



NOTICE TO BUYER: SELLER-PROCURED INSPECTION REPORT

The following notice is given with respect to the Purchase and Sale Agreement dated _____
between _____ (“Buyer”)
and Kirby and AnneMarie Leung (“Seller”)
concerning 17504 NE 141st St, Redmond WA 98052 (“the Property”).

Seller has given or is giving Buyer a copy of an Inspection Report dated 04/11/2017 concerning the Property. The Inspection Report is intended to be a part of any Seller Disclosure Statement (NWMLS Form 17) that is provided in this transaction, whether or not the two documents are attached to each other. The Inspection Report was procured by Seller and is provided for informational and disclosure purposes only. It is not intended to constitute a warranty, either express or implied, about the condition of the Property. Buyer is advised to procure their own inspection from a professional inspector chosen by Buyer or hire the inspector that prepared the Inspection Report. Buyer has the opportunity to inspect the Property to Buyer’s satisfaction.

Seller DATE

Seller DATE

Buyer’s Acknowledgment of Receipt

The undersigned Buyer acknowledges receipt of the foregoing Notice and the above-referenced Inspection Report.

Buyer DATE

Buyer DATE

Kirby and AnneMarie Leung

17504 NE 141st St, Redmond WA 98052

Per the seller on 4/19/17, the following items from the inspection summary have been corrected:

6.4 FIRE SEPARATION 3. There are voids in the fire resistive barrier between the living space and garage that will allow flames to penetrate. The gypsum barrier slows the spread of a fire from the garage to the structure and/or living space.

7.8 SERVICE PANEL 7. Screws that secure the panel cover to the panel box are missing. This is a potential hazard. Missing screws should be replaced with the original style blunt end screws.

8. There is an electrical cable emanating from the service panel that is not clamped. The sharp edge of the panel box could cut through the wire insulation and cause a short circuit or fire. Clamping the cable to the panel box using an approved cable clamp is recommended.

9. Twist-outs are missing from the service panel cover. This exposes live conductors and is a shock hazard. The installation of snap-in replacement blanks is recommended.

7.11 RECEPTACLES 10. The polarity is reversed in receptacles in the garage. Reversed polarity means that the hot and neutral wires are reversed at the back of the receptacle. This defect is a shock hazard and can damage some electronic equipment. All receptacles exhibiting reversed polarity should be rewired.

There are several loose receptacles throughout the home. This is a potential shock and a fire hazard. All loose receptacles should be repaired as necessary.

7.12 GFCI RECEPTACLES 11. The installation of additional GFCI protection in the garage, in all bathrooms and exterior receptacles is recommended.

11.15 BATHTUB 14. The drain stop is not operational. It should be repaired or replaced.

3.1 PRIMARY EXTERIOR WALL CLADDING 3. There is a large gap in the wall adjacent the laundry room door.

3.8 VENT DAMPERS 6. The dryer duct back-draft damper is damaged at the termination

10.1 COUNTERTOPS 9. The backsplash is not caulked. Cracking of the grout allows water to enter the gap between the back splash and counter and is difficult to clean. Caulking should be installed at this location.

11.5 FLOORING MATERIAL 10. The caulking is missing at the intersection between the tub/shower and floor. Cracking of the grout can lead to water damage to the flooring and substrate. Caulking this area is recommended.

11.7 SINK 11. The left sink drain stop is not operational. It should be repaired or replaced.

11.11 COUNTERTOP 12. The backsplash is not caulked. This allows water to enter the gap between the back splash and counter and it is difficult to clean. Caulking should be installed at this location.

11.17 FLOORING MATERIAL 13. The grout is cracked at the intersection between the tub/shower and floor. This can lead to water damage to the flooring and substrate. Caulking this area with a flexible grout is recommended.

11.23 COUNTERTOP 14. The backsplash is not caulked. This allows water to enter the gap between the back splash and counter and it is difficult to clean. Caulking should be installed at this location.

11.29 SINK 15. The drain stop is missing. It should be replaced.

12.2 COUNTERTOP 16. The backsplash is not caulked. This allows water to enter the gap between the back splash and counter and it is difficult to clean. Caulking should be installed at this location.

Home inspection summary and details in proceeding pages.

April 12, 2017

Mr. & Mrs. AnneMarie & Kirby Leung
17504 NE 141st St.
Redmond, WA.

Re: 17504 NE 141st St.
Redmond, WA.

Dear AnneMarie & Kirby;

At your request, a visual inspection of the above referenced property was conducted on April 11, 2017. We have inspected the major structural components, plumbing, heating and electrical systems for signs of significant non-performance, excessive or unusual wear and general state of repair.

Clark Inspections inspectors, inspect all homes and buildings according to the stringent professional standards and code of ethics set forth by the American Society of Home Inspectors (ASHI). The ASHI standards are designed to identify and disclose to the client certain conditions of the major systems as these conditions exist at the time of the inspection. These standards are designed for a visual inspection of the readily accessible areas of the included system. A copy of these standards will be provided upon request or can be obtained by calling the ASHI automatic "Information-On-Demand" phone number at 1-800-743-2744

Home or building inspections performed under these standards should not be construed as a compliance inspection of any governmental or non-governmental codes or regulations. Inspections performed under these standards are essentially visual; are based on the experience and opinion of the inspector; and are not intended to be technically exhaustive. Inspections performed under these standards are not meant to be warranties nor guarantees of adequacy of performance of the structures, systems, or their component parts.

This inspection does not include an inspection for construction or other materials which might be hazardous to your health. It is possible that such materials may be present and not noted in this report.

This inspection does not include the testing or inspection of security systems, intercoms, communication systems, video, or sprinkler systems. These items are highly specialized and individualistic. Clark Inspections recommends that you have the seller and/or real estate agent/broker demonstrate the operation and serviceability of these systems to you prior to the closing of the sale.

Mechanical equipment is inspected for operability only and may contain undisclosed defects which may significantly impair it's usefulness.

Defects are examined and a determination is made on how a particular defect will affect interrelated building parts and whether immediate repairs are required.

Since all buildings have defects, it is important to know and understand what they are and how they affect the house and property. Some of the defects mentioned in this report may be quite typical, and found in other homes of comparable age and price. Some however, may not. We make our best attempt to distinguish this for you in both verbal and written reports.

REPORT SUMMARY

The comments in this report are categorized. General information is given on the type of materials and construction methods. Specific information is given pertaining to the condition of a component and applicable repair and maintenance work that may be required.

Statements, representations, or conclusions offered by the inspector are the considered opinion of the inspector, but these statements, representations, or conclusions do not constitute an expressed or implied warranty of any kind. Neither the inspector nor Clark Inspections Inc. shall be liable for any direct, special, incidental, or consequential damages under an circumstances whatsoever, whether arising in tort, negligence, or contract, nor for any loss, claim, expense, or damage caused by or arising out of his or its inspection of a structure, nor will the inspector or Clark Inspections Inc. indemnify or hold others harmless for any loss, claim, expense, or damage arising out of his or its inspection of a structure.

ACTION ITEMS, SIGNIFICANT DEFECTS AND/OR HEALTH AND SAFETY ISSUES

Non-operational (Action) items, safety or health issues, areas with limited viewing for proper inspection and components that do not serve their intended function (Significant Defects) are listed here. These items will likely require further evaluation and repair by licensed tradespeople.

Please Read entire report

BUILDING SITE

2.6 WALKWAY

1. The walking surface was not even and trip hazards were present. We recommend all walking surfaces be maintained free of trip hazards.



GARAGE

ATTACHED GARAGE

6.2 OVERHEAD GARAGE DOORS

2. The east overhead door is damaged. This is a cosmetic condition that does not affect the function of the door. The damaged door should be repaired as necessary.



6.4 FIRE SEPARATION

3. There are voids in the fire resistive barrier between the living space and garage that will allow flames to penetrate. The gypsum barrier slows the spread of a fire from the garage to the structure and/or living space.

Patching the voids is recommended.



6.5 PASSAGE DOOR

5. The door between the garage and living space is a fire rated door with a self closing hinge. The door was not installed at the time of the inspection, therefore its operation was not verified.

ELECTRICAL SYSTEM

7.3 SERVICE PANEL LOCATION

6. Access to the electrical panel is blocked by shelving. Shelves should be removed or modified so that there is a 30" wide by 36" deep by 7' tall clearance in front of the panel.



7.8 SERVICE PANEL

7. Screws that secure the panel cover to the panel box are missing. This is a potential hazard. Missing screws should be replaced with the original style blunt end screws.



8. There is an electrical cable emanating from the service panel that is not clamped. The sharp edge of the panel box could cut through the wire insulation and cause a short circuit or fire. Clamping the cable to the panel box using an approved cable clamp is recommended.



9. Twist-outs are missing from the service panel cover. This exposes live conductors and is a shock hazard. The installation of snap-in replacement blanks is recommended.



7.11 RECEPTACLES

10. The polarity is reversed in receptacles in the garage. Reversed polarity means that the hot and neutral wires are reversed at the back of the receptacle. This defect is a shock hazard and can damage some electronic equipment. All receptacles exhibiting reversed polarity should be rewired.

There are several loose receptacles throughout the home. This is a potential shock and a fire hazard. All loose receptacles should be repaired as necessary.

7.12 GFCI RECEPTACLES

11. The installation of additional GFCI protection in the garage, in all bathrooms and exterior receptacles is recommended.

HEATING SYSTEM

FORCED AIR HEATING SYSTEM

8.10 VENT

12. The furnace vent connector is too close to a combustible material. This is a hazard. A minimum clearance of 6" is required between the single wall vent connector and the combustible material. The double wall type B vent requires only 1" of clearance. Repairs are recommended.



KITCHEN

10.8 AIR GAP

13. The dishwasher drain lacks an air gap. The dishwasher will function without one, but there is a risk of contamination of the inside of the dishwasher by waste water. The installation of an air gap is recommended.



BATHROOMS

UPPER FLOOR HALLWAY BATHROOM

11.15 BATHTUB

14. The drain stop is not operational. It should be repaired or replaced.

PLUMBING SYSTEM

13.2 MAIN WATER SHUTOFF VALVE

15. The location of the main water shutoff valve was not determined. You should query the seller as to the location of the valve.

When there is no shutoff valve inside the house, the water must be shutoff at the water meter. This could be inconvenient in an emergency. Consideration should be given to installing a water shutoff valve in the house.

INTERIOR

14.8 SMOKE DETECTORS

16. There is a smoke detector in the hallway outside of the bedrooms. Additional smoke detectors should be installed inside the bedrooms near the door.

Smoke detectors are examined for location only. They are not tested. Smoke detector batteries should be replaced when you move in and every year thereafter. Once batteries have been replaced, the smoke detectors should be tested for proper operation.

FOR MAXIMUM PROTECTION: Use both Ionization and Photoelectric smoke alarms in every bedroom/hallway on every level of your home.

The installation of at least one carbon monoxide monitor for each floor is recommended. The best place to install the monitor is in an open area near the gas appliance.

MAINTENANCE ITEMS AND/OR COMPONENTS NEARING THE END OF THEIR SERVICE LIFE

Any item that in the opinion of the inspector is nearing the end of its normal service life and/or conditions that need repair, maintenance and/or upgrades, but have not affected basic functions are listed herein.

BUILDING SITE

2.4 DRIVEWAY

1. Cracks were observed in the concrete surface of the driveway. Minor cracks can be sealed to minimize moisture entry and further settlement of the concrete. Minor cracks are common and do not affect the serviceability of the concrete.



2. The driveway has cracked and settled differentially. This was probably caused by inadequate preparation of the soil prior to the placement of the concrete. This condition can be repaired by pressure grouting the sunken portion of the driveway or by removing and replacing it. The driveway remains functional despite this condition.

BUILDING EXTERIOR

3.1 PRIMARY EXTERIOR WALL CLADDING

3. There is a large gap in the wall adjacent the laundry room door. Consideration should be given to installing siding, flashing and/or caulk to prevent moisture or pest entry into these areas.



3.3 SOFFITS AND OVERHANGS

4. There are large gaps over 1/4" in size adjacent the soffit vent blocks. These gaps allow insects and rodents to enter the attic. Covering the gaps with screening, a strip of wood and/or caulking is recommended.



3.4 GUTTERS AND DOWNSPOUTS

5. There is a build-up of organic debris inside the gutters. Proper maintenance of gutters and downspouts is essential and should be performed routinely in order to prevent clogging. Maintenance consists primarily of keeping leaves and other organic debris out of the system. Failure to clean the gutters will result in water splash on the building when they overflow. Gutters can be damaged under the weight of the water and organic matter inside the gutter. Gutters should be cleaned as necessary to maintain a free flow of water into the downspouts.

3.8 VENT DAMPERS

6. The dryer duct back-draft damper is damaged at the termination. The installation of a hooded back-draft damper is recommended to prevent entry by rodents, birds insects, etc.



ROOF

4.4 CHIMNEYS

7. The chimney crowns are cracked. The mortar chimney crowns prevent water from entering and damaging the masonry. Repairing or replacing the chimney crowns will extend the service life of the chimneys.



WATER HEATER

9.6 EXPANSION TANK

8. The expansion tank is not adequately secured to the wall. This could result in damage to the water pipe and leakage during an earth quake. A seismic restraint should be installed to secure the expansion tank.

KITCHEN

10.1 COUNTERTOPS

9. The backsplash is not caulked. Cracking of the grout allows water to enter the gap between the back splash and counter and is difficult to clean. Caulking should be installed at this location.

BATHROOMS

MASTER BEDROOM BATHROOM

11.5 FLOORING MATERIAL

10. The caulking is missing at the intersection between the tub/shower and floor. Cracking of the grout can lead to water damage to the flooring and substrate. Caulking this area is recommended.

11.7 SINK

11. The left sink drain stop is not operational. It should be repaired or replaced.

11.11 COUNTERTOP

12. The backsplash is not caulked. This allows water to enter the gap between the back splash and counter and it is difficult to clean. Caulking should be installed at this location.

UPPER FLOOR HALLWAY BATHROOM

11.17 FLOORING MATERIAL

13. The grout is cracked at the intersection between the tub/shower and floor. This can lead to water damage to the flooring and substrate. Caulking this area with a flexible grout is recommended.

11.23 COUNTERTOP

14. The backsplash is not caulked. This allows water to enter the gap between the back splash and counter

and it is difficult to clean. Caulking should be installed at this location.



MAIN FLOOR POWDER ROOM

11.29 SINK

15. The drain stop is missing. It should be replaced.

LAUNDRY ROOM

12.2 COUNTERTOP

16. The backsplash is not caulked. This allows water to enter the gap between the back splash and counter and it is difficult to clean. Caulking should be installed at this location.

PLUMBING SYSTEM

13.4 INTERIOR WATER SUPPLY PIPES

17. There are water pipes in the crawlspace that are not adequately insulated and could freeze. The installation of foam pipe insulation on all exposed water pipes is recommended.

INSULATION

17.1 ATTIC INSULATION

18. The lower attic is insulated with blown in fiberglass insulation. The approximate R value of this insulation is 19. This provides moderate resistance to heat transfer. Adding additional insulation to achieve an R value of 30 is recommended to reduce heat loss through the ceilings.

There is a large thermal bypasses in the northwest corner of the attic. A thermal bypass is an opening between an insulated and uninsulated part of the house through which heated air can escape. As air is heated, it rises and pulls cool air in to the space to replace it. This condition will result in significant heat loss. Sealing up all thermal bypass routes is recommended. The installation of additional attic insulation is recommended.



CRAWLSPACE

19.4 VAPOR RETARDER

19. The support post concrete piers are covered with the plastic vapor retarder. This allows the transmission of water vapor from the soil up and into the floor framing. The plastic vapor retarder should be removed from the pier so that it covers the entire surface of the soil only.

20. The foundation walls are covered with the plastic vapor retarder. This allows the transmission of water

vapor from the soil up and into the exterior wall framing. The plastic vapor retarder should be removed from the foundation so that it covers the entire surface of the soil only.



21.



19.5 PEST CONTROL

22. Scrap-wood and other cellulose debris was observed on the crawl floor. This wood debris creates conducive conditions for wood boring insects. The removal of all cellulose debris is recommended.

Cellulose forms were left in place on the pier footings. This cellulose is conducive to the infestation of various wood destroying organisms. The removal of the cellulose is recommended.



Several of these items will likely require further evaluation and repair by licensed tradespeople. Other minor items are also noted in the report and could be mentioned but none of them affect the habitability of the house.

Thank you for selecting our firm to do your home inspection. If you have any questions regarding the inspection report or the home, please feel free to call us.

Sincerely,

Terry Clark
206-244-5339
Clark Inspections Inc.

Confidential Inspection Report

**17504 NE 141st St.
Redmond, WA**

April 11, 2017

Prepared for: AnneMarie & Kirby Leung

This report is the exclusive property of the inspection company and the client whose name appears herewith and its use by any unauthorized persons is prohibited.

Inspection Table of Contents

GENERAL INFORMATION	4
BUILDING SITE	6
BUILDING EXTERIOR	8
ROOF	9
ATTIC	10
GARAGE	10
ELECTRICAL SYSTEM	12
HEATING SYSTEM	14
WATER HEATER	15
KITCHEN	16
BATHROOMS	18
LAUNDRY ROOM	20
PLUMBING SYSTEM	21
INTERIOR	22
FIREPLACES, WOOD STOVES AND SPACE HEATERS	23
ENVIRONMENTAL ISSUES	24
INSULATION	25
STRUCTURE	26
CRAWLSPACE	27

4/12/2017

**Mr. & Mrs. AnneMarie & Kirby Leung
17504 NE 141st St.
Redmond,WA**

Dear AnneMarie & Kirby,

Thank you for inviting to inspect for you. We appreciate having the opportunity to perform this home inspection and are happy to help with all of your inspection needs. Enclosed is our report for the property located at;

17504 NE 141st St.

We have inspected the major structural components, plumbing, heating, and electrical systems for signs of significant non-performance, excessive or unusual wear and general state of repair.

This inspection report is designed to be easy to understand. Please take time to review it carefully. If you have any questions regarding this inspection, or receive information from another building inspection professional, contractor, or tradesperson, that is in conflict with this report, or any major defect in your home or building that was not described in your verbal or written reports, please call our office immediately. We are happy to answer any questions you may have.

Thank you for the opportunity to be of service.

Sincerely,

Terry Clark

GENERAL INFORMATION

CLIENT & SITE INFORMATION:

1.1 DATE OF INSPECTION:

4/11/2017.

1.2 INSPECTOR'S NAME:

Terry Clark.

1.3 CLIENT NAME:

Mr. & Mrs. AnneMarie & Kirby Leung.

1.4 MAILING ADDRESS:

17504 NE 141st St.
Redmond WA.

1.5 CLIENT E-MAIL ADDRESS

[annemarieleung@gmail.com.](mailto:annemarieleung@gmail.com)

1.6 ADDRESS OF PROPERTY INSPECTED

17504 NE 141st St.
Redmond WA.



South elevation

CLIMATIC CONDITIONS:

1.7 WEATHER:

Partly Cloudy.

1.8 APPROXIMATE OUTSIDE TEMPERATURE:

54 degrees.

BUILDING CHARACTERISTICS:

1.9 MAIN ENTRY FACES:

South.

1.10 ESTIMATED AGE OF BUILDING:

The building is approximately 32 years old.

1.11 BUILDING TYPE:

Two story single family residence.

1.12 SPACE BELOW GRADE:

Crawlspace.

SCOPE, PURPOSE AND LIMITATIONS

1.13 RESIDENTIAL

The purpose of this inspection was to discover and evaluate major defects, deficiencies and deferred maintenance found in the main components of the house and in the building site immediately around the building inspected. A major defect or deficiency is a system or component that in the judgment of the inspector, would cost in excess of \$500.00 to repair or replace, is not performing its intended function, or adversely affects the habitability of the dwelling or building. Defects are examined and a determination is made on how a particular defect will affect interrelated building parts and whether immediate repairs are required.

The major components in this report are categorized. General information is given on the type of materials and construction methods. Specific information is given pertaining to the condition of a component and applicable repair and maintenance work that may be required.

Since all buildings have defects, it is important to know and understand what they are and how they affect the house and property. Some of the defects mentioned in this report may be quite typical, and found in other homes of comparable age and price. Some, however, may not. We make our best attempt to distinguish this for you in both the verbal and written reports.

Clark Inspections inspectors inspect all homes and buildings according to the stringent professional standards and code of ethics set forth by the American Society of Home Inspectors (ASHI). The ASHI standards are designed to identify and disclose to the client certain conditions of the major systems as these conditions exist at the time of the inspection. These standards are designed for a visual inspection of the readily accessible areas of the included system. A copy of these standards will be provided upon request or can be obtained by calling the ASHI automatic "Information-On-Demand" phone number at 1-800-743-2744.

Home or building inspections performed under these standards should not be construed as a compliance inspection of any governmental or non-governmental codes or regulations. Inspections performed under these standards are essentially visual; are based on the experience and opinion of the inspector; and are not intended to be technically exhaustive. Inspections performed under these standards are not meant to be warranties nor guarantees of adequacy of performance of the structures, systems, or their component parts.

This inspection does not include an inspection for construction or other materials which might be hazardous to your health. It is possible that such materials may be present and not noted in this report.

This inspection does not include the testing or inspection of security systems, intercoms, communication systems, video, or sprinkler systems. These items are highly specialized and individualistic. Clark Inspections recommends that you have the seller and/or real estate agent/broker demonstrate the operation and serviceability of these systems to you prior to the closing of the sale.

Mechanical equipment is inspected for operability only and may contain undisclosed defects which may significantly impair its usefulness.

Statements, representations, or conclusions offered by the inspector and/or by Clark Inspections are based solely upon a visual examination of the exposed areas of the structure inspected. Areas of the structure which are not exposed to the naked eye cannot be inspected, and no conclusions, representations, or statements offered by the inspector are intended to relate to areas not exposed to view. Hidden defects could have a significant impact on the visually based conclusions, statements, and representations made by the inspector.

Statements, representations, or conclusions offered by the inspector are the considered opinion of the inspector, but these statements, representations, or conclusions do not constitute an expressed or implied warranty of any kind. Neither the inspector nor Clark Inspections shall be liable for any direct, special, incidental, or consequential damages under any circumstances whatsoever, whether arising in tort, negligence, or contract, nor for any loss, claim, expense, or damage caused by or arising out of his or its inspection of a structure, nor will the inspector or Clark Inspections indemnify or hold

others harmless for any loss, claim, expense, or damage arising out of his or its inspection of a structure.

If you receive information from another building inspection professional, contractor or trades person that is in conflict with ours, or if you discover a major defect in your home or building that was not described in your verbal or written reports, please call us immediately.

NOTE: WAC 16-228-2045 requires that a diagram identifying the location of wood destroying organisms be prepared for wood destroying organism inspection reports. A copy of this diagram will be made available to you upon request.

GENERAL COMMENTS

1.14 RECOMMENDATIONS

Certain building designs and/or building site topography may not qualify for earthquake insurance. Each company has its own underwriting policies. You should check with your insurance agent to determine whether or not your insurance company will write an earthquake policy on this property.

There may be information pertinent to this property which is a matter of public record. A search of public records is not within the scope of this inspection. We recommend you review all applicable public records that pertain to this property.

We make no representations as to the extent of presence of code violations, nor do we warrant the legal use of this building. This information can be obtained from the local building and/or zoning department.

1.15 BUILDING CODES

A code is a system of rules and procedures, the purpose of which is to provide minimum standards to safeguard life, health, and property by regulating certain aspects of building design, construction, use and maintenance. Local codes are usually based on model codes. A community may amend or adopt only parts of a model code. These local codes may not always be the latest version of the model code. Code enforcement is nearly always a local government responsibility and is handled in several ways depending on the type of code and community involved. All model codes and most local codes, grant the code compliance inspector or building official the right to interpret the code to suit special situations. This makes the building official the final authority, not the code book.

Answering the question "Does this meet code?" depends on the building's age, when remodels and upgrades were performed and which codes if any are enforced. This information may not be readily available to the home inspector. Private inspectors usually can determine if an item complies with applicable national model codes, if they know when the work was done and what code was applicable at that time. Local municipalities adopt and enforce national model codes at their discretion. Private building inspectors are typically not permitted to perform code compliance inspections. Code compliance inspections are typically performed by the local code enforcement official. Private building inspectors check to determine whether or not an item performs its intended function or is in need of repair.

Code enforcement usually is a local question and subject to the interpretation by the building code enforcement official. Most communities do not require an existing building to meet "code" prior to sale.

Specific code questions can be referred to the local building official. however, you must realize that if city inspectors check a building, they have the authority to require corrections of any violation. Private building inspectors act solely in an advisory capacity. Their objective reports are a tremendous benefit to anyone purchasing or selling real estate.

BUILDING SITE

The evaluation of the building site and grounds includes grading, roof water and surface drainage systems, fencing, gates, walkways, curbs, driveways, patios, and retaining walls connected to or directly adjacent the structure. These items are visually examined for proper function, excessive or unusual wear and general state of repair. Components or portions of components may not be visible because of soil, vegetation, storage of personal effects and/or the nature of construction. In such cases these items are considered inaccessible and are not inspected. Lawn irrigation systems, fountains, and low voltage decorative garden lights are not included in this inspection.

The following components were inspected:

2.1 ROOF WATER DRAIN SYSTEM

A below grade roof water drain system is used to divert rain water discharged from the downspouts away from the foundation wall. Below grade drain system designs vary and it is virtually impossible to evaluate the integrity of the system definitively, due to the fact that it is entirely underground. There is a high incidence of defects in these systems, due to the fact that historically, very few municipalities inspected or enforced design or quality standards.

Representative samples of the roof water drain system were tested by inserting a hose into the drain inlet and then letting it run for 10 minutes. There was no water back-up or overflow from the drain line inlets tested.

Defects in these drain systems are one of the most common causes of water or moisture problems in ground floor occupancies, basements and crawlspaces. Overflowing gutters and clogged downspouts and scuppers also frequently cause or exacerbate moisture or water entry problems in and around the building. If water entry or moisture problems are discovered, check the entire roof water drain system to insure that it is functioning properly.

Occasionally, (once a year) flushing out the drain lines with a garden hose will reduce the build-up of debris and sludge which could impede drainage. This type of maintenance is most effective if the end of the drain line terminates in open air or in a storm sewer. If the drain line terminates in a dry well or leach field, then the washing of debris down the line is not advisable. The debris may eventually clog the perforations in the line which allow the water to escape. This could render the drain system inoperative. It is always best to prevent debris from entering at the inlet.

2.2 GRADING

The building site is well drained. The finish grade slopes away from the house. No evidence of recent building site flooding, drainage or soil stability problems was observed.

2.3 VEGETATION

Dense shrubbery and trees planted too close to the building can damage siding and the roof overhang and interfere with drainage and air movement, thus promoting fungus growth and accelerated deterioration of exterior finishes and wood. Trees and shrubs in contact with the building also provide carpenter ants with a route into walls or attics. Trees and shrubs should be trimmed back, where required. When landscaping, trees and shrubs should be planted back away from the building so that they have room to grow.

2.4 DRIVEWAY

Cracks were observed in the concrete surface of the driveway. Minor cracks can be sealed to minimize moisture entry and further settlement of the concrete. Minor cracks are common and do not affect the serviceability of the concrete.



The driveway has cracked and settled differentially. This was probably caused by inadequate preparation of the soil prior to the placement of the concrete. This condition can be repaired by pressure grouting the sunken portion of the driveway or by removing and replacing it. The driveway remains functional despite this condition.



2.5 PATIO

The masonry patio is properly installed and is performing its intended function.

2.6 WALKWAY

The walking surface was not even and trip hazards were present. We recommend all walking surfaces be maintained free of trip hazards.



2.7 FENCES AND GATES

The fences are properly installed and are performing their intended function. The gates are properly installed and are performing their intended function.

BUILDING EXTERIOR

The evaluation of the building exterior includes the paint, stain, siding, windows, doors, flashing, trim, fascia, eaves, soffits, decks, porches balconies and railings. These items are visually examined for proper function, excessive or unusual wear and general state of repair. Components or portions of components may not be visible because of soil, vegetation, storage of personal effects and/or the nature of construction. In such cases these items are considered inaccessible and are not inspected.

The following components were inspected:

3.1 PRIMARY EXTERIOR WALL CLADDING

Cedar lap siding is used as an exterior wall cladding. Cedar is a wood that is durable and moderately resistant to decay. Maintaining the finish on the exposed siding will maximize its service life. The siding shows minor wear and deterioration typically caused when the exterior finish is not maintained. The deterioration is cosmetic and does not affect the function of the siding. No action is indicated.

There is a large gap in the wall adjacent the laundry room door. Consideration should be given to installing siding, flashing and/or caulk to prevent moisture or pest entry into these areas.



3.2 PEST CONTROL

Good building practice requires that foundation walls or pier footings supporting wood frame construction, extend at least 8" above the finish grade with at least a 6" clearance between the top of the soil and the bottom of the wood finish materials. Soil in direct contact with wood creates a hospitable environment for wood destroying organisms. These minimum standards should be maintained throughout the building exterior.

3.3 SOFFITS AND OVERHANGS

The building has adequate overhangs. Overhangs protect the exterior walls, windows, doors, siding and exterior finish from the ravages of direct rain fall. Buildings with adequately sized overhangs will generally require less frequent exterior maintenance and are less likely to suffer from moisture related problems on the exterior walls.

There are large gaps over 1/4" in size adjacent the soffit vent blocks. These gaps allow insects and rodents to enter the attic. Covering the gaps with screening, a strip of wood and/or caulking is recommended.



3.4 GUTTERS AND DOWNSPOUTS

Roof runoff is collected and channeled into the downspouts by aluminum gutters fastened to the rafter tails. The gutters and downspouts are properly installed and are performing their intended function. Gutters should be cleaned regularly to prevent clogging and overflow.

There is a build-up of organic debris inside the gutters. Proper maintenance of gutters and downspouts is essential and should be performed routinely in order to prevent clogging. Maintenance consists primarily of keeping leaves and other organic debris out of the system. Failure to clean the gutters will result in water splash on the building when they overflow. Gutters can be damaged under the weight of the water and organic matter inside the gutter. Gutters should be cleaned as necessary to maintain a free flow of water into the downspouts.

The downspouts are properly installed and are functioning as intended.

3.5 PAINT

The exterior paint and caulking is in good condition and is functioning as intended. Paint protects the wood from cupping, checking, warping and rot.

3.6 PORCH

The front porch is in good condition.

3.7 EXTERIOR DOORS

The exterior doors are properly installed and are functioning as intended.

3.8 VENT DAMPERS

The dryer duct back-draft damper is damaged at the termination. The installation of a hooded back-draft damper is recommended to prevent entry by rodents, birds insects, etc.



ROOF

We evaluate the condition of the roof system by inspecting the roofing material, skylights, flashings, penetrations and roof water drainage system for damage and deterioration. If we observe conditions such as damage, deterioration, defects in materials or workmanship, these items will be noted in your report. We may also offer opinions concerning repair and replacement. Opinions stated herein concerning the condition of the roof and roof service life are based on the condition of the roof system at the time of the inspection. These opinions do not constitute a warranty that the roof is, or will remain, free of leaks. All roof systems require annual maintenance and occasional repair. Failure to perform routine roof maintenance will usually result in leaks and accelerated deterioration of the roofing material. Our estimate of the life expectancy of the roof is based on the assumption that the roof will be properly repaired and maintained during that period.

The following components were inspected:

4.1 GENERAL INFORMATION

The roofing material is a medium grade hand split cedar shake. The slope or pitch of the roof is medium. Metal gutters are used to collect the roof water drainage. The roof is approximately 7 years old.

4.2 INSPECTION METHOD

The inspection of this roof was conducted from the roof surface. The inspector walked on the roof and made a visual inspection of the components listed below.

4.3 SKYLIGHTS

The skylights are properly installed and there was no evidence of leakage underneath them.

4.4 CHIMNEYS

The visible portions of the masonry chimneys are properly constructed and are in good condition.

The chimney crowns are cracked. The mortar chimney crowns prevent water from entering and damaging the masonry. Repairing or replacing the chimney crowns will extend the service life of the chimneys.



4.5 GAS APPLIANCE VENTS

The visible portion of the gas appliance type B vent is properly installed and in good condition.

4.6 FLASHINGS

Metal flashings are used to seal around chimneys, vents and roof to wall intersections. The flashings are properly installed and are performing their intended function.

4.7 GENERAL COMMENTS

The roofing material was properly installed and is in serviceable condition. With proper care and maintenance this roof should remain serviceable for up to 15 more years.

ATTIC

The attic contains the roof framing and serves as a raceway for components of the plumbing, electrical and mechanical systems. There are often heating ducts, bathroom vent ducts, electrical wiring, chimneys and gas appliance vents in the attic. We examine the visible portions of the various systems and components for proper function, excessive or unusual wear, general state of repair, roof leakage, attic venting and misguided improvements. When low clearance and/or deep insulation prohibit walking in an unfinished attic, inspection will be performed from the access opening only.

The following components were inspected:

5.1 ACCESS

The attic access holes are located in the laundry room and in the upper hallway east bedroom closet. The attic was entered and inspected from within.

5.2 VENTILATION

The attic is adequately vented.

5.3 MECHANICAL VENTILATION SYSTEMS

The visible portions of the air ducts for the bathroom fans are properly installed and are performing their intended function.

5.4 PEST CONTROL

The first step in preventing rodents from entering the attic is to seal all possible entry points using wire mesh, caulking, wood, stainless steel wool, or aerosol foam. Careful work sealing cracks, holes and gaps over 1/4" in size will discourage activity.

GARAGE

The garage often contains major components of the plumbing, heating and electrical systems. These components are discussed under their respective headings. Components that were tested and/or inspected in the garage and reported here include the garage floor, overhead door(s), automatic openers and fire resistive barriers.

ATTACHED GARAGE - The following components were inspected:

6.1 GARAGE FLOOR

There are small shrinkage cracks visible in the concrete, however, there is no vertical displacement of any portion of the slab. Shrinkage cracks are common in garage floors and are not considered a structural defect. The garage floor is properly

installed and is functioning as intended.

6.2 OVERHEAD GARAGE DOORS

The garage is fitted with a pair of roll-up doors. The garage doors are properly installed and are performing their intended function.

There is no automatic garage door opener for the east door. The door must be opened manually.

The east overhead door is damaged. This is a cosmetic condition that does not affect the function of the door. The damaged door should be repaired as necessary.



6.3 GARAGE DOOR OPENER

The garage door opener was tested and was functional. The auto stop reverse safety switch was functioning as intended.

6.4 FIRE SEPARATION

There are voids in the fire resistive barrier between the living space and garage that will allow flames to penetrate. The gypsum barrier slows the spread of a fire from the garage to the structure and/or living space. Patching the voids is recommended.



6.5 PASSAGE DOOR

The door between the garage and living space is a fire rated door with a self closing hinge. The door was not installed at the time of the inspection, therefore its operation was not verified.

6.6 RECEPTACLES

There are unprotected receptacles in the garage. The installation of GFCI protection for all of the garage receptacles is recommended.

The polarity is reversed in receptacles in the garage. Reversed polarity means that the hot and neutral wires are reversed at the back of the receptacle. This defect is a shock hazard and can damage some electronic equipment. All receptacles exhibiting reversed polarity should be rewired.

ELECTRICAL SYSTEM

An electrical system consists of the service, distribution, wiring and convenience outlets (switches, lights and receptacles). Our examination of the electrical system includes the exposed and accessible wiring, service panels, subpanels, overcurrent protection devices, light fixtures and all accessible wall receptacles. We look for adverse conditions such as improper installation of aluminum wiring, lack of grounding, overfusing, exposed wiring, open-air wire splices, reversed polarity and defective GFCIs. The hidden nature of the electrical wiring prevents inspection of every length of wire. Telephone, video, audio, security system and other low voltage wiring is not included in this inspection. We recommend you have the seller demonstrate the serviceability of these systems to you.

The following components were inspected:

7.1 ELECTRICAL SYSTEM SPECIFICATIONS

The voltage is 120/240 single phase three wire service. The power is delivered to this building via an underground service lateral. The amperage rating of this service is 200. Copper wire is used throughout the building. Non-metallic sheathed cable (Romex) is the type of wiring used throughout the house. The grounding of the service is provided by two driven rods.

7.2 UNDERGROUND SERVICE LATERAL

The underground service lateral was not visible for inspection. However, there was 120/240 volt power to the building which suggests that it is functioning as intended.

7.3 SERVICE PANEL LOCATION

The service panel is located in the garage.

Access to the electrical panel is blocked by shelving. Shelves should be removed or modified so that there is a 30" wide by 36" deep by 7' tall clearance in front of the panel.



7.4 MAIN DISCONNECT LOCATION

The main disconnect is an integral part of the service panel. The ampacity of the main disconnect is 200 amps.

7.5 SERVICE ENTRANCE CONDUCTORS/CABLES/RACEWAYS

The service entrance conductors are 4/0 aluminum and have an ampacity of 200 amps. The service entrance conductors are properly installed and in serviceable condition.

7.6 SERVICE AMPACITY

The capacity of the electrical service is 200 amps. A 200 amp service is adequate for this house with the existing electrical equipment. There is also room to add additional circuits if necessary.

7.7 SERVICE GROUNDING AND BONDING

The service grounding electrode conductor attachment point was not visible for inspection. The adequacy of the service ground was not determined. The evaluation of this connection may require removal of finish materials and is beyond the scope of this inspection.

7.8 SERVICE PANEL

The electrical service panel is properly installed and in serviceable condition except where noted below.

Screws that secure the panel cover to the panel box are missing. This is a potential hazard. Missing screws should be replaced with the original style blunt end screws.



There is an electrical cable emanating from the service panel that is not clamped. The sharp edge of the panel box could cut through the wire insulation and cause a short circuit or fire. Clamping the cable to the panel box using an approved cable clamp is recommended.



Twist-outs are missing from the service panel cover. This exposes live conductors and is a shock hazard. The installation of snap-in replacement blanks is recommended.



7.9 OVER CURRENT PROTECTION

Circuit breakers are used for over current protection. The circuit breakers are properly installed and the ampacity of the connected wires is compatible with that of the circuit breakers. The circuit breakers were not tested.

7.10 WIRING

There were no defects observed in the visible and accessible wiring.

7.11 RECEPTACLES

All of the readily accessible receptacles were tested. Testing revealed defects requiring repair. These defects are outlined below.

The polarity is reversed in receptacles in the garage. Reversed polarity means that the hot and neutral wires are reversed at the back of the receptacle. This defect is a shock hazard and can damage some electronic equipment. All receptacles exhibiting reversed polarity should be rewired.

There are several loose receptacles throughout the home. This is a potential shock and a fire hazard. All loose receptacles should be repaired as necessary.

7.12 GFCI RECEPTACLES

A ground fault circuit interrupter (GFCI) is a device that detects ground faults (current leakage to ground). It protects you from electrocution. GFCI protection is required for receptacles in bathrooms, kitchens, garages, unfinished basements, crawlspaces and at exterior receptacles.

The installation of additional GFCI protection in the garage, in all bathrooms and exterior receptacles is recommended.

7.13 LIGHTS

All of the accessible lights were tested and were found to be functional.

7.14 SWITCHES

All of the accessible switches were tested and were found to be properly wired and functional.

HEATING SYSTEM

A natural gas, propane or oil fired furnace or boiler consists of the self contained furnace or boiler, ducts or pipes for heated air or water distribution, thermostats for regulating the amount of heat and a vent system for removing the combustion gases from the building. The readily accessible portions of these items are examined for defects and are tested using normal operator controls. Most heating systems should be serviced annually by a qualified service technician. Failure to perform regular maintenance will affect the reliability of the heating system and will reduce service life.

FORCED AIR HEATING SYSTEM - The following components were inspected:

8.1 GENERAL INFORMATION

Heat is provided by a natural gas fired forced air furnace. The furnace is located in the garage. The furnace is approximately 4 years old. The input rating of the furnace is 80,000 BTU. This BTU rating is typical of a home of this size and age.

8.2 GAS PIPING

The flex connector is properly installed and is performing its intended function.

8.3 AUTOMATIC GAS VALVE

The automatic gas valve or safety valve is designed to prevent the emission of fuel into the furnace if it does not detect heat for ignition. These valves are generally very reliable. The automatic gas valve was functioning as intended.

8.4 IGNITION

The furnace uses an electronic spark ignition. This component was functioning as intended.

8.5 BURNERS

The gas burners are properly installed and are functioning as intended.

8.6 COMBUSTION AIR

The combustion air provides the oxygen for the fuel burning appliances. Combustion air also aids in the movement of combustion gases up the flue. Adequate ventilation around all fuel burning appliances is vital for their safe operation. The air can come from inside the house or from outside providing that the amount of air reaching the appliance is sufficient to maintain efficient combustion and draft. The combustion air supply is adequate.

8.7 ELEVATION ABOVE GARAGE FLOOR

The burners in the furnace are elevated at least 18" above the garage floor in accordance with industry standards. This elevation prevents ignition of gasoline fumes that might leak from cars, lawn mowers, gas cans, etc.

8.8 HEAT EXCHANGER

The heat exchanger is not visible without disassembling and removing it from the furnace. Cracks typically develop in heat exchangers after 10-20 years. Have your gas furnace technician check the heat exchanger during the next major service.

8.9 DRAFT INDUCER

The draft inducer pulls the combustion gases through the heat exchanger and pushes them up the vent connector into the flue. The draft inducer was functioning as intended.

8.10 VENT

The furnace vent connector is too close to a combustible material. This is a hazard. A minimum clearance of 6" is required between the single wall vent connector and the combustible material. The double wall type B vent requires only 1" of clearance. Repairs are recommended.



8.11 BLOWER

The blower draws air from the return air ducts and pushes it over the heat exchanger where it is heated. The air is then pushed through the distribution ducts into the rooms. The blower was tested and was functioning as intended.

8.12 AIR FILTER

An electronic or electrostatic air filter is used to remove dust. Electronic air filters remove dust and microscopic particles such as smoke and pollen from the air. Microscopic dust particles are forced to adhere to collector plates because of the electric charges imparted by the filter. These filters are typically found on high quality heating systems.

There are typically four removable parts that require cleaning; two prefilters and two electronic filter cartridges. These components should be cleaned once or twice a year. More often in dusty or smoky environments. They can be placed in the dishwasher or soaked in a hot soapy water solution in a laundry sink or bathtub. They should be rinsed and dried before reinstallation.

Most filters have an on and off switch and a test button on the front of the unit. Turn off the switch on the unit for 5-10 minutes before removal of filters. After cleaning and reassembly, the switch should be turned back on and the test button pushed. An arcing sound means the unit is functioning. Testing revealed that the electronic air filter is functional.

8.13 DUCTS

The ducts are constructed out of sheet metal and flex duct. The ducts are properly installed and are performing their intended function.

8.14 THERMOSTAT

The thermostat is properly installed and the unit responded to the basic controls. This is a programmable device with options for automatic temperature settings (up and down). Testing the automatic operations of this thermostat is beyond the scope of this inspection.

8.15 GENERAL COMMENTS

The furnace responded to the thermostats call for heat and all major components were functional. This type of furnace should be serviced annually.

WATER HEATER

Our review of water heaters includes the tank, gas and/or water connections, electrical connections, venting and safety valves. These items are examined for proper function, excessive or unusual wear, leakage and general state of repair. The hidden nature of piping and venting prevents inspection of every pipe, joint, vent and connection.

The following components were inspected:

9.1 LOCATION OF UNIT

The water heater is located in the garage.

9.2 GENERAL INFORMATION

The water heater fuel is natural gas. The capacity of the water heater is 50 gallons. The input rating of the burner is approximately 38,000 BTU. The water heater is approximately 6 years old. Water heaters of this type typically last about 10-15 years.

9.3 PRESSURE RELIEF VALVE

The pressure relief valve is properly installed. The valve was not tested, as this could cause the valve to leak.

9.4 SHUTOFF VALVE

The shutoff valve for the water supply to the water heater is properly installed and is functioning as intended.

9.5 WATER CONNECTIONS AT TANK

The water connections at the tank are properly installed and are performing their intended function.

9.6 EXPANSION TANK

The expansion tank has an air pocket inside that compresses as the water is heated. It prevents the pressure relief valve from leaking as the water is heated.

The expansion tank is not adequately secured to the wall. This could result in damage to the water pipe and leakage during an earth quake. A seismic restraint should be installed to secure the expansion tank.

9.7 AUTOMATIC GAS VALVE

The automatic gas valve or safety valve is designed to prevent the emission of fuel into the appliance if it does not detect heat for ignition. These valves are generally very reliable. The automatic gas valve was functioning as intended.

9.8 BURNER

The gas burner is properly installed and is functioning as intended.

9.9 GAS PIPING

The flex connector is properly installed and is performing its intended function.

9.10 VENT

The vent connector from the water heater to the B vent is properly installed and is functioning as intended.

9.11 COMBUSTION AIR

The combustion air provides the oxygen for the fuel burning appliances. Combustion air also aids in the movement of combustion gases up the flue. Adequate ventilation around all fuel burning appliances is vital for their safe operation. The air can come from inside the house or from outside providing that the amount of air reaching the appliance is sufficient to maintain efficient combustion and draft. The combustion air supply is adequate.

9.12 SEISMIC RESTRAINT

The water heater is secured to the wall. This prevents it from falling over during an earthquake and rupturing gas and water lines.

9.13 ELEVATION ABOVE GARAGE FLOOR

The burner of the water heater is elevated at least 18" above the garage floor in accordance with industry standards. This elevation prevents ignition of gasoline fumes that might leak from cars, lawn mowers, gas cans, etc.

9.14 GENERAL COMMENTS

The water heater is performing its intended function.

KITCHEN

The kitchen was inspected for proper function of components, active leakage, excessive or unusual wear and general state of repair. We inspect built-in appliances using normal operating controls. This includes running the dishwasher, operating the garbage disposal and microwave and checking the burners or heating elements in the stove and oven. Accuracy and/or function of clocks, timers, temperature controls and self cleaning functions on ovens is beyond the scope of our testing procedure. Refrigerators are not tested or inspected unless specifically noted.

The following components were inspected:

10.1 COUNTERTOPS

The countertops are covered with granite tile. The counter tops are properly installed and are in good condition.

The backsplash is not caulked. Cracking of the grout allows water to enter the gap between the back splash and counter and is difficult to clean. Caulking should be installed at this location.

10.2 CABINETS

The finish on the kitchen cabinets is slightly worn. The cabinets are otherwise in good condition.

10.3 FLOORING MATERIAL

The floor is covered with hardwood. The floor is properly installed and is in good condition.

10.4 VENTILATION

Ventilation in the kitchen is provided by a fan built into the bottom of the microwave oven over the stove. The vent is ducted to the exterior. The vent fan is properly installed and is performing its intended function.

10.5 SINK FAUCET

The sink faucet is properly installed and is in good condition.

10.6 SINK

The sink is worn but remains in serviceable condition.

10.7 DRAINS, TRAPS AND TRAP ARMS

The sink drain is properly installed and is performing its intended function.

10.8 AIR GAP

The dishwasher drain lacks an air gap. The dishwasher will function without one, but there is a risk of contamination of the inside of the dishwasher by waste water. The installation of an air gap is recommended.



10.9 RANGE

The range was tested and was functioning as intended.

10.10 OVEN

The oven was tested and was functioning as intended.

10.11 DISHWASHER

The dishwasher was tested and was functioning as intended.

10.12 GARBAGE DISPOSAL

The garbage disposal was tested and was functioning as intended.

10.13 REFRIGERATOR

The refrigerator is functioning as intended.

BATHROOMS

Our inspection of the bathrooms consists of testing of the plumbing fixtures for condition and function. Defects such as leaks, cracked or damaged sinks, tubs and toilets will be listed under the heading of the bathroom in which they were found. The bathroom floor, tub and shower walls are examined for water damage. Ventilation fans are tested for proper operation. Cabinets and countertops are examined for excessive wear and deterioration. Hydromassage tubs are tested and the pump and related equipment are examined when accessible.

BATHROOM

11.1 LOCATION

Master Bedroom.

11.2 SHOWER

The shower walls are properly installed and are in good condition. Most ceramic tile is applied directly over gypsum board rather than on a concrete board such as "Durock" or "Wonder Board". Where the tile is applied directly over the gypsum board, it is critical that the tile grout be maintained to prevent water intrusion behind the tile. Missing or cracked grout should be repaired. Inside corners, and penetrations in the tile should be kept sealed with a high quality caulk.

The shower pan was tested by filling it with water and letting it stand for 20 minutes. There was no evidence of leakage underneath.

11.3 BATHTUB

The bathtub is properly installed and is in good condition.

11.4 TUB WALLS

The tile around the bathtub is in good condition.

11.5 FLOORING MATERIAL

The floor is covered with ceramic tile. The tile is properly installed and is in good condition.

The caulking is missing at the intersection between the tub/shower and floor. Cracking of the grout can lead to water damage to the flooring and substrate. Caulking this area is recommended.

11.6 TOILET

The toilet was flushed and was functioning as intended.

11.7 SINK

The bathroom sinks are properly installed and are in good condition.

The left sink drain stop is not operational. It should be repaired or replaced.

11.8 DRAINS, TRAPS AND TRAP ARMS

The sink drains are properly installed and are performing their intended function.

11.9 FAUCET FIXTURES

The faucet fixtures were tested and were functioning as intended.

11.10 CABINETS

The finish on the bathroom cabinet is slightly worn. The cabinet is otherwise in good condition.

11.11 COUNTERTOP

The countertop is covered with plastic laminate. The countertop is properly installed and in good condition.

The backsplash is not caulked. This allows water to enter the gap between the back splash and counter and it is difficult to

clean. Caulking should be installed at this location.

11.12 VENTILATION

Ventilation in this bathroom is provided by a ceiling fan. This fan was operated and was found to be working satisfactorily.

11.13 GFCI RECEPTACLES

There are no GFCI protected receptacles in this bathroom. The installation of GFCI protection is recommended.

BATHROOM

11.14 LOCATION

Upper Floor Hallway.

11.15 BATHTUB

The bathtub is properly installed and is in good condition.

The drain stop is not operational. It should be repaired or replaced.

11.16 TUB WALLS

The tub walls are properly installed and are in good condition. Most ceramic tile is applied directly over gypsum board rather than on a concrete board such as "Durock" or "Wonder Board". Where the tile is applied directly over the gypsum board, it is critical that the tile grout be maintained to prevent water intrusion behind the tile. Missing or cracked grout should be repaired. Inside corners, and penetrations in the tile should be kept sealed with a high quality caulk.

11.17 FLOORING MATERIAL

The floor is covered with ceramic tile. The tile is properly installed and is in good condition.

The grout is cracked at the intersection between the tub/shower and floor. This can lead to water damage to the flooring and substrate. Caulking this area with a flexible grout is recommended.

11.18 TOILET

The toilet was flushed and was functioning as intended.

11.19 SINK

The bathroom sink is properly installed and is in good condition.

11.20 DRAINS, TRAPS AND TRAP ARMS

The sink drain is properly installed and is performing its intended function.

11.21 FAUCET FIXTURES

The faucet fixture was tested and was functioning as intended.

11.22 CABINETS

The finish on the bathroom cabinet is slightly worn. The cabinet is otherwise in good condition.

11.23 COUNTERTOP

The countertop is a manufactured acrylic material. The countertop is properly installed and in good condition.

The backsplash is not caulked. This allows water to enter the gap between the back splash and counter and it is difficult to clean. Caulking should be installed at this location.



11.24 VENTILATION

Ventilation in this bathroom is provided by a ceiling fan. This fan was operated and was found to be working satisfactorily.

11.25 GFCI RECEPTACLES

A ground fault circuit interrupter (GFCI) is a device that detects ground faults (current leakage to ground). It protects you from electrocution. GFCI protection is required for receptacles in bathrooms, kitchens, garages, unfinished basements, crawlspaces and at exterior receptacles. GFCI protected receptacles were found in this bathroom.

BATHROOM**11.26 LOCATION**

Main Floor, Powder Room.

11.27 FLOORING MATERIAL

The floor is covered with hardwood. The floor is properly installed and is in good condition.

11.28 TOILET

The toilet was flushed and was functioning as intended.

11.29 SINK

The bathroom sink is properly installed and is in good condition.

The drain stop is missing. It should be replaced.

11.30 DRAINS, TRAPS AND TRAP ARMS

The sink drain is properly installed and is performing its intended function.

11.31 FAUCET FIXTURES

The faucet fixture was tested and was functioning as intended.

11.32 GFCI RECEPTACLES

There are no GFCI protected receptacles in this bathroom. The installation of GFCI protection is recommended.

LAUNDRY ROOM

Appliances are tested when present and when circumstances allow.

The following components were inspected:

12.1 CABINETS

The finish on the laundry room cabinets is slightly worn. The cabinets are otherwise in good condition.

12.2 COUNTERTOP

The counter top is covered with plastic laminate. The counter top is properly installed and in good condition.

The backsplash is not caulked. This allows water to enter the gap between the back splash and counter and it is difficult to clean. Caulking should be installed at this location.

12.3 FLOORING MATERIAL

The floor is covered with ceramic tile. The tile is properly installed and is in good condition.

12.4 SINK

The laundry sink is properly installed and is in good condition.

12.5 SINK FAUCET

The sink faucet is properly installed and is in good condition.

12.6 DRAINS, TRAPS AND TRAP ARMS

The sink drain is properly installed and is performing its intended function.

12.7 APPLIANCES

The hookups for the washer are properly installed and in serviceable condition. The washer itself was operated through a partial cycle, however we did not confirm the complete operation of the cycle timer.

The hookups for the dryer are properly installed and in serviceable condition. The dryer itself was operated through a partial cycle, however we did not confirm the complete operation of the cycle timer.

12.8 DRYER VENT

The visible portions of the dryer vent are properly installed and in serviceable condition. Dryer ducts should be cleaned annually as part of routine home maintenance. A dryer duct that is clogged with lint is a fire hazard.

PLUMBING SYSTEM

A plumbing system consists of the water heater, domestic water supply lines, drain, waste and vent lines and gas lines. Inspection of the plumbing system is limited to the water heater, visible faucets, fixtures, valves, drains, traps, exposed pipes and fittings. These items are examined for proper function, excessive or unusual wear, leakage, and general state of repair. Valves are not tested except where specifically noted. The hidden nature of piping prevents inspection of every pipe and joint. A sewer lateral test, necessary to determine the condition of the underground sewer lines, is beyond the scope of this inspection. If desired, a qualified individual could be retained for such a test. Our review of the plumbing system does not include landscape irrigation systems, off site community water supply systems or private (septic) waste disposal systems. Review of these systems should be performed by qualified and licensed specialists prior to the close of escrow.

The following components were inspected:

13.1 PLUMBING SYSTEM SPECIFICATIONS

The building is on a public water supply system. The building is connected to the municipal sewer system. Copper tubing is used for the water supply piping. ABS plastic is used for the drain, waste and vent pipes.

13.2 MAIN WATER SHUTOFF VALVE

The location of the main water shutoff valve was not determined. You should query the seller as to the location of the valve.

When there is no shutoff valve inside the house, the water must be shutoff at the water meter. This could be inconvenient in an emergency. Consideration should be given to installing a water shutoff valve in the house.

13.3 MAIN WATER LINE

The main water line is buried underground and was not visible for inspection. The flow indicator on the water meter was checked with all the water shut off in the house. There was no movement of the flow indicator. This suggests that there are no leaks in the main water line. You should check the meter periodically (2-4 times a year) with all the water in the house shut off. Movement of the flow indicator on the meter means that there is a leak either inside the house or in the main line underground.

13.4 INTERIOR WATER SUPPLY PIPES

The visible portions of the copper water supply pipes are properly installed and functional. Copper is considered one of the most desirable materials for interior supply pipes and is expected to last the lifetime of the building.

There are water pipes in the crawlspace that are not adequately insulated and could freeze. The installation of foam pipe insulation on all exposed water pipes is recommended.

13.5 WATER PRESSURE

The water pressure is 65 PSI. This is in the normal range of 40-80 PSI.

13.6 DRAIN AND WASTE PIPES

ABS plastic is used for drain, waste and vent pipes. All of the visible drain pipes were properly installed and functional. ABS is a durable, reliable material and should last the lifetime of the building. All drain, waste and vent pipes were stress tested by filling bathtubs and fixtures to the overflow and then draining them while simultaneously flushing the toilet and running the sinks and showers. No leaks were observed and all fixtures emptied in a reasonable amount of time with no fluctuation in the rate of flow down the drain. This is commonly referred to as "functional drainage".

13.7 SEWER LINE

The main sewer line is buried underground and was not visible for inspection. If you have concerns regarding the condition of the buried waste line(s) the services of a 'sewer line inspection service' is likely to determine the condition of the buried waste lines..

13.8 VENT PIPES

The visible portions of the vent pipes are properly installed and are performing their intended function.

13.9 FAUCET FIXTURES

All faucet fixtures were tested and were functioning as intended.

13.10 HOSE BIBBS AND EXTERIOR SUPPLY PIPES

The hose bibbs on this building are the frost free type. These hose bibbs typically will not freeze as long as the hoses are removed. Failure to remove hoses during freezing weather could result in a cracked pipe and leakage. The bibbs were tested and were functioning as intended.

13.11 GAS PIPING

The visible portions of the gas piping were properly installed and are performing their intended function. There was no odor of gas leakage at the time of the inspection.

13.12 GAS METER

The gas meter is located on the east side of the building. The main gas shut off valve is installed on the high pressure line emanating out of the ground. This valve requires a wrench to open and close. Keeping a gas valve wrench or adjustable wrench accessible near the gas meter is recommended.

INTERIOR

Our review of the interior includes inspection of walls, ceilings, floors, doors, windows, cabinetry, countertops, steps, stairways, balconies and railings. These features are examined for proper function, excessive wear and general state of repair. In some cases, all or portions of these components may not be visible because of furnishings and personal effects. In such cases these items are not inspected.

The following items were inspected:

14.1 GENERAL COMMENTS

The interior finishes were not completed at the time of the inspection. You should inspect the interior finishes after all work is complete.

14.2 STAIRS

The stairs were used several times during the inspection. The stair components are properly installed and no deficiencies were noted during use. A handrail is installed and is securely attached.

14.3 GUARD RAILINGS

The guard railing is properly installed and is functioning as intended.

14.4 WALLS AND CEILINGS

There are minor cracks in the walls and/or ceilings. This is a common condition with this type of construction and does not indicate a structural deficiency. The cracks can be repaired or painted over during routine maintenance. Cracks in drywall that have been repaired will often reoccur several months after the repairs have been completed. This is due to seasonal movement of the structure caused by changes in humidity.

14.5 DOORS

All of the doors were removed for refinishing.

14.6 CLOSET DOORS

Closet doors are removed in the bedrooms.

14.7 WINDOWS

The window frames are constructed from aluminum and have insulated glass in them. All of the windows were tested and/or inspected. All of the windows tested and/or inspected were found to be functioning as intended.

14.8 SMOKE DETECTORS

There is a smoke detector in the hallway outside of the bedrooms. Additional smoke detectors should be installed inside the bedrooms near the door.

Smoke detectors are examined for location only. They are not tested. Smoke detector batteries should be replaced when you move in and every year thereafter. Once batteries have been replaced, the smoke detectors should be tested for proper operation.

Ionization technology is generally more sensitive than photoelectric technology at detecting small particles, which tend to be produced in greater amounts by flaming fires, which consume combustible materials rapidly and spread quickly. Sources of these fires may include paper burning in a wastebasket or a grease fire in the kitchen.

Photoelectric technology is generally more sensitive than ionization technology at detecting large particles, which tend to be produced in greater amounts by smoldering fires, which may smolder for hours before bursting into flame. Sources of these fires may include cigarettes burning on couches or bedding.

FOR MAXIMUM PROTECTION: Use both Ionization and Photoelectric smoke alarms in every bedroom/hallway on every level of your home.

The installation of at least one carbon monoxide monitor for each floor is recommended. The best place to install the monitor is in an open area near the gas appliance.

14.9 DOOR BELL

The doorbell was functioning as intended.

FIREPLACES, WOOD STOVES AND SPACE HEATERS

The following components were inspected:

15.1 MASONRY FIREPLACES

Minor deterioration of the fire brick was observed inside the fireboxes. Cracks and voids should be filled with refractory cement.

15.2 DAMPERS

The fireplace dampers are functioning as intended. A fireplace damper that is left open when the fireplace is not being used allows huge quantities of heated air to escape up the chimney. Keeping your fireplace damper closed will result in a significant reduction in heating costs.

15.3 GLASS DOORS

The glass doors were tested and were functioning as intended.

ENVIRONMENTAL ISSUES

Environmental issues include but are not limited to carbon monoxide, radon, asbestos, lead paint, lead contamination, toxic waste, formaldehyde, electromagnetic radiation, buried fuel oil tanks, ground water contamination and soil contamination. The absence of a statement on any of the environmental issues listed above does not necessarily mean that they are not present. We make reference to these substances only when we recognize them during the normal inspection process. Most of the toxic substances listed above cannot be identified without laboratory testing. If further study or analysis seems prudent, the advice and services of the appropriate specialists are advised.

The following items may exist in this building:

16.1 CARBON MONOXIDE

Many of us encounter CO regularly and never know it because it's invisible and odorless. That's why victims of CO poisoning often have no warning that they are in danger... until it's too late. Symptoms include headache, nausea, chronic fatigue, confusion and dizziness. Extreme exposure can even cause a coma or death.

Carbon monoxide is a product of incomplete (poor) combustion. It's a direct and cumulative poison. When combined with blood hemoglobin, CO replaces oxygen in the blood until it completely overcomes the body. Death from CO occurs suddenly. The victim inhaling the toxic concentration of the gas becomes helpless before realizing that danger exists.

According to the American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) (Ventilation Standard 62- 89), a concentration of no more than 9 parts per million (ppm) (0.0009%), of CO is permissible in residential living spaces. In addition, the Occupational Safety and Health Administration (OSHA) has set an eight-hour work place maximum of 35 ppm. And in flue gas, the Environmental Protection Agency (EPA) and the American Gas Association (AGA) have established the maximum allowable concentration of CO at 400 ppm (See charts).

To ensure safe and efficient combustion, it is imperative that all gas burning appliances be inspected and serviced regularly (once a year) if used in normal service conditions).

16.2 FORMALDEHYDE

Formaldehyde, a colorless gas with a pungent odor, is so commonly used today that virtually everyone is likely to be exposed to at least small amounts of it, and a significant number of people are developing symptoms due to exposure to large amounts of formaldehyde in their homes or workplaces. It was an integral component of the urea formaldehyde foam insulation (UFFI) that was installed in more than five hundred thousand homes in the 1970's. (The use of formaldehyde in insulation was banned by the Consumer Product Safety Commission in 1982, but this ruling was overturned by a federal court in 1983.) In addition, it is present in a large variety of consumer products. It is a major part of the resins used as glue in particle board, plywood, and other pressed wood products used extensively in the construction of homes and furniture. Some cosmetics, paper towels, upholstery, permanent press fabrics, carpets, milk, toilet seats, pesticides, and explosives contain it too. Formaldehyde is also present in the exhaust from combustion appliances and in tobacco smoke.

The most common symptoms of excessive formaldehyde exposure are burning eyes, itching, shortness of breath, tightness in the chest, coughing, headaches, nausea, and asthma attacks. Large amounts of the gas have produced cancer in laboratory animals, and government policy assumes that any substance that can cause cancer in animals may also cause it in humans.

People who live in homes that have been "tightened" for maximum energy conservation are most likely to suffer from the effects of formaldehyde gas. The formaldehyde gas seeps from the walls, furniture, carpet, etc. into the air, building up to high levels in the "tightened" home, which can be irritating, particularly to sensitive people.

To minimize your exposure to formaldehyde, ventilate your home - in good weather, open the windows to provide a constant supply of fresh air. Some methods of heat recovery, such as heat recovery ventilators (also known as air-to-air heat exchangers), are available that can ventilate the home while also conserving energy.

You can seal exposed, raw surfaces of particle board and plywood with oil enamel, varnish, wallpaper, or vinyl floor coverings. If you have UFFI insulation, make certain it is completely sealed in the walls or, as a last resort, have it removed.

16.3 ASBESTOS

Asbestos is a naturally occurring mineral fiber that has been used in more than 3,000 different construction materials and manufactured products. It is commonly found in heating system insulation, decorative spray-on ceiling treatments, vinyl flooring, cement shake siding and a variety of additional materials. Some asbestos-containing materials were still being installed into the late 1980s.

The asbestos content of different materials varies according to the product and how it is used. Among those materials with higher concentrations of asbestos are insulating products on heating systems and the backing on sheet vinyl flooring. However, an uncontrolled disturbance of any asbestos-containing material in any concentration may be dangerous to your health!

Why is it a problem? Breathing asbestos fibers could kill you. When disturbed, asbestos breaks down into fibers up to 1,200 times thinner than a human hair. When inhaled, they become trapped in lung tissues. Medical research tells us that up to 30 years after inhalation, asbestos fibers can cause lung cancer or mesothelioma, a related terminal cancer of the tissue lining the chest cavity.

Because asbestos is a naturally occurring mineral and has been so widely used in manufactured products, including automobile brake linings, it can be found almost everywhere. Trace amounts are in the air we breathe every day. Most of us have asbestos fibers in our lungs.

On the other hand, there's no known safe level of asbestos exposure. That's why medical, environmental health and regulatory organizations stress the need to protect health by minimizing exposure to airborne asbestos fibers. This is particularly true when asbestos fibers accumulate at elevated levels. Elevated levels result from uncontrolled disturbances and removal of asbestos-containing materials.

How do I know if it's asbestos? Don't guess! Look for asbestos markings on the product or track the product back to its manufacturer or supplier. If these approaches don't work, submit a small sample for laboratory analysis. Cost is minimal. Laboratories are listed in the yellow pages under "Asbestos - Consulting and Testing." Ask a laboratory technician to instruct you how to safely take a sample. If you decide not to check for asbestos in a suspected material, you should assume it contains asbestos and treat it accordingly.

INSULATION

Insulation, weatherstripping, dampers, storm windows, insulated glass and set-back thermostats are features that help reduce heat loss and increase the comfort and thermal efficiency of your home. We examine these items and identify approximate R values for insulation. When appropriate, we offer suggestions for upgrading. Our review of insulation is based upon a random sampling of accessible areas and does not constitute a warranty that all such areas are uniformly insulated or are insulated to current standards.

The following items were inspected:

17.1 ATTIC INSULATION

The upper attic is insulated with blown in fiberglass insulation. The approximate R value of the upper attic insulation is 30. This provides good resistance to heat transfer.

The lower attic is insulated with blown in fiberglass insulation. The approximate R value of this insulation is 19. This provides moderate resistance to heat transfer. Adding additional insulation to achieve an R value of 30 is recommended to reduce heat loss through the ceilings.

There is a large thermal bypasses in the northwest corner of the attic. A thermal bypass is an opening between an insulated and uninsulated part of the house through which heated air can escape. As air is heated, it rises and pulls cool air in to the space to replace it. This condition will result in significant heat loss. Sealing up all thermal bypass routes is recommended. The installation of additional attic insulation is recommended.



17.2 WALL INSULATION

The walls are insulated with fiberglass batt insulation. The 2x6 walls suggest that it is 6" R-19 fiberglass.

17.3 FLOOR INSULATION

The floors are insulated with 3-1/2" R-11 fiberglass batt insulation. The floor insulation has been properly installed and is in good condition.

STRUCTURE

The structural elements of most residential buildings include a foundation, footings, floor, wall, ceiling and roof framing. The visible portions of these items are examined for proper function, wear, deterioration or signs of non-performance. Some structural components or portions of them are inaccessible because they are buried below grade or hidden behind finished surfaces. Therefore, much of the structural inspection is performed by identifying resultant symptoms of movement, damage and deterioration. Where there are no visible symptoms, components or conditions requiring repair may go undetected and identification will not be possible. We make no representations as to the internal conditions or stabilities of soils, concrete footings and foundations, except as exhibited by their performance.

The following components were inspected:

18.1 GENERAL INFORMATION

The foundation is constructed from poured in place concrete. A perimeter foundation wall supports the exterior walls of the building. Interior load bearing components are supported by pier footings and/or continuous spread footings. The floor structure is constructed out of wood joists. The subflooring is plywood. The stud walls are constructed from 2 X 6 dimensional lumber. The exterior wall sheathing is plywood. The roof structure is conventionally framed out of dimensional lumber. The roof sheathing is open or skip sheathing.

18.2 FOUNDATION

The foundation is constructed in a manner typical of buildings of this type and age. There are minor shrinkage cracks in the foundation. Shrinkage cracks are common in poured concrete foundation walls. They do not affect the performance of the foundation. No action is indicated.

18.3 MUDSILL

The mudsill is typically a 2x4 or 2x6 member that is laid flat directly on the top of or cast into the top of the foundation wall. The mudsill is usually bolted to the foundation wall and serves as a base for the rest of the floor framing. Most of the mudsill is inaccessible and cannot be evaluated. The visible portions of the mudsill are properly installed and are performing their intended function.

18.4 ANCHOR BOLTS

Anchor bolts are bolts that are cast into the top of the concrete foundation and retain the mudsill. The anchor bolts primary function, is to prevent the building from being displaced from its foundation during an earthquake. Anchor bolts have grown in diameter over the years as have the nuts and washers that retain the mudsill. Generally speaking, the newer the building, the better resistance it will have to seismic activity. Anchor bolts are installed and are performing their intended function.

18.5 BEAMS AND POSTS

The beams and posts are properly installed and are performing their intended function.

18.6 FLOOR JOISTS

The visible portions of the floor joists are properly installed and are performing their intended function.

18.7 SUBFLOORING

The subfloor was covered with insulation and finished surfaces and was not visible for inspection. There was no evidence present suggesting that defects or deficiencies are present.

18.8 WALLS

The walls are covered with finished surfaces and therefore were not visible for inspection. No evidence of defects or deficiencies was observed.

18.9 ROOF STRUCTURE

The roof structure is constructed from site cut and assembled dimensional lumber. The roof structure is constructed in a manner consistent with buildings of this type and is performing its intended function. No defects or deficiencies were observed.

18.10 ROOF SHEATHING

The roof sheathing is installed in a manner consistent with buildings of this type and is performing its intended function. No defects or deficiencies were observed.

CRAWLSPACE

The crawl space is where some of the building's structural elements and portions of its mechanical systems are located. These include foundation, structural framing, electrical, plumbing and heating. The visible portions of accessible systems and components are examined for proper function, excessive or unusual wear and general state of repair. Some items observed in the crawlspace will be discussed under the individual systems to which they belong. It is not unusual to find occasional moisture and dampness in crawl spaces. However, significant and/or frequent water accumulation can adversely affect the building foundation and support system and creates conditions conducive to various types of wood destroying organisms. We check for signs of excessive moisture and water entry. Unfortunately, water entry is often seasonal and therefore evidence may not be present at the time of the inspection.

The following components were inspected:

19.1 CRAWLSPACE ACCESS

The crawlspace access is located in the closet under the stairs. The crawlspace was entered and all accessible areas were inspected.

19.2 MOISTURE

The soil was damp under the vapor barrier, however, no evidence of water intrusion or standing water problems was observed.

19.3 VENTILATION

The crawlspace is adequately ventilated. Vents should be kept unobstructed and clear of leaves and other organic debris. Screens should be maintained to prevent rodent entry.

19.4 VAPOR RETARDER

The soil under the house is covered with a polyethylene plastic vapor retarder. This component is typically referred to as a "vapor barrier". While not a true vapor barrier, it does reduce the transmission of water vapor from the soil to the air. The vapor retarder is properly installed and is performing its intended function. The vapor retarder should be maintained so that it covers the entire surface of the soil.

The support post concrete piers are covered with the plastic vapor retarder. This allows the transmission of water vapor from the soil up and into the floor framing. The plastic vapor retarder should be removed from the pier so that it covers the entire surface of the soil only.



The foundation walls are covered with the plastic vapor retarder. This allows the transmission of water vapor from the soil up and into the exterior wall framing. The plastic vapor retarder should be removed from the foundation so that it covers the entire surface of the soil only.



19.5 PEST CONTROL

Scrap-wood and other cellulose debris was observed on the crawl floor. This wood debris creates conducive conditions for wood boring insects. The removal of all cellulose debris is recommended.

Cellulose forms were left in place on the pier footings. This cellulose is conducive to the infestation of various wood destroying organisms. The removal of the cellulose is recommended.

Wood boring insect activity in the Puget Sound area usually does not occur unless there is a ventilation problem inside or underneath the structure, a water leakage/rotting condition in the house or significant quantities of soil to untreated wood contact in a crawlspace or outside around the building exterior. Carpenter ant, termite and wood boring beetle activity is most often a direct result of rot damaged wood and/or excessively moist, humid or damp conditions inside, around or underneath the building. Structural damage from termites and ants in most cases does not extend much past the moisture source and/or rot damaged wood. Eliminating high moisture conditions, improving ventilation, correcting the conditions that are conducive to rotting wood and replacing rot damaged wood will usually eliminate the wood boring insect activity, providing that the building is properly maintained thereafter.

The best way to avoid wood boring insect problems is by preventative maintenance. This includes:

- x Good construction practices which exclude water and prevent high moisture conditions.
- x Removal of wood debris and form wood from the crawlspace and around the building exterior.
- x Maintaining the roof water drain system.
- x Maintaining good yard drainage away from the foundation wall.
- x Avoiding wood-soil contact in the crawlspace or around the house exterior.
- x Storing fire wood 6" above grade and in a dry area.

There should be no soil to wood contact in any part of the building exterior or crawlspace, unless that wood is pressure treated. For the greatest safety to permanent structures there should be no soil to wood contact of any kind. Untreated wood in direct contact with exterior



flatwork should also be avoided.

Good building practice requires that foundation walls or pier footings supporting wood frame construction, should extend at least 8" above the finish grade with at least a 6" clearance between the top of the soil and the bottom of the wood finish materials. Untreated wood should be raised 1-2" above surrounding flatwork and should have a moisture barrier such as 30 lb. asphalt impregnated felt installed between the concrete and wood. For additional information and treatment options, you should retain the services of a qualified pest control operator.