity, an animal control specialist may need to be consulted to prevent further damage and rodent intrusions into the attic.
10. **Repair:** The siding should be caulked and sealed where it meets the trim to prevent moisture infiltration in to the structure and rotting of these components.

Exterior: Windows / Doors

11. **Repair:** Signs of leaks were noted at the left basement door, indicating previous moisture infiltration through these components. All exterior frames should be properly caulked and sealed and flashed as necessary to avoid further moisture damage.

Exterior: Garage

12. **Repair:** The garage door weatherstripping is damaged and should be repaired to limit moisture and rodent intrusion into the garage.

Exterior: Decks

13.

Repair, Safety Issue: Repairs are recommended at the rear wood deck for proper safety as listed below, which should be performed by a qualified framing contractor. The contractor should assess all components for proper performance and safety:

The deck ledger band appears to be only nailed to the structure of the house. This ledger should instead be bolted to the structure for proper support. This condition if not repaired, may cause the deck to pull away from the house possibly causing injury to occupants. Immediate repair is strongly recommended.

A proper flashing should be provided at the intersection of the exterior wall of the house and the deck ledger band to avoid leaks into the structure and potential damage to the exterior band boards. This can be achieved by removing the decking next to the structure and then installing the flashing over the ledger band (see illustration below for details). The upper end should be caulked or slid under the siding (where present). All supporting wood components should be checked for damage and replaced as necessary. The ledger band should be checked to insure that it is properly attached and bolted to the structure.

Loose and warped deck boards should be re-secured to the joists with wood screws for a better and longer lasting attachment.

Signs of rot were observed in the floor boards/joists of the deck structure. All damaged members should be replaced or otherwise re-supported with new wood. Following repair of the damaged areas, proper staining and weather protection of the wood and control of water from roof or surface runoff can avoid further damage.

Railings should be provided for deck stairs to prevent tripping hazards.

The wood columns supporting the deck and sunroom are not properly fastened to the deck structure to prevent future movement of the posts and should be properly attached to the framing with metal plates or diagonal wood bracing (see illustration below for possible details).

The grade is in contact with the base of the support wood posts for the deck and sunroom, which can cause moisture and termite damage in the future. Recent studies have shown that even pressure treated wood can rot over time due to constant contact with the soil. Make sure the footings for the posts are in place and extend at least 2" above the ground to keep the bottoms of the posts dry and free from soil contact.

14.

Monitor, Possible Repair: The floor structure of the deck shows signs of sagging and settlement, which indicates that this structure is somewhat under-designed for the loads and spans imposed. The deck should be monitored for further movement and the floor system strengthened, as necessary, by adding beams supported by columns under the deck.

Exterior: Patios / Stoops / Steps

15.

Repair, Monitor: The front steps and stoop have settled exposing gaps in the brick. These openings should be grouted and sealed to prevent moisture intrusion and further deterioration of these components. These areas should then be monitored for future movement.

16.

Repair, Safety Issue: Loose brick at the front stoop should be re-secured and re-grouted to prevent tripping hazards.

17.

Repair: Open joints were noted in the brick at the front steps and stoop, which should be kept well grouted and sealed to prevent moisture intrusion into the wall and floor framing. Make sure all other cracks in the stoop and steps are grouted and sealed.

Exterior: Driveway / Sidewalks

18. **Monitor, Future Repair:** *The driveway and front walkway have heaved and cracked in some areas and will need repair or replacement in the future.*

Exterior: Lot / Drainage

19. **Repair:** *Wood to soil contact was noted at the rear. This condition can lead to termite infestations and moisture damage to the structure. A minimum of 4" (optimum 6") of clearance should be provided between grade and wood components. The grade in these areas should be lowered to provide such clearance. A drainage structure may be needed to remove water from the area. The ground should slope away from the house at a rate of 6" within ten feet of the foundation to prevent moisture intrusion into the crawlspace/basement. All damaged wood should be repaired or replaced as necessary.*

20. **Monitor, Possible Repair:** *Signs of soil erosion and wash were noted the driveway. If this condition persists, drainage improvements or grade stabilization measures may be necessary to prevent further erosion of the ground.*

Exterior: Landscaping / Fencing

21. **Monitor, Future Repair:** *Some of the wood fencing components are in poor condition. Replacement of these will ultimately be necessary.*

Electrical: Panels

22. **Repair, Safety Issue:** *Improper screws as noted at the front panel cover of the main disconnect panel in the garage closet should be replaced for proper safety. All screws attaching the panel cover should be blunt headed to prevent possible damage to the wiring. The screws were not totally installed after the inspection because of the potential of damaging the wiring.*
23. **Repair:** *All open knockouts in the edge of the main panel should be properly sealed to prevent fire risks in the event of shorts in the panel.*

Electrical: Wiring / Boxes

24. **Repair:** *The maximum allowable breaker size for the outdoor A/C unit(s) as indicated on the label of the equipment is 25 amps while the breaker size is 30 amps. All breakers should be checked for proper compatibility with the equipment they serve and changed out as necessary.*
25. **Repair:** *All open junction boxes at the left basement should be fitted with cover plates, in order to protect the wiring and to reduce the risks of potential fires that may be caused by poor connections.*

Electrical: Outlets

26. **Repair:** Loose outlets at the rear of the deck and family room (marked with orange dots) should be tightened to prevent the loosening of the wiring connections in the future.
27. **Repair, Safety Issue:** Ungrounded 3-prong outlets at the upstairs bonus room (marked with orange dots) should be repaired. In this case, a ground wire may be present in the electrical box and simply needs to be connected since the remaining outlets in the room are grounded. The electrician should check all outlets and switches for proper wiring.
28. **Repair, Safety Issue:** Missing outlet cover plates at the right basement should be replaced as needed to avoid a shock hazard.

Electrical: Lighting

29. **Repair:** Missing light fixtures at the front right exterior should be re-installed or the wiring properly terminated in a covered junction box.
30. **Monitor, Possible Repair:** Some of the lights did not come on with the wall switches as noted at the rear exterior and right basement. Have the electrician check all lighting fixtures for operable bulbs and then check circuits for proper operation. Consult with the seller concerning all switch locations and/or automatic switches that may be controlling the lights and ceiling fans, if any.

Cooling: Central Air System

31. **Repair:** The air conditioning systems should be serviced and cleaned by a qualified HVAC service company for this cooling season before closing if this has not already been performed (check seller's service records - no service stickers noted). Refrigerant levels should be checked for proper operation and pressure. The air filters should be checked and replaced as needed.
32. **Repair:** Damaged and missing insulation on refrigerant lines should be repaired, especially in the attic where condensation can cause damage to interior finishes. All lines should also be insulated near the coils to prevent condensation leaks into the furnace, which can cause rusting and damage to the unit.

Cooling: Outdoor Condensing Unit

33. **Repair:** The outdoor unit of the air conditioning system is out of level. This condition should be corrected to allow for proper operation of the fan motor and compressor.

Heating: Furnace / Air Handler

34. **Repair, Safety Issue:** The heating systems should be serviced and cleaned by a qualified HVAC service company before closing (no recent service stickers were noted). The heat exchangers should be checked for cracks. The gas venting system should also be checked for proper safety. The dirty air filter(s) should be checked and replaced as needed. Manufacturers recommend servicing of all furnaces before each heating season as required for proper safety and function. Check with the seller concerning all previous service records.

Heating: Gas Piping

35. **Repair, Safety Issue:** *The gas supply line serving the upstairs furnace is flexible piping which passes through the outer case of the furnace without protection. This piping runs the risk of being damaged by the edge of the casing and should be replaced with rigid pipe or otherwise protected to prevent future leaks. A drip leg would also be required here.*
36. **Monitor, Possible Repair:** *It appears the gas supply to the rear deck is turned off. Consult with the seller about its status and have repaired as needed.*

Plumbing: Waste / Vent Piping

37. **Repair:** *The waste piping at the rear basement is leaking. The plumber should check all piping and connections in the area and make repairs as necessary.*

Plumbing: Toilets

38. **Repair:** *The toilet in the powder room was loose and needs repair. Have the wax ring checked for leaks and the toilet properly bolted to the floor.*

Plumbing: Sinks / Faucets

39. **Repair:** *The basement utility sink was draining slowly indicating that an obstruction may exist or the sink stopper needs adjustment. Have the stopper adjusted and then check the P-trap and drain line for blockages and clear as needed.*
40. **Repair:** *The free standing sink in the basement is loose and should be properly attached to the floor to prevent the loosening of the piping connections, which can cause leaks in the future.*
41. **Repair:** *Some of the faucet handles leak slightly as noted at the left master sink. This typically indicates that washers inside the handles or valves need replacement.*

Plumbing: Water Heaters

42. **Monitor, Possible Repair:** *There was no expansion tank or valve visible near the tankless water heater. Expansion devices are typically required to prevent the back up of hot water into the potable drinking water system and to prevent excessive pressure build-up in the piping systems. Some experts have contended that an expansion tank is not required for a tankless water heater. Recommend consulting with a qualified plumber concerning the need for this device and have installed as necessary.*
43. **Repair:** *There was no drip leg noted at the gas piping for the water heater, which is required for removing sediment in the lines.*

Insulation / Ventilation: Attic

44. **Monitor, Possible Repair, Safety Issue:** *There is evidence of past rodent activity in the attic, basement and crawlspace as evidenced by droppings and/or disheveled insulation. A pest control specialist should be consulted to eliminate future activity. All outside openings into the structure should be covered with screen wire or otherwise sealed. All damaged insulation should be removed and replaced as needed. Consult with the seller concerning remedies taken to address this condition. Rodents can damage electrical wiring and other building components and can create unhealthy conditions within the home.*

45. **Repair, Safety Issue:** *There is evidence of active bat infestations as noted in the attic gable vents. A pest control specialist should be consulted to eliminate future activity. All outside openings into the structure should be covered with screen wire or otherwise sealed. The gable vents should be screened on the outside to prevent further bat activity and any accumulations of guano should be removed. Any damaged insulation should also be removed and replaced as needed. Consult with the seller concerning remedies taken to address this condition. Rodents and other wildlife can damage electrical wiring and other building components and can create unhealthy conditions within the home.*

Insulation / Ventilation: Crawlspace

46. **Repair:** *Loose or damaged insulation in the floor above the crawl space should be re-installed or replaced altogether and then re-secured with straps. Installing a netting or mesh below the insulation would also serve to keep the insulation in place and protect it from damage.*

Insulation / Ventilation: Basement

47. **Repair, Safety Issue:** *The insulation batts in the basement are installed with the paper vapor barrier exposed, which presents a fire hazard (see label on facing). The insulation should be either turned around so that the vapor barrier is not exposed or covered with an approved product (e.g. sheetrock). Otherwise, the insulation should be replaced with a product that does not have a paper backing (e.g. "unfaced" material).*

Insulation / Ventilation: Fans

48. **Monitor, Possible Repair:** *The power ventilator in the attic was not running at the time of the inspection (temperature in the attic was over 100 degrees) which means that it is either inoperative or the thermostat needs adjustment. The thermostat(s) were out of reach for proper testing. Have these checked for proper operation and settings and repair as necessary for proper ventilation of the attic. The thermostats should be relocated to a more accessible location, preferably near the stairs/scuttle hole.*

Interior: Ceilings / Walls

49. **Repair:** *Damage and/or holes were noted in the walls of the garage, which should be repaired and repainted.*

50. **Repair, Safety Issue:** *Evidence of possible mold and mildew was noted at the left basement wall and the wall in the basement furnace closet. Bacteria growth within the house contaminates indoor air quality could pose a health risk. These areas may need cleaning with a fungicide or otherwise sanitized. All damp and damaged sheetrock should be replaced as needed. The source of the moisture should be eliminated to prevent further growth. The identification and testing for mold growth is not a part of this inspection.*

Interior: Flooring

51. **Monitor, Future Repair:** *The carpet at the sunroom is stained/damaged and should be replaced in the near future.*

Interior: Windows

52. **Monitor, Possible Repair:** *The sunroom skylights have either fogged over or need cleaning . They should be cleaned so the condition of the glass can be determined. Broken seals in insulated glass causes condensation between the panes of glass. This "fogging" of the glass is primarily a cosmetic concern, however, if this has occurred, the glass should be replaced for improved visibility.*

Interior: Bathrooms

53. **Repair:** *The shower door in the master bathroom needs adjustment for proper operation and to prevent leakage around the door.*

Interior: Cabinetry

54. **Repair:** *The kitchen center island drawers need repairs and adjustments for proper operation.*

Interior: Stairways

55. **Repair, Safety Issue:** *The railings for the stairway are loose and unstable and need strengthening and repair for proper safety.*

Fireplaces

56. **Repair, Safety Issue:** *The gas piping at the fireplace should be grouted and sealed where it passes through the outside walls of the fire chamber to prevent embers from contacting wood framing. All other openings and gaps at the hearth and surround materials should also be grouted and sealed to the metal facing of the fireplace.*
57. **Repair, Safety Issue:** *All open joints and cracks in the firebox and flues should be grouted and sealed with fire clay to prevent the chance of embers from coming in contact with wood framing.*

Appliances: Cooktop / Oven

58. **Repair:** *The right rear burner at the gas cooktop did not turn on with the knob at the time of the inspection and needs servicing and cleaning. Have all burners checked and cleaned for proper operation. Recommend installing a carbon monoxide alarm near this appliance to warn occupants of potentially high levels of carbon monoxide.*

59. **Repair:** The oven did not respond to normal operating controls. Check with the seller concerning the proper operation of this appliance and repairs that may be needed.

Appliances: Dishwasher

60. **Repair:** The dishwasher is loose in the opening and should be better secured for proper operation and to prevent leaks.

Improve Items

Plumbing: Toilets

61. **Improve:** Toilets should have a minimum clearance of 15" to adjacent walls (measured to the centerline of the fixture) and minimum of 21" clearance at the front (measured to the front edge of the fixture). The toilet in the master bathroom does not meet this requirement (too close to wall) and should be repositioned for proper function and access.

Monitor Items

Structural: Wall Structures

62. **Monitor:** A bowed wall was noted at the right basement, which could be caused by wall settlement, warping studs, or a pipe or duct in the wall. This area should be monitored for future movement and repaired as necessary.

Plumbing: Waste / Vent Piping

63. **Monitor:** Because we can only test the sewage drainage system with clear water only, our ability to detect blockages in the sewer lines is limited, especially the underground lines under the slab or in the yard. As such, you may want to have the sewer lines inspected by a plumbing company with the use of a TV camera to determine if there is a risk of blockages from tree roots or damaged piping.

Interior: Environmental Issues

64. **Monitor, Safety Issue:** Radon gas is a naturally occurring gas that is invisible, odorless and tasteless, and has been found to be a risk when the gas percolates through the ground and enters an enclosed structure. The Environmental Protection Agency (E.P.A.) states that a radon reading of more than 4.0 picoCuries per liter of air represents a health hazard and can lead to a higher incidence of cancer. A radon evaluation is currently in progress. For more information, consult the Environmental Protection Agency (E.P.A.) or visit <http://www.epa.gov/iaq/radon/>.

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Structural Components

STRUCTURAL OBSERVATIONS

The framed construction of the home is of good quality. The materials and workmanship, where visible, are within acceptable standards. The inspection did not discover evidence of substantial structural movement in the floors or walls. The concrete walls as noted in the basement of this structure serve as a durable foundation. An interior french drainage system was noted in the basement, which is intended to carry water out of these areas in case of moisture intrusion. Consult with the seller concerning maintenance and monitoring needed for the system and warranties that may be available from the waterproofing contractor. The framing components of the home were not totally visible due to the finished basement. The roof framing was mostly visible, however.



Interior French Drain

Descriptions

Foundation:

Basement and Crawlspace Configuration
Slab on Grade (Basement and Garage Slab)
Poured Concrete Walls

Wall Structure:

Wood Frame
Stud Size: 2x4

Crawlspace Access:

Accessible via Basement

Columns/Piers:

Steel Columns

Ceiling Structure:

Wood Joist - 2x8

Attic Access:

Accessible via Pull Down Stairs
Located: Hallway

Floor Structure:

Wood Joists - 2x10
Plywood Floor Decking

Roof Structure:

Wood Rafters - 2x6
Composite Sheathing
Cross-Ties / Purlins

1.3 Structural: Columns / Piers

Repair: Columns should be bolted to the concrete floor and to the beam they are supporting to limit damage and possible collapse of the structure. The column at the left basement has shifted and should be adjusted and secured.



1.4 Structural: Slabs

Improve: Painting or staining the garage and/or basement slabs with an approved product for this use will limit "dusting" of the concrete and will protect the surface from moisture and grease penetration.

1.5 Structural: Floor Structure

Monitor: Minor unevenness was observed in the floor structures, especially at the upstairs hall bathroom. This condition is fairly common in wood framed structures such as this and is typically caused by the framing design, installation methods, and aging of the building. There was no evidence of need for immediate structural repair in these areas, however the floors should be monitored for further movement and re-supported as needed. The rate of movement cannot be determined in a one-time inspection.

1.6 Structural: Wall Structures

Monitor: A bowed wall was noted at the right basement, which could be caused by wall settlement, warping studs, or a pipe or duct in the wall. This area should be monitored for future movement and repaired as necessary.



1.8 Structural: Wood Boring Insects

Improve: If the property has not already been treated for termites, a licensed pest control company should be engaged to evaluate the structure and prescribe necessary treatments. Recommend obtaining a "Structural Repair" bond for proper protection of the structure against damage from wood destroying insects.

LIMITATIONS OF STRUCTURAL INSPECTION

As described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions:

- Structural components concealed behind finished surfaces could not be inspected. Only a representative sampling of visible structural components were inspected.
- Engineering or architectural services such as calculation of structural capacities, adequacy, or integrity are not part of a home inspection.
- The framing components in the attic were not totally visible due to the insulation and floor decking in place, which obscures the view of these members.
- Low headroom from ductwork and plumbing piping restricted access to some portions of the crawlspace.
- The basement was partially finished, which concealed portions of the framing and foundation components.
- The floor joists and perimeter band boards in the crawlspace / basement were also not totally visible due to insulation.

Roofing System

ROOFING OBSERVATIONS

The roof coverings are reported to be 11 years old and are considered to be in generally good condition. The typical overall life for roofing material such as this is 20-25 years. No visible signs of active leakage were noted in the accessible areas of the roof decking and/or finished ceilings. Covers were noted on the gutters, which typically provide good protection from the accumulation of leaves and debris in the gutters and downspouts. They can cause the gutters to overflow in heavy rains, however, and should be monitored for proper function.

Descriptions

Roof Type:

Composition Shingle – Architectural Style

Roof Flashings:

Metal

Vinyl (at plumbing stacks)

Chimneys:

Metal Flue / Siding Veneer

Gutters and Downspouts:

Aluminum

Gutter Helmets

Downspouts Piped

Downspouts Discharge above Grade

Skylights:

Curb-Type

Method of Inspection:

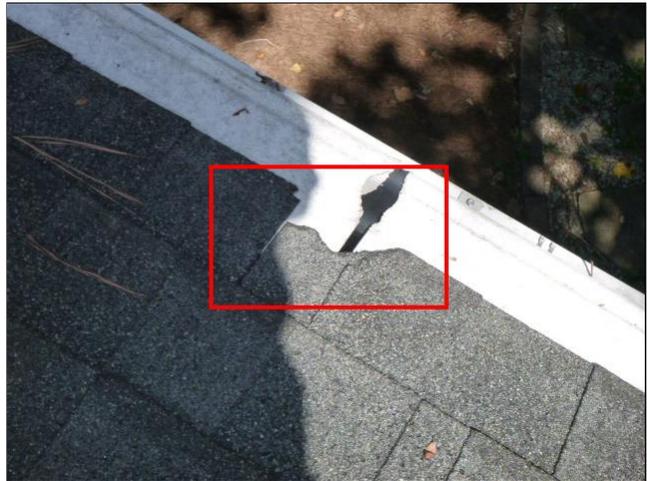
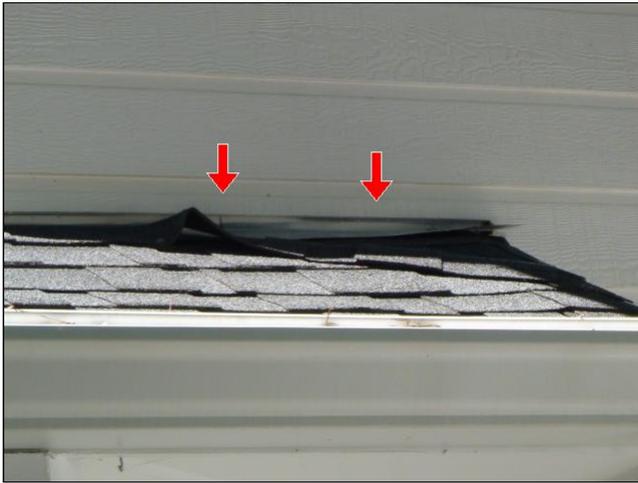
Viewed with Binoculars

Viewed from Ladder at Eave

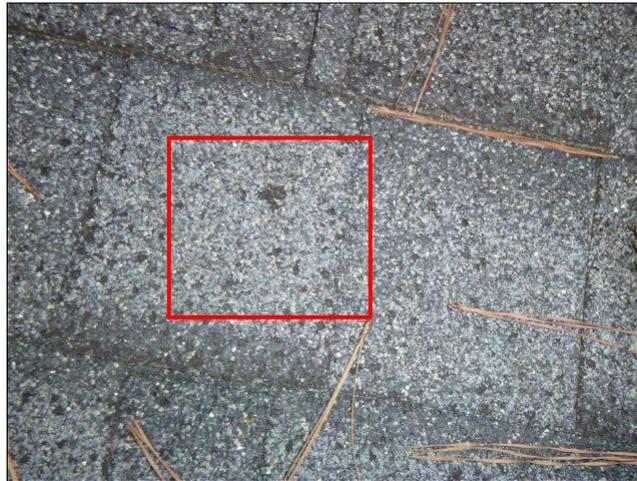
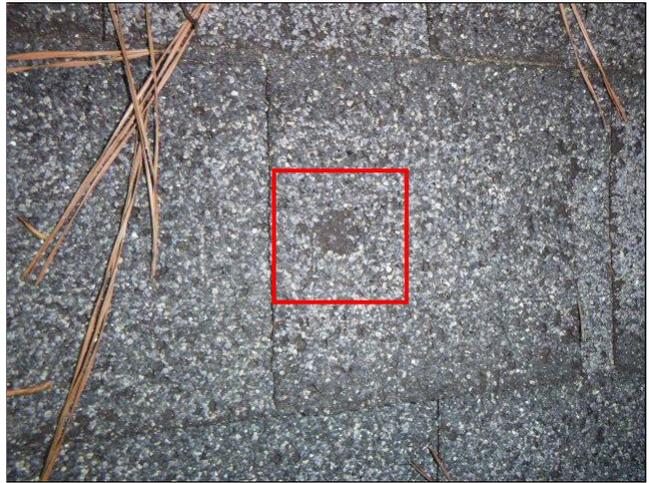
Walked on Roof (at rear)

2.0 Roofing: Shingles / Membrane

Repair: *General repairs to the roofing are needed, which should be performed by a qualified roofing contractor. Damaged, loose or missing roofing shingles at the rear should be replaced. All "eyebrows" (shingles that are lifted up by protruding nail heads) should be repaired by lifting the shingles and re-driving the nails in the decking. All holes and exposed nail heads should be caulked and sealed. All roof penetrations should also be examined and sealed as necessary.*



Monitor: Possible Concern: The roofing shingles appear to have experienced hail damage as indicated by "pot" marks on the shingles. A qualified roofing contractor or the seller's insurance company should inspect the roofing to determine if replacement will be necessary. Hail damage greatly inhibits the normal life expectancy of the roofing shingles.

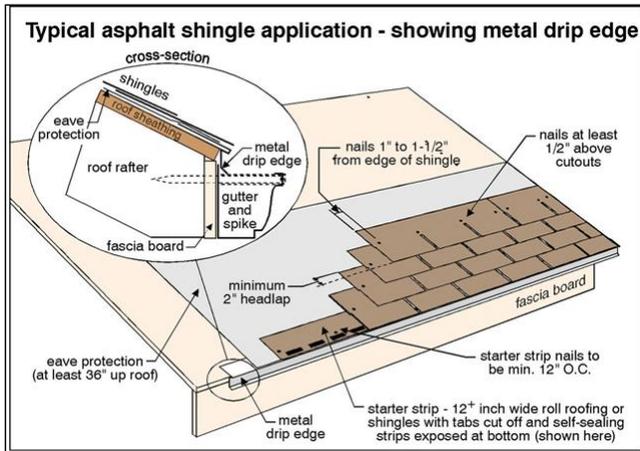


2.1 Roofing: Flashings

Repair: A loose and open flashing component was noted at the rear, which should be re-nailed and sealed by a qualified roofing contractor to prevent leakage. All roofing shingles and flashing components should be examined and sealed as necessary. All exposed nail heads should be caulked.



Improve: A drip edge flashing should be installed around the perimeter of the roof to ensure that water drains from the roof directly into the gutters. This flashing also helps protect the roof sheathing from damage at the eave.

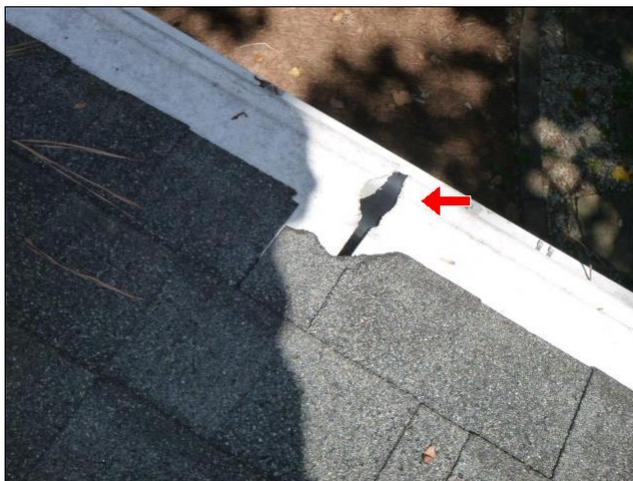


Monitor: The flashing components at the skylights should be carefully monitored, as these areas are extremely vulnerable to leakage.



2.3 Roofing: Gutters / Downspouts

Repair: Damaged sections of gutter helmets at the rear should be replaced as necessary.

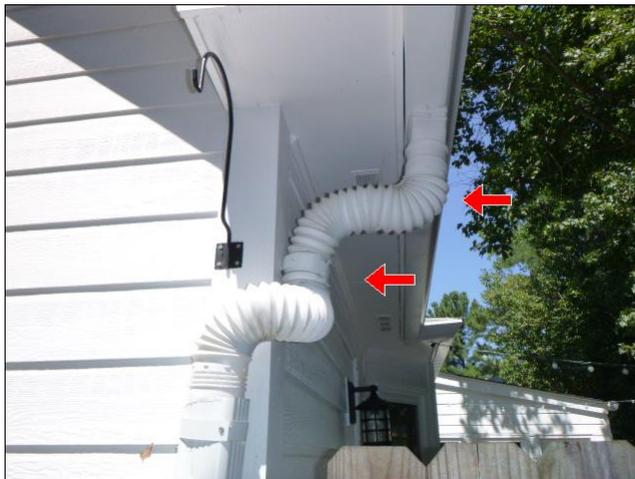


Improve: Downspouts that discharge onto the roof should be extended to discharge directly into the gutters or to the ground below. This condition can result in premature deterioration of the roofing shingles and flashing components near the end of the downspout and places additional water run-off next to the side-wall, which can allow moisture intrusion into the structure.



Improve: All of the downspouts should be piped away from the foundation so that they discharge water at least ten (10) feet from the house or into an underground drainage system to prevent moisture infiltration and settlement of the foundation. Recommend using smooth wall piping as opposed to the black ribbed piping, which is more prone to blockages. Storm water should be encouraged to flow away from the building at the point of discharge.

Monitor: It appears that "ribbed" pipelines have been used for the piping of the rear downspout, which is more prone to blockages than smooth wall piping. These should be monitored for proper flow and flushed on a regular basis to prevent obstructions in the lines.



LIMITATIONS OF ROOFING INSPECTION

As described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions:

- Not all of the underside of the roof sheathing can be inspected for evidence of leaks. Evidence of prior leaks may be disguised by interior finishes.
- Estimates of remaining roof life are approximations only and do not preclude the possibility of leakage. Leakage can develop at any time and may depend on rain intensity, wind direction, ice build up, and other factors.
- Roof inspection may be limited by access, condition, weather, or other safety concerns.
- Due to the steep slope and/or height of the roof structure, the roof could not be safely walked and was viewed from the ground only using binoculars. Some sections of the roof could not be viewed.
- Debris on the roof limited a complete view of the shingles and restricted the inspection.
- Covers on the gutters restricted a visual inspection of the guttering system.

Exterior Components

EXTERIOR OBSERVATIONS

Overall, the exterior of the home appears to be well maintained with only minor repairs/improvements recommended. The siding, window and door frames, and other wood trim components appear to be fairly well painted. No significant areas of wood rot or damage were noted, however some areas of minor rot were noted (see below). No evidence of excessive moisture penetration was noted through the exterior walls. Repairs are needed at the rear deck for proper safety and function. Metal garage doors as noted are low maintenance units and provide good protection against weather damage. An exterior key pad operator was noted, which allows the opening of the garage door(s) from the exterior. Consult with the seller concerning the proper operation of this device (along with any other remote control devices) and necessary codes that may be required. The auto reverse mechanism on the overhead garage door responded properly to testing. This safety feature should be tested regularly as a door that doesn't reverse can injure someone or damage vehicles. Refer to the owner's manual or contact the manufacturer for more information.



Rear Exterior

Descriptions

Wall Covering:

Brick
Fiber Cement Siding

Eaves / Soffits / Fascias:

Wood

Exterior Doors:

Wood
Metal
Raised Panel
Storm Door(s)

Window / Door Frames and Trim:

Wood
Metal-Clad

Entry Driveways / Walkways / Patios:

Concrete
Pavers

Front Entry / Porch:

Brick

Other Porches / Decks / Steps and

Railings:
Painted Wood Deck
Elevated Sunroom

Overhead Garage Doors:

Metal
Automatic Opener Installed (electric eye reversing mechanism)

Surface Drainage:

Graded Away From Building at Front
Graded Away From Building at Rear

Retaining Walls:
Wood Landscaping Timbers
Brick

Fencing:
Wood

3.0 Exterior Veneer: General

Repair: The exhaust vent covers and piping penetrations should be grouted/caulked and sealed against the brick/siding to prevent moisture intrusion into the wall structure.

3.1 Exterior Veneer: Siding / Trim Eaves

Repair: Signs of rot were observed at the soffit and fascia at the rear left and at the window trim at the right dormer, rear window and left window, which should be repaired by a qualified carpenter. Following repair of the damaged areas (which should be combined with exterior painting/maintenance) proper maintenance of the siding and wood trim and control of water from roof or surface runoff can avoid further damage. The carpenter should check all exterior wood components for further damage and repair as necessary.



Repair: Minor areas of carpenter bee damage were noted in some of the wood components, especially at the left, which should be repaired and repainted as needed to prevent moisture intrusion into the structure.



Repair, Monitor: Damage to the eaves at the front and rear right corner appears to be the result of rodent activity, which should be repaired as needed. Depending on the nature of this activity, an animal control specialist may need to be consulted to prevent further damage and rodent intrusions into the attic.



Repair: The siding should be caulked and sealed where it meets the trim to prevent moisture infiltration in to the structure and rotting of these components.



Improve: Damage to the window trim at the rear should be repaired as needed..



3.4 Exterior: Windows / Doors

Repair: Signs of leaks were noted at the left basement door, indicating previous moisture infiltration through these components. All exterior frames should be properly caulked and sealed and flashed as necessary to avoid further moisture damage.



3.5 Exterior: Garage

Repair: The garage door weatherstripping is damaged and should be repaired to limit moisture and rodent intrusion into the garage.



3.6 Exterior: Decks

Repair, Safety Issue: Repairs are recommended at the rear wood deck for proper safety as listed below, which should be performed by a qualified framing contractor. The contractor should assess all components for proper performance and safety:

The deck ledger band appears to be only nailed to the structure of the house. This ledger should instead be bolted to the structure for proper support. This condition if not repaired, may cause the deck to pull away from the house possibly causing injury to occupants. Immediate repair is strongly recommended.

A proper flashing should be provided at the intersection of the exterior wall of the house and the deck ledger band to avoid leaks into the structure and potential damage to the exterior band boards. This can be achieved by removing the decking next to the structure and then installing the flashing over the ledger band (see illustration below for details). The upper end should be caulked or slid under the siding (where present). All supporting wood

components should be checked for damage and replaced as necessary. The ledger band should be checked to insure that it is properly attached and bolted to the structure.

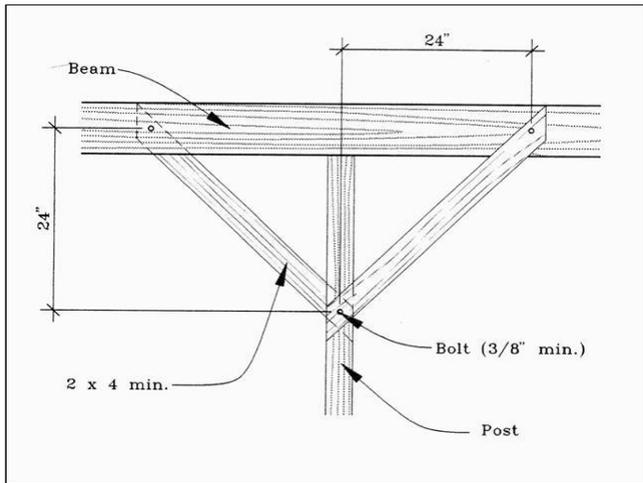
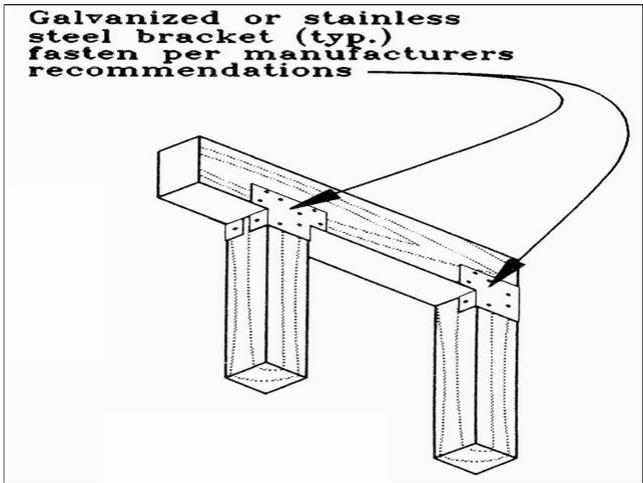
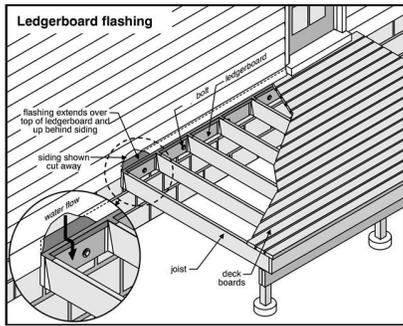
Loose and warped deck boards should be re-secured to the joists with wood screws for a better and longer lasting attachment.

Signs of rot were observed in the floor boards/joists of the deck structure. All damaged members should be replaced or otherwise re-supported with new wood. Following repair of the damaged areas, proper staining and weather protection of the wood and control of water from roof or surface runoff can avoid further damage.

Railings should be provided for deck stairs to prevent tripping hazards.

The wood columns supporting the deck and sunroom are not properly fastened to the deck structure to prevent future movement of the posts and should be properly attached to the framing with metal plates or diagonal wood bracing (see illustration below for possible details).

The grade is in contact with the base of the support wood posts for the deck and sunroom, which can cause moisture and termite damage in the future. Recent studies have shown that even pressure treated wood can rot over time due to constant contact with the soil. Make sure the footings for the posts are in place and extend at least 2" above the ground to keep the bottoms of the posts dry and free from soil contact.



Loose Deck Boards



Deck Rot



Railing Needed



Posts in Contact with Soil

Monitor: The deck has been built at grade level. This configuration is prone to rot and insect activity.

Monitor, Possible Repair: The floor structure of the deck shows signs of sagging and settlement, which indicates that this structure is somewhat under-designed for the loads and spans imposed. The deck should be monitored for further movement and the floor system strengthened, as necessary, by adding beams supported by columns under the deck.



3.7 Exterior: Patios / Stoops / Steps

Repair, Monitor: The front steps and stoop have settled exposing gaps in the brick. These openings should be grouted and sealed to prevent moisture intrusion and further deterioration of these components. These areas should then be monitored for future movement.



Repair, Safety Issue: Loose brick at the front stoop should be re-secured and re-grouted to prevent tripping hazards.



Repair: Open joints were noted in the brick at the front steps and stoop, which should be kept well grouted and sealed to prevent moisture intrusion into the wall and floor framing. Make sure all other cracks in the stoop and steps are grouted and sealed.



3.8 Exterior: Driveway / Sidewalks

Monitor, Future Repair: The driveway and front walkway have heaved and cracked in some areas and will need repair or replacement in the future.

3.9 Exterior: Retaining Walls

Improve, Safety Issue: Current safety standards require a guardrail for walking areas that are more than 30" off the ground. This provision also applies to finish grades above retaining walls that are attached to the structure. There was no guardrail at the retaining wall as noted at the left front and should be installed as needed.



Improve, Monitor: The retaining wall at the front yard shows somewhat typical signs of movement and cracking. The cracks should be grouted and sealed and monitored for future movement. If further cracking occurs, then further repair and re-support may be necessary. It is impossible to determine the rate of movement during a one-time visit to the house.



3.10 Exterior: Lot / Drainage

Monitor: Because the discharge location of underground drainage lines are not always visible, we recommend that you consult with the seller concerning the outfalls of all underground piping and drainage structures as needed for proper maintenance and monitoring of water flow in the future.

Repair: Wood to soil contact was noted at the rear. This condition can lead to termite infestations and moisture damage to the structure. A minimum of 4" (optimum 6") of clearance should be provided between grade and wood components. The grade in these areas should be lowered to provide such clearance. A drainage structure may be needed to remove water from the area. The ground should slope away from the house at a rate of 6" within ten feet of the foundation to prevent moisture intrusion into the crawlspace/basement. All damaged wood should be repaired or replaced as necessary.



Monitor, Possible Repair: Signs of soil erosion and wash were noted the driveway. If this condition persists, drainage improvements or grade stabilization measures may be necessary to prevent further erosion of the ground.



Improve: It appears that storm water is ponding in certain areas of the yard at the left yard. The installation of a "catch" basin with underground piping carrying the water out of the area would alleviate these conditions.



3.11 Exterior: Landscaping / Fencing

Improve: Ivy and other vegetation growing on trees should be removed to prevent future damage to the trees.

Monitor, Future Repair: Some of the wood fencing components are in poor condition. Replacement of these will ultimately be necessary.



Improve: The gates and/or latch mechanism need adjustment to function properly.

Improve: The lawn irrigation system was not turned on (testing of the system is not within the scope of this inspection). Consider having the system fully tested by a lawn irrigation service company to make adjustments as necessary for a full coverage of all landscaping components. Make sure all heads next to the foundation are directed away from the structure to prevent damage to wood components and to prevent moisture infiltration. Consider relocating heads away from the foundation altogether.

LIMITATIONS OF EXTERIOR INSPECTION

As described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions:

- A representative sample of exterior components was inspected rather than every occurrence of components.
- The inspection does not include an assessment of geological, or hydrological conditions, or environmental hazards.
- The identification and inspection of possible underground facilities such as underground storage or fuel tanks and underground service lines or piping is not included in this inspection.
- Screening, shutters, awnings, or similar seasonal accessories, fences, recreational facilities, and outbuildings are not inspected unless specifically agreed-upon and documented in this report.
- Landscape components restricted a view of some exterior areas of the house.
- Access below the rear deck was restricted due to low headroom.

Electrical System

ELECTRICAL OBSERVATIONS

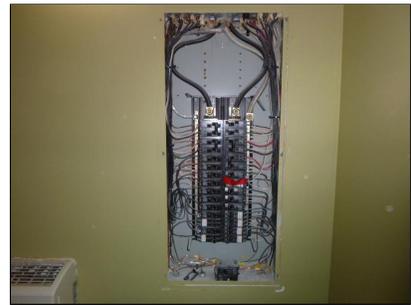
The size of the electrical service (200 amps) appears to be sufficient for typical electrical requirements. Ground fault circuit interrupter (GFCI) devices have been provided in some areas of the home. These devices are extremely valuable, as they offer an extra level of shock protection. All GFCI's that were tested responded properly. Smoke detectors were noted. These should be tested on a regular basis by the occupants (see instructions on the unit). In all, the electrical system appears to be in good condition, with minor repairs/improvements recommended, which should be performed by a licensed electrician.



Main Breaker in Garage Closet



Electrical Panel in Basement



Main Panel

Descriptions

Size of Electrical Service:

120/240 Volt Main Service - Service Size: 200 Amps

Main Service Disconnect(s):

Main Breaker Rating 200 Amps

Overcurrent Protection:

Breaker Panel Rating 200 Amps

Switches and Receptacles:

Grounded

Smoke Detectors:

Hard Wired

Service Drop:

Underground

Main Service Disconnect Location:

Located: Next to the Meter
Garage Closet

Distribution Panel Location(s):

Located in the Basement

Ground Fault Circuit Interrupters (GFCI):

Exterior (Partial)
Garage
Basement
Main Panel

Electrical Service Conductors:

Aluminum - 4/0 AWG

Service Grounding:

Copper Ground Wire
Ground Connection Not Visible

Distribution Wiring:

Copper
"Romex"

Arc Fault Circuit Interrupters (AFCI):

None Found

4.2 Electrical: Panels

Repair, Safety Issue: Improper screws as noted at the front panel cover of the main disconnect panel in the garage closet should be replaced for proper safety. All screws attaching the panel cover should be blunt headed to

prevent possible damage to the wiring. The screws were not totally installed after the inspection because of the potential of damaging the wiring.

Repair: *All open knockouts in the edge of the main panel should be properly sealed to prevent fire risks in the event of shorts in the panel.*



Improve: The circuits in the electrical panel box should be properly labeled for proper identification of the equipment served by the breakers.

4.3 Electrical: Wiring / Boxes

Repair: *The maximum allowable breaker size for the outdoor A/C unit(s) as indicated on the label of the equipment is 25 amps while the breaker size is 30 amps. All breakers should be checked for proper compatibility with the equipment they serve and changed out as necessary.*

Repair: *All open junction boxes at the left basement should be fitted with cover plates, in order to protect the wiring and to reduce the risks of potential fires that may be caused by poor connections.*



4.4 Electrical: Outlets

Improve: The dryer outlet does not meet current standards for grounding requirements (4-pronged outlets now required). Recommend having an electrician change this outlet to the newer 4-pronged outlet if a newer model dryer is used.

Improve: Up to date and tighter weatherproof covers should be installed on the exterior outlets to prevent moisture intrusion and damage to the wiring.

Improve, Safety Issue: The installation of a ground fault circuit interrupter outlet is recommended at the kitchen and all exterior outlets. A ground fault circuit interrupter (GFCI) offers increased protection from shock or electrocution. Up to date weatherproof covers should be installed at all exterior outlets.

Repair: *Loose outlets at the rear of the deck and family room (marked with orange dots) should be tightened to prevent the loosening of the wiring connections in the future.*

Improve: Recommend installing an outlet at the rear wet bar counter sink as required to provide for typical electrical needs.

Repair, Safety Issue: *Ungrounded 3-prong outlets at the upstairs bonus room (marked with orange dots) should be repaired. In this case, a ground wire may be present in the electrical box and simply needs to be connected since the remaining outlets in the room are grounded. The electrician should check all outlets and switches for proper wiring.*

Repair, Safety Issue: Missing outlet cover plates at the right basement should be replaced as needed to avoid a shock hazard.

4.6 Electrical: Lighting

Monitor: The exterior low voltage lighting system is not part of the primary electrical system for the house and was not inspected. These systems are often controlled by timers or photocells, which also impedes testing. Recommend consulting with the seller concerning the proper operation of this system and maintenance required.

Repair: Missing light fixtures at the front right exterior should be re-installed or the wiring properly terminated in a covered junction box.



Monitor, Possible Repair: Some of the lights did not come on with the wall switches as noted at the rear exterior and right basement. Have the electrician check all lighting fixtures for operable bulbs and then check circuits for proper operation. Consult with the seller concerning all switch locations and/or automatic switches that may be controlling the lights and ceiling fans, if any.

4.7 Electrical: Smoke / CO Detectors

Improve, Safety Issue: The installation of newer smoke detectors inside all bedrooms and within 10' of all sleeping areas is recommended as outlined by current safety standards. Also recommend installing carbon monoxide alarms in all sleeping and living areas for improved safety.

LIMITATIONS OF ELECTRICAL INSPECTION

As described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions:

- Electrical components concealed behind finished surfaces are not inspected. Only a representative sampling of outlets and light fixtures were tested.
- Exterior lighting can not always be fully tested due to the lack of clear identification of the switches and/or motion detectors that may control the lights. Yard lighting systems are not tested.
- The inspection does not include remote control devices, alarm systems, telephone and cable TV wiring, low voltage lighting, stereo wiring, and other components which are not part of the primary electrical power distribution system.

Cooling System

COOLING OBSERVATIONS

The outdoor A/C condensing units appear to be approximately 6 & 10 years old based on the serial number. The typical life for such components is 12-15 years based on proper maintenance scheduling. Check with the seller concerning all prior service records for the heating and air conditioning equipment. Upon testing in the air conditioning mode, a normal temperature drop (between 12 to 15 degree differential) at the closest supply register was observed. This suggests that the system is operating properly.



AC Units at Left

Descriptions

Cooling Equipment Energy Source:

Electricity

Central Air Manufacturer:

LENNOX
RUUD

Tonnage Capacity (1 ton serves ~600 SF):

2.5 Tons (x2)

Cooling System Type:

Air Cooled Central Air

Distribution Methods:

Ductwork

Number of A/C Systems:

Two

Outdoor Unit Location(s):

Left Yard

5.0 Cooling: Central Air System

Repair: The air conditioning systems should be serviced and cleaned by a qualified HVAC service company for this cooling season before closing if this has not already been performed (check seller's service records - no service stickers noted). Refrigerant levels should be checked for proper operation and pressure. The air filters should be checked and replaced as needed.

Repair: Damaged and missing insulation on refrigerant lines should be repaired, especially in the attic where condensation can cause damage to interior finishes. All lines should also be insulated near the coils to prevent condensation leaks into the furnace, which can cause rusting and damage to the unit.



5.1 Cooling: Outdoor Condensing Unit

Repair: The outdoor unit of the air conditioning system is out of level. This condition should be corrected to allow for proper operation of the fan motor and compressor.



LIMITATIONS OF COOLING INSPECTION

As described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions:

- The cooling supply adequacy or distribution balance is not analyzed.
- Freon levels and pressure balances are not checked.

Heating System

HEATING OBSERVATIONS

The furnace appears to be approximately 6 and 10 years old based on the serial number. The typical life for such a unit is 15-20 years based on proper maintenance scheduling. The furnaces responded to normal operating controls at the time of the inspection. The heating system is controlled by a programmable "set back" thermostat. This type of thermostat, if set up correctly, helps reduce heating costs. A media type air filtration system was noted upstairs, which is a high quality filtering system. The distribution of heat is divided into zones, allowing for greater ease of balancing heat flow.



Upstairs Furnace

Descriptions

Equipment Energy Source: Natural Gas	System Type: Forced Air Gas Furnace(s) Electronic Ignition	BTU Input (For Each Gas Furnace): 66,000 75,000
System Brand: LENNOX RUUD	Vents/Flues/Chimneys: Metal Multi Wall	Distribution Methods: Ductwork
Number of Systems: Two	Other Components: Filter Location: Beside Furnace Furnace Overflow Pan with Drain and/or Float Switch Condensate Pump(s) Media Filter(s)	

6.0 Heating: Furnace / Air Handler

Repair, Safety Issue: *The heating systems should be serviced and cleaned by a qualified HVAC service company before closing (no recent service stickers were noted). The heat exchangers should be checked for cracks. The gas venting system should also be checked for proper safety. The dirty air filter(s) should be checked and replaced*

as needed. Manufacturers recommend servicing of all furnaces before each heating season as required for proper safety and function. Check with the seller concerning all previous service records.



6.1 Heating: Gas Piping

Repair, Safety Issue: The gas supply line serving the upstairs furnace is flexible piping which passes through the outer case of the furnace without protection. This piping runs the risk of being damaged by the edge of the casing and should be replaced with rigid pipe or otherwise protected to prevent future leaks. A drip leg would also be required here.



Monitor, Possible Repair: It appears the gas supply to the rear deck is turned off. Consult with the seller about its status and have repaired as needed.

LIMITATIONS OF HEATING INSPECTION

As described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions:

- The adequacy of heat supply or distribution balance is not analyzed. The interior of the ductwork is not analyzed for air quality control purposes.
- The interiors of flues or chimneys, which are not readily accessible, are not inspected.
- The heat exchanger on a gas furnace is only partly visible and cannot be fully inspected.
- The proper operation of humidifiers, float switches, condensate pumps, electronic dampers, and electronic air filters cannot be verified in a one time visit.
- Although the heating system was operated, there are testing limitations at this time of year. The furnaces are not left on for a long period of time and temperature outputs are not checked.

Plumbing System

PLUMBING OBSERVATIONS

The plumbing fixtures are of good quality, which improves the function of the fixtures while reducing maintenance. The water volume supplied to the fixtures is reasonably good. A typical drop in flow was experienced when two fixtures were operated simultaneously. The water pressure of 70 psi was in the normal range (typical is 40-80 psi). The water heater is a "tankless" type which should save on future gas consumption and provide adequate hot water supply. The typical life span of a tankless water heater is 15-20 years. Overall, the plumbing system is in generally good condition with minor repairs/improvements recommended. A water filtration unit for the whole house was noted at the rear basement. Consult with the seller concerning proper maintenance and changing of filters that may be required. This component was not inspected.



Gas Meter at Left



Water Heater



Water Filtration System



Main Water Valve

Descriptions

Water Supply Source:

Public Water Supply Reported by Seller

Service Pipe to House:

Not Visible

Main Water Valve Location:

Front Foundation Wall
Basement

Interior Supply Piping (where visible):

Copper
Plastic - PVC
Pressure Reducing Valve (PRV): Located at Main Water Shut-off

Water Pressure:

70 psi (40-80 psi is normal)
Water Pressure Taken At: Exterior Hose Faucet

Waste System:

Public Sewer System Reported by Seller

Drain/Waste/Vent Piping (where visible):

Plastic - PVC

Cleanout Location:

Left Yard

Water Heater:

Gas Tankless Unit(s)

Water Heater Age (typical life for standard HWH is 8-12 years):

11

Water Heater Manufacturer:

RINNAI

Water Heater Location:

Basement

Main Fuel Shut-Off Valve Location:

Located At Gas Meter (located: Left Side Yard)

Other Components:

Water Filtration System

Lawn Sprinkler System (See "Exterior"
Section)

7.1 Plumbing: Supply Piping

Improve: The main water shut-off valve appears to be located at the front right basement (confirm with seller) and should be labeled for proper identification. The shut-offs for the outside hose faucets should also be properly labeled for future access. We recommend shutting off the water when leaving the house for extended periods of time.

7.2 Plumbing: Waste / Vent Piping

Monitor: Because we can only test the sewage drainage system with clear water only, our ability to detect blockages in the sewer lines is limited, especially the underground lines under the slab or in the yard. As such, you may want to have the sewer lines inspected by a plumbing company with the use of a TV camera to determine if there is a risk of blockages from tree roots or damaged piping.

Repair: *The waste piping at the rear basement is leaking. The plumber should check all piping and connections in the area and make repairs as necessary.*



7.3 Plumbing: Toilets

Repair: The toilet in the powder room was loose and needs repair. Have the wax ring checked for leaks and the toilet properly bolted to the floor.

Improve: Toilets should have a minimum clearance of 15" to adjacent walls (measured to the centerline of the fixture) and minimum of 21" clearance at the front (measured to the front edge of the fixture). The toilet in the master bathroom does not meet this requirement (too close to wall) and should be repositioned for proper function and access.



7.4 Plumbing: Sinks / Faucets

Repair: The basement utility sink was draining slowly indicating that an obstruction may exist or the sink stopper needs adjustment. Have the stopper adjusted and then check the P-trap and drain line for blockages and clear as needed.

Repair: The free standing sink in the basement is loose and should be properly attached to the floor to prevent the loosening of the piping connections, which can cause leaks in the future.



Repair: Some of the faucet handles leak slightly as noted at the left master sink. This typically indicates that washers inside the handles or valves need replacement.



7.5 Plumbing: Tubs / Showers

Improve: The shower head located in the hall bathroom is leaky and could use replacement of the washers or shower head itself.

7.7 Plumbing: Water Heaters

Monitor, Safety Issue: The Temperature and Pressure Relief (TPR) Valve serving the water heater is an important safety valve that protects the tank from explosion due to undue pressure build up in the tank. This valve was not fully tested and discharged during the inspection as these are required to be tested once a year by the occupant only. The valve should also be inspected once every three years by a licensed plumber to insure proper operation as also required by the manufacturer. Consult with the seller concerning such servicing and testing of device and have performed as needed.

Monitor, Possible Repair: *There was no expansion tank or valve visible near the tankless water heater. Expansion devices are typically required to prevent the back up of hot water into the potable drinking water system and to prevent excessive pressure build-up in the piping systems. Some experts have contended that an expansion tank is not required for a tankless water heater. Recommend consulting with a qualified plumber concerning the need for this device and have installed as necessary.*

Repair: *There was no drip leg noted at the gas piping for the water heater, which is required for removing sediment in the lines.*

LIMITATIONS OF PLUMBING INSPECTION

As described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions:

- Portions of the plumbing system concealed by finishes and/or storage (e.g. below sinks, etc.), below the structure, or beneath the ground surface are not inspected.
- Water quantity and quality standards are contingent on local municipality systems and are not tested.
- Water conditioning systems, solar water heaters, fire and lawn sprinkler systems, swimming pools, outdoor whirlpool baths, private waste disposal (septic tanks), and water (well) systems are not inspected.
- With homes that have not been occupied such as this, latent plumbing leaks and blockages in the sewer lines cannot always be identified at the time of the inspection.
- The water heater was turned off at the time of the inspection, and was turned on only briefly for testing. This condition limits the complete investigation of the hot water supply system.
- Plumbers present restricted the inspection.

Insulation / Ventilation

INSULATION / VENTILATION OBSERVATIONS

The visible areas of the attic appear to be well insulated. The wall insulation was not visible. Insulated windows and doors as noted help in preventing excessive heat gain and loss through these components. Repairs are recommended to prevent further rodent infestations as noted. A whole house ventilating fan was noted, which brings outside air through the home in milder spring and fall climates when activated.

Descriptions

Attic Insulation:

Fiberglass
Estimated R Value: ~R30 in Main Attic

Exterior Wall Insulation:

Not Visible

Basement Insulation:

R30 Fiberglass (partial in floor above basement)

Crawlspace Insulation:

R19 Fiberglass in Crawlspace Floor

Roof Ventilation:

Soffit Vents
Gable Vents
Roof Vents
Power Ventilation

Crawlspace Ventilation:

Exterior Wall Vents
Vents to Basement

Vapor Retarders:

Plastic Vapor Barrier in Crawlspace
Foam Sheathing Board

Exhaust Fan/Vent Locations:

Bathroom(s)
Laundry/Dryer

8.0 Insulation / Ventilation: Attic

Monitor, Possible Repair, Safety Issue: *There is evidence of past rodent activity in the attic, basement and crawlspace as evidenced by droppings and/or disheveled insulation. A pest control specialist should be consulted to eliminate future activity. All outside openings into the structure should be covered with screen wire or otherwise sealed. All damaged insulation should be removed and replaced as needed. Consult with the seller concerning remedies taken to address this condition. Rodents can damage electrical wiring and other building components and can create unhealthy conditions within the home.*



Repair, Safety Issue: *There is evidence of active bat infestations as noted in the attic gable vents. A pest control specialist should be consulted to eliminate future activity. All outside openings into the structure should be covered with screen wire or otherwise sealed. The gable vents should be screened on the outside to prevent further bat activity and any accumulations of guano should be removed. Any damaged insulation should also be removed and replaced as needed. Consult with the seller concerning remedies taken to address this condition. Rodents and other wildlife can damage electrical wiring and other building components and can create unhealthy conditions within the home.*



Improve: The pull-down attic access door should be insulated with foam board and weather-stripped to limit unconditioned air infiltration into finished areas. Otherwise an insulated cover could be placed over the opening. Make sure all side attic access doors are also insulated and weather-stripped.

8.1 Insulation / Ventilation: Crawlspace

Improve, Safety Issue: To improve air quality in the crawlspace and reduce humidity which can lead to mold growth, consider closing off the vents and encapsulating the entire crawlspace with a durable moisture barrier (including the walls). A permanently installed dehumidifier should then be operated 24/7 to bring humidity levels to a maximum of 50% moisture content.

Repair: *Loose or damaged insulation in the floor above the crawl space should be re-installed or replaced altogether and then re-secured with straps. Installing a netting or mesh below the insulation would also serve to keep the insulation in place and protect it from damage.*



8.2 Insulation / Ventilation: Basement

Repair, Safety Issue: The insulation batts in the basement are installed with the paper vapor barrier exposed, which presents a fire hazard (see label on facing). The insulation should be either turned around so that the vapor barrier is not exposed or covered with an approved product (e.g. sheetrock). Otherwise, the insulation should be replaced with a product that does not have a paper backing (e.g. "unfaced" material).



Improve: Recommend operating a dehumidifier in the basement area 24/7 to reduce unwanted humidity build-up, which can cause mold and mildew growth.

8.3 Insulation / Ventilation: Fans

Monitor, Possible Repair: The power ventilator in the attic was not running at the time of the inspection (temperature in the attic was over 100 degrees) which means that it is either inoperative or the thermostat needs adjustment. The thermostat(s) were out of reach for proper testing. Have these checked for proper operation and settings and repair as necessary for proper ventilation of the attic. The thermostats should be relocated to a more accessible location, preferably near the stairs/scuttle hole.



Improve: Bath fans discharging into the attic should instead be vented to the building exterior to limit humidity build-up in the attic.

LIMITATIONS OF INSULATION / VENTILATION INSPECTION

As described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions

- Insulation/ventilation type and levels in concealed areas are not inspected. Insulation and vapor barriers are not disturbed and no destructive tests (such as cutting openings in walls to look for insulation) are performed.
- Potentially hazardous materials such as Asbestos and Urea Formaldehyde Foam Insulation (UFFI) cannot be positively identified without a detailed inspection and laboratory analysis. This is beyond the scope of the inspection.
- Although some references may be made to possible mold growth, the Identification of mold or an analysis of indoor air quality is not part of our inspection.
- Any estimates of insulation R values or depths are rough average values.
- Access to some areas of the attic was limited, due to framing and low headroom.
- The entire attic could not be accessed due to a lack of proper walkboards and/or floor decking.

Interior Components

INTERIOR OBSERVATIONS

The interior finishes of the home are in good condition. Typical minor flaws were observed in some areas. The walls and trim components have been recently caulked and painted and are in good condition (see "Limitations" below). The kitchen cabinets and counters are of good quality. The windows are replacement units, which will save on energy consumption and better resist moisture infiltration from the exterior. The condition of the floor and bath/shower surround tile is good and is generally well sealed to prevent damage to floor and wall structures. Only minor caulking is needed.

Descriptions

Wall and Ceiling Materials:

Sheetrock
Wood Paneling

Floor Surfaces:

Carpet
Vinyl
Wood
Tile

Shower and Tub Surrounds:

Tile

Windows and Glazing:

Double Hung
Fixed Pane
Single Pane
Double Pane
Tilt Out Sashes
Storm Windows (partial)
Window Screens (partial)

Doors:

Wood/Composite
Raised Panel
Bi-fold Doors

9.0 Interior: Ceilings / Walls

Repair: Damage and/or holes were noted in the walls of the garage, which should be repaired and repainted.



Monitor: Evidence of previous patching and repairs was detected at the family room ceiling. Consult with the seller concerning the nature of these repairs and monitor for future activity.



Repair, Safety Issue: Evidence of possible mold and mildew was noted at the left basement wall and the wall in the basement furnace closet. Bacteria growth within the house contaminates indoor air quality could pose a health risk. These areas may need cleaning with a fungicide or otherwise sanitized. All damp and damaged sheetrock should be replaced as needed. The source of the moisture should be eliminated to prevent further growth. The identification and testing for mold growth is not a part of this inspection.



9.1 Interior: Flooring

Monitor, Future Repair: The carpet at the sunroom is stained/damaged and should be replaced in the near future.

Improve: Loose carpet at the upstairs hallway should be re-stretched and cleaned.

9.2 Interior: Windows

Monitor, Possible Repair: The sunroom skylights have either fogged over or need cleaning . They should be cleaned so the condition of the glass can be determined. Broken seals in insulated glass causes condensation between the panes of glass. This "fogging" of the glass is primarily a cosmetic concern, however, if this has occurred, the glass should be replaced for improved visibility.



9.3 Interior: Doors

Improve: Recommend re-keying all exterior locksets (to the same key) upon taking possession of the home.

Improve, Safety Issue: Current safety standards require that the door between the garage and the interior of the house be solid wood or metal for proper fire protection. Consider replacing this door for improved safety.

Improve, Safety Issue: Double keyed dead bolts were noted on the exterior doors, which is contrary to current safety standards for proper emergency egress from the building. Recommend replacing these with the type that have levers on the interior side.

Improve: Doors should be trimmed or the hardware adjusted as necessary to latch and close properly as noted at the master bedroom, rear center bedroom and master bedroom closet.

Improve: Recommend installing a door knob at the left basement door.



9.4 Interior: Bathrooms

Monitor: The shower stall located in the master bathroom was tested with a standing water test (drain line plugged and the stall filled with water to a depth of 1" - 2") to determine if leaks might be present in the shower pan. While no evidence of leakage was noted at the time of the inspection, this does not preclude that leakage will be experienced in the future. Leakage that may be occurring may not be evident until the day after the inspection. The ceilings/floor system below the shower should be monitored for future leakage and the pan repaired or replaced as needed.



Repair: The shower door in the master bathroom needs adjustment for proper operation and to prevent leakage around the door.

9.5 Interior: Cabinetry

Improve: The backsplash at the kitchen counters needs caulking and sealing to prevent moisture intrusion into the walls, especially around the sink.



Repair: *The kitchen center island drawers need repairs and adjustments for proper operation.*

9.6 Interior: Stairways

Repair, Safety Issue: *The railings for the stairway are loose and unstable and need strengthening and repair for proper safety.*

9.7 Interior: Basement

Monitor: No evidence of active moisture penetration was visible in the basement at the time of the inspection. It should be understood that it is impossible to predict whether moisture penetration will pose a problem in the future. The present owner should be consulted concerning the previous history of leakage. The vast majority of basement leakage problems are the result of insufficient control of storm water at the surface. The ground around the house should be sloped to encourage water to flow away from the foundations. Gutters and downspouts should act to collect roof water and drain the water at least ten (10) feet from the foundation, or into a functional storm sewer. Downspouts that are clogged or broken below grade level, or that discharge too close to the foundation, are the most common source of basement leakage. Please refer to the Roofing and Exterior sections of the report for more information.

9.8 Interior: Environmental Issues

Monitor, Safety Issue: Radon gas is a naturally occurring gas that is invisible, odorless and tasteless, and has been found to be a risk when the gas percolates through the ground and enters an enclosed structure. The Environmental Protection Agency (E.P.A.) states that a radon reading of more than 4.0 picoCuries per liter of air represents a health hazard and can lead to a higher incidence of cancer. A radon evaluation is currently in progress. For more information, consult the Environmental Protection Agency (E.P.A.) or visit <http://www.epa.gov/iaq/radon/>.



LIMITATIONS OF INTERIOR INSPECTION

As described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions

- Storage and appliances are not moved to permit inspection and may block defects. Interior shutters or blinds may have obscured the view of the windows.
- Carpeting, window treatments, central vacuum systems, household appliances, recreational facilities, paint, wallpaper, and other finish treatments are not inspected.
- Although some references may be made to possible mold growth, the Identification of mold or an analysis of indoor air quality is not part of our inspection.
- Recent interior painting concealed historical evidence of leaks and settlement.
- The shower doors could not be evaluated for safety glass requirements due to the opaque or dirty glass at the time of the inspection.

Appliances / Fireplaces

APPLIANCE OBSERVATIONS

The kitchen appliances are considered to be in generally good condition. Most appliances that were tested responded satisfactorily.



Kitchen



Laundry

Descriptions

Appliances Tested:

- Gas Range / Oven(s)
- Dishwasher(s)
- Garbage Disposal

Other Components:

- Door Bell
- Cooktop Vent Hood (Vents To The Exterior)

Laundry Facility:

- 240 Volt Circuit for Dryer (3 Pronged Plug)
- Hot and Cold Water Supply for Washer
- Dryer Vented to Building Exterior

Fireplaces:

- Metal Firebox (with Masonry Insert)
- Metal Flue
- Damper
- Gas Logs
- Gas Starters

10.0 Fireplaces

Repair, Safety Issue: The gas piping at the fireplace should be grouted and sealed where it passes through the outside walls of the fire chamber to prevent embers from contacting wood framing. All other openings and gaps at the hearth and surround materials should also be grouted and sealed to the metal facing of the fireplace.



Repair, Safety Issue: All open joints and cracks in the firebox and flues should be grouted and sealed with fire clay to prevent the chance of embers from coming in contact with wood framing.



10.2 Appliances: Cooktop / Oven

Repair: The right rear burner at the gas cooktop did not turn on with the knob at the time of the inspection and needs servicing and cleaning. Have all burners checked and cleaned for proper operation. Recommend installing a carbon monoxide alarm near this appliance to warn occupants of potentially high levels of carbon monoxide.

Repair: The oven did not respond to normal operating controls. Check with the seller concerning the proper operation of this appliance and repairs that may be needed.

10.3 Appliances: Dishwasher

Repair: The dishwasher is loose in the opening and should be better secured for proper operation and to prevent leaks.

10.6 Appliances: Dryer / Washing Machine

Improve: Recommend installing a metal overflow pan connected to a drain line under the washing machine to prevent damage to interior finishes from possible leaks at the washing machine. A better solution would be to install a tiled floor with a curb and floor drain. Otherwise, a leak detection system should be used. Also recommend installing metal braided hoses for the water connections for added protection.

LIMITATIONS OF APPLIANCES INSPECTION

As described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions

- Thermostats, timers and other specialized features (e.g. self-cleaning mechanisms) and controls are not tested. The temperature calibration, functionality of timers, effectiveness, efficiency and overall performance of appliances is outside the scope of this inspection.
- Dishwashers and washing machines (if tested - see above) are checked by running these appliances through their normal cycles and inspecting for leaks only. Ovens are tested in the standard “bake” and “broil” functions only. Only “permanently installed” appliances are tested.
- The interiors of flues or chimneys are not inspected. Wood and ashes in the firebox may restrict the inspection.
- The inspection does not involve igniting or extinguishing fires nor the determination of draft.
- There was no washing machine or dryer available to test the vent and drain lines and electrical or gas connections.

Maintenance Advice

UPON TAKING OWNERSHIP

After taking possession of a new home, there are some maintenance and safety issues that should be addressed immediately. The following checklist should help you undertake these improvements:

- Change the locks on all exterior entrances, for improved security.
- Check that all windows and doors are secure. Improve window hardware as necessary. Security rods can be added to sliding windows and doors. Consideration could also be given to a security system.
- Install smoke detectors on each level of the home. Ensure that there is a smoke detector outside all sleeping areas. Replace batteries on any existing smoke detectors and test them. Make a note to replace batteries again in one year.
- Create a plan of action in the event of a fire in your home. Ensure that there is an operable window or door in every room of the house. Consult with your local fire department regarding fire safety issues and what to do in the event of fire.
- Install carbon monoxide detectors near all furnaces, water heaters, gas ovens, and any other gas appliances to warn occupants of possible carbon monoxide emissions.
- Examine driveways and walkways for trip hazards. Undertake repairs where necessary.
- Examine the interior of the home for trip hazards. Loose or torn carpeting and flooring should be repaired.
- Undertake improvements to all stairways, decks, porches and landings where there is a risk of falling or stumbling.
- Label all furnace shut-off switches (switch closest to the furnace) to prevent someone from shutting off the furnace by accident. Label all plumbing shut-off valves for proper identification (consult with seller concerning exact locations).
- Install rain caps and vermin screens on all chimney flues, as necessary.
- Check all dryer flue vents for lint build-up in the line, which can cause damage and possible fires at the dryer element. Flexible piping should be replaced with rigid smooth wall piping, which is less prone to blockages.
- Investigate the location of the main shut-offs for the plumbing, heating and electrical systems. If you attended the home inspection, these items would have been pointed out to you. If you are leaving the home for extended periods of time (i.e. during vacations), it is recommended that the water to the house be shut off to prevent damage to interior finishes from possible plumbing leaks.

REGULAR MAINTENANCE

EVERY MONTH

- Check that fire extinguisher(s) are fully charged. Re-charge if necessary.
- Examine heating/cooling air filters and replace or clean as necessary. Inspect and clean humidifiers and electronic air cleaners, if present.
- Clean gutters and downspouts. Ensure that downspouts are secure, and that the discharge of the downspouts is appropriate (i.e. ten feet away from the foundation). Remove debris from window wells, if present.
- Carefully inspect the condition of shower enclosures. Repair or replace deteriorated grout and caulk. Ensure that water is not escaping the enclosure during showering.
- Clean and sanitize all whirlpool tub jet supply piping to reduce the chance of bacteria growth in the lines, which can cause infections. This can be achieved by running bleach through the system (refer to manufacturer's recommendations).

- Check below all plumbing fixtures for evidence of leakage. Repair or replace leaking faucets or shower heads. Secure loose toilets, or repair flush mechanisms that become troublesome.

SPRING AND FALL

- Have the heating and/or cooling and water heater systems cleaned and serviced. Have all furnace heat exchangers checked for cracks and damage. Consider having the ductwork cleaned and sanitized for better air quality.
- Examine the roof for evidence of damage to roof coverings, flashings and chimneys.
- Look in the attic (if accessible) to ensure that roof vents are not obstructed. Check for evidence of leakage, condensation or vermin activity. Level out insulation if needed.
- Trim back tree branches and shrubs to ensure that they are not in contact with the house.
- Inspect the exterior walls and foundation for evidence of damage, cracking or movement.
- Watch for bird nests in vents and flues and other signs of vermin or insect activity within the attic, crawlspace, or basement. Survey the basement and/or crawl space walls for evidence of moisture seepage.
- Look at overhead wires coming to the house. They should be secure and clear of trees or other obstructions.
- Ensure that the grade of the land around the house encourages water to flow away from the foundation.
- Inspect all driveways, walkways, decks, porches, and landscape components for evidence of deterioration, movement or safety hazards.
- Clean windows and test their operation. Improve caulking and weather-stripping as necessary. Watch for evidence of rot in wood window frames. Paint and repair windowsills and frames as necessary.
- Test all ground fault circuit interrupter (GFCI) devices, as identified in the inspection report.
- Shut off isolating valves for exterior hose bibs in the fall, if below freezing temperatures are anticipated.
- Test the Temperature and Pressure Relief (TPR) Valve on water heaters.
- Inspect for evidence of wood boring insect activity. Eliminate any wood/soil contact around the perimeter of the home.
- Test the overhead garage door opener, to ensure that the auto-reverse mechanism is responding properly. Clean and lubricate hinges, rollers and tracks on overhead doors.
- Replace or clean exhaust hood filters. Clean, inspect and/or service all appliances as per the manufacturer's recommendations.

ANNUALLY

- Replace smoke detector batteries.
- Have chimneys inspected and cleaned. Ensure that rain caps and vermin screens are secure.
- Examine the electrical panels, wiring and electrical components for evidence of overheating. Ensure that all components are secure. Flip the breakers on and off to ensure that they are not sticky.
- If the property has a septic system, have the tank inspected (and pumped as needed).
- If your home is in an area prone to wood destroying insects (termites, carpenter ants, etc.), have the home inspected by a licensed specialist. Preventative treatments may be recommended in some cases. Put in place a "Structural Repair" bond on the home, which will cover any structural damage caused by wood destroying insects.

Prevention is the best approach

Preventative maintenance is the best way to keep your house in great shape. It also reduces the risk of unexpected repairs and improves the odds of selling your home at fair market value, when the time comes.

Please feel free to contact our office should you have any questions regarding the operation or maintenance of any components within the home. We at Atlanta Elite Home Inspection hope you enjoy your home!

Should Something Go Wrong

There may come a time that you discover something wrong with the house, and you may be upset or disappointed with your home inspection. Some problems can only be discovered by living in the home, but cannot be discovered during the few hours of a home inspection. For example, some shower stalls leak when people are in the shower but don't leak when you simply turn on the tap. Some roofs and basements only leak when specific conditions exist. Some problems will only be discovered when carpets are lifted, furniture is moved, or finishes are removed.

These problems may have existed at the time of the inspection but there were no clues as to their existence. Our inspections are based on the past performance of the house. If there are no clues of a past problem, it is unfair to assume we should foresee a future problem. In certain cases, our reports may identify some minor problems, but not others, which create an appearance of inconsistency. However, the minor problems that are identified likely were discovered while looking for more significant problems. We note them simply as a courtesy. Generally speaking, the intent of the inspection is not to find \$200 problems, but to find the \$2,000 problems. These are the problems that affect your decision to purchase.

The main source of concern with inspectors relates to comments made by contractors. Contractors' opinions may differ from ours. Don't be surprised if three roofers say the roof needs replacement whereas we said that, with minor repairs, the roof will last a few more years. While our advice represents the most prudent thing to do, many contractors are reluctant to undertake these repairs. This is called the "Last Man In" theory. The contractor fears that if he is the last person to work on the roof, he will get blamed if the roof leaks, regardless of whether the roof leak is his fault or not. Consequently, he'd rather re-roof the entire house and reduce the likelihood of a call-back. Additionally, it is human nature believe the last bit of expert advice received, even if contrary to previous advice. We often find ourselves in the position of "First Man In" and it is our advice that is often disbelieved.

Contractors may say, "I can't believe you had this house inspected and they didn't find this problem." There are several reasons for such apparent oversights. We are generalists, not specialists. The heating contractor may indeed have more heating expertise than we do. This is because we are expected to have heating expertise, plumbing expertise, roofing expertise, and electrical expertise. The heating contractor is ONLY expected to have heating expertise.

Hindsight is always 20/20. Anyone can say that the basement is prone to flooding when there is 2 inches of water on the floor. Predicting the problem is a different story. If we spent half an hour under the kitchen sink or 45 minutes disassembling the furnace, we'd find more problems, too. Unfortunately, the inspection would take several days and cost considerably more. It is very difficult for homeowners to remember specifics about the house dating back to the time of inspection when someone else lived there. Homeowners seldom remember that it was raining or there was storage everywhere in the garage or that the furnace could not be run because the A/C was operating.

In conclusion, a home inspection is designed to better your odds. It is not designed to eliminate all risk. For that reason, a home inspection should not be considered an insurance policy. The premium that an insurance company would have to charge for a policy with no deductible, no limit, and an indefinite policy period would be considerably more than we charge. It would also not include the value added by the inspection. We hope you will consider these important factors while evaluating our work.