

Shannon & Brian Taylor
31780 NE 171st Street
Duvall, WA 98019

Per the seller, the following items listed on the pre-sale inspection summary dated March 9, 2022, are being corrected by the seller as part of preparation for sale in good faith.

1) The following action items have been completed by seller as of March 14, 2022.

- 7.11 Loose receptacles - all have been tightened.
- 7.14 Luminaries - All lights are working.
- 4.5 Maintenance and Repairs - Roof has been professionally cleaned annually. Last routine cleaning took place October 13, 2021.
- 10.1 Kitchen Countertops - Caulking has been applied to kitchen backsplash.
- 11.2 Bathtub drain stops - Drain stop has been replaced in bath.
- 11.3 Bathtub drain stops - Drain stop has been replaced in master bath.
- 9.7 Seismic Restraint - 2 restraints on each water heater have been installed.
- 19.5 Pest Control - basement has been sealed for pests
- 17.4 Floor insulation - has been repaired.
- 9.8 Leaking water heater - Water heater leak was investigated. Leak was found on the pressure relief valve drain pipe, not the water heater tank. Drain line has been fixed.

2) The Seller will correct the following items by closing:

- 8.1 Electric fan assisted wall heaters - recalled heater in master bedroom will be replaced.

3) If requested in the Purchase and Sale Agreement, the Seller will consider the following corrections by closing:

- 13.4 Interior water supply pipes
- 18.5 Beams and posts
- 5.2 Ventilation

March 9, 2022

Mr. & Mrs. Brian & Shannon Taylor
31780 NE 171st St.
Duvall, WA.

Re: 31780 NE171st St.
Duvall, WA.

Dear Brian & Shannon;

At your request, a visual inspection of the above referenced property was conducted on 03/08/2022. 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

2.4 DRIVEWAY

Severe aggregate loss and degradation of the surface of the driveway was observed. This may have been caused by an admixture or overworking of the material at the time of installation. The driveway remains functional despite this condition. Removing and replacing the degraded portion of the driveway should be considered.



2.5 PATIO

The patio has 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 patio or by removing and replacing it. The patio remains functional despite this condition. However, the raised edges of the concrete can be a trip hazard for some people. Repairs should be made as necessary.



BUILDING EXTERIOR

3.9 PORCH STEPS

The steps are non-conforming due to the variable and/or excessive rise. Stair design standards require that step risers do not exceed 8" and that the variation in rise not exceed 3/8" in order to reduce falls from tripping. To increase the margin of safety, consideration should be given to reconfiguring the steps so that rise and run do not vary by more than 3/8". If this proves to be too impractical or expensive, then we recommend exercising caution when using.



3.10 PORCH RAILING

The spacing between the balusters is too wide. This is a hazard to small children. The balusters should be spaced close enough together so that a 4" sphere cannot pass through. Upgrading the porch railing is recommended if small children are present.



ATTIC

5.2 VENTILATION

Mold and mildew was observed in the attic on the underside of the roof sheathing.

This is caused by standing water in the crawlspace evaporating and migrating through the house into the attic. On cold winter days the moisture condenses on the cold framing and roof sheathing. This can lead to rot damage and deterioration of the roof structure. Eliminating crawlspace water intrusion and adequate ventilation will reduce or eliminate this problem.

5.2 VENTILATION (cont)

The attic space is only minimally vented. The installation of some additional attic ventilation is recommended. Vents should be evenly divided between the eaves and ridge, whenever possible.

GARAGE

ATTACHED GARAGE

6.2 OVERHEAD GARAGE DOORS

The east garage door was not tested and its function was not verified.

6.3 GARAGE DOOR OPENER

The Photo-eye beam was installed too high above the floor of the garage to adequately offer protection for small children and/or pets. We recommend that the photo-eye be lowered to within 4-6" of the floor.

The east garage door automatic opener was not tested or inspected.

There was no photo-eye sensor installed for the east garage door to offer protection for small children and/or pets. We recommend that a photo-eye sensor be installed for the garage door at a height of within 4-6" of the floor.



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 with a fire retardant caulk is recommended.



6.5 PASSAGE DOOR

The door between the garage and living space is a fire rated door. The door is properly installed and is in good condition, however, it lacks a self closing hinge. The installation of a self closing hinge is recommended as a safety upgrade.

6.7 STAIRS

The stair landing and railing baluster spacing is too wide. This is a hazard for small children. The baluster spacing should be reduced as a safety upgrade. Current standards require that a 4" sphere not pass through the railing.



The stair rise spacing is too wide. This is a hazard for small children. The spacing should be reduced as a safety upgrade. Current standards require that a 4" sphere not pass through the opening.



ELECTRICAL SYSTEM

7.8 SERVICE PANEL

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

One of the screws that secure the panel cover to the panel box is stripped. This is a potential hazard. Properly fitted screws with blunt ends should be installed.



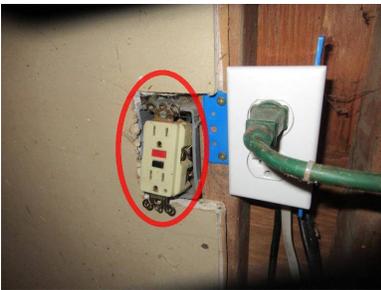
7.11 RECEPTACLES

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

The GFCI receptacle in the garage does not trip when a ground fault is introduced. This is caused by an improperly wired or defective GFCI. Repair or replacement of this GFCI is recommended.

The installation of additional GFCI protection in all of the garage receptacles is recommended.



7.14 LUMINARIES

There are several luminaries that are not working. Testing the luminaries with a voltage tester revealed that there is current to the luminaries. Light bulbs should be replaced in non-functional luminaries and then they should be tested for proper operation.

ELECTRIC HEATING

ELECTRIC HEATING

8.1 ELECTRIC FAN ASSISTED WALL HEATERS

These heaters must be cleaned annually. An accumulation of dust inside this type of heater is a fire hazard. To clean the heaters, turn off the power at the circuit breaker panel then remove the cover from the front of the heater. Use a paint brush to loosen the dirt and then vacuum it up.

The Cadet electric heater model #ZAC in the master bedroom has been recalled by the manufacturer and is considered unsafe. Replacement of all of the recalled heaters is recommended.

WATER HEATER

9.6 EXPANSION TANK

The expansion tank is not adequately secured to the wall. As code requirements start to call for engineered expansion tank supports we recommend the installation of seismic restraints to secure the expansion tank instead of allowing it to simply depend on piping connections that could result in damage to the water pipe and leakage during an earthquake.



9.8 GENERAL COMMENTS

The west water heater is leaking. The services of a qualified plumbing contractor should be retained to replace the water heater.



KITCHEN

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

No tip out protection was installed for the range. This is a hazard for small children. We recommend tip out protection devices be installed.

INTERIOR

14.5 WINDOWS

There is condensation or mineral deposits between the panes of glass in one of the master bedrooms insulated glass window panes. This indicates a failed seal. The glass assembly should be replaced, which is the only method for correcting this deficiency.

The windows were dirty at the time of the inspection and therefore the inspector was unable to determine if the seals between the glass panes have failed. The windows should be cleaned inside and out and then examined for evidence of leaking seals.

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

2.3 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.



One or more of the wooden dividers separating the concrete driveway sections were infested by wood destroying organisms and have deteriorated to a point where they are becoming a trip hazard. Replacement with mortar is recommended.



BUILDING EXTERIOR

3.2 PEST CONTROL

Soil is close to or in contact with siding in some areas around the building exterior. 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. Establishing these minimum clearances is recommended.



3.3 SOFFITS AND OVERHANGS

Gaps over 1/4" in size adjacent the gutters will allow insects and rodents to enter the attic. Covering any gaps with aerosol foam, a strip of wood and/or caulking is recommended.



3.4 GUTTERS AND DOWNSPOUTS

The gutters are not properly sloped on the front side of the building. The gutters should be sloped properly to prevent water splash on the siding.



ROOF

4.5 MAINTENANCE AND REPAIRS

The roof is in need of routine maintenance. The surface should be blown off or washed with a high volume low pressure garden hose to remove moss and organic debris. Performing this maintenance will improve the appearance and increase the life expectancy of the roof.



ATTIC

5.4 PEST CONTROL

There is evidence of rodent activity in the attic. The first step in eliminating rodents from 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 further activity. Once this work is completed, snap traps baited with peanut butter should be installed and monitored. The absence of rodents in the traps typically means that the rodents have been excluded from the area.

GARAGE

ATTACHED GARAGE

6.6 EXTERIOR DOOR(S)

The exterior garage door is in need of minor adjustment. Door hardware should be adjusted or replaced as necessary to restore full function.

WATER HEATER

9.7 SEISMIC RESTRAINT

The seismic restraint for the water heaters was minimal. Proper strapping is recommended to adequately secure the tank and provide potable water in the event of an earthquake.



KITCHEN

10.1 COUNTERTOPS

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

BATHROOMS

HALLWAY BATHROOM

11.2 BATHTUB

The drain stop is missing. Drain stop replacement is recommended.

11.9 COUNTERTOP

The backsplash is missing. The installation of a backsplash is recommended.



MASTER BEDROOM BATHROOM

11.13 BATHTUB

The drain stop is missing. Drain stop replacement is recommended.

11.19 CABINETS

The bathroom cabinet proximity prevented two of the drawers to fully open otherwise the cabinet is in good condition.



PLUMBING SYSTEM

13.4 INTERIOR WATER SUPPLY PIPES

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



13.9 SEPTIC SYSTEM

The house uses a private (septic) sewage disposal system. The septic system was not inspected. Our general house inspection will sometimes reveal major defects in the septic system (e.g., complete blockage, complete drain field failure), providing that it is not raining and the ground is dry. However, we still recommend that you have the septic tank pumped out and the septic system inspected by a qualified septic system service company, prior to the closing of the sale. Ask for a "Septic Tank Operational Report". It is also recommended that you have the tank pumped out every four years and avoid introducing grease and non-biodegradable foreign matter into the septic system.

This septic system uses a pump to move the effluent from the pump tank on up to the drain field which is located at an elevation that is higher than the septic tank. These pumps have a limited service life of about 10-15 years. Pump failure will allow effluent to seep out of the septic tank and pump tank.

The pump tank is equipped with an alarm that will be activated if the pump fails. If you hear the alarm sound, do not introduce any additional sewage into the septic tank and call a septic systems contractor for repair.

INTERIOR

14.4 CLOSET DOORS

The bedroom bifold closet doors rub on the carpet. Doors should be adjusted as necessary.



INSULATION

17.1 ATTIC INSULATION

The attic is insulated with blown in rockwool insulation. The approximate R value of this insulation varies from 11-19. 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.

17.4 FLOOR INSULATION

Some of the insulation batts were not properly secured and have falling down. The fallen batts should be reinstalled and secured.



STRUCTURE

18.5 BEAMS AND POSTS

There are missing gusset plates tying the beams and posts together. The installation of gusset plates for all post and beam connections is recommend to reduce the likelihood of damage during an earthquake.

The beam support post adjacent the west foundation wall sits on the reatproofing. Water seeping into the crawspace over the footing saturates the bottom of the support post. This has caused the bottom of the post to rot. Damaged posts should be replaced. The remaining posts should be treated with wood preservative.



18.6 SHEAR PANELS

Shear panels are plywood or OSB panels that are mechanically fastened to both vertical and horizontal framing members in critical structural areas of the building. They prevent lateral movement of the structure during an earthquake. Shear panels are often visible in the crawlspace on cripple walls between the first floor and foundation. They may also be installed on interior walls that are covered with drywall. An examination of the crawlspace revealed the absence of shear panels on the cripple walls. The installation of shear panels on the cripple walls is recommended as an upgrade.



CRAWLSPACE

19.5 PEST CONTROL

There is evidence of rodent activity in the crawlspace. The first step in eliminating rodents from the crawlspace is to seal all possible entry points using wire mesh, caulking, wood, stainless steel wool, aerosol foam or mortar. Careful work sealing cracks, holes, gaps, and covering ground water drain inlets will discourage rodent activity. Once this work is completed, snap traps baited with peanut butter should be installed and monitored. The absence of rodents in the traps typically means that the rodents have been excluded from the area.

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.

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
206-660-9200
Clark Inspections Inc.

Confidential Inspection Report

**31780 NE171st St.
Duvall, WA**

March 8, 2022

Prepared for: Brian & Shannon Taylor

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.

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3/9/2022

**Mr. & Mrs. Brian & Shannon Taylor
31780 NE 171st St.
Duvall,WA**

Dear Brian & Shannon,

Thank you for inviting Clark Inspections 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;

31780 NE171st 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

Clark Inspections

GENERAL INFORMATION

CLIENT & SITE INFORMATION:

1.1 DATE OF INSPECTION:

3/8/2022.

1.2 INSPECTOR'S NAME:

Terry Clark.

1.3 CLIENT NAME:

Mr. & Mrs. Brian & Shannon Taylor.

1.4 MAILING ADDRESS:

31780 NE 171st St.
Duvall WA.

1.5 CLIENT E-MAIL ADDRESS

briantaylor.gt@gmail.com; shannon.hellwig@gmail.com.

1.6 ADDRESS OF PROPERTY INSPECTED

31780 NE171st St.
Duvall WA.



Southeast elevation



North elevation

CLIMATIC CONDITIONS:

1.7 WEATHER:

Overcast, Drizzle.

1.8 APPROXIMATE OUTSIDE TEMPERATURE:

43 degrees.

BUILDING CHARACTERISTICS:**1.9 MAIN ENTRY FACES:**

South.

1.10 ESTIMATED AGE OF BUILDING:

The building is approximately 33 years old.

1.11 BUILDING TYPE:

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 it's 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.

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

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.

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. When water entry or moisture problems are discovered we recommend checking 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

Severe aggregate loss and degradation of the surface of the driveway was observed. This may have been caused by an admixture or overworking of the material at the time of installation. The driveway remains functional despite this condition. Removing and replacing the degraded portion of the driveway should be considered.

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.

One or more of the wooden dividers separating the concrete driveway sections were infested by wood destroying organisms and have deteriorated to a point where they are becoming a trip hazard. Replacement with mortar is recommended.



2.5 PATIO

The patio has 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 patio or by removing and replacing it. The patio remains functional despite this condition. However, the raised edges of the concrete can be a trip hazard for some people. Repairs should be made as necessary.



2.6 WALKWAY

There are minor cracks in the walkway, however, they do not affect its functionality and it remains in serviceable condition.

Many legal and public works departments have defined a trip hazard as an irregularity in a walking surface exceeding one inch (1") in height. All walking surfaces should maintain, free of a vertical surface change of 3/4" or more, in the interest of public and personal safety.

2.7 FENCES AND GATES

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.

3.2 PEST CONTROL

Soil is close to or in contact with siding in some areas around the building exterior. 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. Establishing these minimum clearances is recommended.



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.

Gaps over 1/4" in size adjacent the gutters will allow insects and rodents to enter the attic. Covering any gaps with aerosol foam, 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.

The gutters are not properly sloped on the front side of the building. The gutters should be sloped properly to prevent water splash on the siding.



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 DECK

The deck is installed close to the ground making it more vulnerable to deterioration. The proximity of the deck to the ground also prevented an inspection of the deck framing. The visible portions of the deck are in good condition.

3.7 STAIRS

The deck stairs are properly constructed and are performing their intended function.

3.8 PORCH

The front porch is in good condition.

3.9 PORCH STEPS

The steps are non-conforming due to the variable and/or excessive rise. Stair design standards require that step risers do not exceed 8" and that the variation in rise not exceed 3/8" in order to reduce falls from tripping. To increase the margin of safety, consideration should be given to reconfiguring the steps so that rise and run do not vary by more than 3/8". If this proves to be too impractical or expensive, then we recommend exercising caution when using.



3.10 PORCH RAILING

The spacing between the balusters is too wide. This is a hazard to small children. The balusters should be spaced close enough together so that a 4" sphere cannot pass through. Upgrading the porch railing is recommended if small children are present.



3.11 EXTERIOR DOORS

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

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 asphalt composition shingles. The slope or pitch of the roof is steep. Metal gutters are used to collect the roof water drainage. The roofing material was just recently installed.

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 skylight is properly installed and there was no evidence of leakage underneath.

4.4 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.

4.5 MAINTENANCE AND REPAIRS

The roof is in need of routine maintenance. The surface should be blown off or washed with a high volume low pressure garden hose to remove moss and organic debris. Performing this maintenance will improve the appearance and increase the life expectancy of the roof.



4.6 GENERAL COMMENTS

The roofing material was properly installed and is in like new condition. With proper care and maintenance this roof should remain serviceable for up to 20 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 is located in the bedroom closet. The attic was entered and inspected from within.

5.2 VENTILATION

Mold and mildew was observed in the attic on the underside of the roof sheathing.

This is caused by standing water in the crawlspace evaporating and migrating through the house into the attic. On cold winter days the moisture condenses on the cold framing and roof sheathing. This can lead to rot damage and deterioration of the roof structure. Eliminating crawlspace water intrusion and adequate ventilation will reduce or eliminate this problem.

The attic space is only minimally vented. Proper attic ventilation is particularly important in a well insulated attic or in an attic where additional insulation is going to be installed. In the winter or cold weather water vapor in the home rises up into the attic. When the water vapor comes in contact with cold surfaces of the roof sheathing and framing it condenses and remains as water. This water can drip down on the insulation and decrease its effectiveness, will rot or deteriorate roof sheathing, cause mold and mildew growth, cause plaster or wall board to crack, paint to peel and will reduce the serviceable life of the roofing material.

Excessive attic space moisture can be avoided by having proper cross flow ventilation. The installation of some additional attic ventilation is recommended, particularly if additional attic insulation is going to be installed. One square foot of free vent area for each 300 square feet of attic space is the ratio commonly used in determining the quantity of attic ventilation. Vents should be evenly divided between the eaves and ridge, whenever possible.

There are two types of ventilation systems that are typically used in today's design and construction. Natural (passive) and Mechanical (pressure). Passive attic ventilation allows for moisture laden air, that migrates into the attic from the living space below to move out into the atmosphere without forming condensation on cool surfaces within the attic. This method used in design and construction is the most efficient and time tested.

The following are just a few of the conditions that may develop if soffit vents, roof and ridge vents are either missing, obstructed, inadequate, or simply not installed:

When water vapor comes in contact with cold surfaces of the roof sheathing and framing it condenses and remains as water. This water can drip down on the insulation and decrease its effectiveness, will rot or deteriorate roof sheathing, cause mold and mildew growth, cause plaster or wall board to crack, paint to peel and will reduce the serviceable life of the roofing material.

Pressure induced attic ventilation ie: attic fans, solar fans or other systems that mitigate moisture amounts may be necessary due to certain conditions found within some buildings. However the pressure increase or decrease of the ambient air of the living space may affect the performance of and/or venting of gas appliances or fireplaces when in use creating conditions may be hazardous to your health. These are designed systems that should be installed by a qualified contractor.

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

There is evidence of rodent activity in the attic. The first step in eliminating rodents from 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 further activity. Once this work is completed, snap traps baited with peanut butter should be

installed and monitored. The absence of rodents in the traps typically means that the rodents have been excluded from the area.

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 west garage door is properly installed and is performing its intended function.

The east garage door was not tested and its function was not verified.

6.3 GARAGE DOOR OPENER

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

The Photo-eye beam was installed too high above the floor of the garage to adequately offer protection for small children and/or pets. We recommend that the photo-eye be lowered to within 4-6" of the floor.

The east garage door automatic opener was not tested or inspected.

There was no photo-eye sensor installed for the east garage door to offer protection for small children and/or pets. We recommend that a photo-eye sensor be installed for the garage door at a height of within 4-6" of the floor.



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 with a fire retardant caulk is recommended.



6.5 PASSAGE DOOR

The door between the garage and living space is a fire rated door. The door is properly installed and is in good condition, however, it lacks a self closing hinge. The installation of a self closing hinge is recommended as a safety upgrade.

6.6 EXTERIOR DOOR(S)

The exterior garage door is in need of minor adjustment. Door hardware should be adjusted or replaced as necessary to restore full function.

6.7 STAIRS

The stairs were used several times during the inspection. The stair components are properly installed with exceptions noted below.

The stair landing and railing baluster spacing is too wide. This is a hazard for small children. The baluster spacing should be reduced as a safety upgrade. Current standards require that a 4" sphere not pass through the railing.

The stair rise spacing is too wide. This is a hazard for small children. The spacing should be reduced as a safety upgrade. Current standards require that a 4" sphere not pass through the opening.



6.8 RECEPTACLES

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

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.

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.

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

One of the screws that secure the panel cover to the panel box is stripped. This is a potential hazard. Properly fitted screws with blunt ends should be installed.



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.

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 GFCI receptacle in the garage does not trip when a ground fault is introduced. This is caused by an improperly wired or defective GFCI. Repair or replacement of this GFCI is recommended.

The installation of additional GFCI protection in all of the garage receptacles is recommended.



7.13 AFCI RECEPTACLES

AFCI protection is required for all 15 and 20 amp branch circuits to have protection from the entire branch circuit when that circuit has outlets in dwelling family homes, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, or similar rooms or areas.

Replacement receptacles are now required to be arc-fault circuit interrupter (AFCI) protected. This means that if you are replacing an old outlet in an old home in a location that needs AFCI protection in a new home, the replacement outlet needs to be AFCI protected.

7.14 LUMINARIES

There are several luminaries that are not working. Testing the luminaries with a voltage tester revealed that there is current to the luminaries. Light bulbs should be replaced in non-functional luminaries and then they should be tested for proper operation.

7.15 SWITCHES

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

7.16 CEILING FAN

Ceiling fans can fall from the ceiling if not properly installed. Verifying proper installation requires removal of the ceiling fan which is beyond the scope of this inspection. The fan should be installed on a special electrical box that is approved for use with a ceiling fan. The box should be securely fastened to the framing. The ceiling fan was tested and was functioning as intended.

ELECTRIC HEATING

Heat is provided by electric resistance heaters. Electric heat is 100% efficient as there is no waste heat of combustion gases as in fossil fuel burning furnaces. However, electric heaters are more expensive to operate than gas or oil fired heaters because electrical energy is more expensive per therm (i.e., unit of energy equal to 100,000 Btu). Each heating unit and/or heating zone is tested using existing operator controls. Information on heating units is outlined below.

ELECTRIC HEATING - The following components were inspected:

8.1 ELECTRIC FAN ASSISTED WALL HEATERS

Electric wall heaters are used for space heating. The heaters have small fans in them to circulate the air over an electric heating element. Each heater was inspected and tested. The heaters are properly installed and are functional.

These heaters must be cleaned annually. An accumulation of dust inside this type of heater is a fire hazard. To clean the heaters, turn off the power at the circuit breaker panel then remove the cover from the front of the heater. Use a paint brush to loosen the dirt and then vacuum it up.

The Cadet electric heater model #ZAC in the master bedroom has been recalled by the manufacturer and is considered unsafe. Replacement of all of the recalled heaters is recommended.

When an RM or ZM model heatbox (replacing a ZA or RA model heatbox) is inserted into a ZAC wall can and wired through a fitting in the top-left wall can knock-out (see diagram below), the RM or ZM model has the potential for continuous heater operation, regardless of thermostat settings or room temperature. This can cause the heater to overheat and catch nearby combustibles on fire.

NEWS from CPSC
U.S. Consumer Product Safety Commission

Office of Information and Public Affairs Washington, DC 20207

FOR IMMEDIATE RELEASE **CONTACT: Cadet Recall Line: (800) 567-2613**

February 17, 2000 CONTACT: Jane Francis or Frank Nava
(301) 504-0580 or (510) 637-4053

Release # 00-070

CPSC, Cadet Recall In-Wall Heaters; Settle Lawsuit

WASHINGTON, D.C. - The U.S. Consumer Product Safety Commission (CPSC) and Cadet Manufacturing Co., of Vancouver, Wash., announced today the recall of more than 1.9 million Cadet and Encore brand in-wall electric heaters, distributed mainly in California, Idaho, Montana, Oregon and Washington. This recall announcement follows the [resolution of the lawsuit](#) filed by CPSC staff against the company on January 14, 1999.

CPSC alleges that the following Cadet and Encore brand in-wall electric heaters are defective and can overheat and catch fire: models [FW](#), [FX](#), [LX](#), [TK](#), [ZA](#), [Z](#), [RA](#), [RK](#), [RLX](#), [RX](#) and [ZC](#). Flames, sparks or molten particles can spew through the front grill cover of the heater into the living area of a residence, putting consumers at risk from fires, including burn injuries, smoke inhalation and property damage. The heaters also can become energized creating a risk of electric shock.

CPSC is aware of more than 320 reports of heaters that smoked, sparked, caught fire, emitted flames, or ejected burning particles or molten materials. These incidents have allegedly resulted in three deaths, two serious burn injuries and property damage claims exceeding \$1.2 million, which include five partial or total house fires.

The heaters that are part of today's recall announcement are the following models of Cadet and Encore brands: [FW](#), [FX](#), [LX](#), [TK](#), [ZA](#), [Z](#), [RA](#), [RK](#), [RLX](#), [RX](#) and [ZC](#). The brand and model are located on a label on the front of the heat box, behind the grill. Before removing the grill to check the identification label, consumers must disconnect the power supply to the heater at the circuit breaker. If power is not disconnected, consumers risk electrocution and shock.

Cadet is offering consumers replacement heaters at a significantly reduced cost. Each heater will cost between \$25 and \$57, depending on the model. Consumers who already have replaced the recalled units from October 23, 1997, until today can file a claim for partial reimbursement for \$25 per heater. Consumers must register to participate in this recall by February 17, 2002. To register, contact Cadet anytime at (800) 567-2613 or at www.cadetco.com/recallprogram.html.

CPSC routinely requires companies to pay the full costs associated with recalls. In this case, Cadet has recently emerged from bankruptcy and is unable to provide free replacements or full reimbursements.

In October 1997, Cadet recalled its model FW, FX, LX and ZA heaters to replace defective over-temperature black plastic limit switches. By December 1997, Cadet informed CPSC that it could no longer pay the full costs of the recall, and that the number of heaters involved were far greater than it had originally known. While attempting to resolve the problems with the limit switch recall, the CPSC staff discovered additional problems with the heaters involved in the 1997 recall, as well as problems with some other Cadet and Encore models. In addition to the switch defect, the heating elements and internal wiring connections are defective and can fail. Even if consumers have had the heaters' switches repaired, the heaters have additional problems and need to be replaced.

CPSC strongly urges consumers to participate in this recall. Since the recalled heaters pose a fire hazard until they are replaced, consumers should have at least one fully operational smoke detector on every floor of their home, especially near bedrooms. To ensure that the detector's batteries are working, test the detector every month. Consumers also should have a well-defined and rehearsed escape plan and an alternate escape plan in the event of a fire. You can get information about this from "Your Home Fire Safety Checklist" ([pdf version](#)) or ([text version](#)). To obtain a free hard copy of this publication, write to CPSC, Washington, D.C. 20207.

The U.S. Consumer Product Safety Commission protects the public from the unreasonable risk of injury or death from 15,000 types of consumer products under the agency's jurisdiction. To report a dangerous product or a product-related injury and for information on CPSC's fax-on-demand service, call CPSC's hotline at (800) 638-2772 or CPSC's teletypewriter at (800)

638-8270. To order a press release through fax-on-demand, call (301) 504-0051 from the handset of your fax machine and enter the release number. Consumers can obtain this release and recall information or report product hazards to info@cpsc.gov.

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 heaters are located in the Crawlspace.

9.2 GENERAL INFORMATION

The water heaters are electric. The capacity of each water heater is 48 gallons. The water heaters are approximately 5 years old. Water heaters of this type typically last about 10-15 years.

9.3 PRESSURE RELIEF VALVE

The pressure relief valves are properly installed. The valves were not tested, as this could cause the valve to leak.

9.4 SHUTOFF VALVE

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

9.5 WATER CONNECTIONS AT TANK

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

9.6 EXPANSION TANK

The expansion tank is not adequately secured to the wall. As code requirements start to call for engineered expansion tank supports we recommend the installation of seismic restraints to secure the expansion tank instead of allowing it to simply depend on piping connections that could result in damage to the water pipe and leakage during an earthquake.



9.7 SEISMIC RESTRAINT

The seismic restraint for the water heaters was minimal. Proper strapping is recommended to adequately secure the tank and provide potable water in the event of an earthquake.



9.8 GENERAL COMMENTS

The east water heater is properly installed and is performing its intended function.

The west water heater is leaking. The services of a qualified plumbing contractor should be retained to replace the water heater.



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 slab granite. The counter tops are properly installed and are in good condition.

The backsplash is not caulked. This allows water and food 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 plastic laminated strip flooring. 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 kitchen sink is properly installed and is in good 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**

No tip out protection was installed for the range. This is a hazard for small children. We recommend tip out protection devices be installed.

10.10 OVEN

The ovens were tested and were functioning as intended.

10.11 MICROWAVE

The microwave oven was tested and was functioning as intended.

10.12 COOKTOP

The cooktop elements were tested and was functioning as intended.

10.13 DISHWASHER

The dishwasher was tested and was functioning as intended.

10.14 GARBAGE DISPOSAL

The garbage disposal was tested and was functioning as intended.

10.15 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**

Hallway.

11.2 BATHTUB

The one piece fiberglass bathtub and shower unit is properly installed and in good condition.

The drain stop is missing. Drain stop replacement is recommended.

11.3 FLOORING MATERIAL

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

It is important to maintain the caulking around bathtubs and showers, especially at the intersection between the tub or shower and the floor. Failure to maintain this seal will often result in damage to flooring materials, subflooring and framing.

11.4 TOILET

The toilet was flushed and was functioning as intended.

11.5 SINK

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

11.6 DRAINS, TRAPS AND TRAP ARMS

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

11.7 FAUCET FIXTURES

The faucet fixtures were tested and were functioning as intended.

11.8 CABINETS

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

11.9 COUNTERTOP

The countertop is covered with slab granite. The countertop is properly installed and in good condition.

The backsplash is missing. The installation of a backsplash is recommended.

**11.10 VENTILATION**

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

11.11 GFCI RECEPTACLES

GFCI protected receptacles were found in this bathroom.

BATHROOM

11.12 LOCATION

Master Bedroom.

11.13 BATHTUB

The one piece fiberglass bathtub and shower unit is properly installed and in good condition.

The drain stop is missing. Drain stop replacement is recommended.

11.14 FLOORING MATERIAL

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

It is important to maintain the caulking around bathtubs and showers, especially at the intersection between the tub or shower and the floor. Failure to maintain this seal will often result in damage to flooring materials, subflooring and framing.

11.15 TOILET

The toilet was flushed and was functioning as intended.

11.16 SINK

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

11.17 DRAINS, TRAPS AND TRAP ARMS

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

11.18 FAUCET FIXTURES

The faucet fixtures were tested and were functioning as intended.

11.19 CABINETS

The bathroom cabinet proximity prevented two of the drawers to fully open otherwise the cabinet is in good condition.



11.20 COUNTERTOP

The countertops are covered with slab quartz. The counter tops are properly installed and are in good condition.

11.21 VENTILATION

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

11.22 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.

LAUNDRY ROOM

Appliances are tested when present and when circumstances allow.

The following components were inspected:

12.1 FLOORING MATERIAL

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

12.2 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.

12.3 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 on a private (septic) sewage disposal 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 main water supply shutoff valve is located in the crawlspace. It was tested and was functional.

13.3 MAIN WATER LINE

The main water line is buried underground and was not visible for inspection.

13.4 INTERIOR WATER SUPPLY PIPES

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

There are water pipes in the garage and 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 30-80 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 VENT PIPES

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

13.8 HOSE BIBBS AND EXTERIOR SUPPLY PIPES

The hose bibbs are the old style that must be protected during freezing weather. This can be accomplished either by installing a foam cap over the bibb or by shutting off the water supply at the indoor gate valve opposite the bibb and then opening the bibb to allow the water to drain out.

13.9 SEPTIC SYSTEM

The house uses a private (septic) sewage disposal system. The septic system was not inspected. Our general house inspection will sometimes reveal major defects in the septic system (e.g., complete blockage, complete drain field failure), providing that it is not raining and the ground is dry. However, we still recommend that you have the septic tank pumped out and the septic system inspected by a qualified septic system service company, prior to the closing of the sale. Ask for a "Septic Tank Operational Report". It is also recommended that you have the tank pumped out every four years and avoid introducing grease and non-biodegradable foreign matter into the septic system.

This septic system uses a pump to move the effluent from the pump tank on up to the drain field which is located at an elevation that is higher than the septic tank. These pumps have a limited service life of about 10-15 years. Pump failure will allow effluent to seep out of the septic tank and pump tank.

The pump tank is equipped with an alarm that will be activated if the pump fails. If you hear the alarm sound, do not introduce any additional sewage into the septic tank and call a septic systems contractor for repair.

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 wall, floor, and ceiling surfaces were properly installed and generally in serviceable condition, taking into consideration normal wear and tear.

14.2 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.

14.3 DOORS

All of the doors were tested and were found to be functioning as intended.

14.4 CLOSET DOORS

The bedroom bifold closet doors rub on the carpet. Doors should be adjusted as necessary.



14.5 WINDOWS

The window frames are constructed from aluminum and have insulated glass in them. All of the windows were tested and/or inspected. The windows are in good condition and are functioning as intended except where noted below.

There is condensation or mineral deposits between the panes of glass in one of the master bedrooms insulated glass window panes. This indicates a failed seal. The glass assembly should be replaced, which is the only method for correcting this deficiency.

The windows were dirty at the time of the inspection and therefore the inspector was unable to determine if the seals between the glass panes have failed. The windows should be cleaned inside and out and then examined for evidence of leaking seals.

14.6 SMOKE DETECTORS

There is a smoke detector inside each of the bedrooms and in the hallway outside of the bedrooms.

14.7 DOOR BELL

The doorbell was functioning as intended.

FIREPLACES, WOOD STOVES AND SPACE HEATERS

The following components were inspected:

15.1 WOOD STOVE

The visible portions of the wood stove, smoke pipe and chimney are properly installed and are performing their intended function. It is essential that combustible materials be kept a minimum of 36" away from the wood stove when it is in operation.

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 attic is insulated with blown in rockwool insulation. The approximate R value of this insulation varies from 11-19. 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.

17.2 VAULTED CEILING

The insulation in the vaulted ceiling was 12" R-30 fiberglass batt insulation between the rafters.

17.3 WALL INSULATION

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

17.4 FLOOR INSULATION

The floors are insulated with R-19 fiberglass batts. The floor insulation has been properly installed and is in good condition except where noted below.

Some of the insulation batts were not properly secured and have falling down. The fallen batts should be reinstalled and secured.



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 constructed out of manufactured trusses. The roof sheathing is plywood.

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

There are no gusset plates tying the beams and posts together. The installation of gusset plates is recommend to reduce the likelihood of damage during an earthquake.

The beam support post adjacent the west foundation wall sits on the reatproofing. Water seeping into the crawlspace over the footing saturates the bottom of the support post. This has caused the bottom of the post to rot. Damaged posts should be replaced. The remaining posts should be treated with wood preservative.



18.6 SHEAR PANELS

Shear panels are plywood or OSB panels that are mechanically fastened to both vertical and horizontal framing members in critical structural areas of the building. They prevent lateral movement of the structure during an earthquake. Shear panels are often visible in the crawlspace on cripple walls between the first floor and foundation. They may also be installed on interior walls that are covered with drywall. An examination of the crawlspace revealed the absence of shear panels on the cripple walls. The installation of shear panels on the cripple walls is recommended as an upgrade.



18.7 FLOOR JOISTS

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

18.8 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.

18.9 WALLS

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

18.10 ROOF STRUCTURE

The roof structure is constructed from factory-built, engineered trusses. The trusses are installed in a manner consistent with buildings of this type and are performing their intended function. No defects or deficiencies were observed.

18.11 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 garage. The crawlspace was entered and all accessible areas were inspected.

19.2 MOISTURE

There was evidence of minor accumulations of water on top of the ratproofing.. Minor amounts of water in the crawlspace is not unusual and typically is not cause for concern providing the water does not accumulate in large quantities and remain for long periods.

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

A thin layer of concrete often referred to as "rat proofing" covers soil in the crawlspace. Besides the function that the name implies, the concrete retards the transmission of moisture from the soil into the crawlspace atmosphere. The installation of a 6 mil black polyethylene plastic vapor retarder that covers at least 85% of the entire surface of the soil should be considered.

19.5 PEST CONTROL

There is evidence of rodent activity in the crawlspace. The first step in eliminating rodents from the crawlspace is to seal all possible entry points using wire mesh, caulking, wood, stainless steel wool, aerosol foam or mortar. Careful work sealing cracks, holes, gaps, and covering ground water drain inlets will discourage rodent activity. Once this work is completed, snap traps baited with peanut butter should be installed and monitored. The absence of rodents in the traps typically means that the rodents have been excluded from the area.

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.

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:

- × Good construction practices which exclude water and prevent high moisture conditions.
- × Removal of wood debris and form wood from the crawlspace and around the building exterior.
- × Maintaining the roof water drain system.
- × Maintaining good yard drainage away from the foundation wall.

- × Avoiding wood-soil contact in the crawlspace or around the house exterior.
- × 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.