

First Sergeant Inspection Services, LLC

700 Sleater Kinney Rd SE Ste B-129
Lacey WA 98503
Inspector: Gregory Stephens



Property Inspection Report

Client(s): **John Smith**

Property address: **123 Steele LN**
Lacey, WA 98501

Inspection date: **Thursday, March 1, 2018**

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How to Read this Report

This report is organized by the property's functional areas. Within each functional area, descriptive information is listed first and is shown in bold type. Items of concern follow descriptive information. Concerns are shown and sorted according to these types:

	Safety	Poses a safety hazard
	Major Defect	Correction likely involves a significant expense
	Repair/Replace	Recommend repairing or replacing
	Repair/Maintain	Recommend repair and/or maintenance
	Minor Defect	Correction likely involves only a minor expense
	Maintain	Recommend ongoing maintenance
	Evaluate	Recommend evaluation by a specialist
	Monitor	Recommend monitoring in the future
	Comment	For your information

Contact your inspector If there are terms that you do not understand, or visit the glossary of construction terms at <https://www.reporthost.com/glossary.asp>

General Information

Time started: 0942

Time finished: 1331

Present during inspection: Property Management Representative

Client present for discussion at end of inspection: No

Weather conditions during inspection: Sunny

Temperature during inspection: Cool

Type of building inspected: Multi-family

Buildings inspected: House only

Age of main building: 104

Front of building faces: Southeast

Main entrance faces: Northwest, Southeast

Occupied: Yes, Furniture or stored items were present

1)   Structures built prior to the mid 1980s may contain lead and/or asbestos. Lead is commonly found in paint and in some plumbing components. The EPA does not recognize newer coats of paint as encapsulating older coats of lead-based paint. Asbestos is commonly found in various building materials such as insulation, siding, and/or floor and ceiling tiles. Laws were passed in 1978 to prohibit usage of lead and asbestos, but stocks of materials containing these substances remained in use for a number of years thereafter. Both lead and asbestos are known health hazards. Evaluating for the presence of lead and/or asbestos is beyond the scope of this inspection. Any mention of these materials in this report is made as a courtesy only, and meant to refer the client to a specialist. Consult with specialists as necessary, such as industrial hygienists, professional labs and/or abatement specialists for this type of evaluation.

2)  Some areas and items at this property were obscured by furniture and/or stored items. This often includes but is not

limited to walls, floors, windows, inside and under cabinets, under sinks, on counter tops, in closets, behind window coverings, under rugs or carpets, and under or behind furniture. Areas around the exterior, under the structure, in the garage and in the attic may also be obscured by stored items. The inspector in general does not move personal belongings, furnishings, carpets or appliances. When furnishings, stored items or debris are present, all areas or items that are obscured, concealed or not readily accessible are excluded from the inspection. The client should be aware that when furnishings, stored items or debris are eventually moved, damage or problems that were not noted during the inspection may be found.



Photo 2-1



Photo 2-2



Photo 2-3



Photo 2-4

Site and Grounds

Limitations: Unless specifically included in the inspection, the following items and any related equipment, controls, electric systems and/or plumbing systems are excluded from this inspection: detached buildings or structures; fences and gates; retaining walls; underground drainage systems, catch basins or concealed sump pumps; balcony and/or stair membranes are watertight; trees, landscaping, properties of soil, soil stability, erosion and erosion control; areas below the exterior structures with less than 3 feet of vertical clearance; invisible fencing. Any comments made regarding these items are as a courtesy only.

Site profile: Moderate slope, Steep slope

Driveway material: Asphalt

Sidewalk material: Asphalt

3) 🚧 Heaving resulting in trip hazards was found in the sidewalk in the front of the house. For safety reasons, I recommend that a qualified contractor repair as necessary to eliminate trip hazards.



Photo 3-1



Photo 3-2

4) 🚧 Hillside on back of home is experiencing some erosion. Continued erosion could compromise footings, walks, decks and yard. Severe slopes may require evaluation of an engineer or landscape architect. I recommend a qualified engineer or landscape contractor evaluate and repair as necessary.

Informational Links-

<http://www.foundationperformance.org/pastpresentations/BeckPresSlides13Jan16.pdf>

http://www.lowes.com/cd_Controller+Erosion+in+the+Landscape_1259068825



Photo 4-1



Photo 4-2

5) 🚧 Minor deterioration (e.g. cracks, holes, settlement, heaving, moss) was found in the driveway, but no trip hazards were identified. The client may wish to have repairs made for cosmetic reasons.

***Car was parked in driveway, so wasn't able to complete visual inspection.



Photo 5-1



Photo 5-2

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- 6) 🗑️🏠 The soil or grading sloped down towards building perimeters in some locations. This can result in water accumulating around building foundations or underneath buildings. At a minimum, monitor these areas, and areas under the structure in the future for accumulated water. If water does accumulate, I recommend grading soil so it slopes down and away from buildings with a slope of at least 1 inch per horizontal foot for a minimum 6 feet out from buildings.



Photo 6-1

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- 7) 🗑️ Vines was in contact with the building exterior. Vegetation can serve as a pathway for wood-destroying insects and can retain moisture against the exterior after it rains. This is a condition conducive to attracting wood-destroying organisms. I recommend pruning, moving or removing vegetation as necessary to maintain at least 6 inches of space between it and the building exterior. A 1-foot clearance is better.



Photo 7-1

Exterior

Limitations: The inspector performs a visual inspection of accessible components or systems at the exterior. Items excluded from this inspection include below-grade foundation walls and footings; foundations, exterior surfaces or components obscured by vegetation, stored items or debris; wall structures obscured by coverings such as siding or trim. Some items such as siding, trim, soffits, vents and windows are often high off the ground, and may be viewed using binoculars from the ground or from a ladder. This may limit a full evaluation. Regarding foundations, some amount of cracking is normal in concrete slabs and foundation walls due to shrinkage and drying. Note that the inspector does not determine the adequacy of seismic reinforcement.

Wall inspection method: Viewed from ground

Apparent wall structure: Wood frame

Wall covering: Wood

Exterior window(s) types/materials: Single pane (wood sashes/frames)

Deck, patio, porch cover material and type: Covered (Refer to Roof section)

Deck, porch and/or balcony material: Wood

Exterior stair material: Concrete in front and wood in the rear

Exterior door(s) types/materials: Metal clad hinged

8)    The inspector was unable to verify that the glass installed in the basement kitchen was approved safety glass. Glass located in areas subject to human impact that is not approved safety glass is a safety hazard. Standard building practices require that approved safety glass be used or guards installed. I recommend that a qualified contractor evaluate and replace glass if necessary, and per standard building practices.



Photo 8-1

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- 9)   Handrails were missing. This is a potential fall hazard. Handrails should be installed at stairs with four or more risers or where stairs are greater than 30 inches high. I recommend that a qualified contractor install handrails where missing and per standard building practices.



Photo 9-1

Rear stairs

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- 10)   Guardrails were too low with drop-offs higher than 30 inches. This poses a fall hazard. Guardrails should be at least 36 inches in height. I recommend that a qualified contractor replace or repair guardrails per standard building practices.

Soil was in contact with wooden stairs at all locations. This is a condition conducive to attracting wood-destroying organisms. Soil should be graded and/or removed so as to eliminate wood to soil contact. Any work to be completed by qualified individual.



Photo 10-1
Rear stairs

11)   Flashing was missing from above porch ledger boards, or could not be verified. Missing flashing at this location can cause moisture to accumulate between the ledger boards and the building. Fungal rot may occur in this area and cause the ledger board fasteners to fail. The deck may separate from the building in this event. This is a potential safety hazard. I recommend that a qualified contractor install flashing above ledger boards per standard building practices.



Photo 11-1

12)   Guardrails were missing pickets. This makes the guardrails unstable and poses a fall hazard. Guardrails pickets should have no more than a 4 inch gap between each picket. I recommend that a qualified contractor install guardrails where missing and per standard building practices.



Photo 12-1
East corner

13)  The enclosed balcony at the rear of the house was not properly attached due to substandard bracing, lack of diagonal bracing, and lack of attachment to the main building. This is a safety hazard since severe movement may cause the cover to collapse. A qualified contractor should repair as necessary.



Photo 13-1



Photo 13-2

14)  Fungal rot was found at rafter tails. Conductive conditions for rot should be corrected (e.g. wood-soil contact, reverse perimeter slope). I recommend that a qualified contractor repair as necessary. All rotten wood should be replaced.

**Photo 14-1****Photo 14-2**

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- 15)  Some sections of horizontal trim boards had no "Z" flashing installed above them where they met siding. "Z" flashing should be installed above these boards to reduce the chance of leaks between the trim and siding. Without this flashing, caulk and paint must be diligently maintained, or water can enter wall cavities and cause rot and possible structural damage. I recommend that a qualified contractor install flashing above horizontal trim boards where missing and per standard building practices. Note that when trim or siding is removed to install flashing, damaged wood may be found and additional repairs may be needed.

**Photo 15-1**

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- 16)  Some of the exhaust vent back draft dampers (flappers) were painted over restricting air to flow out. The purpose of the back draft dampers is to prevent unconditioned air from entering the building. Blocked ducts can cause fan motors and/or clothes dryers to overheat and can pose a fire hazard. I recommend that a qualified person repair or replace caps as necessary.



Photo 16-1

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- 17)  Many sections of siding and/or trim were warped. I recommend that a qualified person repair, replace or install siding or trim as necessary.



Photo 17-1

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- 18)   Some windows or doors were installed with no "drip cap" or "Z" flashings installed above them. Better building practices call for such flashings, which greatly reduce the chance of leaks above windows and doors. Without this flashing, caulk and paint must be maintained or water can enter the wall structure and cause rot and possible structural damage. Depending on the exposure (e.g. roof overhang, height of exterior wall, direction of prevailing rain) this may or may not be an issue. The client should monitor these areas in the future and maintain caulk and paint as necessary. Consult with a qualified contractor about installing flashings where needed, and per standard building practices. Note that when trim or siding is removed to install flashing, damaged wood may be found and additional repairs may be needed.



Photo 18-1

19)  A few holes or gaps were found in siding or trim. Vermin, insects or water may enter the structure. I recommend that a qualified person repair as necessary.



Photo 19-1



Photo 19-2



Photo 19-3



Photo 19-4

20)  Soil was in contact with balcony support posts. This is a condition conducive to attracting wood-destroying organisms. Even if posts are made of treated wood, the cut ends below soil may not have been field treated. I recommend grading soil or repairing as necessary to prevent wood-soil contact.



Photo 20-1

21)  Soil was in contact with structural wood for the front porch. This condition is conducive to attracting wood-destroying organisms. I recommend grading or removing soil as necessary to maintain a 6-inch clearance. If that's not possible, have a qualified person replace untreated wood with rot resistant pressure-treated lumber. Since even pressure-treated materials can eventually decay, plan to periodically check the condition of any wood that is in contact with earth. Note that damage from fungal rot and/or insects may be discovered when soil is removed, and further repairs and wood replacement may be necessary.



Photo 21-1

22)  The paint or stain finish in some areas was failing (e.g. peeling, faded, worn, thinning). Siding and trim with a failing finish can be damaged by moisture. I recommend that a qualified contractor prep (e.g. clean, scrape, sand, prime, caulk) and repaint or restain the building exterior where necessary and per standard building practices. Any repairs needed to the siding or trim should be made prior to this.



Photo 22-1

23) 🗝️ Window glazing putty is deteriorating on various windows and windows may be in need of some repair. This is not uncommon with the age of the home as the glazing dry out it become brittle and cracks and sills, stiles and sashes will need some repair. The client will have to evaluate repair versus replacement in some of these windows. I recommend having a qualified person or contractor evaluate and repair as necessary.

Informational link on glazing and older window repair-

<http://www.hereandthere.org/oldhouse/windows-repairing-steps.html>

<http://www.naturalhandyman.com/iip/infwindows/inf gla.html>



Photo 23-1

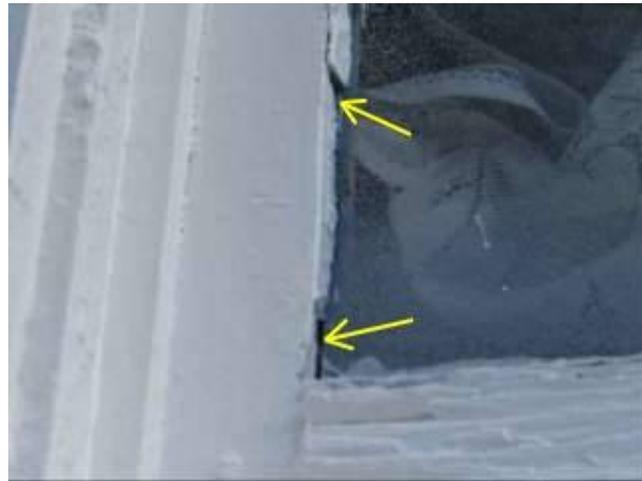


Photo 23-2



Photo 23-3



Photo 23-4

24) 🗝️ Wood deck or porch surfaces were overdue for normal maintenance. I recommend that a qualified person clean and preserve as necessary. Where decks have been coated with a finish such as opaque stains or paint, it may be too difficult to strip the finish and apply anything but paint or opaque stain. At areas where transparent stain or penetrating oil has been applied in the past, I suggest using a penetrating oil.



Photo 24-1

Roof

Limitations: The following items or areas are not included in this inspection: areas that could not be traversed or viewed clearly due to lack of access. Any comments made regarding these items are made as a courtesy only. Note that the inspector does not provide an estimate of remaining life on the roof surface material, nor guarantee that leaks have not occurred in the roof surface, skylights or roof penetrations in the past. Regarding roof leaks, only active leaks, visible evidence of possible sources of leaks, and evidence of past leaks observed during the inspection are reported on as part of this inspection. The inspector does not guarantee or warrant that leaks will not occur in the future. Complete access to all roof and attic spaces during all seasons and during prolonged periods of all types of weather conditions (e.g. high wind and rain, melting snow) would be needed to do so. Occupants should monitor the condition of roofing materials in the future. For older roofs, I recommend that a professional review the roof surface, flashings, appurtenances, etc. annually and maintain/repair as might be required. If needed, the roofer should enter attic space(s). Regarding the roof drainage system, unless the inspection was conducted during and after prolonged periods of heavy rain, the inspector was unable to

determine if gutters, downspouts and extensions perform adequately or are leak-free.

*** Did not traverse roof due to height and the large amounts of moss on shingles causing possible fall hazards.

Roof inspection method: Viewed from ground with binoculars

Roof surface material: Asphalt or fiberglass composition shingles, Wood shakes or shingles, Synthetic plasticized or rubberized single-ply membrane

Roof type: Mansard

Roof-attic ventilation system based on roof/interior view: Skip-sheathing (spaced plank) attic venting

25)  The roof was significantly deteriorated and appeared to be at or beyond its service life. It needs replacing now. I recommend discussing replacement options with a qualified contractor. Related roofing components such as flashings and vents should be replaced or installed as needed and per standard building practices.



Photo 25-1



Photo 25-2

26)  Ponding (pools of standing water) was found at various areas on the flat or low-slope roof. Even on a flat roof, water should be removed by a drainage system so that any remaining water evaporates within 48 hours after it rains. Prolonged standing water can result in roof leaks. This is a condition conducive to attracting wood-destroying organisms. I recommend that a qualified contractor evaluate and repair as necessary to prevent ponding.



Photo 26-1

27)  Moss was growing on the roof. As a result, roof runoff water is slowed down and leaks are more likely to occur. Efforts should be made to kill the moss during its growing season (wet months). Typically, zinc or phosphate-based chemicals are used for this and must be applied periodically. Work to be completed by qualified person. For information on various moss treatment products and their pros and cons, visit: <http://www.reporhost.com/?MOSS>



Photo 27-1



Photo 27-2

28)  Rubber or neoprene pipe flashings were deteriorated. Leaks can occur as a result. This is a condition conducive to attracting wood-destroying organisms. I recommend that a qualified contractor further evaluate and replace flashings where necessary.



Photo 28-1



Photo 28-2

29)  Downspout extensions such as splash blocks or drain pipes were misaligned. Water can accumulate around the building foundation or inside crawl spaces or basements as a result. I recommend that a qualified person install, replace or repair extensions as necessary so rainwater drains away from the structure.



Photo 29-1

30)  Some roof flashings were substandard. Leaks can occur as a result. This is a condition conducive to attracting wood-destroying organisms. I recommend that a qualified person repair as necessary.



Photo 30-1



Photo 30-2



Photo 30-3



Photo 30-4

**Photo 30-5****Photo 30-6****Photo 30-7**

31) **i** This asphalt or fiberglass composition roofing material appears to have two or more layers of shingles. Additional layers of composition shingles typically last only 80% of their rated life, and the shingle manufacturer's warranty may be voided. The client should be aware that all layers of roofing will need to be removed when this roof is replaced, which increases the cost of re-roofing.



Photo 31-1

32) **i** The roof structure below the shingles or shakes was "skip sheathed," where boards (typically 1x4 inches or 1x6 inches) with wide gaps between them were installed below the shingles, instead of plywood or oriented strand board (OSB) sheathing. Skip sheathing is commonly done with wood shake or shingle surfaces. The client should be aware that if a new composition shingle roof is installed, all existing layers of roofing materials will need to be removed, and continuous sheathing such as plywood or OSB will need to be installed before installing the shingles. This is a significant additional expense.



Photo 32-1

Attic and Roof Structure

Limitations: The following items or areas are not included in this inspection: areas that could not be traversed or viewed clearly due to lack of access; areas and components obscured by insulation. Any comments made regarding these items are made as a courtesy only. The inspector does not determine the adequacy of the attic ventilation system. Complete access to all roof and attic spaces during all seasons and during prolonged periods of all types of weather conditions (e.g. high/low temperatures, high/low humidity, high wind and rain, melting snow) would be needed to do so. The inspector is not a licensed engineer and does not determine the adequacy of roof structure components such as trusses, rafters or ceiling beams, or their spacing or sizing.

Attic inspection method: Traversed

Roof structure type: Rafters

Ceiling structure: Ceiling joists, Ceiling beams

Ceiling insulation material: Fiberglass loose fill

Estimate of approximate insulation R value (may vary in some areas): Less than R-11

Vermiculite insulation present: None visible

Vapor retarder: None visible

Roof-attic ventilation system(s) based on attic view: Skip-sheathing (spaced plank) attic venting

33)   Water damage was seen in the attic around chimney. This is a condition conducive to attracting wood-destroying organisms. Also, the chimney flashing might be failing. I recommend that a qualified contractor evaluate and repair as necessary.



Photo 33-1

34)  Several beams/joists were not positively attached to each other. This may weaken the roof structure. I recommend that a qualified contractor repair as necessary.



Photo 34-1



Photo 34-2

35)  The ceiling insulation installed in the attic was substandard and appeared to have an R rating that's significantly less than current standards (R-38). Heating and cooling costs will likely be higher due to poor energy efficiency. I recommend that a qualified contractor install insulation for better energy efficiency and per standard building practices.



Photo 35-1

Electric System

Limitations: The following items are not included in this inspection: generator systems, transfer switches, surge suppressors, inaccessible or concealed wiring; underground utilities and systems; low-voltage lighting or lighting on timers or sensors. Any comments made regarding these items are as a courtesy only. Note that the inspector does not determine the adequacy of grounding or bonding, if this system has an adequate capacity for the client's specific or anticipated needs, or if this system has any reserve capacity for additions or expansion. The inspector does not operate circuit breakers as part of the inspection, and does not install or change light bulbs. The inspector does not evaluate every wall switch or receptacle, but instead tests a representative number of them per various standards of practice. When furnishings, stored items or child-protective caps are present some receptacles are usually inaccessible and are not tested; these are excluded from this inspection. Receptacles that are not of standard 120 volt configuration, including 240-volt dryer receptacles, are not tested and are excluded. The functionality of, power source for and placement of smoke and carbon monoxide alarms is not determined as part of this inspection. Upon taking occupancy, proper operating and placement of smoke and carbon monoxide alarms should be verified and batteries should be changed. These devices have a limited lifespan and should be replaced every 10 years. The inspector attempts to locate and evaluate all main and sub-panels. However, panels are often concealed. If panels are found after the inspection, a qualified electrician should evaluate and repair if necessary. The inspector attempts to determine the overall electrical service size, but such estimates are not guaranteed because the overall capacity may be diminished by lesser-rated components in the system. Any repairs recommended should be made by a licensed electrician.

Primary service type: Overhead

Number of service conductors: 3

Service voltage (volts): 120-240

Estimated service amperage: 200

Primary service overload protection type: Circuit breakers

Service entrance conductor material: Stranded aluminum

System grounding method: Ground electrode(s) in soil

Make of main panel(s): Square D

Main disconnect rating (amps): 100, 200, There were two (2) services panels, the lower unit had a 100 amp and the upper unit had a 200 amp

Location of main disconnect: Breaker at top of main service panel

Location of main service panel #1: Utility room

Location of main service panel #2: Utility room

Branch circuit wiring type: non-metallic sheathed, knob and tube

Solid strand aluminum branch circuit wiring present: None visible

Ground fault circuit interrupter (GFCI) protection present: Yes, but missing in several locations

Arc fault circuit interrupter (AFCI) protection present: No

Smoke alarms installed: Yes, but not tested

Carbon monoxide alarms installed: Yes, but not tested

36)    "Knob and tube" wiring or related components such as porcelain insulators were found. This type of wiring was commonly installed prior to 1950. It is lacking an equipment ground and it is considered obsolete by today's standards. Over time, the wire's insulation can become brittle or wear thin, resulting in exposed conductors and an increased risk of fire. Often homeowners make the situation worse by incorrectly splicing new wiring into a existing knob and tube circuits.

The inspector did not find any energized knob and tube wiring during the inspection. However, this is no indication that all the knob and tube wiring has been abandoned. It is not within the scope of this inspection to determine what percentage of this property's wiring is of the knob-and-tube type, or to determine what percentage of the knob and tube wiring is energized versus abandoned. I recommend that a qualified electrician evaluate this wiring and make repairs or replace wiring as necessary.

Note that some insurance companies may be unwilling to offer homeowner's insurance for properties with knob and tube wiring. Consult with your insurance carrier regarding this matter.



Photo 36-1

37)    Thermal insulation was in contact with "knob and tube" wiring. Many municipalities prohibit this practice for the following reasons:

- Thermal insulation traps the heat created by current, and can cause the wiring insulation to degrade and fail.
- Knob and tube wiring is easily damaged. Because wiring is hidden by insulation, someone moving around in an attic can damage the wiring because they can't see it.

Some municipalities do allow thermal insulation to be installed in contact with knob and tube wiring. But in most cases where this is allowed, the wiring must be inspected by a state-licensed electrician prior to installing the insulation, with written documentation. Also, a posted notice may be required in the attic, warning of hidden wiring.

Consult with the property owner about the insulation being in contact with the wiring. If no records are available that verify an evaluation by a licensed electrician prior to the insulation's installation, insulation should be moved or removed as necessary, and a qualified electrician should evaluate the wiring and make repairs if necessary. If the local municipality

doesn't allow it, then a qualified contractor and/or electrician should repair as necessary. For example, by removing insulation or replacing knob and tube wiring with modern wiring.



Photo 37-1

38)    Several electric receptacles were missing ground fault circuit interrupter (GFCI) protection. If not GFCI-protected, receptacles in wet areas pose a safety hazard. I recommend that a qualified electrician evaluate and install GFCI protection if necessary and per standard building practices. General guidelines for GFCI-protected receptacles include the following locations:

- Outdoors (since 1973)
- Bathrooms (since 1975)
- Garages (since 1978)
- Kitchens (since 1987)
- Crawl spaces and unfinished basements (since 1990)
- Wet bar sinks (since 1993)
- Laundry and utility sinks (since 2005)

39)   An electric panel had inadequate working space, insufficient clearances in front of it. This is a safety hazard when opening or working in a panel. Electric panels should have the following clearances:

- An open area 30 inches wide by 3 feet deep in front of the panel
- 6 feet 6 inches of headroom in front of the panel
- The wall below the panel is clear to the floor
- The center of the grip of the operating handle of the switch or circuit breaker not more than 6 feet 7 inches above the floor or working platform

I recommend that a qualified contractor repair or make modifications per standard building practices. If panels must be opened for repairs, then a qualified electrician should perform repairs.

**Photo 39-1****Photo 39-2**

40)   Extension cord was being used as permanent wiring in lower unit bedroom. They should only be used for portable equipment on a temporary basis. Using extension cords as permanent wiring creates a safety hazard and indicates that wiring is inadequate and needs to be updated. Extension cords may be undersized. Connections may not be secure resulting in power fluctuations, damage to equipment, overheating and sparks that could start a fire. I recommend that a qualified electrician repair per standard building practices and eliminate extension cords for permanently installed equipment.

**Photo 40-1**

41)   Several modern 3-slot electric receptacles, with an open ground, were identified in the lower unit. This is a safety concern when appliances that require grounds are used with these receptacles. Examples of such appliances include computers and related hardware, refrigerators, freezers, portable air conditioners, clothes washers, aquarium pumps, and electrically operated gardening tools. I recommend that a qualified electrician repair as necessary so all receptacles are grounded per standard building practices.



Photo 41-1



Photo 41-2

42)   Neutral wires were doubled or bundled together under the same lug on the neutral bus bar in 100 AMP electric panel. This is a safety hazard in the event that one of the circuits needs to be isolated during servicing. For one neutral to be disconnected, other neutrals from energized circuits sharing the same lug will be loosened. Power surges may result on the energized circuits and result in damage or fire. Also, multiple wires under the same lug may not be secure, resulting in loose wires, arcing, sparks and fire. I recommend that a qualified electrician repair per standard building practices.

43)   Cover plate for junction box in attic was missing. These plates are intended to contain fire and prevent electrical shocks. I recommend that a qualified person install cover plates where necessary.



Photo 43-1

44)   Branch circuit wiring installed in buildings built prior to the mid 1980s is typically rated for a maximum temperature of only 60 degrees Celsius. This includes non-metallic sheathed (Romex) wiring, and both BX and AC metal-clad flexible wiring. Knob and tube wiring, typically installed in homes built prior to 1950, may be rated for even lower maximum temperatures. Newer electric fixtures including lighting and fans typically require wiring rated for 90 degrees Celsius. Connecting newer fixtures to older, 60-degree-rated wiring is a potential fire hazard. Repairs for such conditions may involve replacing the last few feet of wiring to newer fixtures with new 90-degree-rated wire, and installing a junction box to join the old and new wiring.

It is beyond the scope of this inspection to determine if such incompatible components are installed, or to determine the extent to which they're installed. Based on the age of this building, the client should be aware of this safety hazard, both for existing fixtures and when planning to upgrade with newer fixtures. Consult with a qualified electrician for repairs as necessary.



Photo 44-1

- 45)   Very few receptacles, per modern standards, were installed throughout the lower unit. This can result in "octopus" wiring with extension cords, which is a fire hazard. Consult with a qualified electrician about upgrading circuits with additional receptacles per standard building practices.



Photo 45-1

- 46)   The home is using a wiring method called multi-wire branch circuits. This is defined as a circuit that consists of two or more Hot Conductors (ungrounded conductors/black and red usually) that have a voltage between them (like a 240v circuit on two phases/buses), and a shared neutral wire (white wire) called a grounded conductor.

As of 2008 all Multi-wire branch circuits requires a means for simultaneously disconnecting all ungrounded conductors of all multi-wire branch circuits(Handle Ties).

This may put the hot conductors on the same leg of the bus which can overload the neutral which is danger for fire. I recommend a qualified electrician evaluate and repair immediately if found to be on same leg/phase.

Special care needs to be used when any work, trouble-shooting or upgrades are performed on circuits of this design. There is some inherent dangers/hazards if work is not performed professionally by a knowledgeable person which can lead to shock, fire and destruction of appliances connected to these circuits.

I highly recommended that any work being performed on these circuits is by a qualified electrician. Repair and modification of this circuitry may be out of the realm of repair/knowledge for a homeowner that does not understand the principles behind this design.

Ungrounded and grounded circuit conductors of each multi-wire branch circuit should be grouped by cable ties or similar means for proper identification.

Note: I recommend handle ties be installed as a safety feature and properly grouping the conductors. This is a very simple to perform

Informational links-

<http://www.electriciansparadise.com/articles.html>

<http://www.inspectapedia.com/electric/multiwir.htm>

47)  Some globes or covers for light fixtures were missing. I recommend replacing as necessary to avoid exposed bulbs. With closet lighting or where flammable stored objects are near light fixtures, missing or broken covers can be a fire hazard.



Photo 47-1



Photo 47-2

HVAC (Heating, Ventilation and Air Conditioning)

Limitations: The following items are not included in this inspection: wood-fired heat systems; thermostat or temperature control accuracy and timed functions; heating components concealed within the building structure or in inaccessible areas; underground utilities and systems; safety devices and controls (due to automatic operation). Any comments made regarding these items are as a courtesy only. Note that the inspector does not provide an estimate of remaining life on heating or cooling system components, does not determine if heating or cooling systems are appropriately sized, does not test coolant pressure, or perform any evaluations that require a pilot light to be lit, a shut-off valve to be operated, a circuit breaker to be turned "on" or a serviceman's or oil emergency switch to be operated. It is beyond the scope of this inspection to determine if furnace heat exchangers are intact and free of leaks. Condensation pans and drain lines may clog

or leak at any time and should be monitored while in operation in the future. Where buildings contain furnishings or stored items, the inspector may not be able to verify that a heat source is present in all "liveable" rooms (e.g. bedrooms, kitchens and living/dining rooms).

Heating system type(s): Boiler with radiator(s)/convactor(s)/wall heater (s)

Location of main heating appliance: Laundry/utility room(s)

Source of combustion air: Vent(s) to exterior

Make of heating appliance(s): General Electric

Last verifiable service date: 22 JUL 2015

Location of heating system filters: None visible

General heating distribution type(s): Metal pipe with radiator(s)/convactor(s)

Device operational at time of inspection: Yes

Energy source: Electricity

Gas meter location: South side of house

48)  Evidence of what may be an abandoned underground oil storage tank was found (e.g. metal supply lines). I suggest attempting to determine if underground tank(s) exist on this property, and/or if tank(s) have been removed or legally decommissioned. If the tank(s) haven't been decommissioned or removed, then the client may be liable for decommission and/or cleanup of contaminated soil in the future. I recommend the following:

- That any non-decommissioned, abandoned underground tanks be legally decommissioned or removed as necessary
- That the soil be tested for oil contamination
- That contaminated soil be removed as necessary



Photo 48-1

49)  The last service date of the boiler appeared to be more than 2 years ago. I recommend that a qualified HVAC contractor at this time service, evaluate and make system repairs if necessary. To assure safety and optimal performance, schedule service on an annual basis in the future. Bring any issues noted in this report to the attention of the HVAC contractor when the unit is serviced

50) Boiler exhaust duct deteriorated. This cause toxic fumes to build up into room. Recommend HVAC contractor evaluate and repair as necessary.



Photo 50-1



Photo 50-2

Fireplaces, Inserts, Stoves, Chimneys and Flues

Limitations: The following items are not included in this inspection: coal stoves, gas logs, chimney flues (except where visible). Any comments made regarding these items are as a courtesy only. Note that the inspector does not determine the adequacy of drafting or sizing in fireplace and stove flues, and also does not determine if prefabricated or zero-clearance fireplaces are installed in accordance with the manufacturer's specifications. The inspector does not perform any evaluations that require a pilot light to be lit, and does not light fires. The inspector provides a basic visual examination of a chimney and any associated wood burning device. The National Fire Protection Association has stated that an in-depth Level 2 chimney inspection should be part of every sale or transfer of property with a wood-burning device. Such an inspection may reveal defects that are not apparent to the home inspector who is a generalist.

Wood-burning fireplace/stove(s) type: Fireplace insert

Wood-burning chimney type: Masonry

51)   The fireplace hearth extension was undersized. Embers may ignite combustible surfaces nearby. This is a fire hazard. For fireplaces with a firebox less than 6 square feet in size, hearths should be at least 16 inches deep in front and extend at least 8 inches to the sides. For fireboxes more than 6 square feet in size, hearths should be at least 20 inches deep and extend 12 inches to each side. I recommend that a qualified person make repairs or modifications per standard building practices. For example, by installing a non-flammable hearth pad, or by extending the existing hearth.



Photo 51-1

52)    Solid fuel-burning fireplaces or stoves were present at the property. When such devices are used, they should be professionally inspected and cleaned annually to prevent creosote build-up and to determine if repairs are needed. The National Fire Protection Association states that a "Level 2" chimney inspection should be performed with every sale or transfer of property with a wood-burning device. I suggest consulting with the property owner about recent and past servicing and repairs to all wood-burning devices and chimneys or flues at this property. I recommend that a qualified specialist evaluate all solid fuel-burning devices and chimneys, and clean and repair as necessary. Note that if a wood stove insert is installed, it may need to be removed for such an evaluation. For more information, search for "chimney inspection" at:

<http://www.reporhost.com/?CSIA>



Photo 52-1

53)  Masonry chimney crown was deteriorated. Crowns are meant to keep water off of the chimney structure and prevent damage from freeze-thaw cycles. Chimney crowns are commonly constructed by mounding concrete or mortar on the top chimney surface, however this is substandard. A properly constructed chimney crown should:

- Be constructed using either pre-cast concrete slabs, cast-in-place steel reinforced concrete, solid stone, or metal
- Be sloped down from the flue a minimum of 3 inches of fall per foot of run
- Extend a minimum of 2 1/2 inches beyond the face of the chimney on all sides
- Not directly contact the flue liner (if installed), with the gap filled with flexible caulk
- Have flashing installed between the bottom of the crown and the top of the brick chimney

I recommend that a qualified contractor repair or replace crowns as necessary, and per standard building practices.



Photo 53-1



Photo 53-2

Water Heater(s)

Limitations: Evaluation of and determining the adequacy or completeness of the following items are not included in this inspection: water recirculation pumps; catch pan drains. Any comments made regarding these items are as a courtesy only. Note that the inspector does not provide an estimate of remaining life on water heaters, does not determine if water heaters are appropriately sized, or perform any evaluations that require a pilot light to be lit or a shut-off valve to be operated.

Capacity (in gallons): 50

Type: Tank

Energy source: Electricity

Device operational at time of inspection: Yes, there were two (2) 50 gal tanks in the utility room, one for each unit

Location of water heater: Utility room

Water temperature (degrees Fahrenheit): 117

Seismic straps installed at tank water heater: Yes

Temperature-pressure relief valve and drain line installed: Yes, valve and drain line are present

Make of water heater(s): Bradford White

Estimated age: 3

54)   The water heaters earthquake straps were not secured properly. This is a safety hazard in the event of an earthquake due to the risk of the water heater tipping over, gas lines breaking if it's gas-fired, or electric wiring being damaged if powered by electricity. Leaks may also occur in water supply pipes or fittings. I recommend that a qualified person install earthquake straps per standard building practices.



Photo 54-1

55)  The temperature-pressure relief valve drain line was too short. This is a potential safety hazard that contributes to the risk of a scalding burn. I recommend that a qualified plumber repair per standard building practices. For example, by extending the drain line to within 6 inches of the floor, or routing it to drain outside. For more information, visit:

<http://www.reporthost.com/?TPRVALVE>



Photo 55-1

56)  No thermal expansion tank was installed for the water supply system. Typically located near water heater, piping, expansion tanks are recommended when a property is on a public water supply system and the property's water system is "closed" via a pressure reducing valve (PRV), check valve, or backflow preventer. No room for expansion of water exists in this type of system. Thermal expansion occurs when water is heated during non-use periods. In a closed system with no provision for expansion, its effects can include:

- Backflow into the water main
- Damage to water heater connections, gas water heater flue tubes and pumps serving washers and dishwashers

- Leaking faucets
- "Weeping" of water through the water heater temperature-pressure relief (TPR) valve
- Noisy water hammer in the pipes

Expansion tanks can eliminate these problems by giving water a place to go when thermal expansion occurs. When a water heating cycle ends, or when any fixture is opened within the system, the impact of thermal expansion is reduced, and water drains out of the expansion tank back into the system. I recommend that a qualified plumber install an expansion tank per standard building practices.



Photo 56-1

Plumbing System

Limitations: The following items are not included in this inspection: plumbing components concealed within the foundation or building structure, or in inaccessible areas such as below tubs; underground utilities and systems; overflow drains for tubs and sinks; backflow prevention devices. Any comments made regarding these items are as a courtesy only. Note that the inspector does not operate water supply or shut-off valves due to the possibility of valves leaking or breaking when operated. The inspector does not test for lead in the water supply, the water pipes or solder, does not determine if plumbing and fuel lines are adequately sized, and does not determine the existence or condition of underground or above-ground fuel tanks.

Water service: Public

Main system water pressure (psi): 90

Supply pipe material: Copper, Galvanized steel, PEX plastic, lead pipes present (not sure if in use)

Drain/waste pipe material: ABS plastic

Plumbing vent stack or vent stacks present: Yes, more than one vent was noted. The inspector verifies that vents are present, but does not perform detailed analysis of the adequacy of stacks

Vent pipe material: ABS plastic

Location of "occupant accessible" main water shutoff valve: Laundry/utility area

57)   There was old lead pipes that looked like they have been discontinued, but can not verify throughout entire home. Lead service pipes are antiquated and should be replaced immediately to eliminate this hazard. Have a qualified plumber replace lead components in supply system as necessary. For more information visit: <http://www.reporthost.com/?LEAD>



Photo 57-1

58) 🔧🔍 The water supply pressure was greater than 80 pounds per square inch (PSI). Pressures above 80 PSI may void warranties for some appliances such as water heaters or washing machines. Flexible supply lines to washing machines are likely to burst with higher pressures. 40-80 PSI is considered the normal range for water pressure in a home, and most plumbers suggest 50-60 PSI. Typically, the pressure cannot be regulated at the water meter. I recommend that a qualified plumber evaluate and make modifications to reduce the pressure to below 80 PSI. Installing a pressure reducing valve on the main service pipe is a common solution to this problem. If one exists, then it should be adjusted, repaired or replaced as necessary to maintain lower pressures. Note that installing a pressure reducing valve creates a "closed system," which may require installing an expansion tank at the water heater if one is not already installed.



Photo 58-1

59) 🔧🏠 Galvanized steel water supply pipes were found. Based on the age of this structure and the 40-60 year useful life of this piping, it will likely need replacing in the future. Leaks can develop, flooding and/or water damage may occur, flow can be restricted due to scale accumulating inside the piping, and water may be rusty. Note that it is beyond the scope of this inspection to determine what percentage of the piping is older, galvanized steel, as much of it is concealed in wall, floor and/or ceiling cavities. I recommend the following:

- That a qualified plumber evaluate to better understand or estimate the remaining life
- Consulting with a qualified plumber about replacement options and costs
- Monitor these pipes for leaks and decreased flow in the future

- Consider replacing old, galvanized steel piping proactively



Photo 59-1

60)  The inspector was unable to determine the output location for the basement sinks discharge pipe. Discharge pipes should terminate well away from foundations to soil sloping down and away so water doesn't accumulate around the foundation or in crawl spaces or basements. If it does terminate close to the foundation, I recommend that a qualified person repair per standard building practices.



Photo 60-1

61) Basement sink had hose attachment into the sink. This could be a possible access point for cross contamination of unknown and/or hazard fluid into the main drinking water source. Recommend removal of hose.



Photo 61-1

Basement (Foundation)

Limitations: Structural components such as joists and beams, and other components such as piping, wiring and/or ducting that are obscured by under-floor insulation are also excluded from this inspection. Note that the inspector does not determine if support posts, columns, beams, joists, studs, trusses, etc. are of adequate size, spanning or spacing. The inspector does not guarantee or warrant that water will not accumulate in the basement in the future. Access to the basement during all seasons and during prolonged periods of all types of weather conditions (e.g. heavy rain, melting snow) would be needed to do so. The inspector does not determine the adequacy of basement floor or stairwell drains, or determine if such drains are clear or clogged. Note that all basement areas should be checked periodically for water intrusion, plumbing leaks and pest activity.

Apparent foundation type: Finished basement

Foundation wall/stem wall material: Concrete block

Footing material (under foundation stem wall): Not determined (inaccessible or obscured)

Foundation sill plate bolts: Not verified, inaccessible or obstructed view. When present, bolts better attach a home to a foundation in the event of seismic activity

Insulation material underneath floor: Not determined (inaccessible or obscured)

Exterior door(s) types/materials: Solid wood hinged

Pier or support post material: Wood

Beam material: Solid wood

Floor structure above: Solid wood joists

62)   Risers for stairs in basement utility room were higher than 7 3/4 inches and posed a fall or trip hazard. Risers should be 7 3/4 inches or shorter. At a minimum, be aware of this hazard, especially when guests who are not familiar with the stairs are present. I recommend that a qualified contractor repair per standard building practices.



Photo 62-1



Photo 62-2

63) 🚧🔪 Handrails were missing in basement utility room and posed a fall hazard. Handrails should be 1 1/4 - 2 inches in diameter if round, or 2 5/8 inches or less in width if flat. I recommend that a qualified person install graspable handrails or modify existing handrails per standard building practices.



Photo 63-1

64) 🔍🔪 Moderate cracks (1/8 inch - 3/4 inch) were found in the foundation. This may be a structural concern or an indication that settlement is ongoing. The client should consider hiring qualified contractors and/or engineers as necessary for further evaluation. Such contractors may include:

- Foundation repair contractors who may prescribe repairs, and will give cost estimates for such repairs
- Masonry contractors who repair and/or replace brick veneer
- Geotechnical engineers who attempt to determine if settlement is ongoing, and the cause of the settlement
- Structural engineers who determine if repairs are necessary, and prescribe those repairs

At a minimum, I recommend sealing cracks to prevent water infiltration. Numerous products exist to seal such cracks including hydraulic cement, resilient caulks and epoxy sealants.



Photo 64-1



Photo 64-2

Kitchen

Limitations: The following items are not included in this inspection: household appliances such as stoves, ovens, cook tops, ranges, warming ovens, griddles, broilers, dishwashers, trash compactors, refrigerators, freezers, ice makers, hot water dispensers and water filters; appliance timers, clocks, cook functions, self and/or continuous cleaning operations, thermostat or temperature control accuracy, and lights. Any comments made regarding these items are as a courtesy only. Note that the inspector does not provide an estimate of the remaining life of appliances, and does not determine the adequacy of operation of appliances. The inspector does not note appliance manufacturers, models or serial numbers and does not determine if appliances are subject to recalls. Areas and components behind and obscured by appliances are inaccessible and are excluded from this inspection.

Range, cooktop, oven energy source: Electric

Ventilation kitchen/range: None present

65)   The range could tip forward. An anti-tip bracket may not be installed in either unit. This is a potential safety hazard since the range can tip forward when weight is applied to the open door, such as when a small child climbs on it or if heavy objects are dropped on it. Anti-tip brackets have been sold with all free-standing ranges since 1985. I recommend installing an anti-tip bracket to eliminate this safety hazard.

66)  The sink drain pipe used an S-trap rather than a P-trap in the upper unit. Siphons and sudden flows of water in S-Traps can drain all the water out of the trap, leaving it dry. Sewer gases can then enter living areas. I recommend that a qualified plumber repair per standard building practices.



Photo 66-1

- 67)  Both units were missing exhaust hoods: A ceiling or wall-mounted exhaust fan or downdraft exhaust system was not present for the cook top or range. Where a gas-fired range or cook top is installed, carbon monoxide and excessive levels of moisture can accumulate in living spaces. Also, lack of a fan can be a nuisance as far as odors and grease accumulation. I recommend that a qualified contractor install a venting system per standard building practices.

Bathrooms and Laundry Areas

Limitations: The following items are not included in this inspection: overflow drains for tubs and sinks; clothes washers, clothes dryers. Any comments made regarding these items are as a courtesy only. Note that the inspector does not determine the adequacy of washing machine drain lines, washing machine catch pan drain lines, or clothes dryer exhaust ducts. The inspector does not operate water supply or shut-off valves for sinks, toilets, clothes washers, etc. due to the possibility of valves leaking or breaking when operated. The inspector does not determine if shower pans or tub and shower enclosures are water tight, or determine the completeness or operability of any gas piping to laundry appliances.

***The second story bath room was under construction at the time of the inspection and is excluded from this report.

Locations/bathroom types: Half bath main floor, Full bath upper floor, Basement bath

Bathroom and laundry ventilation type: Windows

Gas supply present for dryer: No

240 volt receptacle present for dryer: Unable to visually determine

- 68)  The main floor bath room toilet was loose where it attached to the floor. Leaks can occur. Flooring, the sub-floor or areas below may get damaged. Sewer gases can enter living spaces. I recommend that a qualified contractor remove the toilet(s) for further evaluation and repair if necessary. A new wax ring should be installed and toilet(s) should be securely anchored to the floor to prevent movement and leaking.



Photo 68-1

69)  The lower unit shower tile was deteriorated (e.g. loose or cracked tiles, missing grout) or substandard. Water can damage the wall structure as a result. I recommend that a qualified contractor repair as necessary.



Photo 69-1



Photo 69-2

70)  The sink faucet in utility room was damaged. I recommend that a qualified person repair as necessary.



Photo 70-1

71) Both toilets in the lower unit and main floor did not have adequate spacing. Required to have 15" radius of space from center of toilet bowl. Recommend have a contractor evaluate and repair as necessary.



Photo 71-1



Photo 71-2

Interior Areas

Limitations: The following items are not included in this inspection: security, intercom and sound systems; communications wiring; central vacuum systems; elevators and stair lifts; cosmetic deficiencies such as nail-pops, scuff marks, dents, dings, blemishes or issues due to normal wear and tear in wall, floor and ceiling surfaces and coverings, or in equipment; deficiencies relating to interior decorating; low voltage and gas lighting systems. Any comments made regarding these items are as a courtesy only. Note that the inspector does not evaluate any areas or items which require moving stored items, furnishings, debris, equipment, floor coverings, insulation or similar materials. The inspector does not test for asbestos, lead, radon, mold, hazardous waste, urea formaldehyde urethane, or any other toxic substance. Some items such as window, drawer, cabinet door or closet door operability are tested on a sampled basis. The client should be aware that paint may obscure wall and ceiling defects, floor coverings may obscure floor defects, and furnishings may obscure wall, floor and floor covering defects. If furnishings were present during the inspection, I recommend a full evaluation of walls, floors and ceilings that were previously obscured when possible. Carpeting and flooring, when installed over concrete slabs, may conceal moisture. If dampness wicks through a slab and is hidden by floor coverings that moisture can result in unhygienic conditions, odors or problems that will only be discovered when/if the flooring is

removed. Determining the cause and/or source of odors is not within the scope of this inspection.

Exterior door(s) types/materials: See "exterior" report section

Exterior window(s) types/materials: See "exterior" report section

Flooring type or covering(s): Carpet, Wood or wood products, Tile

Ceiling type or covering: Drywall

72)  The lower unit bedroom had windows that were too high above the floor. Unless a bedroom has an exterior entry door, at least one window requires adequate egress in the event of a fire or emergency to allow escape or to allow access by emergency personnel. The base of openings for egress windows should be a maximum of 44 inches above the floor. At a minimum, keep a chair or something that serves as a ladder below the window at all times. If concerned, have a qualified contractor repair or make modifications per standard building practices. For more information, visit: <http://www.reporthost.com/?EGRESS>



Photo 72-1



Photo 72-2

73)  Missing handrails from main floor to second floor and posed a fall hazard. Handrails should be 1 1/4 - 2 inches in diameter if round, or 2 5/8 inches or less in width if flat. I recommend that a qualified person install graspable handrails or modify existing handrails per standard building practices.



Photo 73-1

74)  Guardrails were too low at main floor with drop-offs higher than 30 inches. This poses a fall hazard. Guardrails

should be at least 36 inches in height. I recommend that a qualified contractor replace or repair guardrails per standard building practices.



Photo 74-1



Photo 74-2

75) 🔧🔍 This structure appears to have settled or was leaning significantly based on the presence of cracks in ceilings. I recommend that a qualified contractor and/or engineer evaluate further. Significant repairs may be needed. If so, a qualified contractor should make repairs.



Photo 75-1



Photo 75-2



Photo 75-3

76)  Some windows that were designed to open and close were difficult to open and close. I recommend that a qualified person repair windows as necessary so they open and close easily.



Photo 76-1

77)  Glass in some windows were cracked. I recommend that a qualified contractor replace glass where necessary.



Photo 77-1



Photo 77-2



Photo 77-3

78)  Some walls and/or ceilings were damaged. I recommend that a qualified person repair as necessary.



Photo 78-1



Photo 78-2



Photo 78-3

79)  Stains were noted in main floor kitchen ceiling. The inspector was unable to determine if active leaks exist (e.g. recent dry weather, inaccessible height). I recommend asking the property owner about this, monitoring the stains, and having a qualified roofing contractor evaluate and repair if necessary.



Photo 79-1



Photo 79-2

80)  Wood flooring at some locations was damaged. I recommend that a qualified contractor refinish or replace wood flooring as necessary.



Photo 80-1

81)  Screens were missing from all windows. These windows may not provide ventilation during months when insects are active.

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