Home Inspection Report



Inspection Date:

Tuesday November 6, 2012

Prepared For:

John Smith

Prepared By:

Ingraffia Home Inspections LLC www.Ingraffiahomeinspections.com 45 Blazewood, Foothill Ranch, CA 92610

Report Number:

2

Inspector:

Mark Ingraffia

Report Overview

THE HOUSE IN PRESPECTIVE

Well Built/Maintained

CONVENTIONS USED IN THIS REPORT

SATISFACTORY - Indicates the component is functionally consistent with its original purpose but may show signs of normal wear and tear and deterioration.

MARGINAL - Indicates the component will probably require repair or replacement anytime within five years.

POOR - Indicates the component will need repair or replacement now or in the very near future.

MAJOR CONCERNS - A system or component that is considered significantly deficient or is unsafe.

SAFETY HAZARD - Denotes a condition that is unsafe and in need of prompt attention.

THE SCOPE OF THE INSPECTION

All components designated for inspection in the ASHI Standards of Practice are inspected, except as may be noted in the "Limitations of Inspection" sections within this report.

It is the goal of the inspection to put a home buyer in a better position to make a buying decision. Not all improvements will be identified during this inspection. Unexpected repairs should still be anticipated. The inspection should not be considered a guarantee or warranty of any kind.

Please refer to the pre-inspection contract for a full explanation of the scope of the inspection.

BUILDING DATA

Approximate Age: 25-30

Style: Single Family

Main Entrance Faces: North State of Occupancy: Vacant Weather Conditions: Sunny

Recent Rain: No Ground Cover: Dry

Receipt/Invoice

Ingraffia Home Inspections LLC www.Ingraffiahomeinspections.com 45 Blazewood, Foothill Ranch, CA 92610 (714) 371-8422

Date: Nov 6, 2012 Inspection Number: 2

Name: John Smith

InspectionFeeDefault Fee\$0.00Inspection Fee\$275.00

Total \$275.00

Check Cash Credit Card

Inspected By: Mark Ingraffia

	Grounds
Material Condition Comments	None Not visible X Concrete Flagstone Gravel Brick X Satisfactory Marginal Poor Trip hazard Typical cracks Pitched towards home Settling cracks Public sidewalk needs repair Walkway had some cracking and settlement, should be repaired and/or replaced as needed.
Material Condition	None Not Visible X Concrete Asphalt Gravel/Dirt Brick X Satisfactory Marginal Poor Settling Cracks Typical cracks Pitched towards home Trip hazard Fill cracks and seal
Condition Support Pier Floor	X None Not visible Satisfactory Marginal Poor Railing/Balusters recommended Concrete Wood Satisfactory Marginal Poor Safety Hazard
Material Condition	None Concrete Wood Railing/Balusters recommended Satisfactory Marginal Poor Safety Hazard Uneven risers Rotted/Damaged Cracked Settled
Material Condition Comments	None Concrete Flagstone Kool-Deck Brick Satisfactory Marginal Poor Settling cracks Trip hazard Pitched towards home (see remarks) Drainage provided Typical cracks Patio had some cracking and settlement, but was in usable condition.
Material Condition Finish	X None
Condition Recommend	None Satisfactory Marginal Poor Posts/Supports need Repair Earth to wood contact Moisture/Insect damage Metal Straps/Bolts/Nails/Flashing Improper attachment to house
Type Condition Gate	Not evaluated None None

	Grounds
Negative Grade	X N/A East
Material Condition	None Brick Concrete Concrete block Railroad ties Timbers Satisfactory Marginal Poor Safety Hazard Leaning/cracked/bowed Drainage holes recommended
Condition Operable	N/A X Satisfactory

Grounds Photos





Left side fence

Trip hazard at front concrete walkway

	Roof
	None X All Partial
	X Roof Ladder at eaves Ground With Binoculars
Type Pitch Roof #1 Roof #2 Roof #3	X Gable ☐ Hip ☐ Mansard ☐ Shed ☐ Flat ☐ ☐ Low X Medium ☐ Steep ☐ Flat Type: Asphalt Layers: 1+ Layers Age: 15-20+ Location: Type: Layers: Age: Location: Type: Layers: Age: Location:
Туре	Not Present X Soffit ☐ Ridge ☐ Gable X Roof X Turbine ☐ Powered ☐
Material Condition	Not visible X Galv/Alum Asphalt Copper Foam Rubber Lead Not visible X Satisfactory Marginal Poor Rusted Missing Separated from chimney/roof Recommend Sealing
Material Condition	Not Visible
Roof #1 Roof #2 Roof #3 Condition	Satisfactory Marginal Poor Satisfactory Marginal Poor Satisfactory Marginal Poor Curling Cracking Ponding Burn Spots Broken/Loose Tiles/Shingles Nail popping Granules missing Alligatoring Blistering Missing Tabs/Shingles/Tiles Moss buildup Exposed felt Cupping Incomplete/Improper Nailing Recommend roofer evaluate Evidence of Leakage
Condition	N/A Not Visible Cracked/Broken Satisfactory Marginal Poor
Condition	Not Visible Not Present X Satisfactory Marginal Poor

Roof Photos





deterioration noted on roof

Exterior None Location(s): Viewed From Roof Ladder at eaves Ground (Inspection Limited) With Binoculars Rain Cap/Spark Arrestor Yes No Recommended Chase Brick Stone Metal Blocks Framed Holes in metal Cracked chimney cap Loose mortar joints Flaking Loose brick Rust Evidence of Flue Tile Metal Unlined Not visible **Evidence of** Scaling Cracks Creosote Not evaluated Have flue(s) cleaned and re-evaluated Recommend Cricket/Saddle/Flashing **Condition** Satisfactory Marginal Poor Recommend Repair None Satisfactory Marginal Poor Rusting Downspouts needed Recommend repair/replace **Condition** Needs to be cleaned Material Copper Vinyl/Plastic Galvanized/Aluminum Corners Joints Hole in main run Leaking Loose Missing spikes Improperly sloped Attachment **Extension needed** North South East West Stone Slate Block/Brick Fiberboard Fiber-cement Stucco EIFS* Not Inspected Material Asphalt Wood Metal/Vinyl Typical cracks Peeling paint Monitor Wood rot Loose/Missing/Holes **Condition** Satisfactory Marginal Poor Recommend repair/painting Material Wood Fiberboard Aluminum/Steel Vinyl Stucco Recommend repair/painting Damaged wood **Condition** Satisfactory Marginal Poor None Wood Fiberboard Aluminum/Steel Vinyl Stucco Recommend repair/painting **Material** Damaged wood Condition Satisfactory Marginal Poor None **Material** Wood Fiberboard Aluminum/Steel Vinyl Stucco Recommend repair/painting Damaged wood Satisfactory Marginal Poor **Condition** None Wood Fiberboard Aluminum/Steel Vinyl Stucco Recommend repair/painting **Material** Damaged wood **Condition** Satisfactory Marginal Poor

	Exterior
Condition	None ☐ Satisfactory ☐ Marginal ☐ Poor ☐ Recommend around windows/doors/masonry ledges/corners/utility penetrations
Condition Material Screens	Satisfactory Marginal Poor Wood rot Recommend repair/painting Recommend repair/replace damaged screens Failed/fogged insulated glass Wood Metal Vinyl Aluminum/Vinyl clad Torn Bent Not installed
Condition Material Putty	None Not installed Condition: Satisfactory Broken/cracked Wood rot Recommend repair/painting Wood Clad comb. Wood/Metal comb. Metal Satisfactory Needed N/A
Foundation Wa Condition Concrete Slab	Concrete block Poured concrete Post-Tensioned concrete Not visible Satisfactory Marginal Monitor Have Evaluated Not Evaluated Not visible Satisfactory Marginal Monitor Have Evaluated
Exterior recept GFCI present	Underground Overhead Weather head/mast needs repair Overhead wires too low Condition: Satisfactory Marginal Poor acles Yes No Operable: Yes No Condition: Satisfactory Marginal Poor Yes No Operable: Yes No Safety Hazard Reverse polarity Open ground(s) Recommend GFCI Receptacles
Type Condition	Not visible Framed Masonry Not visible Satisfactory Marginal Poor
Main Entrance Patio Rear door Other door	N/A Weatherstripping: Satisfactory Marginal Poor Missing Replace Door condition: Satisfactory Marginal Poor Missing Replace

Page	_1:
Exterior	
Unit #1 N/A Location: Brand: Model #: Approximate Age: Condition Satisfactory Marginal Poor Cabinet/housing rusted Energy source Electric Gas Unit type Air cooled Water cooled Geothermal Heat pump Outside Disconnect Yes No Improperly sized fuses/breakers Level Yes No Recommend re-level unit Condenser Fins Damaged Need cleaning Damaged base/pad Damaged Refrigerant Line Improper Clearance (air flow) Yes No	
Unit #2 N/A Location: Brand: Model #: Approx. Age: Energy source Electric Gas Unit type Air cooled Water cooled Geothermal Heat pump Outside Disconnect Yes No Improperly sized fuses/breakers Level Yes No Recommend re-level unit Condenser Fins Damaged Need cleaning Damaged base/pad Damaged Refrigerant Line Insulation Yes No Replace Condition Satisfactory Marginal Poor Cabinet/housing rusted Improper Clearance (air flow) Yes No	

	Garage/Carport
	None Attached Detached 1-Car 2-Car 3-Car 4-Car
	Yes No Operable Inoperable
	Operable Not Operable Need(s) adjusting Safety hazard Photo eyes tested Pressure reverse tested
Material	Same as house Type:
Condition	Satisfactory Marginal Poor Same as house
Material Condition	N/A Same as house Wood Metal Vinyl Stucco Masonry Slate Fiberboard Satisfactory Marginal Poor Recommend repair/replace Recommend painting
Material Condition	N/A Same as house Wood Aluminum Vinyl Satisfactory Marginal Poor Recommend repair/replace Recommend painting
Material Condition Burners less th	Concrete Gravel Asphalt Dirt Other Satisfactory Typical cracks Large settling cracks Recommend evaluation/repair Safety hazard nan 18" above floor N/A Yes No
	Not visible Floor level Elevated Rotted/Damaged Recommend repair
Material Condition Recommend P	N/A Wood Fiberglass Masonite Metal Recommend repair Satisfactory Marginal Poor Hardware loose Safety Cable Recommended Weatherstripping missing/damaged Loose/missing riming/Painting Inside & Edges Yes No
Condition	None Satisfactory Marginal Poor Damaged/Rusted

Garage/Carport
Yes No Not visible
N/A Present Missing Condition Satsifactory Recommend repair Holes walls/ceiling Safety hazard(s) Moisture Stains Present Yes No Typical Cracks Yes No Fire door Not verifiable Not a fire door See Sepair Satisfactory Auto closure N/A Satisfactory Inoperative Missing

	Kitchen
Comments	X Satisfactory Marginal Recommend repair/caulking Counter top has normal wear.
Comments	Satisfactory Marginal Recommend repair/adjustment Hinges needed to be tightened.
Sink/Faucet	Yes X No roded Yes X No X Satisfactory Corroded Chipped Recommend repair nage X Satisfactory Marginal Poor X Satisfactory Marginal Poor Some minor corrosion around the joints, but no visible leaks at this time.
Condition	Satisfactory Marginal Poor Typical cracks Moisture stains
	☐ Yes ☐ No
Condition	Satisfactory Marginal Poor Sloping Squeaks
Exhaust fan Refrigerator Microwave Other Dishwasher air Dishwasher dra Receptacles pro GFCI	N/A

Kitchen Photos





Stove oven combo



Hood vent



Dishwasher Kitchen

Launary Room
Laundry sink

Bathroom

Daun voin
Location Sinks Faucet leaks: Yes No Pipes leak: Yes No Tubs N/A Faucet leaks: Yes No Pipes leak: Yes No Not visible Showers N/A Faucet leaks: Yes No Pipes leak: Yes No Not visible Toilet Bowl loose: Yes No Operable: Yes No Cracked bowl Toilet leaks Whirlpool Yes No Operable: Yes No Not visible Toilet Bowl loose: Yes No Operable: Yes No Cracked bowl Toilet leaks Whirlpool Yes No Operable: Yes No Not visible Toilet Bowl loose: Yes No Operable: Yes No Cracked bowl Toilet leaks Whirlpool Yes No Operable: Yes No Rottested No access door Shower/Tub area Ceramic/Plastic Fiberglass Masonite Other Condition: Satisfactory Marginal Poor Rotted floors Caulk/Grouting needed: Yes No Where:
Drainage

Room	
------	--

Room
Lacation, First flags North, Toward WING DOOM 11, 14 th
Location: First floor North Type: LIVING ROOM Unit #: Walls & Ceiling X Satisfactory
Open ground/Reverse polarity: Yes No Safety hazard Cover plates missing Heating source present Yes No Holes: Doors Walls Ceilings Bedroom Egress restricted N/A Yes No Doors Safety hazard Cover plates missing Walls Ceilings Bedroom Egress restricted N/A Yes No Doors Safety hazard Cover plates missing Ceilings Bedroom Egress restricted N/A Yes No Doors Safety hazard Cover plates missing Ceilings Bedroom Egress restricted N/A Yes No Doors Safety hazard
Windows X Satisfactory Marginal Poor Cracked glass Evidence of leaking insulated glass Broken/Missing hardware
Comments Missing outlet cover in front bedroom

Room Photos



Front bedroom missing outlet cover

Interior			
None Location(s): Type			
None Satisfactory Marginal Poor Loose/Missing Handrail Satisfactory Marginal Poor Safety hazard Hand Rail/Railing/Balusters recommended Risers/Treads Satisfactory Marginal Poor Risers/Treads uneven Trip hazard			
Present Smoke detector: Operable: Yes No Not tested Recommend additional CO detector: Operable: Yes No Not tested Recommend additional			
N/A Stairs Pulldown Scuttlehole/Hatch No Access Inspected from Access panel In the attic Other			

Plumbing

8
Main shut-off location:
Water entry piping Not visible Copper/Galv. PVC Plastic CPVC Plastic Polybutylene Plastic PEX Plastic Lead
Lead other than solder joints Yes No Unknown Service entry Visible water distribution piping Copper Galvanized PVC Plastic CPVC Plastic Polybutylene Plastic PEX Plastic
Condition Satisfactory Marginal Poor Functional flow Satisfactory Marginal Poor Water pressure over 80 psi Recommend plumber evaluate Recommend pressure regulator Pipes Supply/Drain Corroded Leaking Valves broken/missing Dissimilar metal
Cross connection: Yes No Safety Hazard Drain/Waste/Vent pipe Copper Cast iron Galvanized PVC ABS Brass Polyethylene Condition Satisfactory Marginal Poor
Support/Insulation N/A Type: Traps proper P-Type Yes No P-traps recommended Functional drainage Satisfactory Marginal Poor Interior fuel storage system N/A Yes No Leaking: Yes No Fuel line N/A Copper Brass Black iron Stainless steel CSST Not visible Condition Satisfactory Marginal Poor Recommend plumber evaluate
□ N/A
N/A Submersible In basement Well house Well pit Shared well Pressure gauge operable Yes No Not Visible
N/A Sealed crock: Yes No Check valve: Yes No Shut-off valve: Yes No Vented Yes No Operable: Yes No
N/A Brand Name: Type Gas Electric Oil LP Combustion air venting present Yes No N/A Seismic restraints needed Yes No N/A Relief valve Yes No Extension proper: Yes No Missing Recommend repair Improper material Vent pipe N/A Satisfactory Pitch proper Improper Rusted Recommend repair Condition Satisfactory Marginal Poor
N/A Brand Name: Capacity: Approx. age: Type

Plumbing
N/A Present Loop installed Yes No Plumbing hooked up Yes No Plumbing leaking Yes No

Heating System

This #1 Produces Control Assessment 5 10 Pt 1 Pt 1 Pt 4 5 CC 5
Unit #1 Brand name: Carrier Approx. age: 5-10+ Unknown Model #: Yg45635 Unit #2 N/A Brand name: Approx. age: Unknown Model #:
Energy source
Heat exchanger N/A Sealed Not visible Visual w/mirror Flame distortion Rusted Carbon/soot buildup
Carbon monoxide N/A Detected at plenum Detected at register Not tested
CO test Tester: TIFF 8800
Combustion air venting present N/A Yes X No
Controls Disconnect: Yes No X Normal operating and safety controls observed
Distribution Metal duct X Insulated flex duct Cold air returns Duct board Asbestos-like wrap
Safety Hazard
Flue piping N/A X Satisfactory Rusted Improper slope Safety hazard Recommend repair/replace
Filter X Standard Electrostatic Satisfactory Needs cleaning/replacement Missing
Electronic (not tested) When turned on by thermested V Fired Did not fire Prepar energies: V Ves Did Not tested
When turned on by thermostat X Fired Did not fire Proper operation: X Yes No Not tested Heat pump N/A Supplemental electric X Supplemental gas
Sub-slab ducts X N/A Satisfactory Marginal Poor Water/Sand Observed: Yes X No
#1 - System condition X Satisfactory Marginal Poor Recommended HVAC technician examine
#1 - System condition X Satisfactory Marginal Poor Recommended HVAC technician examine #2 - System condition X Satisfactory Marginal Poor Recommended HVAC technician examine
System not operated due to Exterior temperature
System not operated due to Daterior temperature
N/A Day I was A was N 11 "
N/A Brand name: Approx. age: Model #:
Energy source Gas LP Gil Electric Solid fuel
Distribution Hot water Baseboard Steam Radiator Radiant floor
Circulator Pump Gravity Multiple zones Controls Tomp/procesure gauge exists Ves No. Operables Ves No.
Controls Temp/pressure gauge exist: Yes No Operable: Yes
Combustion air venting present Yes No N/A Relief valve Yes No Missing Extension proper: Yes No Recommend repair/replace
Operated When turned on by thermostat: Fired Did not fire
Operation Satisfactory: Yes No Recommend HVAC technician examine Before closing
Sanstactory. [103 [170 [Recommend IIVAC technician examine [] Defore closing
N/A Electric baseboard Radiant ceiling cable Gas space heater Solid fuel burning stove
Proper operation Yes No
System condition Satisfactory Marginal Poor Recommend HVAC Technician Examine
System contained budstactory I marginar I 1001 I recommend II vice Technician Examine

Heating System Photos





FAU in attic duct work

Electric/Cooling System

	Location: Exterior wall		
Condition	X Satisfactory Marginal Poor		
	rance to Panel X Yes No		
	age Unknown		
	X Breakers Fuses		
	ded X Yes No Not visible		
GFCI breaker	X Yes No Operable: X Yes No		
AFCI breaker			
Main wire	X Copper Aluminum Not visible X Double tapping of the main wire		
	Condition: Satisfactory Marginal Poor		
Branch wire	X Copper Aluminum Solid Branch Aluminum Wiring Not visible Safety Hazard		
Branch wire co	ndition X Satisfactory Poor Recommend electrician evaluate/repair Romex BX cable Conduit Knob\Tube Double tapping Wires undersized/oversized breaker/fuse Panel not accessible		
	Not evaluated Reason:		
Comments	Main breaker is double-tapped - this is a safety concern. Recommend licensed electrician distribute the wires		
	properly.		
	None apparent Location 1: Location 2: Location 3: Panel not accessible Not evaluated Reason:		
Branch wire	Copper Aluminum Safety hazard Neutral/ground separated: Yes No		
	Neutral isolated: Yes No		
Condition	Satisfactory Marginal Poor Recommend separating/isolating neutrals		
	Recommend electrician repair/evaluate box		
Condition	Catioforton Marriad Dean Oran arounds Decree aclasity CECIs not accepting		
Condition	Satisfactory Marginal Poor Open grounds Reverse polarity GFCIs not operating		
	Solid conductor aluminum branch wire circuits Ungrounded 3-prong recepticles		
	Recommend electricain evaluate/repair electrical system		
	X Central system Wall unit Brand Name: Carrier Location: left side of house Age:		
	Satisfactory Not visible X Needs cleaning Damaged		
	es Leak/Oil present Damage Insulation missing X Satisfactory		
	e/drain X To exterior To pump Floor drain		
Secondary cond	lensate line/drainPresent: X Yes No Needed: Yes X No Primary pan appears clogged		
	Recommend technician evaluate		
Operation			
Condition	X Satisfactory Marginal Poor Recommend HVAC technician examine/clean/service		
	Not operated due to exterior temperature		
Comments	Recommend an HVAC contractor examine		
	N/A Central system Wall unit Brand Name: Location: Age:		
Evaporator coil	Satisfactory Not visible Needs cleaning Damaged		
	es Leak/Oil present Damage Insulation missing Satisfactory		
6	Recommend/Replace damaged/missing insulation		
Condensate line/drain To exterior To pump Floor drain			
Secondary condensate line/drainPresent: Yes No Needed: Yes No Primary pan appears clogged			
•	Recommend technician evaluate		
Operation			
Condition	Satisfactory Marginal Poor Recommend HVAC technician examine/clean/service		
	Not operated due to exterior temperature		

Electric/Cooling System Photos





A/C exterior left Main panel

Report Summary

Items Not Operating

Major Concerns

Item(s) that have failed or have potential of failing soon.

Potenial Safety Hazards

Handyman wiring for garbage disposal, repair as needed.

Missing outlet cover in front bedroom Main breaker is double-tapped - this is a safety concern. Recommend licensed electrician distribute the wires properly.

Deferred Cost Items

Items that have reached or are reaching their normal life expectancy or show indications that they may require repair or replacement anytime during the next five (5) years.

Improvement Items

Walkway had some cracking and settlement, should be repaired and/or replaced as needed.

Hinges needed to be tightened in kitchen.

Items to Monitor

Some minor corrosion around the joints under kitchen sink, but no visible leaks at this time.

Furnace was in normal working order at the time of the inspection. In need of service Recommend an HVAC contractor examine

Grounds Remarks

SERVICE WALKS/DRIVEWAYS

Spalling concrete cannot be patched with concrete because the new will not bond with the old. Water will freeze between the two layers, or the concrete will break up from movement or wear. Replacement of the damaged section is recommended. Walks or driveways that are close to the property should be properly pitched away to direct water away from the foundation. Asphalt driveways should be kept sealed and larger cracks filled so as to prevent damage from frost.

PATIOS

Patios that have settled towards the structure should be mudjacked or replaced to assure proper pitch. Improperly pitched patios are one source of wet basements/crawlspaces.

EXTERIOR WOOD SURFACES

All surfaces of untreated wood need regular applications of paint or special chemicals to resist damage. Porch or deck columns and fence posts which are buried in the ground and made of untreated wood will become damaged within a year or two.

Decks should always be nailed with galvanized, stainless steal or aluminum nails. Decks that are not painted or stained should be treated with a water sealer.

GRADING AND DRAINAGE

Any system of grading or landscaping that creates positive drainage (moving water away from the foundation walls) will help to keep a basement and crawlspace dry. Where negative grade exists and additional backfill is suggested, it may require digging out around the property to get a proper pitch. Dirt shall be approximately 6î below the bottom sill and should not touch wood surfaces.

Flower beds, loose mulched areas, railroad ties and other such landscaping items close to the foundation trap moisture and contribute to wet basements. To establish a positive grade, a proper slope away from the house is 1î per foot for approximately 5-6 feet. Recommend ground cover planting or grass up to foundation.

ROOF AND SURFACE WATER CONTROL

Roof and surface water must be controlled to maintain a dry basement and crawlspace. This means keeping gutters cleaned out and aligned, extending downspouts, installing splashblocks, and building up the grade so that roof and surface water is diverted away from the building

WINDOW WELLS

The amount of water which enters a window well from falling rain is generally slight, but water will accumulate in window wells if the yard is improperly graded. Plastic window well covers are useful in keeping out leaves and debris.

RETAINING WALLS

Retaining walls deteriorate because of excessive pressure buildup behind them, generally due to water accumulation. Conditions can often be improved by excavating a trench behind the retaining wall and filling it with coarse gravel. Drain holes through the wall will then be able to relieve the water pressure.

Retaining walls sometime suffer from tree root pressure or from general movement of topsoil down the slope. Normally, these conditions require rebuilding the retaining wall.

RAILINGS

It is recommended that railings be installed for any stairway over 3 steps and porches over 30" for safety reasons. Balusters for porches, balconies, and stairs should be close enough to assure children cannot squeeze through.

DEFINITIONS

SATISFACTORY (Sat.) - Indicates the component is functionally consistent with its original purpose but may show signs of normal wear and tear and deterioration.

MARGINAL (Marg.) - Indicates the component will probably require repair or replacement anytime within five years.

POOR - Indicates the component will need repair or replacement now or in the very near future.

Roof Remarks

Valleys and Flashings that are covered with shingles and/or tar or any other material are considered not visible and are not part of the inspection.

Tar and Gravel Roofs - This type of covering on a pitched roof requires ongoing annual maintenance. We recommend that a roofing contractor evaluate this type of roof. Infra-red photography is best used to determine areas of potential leaks.

Flat roofs are very vulnerable to leaking. It is very important to maintain proper drainage to prevent the ponding of water. We recommend that a roofing contractor evaluate this type of roof.

ROOF TYPE	LIFE EXPECTANCY	SPECIAL REMARKS		
Asphalt Shingles	15-20 years	Used on nearly 80% of all residential roofs requires little maintenance.		
Asphalt Multi-Thickness	20-30 years	Heavier and more durable than regular asphalt shingles.		
Shingles*				
Asphalt Interlocking.	15-25 years	Especially good in high-wind areas.		
Shingles*				
Asphalt Rolls	10 years	Used on low slope roofs.		
Built-up Roofing	10-20 years	Used on low slope roofs, 2 to 3 times as costly as asphalt shingles.		
Wood Shingles*	10-40 years**	Treat with preservative every 5 years to prevent decay.		
Clay Tiles*	20 + years	Durable, fireproof, but not watertight, requiring a good subsurface base.		
Cement Tiles*	20 + years	Durable, fireproof, but not watertight, requiring a good subsurface base.		
Slate Shingles*	30-100 years ***	Extremely durable, but brittle and expensive.		
Asbestos Cement	30-75 years	Durable, but brittle and difficult to repair.		
Shingles*				
Metal Roofing	15-40 + years	Comes in sheets & shingles; should be well grounded for protection from lightning		
		certain metals must be painted.		
Single Ply	15-25 years	New material; not yet passed test of time.		
Membrane (mfgr's	5-10 years**	Used on low slope roofs.		
claim) Polyurethane				
with Elastomenic				
Coating				

^{*} Not recommended for use on low slope roof

Roof coverings should be visually checked in the spring and fall for any visible missing shingles, damaged coverings or other defects. Before re-roofing, the underside of the roof structure and roof sheathing should be inspected to determine that the roof structure can support the additional weight of the shingles.

Wood shakes and shingles will vary in aging, due to the quality of the material, installation, maintenance, and surrounding shade trees. Ventilation and drying of the wood material is critical in extending the life expectancy of the wood. Commercial preservatives are available on the market, which could be applied to wood to impede deterioration.

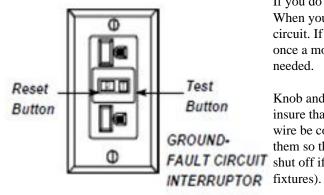
^{**} Depending on local conditions and proper installation

^{***} Depending on quality of slate

Exterior Remarks

Every effort has been made to evaluate the size of the service. Three wires going into the home indicate 240 volts. The total amperage can be difficult to determine. We highly recommend that ground fault circuit interrupters (G.F.C.I.) be connected to all outlets around water. This device automatically shuts the circuit off when it senses a current leak to ground. This device can be purchased in most hardware stores. G.F.C.I.'s are recommended by all outlets located near water, outside outlets, or garage outlets. Pool outlets should also be protected with a G.F.C.I.

See diagram below:



If you do have G.F.C.I.'s, it is recommended that you test (and reset) them monthly. When you push the test button, the reset button should pop out, shutting off the circuit. If it does not, the breaker is not working properly. If you do not test them once a month, the breakers have a tendency to stick and may not protect you when needed.

Knob and tube wiring found in older homes should be checked by an electrician to insure that the wire cover is in good condition. Under no circumstances should this wire be covered with insulation. Recess light fixtures should have a baffle around them so that they are not covered with insulation. The newer recessed fixtures will shut off if they overheat. (no representation is made as to proper recess lighting fixtures).

Federal Pacific Stab-LokÆ Electrical panels may be unsafe. See www.google.com (Federal Pacific)
Aluminum wiring in general lighting circuits has a history of over heating, with the potential of a fire. If this type of wiring exists, a licensed electrical contractor should examine the whole system.

ARC FAULTS

In some areas arc faults are required for bedrooms in new homes starting in 2002. In some areas arc faults are required for all 120 Volt circuits that are not GFCI protected in new homes starting in 2009. Upgrade as desired for enhanced safety.

REVERSE POLARITY

A common problem that surfaces in many homes is reverse polarity. This is a potentially hazardous situation in which the hot and neutral wires of a circuit are reversed at the outlet, thereby allowing the appliance to incorrectly be connected. This is an inexpensive item to correct.

Each receptacle has a brass and silver screw. The black wire should be wired to the brass screw and the white wire should go to the silver screw. When these wires are switched, this is called reverse polarity.î Turning off the power and switching these wires will correct the problem.

Main service wiring for housing is typically 240 volts. The minimum capacity for newer homes is 100 amps though many older homes still have 60 amp service. Larger homes or all electric homes will likely have a 200 amp service.

Main service wiring may be protected by one or more circuit breakers or fuses. While most areas allow up to six main turnoffs, expanding from these panels is generally not allowed.

COOLING

Testing A/C System and Heat Pump- The circuit breakers to A/C should be on for a minimum of 24 hours and the outside temperature at least 60 degrees for the past 24 hours or an A/C system cannot be operated without possible damage to the compressor. Check the instructions in your A/C manual or on the outside compressor before starting up in the summer. Heat pump can only be tested in the mode it's running in. Outside temperature should be at least 65 for the past 24 hours to run in cooling mode.

Temperature differential, between 14-22 degrees, is usually acceptable. If out of this range, have an HVAC contractor examine it. It is not always feasible to do a differential test due to high humidity, low outside temperature, etc.

A/C CONDENSER COIL

They should not become overgrown with foliage. Clearance requirements vary, but 2 feet on all sides should be considered minimal with up to 6 feet of air discharge desirable. If a clothes dryer vent is within five to ten feet, either relocate the vent or do not run when the A/C is running. The lint will quickly reduce the efficiency of the A/C unit.

Exterior Remarks

CHIMNEYS

Chimneys built of masonry will eventually need tuckpointing. A cracked chimney top that allows water and carbonic acid to get behind the surface brick/stone will accelerate the deterioration. Moisture will also deteriorate the clay flue liner. Periodic chimney cleaning will keep you apprised of the chimney's condition. The flashing around the chimney may need resealing and should be inspected every year or two. Fireplace chimneys should be inspected and evaluated by a chimney professional before using. Chimneys must be adequate height for proper drafting. Spark arrestors are recommended for a wood burning chimney, and chimney caps for fossil fuels. Unlined Chimney should be re-evaluated by a chimney technician. Have flue cleaned and re-evaluated. The flue lining is covered with soot or creosote and no representation can be made as to the condition.

NOT EVALUATED

The flue was not evaluated due to inaccessibility such as roof pitch, cap, cleanout not accessible, etc.

CRICKET FLASHING

Small, sloped structure made of metal and designed to drain moisture away from a chimney. Usually placed at the back of a chimney.

GUTTERS AND DOWNSPOUTS

This is an extremely important element in basement/crawlspace dampness control. Keep gutters clean and downspout extensions in place (4 feet or more). Paint the inside of galvanized gutters, which will extend the life. Shortly after a rain or thaw in winter, look for leaks at seams in the gutters. These can be recaulked before they cause damage to fascia or soffit boards. If no gutters exist, it is recommended that they be added.

SIDING

Wood siding should not come in contact with the ground. The moisture will cause rotting to take place and can attract carpenter ants. Brick and stone veneer must be monitored for loose or missing mortar. Some brick and stone are susceptible to spalling. This can be caused when moisture is trapped and a freeze/thaw situation occurs. There are products on the market that can be used to seal out the moisture. This holds true for brick and stone chimneys also. Metal siding will dent and scratch. Oxidation is a normal reaction in aluminum. There are good cleaners on the market and it is recommended that they be used occasionally. Metal siding can be painted.

EIFS

This type of siding is a synthetic stucco and has experienced serious problems. It requires a certified EIFS inspector to determine condition

DOORS AND WINDOWS

These can waste an enormous amount of energy. Maintain the caulking around the frames on the exterior. Check for drafts in the winter and improve the worst offenders first. Windows that have leaky storm windows will usually have a lot of sweating. Likewise, well-sealed storms that sweat indicate a leaky window. It is the tighter unit that will sweat (unless the home has excess humidity to begin with).

Wood that exhibits blistering or peeling paint should be examined for possible moisture sources: roof leaks, bad gutters, interior moisture from baths or laundry or from a poorly vented crawl space. Some paint problems have no logical explanation, but many are a symptom of an underlying problem. A freshly painted house may mask these symptoms, but after you have lived in the home for a year or two, look for localized paint blistering (peeling). It may be a clue.

New glazing will last longer if the raw wood is treated with boiled linseed oil prior to glazing. It prevents the wood from drawing the moisture out of the new glazing.

CAULKING

Many different types of caulk are available on the market today. Check with a paint or hardware store for the kind of application you need.

Garage Remarks

OVERHEAD DOOR OPENERS

We recommend that a separate electrical outlet be provided. Openers that do not have a safety reverse are considered a safety hazard. Small children and pets are especially vulnerable. We recommend the operating switches be set high enough so children cannot reach them. If a electric sensor is present, it should be tested occasionally to ensure it is working.

them. If a electric sensor is present, it should be tested occasionally to ensure it is working.				
GARAGE SILL PLATES Should be elevated or treated lumber should be used. If this is not the case, try to direct water away to prevent rotting.				
BURNERS Any appliance such as a water heater, furnace, etc. should have the flame a minimum of 18" above the floor. Any open flame less than 18" from the floor is a potential safety hazard. The appliance should also be protected from vehicle damage.				

Interior Remarks

PLASTER ON WOOD LATH

Plaster on wood lath is an old technique and is no longer in general use. Wood lath shrinks with time and the nails rust and loosen. As a result, the plaster may become fragile and caution is needed in working with this type of plastering system. Sagging ceilings are best repaired by laminating drywall over the existing plaster and screwing it to the ceiling joists.

PLASTER ON GYPSUM LATH (ROCK LATH)

Plaster on gypsum lath will sometimes show the seams of the 16î wide gypsum lath, but this does not indicate a structural fault. The scalloping appearance can be leveled with drywall joint compound and fiberglass mesh joint tape or drywall can be laminated over the existing plaster on the ceiling.

WOOD FLOORING

Always attempt to clean wood floors first before making the decision to refinish the floor. Wax removers and other mild stripping agents plus a good waxing and buffing will usually produce satisfactory results. Mild bleaching agents help remove deep stains. Sanding removes some of the wood in the floor and can usually be done safely only once or twice in the life of the floor.

NAIL POPS

Drywall nail pops are due to normal expansion and contraction of the wood members to which the drywall is nailed and are usually of no structural significance.

CARPETING

Where carpeting has been installed, the materials and condition of the floor underneath cannot be determined.

APPLIANCES

(If report indicated appliances were operated, the following applies) Dishwashers are tested to see if the motor operates and water sprays properly. Stoves are tested to see that burners are working and oven and broiler get hot. Timer and controls are not tested. Refrigerators are not tested. Most new Dishwashers have the drain line looped automatically and may not be visible on the day of inspection. It is essential for the dishwasher drain line to have an anti-siphon break to prevent backflow. A drain line loop or Dishwasher air gap should be installed if found to be missing. No representation is made to continued life expectancy of any appliance.

ASBESTOS AND OTHER HAZARDS

Asbestos fibers in some form are present in many homes, but are often not visible and cannot be identified without testing.

If there is reason to suspect that asbestos may be present and if it is of particular concern, a sample of the material in question may be removed and analyzed in a laboratory. However, detecting or inspecting for the presence or absence of asbestos is not a part of our inspection.

Also excluded from this inspection and report are the possible presence of, or danger from, radon gas, lead-based paint, urea formaldehyde, toxic or flammable chemicals and all other similar or potentially harmful substances and environmental hazards.

WINDOWS

A representative number of windows are inspected.

DOOR STOPS

All swinging doors should be checked for door stops. Broken or missing door stops can result in door knobs breaking through drywall or plaster.

CLOSET GUIDES

Sliding closet doors should be checked to see that closet guides are in place. Missing or broken closet guides can cause scratches and damage to doors.

COLD AIR RETURNS

Bedrooms that do not have cold air returns in them should have a 3/4î gap under the doors to allow cold air to be drawn into the hall return.

Interior Remarks

AN INSPECTION VERSUS A WARRANTY

A home inspection is just what the name indicates, an inspection of a home...usually a home that is being purchased. The purpose of the inspection is to determine the condition of the various systems and structures of the home. While an inspection performed by a competent inspection company will determine the condition of the major components of the home, no inspection will pick up every minute latent defect. The inspector's ability to find all defects is limited by access to various parts of the property, lack of information about the property and many other factors. A good inspector will do his or her level best to determine the condition of the home and to report it accurately. The report that is issued is an opinion as to the condition of the home. This opinion is arrived at by the best technical methods available to the home inspection industry. It is still only an opinion.

A warranty is a policy sold to the buyer that warrants that specific items in the home are in sound condition and will remain in sound condition for a specified period of time. Typically, the warranty company never inspects the home. The warranty company uses actuarial tables to determine the expected life of the warranted items and charges the customer a fee for the warranty that will hopefully cover any projected loss and make a profit for the warranty seller. It is essentially an insurance policy.

The service that we have provided you is an inspection. We make no warranty of this property. If you desire warranty coverage, please see your real estate agent for details about any warranty plan to which their firm may have access.

WINDOW FRAMES AND SILLS

Window frames and sills are often found to have surface deterioration due to condensation that has run off the window and damaged the varnish. Usually this can be repaired with a solvent style refinisher and fine steel wool. This is sometimes a sign of excess humidity in the house. See comments regarding caulking doors and windows, page 8.

FIREPLACES

It is important that a fireplace be cleaned on a routine basis to prevent the buildup of creosote in the flue, which can cause a chimney fire. Masonry fireplace chimneys are normally required to have a terra cotta flue liner or 8 inches of masonry surrounding each flue in order to be considered safe and to conform with most building codes. During visual inspections, it is not uncommon to be unable to detect the absence of a flue liner either because of stoppage at the firebox, a defective damper or lack of access from the roof.

WOODBURNERS

Once installed, it can be difficult to determine proper clearances for woodburning stoves. Manufacturer specifications, which are not usually available to the inspector, determine the proper installation. We recommend you ask the owner for paperwork, verifying that it was installed by a professional contractor.

VENTILATION

Ventilation is recommended at the rate of one square foot of vent area to 300 square feet of attic floor space, this being divided between soffit and rooftop. Power vents should ideally have both a humidistat and a thermostat, since ventilation is needed to remove winter moisture as well as summer heat. Evidence of condensation such as blackened roof sheathing, frost on nail heads, etc. is an indication that ventilation may have been or is blocked or inadequate.

INSULATION

The recommended insulation in the attic area is R-38, approximately 12 inches. If insulation is added, it is important that the ventilation is proper.

SMOKE DETECTORS

Smoke detectors should be tested monthly. At least one detector should be on each level. CO detectors are not required by most states, but for safety reasons, are highly recommended.

VAPOR BARRIERS

The vapor barrier should be on the warm side of the surface. Most older homes were built without vapor barriers. If the vapor barrier is towards the cold side of the surface, it should be sliced or removed. Most vapor barriers in the attic are covered by insulation and therefore, not visible.

Interior Remarks

SAFETY GLAZING

Safety glazing requirements vary depending on the age of the home. Every attempt is made to identify areas where the lack of safety

glazing presents an immediate safety hazard, such as a shower door. In some older homes it is difficult to determine if safety glazing is present, since the glass is not marked. Therefore, no representation is made that safety glazing exists in all appropriate areas.			
INSULATED GLASS Broken seal in thermopane/insulated windows are not always visible nor detectible due to humidity and temperature changes during the day. Other factors such as window covering, dirty windows, and lack of accessibility, personal property placed in front of the windows all affect the view of the windows at the time of the inspection.			

Bathroom(s) Remarks

STALL SHOWER

The metal shower pan in a stall shower has a potential or probable life of 10-20 years depending on quality of the pan installed. Although a visible inspection is made to determine whether a shower pan is currently leaking, it cannot be stated with certainty that no defect is present or that one may not soon develop. Shower pan leaks often do not show except when the shower is in actual use.

CERAMIC TILE

Bathroom tile installed in a mortar bed is excellent. It is still necessary to keep the joint between the tile and the tub/shower caulked or sealed to prevent water spillage from leaking through and damaging the ceilings below.

Ceramic tile is often installed in mastic. It is important to keep the tile caulked or water will seep behind the tile and cause deterioration in the wallboard. Special attention should be paid to the area around faucets and other tile penetrations.

EXHAUST FANS

Bathrooms with a shower should have exhaust fans when possible. This helps to remove excess moisture from the room, preventing damage to the ceiling and walls and wood finishes. The exhaust fan should not be vented into the attic. The proper way to vent the fan(s) is to the outside. Running the vent pipe horizontally and venting into a gable end or soffit is preferred. Running the vent pipe vertically through the roof may cause condensation to run down the vent pipe, rusting the fan and damaging the wallboard. Insulating the vent pipe in the attic will help to reduce this problem.

SLOW DRAINS

Slow draings on sinks, tubs, and showers are usually due to build up of hair and soap scum. Most sink popups can be easily removed for cleaning. Some tubs have a spring attached to the closing lever that acts as a catch for hair. It may require removing a couple of screws to disassemble. If you cannot mechanically remove the obstruction, be kind to your pipes. Don't use a caustic cleaner. There are several bacteria drain cleaners available. They are available at hardware stores in areas where septic tanks are used. These drain cleaners take a little longer to work, but are safe for you and your pipes.

SAFETY HAZARDS

Typical safety hazards found in bathrooms are open grounds or reverse polarity by water. Replacing these outlets with G.F.C.I.'s are recommended.

WHIRLPOOL TUBS

This relates to interior tubs hooked up to interior plumbing. Where possible, the motor will be operated to see that the jets are working. Hot tubs and spas are not inspected.

Basement Remarks

BASEMENT/CRAWLSPACE

Any basement/crawlspace that has cracks or leaks is technically considered to have failed. Most block basements/crawlspace have step cracks in various areas. If little or no movement has occurred and the step cracks are uniform, this is considered acceptable. Horizontal cracks in the third or fourth block down indicate the block has moved due to outside pressure. They can be attributed to many factors such as improper grading, improperly functioning gutter and downspout system, etc. Normally if little or no movement has taken place and proper grading and downspouts exist, this is considered acceptable. If the wall containing the stress crack(s) has moved considerably, this will require some method of reinforcement. Basements/crawlspace that have been freshly painted or tuckpointed should be monitored for movement. This will be indicated by cracks reopening. If cracks reappear, reinforcement may be necessary. Reinforcing a basement/crawlspace wall can become expensive.

FOUNDATION (COVERED WALLS)

Although an effort has been made to note any major inflections or weaknesses, it is difficult at best to detect these areas when walls are finished off, or basement/crawlspace storage makes areas inaccessible. No representation is made as to the condition of these walls.

INSULATED CONCRETE FORMS (ICF'S)

Formwork for concrete that stays in place as permanent building insulation for energy-efficient, cast-in-place, reinforced concrete walls, floors and roofs.

MONITOR

Indicates that the walls have stress cracks, but little movement has occurred. In our opinion, the cracks should be filled with mortar and the walls monitored for further movement and cracking. If additional movement or cracking occurs, reinforcement may be necessary.

HAVE EVALUATED

We recommend that the walls be re-evaluated by a structural engineer or basement/crawlspace repair company and estimates be obtained if work is required.

VAPOR BARRIER

Floors that are dirt or gravel should be covered with a vapor barrier.

MOISTURE PRESENT

Basement/crawlspace dampness is frequently noted in houses and in most cases the stains, moisture or efflorescence present is a symptom denoting that a problem exists outside the home. Usual causes are improper downspout extensions or leaking gutters and/or low or improper grade (including concrete surfaces) at the perimeter of the house. A proper slope away from the house is one inch per foot for four to six feet. Expensive solutions to basement/crawlspace dampness are frequently offered. It is possible to spend thousands of dollars on solutions such as pumping out water that has already entered or pumping of chemical preparations into the ground around the house, when all that may be necessary are a few common sense solutions at the exterior perimeter. However, this is not intended to be an exhaustive list of causes and solutions to the presence of moisture. No repre-sentation is made to future moisture that may appear.

PALMER VALVE

Many older homes have a valve in the floor drain. This drain needs to remain operational.

DRAIN TILE

We offer no opinion about the existence or condition of the drain tile, as it cannot be visibly inspected.

BASEMENT ELECTRICAL OUTLETS

We recommend that you have an outlet within 6' of each appliance. The appliance you plan to install may be different than what exists, therefore the inspection includes testing a representative number of receptacles that exist. It is also recommended to have ground fault circuit interrupts for any outlet in the unfinished part of the basement and crawl spaces.

Plumbing Remarks

WELLS

Examination of wells is not included in this visual inspection. It is recommended that you have well water checked for purity by the local health authorities and, if possible, a check on the flow of the well in periods of drought. A well pit should have a locked cover on it to prevent anyone from falling into the pit.

SEPTIC SYSTEMS

The check of septic systems is not included in our visual inspection. You should have the local health authorities or other qualified experts check the condition of the septic system. In order for the septic system to be checked, the house must have been occupied within the last 30 days.

WATER PIPES

Galvanized water pipes rust from the inside out and may have to be replaced within 20 to 30 years. This is usually done in two stages: horizontal piping in the basement first, and vertical pipes throughout the house later as needed. Copper pipes usually have more life expectancy and may last as long as 60 years before needing to be replaced.

HOSE BIBS

During the winter months it is necessary to make sure the outside faucets are winterized. This can be done by means of a valve located in the basement. Leave the outside faucets open to allow any water standing in the pipes to drain, preventing them from freezing. Hose bibs cannot be tested when winterized.

WATER HEATER

The life expectancy of a water heater is 5-10 years. Water heaters generally need not be replaced unless they leak. It is a good maintenance practice to drain 5-10 gallons from the heater several times a year. Missing relief valves or improper extension present a safety hazard.

WATER SOFTENERS

During a visual inspection it is not possible to determine if water is being properly softened.

PLUMBING

The temperature/pressure valve should be tested several times a year by lifting the valves handle. Caution: very hot water will be discharged. If no water comes out, the valve is defective and must be replaced.

SHUT-OFF VALVES

Most shut-off valves have not been operated for long periods of time. We recommend operating each shut-off valve to: toilet bowl, water heater, under sinks, main shut-off, hose faucets, and all others. We recommend you have a plumber do this, as some of the valves may need to be repacked or replaced. Once the valves are in proper operating order, we recommend opening and closing these valves several times a year.

POLYBUTYLENE PIPING

This type of piping has a history of problems and should be examined by a licensed plumber and repaired or replaced as necessary.

MECHANICAL DEVICES MAY OPERATE AT ONE MOMENT AND LATER MALFUNCTION; THEREFORE, LIABILITY IS SPECIFICALLY LIMITED TO THOSE SITUATIONS WHERE IT CAN BE CONCLUSIVELY SHOWN THAT THE MECHANICAL DEVICE INSPECTED WAS INOPERABLE OR IN THE IMMEDIATE NEED OF REPAIR OR NOT PERFORMING THE FUNCTION FOR WHICH IS IT WAS INTENDED AT THE TIME OF INSPECTION.

CSST

Corrugated Stainless Steel Tubing is an alternative to traditional black iron gas piping. It is a continuous, flexible, stainless steel pipe with an exterior PVC covering.

Heating System Remarks

Heating and air conditioning units have limited lives.

Normal lives are:

GAS-FIRED HOT AIR	15-25 years
OII-FIRED HOT AIR	20-30 years
CAST IRON BOILER	30-50 years
STEEL BOILER	30-40 years
COPPER BOILER	10-20 years
CIRCULATING PUMP (Hot water)	10-15 years
AIR CONDITIONING COMPRESSOR	8-12 years
HEAT PUMP	8-12 years

Gas-fired hot air units that are close to or beyond their normal lives have the potential of becoming a source of carbon monoxide in the home. You may want to have such a unit checked every year or so to assure yourself that it is still intact. Of course a unit of such an age is a good candidate for replacement with one of the new, high efficiency furnaces. The fuel savings alone can be very attractive.

Boilers and their systems may require annual attention. If you are not familiar with your system, have a heating contractor come out in the fall to show you how to do the necessary thing Caution: do not add water to a hot boiler!

Forced air systems should have filters changed every 30 to 60 days of the heating and cooling season. This is especially true if you have central air conditioning. A dirty air system can lead to premature failure of your compressor - a \$1,500 machine.

Oil-fired furnaces and boilers should be serviced by a professional each year. Most experts agree you will pay for the service cost in fuel saved by having a properly tuned burner.

Read the instructions for maintaining the humidifier on your furnace. A malfunctioning humidifier can rust out a furnace rather quickly. It is recommended that the humidifier be serviced at the same time as the furnace, and be cleaned regularly. During a visual inspection it is not possible to determine if the humidifier is working.

Have HVAC technician examine - A condition was found that suggests a heating contractor should do a further analysis. We suggest doing this before closing.

Heat exchangers cannot be examined nor their condition determined without being disassembled. Since this is not possible during a visual, non-technically exhaustive inspection, you may want to obtain a service contract on the unit or contact a furnace technician regarding a more thorough examination.

Testing pilot safety switch requires blowing out the pilot light. Checking safety limit controls requires disconnecting blower motor or using other means beyond the scope of this inspection. If the furnace has not been serviced in last 12 months you may want to have a furnace technician examine.

CO Test - This is not part of a non-technical inspection. If a test was performed, the type of tester is indicated in the Heating System section.

Combustible Gas Detector - If a gas detector was used during the inspection of the furnace and evidence of possible combustible gases was noted, we caution you that our test instrument is sensitive to many gases and not a foolproof test. None-the-less, this presents the possibility that a hazard exists and could indicate that the heat exchanger is, or will soon be, defective.

Costs of Remodeling or Repair

The prices quoted below include a range of prices based on a typical metropolitan area. Individual prices from contractors can vary substanially from these ranges. We advise that serveral bids be obtained on any work exceeding several hundred dollars. DO NOT RELY ON THESE PRICES... GET FURTHER ESTIMATES.

Item	Unit	Estimated Price (\$)
Masonry fireplace	Each	3000 - 6000
Install prefab fireplace	Each	2000 - 4000
Insulate Attic	Square foot	.75 - 2.75
Install attic ventilating fan	Each	200 - 300
Install new drywall over plaster	Square foot	1.75 - 2.75
Install new warm air furnace	Each	2,000 - 3,000
Replace central air conditioning	Each	1,400 - 2,000
Install humidifier	Each	300 - 500
Install electrostatic air cleaner	Each	800 - 1,500
Increase elec. svc. to 60-100 amps	Each	600 - 1,200
Run separate elec. line for dryer	Each	125 - 200
Run separate elec. line for A/C	Each	135 - 200
Install hardwired smoke detector	Each	100 - 180
Install new disposal	Each	250 - 400
Install new dishwasher	Each	500 - 750
Install new hot water boiler	Each	2,000 - 4,000
Install new 30-40 gal water heate	Each	350 - 650
Install new 30 gal. water heater	Each	300 - 500
Dig and install new well	Each	get estimate
Install new septic system	Each	get estimate
Regrade around exterior	Each	500 - 900
Install new sump pump and pit	Each	400 - 600
Build new redwood or pressure-treated deck	Square foot	20 - 30
Install storm windows	Each	60 - 150
Install wood replacement windows	Each	400 - 800
Install aluminum or vinyl replacement window	Each	300 - 800
Install new gutters and downspouts	Linear foot	3.50 - 5.00
Install asphalt shingle o/existing	Square foot	1.20 - 1.70
Tear off existing roof and install new asphalt	Square foot	2.50 - 4.00
shingle roof		
Instl 1-ply membrane rubberized roof	Square foot	get estimate
Instl new 4-ply built-up tar & gravel	Square foot	get estimate
Remove asbestos from pipes in bsmt	Linear foot	get estimate
Concrete drive or patio	Square foot	3.00 - 4.00
with removal of old	Square foot	2.25 - 3.00
Clean chimney flue	Each	100 - 200
Add flue liner for gas fuel		900 - 1,200
Add flue liner for oil or wood		2,800 - 3,500

Deferred Costs - It is impossible to determine how long these items will last before needing replacement. The report addresses most of these items from a "condition" standpoint.

Preventive Maintenance Tips

I. Foundation and Masonry:

Basements, Exterior Walls: To prevent seepage and condenstion problems.

- a. Check basement for dampness and leakage after wet weather
- b. Check chimnyes, deteriorted chimney caps, loose, and missing mortar.
- c. Maintain grading sloped away from foundation walls.

II. Roofs, Gutters, and Eavestrough:

To prevent roof leaks, seepage, condensation, and decay problems.

- a. Check for dmaged, loose, or missing shingles, blisters.
- b. Clean gutters, leaders, strainers, window wells, drains. Be sure downspouts direct water away from foundation.

Cut back tree limbs.

c. Check flashings around roof stacks, vents, skylights, chimneys as source of leakage.

Check vents, louvers and chimneys for birds nests, squirrles, insects.

d. Check fascias and soffits for paint flaking leakage and decay.

III. Exterior Walls:

To prevent paint failure, decay, and moisture penetration problems.

- a. Check painted surface for paint flaking or paint failure. Check back shrubs.
- b. Check exterior masonry walls for cracks, looseness, missing or broken mortar.

IV. Doors and Windows:

To prevent air and weather penetration problems.

a. Check caulking for decay around doors, windows, corner boards, joints.

Recaulk and weahterstip as needed. Check glazing putty around windows.

V. Electrical:

For safe electrical performance, mark and label each circuit.

- a. Trip circuit breakers every six months and ground fault circuit interrupters (G.F.C.I.) monthly.
- b. Check condition of lamp cords, extension cords and plugs. Replace at first sign of wear and damage.
- c. Check exposed wiring and cable for wear or damage.
- d. If you experience slight tingling shock from handling or touching any appliance, disconnect the appliance and have it repaired. If lights flicker or dim, or if appliances go on and off unnecessarily, call a licensed electrician.

VI. Plumbing:

For preventive maintenance.

- a. Drain exterior water lines, hose bibbs, sprinklers, pool equipment in the fall.
- b. Draw off sediment in water heaters monthly or per manufacturer's instructions.
- c. Have septic tank cleaned every 2 years.

VII. Heating and Cooling:

For comfort, efficiency, energy conservation and safety.

- a. Change or clean furnace filters, air condition filters, electronic filters as needed.
- b. Clean and service humidifier. Check periodically and annually.
- c. Have oil buring equipment serviced annually.

VIII. Interior

General house maintenance.

- a. Check bathroom tile joints, tub grouting and caulking. Be sure all tile joints in bathrooms are kept well sealed with tile grout to prevent damage to walls, floors, and ceilings below.
- b. Close crawl vents in winter and open in summer
- c. Check underside of roof for water stains, leaks, dampness & condensation, particularlyy in attics and around chimneys.

IX. Know the location of:

- -Main water shutoff valve.
- -Main emergency shutoff switch for the heating system.
- -Main electrical disconnect or breaker.