

BUILDING INSPECTION REPORT



(ADDRESS)

Inspection Date:
Wednesday, October 30, 2019

Prepared for:
(CLIENT)

Prepared by:
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Report Overview

The inspected property consists of an approximately 140 year old 2-story wood framed Colonial style house with an attached garage. The house is serviced by a private water supply and a private septic system and is considered to face South.

In Attendance:

Buyer:

Buyer's Representatives:

Seller's Representative:

Mold Mitigation Contractor:

Type of building: Site built 4 bedroom, 1 3/4 bathroom wood framed house with a low clearance, poured concrete floor basement

Temperature: 55° Fahrenheit

Weather: Overcast

Ground/Soil surface condition: Damp

Rain in last 3 days: Yes

Is the house occupied: Yes

Radon Test: No

Water Test: No



Report Summary

The house and its systems are in generally good condition, but the house is in need of some updating. It has been well-constructed with quality materials. No immediate, major structural problems were observed. Interior and exterior surfaces are in generally good condition. Some maintenance and safety items are present that should be addressed.

- The central heating system, an oil fired Smith hot water boiler with thermostat controlled forced hot water radiator and baseboard distribution, ran smoothly and responded to controls. Service logs were present indicating last service on 8/21/2019. Annual service by a qualified technician is recommended into the future.
- A temperature/ pressure safety relief valve downpipe on the boiler has some water leaking from it. Having this further evaluated by a qualified heating professional is recommended, because it could be an indication of a serious problem with the boiler.
- A 330-gallon oil tank is installed in the basement. The fuel line is sleeved, as is required by current codes. The main fuel shutoff is located near the fuel filter. Some rust on the bottom of the tank could be an indication of interior deterioration, and should be further evaluated by a heating professional.
- Attic insulation levels may meet the standards for a house of this age, but would be considered low by today's standards. There are some areas in the attic with little or no insulation. Adding additional insulation is recommended.
- Repointing the chimney bricks in the attic is recommended to prevent them from becoming loose. Having both chimneys fully evaluated by a qualified professional is recommended.



- There is evidence that the chimney flashing on both chimneys is leaking. There were buckets under the chimneys in the attic with significant amounts of water in them. Having a professional roofer or mason reevaluate the chimney flashing is recommended.



- Evidence of a water leak was found on the ceiling in the downstairs office. It is not clear if the source of the water is the bathroom above this room or a problem with the porch roof flashing. It is also not clear if the leak is current, or has since been fixed. Further investigation and monitoring of this area and is recommended.



- There is evidence that several garage floors have been poured on top of of each other, indicting that the garage floor has likely settled and sunk over time. Large cracks in the garage floor could indicate that the subflooring was not correctly compacted, or that water has gotten under the slab.



- Moisture enters the basement periodically and there was some standing water in the basement. The basement is designed to Chanel moisture to a foundation drain, but reducing or preventing moisture from getting into the foundation in the first place is the best course of action, either by regrading the land to shed water away from the house, and/or adding gutters (especially on the south side of the house). Controlling moisture created in the basement by draining the hot water heater and the water softener directly into the foundation drain and running a dehumidifier after fixing all other sources of moisture is also recommended. There is also evidence of moisture running down the north chimney, and adding a cover to divert rain would prevent this moisture from ending up in the basement.



- A water treatment system is installed. Contacting the provider is recommended to determine its purpose and whether any service is required. Refer to the Owner's Manual for operation and service instructions.



- A photovoltaic system is installed, with two ground-mounter PV panels, and an inverter installed in the garage. Refer to the Owner's Manual for operation and service instructions. Obtaining the Installer's name is also recommended.



- Adding smoke detectors to all bedrooms is recommended, as is replacing all smoke detectors over 10 years old.
- Some structural elements were not visible due to insulation, stored items, and finished surfaces. No problems are suspected.

STRUCTURAL COMPONENTS

Foundation: Stone and brick with a full, low-clearance, concrete floor foundation

Floor Structure: 2" x 10" wood joists with board subflooring

Columns: Brick and adjustable metal lally columns

Wall and Ceiling Structure: Conventional wood framing with wood panel, plaster lathe and drywall coverings

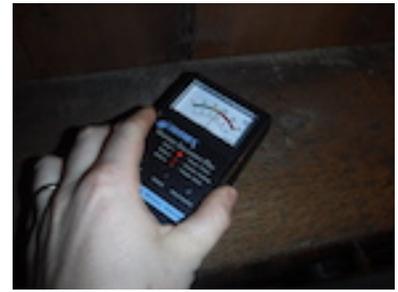
Roof Structure: 2" x 8" wood rafters with board sheathing

Comments:

- No immediate, significant structural problems were observed.
- Several temporary, adjustable metal jack posts were found in the basement. These posts should be replaced with permanent, load bearing metal or wood columns.
- Repointing the bricks around the foundation exterior is recommended to prevent moisture, insects and rodents from getting into the basement. This type of mortar deterioration is most likely caused from water running off of the roof and splashing back against the foundation. Adding gutters could prevent future deterioration.
- Cutting through floor joists is generally not recommended because it can destabilize the structure. A joists on the southeast end of the basement has been cut through to install plumbing fixtures. This joist should have appropriate reinforcement added.
- There are no vapor barriers between unfinished and finished spaces, which is common for houses in this region. No problems were observed or suspected.
- The front porch and the office are installed on metal posts driven into the ground. This installation is common for houses of this age, and there were no indications of settling or problems. It is just surprising that such a small post does not rust and can support so much weight.



- Moisture enters the basement periodically and there was some standing water in the basement. The basement is designed to Chanel moisture to a foundation drain, but reducing or preventing moisture from getting into the foundation in the first place is the best course of action, either by regrading the land to shed water away from the house, and/or adding gutters (especially on the south side of the house). Controlling moisture created in the basement by draining the hot water heater and the water softener directly into the foundation drain and running a dehumidifier after fixing all other sources of moisture is also recommended. There is also evidence of moisture running down the north chimney, and adding a cover to divert rain would prevent this moisture from ending up in the basement.
- Basement moisture has caused significant mold growth in the basement. This growth has trapped moisture and completely deteriorated an interior wall in the basement, likely meant for a root cellar. Floor joists and subflooring throughout the basement tested high for moisture, but no significant structural problems were observed. The deteriorated boards and mold should be removed, and further work should be done in the basement to address the moisture problems.
- Some structural elements were not visible due to insulation, stored items, and finished surfaces. No problems are suspected.



ROOF COVERINGS & CHIMNEYS

Method of Inspection: From the ground

Roof Covering Material: Asphalt composition shingles, 3-tab still on the main house and garage, with exposed fastener metal roofing on the porch roof

Gutters: Seamless metal gutters on the east side of the house, segmented metal gutters on the south side of the garage

Chimneys: Two single flue brick chimneys

Comments:

- Roof shingles are approximately 23 years old and in very good condition for their age with possibly 10 years of service life remaining. No problems or evidence of leaking was observed. This type of shingle has an expected service life of 20-25 years.
- There is evidence that the chimney flashing on both chimneys is leaking. There were buckets under the chimneys in the attic with significant amounts of water in them. Having a professional roofer or mason reevaluate the chimney flashing is recommended.
- Moss on the roof is not considered a significant problem. It is most often caused by trees overhanging the roof and often found on the north side where less sunlight hits the roof. Consider cutting back trees and branches overhanging the house.
- Exposed fastener metal roofing has small rubber gaskets that prevent the fastener holes from leaking water through the roof. These rubber gaskets need to be replaced every 15-20 years because they dry out and crack. The gaskets on the porch roof show signs of cracking, and are likely due for replacement.
- The south chimney has a single, metal liked flue and vents a pellet stove. The north chimney has a poured concrete liner and vents the boiler.
- The accessible interiors of the chimney flues were clear and unobstructed. A comprehensive interior inspection is beyond the scope of this report. Visible bricks and flashings are in good condition.
- Repointing the chimney bricks in the attic is recommended to prevent them from becoming loose. Having both chimneys fully evaluated by a qualified professional is recommended.



- There is evidence of moisture running down the north chimney, causing rust at the boiler exhaust pipe and at the chimney cleanout door. Adding a cover to divert rain would prevent this moisture from ending up in the basement.



INSULATION AND VENTILATION

Attic Access: Walk up stairs

Insulation: Approximately 2-6" of loose fiberglass in the attic floor

Ventilation: Gable vents and attic windows

Comments:

- Attic insulation levels may meet the standards for a house of this age, but would be considered low by today's standards. There are some areas in the attic with little or no insulation. Adding additional insulation is recommended.
- Adding weather-stripping and insulation around the attic door is recommended to prevent warm, moist air from flowing into the attic.
- No signs of current or severe condensation problems were observed on the roof sheathing in the attic.

EXTERIOR AREAS

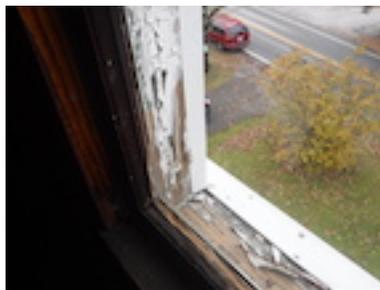
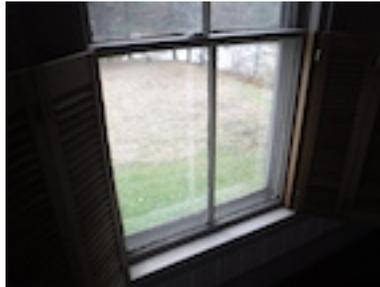
Wall Cladding Material: Vinyl siding

Windows: Wood sash, double hung, single pane windows with combination storm window/screens, with two newer insulated glass, double hung, tilt-in vinyl replacement windows

Exterior Trim, Rakes, Fascia and Soffits: Vinyl, wood and metal

Comments:

- The siding is in very good condition. No significant damage or defects were found during the inspection.
- Metal trim is missing on the north side of the main house roof, above the garage door, and in many places around the garage exterior.
- The wood trim on the house is due for repainting in many places.
- Based on the age of the house, lead paint is likely present on interior and exterior surfaces. Caution should be used when scraping and sanding to not create dust and to collect and properly dispose of paint chips.
- Painted hardwood floors often contain lead paint.
- A representative number of doors and windows were inspected. The presence of screens for all windows was not verified.
- Window panes in the upstairs west bedroom, the dining room and two in the office are cracked.
- Older wood sash windows are due for reglazing in places.
- Two windows have disconnected sash cords. The counterweights on the sides of the windows, in the jambs, keep the window panes in place. If the sash cords break or become disconnected, the windows can slam down, causing injury or damage. Repairing or replacing damaged or missing sash cords is recommended.



- Trees overhanging the house could cause damage if they were to fall on the house. They can also trap moisture against the house, accelerating deterioration. Watch for signs of decay and consider cutting these trees back.
- There are some areas around the foundation where the ground dips and may trap moisture against the building, or channel moisture into the basement. Regrading in these places is recommended, to shed water away from the building. Several low spots had collected a fair bit of standing water.
- The steps up into the east door are very high and could be a tripping hazard.
- Evaluation of erosion potential along the shore is beyond the scope of this report.
- The basement bulkhead concrete foundation is cracked and falling apart. Gaps in the bulkhead door could allow insects and rodents into the house.
- A hole in the ground on the east side of the garage has a securely fastened wooden cover. It is not clear what is under this cover, but it could possibly be an open well.



HEATING SYSTEM

Heating System Type: Oil fired Smith hot water boiler with thermostat controlled forced hot water radiator and baseboard distribution

Comments:

- The central heating system ran smoothly and responded to controls. Service logs were present indicating last service on 8/21/2019 with an efficiency of 82%, which is high. Annual service by a qualified technician is recommended into the future.
- A temperature/ pressure safety relief valve downpipe on the boiler has some water leaking from it. Having this further evaluated by a qualified heating professional is recommended, because it could be an indication of a serious problem with the boiler.
- A 330-gallon oil tank is installed in the basement. The fuel line is sleeved, as is required by current codes. The main fuel shutoff is located near the fuel filter. Some rust on the bottom of the tank could be an indication of interior deterioration, and should be further evaluated by a heating professional.
- A pellet stove fireplace insert is installed in the dining room. The stove was not plugged in, and was not tested. No obvious damage or defects were observed. This stove should be hardwired, because an extension cord could be a tripping hazard. Having this stove running at final walkthrough is recommended.



ELECTRICAL

Service Amperage and Voltage: 100 amperes, 120/240 volts.

Service Entry: Overhead, aluminum conductor, ground connection at entry.

Location of Main & Distribution

Panels: The main service disconnect, rated at 100 amperes, is located at the 100 amp main distribution panel in the basement. Circuit breakers are used for overload protection.

Branch Circuit Wiring: Romex and BX armored type copper wiring, grounded 3-prong outlets with some older ungrounded 2-prong outlets

Ground Fault Circuit Interrupters (GFCI): Installed and functional in the upstairs and downstairs bathrooms

GFCIs significantly reduce the chance of accidental injury or death due to electric shock. In new construction they are required in: bathrooms, kitchens near sinks, garages, basements, pools, whirlpools, and outdoor receptacles. Although there are no requirements to install them in existing buildings unless they are renovated, they are recommended in the areas mentioned above.

Comments:

- A representative number of outlets and switches were operated during the inspection. An electrical outlet in the second floor bathroom is wired Hot/Neutral Reverse and should be rewired correctly. Replacing the kitchen electrical outlets with GFI protected outlets is recommended. The downstairs bathroom GFI outlet does not trip and should be replaced.
- Recaulking where the main service wire enters the electrical meter would prevent water from getting into the meter.
- Adding a protective conduit to the ground wire connecting the electrical meter to the grounding rod is recommended, to prevent the wire from being damaged or becoming disconnected.
- The main distribution panel cover was removed to inspect the interior. No electrical problems were observed.
- Sealing the hole at the bottom of the main distribution panel is recommended to prevent rodent intrusion and to ensure a fireproof enclosure.



- An uncovered junction box was found in the basement. Covering electrical junctions protects people from accidental shock and can prevent a fire from spreading if the wires arc. Adding cover plates where needed is recommended.
- A photovoltaic system is installed, with two ground-mounted PV panels and an inverter installed in the garage. Refer to the Owner's Manual for operation and service instructions. Obtaining the Installer's name is also recommended.
- The main distribution panel is wired for an electric generator, with proper safety features in place to prevent back-feeding onto the electric grid. The generator outlet is located near the back door to the house.



PLUMBING

Water Supply: Private drilled well with a submersible pump

Distribution Piping Material: Copper

Waste Disposal System: Private septic system

Drain, Waste and Vent Piping Materials: Copper, PVC and cast iron

Water Heating System: Electric heat pump hot water heater

Bathroom Ventilation: Window and fan in the upstairs bathroom, fan only in the downstairs bathroom

Comments:

- The bolts on the well cover have rusted off, and the cover is loose. Replacing this well cover with a sanitary well cover is recommended.
- The main water shutoff is adjacent to the well pressure tank.
- A water treatment system is installed. Contacting the provider is recommended to determine its purpose and whether any service is required. Refer to the Owner's Manual for operation and service instructions.
- Water supply and drainage worked well in the downstairs bathroom and the kitchen. The upstairs bathroom sink has a very slow drain, and may need to be cleaned.
- The septic system was not inspected.
- The electric hot water heater in the basement also acts as a dehumidifier. The drain pipe for this heater drains right next to it. Having this drain pipe terminate at the basement drain is recommended.



INTERIOR AREAS

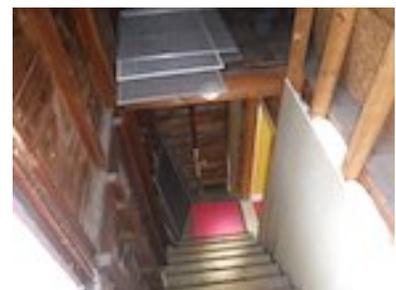
Kitchen Appliances Present: A

JennAir electric stove with a downdraft vent fan, and a Kenmore refrigerator



Comments:

- The stove is very old, very dirty, and was not tested. The refrigerator was functional.
- Most interior surfaces including walls, ceilings, and floors are in generally good condition with cosmetic repairs needed in areas.
- Evidence of a water leak was found on the ceiling in the downstairs office. It is not clear if the source of the water is the bathroom above this room or a problem with the porch roof flashing. It is also not clear if the leak is current, or has since been fixed. Further investigation and monitoring of this area and is recommended.
- The front, rear, basement and attic stairs could be fall hazards with low guard rails, large gaps in the guard rails, and no handrail on the attic stairs. Adding handrails and guard rails, where appropriate, would greatly reduce the chance of injury in these locations.
- Laundry appliances were operational. The dryer is propane fired, and a dryer vent to the exterior is installed as recommended.
- Battery powered smoke detectors are installed in the upstairs hallway, the north bedroom and the dining room only. Adding smoke detectors to all bedrooms is recommended, as is replacing all smoke detectors over 10 years old. No carbon monoxide detectors were found during the inspection.



For many years the National Fire Alarm and Signaling Code, has required as a minimum that smoke alarms be installed inside every sleep room (even for existing homes) in addition to requiring them outside each sleeping area and on every level of the home. (<http://www.nfpa.org>) Having carbon monoxide detectors installed on each floor, low to the ground is also recommended. (<<https://www.safety.com/carbon-monoxide-detector-placement/#gref>>)

GARAGE

One bay garage built on concrete frostwalls and a poured concrete slab floor with one automatic overhead metal garage door.

Comments:

- The garage trim is missing or deteriorated in many places.
- The garage door opener was functioning as intended, with auto-reverse optical and pressure safety sensors installed and operational.
- Current codes require fire-rated walls and doors be installed between garages and living spaces. This house does not have such a fire barrier. The house is not required to have one installed due to its age, but it is recommended.
- The stairs up to the house from the garage could be a significant trip or fall hazard.
- There is evidence that several garage floors have been poured on top of each other, indicating that the garage floor has likely settled and sunk over time. Large cracks in the garage floor could indicate that the subflooring was not correctly compacted, or that water has gotten under the slab.

