Home Inspection Report

Cummings & Cioch Home Inspection, Inc.
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Westfield, MA 01085
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Client & Site Information:

File #:	doe-john.
Services Provided:	Structural and Mechanical, Wood Destroying Insect.
Date of Inspection:	July 9, 2004.
Time of Inspection:	8:00 AM.
Client Name:	John Doe.
Mailing Address:	111 Anywhere Ave.
City/State/Zip:	Ludlow, MA.
Client Phone #:	123.4567.
Client Fax# or Email Address:	johndoe@hotmail.com.
Inspection Address:	22 Brooke Ave.
Inspection City/State:	Longmeadow, MA.

Climatic Conditions:

Weather:	Clear.
Soil Conditions:	Dry.
Approximate Outside Temperature in F:	60-70.

Building Characteristics:

Estimated Age of House:	1922.
Building Type:	1 family.
Stories:	2

Other Information:

House Occupied:	Yes.
Client Present:	Yes.
People Present:	Purchasers spouse: Tina, Homeowner: Dave.

Structural

Areas hidden from view by finished walls or stored items can not be judged and are not a part of this inspection. Minor cracks are typical in many foundations and most do not represent a structural problem. If major cracks are present along with bowing, we routinely recommend further evaluation be made by a qualified structural engineer. All exterior grades should allow for surface and roof water to flow away from the foundation. All concrete floor slabs experience some degree of cracking due to shrinkage in the drying process. In most instances floor coverings prevent recognition of cracks or settlement in all but the most severe cases. Where carpeting and other floor coverings are installed, the materials and condition of the flooring underneath cannot be determined. The answers to the following questions should have been ascertained from the seller and are relevent to the purchase of a house and may not be readily observable through inspection.

1. History of water penetration in basement and/or crawl space?
2. If the dwelling has been tested for radon gas?
3. If the dwelling has been inspected for insect infestation?
4. If the dwelling has been previously inspected by a Home Inspector, and if the seller is willing to disclose such report?

Type of Foundation Materials:	Brick, Concrete block.
Condition of the Exposed Foundation:	Fair condition.
Accessibility to Basement:	Basement is only partially accessible- Viewing was restricted by wall coverings, Basement is partially finished.
Type of Basement Floor:	Poured concrete.
Condition of Basement Floor:	Fair condition.
Crawl Space:	Moisture stains/damage is noted. Insulation is not well attached to the underside of the floor and its effectiveness is in question. Remove wood debris and trash from the crawl space area.
Method Used to Observe the Crawl Space:	Left crawl space was entered but viewing is limited. Rear crawl space was to low to enter.
Signs of Previous Water Penetration:	Efflorescence at the foundation walls. Moisture noted where foundation wall meets floor and on foundation.
Type of Floor Structure:	2x8 floor joists.
Condition of the Main Beam:	Fair condition.
Condition of the Sills:	Fair condition.
Condition of the Floor Joists:	Fair condition.
Condition of Bridging:	Wood bridging in good condition.
Type of Columns:	Steel.
Condition of the Columns:	Rust is noted can be scraped and painted in the future. In the future we recommend the anchor plates be lag bolted to the main beam
Type of Ceiling Structure:	2 x 4 ceiling joists.
Type of Roof Structure:	2x4 rafters.
Type of Roof Sheathing:	Spaced plank sheathing. Plywood.
Method Used to Observe the Attic Spaces:	Thru the scuttle at the hallway
Insect Signs:	All areas of the home and garage, which were not obstructed and were accessible, were inspected for wood boring insects. Carpenter ants were seen at the garage and rear side of house. Please refer to Wood Boring Insect Report.

As viewed in the unfinished portions of the older home, the mortar joints between the bricks are soft and crumbling in various places. Older mortar and under fired colonial brick react to salts and acid in the soil causing deterioration. In my opinion, the mortar joints have deteriorated to the point that they will need re pointing in places. I advise that you hire a mason to rake out and repoint the questionable mortar joints to improve structural support, to reduce water infiltration and to keep pests out.

The foundation of this home is constructed with concrete block. This material is an acceptable substitute for poured concrete. However, concrete block does have disadvantages that you should understand. Be advised that a block foundation is more vulnerable to water infiltration problems and hidden insect infestation due to the many mortar joints and hollow cores within each block. A block foundation also is more vulnerable to damage from the lateral forces of frost heave. The mortar joints between each block should be monitored for signs of erosion and needed re-pointing maintenance. Exterior drainage objectives should direct all surface water and roof drainage away from the perimeter of the foundation. For peace of mind against hidden pest infestation, you should consider an annual service contract with a local pest control company.

Inspection of the foundation revealed "step type cracks" in the foundation walls. Step pattern cracks in a foundation wall usually indicate footing settlement in that area. Such settlement can be caused by the erosion of stable earth beneath the foundation footing. When roof drainage in older homes is allowed to discharge near the corners of the foundation over a period of years, the water sinks into the soil near the foundation and eventually erodes some of the stable earth beneath the footing of the foundation. Without a stable base of support, the load on the foundation can not be evenly distributed to the earth and stress is created. To relieve the stress, a foundation may settle into a void leaving a series of step pattern cracks in the foundation indicating movement. Step cracks are most prevalent in masonry type foundations (such as stone, brick or block). Depending on the severity of the settlement, there is cause for concern as excessive movement can weaken the structure, and can be telegraphed upwards into the floor and wall frames where the problems are exhibited as floors that are not level, walls that are out of plumb, diagonal cracks in finished wall surfaces and binding of doors or windows. Be advised that cracks are "time related" and that the movement to date may still be on-going. The professional appraisal and repair of step cracks depends upon their time span, location, severity and impact on the rest of the home.

Inspection of the basement concrete floor revealed cracks and areas of settlement. In my opinion, the base beneath the floor was not properly prepared with suitable materials or compacted thoroughly prior to pouring the concrete. While this condition does not effect the load bearing capacity of the foundation walls, the cracks do effect the utility of the basement and may also be subjected to unpredictable future settlement problems, water infiltration, pest entry and radon gas. You may elect to seal the cracks with a hydraulic cement product and monitor them for further movement, or you may desire to hire a foundation contractor to install a replacement concrete floor at major expense.

The older home has multiple crawl spaces of varying size and clearance. The crawl spaces were entered only when safety allowed and clearance provided room for entry. The presence of multiple crawl spaces should not necessarily dissuade you from buying the home, but you should understand the disadvantages of a crawl space including such things as: moisture migration, humidity levels, musty smells, possible pest area, lack of storage space as compared to a basement, difficulty in maintaining and renovating structure and mechanical systems and a nasty environment to work in. A crawl space is frequently constructed in place of a full basement to reduce the over-all cost of construction. There is nothing wrong with a crawl space provided it's special characteristics are recognized and responsibly monitored. All areas within the crawl space may not have been inspected due to obstructions, low clearance or hazards to the inspector. Firstly, the ground under the crawl space should be covered with a plastic vapor barrier to retard the migration of moisture from the ground into the space. Next, the crawl space should have at least two screened openings to allow moisture to ventilate (1 sq. ft. of vent area for each 1500 sq. ft. of crawl space). Without proper vapor retarders and ventilation, humidity may promote mold, mildew, fungus, decay, insect infestation and may be a respiratory irritant to the occupants within the living spaces above.

Exterior Components

Type of Wall Cladding Material:	Wood shingles.
Condition of the Exposed Wall Cladding:	Fair condition. Most of the home needs to be stained.
Condition of Entry Doors:	The front wood door with storm is in poor condition. The rear wood doors are in fair condition.
Condition of the steps and railing:	The front concrete and flagstone steps are in good condition. The rear concrete steps are in fair condition. Handrails are missing and will need to be installed. Stairs are missing off the rear kitchen french doors. This is a safety issue and the door should be blocked to prevent injury.
Condition of Walkway	The front concrete walkway is in good condition. The rear concrete patio is in fair condition and has large settling cracks.
Condition of the Eaves:	Fair condition, some water rot.
Condition of the Soffits:	Fair condition, some water rot.
Condition of the Fascias:	Fair condition, some water rot.
Condition of the Trim boards:	Fair condition, some water rot. Scraping and painting will be needed in many places. There are areas that have loose and or missing moldings. Some water rot at the window sills.
Condition of Bulkhead	The inside is beginning to rust, in the future bulkhead can be painted.
Condition of Basement Windows:	There is water rot to the basement window frames and trim inside and outside the house.
Condition of Window Wells:	Prefab masonry, fair condition.
Grading of Earth around Foundation:	Level grade.
Condition of Driveway:	Asphalt driveway, Fair condition, Depressions and settling cracks.

Inspection of the cedar siding shingles revealed areas of cracked shingles, curling shingles, broken corners, and shingles worn thin. Typically, siding with the greatest southern exposure will age at an expected faster rate due to the sunlight. While such wear & tear is normal, it also indicates that the siding in such areas is fully depreciated or nearing or at end of service life.

The outside corners of the home are protected by metal corner pieces which lap over and under corresponding rows of siding. Inspection of the metal corners revealed areas of loose, rusted or defective materials. Defective outside metal corners may allow water infiltration into the wall cavity. I advise that all defective outside corners be repaired or replaced as required to restore function.

Low or negative drainage areas were observed along the perimeter of the foundation. Be advised that such low drainage areas will retain both surface water and roof run-off in concentrations that may soak into the ground and infiltrate the basement or crawl space causing dampness, seepage problems and possible water damage. Negative soil grade problems near the foundation should not be taken lightly. Landscaping corrections are needed to establish a positive drainage grade for the dispersal of water away from the home by gravity flow. Such grading corrections can be done by a do-it-yourselfer or you may elect to use a landscaping contractor. I recommend that the ground immediately adjacent to the foundation be sloped away from the building at a slope not less than 1:12 for a distance of not less than eight (8) feet.

We recommend removing the landscape timbers around the home and garage, stored wood behind garage, and stump behind garage to help prevent wood destroying insect infestation.

Garage

Notice: Determining the heat resistance rating of firewalls is beyond the scope of this inspection. Flammable materials should not be stored within closed garage areas.

Garage Type	The garage is detached and free standing.
Size of Garage:	One car garage.
Number of Overhead Doors	There is a single overhead door.
Overhead Door and Hardware Condition:	Fair condition.
Automatic Overhead Door Opener:	None.
Garage Siding Condition:	Needs paint.
Garage Roof Condition:	Fair condition.
Electric Service to Garage:	None.
Comment:	The rear extension for a large car is sagging and will need repairs.

Roofing System

The foregoing is an opinion of the general quality and condition of the roofing material. The inspector cannot and does not offer an opinion or warranty as to whether the roof leaks or may be subject to future leakage. This report is issued in consideration of the foregoing disclaimer. The only way to determine whether a roof is absolutely water tight is to observe it during a prolonged rainfall. Many times, this situation is not present during the inspection.

Method/s Used to Observe Roof:	The roof covering was viewed by binoculars from the ground. From the 2nd floor windows.
Type of Roof Covering/s:	Architectural shingles. Rubber membrane.
Exposed Roof Drainage System:	The metal gutters and downspouts were in fair condition. Extensions should be added to the downspouts. Additional gutters are needed.
Condition of the Roof Covering/s:	Good condition. The metal cap over the front entry is showing signs of rust and should be replaced.
Condition of the Exposed Flashings:	Some of the exposed roof flashings were covered with tar.
Condition of the Exterior of Chimney/s:	The chimnies will need rebuilding and repointing.
Condition of Roof Penetrations:	Fair condition.
Signs of previous Water Leaks:	In the attic around the chimney. Unable to fully view attic to determine for previous signs of water.

Areas of the sloped roof are missing gutters. All sloped roofs should have gutters to properly control roof drainage and drainage away from the home. Missing gutters may cause exterior house components to rot and water may infiltrate into the basement or cause soil erosion. Add gutters where missing to direct water away from the foundation.

Rubber membrane roofing is present on the low sloped roof. Rubber membrane or single ply membrane are relatively new products used for flat roof applications. Manufacturer's boast of a 20-30 year design life, but true life expectancy is unknown due to the limited age of the product on site. In my opinion, this is the material of choice for flat roof applications in terms of weather shedding protection, resistance to the elements and longevity. Most rubber roofs are contact cemented in place in large sheets with few joints. Joints are heat sealed and uncured rubber is used to form corners or cover other difficult areas. Problems associated with such rubber membrane roofing products are usually due to workmanship and seam failure rather than product failure. Ethylene Propylene Diene Monomer (EPDM), or rubber roofing is the most popular single-ply roofing system used nationally and is always black in color.

Mastic or plastic roofing cement was noted covering metal flashings at points of roof penetration such as near the chimney, plumbing vent pipe, roof vent or other area. In my opinion, roofing cement is a temporary repair that will require annual maintenance due to uneven coefficients of expansion between dissimilar materials. The roofing cement will dry out and crack or weather. Properly installed flashing does not need to be coated with roofing cement. Amateurs frequently apply roofing cement at points of roof penetration to seal leaks or cover defective flashing. Notice: The true condition of the flashing beneath roofing cement is undetermined as it is not accessible. Hidden flashing defects may be present. I advise that you monitor the areas of roofing cement and investigate the flashings by removal of the roofing cement if leakage is noted or at time of next roof replacement.

Inspection of both chimneys revealed the need for repointing and rebuilding. Chimney defects can endanger the occupants of the home and can contribute to water infiltration problems in a progressive nature. Consult a mason regarding the chimney. I recommend that evaluation be done from on the roof for more precise determination of chimney problems, appropriate repair methods and estimated cost. Note: Reappraisal of the chimney by a mason may reveal additional defects not documented at time of inspection.

The older home has a chimney(s) that has no flue liner. Chimneys built before the 60's were typically constructed of brick, block, stone or combinations thereof without a liner. Such unlined chimneys were found to offer poor fire protection as the hot & acidic gases of combustion caused deterioration of mortar joints, and the irregular surfaces of the flue allow easy accumulation of creosote. To over come such problems, newer chimneys have a separate clay flue liner or are constructed of insulated metal. The flue liner is separated from the chimney brick by a 1 inch air gap for heat dissipation and greater fire safety. The smoother interior surfaces of a lined chimney retard creosote adhering in quantities sufficient to cause a chimney fire. (This does NOT mean that a lined chimney never needs cleaning. Every chimney should be inspected annually and cleaned as required.) An existing unlined chimney does not require any repair unless altered in use. For example, many gas utility companies will not vent a new gas fired hot water heater or new furnace into an unlined chimney. The gases of

combustion are very acidic and can cause the rapid deterioration of an unlined chimney. In this scenario, if modern fire safety is desired, then it is necessary to retrofit the existing chimney with the addition of a flexible metal liner installed from the top downward to the appliance. Installing a flue liner is best left to a professional and is an optional recommendation for every unlined chimney.

The chimney is uncapped. While a chimney cap is not required, the benefits gained by installing a cap are important. An uncapped chimney is a hole in the roof that readily admits rain, snow, ice, sleet, and wildlife. Rain water may appear in the fireplace, in a connector pipe from the furnace or in a cleanout door at the base of the chimney. A proper stainless steel cap, incorporating a spark screen, can reduce flue fire damage, by containing pieces of hot, flaming creosote attempting to spew from the chimney and igniting everything it touches. Also, almost all costly chimney restoration projects are the result of water getting inside where it doesn't belong and helping the acids eat the chimney. In short, good chimney caps enhance safety while they're saving you money. I advise that you hire a chimney sweep to clean the chimney, examine the interior and finally install a protective metal cap. (DISCLAIMER: THE INSPECTION OF CHIMNEY FLUE LINERS IS EXCLUDED AS BEING INACCESSIBLE AND BEYOND THE SCOPE OF A HOME INSPECTION.)

Electrical System

Voltage and Amperage of Main Service:	110/220 Volt, 100 amp, Circuit breakers.
Service Entry Conductor Material:	Copper.
Service Entry Type and Condition:	Underground, good condition.
Branch Circuit Conductor Material:	Copper, Copper clad. Open junction boxes in the basement are noted and will need cover plates. Connections not made within junction boxes in the attic - Hazard condition exists.
Number of Branch Circuits in Panel:	21, 1 is double tapped, 1) 15 amp, 1) 50 amp.
Overload Protection and Wiring:	The circuit breaker panel was manufactured by Crouse Hinds and is located at the front basement wall. The compatibility of the breakers and conductors was correct.
Type of Branch Circuit Wiring:	Non-Metallic Cable "Romex", Armored Cable "BX", Knob & Tube Copper, Fabric covered.
Ground Fault Protection:	1st floor lav only.
System Ground:	Water pipe connection, Additional ground needed across water meter.

Removal of the cover on the circuit breaker panel or fuse box, revealed that some of the breakers or fuses are double tapped. Double tapping means that more than one circuit wire is attached to the breaker of fuse. This condition is not desirable as the double tapped breaker or fuse is more apt to trip or blow depending on the power demand; and more importantly, a double tap is relying on the friction attachment of wires attached to a screw or clamp designed to accept one wire. Connections can come loose or cause resistance and heat. It is more desirable to have one breaker or fuse for each device connected. If there is sufficient space within the present panel box, then correction of this problem is a simple and inexpensive measure of installing another breaker or fuse and separating the wires. If the present panel has insufficient space, then room must be made by installing smaller sized breakers or by installing a sub-panel. An electrician is needed to perform corrections. Note: Some electrical inspectors allow double taps, but the practice is not considered good workmanship.

The main fuse box or circuit breaker panel cover is missing screws. All holes provided in the cover by the manufacturer should be secured with the appropriate blunt head screws that are compatible with the brand of panel. Be advised that missing screws may allow the cover to fall off or contact live wiring. Install screws where missing.

The older home has visible KNOB & TUBE wiring still partly in use. Be advised that this is an obsolete 1st generation type of wiring that does not provide modern grounded circuits. Dry, brittle insulation has been known to fall off and cause fires. Any exposed live connections pose shock hazards. The condition behind finished surfaces is undetermined. You would be wise to consult an electrician and retire the old knob & tube wiring. If the old wiring is to be retained then I recommend that all outlets near water hazards, near plumbing and major appliances be protected by the installation of ground-fault-circuit-interrupters (GFCI). Note: Attic insulation should not be placed over this old type of wiring as it was designed to be air cooled. When doing new work or repairs, it will be necessary to meet latest electrical codes.

The older home typically does not have modern ground-fault-circuit-interrupter (GFCI) shock protection for water hazard area outlets such as outside, garage, pool, basement, bathrooms and all outlets above kitchen counters. A GFCI outlet or circuit breaker is a relatively new safety device intended to prevent serious electrical shock at water hazard areas. Optional updating is highly recommended and may prevent electrocution. An electrician can provide cost estimates for optional GFCI updating of all normally wet areas. (Note: If water hazard areas are remodeled, then GFCI updating will be required.)

The means of grounding for the electrical system is pre-existing and proper for the age of the home - no repairs are required. Be advised that new electrical grounding systems are required to have the main ground wire securely clamped to the street side of the water meter, plus there should be a by-pass or jumper cable installed to continue the bonding around the meter. A jumper cable provides grounding protection should the meter ever be removed. No repair is required; however, at your option, you should hire an electrician to inexpensively upgrade grounding protection by adding a jumper cable & appropriate clamps.

Random sampling (testing 1 outlet / room), revealed the presence of older ungrounded two slot outlets typical of homes built before 1960. Grounding is a safety feature that provides protection in the event of a fault. While the condition is pre-existing and no repairs are required unless remodeling is done, you should understand that newer receptacles have a third hole dedicated solely for grounding protection and use with 3 prong appliance plugs. (Plug adapters are not recommended.) I advise that you ask an electrician to reappraise the old outlets to determine the most economical method of updating to 3 hole receptacles.

Random sampling (testing 1 outlet / room), revealed the presence of a three hole outlet that is not grounded in the hall and sunroom. Three hole outlets are supposed to be installed on a circuit wire that has a black (hot) wire, a white (neutral) wire and a bare (ground) wire. I suspect that the bare (ground) wire has a loose connection either at the outlet or elsewhere in the circuit. An electrician is needed to investigate the problem, isolate the cause and repair as required.

As observed in the unfinished areas of the home, electrical wires have been run across the underside of the the floor joists without the use of running boards. This condition represents poor workmanship. In exposed areas, good workmanship is indicated when non-metallic sheathed cables closely follow the surface of the building or of running boards and are stapled every 4 1/2 feet and close to each work box. The practice of fastening wires directly to the bottom of floor joists is an attractive nuisance as the wires are often wrongly used as clothes lines or for overhead storage. Eventually the insulation on the wire can become frayed and pose fire or shock hazards. In my opinion, repairs are needed to properly run or support the electrical wires in the open areas of the home. An electrician can skillfully correct this workmanship safety defect.

Heat and AC

The inspector is not equipped to inspect furnace heat exchangers for evidence of cracks or holes, as this can only be done by dismantling the unit. This is beyond the scope of this inspection. Some furnaces are designed in such a way that inspection is almost impossible. The answer to the following question should have been ascertained from the seller and is relevent to the purchase of a house and may not be readily observable through inspection; Is there an underground storage tank on the property?

Heating System

Type Of Energy Source:	Natural gas, the gas piping is black pipe and is in fair condition. Minor rust was noted on the black pipe. The black pipe is not properly supported in places . The shutoff is located at the front basement wall.
Type of Heating Equipment:	The boiler was manufactured by Dunkirk, the BTU rating is 112,500, and the approximate age is 2001. The thermostat is located in the living room. Direct vent gas heater in kitchen was not tested. Electric heat 2nd floor bath.
Type of Distribution System:	Radiators.
Condition of the Heating System:	Good condition. Areas of the steam pipes are rusted and pitted; expect to make misc repairs to the steam pipes as they begin to leak. The low water cut-off was not tested.

As observed at the accessible unfinished basement or crawl space areas, mineral insulation is present on the heating pipes, boiler, ducts or fireshield. I suspect that the mineral insulation may contain asbestos. Asbestos is considered to be a cancer causing agent if the asbestos is disturbed or deteriorated and particles are friable (capable of becoming air-born) and inhaled. As true asbestos identification can only be done by microscopic examination and because professional removal and disposal can quickly involve major expense, I recommend that you ask a licensed asbestos abatement contractor to reappraise the areas of concern and to provide abatement estimates or have the pipes wrapped.

The metal flue pipe from the top of the heating system to the chimney lacks three sheet metal screws per joint. The screws are needed to prevent the pipe from coming apart and allowing combustion gases to enter the home. Simple repair is needed. Install 3-screws per joint as required.

Plumbing System

All underground piping related to water supply, waste, or sprinkler use are excluded from this inspection. Leakage or corrosion in underground piping cannot be detected by a visual inspection. The answer to the following question should have been ascertained from the seller and is relevent to the purchase of a house and may not be readily observable through inspection; Is the dwelling on public or private sewage system?

Water Supply Piping Material:	Brass, Public water supply.
Water Distribution Piping Material:	Copper, Brass.
Drain, Waste, Vent Piping Material:	PVC, Copper, Cast iron, Galvanized, ABS, Public sewer system.
Type and Capacity of Water Heater:	The 40 gallon gas water heater was manufactured by State Industries and is approximately 3 years old. The extension leg to the pressure relief valve is of proper length, The vacuum relief valve is properly installed, The water temperature was 120 degrees. The hot water line is not insulated.
Water Heater Flue Pipe:	The flue pipe is proper for gas.

The older home still has areas of the original (non-ferrous or not magnetic) brass water piping as viewed in the unfinished areas. This older piping may be yellow brass (20-40 year design life) or longer lasting red brass (50-60 year design life). The old piping may still be present inside walls leading to bathroom or kitchen plumbing fixtures and can easily be recognized by threaded fittings. While the piping has an original long life expectancy, it is now a prime candidate for age replacement as it may be problematic. The brass piping tends to develop whitish pitted signs of corrosion on the underside caused by leaching zinc. Notice: The old brass water pipes are very brittle and may leak or cause interior damage - they should be closely monitored. While the old water pipes may be serviceable, I suggest that you ask a plumber to provide estimates for the replacement of the old pipes with modern copper.

Corrosion nodes are present on the exposed cast iron waste pipes. Be advised that corrosion nodes are actually holes in the cast iron that have self- sealed with mineral deposits, similar to a scab on a wound. While not leaking, the corrosion nodes indicate that portions of the cast iron waste pipes are *fully depreciated.* Be advised that porous pipes present a sanitary hazard. Age replacement is needed. You should consult a plumber and request a cost estimate for the replacement of portions or all of the cast iron piping with modern PVC plastic piping as elected. All repairs should be done in accordance with the requirements of the plumbing code.

The domestic hot water in this home is produced by a standard gas fired hot water heater. In my opinion, a gas fired hot water heater is a desirable means of making hot water due to its fast recovery rate. Most such appliances have capacities or 30, 40 or 50 gallons, and an average service life of between 7-10 years. As a home owner, you should expect future replacement of this appliance. DANGER! GASOLINE OR OTHER FLAMABLE LIQUIDS SHOULD NEVER BE STORED NEAR THE OPEN FLAME OF A GAS FIRED HOT WATER HEATER. INSULATION BLANKETS SHOULD NEVER COVER THE BURNER CONTROLS OR TOUCH THE FLUE PIPE AS EITHER COULD CAUSE FIRE.
THINGS TO WATCH WHICH MAY INDICATE NEEDED REPAIR OR REPLACEMENT:

1. Watch the pipe connections to the tank for signs of corrosion.
2. Watch the cold water shut-off valve & vacuum breaker & relief valve for signs of corrosion or drip leaks.
3. Watch the ring or metal joint around the perimeter of the base of the tank for signs of corrosion.
4. Watch for accumulations of debris in the burner area.
5. Watch for scorching marks at the draft deflector and burner area.
6. Watch for back-drafting problems.
7. Watch for leaks.
8. Watch for corrosion of the connector piping leading the the chimney.
9. Watch for diminished hot water.

There is a minor water leak to the right of the water meter and to the right of the bulkhead door, these should be repaired ASAP.

Insulation and Ventilation

Unfinished Spaces:	The attic had approximately 4 to 6 inches of insulation.
Unfinished Spaces at Finished Surfaces:	There was no insulation at the floor joists. The walls are not insulated except for the kitchen addition.
Type of Ventilation in Attic:	Ridge vent, Gable vents.
Ventilation in Kitchen:	Exhaust fan that vents outside.
Ventilation in Bathroom/s:	None.

The present amount of attic ventilation is inadequate as compared to modern construction. This will trap heat and humidity in the attic space causing higher cooling expenses and reducing roof design life. While the amount of ventilation may be typical for a home of this age, you would be wise to update the attic ventilation system now or at time of next scheduled roof replacement. A roofer can provide you with ventilation options and estimates for updating. (Todays building ventilation requirements state that: Attics with a ceiling vapor barrier shall have a screened opening of at least 1 SF of free vent area for each 300 SF of ceiling space. Attics without a ceiling vapor barrier shall have a screened opening of at least 1 SF for each 150 SF of ceiling area.)

As viewed from the attic, the slot provided by the carpenter or roofer on either side of the ridge board is too narrow in width. Most manufacturers of ridge vents specify that a 1 inch wide slot be provided on either side of the ridge board to allow enough space for passive air movement. As noted above, the slot provided in this home is not wide enough to comply with specifications - this defect in workmanship will retard attic ventilation. I advise that a roofer be hired to remove the ridge vent, cut the slots to required width and re-install the ridge vent to restore function.

General Interior Conditions

The condition of walls behind wall coverings, paneling and furnishings cannot be judged. Only the general condition of visible portions of floors is included in this inspection. As a general rule, cosmetic deficiencies are considered normal wear and tear and are not reported. Floor covering damage or stains may be hidden by furniture. The condition of floors underlying floor coverings is not inspected. Determining the condition of insulated glass windows is not always possible due to temperature, weather and lighting conditions.

Signs of Water Penetration:	Water stain, front right closet and rear right wall.
Types of Exposed Floor Materials:	The hardwood floors are in good condition. The fir floors are in fair condition. The tile floors are in fair condition. The carpet is in poor condition.
Types of Exposed Wall Materials:	The drywall walls are in good condition. The formica walls are in good condition. The plaster walls are in fair condition. The wood walls are in good condition. The tile walls are in fair condition.
Types of Exposed Ceiling Materials:	The drywall ceilings are in good condition. The plaster ceilings walls are in fair condition.
Window Condition:	The wooden single pane windows with storm windows are in fair to poor condition. Reglazing will be necessary at many windows. Adjustments and rope weight repairs will be needed. There are numerous broken windows.
Stairs and Handrails:	Additional handrails are needed at the basement stairway. Improvement needed to basement stairs.
Interior Doors:	Fair condition. The home has a functional two-way swinging butler door to the kitchen. Be advised that doors of this type can cause serious finger injury. Use the door with caution. Teach and monitor children.
Kitcken Condition:	The dishwasher, electric stove, and refrigerator are as is condition. The sink faucet is leaking at the handle.

Visual inspection and tapping of the ceramic tiles at the bathroom shower area walls disclosed areas where the tiles are bulging from the wall. I suspect that maintenance of the grout and caulking was neglected, allowing a slight amount of moisture to enter behind the tiles. The moisture caused the underlying wall board to swell causing small areas of the tile to bulge outward. I advise that you hire a tile contractor to remove all bulging or loose materials for further evaluation and repair of the wall board followed by repair or replacement of the wall tiles, re-grouting and re-caulking. Notice: While the repairs appear localized, removal of the tiles in question may reveal hidden wall covering deterioration and the need for major repairs involving significant expense not documented in this report.

Inspection of the shower walls or floor revealed eroded gaps between tiles or floor or wall coverings. The grout between the tiles has eroded through normal wear & tear. Grout is not intended to last forever without restoration. I advise that all joints between all ceramic tiles be re-grouted as general maintenance to prevent water infiltration and damage to the wall coverings or ceilings below.

Inspection of the interior walls and ceilings revealed many areas of loose plaster. The bond between the plaster and the lath or backer board has failed resulting in the loose plaster. Repairs can be made or the plaster can be removed and drywall installed.

Where exposed, the floors are not level. This condition indicates that the floor frame has settled from original level construction. While some people may argue that slightly tilted floors are characteristic for an old colonial home, the homes were not originally built with floor frame deflection (sagging). I suspect that the lally columns or joists may be undersized, over spanned, decayed or the lally columns are defective. Depending on the degree of floor frame deflection, you may wish to consult a structural engineer or other carpenter specialists to reappraise the home and to provide estimates for elected repairs.

Where accessible, areas of the ceramic floor tile have eroded grout lines. Grout is necessary to stabilize the ceramic tiles and

to prevent moisture from reaching the substrate and weakening the adhesive bond. Be advised that grout does erode due to normal foot traffic and will need future re-grouting. In this case, the grout lines should be lightly raked out to remove all loose materials, vacuumed clean and then re-grouted. Lastly, a grout sealer should be applied. Perform maintenance repairs as required.